



**OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION**

WASHINGTON, D.C. 20460

March 27, 2024

Lia Murty  
Senior consultant  
Yifan Biotechnology Group Co., LTD  
C/o Compliance Services International  
7501 Bridgeport Way West  
Lakewood, WA 94899

Subject: Label Amendment – Add Physical-Chemical Hazards Statement per EPA Request, Changed Emergency Contact Company from CHEMTREC to INFOTRAC and Other Label Amendment  
Product Name: FRIGATE 51% WDG  
EPA Registration Number: 95055-14  
Application Date: March 13, 2024  
Case Number: 557762

Dear Lia Murty:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. “To distribute or sell” is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims

substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact Ernest Kraka at (202)-566-2822 or at [kraka.ernest@epa.gov](mailto:kraka.ernest@epa.gov).

Sincerely,



Shaja B. Joyner, Product Manager 20  
Fungicide-Herbicide Branch  
Registration Division 7505T

Enclosure

**ACCEPTED**

03/27/2024

Under the Federal Insecticide, Fungicide  
and Rodenticide Act as amended, for the  
pesticide registered under  
EPA Reg. No. 95055-14**FLUMIOXAZIN | GROUP 14 | HERBICIDE**

*Note: Bold italicized text is information for the reader and is not part of the label.*  
[Bracketed information is optional text].

# FRIGATE 51% WDG

[Crop Use – Pages 3-70: Crop Use]

HERBICIDE FOR CONTROL AND/OR SUPPRESSION OF CERTAIN WEEDS IN ALFALFA; ARTICHOKE; ASPARAGUS; BRASSICA (HEAD AND STEM); BUSHBERRY; CACTUS (PRICKLY PEAR); CANEBERRY; CELERY; CITRUS; CLOVER; COTTON; CUCURBIT VEGETABLES; DRY BEAN; FIELD CORN; FIELD PEAS; FLAX; FRUITING VEGETABLES; GARLIC; GRAPE; HOPS; LENTILS; MINT; ONION (DRY BULB); OLIVE; PEANUT; POME FRUIT; POMEGRANATE; POTATO; SOYBEAN; STONE FRUIT; STRAWBERRY; SUGARCANE; SUNFLOWER AND SAFFLOWER; SWEET POTATO; TREE NUTS; WHEAT; NON-BEARING FRUIT TREES; FALLOWBED USE ON TRANSPLANTED MELON, PEPPER AND TOMATO BEDS; FALLOW LAND AND TO MAINTAIN BARE GROUND ON NON-CROP AREAS OF FARMS, ORCHARDS AND VINEYARDS.

[Non Crop Use – Pages 71-149

[Non-Crop Master Label – Pages 71-100:]

[Non-Crop: Trees, Ornamentals, Reforestation – Pages 101-123]

HERBICIDE FOR USE IN CONTAINER AND FIELD GROWN CONIFERS (INCLUDING CHRISTMAS TREES) AND DECIDUOUS TREES, AROUND ESTABLISHED WOOD ORNAMENTALS IN LANDSCAPES, TO MAINTAIN BARE GROUND NON CROP AREAS, CONIFER AND POPLAR RE-FORESTATION SITES, AND DORMANT TURFGRASS

[Non-Crop: Aquatic – Pages 124-135:]

FOR THE MANAGEMENT OF UNDESIRABLE AQUATIC VEGETATION IN SLOW MOVING OR QUIESCENT WATERS

[Non-Crop: Integrated Vegetation Management] – Pages 136-149: ]

FOR USE TO MAINTAIN BARE GROUND NON-CROP AREAS

<b>Active Ingredient:</b>	By Wt
Flumioxazin* .....	51%
Other Ingredients .....	49%
Total	100%

\*N-[7-fluoro-3,4-dihydro-3-oxo-4-(prop-2-ynyl)-2H-1,4-benzoxazin-6-yl] cyclohex-1-ene-1,2-dicarboximide

**FRIGATE 51% WDG** Herbicide is a water dispersible granule containing 51% active ingredient.

## KEEP OUT OF REACH OF CHILDREN CAUTION / PRECAUCIÓN

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)

See [front][back][side][inside] panel for First Aid Instructions and [Leaflet][Booklet] for complete  
Precautionary Statements and Directions for Use.

<b>FIRST AID</b>	
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• <b>DO NOT</b> induce vomiting unless told to by the poison control center or doctor.</li> <li>• <b>DO NOT</b> give anything to an unconscious person.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>In the event of a leak, fire or medical emergency involving a human or animal please call INFOTRAC at 1-800-535-5053 or Outside the USA and Canada at 1-352-323-3500, 24/7/365.</b>	

[Batch Code will be placed on the container.]

**Manufactured for:**  
Yifan Biotechnology Group Co., Ltd.  
No. 555, Changan Road, Yaoxi subdistrict,  
Longwan district, Wenzhou City, Zhejiang, China 325013

**EPA Reg No.:** 95055-14  
**EPA Est. No.:** 91233-CHN-001

**Net Contents:**

**FLUMIOXAZIN GROUP 14 HERBICIDE**

[Pages 3-70: Crop Use]

# FRIGATE 51% WDG Herbicide

HERBICIDE FOR CONTROL AND/OR SUPPRESSION OF CERTAIN WEEDS IN ALFALFA; ARTICHOKE; ASPARAGUS; BRASSICA (HEAD AND STEM); BUSHBERRY; CACTUS (PRICKLY PEAR); CANEBERRY; CELERY; CITRUS; CLOVER; COTTON; CUCURBIT VEGETABLES; DRY BEAN; FIELD CORN; FIELD PEAS; FLAX; FRUITING VEGETABLES; GARLIC; GRAPE; HOPS; LENTILS; MINT; ONION (DRY BULB); OLIVE; PEANUT; POME FRUIT; POMEGRANATE; POTATO; SOYBEAN; STONE FRUIT; STRAWBERRY; SUGARCANE; SUNFLOWER AND SAFFLOWER; SWEET POTATO; TREE NUTS; WHEAT; NON-BEARING FRUIT TREES; FALLOWBED USE ON TRANSPLANTED MELON, PEPPER AND TOMATO BEDS; FALLOW LAND AND TO MAINTAIN BARE GROUND ON NON-CROP AREAS OF FARMS, ORCHARDS AND VINEYARDS.

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS CAUTION

Harmful if inhaled or absorbed through the skin. Causes moderate eye irritation. Avoid breathing dust and spray mist. Avoid contact with skin, eyes or clothing. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

### PERSONAL PROTECTIVE EQUIPMENT (PPE):

Some of the materials that are chemical-resistant to **Frigate 51% WDG** are listed below.

**Applicators and other handlers must wear:** long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material including polyethylene or polyvinyl chloride, shoes and socks.

**For aerial application to sugarcane, mixer/loaders must also wear:** coveralls, chemical resistant apron and chemical resistant boots.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### USER SAFETY RECCOMENDATIONS

Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling **Frigate 51% WDG**. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS:**

**Frigate 51% WDG** is toxic to non-target plants and aquatic invertebrates. **DO NOT** apply directly to water, to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift or runoff may be hazardous to non-target plants and aquatic organisms in neighboring areas. **DO NOT** apply where runoff is likely to occur. **DO NOT** apply when weather conditions favor drift from treated areas. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

This pesticide is toxic to plants and must be used strictly in accordance with the drift and runoff precautions on this label in order to minimize off-site exposures.

Under some conditions **Frigate 51% WDG** may have a potential to runoff to surface water or adjacent land. Where possible, use methods which reduce soil erosion, including no till, limited till and contour plowing; these methods also reduce pesticide runoff. Use of vegetation filter strips along rivers, creeks, streams, wetlands or on the downhill side of fields where runoff could occur will minimize water runoff.

NON-TARGET ORGANISM ADVISORY: **Frigate 51% WDG** is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

**PHYSICAL-CHEMICAL HAZARDS**

**DO NOT** mix or allow to come into contact with oxidizing agent. Hazardous chemical reaction may occur.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use **Frigate 51% WDG** in a manner inconsistent with its labeling.

**READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.**

**DO NOT** apply **Frigate 51% WDG** in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**AGRICULTURAL USE REQUIREMENTS**

Use **Frigate 51% WDG** only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of **Frigate 51% WDG** that are covered by the Worker Protection Standard.

**DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, including plants, soil or water is: coveralls, chemical resistant gloves made of waterproof material, shoes plus socks.

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of **Frigate 51% WDG** that are NOT within the scope of the WorkerProtection Standards for agricultural pesticides (40 CFR Part 170). The WPS applies when **Frigate 51% WDG** is used to produce agricultural plants on farms, forest, nurseries or greenhouses.

Keep all unprotected persons out of operating areas, or vicinity where there may be drift.

**DO NOT** enter or allow others to enter treated areas until sprays have dried.

### Resistance Management

For resistance management, **Frigate 51% WDG** Herbicide is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to **Frigate 51% WDG** Herbicide and other Group 14 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Follow appropriate resistance management strategies.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of **Frigate 51% WDG** Herbicide or other Group 14 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method including hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields and planting clean seed.
- If a weed pest population continues to progress after treatment with **Frigate 51% WDG**, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management directions for specific crops and weed biotypes or to find out if suspected resistant weeds have been found in their region.
- For further information or to report lack of performance or suspected resistance, contact Yifan Bio-tech Group Co. at +86-677-86637855 86630101 or at [www.yifanchem.com](http://www.yifanchem.com)



**PRODUCT INFORMATION**

*Frigate 51% WDG* Herbicide uses:

- ***Frigate 51% WDG*** provides residual control of susceptible weeds.
- ***Frigate 51% WDG*** provides additional burndown activity when used as part of a burndown program.
- ***Frigate 51% WDG*** can be applied as part of a fall burndown program for control of susceptible winter annuals.
- ***Frigate 51% WDG*** can be applied with a hooded or shielded sprayer, as well as part of a layby application, in selected crops for postemergence weed control as well as residual control of susceptible weeds.
- ***Frigate 51% WDG*** can be used on farms, orchards and vineyards for non-selective vegetation control to maintain bareground non-crop areas that must be kept weed free.
- ***Frigate 51% WDG***, when applied according to label use directions, will control the weeds claimed in crop specific use directions. This label makes no claims concerning control of other weed species.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

<b><i>Frigate 51% WDG</i> Herbicide Rate Summary</b>	
<b>OZ of <i>Frigate 51% WDG</i> Herbicide</b>	<b>Pounds of Flumioxazin</b>
1	0.031
1.5	0.047
2	0.063
3	0.094
4	0.125
6	0.188
8	0.250
12	0.375
24	0.750

**AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.**

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all of these factors when making decisions. Where states have more stringent regulations, they must be observed.

**PRECAUTIONS**

- When applying by air, observe drift management restrictions and precautions listed under "AERIAL APPLICATION".
- Mechanical incorporation into the soil will reduce residual weed control.
- Apply post directed and layby applications of ***Frigate 51% WDG*** only to healthy growing crops.

**RESTRICTIONS**

- **DO NOT** apply ***Frigate 51% WDG*** when weather conditions favor spray drift from treated areas.
- **DO NOT** apply ***Frigate 51% WDG*** during low-level inversion conditions, including fog.
- **DO NOT** apply ***Frigate 51% WDG*** to frozen or snow-covered soil.
- **DO NOT** apply ***Frigate 51% WDG*** to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- **DO NOT** apply ***Frigate 51% WDG*** within 300 yards of non-dormant pears.
- **DO NOT** apply ***Frigate 51% WDG*** to powdery soils or soils that are susceptible to wind displacement unless irrigation can be applied immediately after application.

**Before using spray equipment to apply other products to crop foliage follow cleanout procedures identified in this label. See "SPRAYER CLEANUP" for more information.**

## ENVIRONMENTAL CONDITIONS AND BIOLOGICAL PERFORMANCE

### Preemergence Application (Conventional Tillage)

**Important:** Crop injury may occur from applications made to poorly drained soils and/or applications made under cool, wet conditions. Risk of crop injury can be minimized by using on well drained soils, planting at least 1.5 inches deep, using high quality seed and completely covering seeds with soil prior to preemergence applications. Treated soil that is splashed onto newly emerged crops may result in temporary crop injury.

Moisture is necessary to activate **Frigate 51% WDG** in soil for residual weed control. Dry weather following applications of **Frigate 51% WDG** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **FRIGATE 51% WDG** will control susceptible germinating weeds. **Frigate 51% WDG** may not control weeds that germinate after application but before activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a **Frigate 51% WDG** application, weed control may be improved by irrigation with at least 1/4 inch of water. If emerged weeds are controlled by cultivation, residual weed control will be reduced.

### Burndown Application

For best results, apply **Frigate 51% WDG** as part of a burndown program to actively growing weeds. Applying **Frigate 51% WDG** under conditions that do not promote active weed growth will reduce herbicide effectiveness. **DO NOT** apply **Frigate 51% WDG** when weeds are under stress due to drought, excessive water, extremes in temperature, disease or low humidity. Weeds under stress tend to become less susceptible to herbicidal action. **Frigate 51% WDG** is most effective when applied under warm sunny conditions.

Reduced residual weed control may occur when burndown applications are made to fields where heavy crop and/or weed residue exist.

### Postemergence Application

Only apply **Frigate 51% WDG** to healthy crops labeled for postemergence use. **DO NOT** apply **Frigate 51% WDG** to crops that have been weakened by disease, drought, flooding, excessive fertilization, soil salts, previously applied pesticides, nematodes, insects or winter injury.

### Rainfastness

**Frigate 51% WDG** is rainfast one hour after application. **DO NOT** make applications if rain is expected within one hour of application or postemergence efficacy may be reduced.

### Soil Characteristics

Application of **Frigate 51% WDG** to soils with high organic matter and/or high clay content may require higher dosages than soils with low organic matter and/or low clay content. Application to cloddy seedbeds can result in reduced weed control.

## HERBICIDE RATE

### Residual Weed Control (Including Preemergence Applications or Applications as Part of a Fall or Spring Burndown and Fallow Seedbed Program)

Based upon soil characteristics (organic matter content and texture), the most difficult to control weed species being targeted, and the crop being grown, select the proper **Frigate 51% WDG** dosage from the rate range tables contained in this label.

**CARRIER VOLUME AND SPRAY PRESSURE** (Ground Equipment only. See Information for Aerial Equipment under "AERIAL APPLICATION".)

### Preemergence Application (Conventional Tillage)

To ensure uniform coverage, use 10 to 30 gals. of spray solution per acre for conventional tillage applications. Nozzle selection must meet manufacturer's gallonage and pressure guidelines for preemergence herbicide application.

**Burndown Application (Prior to Crop Emergence)**

To ensure thorough coverage in burndown applications, use 15 to 60 gal spray solution per acre. Use 20 to 60 gal per acre if dense vegetation or heavy crop residue is present. Nozzle selection must meet manufacturer's gallonage and pressure guidelines for postemergence herbicide application. **DO NOT** use flood jet nozzles.

**Postemergence Application (Emerged Crop)**

Check use directions for specific crops in which **Frigate 51% WDG** can be applied postemergence. To ensure thorough coverage in burndown applications, use a minimum of 15 gallons spray solution per acre. Use a minimum of 20 gallons per acre if dense vegetation or heavy crop residue is present. Nozzle selection must meet manufacturer's gallonage and pressure guidelines for postemergence herbicide application.

**ADDITIVES****Burndown Application (Prior to Crop Emergence)**

Postemergence control of weeds from **Frigate 51% WDG** tank mixes will require the addition of an agronomically approved adjuvant to the spray mixture. When an adjuvant is to be used with **Frigate 51% WDG**, use a Chemical Producers and Distributors Association certified adjuvant. Either a crop oil concentrate or methylated seed oil which contains at least 15% emulsifiers and 80% oil or a non-ionic surfactant at 0.25% v/v, may be used when applying **Frigate 51% WDG** as part of a burndown program. Some tank mix partners, for example Roundup Power Max®, are formulated with sufficient adjuvants and do not require the addition of a crop oil concentrate, methylated seed oil or non-ionic surfactant when tank mixed with **Frigate 51% WDG**. The addition of a crop oil concentrate or methylated seed oil may increase the burndown activity on certain weeds including Cutleaf Evening-primrose and Carolina geranium. Verify mixing compatibility qualities by a jar test.

A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lb/A or a 28 to 32% nitrogen solution at 1 to 2 qt/A) may be added to the spray mixture along with either a crop oil concentrate, methylated seed oil or non-ionic surfactant to enhance weed control. The addition of a nitrogen source does not replace the need for a crop oil concentrate, a methylated seed oil or a non-ionic surfactant.

**JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND FRIGATE 51% WDG HERBICIDE**

When using **Frigate 51% WDG** and an adjuvant, including in stale seed bed, layby, hooded/shielded or reduced tillage situations, perform a jar test before mixing commercial quantities of **Frigate 51% WDG**, when using **Frigate 51% WDG** for the first time, when using new adjuvants or when a new water source is being used.

1. Add 1 pt of the water to a quart jar. Use water from the same source and temperature as which will be used in the spray tank mixing operation.
2. Add 1 g of **Frigate 51% WDG** to the quart jar for every 3 oz of **Frigate 51% WDG** per acre being applied (4 g if 12 oz/A is the desired **Frigate 51% WDG** rate), gently mix until product goes into suspension.
3. Add 60 ml (4 Tbsp or 2 fl oz) of the crop oil or methylated seed oil to the quart jar or 1 ml of non-ionic surfactant if it is being used in place of oil, gently mix.
4. If nitrogen is being used, add 16 ml (1 Tbsp or 0.5 oz) of the 28 to 32% nitrogen source to the quart jar. If ammonium sulfate is being used, add 19 g AMS to the quart jar in place of the 28 to 32% nitrogen.
5. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
6. An ideal tank mix combination will be uniform and free of suspended particles. Question the choice of adjuvant if any of the following conditions are observed:
  - a) Layer of oil or globules on the mixture's surface.
  - b) Flocculation: fine particles in suspension or as a layer on the bottom of the jar.
  - c) Clabbering: thickening texture (coagulated) like gelatin.

**SPRAYER PREPARATION**

Before applying **Frigate 51% WDG**, start with clean, well maintained application equipment. The spray tank, as well as all hoses and booms, must be cleaned to ensure no residue from the previous spraying operation remains in the sprayer. Some pesticides, including but not limited to, the sulfonylurea and phenoxy herbicides, (i.e., Classic® and 2,4-D respectively) are active at very small amounts and can cause crop injury when applied to susceptible crops. The spray equipment must be cleaned according to the manufacturer's directions for the last product used before the equipment is used to apply **Frigate 51% WDG**. If two or more products were tank mixed prior to **Frigate 51% WDG** application, follow the most restrictive cleanup procedure.

**MIXING INSTRUCTIONS**

1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water.
2. If a drift retardant is to be used, add 10 lb of spray grade ammonium sulfate per 100 gal of spray solution.
3. To ensure a uniform spray mixture, pre-slurry the required amount of **Frigate 51% WDG** with water prior to addition to the spray tank. Use a minimum of 1 gal of water per 10 oz of **Frigate 51% WDG**.
4. While agitating, slowly add the pre-slurried **Frigate 51% WDG** to the spray tank. Agitation creates a rippling or rolling action on the water surface.
5. If tank mixing **Frigate 51% WDG** with other labeled herbicides, add water soluble bags first, followed by dry formulations, flowables, emulsifiable concentrates and then solutions. Prepare no more spray mixture than is required for the immediate spray operation.
6. Add any required adjuvants.
7. Fill spray tank to desired level with water. **Continue agitation until all spray solution has been applied.**
8. Mix only the amount of spray solution that can be applied the day of mixing. Apply **Frigate 51% WDG** within 6 hours of mixing.

**SPRAYER CLEANUP**

Spray equipment, including mixing vessels and nurse tanks, must be cleaned each day following **Frigate 51% WDG**

application. After **Frigate 51% WDG** is applied, the following steps must be used to clean the spray equipment:

1. Completely drain the spray tank, rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.
2. Fill the spray tank with clean water and flush all hoses, booms, screens and nozzles.
3. Top off tank, add 1 gal of 3% household ammonia (or equivalent) for every 100 gals of water, circulate through sprayer for 5 minutes, and then flush all hoses, booms, screens and nozzles for a minimum of 15 minutes. If diaphragms are being used on the spray boom, loosen diaphragms before flushing the spray system, allowing cleaning solution to spray through the open diaphragm. If spray lines have any end caps, they must be loosened before flushing the system, allowing cleaning solution to spray through the loosened caps. To enhance removal of **Frigate 51% WDG** from the spray system, add a tank cleaner in place of ammonia and allow the cleaning solution to remain in the pressurized spray system (spray tank, hoses and boom) overnight before flushing the system for a minimum of 15 minutes.
4. Drain tank completely.
5. Add enough clean water to the spray tank to allow all hoses, booms, screens and nozzles to be flushed for 2 minutes.
6. Remove all nozzles and screens and rinse them in clean water.

Thoroughly clean spray equipment, including all tanks, hoses, booms, screens and nozzles, before it is used to apply postemergence pesticides. Equipment with **Frigate 51% WDG** residue remaining in the system may result in crop injury to the subsequently treated crop.

**APPLICATION EQUIPMENT**

Ensure application equipment is clean and in good repair, nozzles are uniformly spaced on the boom and frequently checked for accuracy.

**BROADCAST APPLICATION**

Apply **Frigate 51% WDG**, and **Frigate 51% WDG** tank mixes, with ground equipment using standard commercial sprayers equipped with flat fan or flood nozzles (preemergence applications only) designed to deliver the desired spray pressure and spray volume.

**BAND APPLICATION**

When banding, use proportionately less water and **Frigate 51% WDG** per acre. The rate of **Frigate 51% WDG** required per acre, when applied as a banded application, can be calculated with the following formula:

Amount Needed per Acre for Banded Application	=	$\frac{\text{Band Width in Inches}}{\text{Row Width in Inches}}$	X	Rate per Broadcast Acre
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**MANDATORY SPRAY DRIFT REQUIREMENTS****Aerial Applications:**

- **DO NOT** release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- **DO NOT** apply **Frigate 51% WDG** when wind speeds exceed 10 mph at the application site. The boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- **DO NOT** apply **Frigate 51% WDG** during temperature inversions.
- **DO NOT** apply **Frigate 51% WDG** by air within 40 ft of non-target plants including non-target crops.
- **DO NOT** apply **Frigate 51% WDG** by air within 100 ft of emerged cotton crops.
- **DO NOT** apply **Frigate 51% WDG** by air within 40 ft of streams, wetlands, marshes, ponds, lakes and reservoirs.

**Ground Boom Applications:**

- User must only apply with the release height specified by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- Applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- **DO NOT** apply **Frigate 51% WDG** when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply **Frigate 51% WDG** during temperature inversions.

**Boom-less Ground Applications**

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

**SPRAY DRIFT ADVISORIES**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

**IMPORTANCE OF DROPLET SIZE**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

**Controlling Droplet Size – Ground Boom**

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure specified for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

**Controlling Droplet Size – Aircraft**

- Adjust Nozzles - Follow nozzle manufacturers' directions for setting up nozzles. Generally, to reduce fine droplets, orient nozzles parallel with the airflow in flight.

**BOOM HEIGHT – Ground Boom**

For ground equipment, keep the boom level with the crop and have minimal bounce.

**RELEASE HEIGHT – Aircraft**

Higher release heights increase the potential for spray drift.

**SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

**TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

**TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

**WIND**

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

**Boom-less Ground Applications:**

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

**Handheld Technology Applications:**

Take precautions to minimize spray drift.

**Sensitive Areas**

The pesticide must only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

For additional information on sensitive areas, please see the “ENVIRONMENTAL HAZARDS” section of this label.

**Carrier Volume and Spray Pressure:** When used as part of a burndown weed control program, apply **Frigate 51% WDG** in 7 to 10 gal of water per acre. Application at less than 7 gal per acre may provide inadequate control. When used for preemergence weed control, apply **Frigate 51% WDG** in 5 to 10 gal of water per acre. The higher gallonage applications afford more consistent weed control. **DO NOT** exceed the nozzle manufacturer’s specified pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

**Nozzle Selection and Orientation:** Formation of very small drops may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray pressure. Use nozzles that produce flat or hollow cone spray patterns. Use non-drip type nozzles, for example diaphragm type nozzles, to avoid unwanted discharge of spray solution. The nozzles must be directed toward the rear of the aircraft, at an angle between 0 and 15° downward. **DO NOT** place nozzles on the outer 25% of the wings or rotors.

**Adjuvants and Drift Control Additives:** Refer to tank mix partner’s label for adjuvant selection. Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

**CHEMIGATION**

Follow all label directions for crops regarding rates, timing of application, special instructions and precautions.

Apply **Frigate 51% WDG** only through center pivot systems. End guns must be turned off due to uneven application. Restriction: **DO NOT** apply **Frigate 51% WDG** through any other type of irrigation system.

Crop injury, lack of efficacy or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

The system must be properly calibrated (with water only) to ensure that the amount of **Frigate 51% WDG** applied corresponds to the specified rate.

Apply **Frigate 51% WDG** in 1/2 to 3/4 inches of water during the first sprinkler set. Allow time for all lines to flush the herbicide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of remaining herbicide, a dye indicator may be injected into the lines to mark the end of the application period. Once chemigation has begun, the run must be completed to ensure no product is left in the system.

If you have any questions about calibration, contact your State Extension Service Specialist, equipment manufacturers or other experts.

### Special Precautions for Chemigation

1. **DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
2. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments if the need arises.
3. The system must be free of leaks and clogged nozzles.
4. The pesticide must be supplied continuously for the duration of the aqueous application. An uneven application may cause injury to the crop or poor weed control.
5. Agitation must be maintained in the nurse tank.
6. The sprinkler chemigation system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
7. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.
8. The pesticide injection pipeline must contain a functional, normally closed, solenoid operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
9. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in the case where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
10. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
11. Systems must use a metering pump, for example a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with the pesticides and capable of being fitted with a system interlock.
12. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

### Chemigation Systems Connected to Public Water Systems

1. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to the public water system must contain a functional, reduced pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, discharge the water from the public water system into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. All chemigation systems connected to the public water system must also follow restrictions listed in the preceding section titled "**Special Precautions for Chemigation**".

**APPLICATION WITH DRY BULK FERTILIZERS**

Dry bulk fertilizer may be impregnated or coated with **Frigate 51% WDG**. Application of dry bulk fertilizer with **Frigate 51% WDG** provides weed control equal to, or slightly below, the same rate of **Frigate 51% WDG** applied in liquid carriers, due to better coverage with application via spray equipment. Follow label directions for **Frigate 51% WDG** regarding rates, special instructions, cautions and special precautions. Apply 400 to 700 lb of the fertilizer/herbicide mixture per acre to obtain adequate soil coverage. Apply the mixture to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential to prevent possible crop injury and to obtain uniform weed control.

**DO NOT** use ammonium nitrate and/or limestone as the sole source of fertilizer, as the **Frigate 51% WDG** may not adhere to these materials.

Compliance with all Federal and State regulations relating to blending pesticide mixtures with dry bulk fertilizer, registrations, labeling and application are the responsibility of the individual and/or company offering the fertilizer and **Frigate 51% WDG** mixture for sale.

**Frigate 51% WDG** must be premixed with water to form a slurry prior to impregnation on dry bulk fertilizer. For best results, use a minimum of 1 pt of water for each 2 oz of **Frigate 51% WDG**. Use a minimum of 6 pt of the **Frigate 51% WDG** slurry to impregnate 2000 lb of the fertilizer for uniform coverage of the fertilizer. Closed drum, belt, ribbon or other commonly used dry bulk blenders may be used.

The amount of **Frigate 51% WDG** required can be calculated with the following formula:

ounces of <b>Frigate 51% WDG</b> per= ton of fertilizer	ounces of <i>Frigate</i> 51% WDG per acre	X    2000    ÷	pounds of fertilizer per acre
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Thoroughly clean dry fertilizer blending equipment after **Frigate 51% WDG** has been placed in the system to avoid injury to sensitive crops that may be treated with fertilizers blended after the equipment has been used for **Frigate 51% WDG**. Rinse the sides of the blender and the herbicide tank with water. Then impregnate the rinsate onto a load of dry fertilizer intended for an approved crop. Use a maximum rate of 1 gal of rinsate per ton of fertilizer. Follow with 1 to 2 loads of unimpregnated fertilizer in the blender before switching herbicides.



**ROTATIONAL RESTRICTIONS**

The following rotational crops may be planted after applying **Frigate 51% WDG** Herbicide at the listed rate. Planting earlier than the specified rotational interval may result in crop injury.

- **DO NOT plant any crop, except corn (field), cotton, peanut, soybean, sugarcane, and sweet potato earlier than 30 days after applying Frigate 51% WDG Herbicide.**

<b>FRIGATE 51% WDG RATES</b>	<b>CROPS</b>	<b>ROTATION INTERVALS</b>
1 oz/A	Cotton (no-till or strip-till only)	14 days <sup>1</sup>
1.5 to 2 oz/A	Cotton (no-till or strip-till only)	21 days <sup>1</sup>
2 oz/A or less	Peanut, Soybean, Sugarcane and Sweet Potato	immediately
	Field Corn (minimum and no-till)	7 days
	Cotton and Field Corn (conventional tillage), Rice, Sorghum, Sunflower, Tobacco and Wheat	30 days <sup>1</sup>
	Barley, Dry and Snap Bean, Flax, Peas, Rye, Safflower and Sweet Corn	3 months
	Alfalfa, Canola, Clover, Oats, Potato, Sugar Beet and all other crops not listed <sup>2</sup>	4 months if soil is tilled prior to planting 8 months if no tillage is performed
	Lentil	6 months
Up to 3 oz/A	Peanut, Soybean, Sugarcane and Sweet Potato	immediately
	Field Corn (minimum and no-till)	14 days
	Field Corn (conventional tillage) and Sorghum	30 days <sup>1</sup>
	Cotton, Rice, Sunflower, Tobacco and Wheat	2 months <sup>1</sup>
	Barley, Dry and Snap Bean, Flax, Peas, Rye, Safflower and Sweet Corn	4 months
	Alfalfa, Clover, Oats, Potato, Sugar Beet	5 months if soil is tilled prior to planting 10 months if no tillage is performed
	Canola and all other crops not listed <sup>2</sup>	6 months if soil is tilled prior to planting 12 months if no tillage is performed
	Lentil	7 months
	Raised beds only: Head and Stem Brassica except Cabbage	2 months (if the top 4 inches of the beds have been removed)
Up to 4 oz/A	Sugarcane	Immediately
	Alfalfa, Canola, Clover, Potato, Sugar Beet and all other crops not listed <sup>2</sup>	6 months if soil is tilled prior to planting 12 months if no tillage is performed
	Cotton, Field Corn, Peanut, Rice, Sorghum, Soybean, Sunflower, Tobacco and Wheat	4 months
	Raised beds only: Cabbage, melon, pepper and tomato	2 months (if the top 4 inches of the beds have been removed)
6 to 12 oz/A	Cotton, Field Corn, Peanut, Rice, Sorghum, Soybean, Sunflower, Tobacco and Wheat	9 months
	Alfalfa, Canola, Clover, Sugar Beet and all other crops not listed <sup>2</sup> Trees can be transplanted 2 months after an application of <b>Frigate 51% WDG</b> Herbicide <sup>3</sup>	12 months if soil is tilled prior to planting 18 months if no tillage is performed

<sup>1</sup> At least one inch of rainfall/irrigation must occur between application and planting or crop injury may occur.

<sup>2</sup> Successful soil bioassay must be performed prior to planting these crops.

<sup>3</sup> Transplanted avocado, bushberries (including blueberry), caneberries, citrus fruit, fig, grape, olive, pome fruit, pomegranate, stone fruit and tree nuts can be planted 2 months after a **Frigate 51% WDG** Herbicide application of 2 to 12 oz/A.

Table 1. Broadleaf Weeds Controlled by Residual Activity of *Frigate 51% WDG* Herbicide

BROADLEAF WEED SPECIES				
SECTION A				
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	FRIGATE 51% WDG HERBICIDE RATE
Carpetweed	<i>Mollugo verticillata</i>	Up to 5%	All Soil Types	2 oz/A
Chickweeds				
Common	<i>Stellaria media</i>			
Mouseear	<i>Cerastium vulgatum</i>			
Dandelion	<i>Taraxacum officinale</i>			
Eclipta	<i>Eclipta prostrata</i>			
Evening-primrose, Cutleaf	<i>Oenothera laciniata</i>			
Field Pennycress[*]	<i>Thlaspi arvense</i>			
Florida Pusley	<i>Richardia scabra</i>			
Henbit	<i>Lamium amplexicaule</i>			
Lambsquarters, Common	<i>Chenopodium album</i>			
Little Mallow	<i>Malva parviflora</i>			
Marestail/Horseweed	<i>Conyza canadensis</i>			
Mayweed/False Chamomile	<i>Matricaria maritima</i>			
Nightshades				
Black	<i>Solanum nigrum</i>			
Eastern Black	<i>Solanum ptycanthum</i>			
Hairy	<i>Solanum sarrachoides</i>			
Pigweeds				
Redroot	<i>Amaranthus retroflexus</i>			
Smooth	<i>Amaranthus hybridus</i>			
Spiny Amaranth	<i>Amaranthus spinosus</i>			
Tumble	<i>Amaranthus albus</i>			
Prickly Lettuce	<i>Lactuca serriola</i>			
Prickly Sida (Teaweed)	<i>Sida spinosa</i>			
Puncturevine	<i>Tribulus terrestris</i>			
Purslane, Common	<i>Portulaca oleracea</i>			
Radish, Wild	<i>Raphanus raphanistrum</i>			
Redmaids	<i>Calandrinia ciliata</i> var <i>menziessii</i>			
Shepherd's-purse	<i>Capsella bursa-pastoris</i>			
Smallflower Morningglory	<i>Jacquemontia tamnifolia</i>			
Sowthistle, Prickly[*]	<i>Sonchus asper</i>			
Spotted Spurge	<i>Euphorbia maculata</i>			
Venice Mallow	<i>Hibiscus trionum</i>			

[\*Not for use in California.]

continued

Table 1. Broadleaf Weeds Controlled by Residual Activity of *Frigate 51% WDG* Herbicide (continued)

SECTION B						
All weeds listed in Section A plus:						
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	FRIGATE 51% WDG HERBICIDE RATE <sup>[2]</sup>		
Coffee Senna	<i>Cassia occidentalis</i>	Up to 3%	All Soil Types	2 oz/A Cotton and DryBean		
Common Ragweed <sup>1</sup>	<i>Ambrosia artemisiifolia</i>					
False Chamomile[*]	<i>Tripleurospermum maritima</i>					
Florida Beggarweed	<i>Desmodium tortuosum</i>					
Golden Crownbeard	<i>Verbesina encelioides</i>					
Hairy Indigo	<i>Indigofera hirsute</i>	3 to 5%	Coarse and Medium Soils: (sandy loam, loamy sand, loamy, silt-loam, silt, sandy clay, sandy clay loam)	2.5 oz/A Field Corn and Soybean		
Hemp Sesbania	<i>Sesbania exaltata</i>					
Jimsonweed	<i>Datura stramonium</i>					
Kochia	<i>Kochia scoparia</i>					
London Rocket[*]	<i>Sisymbrium irio</i>					
Morningglories <sup>3</sup>						
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriscula</i>					
Ivyleaf	<i>Ipomoea hederacea</i>					
Red/Scarlet	<i>Ipomoea coccinea</i>					
Tall	<i>Ipomoea purpurea</i>					
Mustard, Wild	<i>Brassica kaber</i>					
Palmer Amaranth	<i>Amaranthus palmeri</i>					
Spurred Anoda	<i>Anoda cristata</i>				Fine Soils: (silty clay, silty clay loam, clay, clay loam)	2 oz/A Cotton and DryBean
Tropic Croton	<i>Croton glandulosus</i>					
Waterhemp <sup>1</sup>						
Common	<i>Amaranthus rudis</i>					
Tall	<i>Amaranthus tuberculatus</i>					
Wild Poinsettia	<i>Euphorbia heterophylla</i>					
Yellow Rocket[*]	<i>Barbarea vulgaris</i>					

[\*]Not for use in California.]

<sup>1</sup>A postemergence herbicide, including Cobra®, Phoenix™ or glyphosate (Roundup Ready® soybeans only) may be needed following a preemergence application of *Frigate 51% WDG* Herbicide to adequately control common ragweed or waterhemp in soybean fields with heavy pressure.

<sup>2</sup>*Frigate 51%* Herbicide will provide residual control of these weeds at 2 oz/A when applied under a cotton canopy.]

<sup>3</sup>Morning glory species are not adequately controlled on fine soils or soils with greater than 3% organic matter.

**Table 2. Weeds Suppressed by Residual Activity of Frigate 51% WDG Herbicide**

<b>BROADLEAF WEED SPECIES</b>		<b>ORGANIC MATTER</b>	<b>OUNCES PER ACRE</b>
<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>		
		Up to 5%	2 to 3
Bristly Starbur	<i>Acanthospermum hispidum</i>		
Copperleaf, Hophornbeam	<i>Acalypha ostryifolia</i>		
Ragweed, Giant	<i>Ambrosia trifida</i>		
Russian Thistle	<i>Salsola iberica</i>		
Smartweeds			
Ladysthumb	<i>Polygonum persicaria</i>		
Pennsylvania	<i>Polygonum pensylvanicum</i>		
Smellmelon[*]	<i>Cucumis melo</i>		
Velvetleaf	<i>Abutilon theophrasti</i>		
Wild Buckwheat	<i>Polygonum convolvulus</i>		
Wormwood, Biennial	<i>Artemisia biennis</i>		
<b>GRASS WEED SPECIES</b>			
Barnyardgrass	<i>Echinochloa crus-galli</i>		
Bluegrass, Annual	<i>Poa annua</i>		
Crabgrass, Large	<i>Digitaria sanguinalis</i>		
Foxtail, Giant	<i>Setaria faberi</i>		
Goosegrass	<i>Eleusine indica</i>		
Lovegrass, California	<i>Eragrostis diffusa</i>		
Panicums			
Fall	<i>Panicum dichotomiflorum</i>		
Texas	<i>Panicum texanum</i>		
Ryegrass, Italian[*]	<i>Lolium multiflorum</i>		
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>		
Cheat	<i>Bromus secalinus</i>	Up to 5%	1.5 to 3
Downy Brome[*]	<i>Bromus tectorum</i>		

[\*Not for use in California.]

## DIRECTIONS FOR USE IN FALL AND SPRING PREPLANT BURNDOWN AND FALLOW SEEDBED PROGRAMS IN FIELD CORN, PEANUT AND SOYBEAN (Preemergence to Crop)

[For Use in the States of Arizona, California and Hawaii Only]  
[Not For Use on Peanuts and Soybeans in California]

### RESTRICTIONS

- **DO NOT** apply more 4 oz per acre per year applied in either the spring or the fall burndown. The yearly maximum rate is a combination of burndown plus in-season uses applications.
- **DO NOT** apply more than two applications per year at the 2 oz rate or one application at the 4 oz rate.
- **DO NOT** apply more 4 oz per acre per application.
- Minimum retreatment interval 14 days
- **DO NOT** apply to frozen or snow-covered soil.
- **DO NOT** perform any tillage operation after application or residual weed control will be reduced.
- Observe all rotational intervals prior to planting as listed in the "ROTATIONAL RESTRICTIONS" table.

### FALL BURNDOWN AND FALLOW SEEDBED PROGRAMS

**Frigate 51% WDG** [, at 2 to 4 oz/A] can be used in the fall to provide residual weed control in fields that will be planted the following spring with field corn, peanut or soybean (refer to Rotational Restrictions table for rates and rotational intervals prior to planting). Weeds controlled by residual activity are listed in Table 1 (sections A and B), Broadleaf Weeds Controlled by Residual Activity of **Frigate 51% WDG**; Table 3, Weeds Controlled by Fall and Spring Preplant Burndown Programs; and Table 7, Weeds Controlled by Residual Activity of **Frigate 51% WDG**. If weeds have emerged at the time of application, use **Frigate 51% WDG** in combination with a labeled burndown herbicide. **Frigate 51% WDG** can be used in a fall burndown or fallow seedbed program, however the length of residual control may be variable.

Abnormally warm or wet winters will reduce the length of weed control observed in the spring.

Weeds controlled by postemergence or residual activity are listed in Table 3. Preplant burndown treatment tank mixes and rates are:

Herbicide	Rate
<b>Program 1<sup>1</sup></b>	
<b>Frigate 51% WDG</b>	2 to 3 oz/A
<b>Plus</b>	
glyphosate	0.5 to 1.0 lb ai/A
<b>Plus</b>	
2,4-D LVE (2,4-D for use on preplant soybeans only)	0.5 to 1.0 lb ai/A (equivalent to 1 to 2 pt/A of 2,4-D 4 LVE)
<b>Plus</b>	
NIS + AMS	0.5% v/v + 17 lb/100 gal of water

or

<b>Program 2<sup>1</sup></b>	
<b>Frigate 51% WDG</b>	2 to 3 oz/A
<b>Plus</b>	
glyphosate	0.5 to 1.0 lb ai/A
<b>Plus</b>	
COC <sup>2</sup> or NIS + AMS	1pt/A or 0.5% v/v + 17 lb/100 gal of water

or

<b>Program 3<sup>1</sup></b>	
<b>Frigate 51% WDG</b>	2 to 3 oz/A
<b>Plus</b>	
2,4-D LVE (2,4-D for use on preplant soybeans only)	0.5 to 1.0 lb ai/A (equivalent to 1 to 2 pt/A of 2,4-D 4 LVE)
<b>Plus</b>	
COC	1 pt/A

<sup>1</sup>Dicamba, at 0.188 lb ai/A can be added to Programs 1, 2 & 3 to assist in the control emerged broadleaves. Refer to dicamba label for rotational restrictions.

<sup>2</sup>Crop oil concentrate has been found to increase glyphosate burndown of emerged Cutleaf Evening-primrose and Carolina geranium.

**Table 3. Weeds Controlled by Fall and Spring Preplant Burndown Programs**

WEEDS CONTROLLED <sup>1</sup>		POSTEMERGENCE			RESIDUAL
COMMON NAME	SCIENTIFIC NAME	Program 1	Program 2	Program 3	
<b>Weeds 3 inches or less</b>					
Chamomile, False	<i>Matricaria maritima</i>	Yes	Yes	No	Yes
Cheatgrass	<i>Bromus tectorum</i>	Yes	Yes	No	Yes
Chickweed, Common	<i>Stellaria media</i>	Yes	Yes	No	Yes
Chickweed, Mouseear	<i>Cerastium vulgatum</i>	Yes	Yes	No	Yes
Cockle, White	<i>Silene latifolia</i>	No	Yes	Yes	Yes
Dandelion	<i>Taraxacum officinale</i>	Yes	No	Yes <sup>2</sup>	Yes
Deadnettle, Purple	<i>Lamium purpureum</i>	Yes	Yes	Yes	Yes
Groundsel, Cressleaf	<i>Senecio glabellus</i>	Yes	Yes	-	Yes
Henbit	<i>Lamium amplexicaule</i>	Yes	Yes	Yes	Yes
Kochia	<i>Kochia scoparia</i>	Yes	Yes	Yes	Yes
Marestail/Horseweed	<i>Conyza canadensis</i>	Yes	Yes <sup>3</sup>	Yes	Yes
Mallow, Common	<i>Malva neglecta</i>	Yes	Yes	No	Yes
Prickly Lettuce	<i>Lactuca serriola</i>	Yes	Yes	Yes	Yes
Wormwood, Biennial	<i>Artemisia biennis</i>	Yes	Yes	Yes	Yes
<b>Weeds 12 inches or less</b>					
Canola, Volunteer	<i>Brassica napus</i>	Yes	Yes	Yes	Yes
Carolina Geranium	<i>Geranium carolinianum</i>	Yes	Yes	Yes	-
Evening-primrose, Cutleaf <sup>4</sup>	<i>Oenothera laciniata</i>	Yes	Yes	Yes	Yes
Flixweed	<i>Descurainia sophia</i>	Yes	Yes	Yes	Yes
Mustard, Tansy	<i>Descurainia pinnata</i>	Yes	Yes	Yes	Yes
Mustard, Wild	<i>Brassica kaber</i>	Yes	Yes	Yes	Yes
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	Yes	Yes	Yes	Yes

<sup>1</sup>Refer to glyphosate and/or 2,4-D labels for additional weeds controlled and rotational restrictions.

<sup>2</sup> Use 1 lb ai/A of 2,4-D LVE (equivalent to 2 pt/A of 2,4-D 4 LVE) for control of emerged dandelion.

<sup>3</sup> Program 2 will not control emerged glyphosate resistant marestail/horseweed.

<sup>4</sup> Use Program 1 to control Cutleaf Evening-primrose that are nearing 12 inches in height or are past the rosette stage. Use Programs 2 or 3 to control Cutleaf Evening-primrose that are 12 inches or less and in the rosette stage.

### SPRING BURNDOWN PROGRAMS

**Frigate 51% WDG** Herbicide can be used in combination with labeled preplant burndown herbicides to assist in the postemergence burndown of emerged weeds and provide residual weed control prior to crop emergence. Weeds controlled by residual activity are listed in Table 1.

No-till planters that incorporate the soil during planting may result in decreased weed control in the row. Apply **Frigate 51% WDG** Herbicide after planting peanuts and soybeans when these types of planters are used (within 3 days after planting soybeans, within 2 days after planting peanuts and before the crop emerges). **Frigate 51% WDG** cannot be applied after planting field corn.

**Frigate 51% WDG** Herbicide can be used [at 1 to 3 oz/A] with labeled preplant burndown herbicides to enhance the speed of burndown and increase weed spectrum.

**Frigate 51% WDG** Herbicide can be used [at 1 to 3 oz/A] [1 to 2 oz/A] in field corn, peanut and soybean burndown programs. See

“DIRECTIONS FOR USE IN FIELD CORN”, “DIRECTIONS FOR USE IN PEANUT”, and “DIRECTIONS FOR USE IN SOYBEAN” for more information.

## DIRECTIONS FOR USE IN FALL AND SPRING BURNDOWN PROGRAMS IN COTTON AND SUGARCANE

[For Use in the States of Arizona, California and Hawaii Only]  
[Not For Use on Sugarcane in California]

### RESTRICTIONS

- **DO NOT** apply more 4 oz per acre per year applied in either the spring or the fall burndown. The yearly maximum rate is a combination of burndown plus in-season uses applications.
- **DO NOT** apply more than two applications per year at the 2 oz rate or one application at the 4 oz rate.
- **DO NOT** apply more 4 oz per acre per application.
- Minimum retreatment interval 14 days
- **DO NOT** apply to frozen or snow-covered soil.
- **DO NOT** perform any tillage operation after application or residual weed control will be reduced.
- **Frigate 51% WDG** Herbicide can be used [at 1 to 2 oz/A (0.032 to 0.063 lb ai/A)] with labeled burndown herbicides to enhance the speed of burndown and increase weed spectrum.
- A minimum of 30 days must pass, and 1 inch of rainfall/irrigation must occur, between **Frigate 51% WDG** Herbicide application and planting of conventionally tilled cotton.
- A minimum of 14 days must pass, and 1 inch of rainfall/irrigation must occur, between **Frigate 51% WDG** Herbicide application and planting of no-till or strip-till cotton when a **Frigate 51% WDG** Herbicide rate of 1 oz/A (0.032 lb ai/A) is used and 21 days when a **Frigate 51% WDG** Herbicide rate of 1.5 to 2 oz/A (0.047 to 0.063 lb ai/A) is used. The field must contain the stubble from the previous crop.
- **Frigate 51% WDG** Herbicide can be applied as part of a burndown application to sugarcane until cane emergence.
- Observe all rotational intervals prior to planting as listed in the "ROTATIONAL RESTRICTIONS" table.
- Refer to most restrictive label for minimum interval between application and planting.

### FALL BURNDOWN PROGRAMS

**Frigate 51% WDG** Herbicide [, at 2 to 4 oz/A,] can be used in the fall to provide residual weed control in fields that will be planted the following spring with cotton or sugarcane (refer to Rotational Restrictions table for rates and rotational intervals prior to planting). Weeds controlled by residual activity are listed in Table 1 and Table 7. If weeds have emerged at the time of application, use **Frigate 51% WDG** Herbicide in combination with a labeled burndown herbicide.

Abnormally warm or wet winters will reduce the length of weed control observed in the spring.

### SPRING BURNDOWN PROGRAMS

**Frigate 51% WDG** Herbicide [, at 1 to 2 oz/A,] can be used in combination with labeled preplant burndown herbicides to assist in the postemergence burndown of emerged weeds and provide residual weed control prior to crop emergence in fieldsthat will be planted with cotton or sugarcane. Weeds controlled by residual activity are listed in Table 1.

No-till planters that incorporate the soil during planting may result in decreased weed control in the row.



**DIRECTIONS FOR USE IN FALL AND SPRING BURNDOWN PROGRAMS IN RICE,  
SORGHUM, SUNFLOWER, TOBACCO AND WHEAT  
(Preplant to Crop)**

[For Use in the States of Arizona, California and Hawaii Only]  
[Not For Use in California on Tobacco]

**RESTRICTIONS**

- **DO NOT** apply more 2 oz per acre per year applied in either the spring or the fall burndown. The yearly maximum rate is a combination of burndown plus in-season uses applications.
- **DO NOT** apply more than two applications per year at the 1 oz rate or one application at the 2 oz rate.
- **DO NOT** apply more 2 oz per acre per application.
- Minimum retreatment interval 14 days
- **DO NOT** apply to frozen or snow-covered soil.
- **DO NOT** perform any tillage operation after application or residual weed control will be reduced.
- **Frigate 51% WDG** Herbicide can be used [at 1 to 2 oz/A (0.032 to 0.063 lb ai/A)] with labeled burndown herbicides to enhance the speed of burndown and increase weed spectrum. A minimum of 30 days must pass, and 1 inch of rainfall/irrigation must occur, between **Frigate 51% WDG** Herbicide application and planting of rice, sorghum, sugarcane, sunflowers, tobacco or wheat. Refer to most restrictive label for minimum interval between application and planting.
- Observe all rotational intervals prior to planting as listed in the "ROTATIONAL RESTRICTIONS" table.

**FALL BURNDOWN PROGRAMS**

**Frigate 51% WDG** Herbicide can be used in combination with labeled burndown programs to control emerged weeds and provide residual weed control in fields that will be planted the following spring (refer to Rotational Restrictions table for rates and rotational intervals prior to planting).

Abnormally warm winters may reduce the length of weed control observed in the spring.

**SPRING BURNDOWN PROGRAMS**

**Frigate 51% WDG** Herbicide can be used in combination with labeled burndown programs to control emerged weeds and provide residual weed control prior to crop emergence. Weeds controlled by residual activity are listed in Table 1 Section A. Crops that will be planted following application must be in compliance with the rotational interval listed in the "Rotational Restriction" table above.

No-till planters that incorporate the soil during planting may result in decreased weed control in the row.

**DIRECTIONS FOR USE IN FALL BURNDOWN PROGRAMS IN FIELDS TO BE PLANTED TO  
BARLEY, FIELD PEAS, FLAX, LENTIL, SAFFLOWER, SUNFLOWER AND SPRING WHEAT  
(Preplant to Crop)**

[For Use in the States of Arizona, California and Hawaii Only]

**RESTRICTIONS**

- **DO NOT** apply more 4 oz per acre per year. The yearly maximum rate is a combination of burndown plus in-season uses applications.
- **DO NOT** apply more than two applications per year at the 2 oz rate or one application at the 4 oz rate.
- **DO NOT** apply more 4 oz per acre per application.
- Minimum retreatment interval 14 days
- **DO NOT** apply to frozen or snow-covered soil.
- **DO NOT** perform any tillage operation after application or residual weed control will be reduced.
- **Frigate 51% WDG** Herbicide can be mixed with 2,4-D and/or glyphosate formulations labeled for burndown programs (preplant to crop) in accordance with the most restrictive label limitations and precautions.
- **DO NOT** mix **Frigate 51% WDG** Herbicide with any product containing a label prohibition against such mixing.
- Observe all rotational intervals prior to planting as listed in the "ROTATIONAL RESTRICTIONS" table.

**FALL BURNDOWN PROGRAMS**

**Frigate 51% WDG** Herbicide can be used [at 2 to 4 oz/A] with labeled burndown herbicides to enhance the speed of burndown, increase weed spectrum and provide residual weed control of the weeds listed in Table 3 until the following spring. Rotational intervals must be followed for crop to be planted in the spring following the fall **Frigate 51% WDG** Herbicide application. Refer to most restrictive label for minimum interval between application and planting.

## DIRECTIONS FOR USE IN FALLOW LAND

[For Use in the States of Arizona, California and Hawaii Only]

### RESTRICTIONS

- **DO NOT** apply more 4 oz per acre per year applied in either the spring or the fall burndown. The yearly maximum rate is a combination of burndown plus in-season uses applications.
- **DO NOT** apply more than two applications per year at the 2 oz rate or one application at the 4 oz rate.
- Minimum retreatment interval 14 days
- **DO NOT** apply more 4 oz per acre per application.

**Frigate 51% WDG** Herbicide may be used as a preemergence fallow treatment. Weeds controlled by residual activity are listed in Table 1.

**Frigate 51% WDG** Herbicide [at 2 to 4 oz/A,] can be used in the fall to provide residual weed control in fallow fields (refer to Rotational Restrictions table for rates and rotational intervals prior to planting). If weeds have emerged at the time of application, use **Frigate 51% WDG** Herbicide in combination with a labeled fallow herbicide. [Application must be made no earlier than October 15 in Region 2 or November 15 in Region 1 or when soil temperature falls below 50°F at a 2 inch depth to maintain residual weed control into the spring (April 1 in Region 1 and May 1 in Region 2).] Abnormally warm or wet winters will reduce the length of weed control observed in the spring.

**Frigate 51% WDG** Herbicide [at 1 to 4 oz/A,] can be used in spring in combination with labeled burndown herbicides to control emerged weeds and provide residual weed control.

## DIRECTIONS FOR USE IN ESTABLISHED ALFALFA

### RESTRICTIONS

- **DO NOT** apply more than 4 oz (0.125 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 2 applications of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply more than 8 oz (0.250 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.
- Minimum retreatment interval 60 days.
- **DO NOT** apply to alfalfa with greater than 6 inches of growth. Application will result in burning of treated leaves and stems. **Understand and accept this risk before using Frigate 51% WDG Herbicide on alfalfa.**
- **DO NOT** apply within 25 days of harvest or grazing.
- **DO NOT** use on alfalfa grown for seed unless approved by a State authority to support a Special Local Need (SLN) under FIFRA section 24(c).
- Only apply with an adjuvant or tank mix with products formulated as an emulsifiable concentrate "EC" when targeting control of emerged weeds (expect and accept crop burn and/or stunting if **Frigate 51% WDG** Herbicide is used with an adjuvant, a tank mix partner formulated as an emulsifiable concentrate (EC) or a tank mix partner formulated with an adjuvant.)
- Application with paraquat can be used to burndown winter annuals prior to winter dormant period.
- **DO NOT** use on intended mixed alfalfa-grass stands.

### TIMING TO ALFALFA

**Frigate 51% WDG** Herbicide may be applied to established alfalfa with a maximum amount of growth of 6 inches or less for the preemergence control of the weeds listed in Table 7, Weeds Controlled by Residual Activity of **Frigate 51% WDG** Herbicide.

Established alfalfa is defined as alfalfa planted in the fall or spring which has gone through a first cutting/mowing. Application to alfalfa with greater than 6 inches of growth may result in unacceptable crop injury.

For control of winter annual weeds: the best timing for preemergence control is in the fall immediately after the last cutting or sheepling-off has occurred.

For control of summer annual weeds: the best timing for preemergence control is in the spring prior to alfalfa growth and before 6 inches of growth.

### TIMING TO WEEDS

#### Preemergence – Preemergence To Weeds

Apply **Frigate 51% WDG** Herbicide before alfalfa growth exceeds 6 inches in height for the preemergence control of weeds listed in Table 7, Weeds Controlled by Residual Activity of **Frigate 51% WDG** Herbicide. Make applications as soon as possible after cutting and removing alfalfa to minimize injury to alfalfa growth.

#### Postemergence Dodder Suppression\*

Apply **Frigate 51% WDG** Herbicide at 4 oz per acre with an adjuvant for postemergence suppression of dodder. Tank mixes with Pursuit® Herbicide or Raptor® Herbicide will increase control.

\*Not for use in California

## DIRECTIONS FOR USE IN ARTICHOKE

### RESTRICTIONS

- **DO NOT** apply more than 4 oz (0.125 lb ai) of **Frigate 51% WDG** Herbicide per acre per application on annual or perennial artichoke varieties after new planting.
- **DO NOT** apply more than 6 oz (0.188 lb ai) of **Frigate 51% WDG** Herbicide per acre per application on perennial artichoke varieties after cutback.
- **DO NOT** make more than 1 application of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply more than 6 oz (0.188 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.
- Application to artichoke foliage may result in unacceptable crop injury.

### TIMING TO ARTICHOKE

**Annual Varieties:** **Frigate 51% WDG** Herbicide may be applied to artichoke beds prior to transplanting. Application of **Frigate 51% WDG** Herbicide must be made to the beds no later than 2 days prior to transplanting. Irrigation or rainfall after transplanting is necessary to activate the **Frigate 51% WDG** Herbicide. **DO NOT** irrigate the **Frigate 51% WDG** Herbicide before transplanting. Heavy irrigation or rainfall may result in crop injury. The injury is usually transitory and the plants will quickly grow out of the crop damage. Take care to minimize soil disturbance during transplanting, as preemergence weed control will decrease as soil disturbance increases.

**Perennial Varieties:** **Frigate 51% WDG** Herbicide may be applied to artichokes after planting of crown pieces or “cut back” of mature plants. Applications of **Frigate 51% WDG** Herbicide must be made within 2 days after planting or cut back and prior to artichoke emergence. Application after the artichokes have begun to crack, or are emerged, will result in crop injury. Apply before artichokes have begun to emerge (cracking).

### TIMING TO WEEDS

#### **Pre-plant (annual)/Preemergence (perennial) to Artichokes - Preemergence to Weeds**

Apply **Frigate 51% WDG** Herbicide pre-plant to annual artichokes for preemergence control of the weeds. For perennial artichokes apply before cracking for preemergence control the weeds. Apply prior to weed emergence. A post-emergence herbicide may be necessary to control emerged weeds. **Frigate 51% WDG** Herbicide may be applied to annual or perennial artichokes as specified above for preemergence control of weeds listed in Table 7, *Weeds Controlled by Residual Activity of Frigate 51% WDG* Herbicide.

## DIRECTIONS FOR USE IN ESTABLISHED ASPARAGUS

### RESTRICTIONS

- **DO NOT** apply more than 6 oz (0.188 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 1 application of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply more than 6 oz (0.188 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.
- Apply only to dormant asparagus no less than 14 days before spears emerge. Application to non-dormant asparagus may result in unacceptable crop injury.
- **[DO NOT** work soil within 60 days prior to application in the spring. Soil can be worked after spear harvest in preparation for **Frigate 51% WDG** Herbicide application prior to fern emergence. Treated soil that is splashed onto the ferns may result in spotting.]

### TIMING TO ASPARAGUS - Dormant

**Frigate 51% WDG** Herbicide may be applied to dormant asparagus for preemergence control of the weeds listed in Table 10, Weeds Controlled by Preemergence Application of **Frigate 51% WDG** Herbicide. Application to non-dormant asparagus will result in unacceptable crop injury. Apply a minimum of two weeks before spear emergence. Scoring may result if a minimum of 0.5 inch of either rainfall or irrigation has not occurred two weeks prior to emergence.

### TIMING TO ASPARAGUS – Post Harvest

Apply **Frigate 51% WDG** Herbicide after the final harvest of the year, but prior to fern emergence, for preemergence control of the weeds listed in Table 10, Weeds Controlled by Preemergence Application of **Frigate 51% WDG** Herbicide. Application after fern emergence will result in unacceptable crop injury. Apply no less than two weeks prior to fern emergence and must be sprinkler or rainfall incorporated with 0.5 to 0.75 inches of water. Add a burndown tank mix partner for the control of emerged weeds labeled for asparagus in accordance with the most restrictive labeled limitations and precautions.

### TIMING TO WEEDS

#### Burndown – Dormant Asparagus, Postemergence to Weeds

**Frigate 51% WDG** Herbicide may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds where asparagus is dormant. For control of emerged weeds, tank mix **Frigate 51% WDG** Herbicide with paraquat. Refer to paraquat label for rates and application parameters. To ensure thorough coverage, use a minimum of 15 gal of spray solution per acre. **Frigate 51% WDG** Herbicide tank mixes applied to assist in the control of emerged weeds must be applied with a non-ionic surfactant at 0.25% v/v. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lb/A or 28 to 32% nitrogen solution at 1 to 2 qt/A) may be added to increase herbicidal activity.

#### Burndown – After Last Harvest of Season, Postemergence to Weeds

Use **Frigate 51% WDG** Herbicide for residual weed control and to assist in postemergence burndown for many annual and perennial weeds where asparagus harvest has been completed for the year. For control of emerged weeds, use a labeled tank mix partner with activity on the emerged weeds.

#### Preemergence – Dormant Asparagus or After Last Harvest of the Year, Preemergence to Weeds

Apply **Frigate 51% WDG** Herbicide for the preemergence control of weeds listed in Table 10, Weeds Controlled by Preemergence Application of **Frigate 51% WDG** Herbicide.

## DIRECTIONS FOR USE IN BRASSICA HEAD AND STEM VEGETABLES CROP GROUP 5-16

**Includes:** Broccoli; Brussels Sprouts; Cabbage; Cabbage, Chinese (napa); Cauliflower; cultivars, varieties, and/or hybrids of these.

**[FOR DISTRIBUTION AND USE ONLY WHERE THIRD PARTY INDEMNIFICATION IS IN EFFECT]**

### ROW MIDDLES

#### PRECAUTIONS

- **Frigate 51% WDG** Herbicide can only be applied in row middles between raised plastic mulched beds that are at least **4 inches higher** than the treated row middle and the mulched bed must have a **minimum of a 24-inch bed width**.
- Spray must remain between raised beds and contact no more than the bottom 1 inch of the side of the raised bed.
- All applications must be made with shielded or hooded equipment.
- Efficacy will be reduced if **Frigate 51% WDG** Herbicide is applied to areas of standing water within the row middles.
- Injury can occur if soil particles treated with **Frigate 51% WDG** Herbicide contact the crop.
- Irrigate treated field after application and prior to transplanting with minimum of 1/4 inch of water if rainfall does not occur between application and transplanting.

#### RESTRICTIONS

- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre per application. For Cabbage **DO NOT** apply more than 4 oz (0.125 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 2 applications of **Frigate 51% WDG** Herbicide per acre per year.
- Minimum retreatment interval 14 days.
- **DO NOT** apply more than 6 oz (0.188 lb ai) of **Frigate 51% WDG** Herbicide per acre per year. For Cabbage **DO NOT** apply more than 8 oz (0.250 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply after crops are transplanted.

#### TIMING TO CROP

**Frigate 51% WDG** Herbicide may be applied at 3 oz per acre (except cabbage may be applied at 4 oz/A) as a shielded or hooded application to row middles after plastic is laid up to transplanting or seeding. Transplanting or seeding can take place any time after spray has dried. Spray must be applied to the row middle and contact no more than approximately the bottom 1 inch of the side of the raised bed. If the top of the mulch beds (where plants are to be transplanted) is contacted, severe injury can occur due to foliage contact with treated plastic.

#### WEED CONTROL AND TANK MIXING

**Frigate 51% WDG** Herbicide provides preemergence residual control of the weeds listed in Table 7, *Weeds Controlled by Residual Activity of Frigate 51% WDG*, as well as to assist in the postemergence control of emerged weeds. A registered preemergence grass herbicide may be added for control of additional grassy weeds. For control of emerged weeds, tank mix **Frigate 51% WDG** Herbicide with paraquat, Aim™, glyphosate, or other registered burndown herbicide. Refer to tank mix partner label for rates and application parameters.

## DIRECTIONS FOR USE ON CACTUS (PRICKLY PEAR)

### RESTRICTIONS

- **DO NOT** apply more than 12 oz (0.375 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 2 applications of **Frigate 51% WDG** Herbicide per acre per year at the 6 oz rate (0.188 lb ai).
- **DO NOT** apply more than 12 oz (0.375 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.
- Use a maximum **Frigate 51% WDG** Herbicide rate of 6 oz/A (0.188 lb ai/A) per application on any soil that has a sand plus gravel content over 80% if plants are less than 3 years of age. (Two applications of 6 oz/A (0.188 lb ai/A) in a 12 month period can still be made as long as there have been 60 days between applications).
- **DO NOT** apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- Raise mower height during all mowing to reduce dust. Dust created by mowing can drift onto desirable vegetation resulting in injury.
- **DO NOT** mow treated areas. Dust created by mowing may drift onto desirable vegetation resulting in injury.
- Follow the most restrictive label limitations and precautions of the tank mix product(s) being used.
- Avoid direct or indirect spray contact to foliage.
- **DO NOT** apply within 60 days prior to harvest.
- **DO NOT** apply to plants established less than one year.

Apply **Frigate 51% WDG** Herbicide as a uniform broadcast application to the plantation floor or as a uniform band directed at the base of the cactus. The preferred application timing for **Frigate 51% WDG** Herbicide is in the fall to maximize the potential for rainfall to activate and set the herbicide. **DO NOT** apply over the top of crop or allow spray to come in contact with crop as a result of application or drift.

### Preemergence Application

Apply 6 to 12 oz of **Frigate 51% WDG** Herbicide per broadcast acre as a preemergence application. **Frigate 51% WDG** Herbicide applications must be made prior to weed emergence for control of weeds listed in Table 10, *Weeds Controlled by Preemergence Application of Frigate 51% WDG Herbicide*. Make preemergence (to weed emergence) applications of **Frigate 51% WDG** Herbicide to a weed-free soil surface. Preemergence applications of **Frigate 51% WDG** Herbicide must be completed prior to weed emergence. Moisture is necessary to activate **Frigate 51% WDG** Herbicide on soil for residual weed control. Dry weather following application of **Frigate 51% WDG** Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, **Frigate 51% WDG** Herbicide will control susceptible germinating weeds.

### Postemergence Application

Apply 6 to 12 oz of **Frigate 51% WDG** Herbicide per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant or 1 qt/A crop oil concentrate). The addition of an adjuvant enhances **Frigate 51% WDG** Herbicide activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of **Frigate 51% WDG** Herbicide.

Refer to Table 13, *Weeds Controlled by Postemergence Activity of Frigate 51% WDG Herbicide Tank Mixes* for weeds controlled by the residual activity of **Frigate 51% WDG** Herbicide. Tank mix **Frigate 51% WDG** Herbicide with a labeled burndown herbicide for control of the emerged weeds.

Residual weed control will be reduced if vegetation prevents the **Frigate 51% WDG** Herbicide from reaching the soil surface. If vegetation is heavy, use a burndown herbicide with **Frigate 51% WDG** Herbicide and make a sequential **Frigate 51% WDG** Herbicide application prior to the emergence of new weeds.]

### Carrier Volume and Spray Pressure

To ensure thorough coverage in burndown applications, use a minimum of 15 gallons of spray solution per acre. Use higher gallonage if dense vegetation or heavy crop residue is present.

Nozzle selection must meet manufacturer's gallonage and pressure guidelines.

### Banded Application

Rates listed in Table 13, *Weeds Controlled by Postemergence Activity of Frigate 51% WDG Herbicide Tank Mixes*, refer to a broadcast application covering the entire acre. Refer to the Band Application table in Use Information Section to calculate amount needed per acre when making a banded application.



**DIRECTIONS FOR USE IN CELERY**

[For Use in the States of [California], Michigan and Wisconsin Only]

**[PRECAUTIONS]**

[In the state of California, use as pre-transplant application only.]

**RESTRICTIONS**

- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre during a pre-transplant application.
- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre during a post-transplant application.
- **DO NOT** make more than 1 application of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** use with an adjuvant.
- Post-transplant applications must be made between 3 to 7 days following transplanting.
- **DO NOT** apply as part of a tank mix.

**TIMING TO CELERY**

Apply **Frigate 51% WDG** Herbicide at 3 oz/A prior to transplanting, or between 3 and 7 days following transplanting, for preemergence control of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of **Frigate 51% WDG** Herbicide.

**TIMING TO WEEDS**

Use **Frigate 51% WDG** Herbicide prior to weed emergence for residual control.

**Refer to Product Information section for tank mix guidance. Frigate 51% WDG Herbicide, when applied according to label use directions, will control the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of Frigate 51% WDG Herbicide.**

## DIRECTIONS FOR USE IN ESTABLISHED CLOVER AND CLOVER GROWN FOR SEED

For Use in Idaho, Oregon and Washington Only

### PRECAUTIONS

- Applications to clover with greater than 6 inches of growth will result in burning of treated leaves and stems. **Understand and accept this risk before using *Frigate 51% WDG* Herbicide on clover.**
- Only apply with an adjuvant or tank mix with products formulated as an emulsifiable concentrate "EC" when targeting control of emerged weeds (expect and accept crop may be burned and/or stunting when applying tank mixes of *Frigate 51% WDG* Herbicide with an adjuvant).
- Application with paraquat can be used to burndown winter annuals prior to winter dormant period.
- Application to mixed clover-grass stands may result in unacceptable injury to the grass.

### RESTRICTIONS

- **DO NOT** apply more than 4 oz (0.125 lb ai) of *Frigate 51% WDG* Herbicide per acre per application.
- **DO NOT** make more than 1 application of *Frigate 51% WDG* Herbicide per acre per year.
- **DO NOT** apply more than 4 oz (0.125 lb ai) of *Frigate 51% WDG* Herbicide per acre per year.
- **DO NOT** apply within 25 days of harvest or grazing.
- Application to clover with greater than 6 inches of growth may result in unacceptable crop injury.

### TIMING TO CLOVER

*Frigate 51% WDG* Herbicide may be applied to established clover with a maximum amount of growth of 6 inches or less for the preemergence control of the weeds listed in Table 7, Weeds Controlled by Residual Activity of *Frigate 51% WDG* Herbicide. Established Clover is defined as clover planted in the fall or spring which has gone through a firstcutting/mowing.

For control of winter annual weeds: the best timing for preemergence control is in the fall immediately after the last cutting or sheepling-off has occurred.

For control of summer annual weeds: the best timing for preemergence control is in the spring prior to clover growth and before 6 inches of growth.

### TIMING TO WEEDS

#### Preemergence – Preemergence to Weeds

Apply *Frigate 51% WDG* Herbicide before clover growth exceeds 6 inches in height for the preemergence control of weeds listed in Table 7, Weeds Controlled by Residual Activity of *Frigate 51% WDG* Herbicide. Make applications as soon as possible after cutting and removing clover to minimize injury to clover growth.

#### Postemergence Dodder Suppression

Apply *Frigate 51% WDG* Herbicide at 4 oz per acre with an adjuvant for postemergence suppression of dodder. Tank mixes with Pursuit Herbicide or Raptor Herbicide will increase control.

**DIRECTIONS FOR USE IN COTTON**

[For Use in the States of Arizona, California and Hawaii Only]

**RESTRICTIONS**

- **DO NOT** apply more than 2 oz (0.063 lb ai) of **Frigate 51% WDG** per acre per application.
- **DO NOT** make more than 2 applications of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply more than 4 oz (0.125 lb ai) of **Frigate 51% WDG** per acre per year.
- Minimum retreatment interval 30 days.
- **DO NOT** apply within 60 days of harvest.

**ENVIRONMENTAL CONDITIONS AND BIOLOGICAL PERFORMANCE****Hooded, Shielded and Layby Application**

For best results, apply **Frigate 51% WDG** to actively growing weeds within the growth stages indicated in this label. Applying **Frigate 51% WDG** under conditions that do not promote active weed growth will reduce herbicide effectiveness. **DO NOT** apply **Frigate 51% WDG** when the crop or weeds are under stress due to drought, excessive water, extremes in temperature, disease or low humidity. Weeds under stress tend to become less susceptible to herbicidal action. **Frigate 51% WDG** is most effective when applied under sunny conditions at temperatures above 65°F.

**Frigate 51% WDG** is rainfast one hour after application. **DO NOT** make applications if rain is expected within one hour of application or postemergence efficacy may be reduced.

**HERBICIDE RATE****Hooded, Shielded and Layby Application**

For postemergence weed control, apply **Frigate 51% WDG** through a hooded or shielded sprayer or at layby, at 2 oz/A, in combinations with MSMA or at 1 to 2 oz/A in combination with glyphosate, to assist in the control of weeds listed in Table 4. Residual weed control can also be obtained through hooded, shielded and layby application of **Frigate 51% WDG**. Weeds that are controlled through residual activity of **Frigate 51% WDG** are listed in Table 1. Weeds that are suppressed by residual activity of **Frigate 51% WDG** are listed in Table 2.

**Table 4. Emerged Broadleaf Weeds Controlled by Hooded, Shielded and Layby Application of Frigate 51% WDG TankMixes With Glyphosate or MSMA in Cotton**

BROADLEAF WEED SPECIES		WEED HEIGHT (inches) 2 oz/A
COMMON NAME	SCIENTIFIC NAME	
Bindweed, Field <sup>1</sup>	<i>Convolvulus arvensis</i>	4
Carpetweed	<i>Mollugo verticillata</i>	4
Chickweed, Common	<i>Stellaria media</i>	4
Cocklebur, Common	<i>Xanthium strumarium</i>	4
Florida Beggarweed	<i>Desmodium tortuosum</i>	2
Hemp Sesbania	<i>Sesbania exaltata</i>	6
Jimsonweed	<i>Datura stramonium</i>	4
Lambsquarters, Common	<i>Chenopodium album</i>	4
Morningglories		
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriuscula</i>	4
Ivyleaf	<i>Ipomoea hederacea</i>	4
Pitted	<i>Ipomoea lacunose</i>	4
Red	<i>Ipomoea coccinea</i>	4
Tall	<i>Ipomoea purpurea</i>	2
Mustard, Wild	<i>Brassica kaber</i>	6
Nightshades		
Black	<i>Solanum nigrum</i>	4
Eastern Black	<i>Solanum ptycanthum</i>	4
Hairy	<i>Solanum sarrachoides</i>	4
Pigweeds		
Palmer Amaranth	<i>Amaranthus palmeri</i>	4
Redroot	<i>Amaranthus retroflexus</i>	4
Smooth	<i>Amaranthus hybridus</i>	4
Plantain, Broadleaf	<i>Plantago major</i>	6
Prickly Sida (Teaweed)	<i>Sida spinosa</i>	4
Purslane, Common	<i>Portulaca oleracea</i>	2
Ragweeds		
Common	<i>Ambrosia artemisiifolia</i>	2
Giant	<i>Ambrosia trifida</i>	4
Rice Flatsedge	<i>Cyperus iria</i>	2
Sicklepod	<i>Senna obtusifolia</i>	4
Smartweeds		
Ladysthumb	<i>Polygonum persicaria</i>	4
Pale	<i>Polygonum lapathifolium</i>	4
Pennsylvania	<i>Polygonum pennsylvanicum</i>	4
Spotted Spurge	<i>Euphorbia maculata</i>	4
Velvetleaf	<i>Abutilon theophrasti</i>	4
Venice Mallow	<i>Hibiscus trionum</i>	2
Waterhemp		
Common	<i>Amaranthus rudis</i>	2
Tall	<i>Amaranthus tuberculatus</i>	2

<sup>1</sup> **Frigate 51% WDG** tank mixes will control the above ground portion of field bindweed. Repeated applications will be needed to control regrowth.

**CARRIER VOLUME AND SPRAY PRESSURE****Hooded, Shielded and Layby Application**

To ensure thorough coverage in hooded, shielded and layby applications, use 15 to 30 gal spray solution per treated acre. Use 20 to 30 gal per treated acre under heavy weed pressure. Nozzle selection must meet manufacturer's gallonage and pressure guidelines for application method being used. **DO NOT** use "Flood Jet" nozzles, as they tend to increase the chance of crop injury.

**ADDITIVES****Hooded, Shielded and Layby Application**

Weed control from hooded, shielded or layby application of **Frigate 51% WDG** in cotton requires the addition of an agronomically approved non-ionic surfactant to the spray mixture. Non-ionic surfactant must contain at least 80% active ingredient. Verify mixing compatibility qualities by a jar test. **The use of crop oil concentrates, methylated seed oils, organo-silicant surfactants or products containing these ingredients, may result in severe crop injury.**

**APPLICATION EQUIPMENT**

Apply **Frigate 51% WDG** tank mixes, with ground equipment using standard commercial sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume. Application equipment must be clean and in good repair. Nozzles must meet manufacturer's guidelines for spray pattern and placement on spray boom and must be checked frequently for accuracy.

**TIMING TO COTTON****Hooded and Shielded Application**

**Frigate 51% WDG** tank mixes may be applied with a hooded or shielded sprayer after cotton has reached a minimum of 6 inches in height. All nozzles must be under the hood or behind the shield to ensure no spray solution comes in contact with the cotton. **Care must be taken to ensure the spray solution or drift does not come in contact with the cotton or severe crop injury can occur.**

**Layby Application**

Layby application of **Frigate 51% WDG** tank mixes may be made once cotton has reached a minimum of 16 inches in height. Cotton that is smaller than 16 inches in height may be injured by **Frigate 51% WDG** applications. **Frigate 51% WDG** application must be directed to the lower 2 inches of the cotton stem to avoid crop injury.

**TIMING TO WEEDS**

**Frigate 51% WDG** tank mix applications must be made to weeds within the height range given in Table 4.

**TANK MIXES**

**Frigate 51% WDG** must be tank mixed with one of the herbicides listed in Table 5 for postemergence control of the weeds listed in Table 4.

**Table 5. Tank Mixes with *Frigate 51% WDG* for Hooded, Shielded and/or Layby Use in Cotton**

TANK MIX PARTNER	TARGET WEEDS	HOODED AND SHIELDED	LAYBY
glyphosate	Perennial Grasses and Broadleaves	X	X <sup>1</sup>
MSMA	Annual Grasses Yellow Nutsedge	X	X

<sup>1</sup> For use only in cotton with the Roundup Ready gene.

## DIRECTIONS FOR USE IN CUCURBIT VEGETABLES

**Cucurbit Vegetables (Crop Group 9) including:** chayote (fruit); Chinese Waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); *Momordica* spp. (includes balsam apple, balsam pear, bittermelon, Chinese cucumber); muskmelon (includes cantaloupe); pumpkin; squash, summer; squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon

### [FOR DISTRIBUTION AND USE ONLY WHERE THIRD PARTY INDEMNIFICATION IS IN EFFECT] ROW MIDDLES

Many weather-related factors, including high wind or heavy rains or cool conditions at or near crop transplanting, may result in crop injury in fields treated with **Frigate 51% WDG** Herbicide. On occasion this has resulted in a delay in maturity. Understand and accept these risks before using **Frigate 51% WDG** Herbicide.

Refer to Product Information section for tank mix guidance. **Frigate 51% WDG** Herbicide, when applied according to label use directions, will control the weeds listed in Table 7, Weeds Controlled by Residual Activity of **Frigate 51% WDG** Herbicide.

### RESTRICTIONS

- **DO NOT** apply more than 4 oz (0.125 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 2 applications of **Frigate 51% WDG** Herbicide per acre per year.
- Minimum retreatment interval 14 days.
- **DO NOT** apply more than 8 oz (0.250 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.

### RESTRICTIONS

- **DO NOT** use with an adjuvant.
- Grow plants on raised plastic mulched beds that are higher than the treated row middle.
- Spray must be directed to the row middle, away from the crop bed and with minimal contact with plastic, including the sides of the bed. If top of mulch beds (where plants are to be transplanted) is contacted, severe injury can occur due to foliage contact with treated plastic. In this scenario, a rainfall event of 1/2 inch (natural or irrigation) must occur prior to transplanting to reduce **Frigate 51% WDG** Herbicide residues.
- Drift of treated soil particles onto plants may cause contact injury.
- Irrigate treated field after application and prior to transplanting with minimum of 1/4 inch of water if rainfall does not occur between application and transplanting.
- All applications must be made with hooded or shielded equipment.

### TIMING TO CUCURBIT VEGETABLES

Apply **Frigate 51% WDG** Herbicide at 4 oz per acre as a hooded or shielded application to row middles up to 14 days prior to transplanting or seeding for preemergence control of the weeds listed in Table 7, Weeds Controlled by Residual Activity of **Frigate 51% WDG** Herbicide, as well as to assist in the postemergence control of emerged weeds. A second application of **Frigate 51% WDG** Herbicide at 4 oz per acre may be applied up to 21 days after transplanting or emergence if needed. **DO NOT** apply during or after bloom.

### TIMING TO WEEDS

**Frigate 51% WDG** Herbicide may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds in row middles. A registered preemergence grass herbicide may be added for control of additional grassy weeds. For assisting in the control of emerged weeds, tank mix **Frigate 51% WDG** Herbicide with paraquat, Aim™ or other registered burndown herbicide. **DO NOT** tank mix with glyphosate after transplanting. Refer to tank mix partner's label for rates and use directions.

## DIRECTIONS FOR USE IN DRY BEAN

Dried cultivars of bean (*Lupinus*); bean (*Phaseolus*) (includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean); bean (*Vigna*) (includes adzuki bean, blackeyed pea, catjang, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean); broad bean (dry); chickpea (garbanzo bean); guar; lablab bean and lentil

### **WEED SUPPRESSION IN DRY BEANS AND WEED CONTROL IN CHICKPEAS (GARBANZO BEAN)**

[Arizona, California, Colorado, Hawaii, Idaho, Montana, Nebraska, New Mexico, Oklahoma, Oregon, Texas and Washington only.]

#### **RESTRICTIONS**

- For Chickpeas, **DO NOT** apply more than 2 oz (0.063 lb ai) of **Frigate 51% WDG** Herbicide per acre per application. For all other dry beans **DO NOT** apply more than 1.5 oz (0.047 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 1 application of **Frigate 51% WDG** Herbicide per acre per year.
- For Chickpeas, **DO NOT** apply more than 2 oz (0.063 lb ai) of **Frigate 51% WDG** Herbicide per acre per year. For all other Dry Beans, **DO NOT** apply more than 1.5 oz (0.047 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.

**Many weather-related factors, including high wind, splashing or heavy rains or cool conditions at or near crop emergence, may result in dry bean injury in fields treated with *Frigate 51% WDG* Herbicide. On occasion this has resulted in a delay in maturity. Understand and accept these risks before using *Frigate 51% WDG* Herbicide.**

#### **TIMING TO DRY BEANS AND CHICKPEAS**

**Frigate 51% WDG** may be applied to dry beans within 2 days after planting for the preemergence suppression of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of **Frigate 51% WDG** Herbicide or Table 8, Weeds Suppressed by Residual Activity of **Frigate 51% WDG** Herbicide. Tank mix **Frigate 51% WDG** Herbicide with other labeled herbicides for broad spectrum weed control.

#### **TIMING TO WEEDS**

**Frigate 51% WDG** Herbicide may be applied to dry beans prior to planting or preemergence (after planting). Preemergence application of **Frigate 51% WDG** Herbicide must be made within 2 days after planting and prior to dry bean emergence. To avoid severe crop injury, **DO NOT** apply to dry beans after beans begin to crack or have emerged.

Preplant incorporation (PPI) applications may result in reduced weed control.

#### **ADDITIONAL RESIDUAL GRASS CONTROL**

**Frigate 51% WDG** Herbicide can be tank mixed with pendimethalin for additional grass control.

#### **HARVEST AID**

**[All States] [All States Except California]**

#### **RESTRICTIONS**

- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 1 application of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** harvest within 5 days of application.

Desiccation from **Frigate 51% WDG** Herbicide requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 2% v/v. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lb/A or a 28 to 32% nitrogen solution at 1 to 2 qt/A) may be added to the spray mixture along with either a crop oil concentrate or methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for a crop oil concentrate or a methylated seed oil. Tank mixing **Frigate 51% WDG** Herbicide with glyphosate or paraquat will increase control of emerged weeds and aid in harvest. Add a burndown tank mix partner for the control of emerged weeds labeled for dry bean in accordance with the most restrictive labeled limitations and precautions.

#### **TIMING TO DRY BEANS AND CHICKPEAS**

Apply when crop is mature and at least 80% of the pods are yellowing and mostly ripe with no more than 40% (bush type beans) or 30% (vine type beans) of the leaves still green in color. Dry beans can be harvested 5 days after application. To ensure thorough coverage use 15 to 30 gallons spray solution per acre. Nozzle selection must meet manufacturer's gallonage and pressure guidelines for postemergence application.

**DIRECTIONS FOR USE IN FIELD CORN**

[For Use in the States of Arizona, California and Hawaii Only]

**RESTRICTIONS**

- Use only on no-till or minimum tillage fields where last year's crop residue has not been incorporated into the soil.
- Corn must be planted between 14 and 30 days after application unless the application is made as part of a Fall burndown program.
- Corn can be planted 7 days after an application of 2 oz/A if a minimum of 25% of the soil surface is covered with the residue of the preceding crop and a minimum of 1/4 inch of rainfall has occurred between application and planting.
- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 1 application of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** irrigate between emergence and 2-leaf corn.
- **DO NOT** use on popcorn, sweet corn or corn grown for seed.

**TIMING TO FIELD CORN**

- Apply **Frigate 51% WDG** Herbicide, at 2 to 3 oz/A, between 7 and 30 days prior to planting field corn for the preemergence control of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of **Frigate 51% WDG** Herbicide.
- Apply **Frigate 51% WDG** Herbicide at 2 oz/A between 7 and 30 days prior to planting field corn if a minimum of 25% of the soil surface is covered with the residue of the preceding crop and a minimum of 1/4 inch of rainfall has occurred between application and planting.
- Apply **Frigate 51% WDG** Herbicide at 3 oz/A between 14 and 30 days prior to planting field corn.

**Burndown Use Directions – For Preplant Applications in Field Corn**

**Frigate 51% WDG** Herbicide, applied as part of a burndown program, may be used for residual weed control, as well as to assist in postemergence burndown of many weeds where field corn will be planted directly into the residue of the previous year. See Directions for Use in Fall and Spring Preplant Burndown and Fallow Seedbed Programs in Field Corn, Peanut and Soybean for rates and timing of applications. For control of emerged weeds, **Frigate 51% WDG** Herbicide must be applied with an appropriate burndown tank mix partner listed in Table 6. To ensure thorough coverage, use a minimum of 15 gallons of spray solution per acre. Refer to tank mix partner's label for application pressures and adjuvant systems.

**INCREASING SPEED OF GLYPHOSATE BURNDOWN ACTIVITY**

**Frigate 51% WDG** Herbicide, at 1 oz/A, may be tank mixed with glyphosate (Roundup®) to increase the speed of burndown activity compared to glyphosate applied alone. Residual weed control will not be provided at rates lower than 2 oz/A; however, suppression of the weeds in Table 2 may occur at **Frigate 51% WDG** Herbicide rates as low as 1 oz/A. Applications of **Frigate 51% WDG** Herbicide at 1 oz/A must be made a minimum of 14 days prior to planting field corn.

**TANK MIXES**

**Frigate 51% WDG** Herbicide may be tank mixed with the herbicides listed in Table 6 for pre-plant burndown applications. Refer to tank mix partner's label for adjuvants.

**Table 6. Tank Mix Partners for Burndown and/or Residual Control of Weeds in Field Corn**

<b>TANK MIX PARTNERS<sup>1</sup></b>		
2,4-D LVE	glyphosate	Python®
atrazine	Hornet®	Resolve®
Basis®	metribuzin	simazine
dicamba	paraquat	Weedmaster®
Express®		

<sup>1</sup>Refer to tank mix product labels for specific application directions.

**TANK MIX RESTRICTIONS**

Tank mixes with flufenacet (Axiom or Domain), metolachlor or s-metolachlor (Dual Magnum or Dual II Magnum), dimethenamid or dimethenamid-p (Frontier or Outlook), or acetochlor (Surpass or Harness) may result in injury to field corn when application is followed by prolonged periods of cool wet weather.



## DIRECTIONS FOR USE IN FIELD PEAS [Not For Use in California]

### **WEED CONTROL**

[For use in Idaho, Montana, Oregon and Washington only.]  
[Not For Use in California]

### **RESTRICTIONS**

- **DO NOT** apply more than 2 oz (0.063 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 1 application of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply more than 2 oz (0.063 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.

**Many weather-related factors, including high wind, splashing or heavy rains or cool conditions at or near crop emergence, may result in peas injury in fields treated with *Frigate 51% WDG* Herbicide. On occasion this has resulted in a delay in maturity. Understand and accept these risks before using *Frigate 51% WDG* Herbicide.**

### **TIMING TO FIELD PEAS**

***Frigate 51% WDG* Herbicide may be applied to field peas within 2 days after planting for the preemergence control of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of *Frigate 51% WDG* or Table 8, Weeds Suppressed by Residual Activity of *Frigate 51% WDG*. Tank mix *Frigate 51% WDG* Herbicide with other labeled herbicides for broad spectrum weed control.**

### **TIMING TO WEEDS**

***Frigate 51% WDG* Herbicide may be applied to field peas prior to planting or preemergence (after planting). Preemergence application of *Frigate 51% WDG* Herbicide must be made within 2 days after planting and prior to field pea emergence. To avoid severe crop injury, **DO NOT** apply to field peas after peas begin to crack or have emerged.**

Preplant incorporation (PPI) applications may result in reduced weed control.

### **ADDITIONAL RESIDUAL GRASS CONTROL**

***Frigate 51% WDG* Herbicide can be tank mixed with pendimethalin for additional grass control.**

### **HARVEST AID**

[All States] [All States Except California]

### **RESTRICTIONS**

- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 1 application of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** harvest within 5 days of application.

Desiccation from ***Frigate 51% WDG* Herbicide** requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 1 qt/A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lb/A or a 28 to 32% nitrogen solution at 1 to 2 qt/A) may be added to the spray mixture along with methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for methylated seed oil. Tank mixing ***Frigate 51% WDG* Herbicide** with glyphosate will increase control of emerged weeds and aid in harvest.

### **TIMING TO FIELD PEAS**

Apply ***Frigate 51% WDG* Herbicide**, at 1.5 to 2 oz/A, when crop is physiologically mature and a minimum of 80% of the pods are yellow to tan in color and 20% are yellow in color. If field peas are treated too early, a reduction in seed quality may occur. **DO NOT** spray ***Frigate 51% WDG* Herbicide** on any area of the field with a significant amount of plants with green color. Peas can be harvested 5 days after application.

To ensure thorough coverage, use 15 to 30 gallons of spray solution per acre and select nozzle type using manufacturer's gallonage and pressure guidelines for postemergence application.

## DIRECTIONS FOR USE IN FLAX [Not For Use in California]

### **HARVEST AID**

[All States] [All States Except California]

#### **RESTRICTIONS**

- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 2 applications of **Frigate 51% WDG** Herbicide per acre per year at the 1.5 oz rate (0.047 lb ai).
- Minimum retreatment interval 3 days.
- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** harvest within 5 days of application.

Desiccation from **Frigate 51% WDG** Herbicide requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 1 qt/A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lb/A or a 28 to 32% nitrogen solution at 1 to 2 qt/A) may be added to the spray mixture along with methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for methylated seed oil.

#### **TIMING TO FLAX**

Apply **Frigate 51% WDG** Herbicide, at 1.5 to 2 oz/A, when crop is physiologically mature and at least 75% of the bolls are brown in color. Flax can be harvested 5 days after application.

To ensure thorough coverage, use 15 to 30 gallons of spray solution per acre and select nozzle type using manufacturer's gallonage and pressure guidelines for postemergence application.

## DIRECTIONS FOR USE IN FRUITING VEGETABLES

**Includes:** African eggplant; Bush Tomato; Bell Pepper; Cocona; Currant Tomato; Eggplant, Garden Huckleberry; Goji Berry; Groundcherry, Martynia; Naranjilla; Okra, Pea Eggplant; Pepino; Non-bell Pepper; Roselle; Scarlet Eggplant; Sunberry; Tomatillo; Tomato; Tree Tomato; cultivars, varieties and/or hybrids of these.

### FOR DISTRIBUTION AND USE ONLY WHERE THIRD PARTY INDEMNIFICATION IS IN EFFECT

#### PRECAUTIONS

Many weather-related factors, including high wind or heavy rains or cool conditions at or near crop transplanting, may result in crop injury in fields treated with **Frigate 51% WDG** Herbicide. On occasion this has resulted in a delay in maturity. Understand and accept these risks before using **Frigate 51% WDG** Herbicide.

#### RESTRICTIONS

- **DO NOT** apply more than 4 oz (0.125 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 2 applications of **Frigate 51% WDG** Herbicide per acre per year.
- Minimum retreatment interval 14 days.
- **DO NOT** apply more than 8 oz (0.250 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.

#### ROW MIDDLES

- Grow plants on raised or plastic mulched beds that are higher than the treated row middle.
- Spray must be directed to the row middle, away from the crop bed and with minimal contact with plastic, including the sides of the bed. If top of mulch beds (where plants are to be transplanted) is contacted, severe injury can occur due to foliage contact with treated plastic. In this scenario, a rainfall event of 1/2 inch (natural or irrigation) must occur prior to transplanting to reduce **Frigate 51% WDG** Herbicide residues.
- Injury can occur if soil particles treated with **Frigate 51% WDG** Herbicide contact the crop.
- Irrigate treated field after application and prior to transplanting with minimum of 1/4 inch of water if rainfall does not occur between application and transplanting.
- All applications must be made with hooded or shielded equipment.

#### TIMING TO FRUITING VEGETABLES

Apply **Frigate 51% WDG** Herbicide at 4 oz per acre as a hooded or shielded application to row middles up to 14 days prior to transplanting or seeding for preemergence control of the weeds listed in Table 7, Weeds Controlled by Residual Activity of **Frigate 51% WDG** Herbicide, as well as to assist in the postemergence control of emerged weeds. A second application of **Frigate 51% WDG** Herbicide at 4 oz per acre may be applied up to 21 days after transplanting or emergence if needed. **DO NOT** apply during or after bloom.

#### TIMING TO WEEDS

**Frigate 51% WDG** Herbicide may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds in row middles. A registered preemergence grass herbicide may be added for control of additional grassy weeds. For assisting in the control of emerged weeds, tank mix **Frigate 51% WDG** Herbicide with paraquat, Aim™ or other registered burndown herbicide. **DO NOT** tank mix with glyphosate after transplanting or crop emergence. Refer to tank mix partner's label for rates and application parameters.

## DIRECTIONS FOR USE IN GARLIC

### RESTRICTIONS

- **DO NOT** apply more than 6 oz (0.188 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 1 application of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply more than 6 oz (0.188 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.

### TIMING TO GARLIC

**Frigate 51% WDG** Herbicide may be applied, at 6 oz/A, to garlic prior to garlic emergence. Make application within 3 days after planting garlic.

### TIMING TO WEEDS

#### Preemergence – Preemergence To Weeds

Apply **Frigate 51% WDG** Herbicide to weed free garlic for preemergence control of the weeds listed in Table 10, Weeds Controlled by Preemergence Application of **Frigate 51% WDG** Herbicide.

## DIRECTIONS FOR USE IN HOPS

[Not For Use in California or New York]

### RESTRICTIONS

- **DO NOT** apply more than 6 oz (0.188 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 1 application of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply more than 6 oz (0.188 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** allow spray to contact green stem (unless used for sucker control), foliage, flowers or cones or unacceptable injury may occur.
- **DO NOT** apply within 30 days of harvest.
- **DO NOT** use with an adjuvant.

**Frigate 51% WDG** Herbicide can be used in hops for preemergence weed control as well as sucker control.

### TIMING TO HOPS FOR SUCKER CONTROL

Apply **Frigate 51% WDG** Herbicide at 6 oz/A as a directed application after hops have reached a minimum of 6 feet in height for sucker control. Direct application to the lower 2 feet of the hops.

### TIMING TO HOPS FOR PREEMERGENCE WEED CONTROL

Apply **Frigate 51% WDG** Herbicide at 6 oz/A as a 1 to 1.5 foot band to each side of the hop row, to dormant hops November through February to ensure time for rain incorporation and activation. If weeds are emerged at the time of application, tank mix **Frigate 51% WDG** Herbicide with a labeled burndown herbicide including paraquat or glyphosate to assist with control of emerged weeds. **DO NOT** mow or rake over treated areas, as dust created by mowing may drift onto sensitive crops or vegetation resulting in injury.

### TIMING TO WEEDS

**Frigate 51% WDG** Herbicide applications must be made prior to weed emergence for control of weeds listed in Table 10, Weeds Controlled by Preemergence Application of **Frigate 51% WDG** Herbicide.

Refer to Product Information section for tank mix guidance. **Frigate 51% WDG** Herbicide, when applied according to label use directions, will control the weeds listed in Table 10, Weeds Controlled by Preemergence Application of **Frigate 51% WDG** Herbicide.

## DIRECTIONS FOR USE IN LENTILS [Not For Use in California]

### **HARVEST AID**

[All States] [All States Except California]

#### **RESTRICTIONS**

- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 1 application of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** harvest within 5 days of application.

Desiccation from **Frigate 51% WDG** Herbicide requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 1 qt/A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lb/A (0.063 to 0.079 lb ai/A) or a 28 to 32% nitrogen solution at 1 to 2 qt/A) may be added to the spray mixture along with methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for methylated seed oil. Tank mixing **Frigate 51% WDG** Herbicide with glyphosate or paraquat will increase control of emerged weeds and aid in harvest.

### **TIMING TO LENTILS**

Apply **Frigate 51% WDG** Herbicide, at 1.5 to 2 oz/A, when crop is physiologically mature and a minimum of 80% of the pods are yellow to tan in color and 20% are yellow in color. If lentils are treated too early, a reduction in seed quality may occur. **DO NOT** spray **Frigate 51% WDG** Herbicide on any area of the field with a significant amount of plants with green color. Lentils can be harvested 5 days after application.

To ensure thorough coverage, use 15 to 30 gallons of spray solution per acre and select nozzle type using manufacturer's gallonage and pressure guidelines for postemergence application.

## DIRECTIONS FOR USE IN MINT (Peppermint and Spearmint)

### PRECAUTIONS

#### To avoid crop injury:

- Application to stands established longer than 3 years may result in crop injury.
- Application to stands with weak, thin or damaged roots or rhizomes may result in crop injury.
- Application to mint in Southern Union County (south of Ladd Canyon) or Baker County in Oregon may result in unacceptable crop injury.
- Use only on established meadow mint.

**Applications to mint that has been weakened by diseases, insects (example mint root borer), nematodes, drought, soil salts, high soil pH, previous pesticides, winter injury or double cutting may result in severe injury. Apply only to healthy vigorous mint with undamaged rhizomes.**

### RESTRICTIONS

- **DO NOT** apply more than 4 oz (0.125 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 2 applications of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply more than 8 oz (0.250 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.
- Minimum retreatment interval 60 days.
- Apply only to dormant mint. Application to non-dormant mint may result in unacceptable crop injury.
- **DO NOT** apply within 80 days of harvest.
- 

**Many weather-related factors, including high wind, splashing or heavy rains or cool conditions at or near mint emergence, may result in mint injury in fields treated with *Frigate 51% WDG* Herbicide. Understand and accept these risks before using *Frigate 51% WDG* Herbicide.**

Tank mixes with labeled rates of paraquat are advised to control emerged weeds and increase crop safety.

### TIMING TO MINT

As a spray, **Frigate 51% WDG** Herbicide may be applied only to established, dormant mint for preemergence control of the weeds listed in Table 7 as well as to assist in the postemergence control of emerged weeds. Application to non-dormant mint or to baby (row) mint (time from planting of mint roots through the first cutting), may result in unacceptable crop injury. As a bulk fertilizer application, **Frigate 51% WDG** Herbicide may be applied at least 80 days prior to harvest. Leaves must be dry at the time of applications or severe injury may occur.

### TIMING TO WEEDS

#### Burndown – Dormant Mint, Postemergence To Weeds

**Frigate 51% WDG** Herbicide may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds where established mint is dormant. For control of emerged weeds, tank mix **Frigate 51% WDG** Herbicide with paraquat. Refer to paraquat label for rates and use directions. To ensure thorough coverage, use a minimum of 15 gal of spray solution per acre. **Frigate 51% WDG** Herbicide tank mixes applied to assist in the control of emerged weeds must be applied with a non-ionic surfactant at 0.25% v/v. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lb/A or 28 to 32% nitrogen solution at 1 to 2 qt/A) may be added to increase herbicidal activity.

#### Preemergence – Dormant Mint, Preemergence To Weeds

Apply **Frigate 51% WDG** Herbicide to dormant mint for the preemergence control of weeds listed in Table 7. Fall applications of **Frigate 51% WDG** Herbicide, followed by a sequential application in the Spring, have resulted in better Summer annual weed control than a single Fall or single Spring application.

Fall application is most effective for Fall germinating weeds for example groundsel. Fields plowed or harrowed after a **Frigate 51% WDG** Herbicide application will result in less effective preemergence activity. In furrow irrigated fields, corrugating that is done after a **Frigate 51% WDG** application will expose untreated soil and break the herbicide barrier resulting in poor weed control.

Table 7. Weeds Controlled by Residual Activity of *Frigate 51% WDG* Herbicide

BROADLEAF WEED SPECIES				
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	FRIGATE 51% WDG HERBICIDE RATE
Bristly Starbur	<i>Acanthospermum hispidum</i>	Up to 5%	All Soil Types	4 oz/A
Carpetweed	<i>Mollugo verticillata</i>			
Chickweeds				
Common	<i>Stellaria media</i>			
Mouseear	<i>Cerastium vulgatum</i>			
Coffee Senna	<i>Cassia occidentalis</i>			
Copperleaf, Hophornbeam	<i>Acalypha ostryifolia</i>			
Dandelion	<i>Taraxacum officinale</i>			
Dodder (suppression only) <sup>1</sup> [*]	<i>Cuscuta</i> spp.			
Eclipta	<i>Eclipta prostrata</i>			
Evening-primrose, Cutleaf	<i>Oenothera laciniata</i>			
False Chamomile[*]	<i>Tripleurospermum maritima</i>			
Fiddleneck, Coast[*]	<i>Amsinckia menziesii</i>			
Field Pennycress[*]	<i>Thlaspi arvense</i>			
Fleabane, Hairy[*]	<i>Conyza bonariensis</i>			
Flixweed[*]	<i>Descurainia spophia</i>			
Florida Beggarweed	<i>Desmodium tortuosum</i>			
Florida Pusley	<i>Richardia scabra</i>			
Golden Crownbeard	<i>Verbesina encelioides</i>			
Groundsel, Common	<i>Senecio vulgaris</i>			
Hairy Indigo	<i>Indigofera hirsuta</i>			
Hemp Sesbania	<i>Sesbania exaltata</i>			
Henbit	<i>Lamium amplexicaule</i>			
Jimsonweed	<i>Datura stramonium</i>			
Kochia	<i>Kochia scoparia</i>			
Lambsquarters, Common	<i>Chenopodium album</i>			
Little Mallow	<i>Malva parviflora</i>			
London Rocket[*]	<i>Sisymbrium irio</i>			
Marestail/Horseweed	<i>Conyza canadensis</i>			
Mayweed/False Chamomile[*]	<i>Matricaria maritima</i>			

[\*Not for use in California.]

continued

<sup>1</sup>*Frigate 51%* Herbicide at 4 oz/A will provide postemergence dodder suppression when applied in combination with Pursuit Herbicide or Raptor Herbicide at labeled rates. Pursuit Herbicide and Raptor Herbicide require the use of NIS, which will result in burn and stunting of alfalfa. Understand and accept these risks before tank mixing with ***Frigate 51% WDG*** Herbicide.

Table 7. Weeds Controlled by Residual Activity of *Frigate 51% WDG* Herbicide (continued)

BROADLEAF WEED SPECIES				
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	FRIGATE 51% WDG HERBICIDE RATE
Morningglories		Up to 5%	All Soil Types	4 oz/A
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriscula</i>			
Ivyleaf	<i>Ipomoea hederacea</i>			
Red/Scarlet	<i>Ipomoea coccinea</i>			
Smallflower	<i>Jacquemontia tamnifolia</i>			
Tall	<i>Ipomoea purpurea</i>			
Mustard				
Tansy[*]	<i>Descurainia pinnata</i>			
Tumble[*]	<i>Sisymbrium altissimum</i>			
Wild	<i>Brassica kaber</i>			
Nettle, Burning[*]	<i>Urtica urens</i>			
Nightshades				
Black	<i>Solanum nigrum</i>			
Eastern Black	<i>Solanum ptycanthum</i>			
Hairy	<i>Solanum sarrachoides</i>			
Pigweeds				
Palmer Amaranth	<i>Amaranthus palmeri</i>			
Redroot	<i>Amaranthus retroflexus</i>			
Smooth	<i>Amaranthus hybridus</i>			
Spiny Amaranth	<i>Amaranthus spinosus</i>			
Tumble	<i>Amaranthus albus</i>			
Prickly Lettuce (China Lettuce)	<i>Lactuca serriola</i>			
Prickly Sida (Teaweed)	<i>Sida spinosa</i>			
Sowthistle, Prickly[*]	<i>Sonchus asper</i>			
Puncturevine	<i>Tribulus terrestris</i>			
Purslane				
Common	<i>Portulaca oleracea</i>			
Horse[*]	<i>Trianthema portulacastrum</i>			
Radish, Wild	<i>Raphanus raphanistrum</i>			
Ragweed, Common	<i>Ambrosia artemisiifolia</i>			
Redmaids	<i>Calandrinia ciliata</i> var. <i>menziesii</i>			
Russian Thistle	<i>Salsola iberica</i>			
Shepherd's-purse	<i>Capsella bursa-pastoris</i>			
Smartweeds				
Ladysthumb	<i>Polygonum persicaria</i>			
Pennsylvania	<i>Polygonum pennsylvanicum</i>			
Smellmelon[*]	<i>Cucumis melo</i>			
Spotted Spurge	<i>Euphorbia maculata</i>			
Spurred Anoda	<i>Anoda cristata</i>			
Tropic Croton	<i>Croton glandulosus</i>			
Velvetleaf	<i>Abutilon theophrasti</i>			
Venice Mallow	<i>Hibiscus trionum</i>			
Waterhemp				
Common	<i>Amaranthus rudis</i>			
Tall	<i>Amaranthus tuberculatus</i>			
White Cockle[*]	<i>Silene latifolia</i>			
Wild Poinsettia	<i>Euphorbia heterophylla</i>			
Wormwood, Biennial	<i>Artemisia biennis</i>			
Yellow Rocket[*]	<i>Barbarea vulgaris</i>			

[\*]Not for use in California.]

continued



Table 7. Weeds Controlled by Residual Activity of *Frigate 51% WDG* Herbicide (continued)

GRASS WEED SPECIES				
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	FRIGATE 51% WDG HERBICIDE RATE
Barnyardgrass	<i>Echinochloa crus-galli</i>	Up to 5%	All Soil Types	4 oz/A
Bluegrass, Annual	<i>Poa annua</i>			
Crabgrass, Large	<i>Digitaria sanguinalis</i>			
Foxtail, Giant	<i>Setaria faberi</i>			
Goosegrass	<i>Eleusine indica</i>			
Lovegrass, California	<i>Eragrostis diffusa</i>			
Panicums				
Fall	<i>Panicum dichotomiflorum</i>			
Texas	<i>Panicum texanum</i>			
Ryegrass, Italian[*]	<i>Lolium multiflorum</i>			
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>			

[\*]Not for use in California.]

**DIRECTIONS FOR USE IN ONION (DRY BULB)**

[For Use in the States of Michigan, New York, North Dakota and Wisconsin Only]

**RESTRICTIONS**

- **DO NOT** apply more than 2 oz (0.063 lb ai) of *Frigate 51% WDG* Herbicide per acre per application.
- **DO NOT** make more than six applications of *Frigate 51% WDG* Herbicide per acre per year at the 0.5 oz rate (0.016 lb ai).
- **DO NOT** apply more than 3 oz (0.095 lb ai) of *Frigate 51% WDG* Herbicide per acre per year.
- Minimum retreatment interval 14 days (microrate application 7 days).
- **DO NOT** apply more than 1 oz (0.032 lb ai) of *Frigate 51% WDG* Herbicide per year on soils that contain greater than 90% sand plus gravel.
- **DO NOT** apply as part of a tank mix, other than Prowl® H<sub>2</sub>O Herbicide, or unacceptable injury may result. **DO NOT** tank mix other formulations of pendimethalin with *Frigate 51% WDG* Herbicide for use in onions
- **DO NOT** apply with any type of adjuvant.
- **DO NOT** apply within 45 days of harvest.

Use of *Frigate 51% WDG* Herbicide may result in necrotic spotting of onion leaves that come in contact with the spray. Understand and accept this risk before using *Frigate 51% WDG* Herbicide.

**[Microrate Application]**

[Sequential applications of *Frigate 51% WDG* Herbicide may be applied to onions (dry bulb), between the 2-leaf and 6-leaf stage, at rates of 0.5 to 1 oz/A, on a 7-day interval.]

**TIMING TO ONIONS (dry bulb)**

Apply *Frigate 51% WDG* Herbicide to transplanted onions (dry bulb) between the 2-leaf and 6-leaf stage and on direct seed onions (dry bulb) between the 3-leaf and 6-leaf stage.

**TIMING TO WEEDS****Preemergence – Emerged Onions (dry bulb), Preemergence To Weeds**

Apply *Frigate 51% WDG* Herbicide to weed free onions (dry bulb) for preemergence control of the weeds listed in Table 1, Section A.

## DIRECTIONS FOR USE IN PEANUT [Not For Use in California]

### RESTRICTIONS

- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 1 application of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** irrigate when peanuts are cracking.
- **DO NOT** graze treated fields or feed treated hay to livestock.

Many weather-related factors, including high wind, splashing or heavy rains or cool conditions at or near peanut emergence, may result in peanut injury in fields treated with **Frigate 51% WDG** Herbicide. On occasion this has resulted in a delay in maturity or even a slight decrease in yield.

### WIND MANAGEMENT

In areas where shallow cultivation is used between rows to reduce wind-borne sand damage to peanuts, weed control from **Frigate 51% WDG** Herbicide may be reduced.

### TIMING TO PEANUTS

**Frigate 51% WDG** Herbicide may be applied to peanuts prior to planting or preemergence (after planting). Preemergence applications of **Frigate 51% WDG** Herbicide must be made within 2 days after planting and prior to peanut emergence. Application after the peanuts have begun to crack, or are emerged, will result in severe crop injury. Apply before peanuts have begun to crack. Select **Frigate 51% WDG** Herbicide rate from Table 1 according to anticipated weed spectrum.

### TIMING TO WEEDS

#### Burndown – Preemergence to Peanuts, Postemergence to Weeds

**Frigate 51% WDG** Herbicide, applied as part of a burndown program, may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds where peanuts will be planted directly into a stale seedbed, cover crop or in previous crop residues. Apply **Frigate 51% WDG** Herbicide before planting, during planting or after planting, but before the crop emerges. For control of emerged weeds, tank mix **Frigate 51% WDG** Herbicide with glyphosate. Refer to glyphosate label for rates and application pressures. To ensure thorough coverage, use a minimum of 15 gals of spray solution per acre. **Frigate 51% WDG** Herbicide tank mixes applied to assist in the control of emerged weeds must be applied with an adjuvant, including a non-ionic surfactant at 0.25% v/v or a crop oil concentrate or a methylated seed oil at 1 to 2 pt/A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lb/A or 28 to 32% nitrogen solution at 1 to 2 qt/A) may be added to increase herbicidal activity.

Preemergence (conventional tillage) applications of **Frigate 51% WDG** Herbicide must be applied prior to weed emergence.

#### ADDITIONAL RESIDUAL GRASS CONTROL: SEQUENTIAL

**Frigate 51% WDG** Herbicide may be applied sequentially following a preplant incorporated application of trifluralin (states of New Mexico, Oklahoma and Texas only), SONALAN®, DUAL® (metolachlor), pendimethalin or FRONTIER®.

#### ADDITIONAL RESIDUAL GRASS CONTROL: TANK MIXED

**Frigate 51% WDG** Herbicide can be tank mixed with alachlor, metolachlor or FRONTIER for additional grass and broadleaf weed control. **Frigate 51% WDG** Herbicide can also be tank mixed with pendimethalin or SONALAN in states where they are labeled, provided overhead irrigation guidelines on the pendimethalin and/or SONALAN labels are followed.

## DIRECTIONS FOR USE IN POTATO

[For Use in Arizona, California, Colorado, Delaware, Florida, Hawaii, Idaho, Maryland, Minnesota, Montana, Nebraska, Nevada, New Jersey, New Mexico, North Carolina, North Dakota, Oregon, South Carolina, South Dakota, Texas, Utah, Virginia, Washington, Washington DC and Wyoming only.]

### RESTRICTIONS

- **DO NOT** apply more than 1.5 oz (0.047 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 1 application of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply more than 1.5 oz (0.047 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply to Rill (Furrow) irrigated potatoes.

Many weather-related factors, including high wind, splashing or heavy rains or cool conditions at or near potato emergence, may result in potato injury in fields treated with **Frigate 51% WDG** Herbicide. On occasion this has resulted in a delay in maturity. Understand and accept these risks before using **Frigate 51% WDG** Herbicide.

### TIMING TO POTATOES

**Frigate 51% WDG** Herbicide may be applied to potatoes after hilling for the preemergence suppression of the weeds listed in Table 8. Tank mix **Frigate 51% WDG** Herbicide with other labeled herbicides for broad spectrum weed control. A minimum of 2 inches of settled soil must cover the vegetative portion of the potato plant at the time of **Frigate 51% WDG** Herbicide application. Application to potatoes with less than 2 inches of soil covering the vegetative portion of the potato may result in crop injury. In areas with historically higher amounts of rainfall during the time of preemergence herbicide applications, including the Red River Valley, Minnesota and North Dakota, the requirement for 2 inches of settled soil is critical to avoid crop injury. Mechanical incorporation of **Frigate 51% WDG** Herbicide will result in decreased weed control. In areas with sprinkler irrigation, incorporate **Frigate 51% WDG** Herbicide with 0.5 to 0.75 inches of irrigation, after application and before **any** sprouts are within 2 inches of the settled soil surface if a rainfall event has not yet occurred.

### TIMING TO WEEDS

#### Preemergence – Soil Covered Potatoes, Preemergence To Weeds

Apply **Frigate 51% WDG** Herbicide to soil covered potatoes for the preemergence suppression of the weeds listed in Table

8. Harrowing, cultivation or corrugating after **Frigate 51% WDG** Herbicide application will reduce weed control.

**Table 8. Weeds Suppressed by Residual Activity of Frigate 51% WDG Herbicide at 1.5 oz/A**

COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	FRIGATE 51% WDG HERBICIDE RATE
Lambsquarters, Common	<i>Chenopodium album</i>	Up to 5%	1.5 oz/A
Mustard, Wild	<i>Brassica kaber</i>		
Nightshades			
Black	<i>Solanum nigrum</i>		
Eastern Black	<i>Solanum ptycanthum</i>		
Hairy	<i>Solanum sarrachoides</i>		
Pigweeds			
Palmer Amaranth	<i>Amaranthus palmeri</i>		
Redroot	<i>Amaranthus retroflexus</i>		
Smooth	<i>Amaranthus hybridus</i>		
Spiny Amaranth	<i>Amaranthus spinosus</i>		
Tumble	<i>Amaranthus albus</i>		
Prickly Lettuce (China Lettuce)	<i>Lactuca serriola</i>		
Radish, Wild	<i>Raphanus raphanistrum</i>		

## DIRECTIONS FOR USE IN SOYBEAN [Not For Use in California]

### PRECAUTIONS

- If **Frigate 51% WDG** Herbicide is tank mixed with flufenacet (Axiom<sup>®</sup>, Domain<sup>®</sup>), metolachlor (Dual<sup>®</sup> Magnum, Dual<sup>®</sup> II Magnum, Boundary<sup>®</sup>) or dimethenamid (Frontier<sup>®</sup> or Outlook<sup>®</sup>) and applied within 14 days of planting soybeans, plant under no-till or minimum tillage conditions on wheat stubble or field corn stubble.
- Irrigation when soybeans are cracking may result in severe injury.

### RESTRICTIONS

- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 1 application of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.
- Graze treated fields or feed treated hay to livestock no sooner than 21 days after application.

### TIMING TO SOYBEANS

**Frigate 51% WDG** Herbicide may be applied to soybeans prior to planting or preemergence (after planting). Preemergence application of **Frigate 51% WDG** Herbicide must be made within 3 days after planting and prior to soybean emergence. Application after the soybeans have begun to crack, or are emerged, will result in severe crop injury. Apply before soybeans have begun to crack. Select **Frigate 51% WDG** Herbicide rate from Table 1 according to anticipated weed spectrum.

### TIMING TO WEEDS

#### Burndown – Preemergence to Soybeans, Postemergence to Weeds

**Frigate 51% WDG** Herbicide, applied as part of a burndown program, may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds where soybeans will be planted directly into a stale seedbed, cover crop or in previous crop residues. For control of emerged weeds, choose the most appropriate tank mix partner from Table 9. Apply **Frigate 51% WDG** Herbicide with ground equipment before planting, during planting or within 3 days after planting, **but before the crop emerges**. To ensure thorough coverage, use a minimum of 15 gal of spray solution per acre. Refer to tank mix partner's label for rates and application pressures. All **Frigate 51% WDG** Herbicide tank mixes applied to assist in the control of emerged weeds must be applied with crop oil concentrate or methylated seed oil at 1 to 2 pt/A or a non-ionic surfactant at 0.25% v/v.

#### INCREASING SPEED OF GLYPHOSATE BURNDOWN ACTIVITY

**Frigate 51% WDG** Herbicide, at rates as low as 1 oz/A, may be tank mixed with glyphosate (Roundup<sup>®</sup>) to increase the speed of burndown activity compared to glyphosate applied alone. Residual weed control will not be provided at rates lower than 2 oz/A; however, suppression of the weeds in Table 2, may occur at **Frigate 51% WDG** Herbicide rates as low as 1 oz/A.

### TANK MIXES

**Frigate 51% WDG** Herbicide may be tank mixed with the herbicides listed in Table 9 for increased burndown activity, additional residual broadleaf and/or additional grass control. Refer to tank mix partner's label for adjuvant selection.

**Table 9. Tank Mix Partners for Control of Emerged Weeds in Reduced Tillage Soybeans**

TANK MIX PARTNER	TARGET WEEDS <sup>1</sup>
2,4-D LVE	Marestail Giant Ragweed Dandelion
paraquat	Annual Grasses Henbit
glyphosate	General Burndown
Select Max <sup>®</sup>	Annual Grasses
SCEPTER <sup>®</sup> 70 DG	Cocklebur Common Sunflower
Weedmaster <sup>®</sup>	Marestail Giant Ragweed Dandelion

<sup>1</sup>Refer to tank mix product labels for use directions for control of emerged weeds present.

**ADDITIONAL RESIDUAL BROADLEAF CONTROL**

**Frigate 51% WDG** Herbicide can be tank mixed with metribuzin, Firstrate®, Lorox®, Pursuit®, Python® or Scepter® for additional broadleaf control.

**ADDITIONAL RESIDUAL GRASS CONTROL**

**Frigate 51% WDG** Herbicide can be tank mixed with pendimethalin or Command® for additional grass control. [In the states of (**Note to EPA Reviewer: specific states will be listed here**) **Frigate 51% WDG** Herbicide can be tank mixed with micro-encapsulated acetochlor (Warrant®) at 2 fl oz per acre.] [Tank mixes with flufenacet (Axiom or Domain), metolachlor (Dual products or Boundary) or dimethenamid (Frontier or Outlook) may result in severe injury to soybeans when application is followed by prolonged periods of cool wet weather.]

**ROUNDUP READY PROGRAM**

**Frigate 51% WDG** Herbicide may be applied as part of a burndown program or preemergence in conventional tillage programs, at 2 to 3 oz/A to reduce early season weed competition from waterhemp, velvetleaf, nightshade and morningglories as well as other weeds listed in Tables 2 and 3 in Roundup Ready programs. A sequential postemergence application of glyphosate will be required to control weeds not controlled by **Frigate 51% WDG** Herbicide.

**DIRECTIONS FOR USE IN STRAWBERRY****PRECAUTIONS**

- **Frigate 51% WDG** Herbicide, at 3 oz per acre, can be applied to the soil a minimum of 30 days prior to transplanting strawberries provided the strawberries will be transplanted through a plastic mulch.
- **Frigate 51% WDG** Herbicide at 3 oz per acre can be applied to dormant (established or newly planted) strawberries for the preemergence control of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of **Frigate 51% WDG** Herbicide.
- **Frigate 51% WDG** Herbicide, at 3 oz per acre, can be applied in strawberry row middles with a shielded or hooded sprayer for the preemergence control of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of **Frigate 51% WDG** Herbicide.

**RESTRICTIONS:**

- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 1 application of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.

Application Method	Minimum Time From Application to Harvest (PHI)	Use Rate Per Acre Per Application (oz)	Use Rate Per Acre Per Year (oz)	Special Use Instructions
Pre-transplant	Not applicable	3	3	Apply a minimum of 30 days prior to transplanting and prior to plastic mulch being laid.  Apply as part of a tank mix to control emerged weeds.
Preemergence to dormant strawberries	Not applicable	3	3	Crop oil concentrate, at 1% v/v, or non-ionic surfactant, at 0.25% v/v, may be added to help control emerged broadleaf weeds.
Hooded or shielded sprayer application to row middles	<b>DO NOT</b> apply after fruit set	3	3	<b>Apply only to row middles - DO NOT apply over strawberries.</b>  Apply prior to weed emergence.  Crop spotting may occur if an adjuvant is added.  <b>DO NOT apply after fruit set or spotting of fruit may occur.</b>  <b>DO NOT</b> allow spray drift to come in contact with fruit or foliage

Table 10. Weeds Controlled by Preemergence Application of *Frigate 51% WDG* Herbicide

BROADLEAF WEED SPECIES				
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	FRIGATE 51% WDG HERBICIDE RATE
Bristly Starbur	<i>Acanthospermum hispidum</i>	Up to 10% <sup>1</sup>	All Soil Types <sup>2</sup>	Asparagus, Caneberry, Garlic, Hops 6 oz/A  Sugarcane 6 to 8 oz/A  Bushberry, Cactus, Citrus Fruit, Grapes, Olive, Pome Fruit, Pomegranate, Stone Fruit, Tree Nuts and Non-Bearing Fruit Trees 6 to 12 oz/A <sup>2</sup>  To Maintain Bare Ground on Non-Crop Areas of Farms, Orchards & Vineyards 6 to 12 oz/A.
Carpetweed	<i>Mollugo verticillata</i>			
Chickweeds				
Common	<i>Stellaria media</i>			
Mouseear	<i>Cerastium vulgatum</i>			
Coffee Senna	<i>Cassia occidentalis</i>			
Dandelion	<i>Taraxacum officinale</i>			
Eclipta	<i>Eclipta prostrata</i>			
Evening-primrose, Cutleaf	<i>Oenothera laciniata</i>			
False Chamomile[*]	<i>Tripleurospermum maritima</i>			
Fiddleneck, Coast[*]	<i>Amsinckia menziesii</i>			
Field Pennycress[*]	<i>Thlaspi arvense</i>			
Filaree				
Redstem	<i>Erodium cicutarium</i>			
Whitestem	<i>Erodium moschatum</i>			
Fleabane, Hairy[*]	<i>Conyza bonariensis</i>			
Florida Beggarweed	<i>Desmodium tortuosum</i>			
Florida Pusley	<i>Richardia scabra</i>			
Golden Crownbeard	<i>Verbesina encelioides</i>			
Groundsel, Common	<i>Senecio vulgaris</i>			
Hairy Indigo	<i>Indigofera hirsuta</i>			
Hemp Sesbania	<i>Sesbania exaltata</i>			
Henbit	<i>Lamium amplexicaule</i>			
Horseweed/Marestail	<i>Conyza canadensis</i>			
Jimsonweed	<i>Datura stramonium</i>			
Kochia	<i>Kochia scoparia</i>			
Lambsquarters, Common	<i>Chenopodium album</i>			
Mallow				
Common (Cheeseweed)	<i>Malva neglecta</i>			
Little				
Mayweed/False Chamomile[*]	<i>Matricaria maritima</i>			
Morningglories				
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriuscula</i>			
Ivyleaf				
Red/Scarlet	<i>Ipomoea coccinea</i>			
Smallflower	<i>Jacquemontia tamnifolia</i>			
Tall	<i>Ipomoea purpurea</i>			

[\*]Not for use in California.]

continued

<sup>1</sup>*Frigate 51%* Herbicide can be used on soils with greater than 10% organic matter; however, length of residual control may be shorter than on soils with lower organic matter content.<sup>2</sup> Use a maximum *Frigate 51% WDG* Herbicide rate of 6 oz/A per application on any soil that has a sand plus gravel content over 80% if bushes, trees or vines are under 3 years of age.

Table 10. Weeds Controlled by Preemergence Application of *Frigate 51% WDG* Herbicide (continued)

BROADLEAF WEED SPECIES				
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	FRIGATE 51% WDG HERBICIDE RATE
Mustards		Up to 10% <sup>1</sup>	All Soil Types <sup>2</sup>	Asparagus, Caneberry, Garlic, Hops 6 oz/A  Sugarcane 6 to 8 oz./A  Bushberry, Cactus, Citrus Fruit, Grapes, Olive Pome Fruit, Pomegranate, Stone Fruit, Tree Nuts and Non-Bearing Fruit Trees 6 to 12 oz/A <sup>2</sup>  To Maintain Bare Ground on Non-Crop Areas of Farms, Orchards & Vineyards 6 to 12 oz/A
London Rocket[*]	<i>Sisymbrium irio</i>			
Tansey[*]	<i>Desurainia pinnata</i>			
Tumble	<i>Sisymbrium altissimum</i>			
Wild	<i>Brassica kaber</i>			
Nettle, Burning[*]	<i>Urtica urens</i>			
Nightshades				
Black	<i>Solanum nigrum</i>			
Eastern Black	<i>Solanum ptycanthum</i>			
Hairy	<i>Solanum sarrachoides</i>			
Pigweeds				
Palmer Amaranth	<i>Amaranthus palmeri</i>			
Redroot	<i>Amaranthus retroflexus</i>			
Smooth	<i>Amaranthus hybridus</i>			
Spiny Amaranth	<i>Amaranthus spinosus</i>			
Tumble	<i>Amaranthus albus</i>			
Prickly Lettuce (China Lettuce)	<i>Lactuca serriola</i>			
Prickly Sida (Teaweed)	<i>Sida spinosa</i>			
Puncturevine	<i>Tribulus terrestris</i>			
Purslane				
Common	<i>Portulaca oleracea</i>			
Horse[*]	<i>Trianthema portulacastrum</i>			
Radish, Wild	<i>Raphanus raphanistrum</i>			
Ragweed, Common	<i>Ambrosia artemisiifolia</i>			
Redmaids	<i>Calandrinia ciliata var menziessi.</i>			
Redweed	<i>Melochia corchorifolia</i>			
Shepherd's-purse	<i>Capsella bursa-pastoris</i>			
Smellmelon[*]	<i>Cucumis melo</i>			
Sowthistle, Annual[*]	<i>Sonchus oleraceus</i>			
Spotted Spurge	<i>Euphorbia maculata</i>			
Spurred Anoda	<i>Anoda cristata</i>			
Thistle, Russian	<i>Salsola iberica</i>			
Tropic Croton	<i>Croton glandulosus</i>			
Venice Mallow	<i>Hibiscus trionum</i>			
Waterhemp				
Common	<i>Amaranthus rudis</i>			
Tall	<i>Amaranthus tuberculatus</i>			
White Cockle[*]	<i>Silene latifolia</i>			
Wild Poinsettia	<i>Euphorbia heterophylla</i>			
Wormwood, Biennial	<i>Artemisia biennis</i>			
Yellow Rocket[*]	<i>Barbarea vulgaris</i>			

[\*]Not for use in California.]

continued

<sup>1</sup>*Frigate 51%* Herbicide can be used on soils with greater than 10% organic matter; however, length of residual control may be shorter than on soils with lower organic matter content.<sup>2</sup>Use a maximum *Frigate 51% WDG* Herbicide rate of 6 oz./A per application on any soil that has a sand plus gravel content over 80% if bushes, trees or vines are under 3 years of age.



Table 10. Weeds Controlled by Preemergence Application of *Frigate 51% WDG* Herbicide (continued)

BROADLEAF WEED SPECIES				
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	FRIGATE 51% WDG HERBICIDE RATE
<b>GRASS WEED SPECIES</b>		Up to 10% <sup>1</sup>	All Soil Types <sup>2</sup>	Asparagus, Caneberry, Garlic, Hops 6 oz/A  Sugarcane 6 to 8 oz/A  Bushberry, Cactus, Citrus Fruit, Grapes, Olive, Pome Fruit, Pomegranate, Stone Fruit, Tree Nuts and Non-Bearing Fruit Trees 6 to 12 oz/A <sup>2</sup>  To Maintain Bare Ground on Non-Crop Areas of Farms, Orchards & Vineyards 6 to 12 oz/A
Barnyardgrass	<i>Echinochloa crus-galli</i>			
Bluegrass, Annual	<i>Poa annua</i>			
Crabgrass				
Large	<i>Digitaria sanguinalis</i>			
Smooth	<i>Digitaria ischaemum</i>			
Foxtails				
Bristly	<i>Setaria verticillata</i>			
Giant	<i>Setaria faberi</i>			
Green	<i>Setaria viridis</i>			
Yellow	<i>Setaria glauca</i>			
Goosegrass	<i>Eleusine indica</i>			
Guineagrass	<i>Panicum maximum</i>			
Johnsongrass, Seedling	<i>Sorghum halepense</i>			
Lovegrass, California	<i>Eragrostis diffusa</i>			
Panicum				
Fall	<i>Panicum dichotomiflorum</i>			
Texas	<i>Panicum texaum</i>			
Ryegrass, Italian[*]	<i>Lolium multiflorum</i>			
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>			

[\*Not for use in California.]

<sup>1</sup>*Frigate 51%* Herbicide can be used on soils with greater than 10%; however, length of residual control may be shorter than on soils with lower organic matter content.

<sup>2</sup>Use a maximum *Frigate 51% WDG* Herbicide rate of 6 oz/A per application on any soil that has a sand plus gravel content over 80% if bushes, trees or vines are under 3 years of age.

## DIRECTIONS FOR USE IN SUGARCANE [Not For Use in California]

### RESTRICTIONS

- **DO NOT** apply more than 8 oz (0.250 lb ai) of *Frigate 51% WDG* per acre per application.
- **DO NOT** make more than 4 applications of *Frigate 51% WDG* Herbicide per acre per year at the 3 oz rate (0.095 lb ai).
- Minimum retreatment interval 14 days.
- **DO NOT** apply more than 12 oz (0.375 lb ai) of *Frigate 51% WDG* per acre per year.
- **DO NOT** apply within 90 days of harvest.

### TIMING TO SUGARCANE

*Frigate 51% WDG* may be applied from 2 weeks prior to planting to before the sugarcane emerges, post directed or at layby. Select the proper *Frigate 51% WDG* rate from Table 10 according to anticipated weed spectrum and soil organic matter content for preemergence applications. Select *Frigate 51% WDG* rate from Table 11 according to emerged weed spectrum and weed heights for post-directed and layby applications.

### TIMING TO WEEDS

#### Burndown – Preemergence to Sugarcane, Postemergence to Weeds

*Frigate 51% WDG* may be used for preemergence control, and to assist in postemergence burndown, of many annual broadleaf weeds in sugarcane. For control of emerged weeds, choose the most appropriate tank mix partner from Table 12. Apply *Frigate 51% WDG* before the crop emerges. To ensure thorough coverage, use a minimum of 15 gal of spray solution per acre. All *Frigate 51% WDG* tank mixes applied to assist in the control of emerged weeds must be applied with crop oil concentrate or methylated seed oil at 1 qt/A or a non-ionic surfactant at 0.25% v/v. Some tank mixproducts, for example ROUNDUP Original Max (glyphosate), may be formulated with a suitable adjuvant and do not require additional adjuvant.

#### Preemergence – Preemergence to Sugarcane, Preemergence to Weeds

*Frigate 51% WDG* may be used for preemergence control of many annual broadleaf and grassy weeds in sugarcane. Selectrate based on anticipated weed spectrum and soil organic matter content from Table 10. Apply *Frigate 51% WDG* before the crop emerges.

#### Post-Directed – Postemergence to Sugarcane, Postemergence to Weeds

Make post-directed applications to upright sugarcane varieties after the sugarcane has exceeded 24 inches in height and has begun to joint. Post-directed applications to “PINEAPPLE” varieties or to upright varieties that are less than 24 inches in height and have not begun to joint, may result in unacceptable crop injury. To ensure thorough coverage, use a minimum of 15 gal of spray solution per acre. Post-directed applications of *Frigate 51% WDG* must include a crop oil concentrate or methylated seed oil at 1 qt/A or a non-ionic surfactant at 0.25% v/v. Select theproper *Frigate 51% WDG* rate based on weed spectrum and weed height from Table 11.

#### Layby – Postemergence to Sugarcane, Postemergence to Weeds

Layby applications can be made to upright and “PINEAPPLE” varieties after the sugarcane has exceeded 30 inches in height and the spray solution will not contact foliage above 6 inches from the base of the sugarcane. To ensure thorough coverage, use a minimum of 15 gal of spray solution per acre. Layby applications of *Frigate 51% WDG* must be applied with crop oil concentrate or methylated seed oil at 1 qt/A or a non-ionic surfactant at 0.25% v/v. Select the proper *Frigate 51% WDG* rate based on weed spectrum and weed height from Table 11.

**Table 11. Broadleaf Weeds Controlled by Post-Directed or Layby Application of Frigate 51% WDG Herbicide in Sugarcane**

BROADLEAF WEED SPECIES		WEED HEIGHT (inches)	
COMMON NAME	SCIENTIFIC NAME	3 oz/A	4 oz/A
Bindweed, Field <sup>1</sup>	<i>Convolvulus arvensis</i>	4	8
Carpetweed	<i>Mollugo verticillata</i>	4	4
Cocklebur, Common	<i>Xanthium strumarium</i>	4	4
Florida Beggarweed	<i>Desmodium tortuosum</i>	2	2
Hemp Sesbania	<i>Sesbania exaltata</i>	6	8
Jimsonweed	<i>Datura stramonium</i>	4	4
Lambsquarters, Common	<i>Chenopodium album</i>	4	4
Morningglories			
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriuscula</i>	-	4
Ivyleaf	<i>Ipomoea hederacea</i>	4	4
Pitted	<i>Ipomoea lacunosa</i>	4	6
Red	<i>Ipomoea coccinea</i>	-	4
Tall	<i>Ipomoea purpurea</i>	2	4
Mustard, Wild	<i>Brassica kaber</i>	6	6
Pigweeds			
Palmer Amaranth	<i>Amaranthus palmeri</i>	4	6
Redroot	<i>Amaranthus retroflexus</i>	4	6
Smooth	<i>Amaranthus hybridus</i>	4	6
Plantain, Broadleaf	<i>Plantago major</i>	6	6
Prickly Sida	<i>Sida spinosa</i>	4	6
Purslanes			
Common	<i>Portulaca oleracea</i>	2	4
Rock	<i>Calandrinia</i> spp.	-	2
Ragweeds			
Common	<i>Ambrosia artemisiifolia</i>	2	2
Giant	<i>Ambrosia trifida</i>	4	4
Rice Flatsedge	<i>Cyperus iria</i>	2	4
Sicklepod	<i>Senna obtusifolia</i>	4	4
Smartweeds			
Ladysthumb	<i>Polygonum persicaria</i>	4	4
Pale	<i>Polygonum lapathifolium</i>	4	4
Pennsylvania	<i>Polygonum pennsylvanicum</i>	4	4
Spotted Spurge	<i>Euphorbia maculata</i>	4	4
Velvetleaf	<i>Abutilon theophrasti</i>	4	6
Venice Mallow	<i>Hibiscus trionum</i>	2	2
Waterhemp			
Common	<i>Amaranthus rudis</i>	2	2
Tall	<i>Amaranthus tuberculatus</i>	2	2

<sup>1</sup> **Frigate 51% WDG** tank mixes will only control the above ground portion of field bindweed. Repeated applications will be needed to control regrowth.

**TANK MIXES**

**Frigate 51% WDG** may be tank mixed with the herbicides listed in Table 12 for additional weed control in burndown, preemergence, post-directed and layby applications. Refer to tank mix partner's label for adjuvants.

**Table 12. Tank Mixes with Frigate 51% WDG Herbicide for Post-Directed or Layby Use in Sugarcane**

TANK MIX PARTNER <sup>1</sup>	TARGET WEEDS	BURNDOWN	POST-DIRECTED <sup>2</sup>	LAYBY
2,4-D amine	Annual and Perennial Broadleaf Weeds	X		
atrazine	Pigweeds Cocklebur	X	X	X
Asulox <sup>3</sup>	Annual Grasses		X	X
Evik <sup>4</sup>	Annual Grasses		X	X
glyphosate <sup>5</sup>	Annual and Perennial Weeds	X		X
metribuzin <sup>6</sup>	Broadleaf Panicum Goosegrass		X	X
Sempra <sup>□</sup>	Purple Nutsedge Yellow Nutsedge	X	X	X
Weedmaster <sup>®</sup>	Annual and Perennial Broadleaf Weeds	X		

<sup>1</sup> Refer to tank mix product labels for specific use directions for control of emerged weeds present not listed in Table 11.

<sup>2</sup> Make post-directed applications to upright sugarcane varieties after the sugarcane has exceeded 24 inches in height. Post-directed applications to "PINEAPPLE" varieties or to upright varieties that are less than 24 inches in height may result in unacceptable crop injury.

<sup>3</sup> Apply to sugarcane at least 24 inches tall.

<sup>4</sup> Apply before weeds are greater than 6 inches tall.

<sup>5</sup> Glyphosate applications must be made with a hooded sprayer. Sugarcane must be at least 3 ft tall. Contact with the sugarcane foliage by either the spray mixture or the treated weed foliage will result in sugarcane injury.

<sup>6</sup> Refer to metribuzin label for restrictions based on soil type.

**ADDITIONAL PREEMERGENCE BROADLEAF CONTROL**

**Frigate 51% WDG** can be tank mixed with atrazine or diuron for additional preemergence broadleaf control.

**ADDITIONAL PREEMERGENCE GRASS CONTROL**

**Frigate 51% WDG** can be tank mixed with PROWL (or other pendimethalin products) for additional preemergence grass control provided sugarcane has not emerged.

## DIRECTIONS FOR USE IN SUNFLOWER AND SAFFLOWER [Not for Use in California]

### **HARVEST AID**

[All States] [All States Except California]

#### **RESTRICTIONS**

- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 1 application of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** harvest within 5 days of application.

Desiccation from **Frigate 51% WDG** Herbicide requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 1 qt/A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lb/A or a 28 to 32% nitrogen solution at 1 to 2 qt/A) may be added to the spray mixture along with methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for methylated seed oil. Tank mixing **Frigate 51% WDG** Herbicide with glyphosate or paraquat will increase control of emerged weeds and aid in harvest for sunflowers. Tank mixing **Frigate 51% WDG** Herbicide with glyphosate will increase control of emerged weeds and aid in harvest for safflower.

#### **TIMING TO SUNFLOWER AND SAFFLOWER**

Apply **Frigate 51% WDG** Herbicide, at 1.5 to 2 oz/A, when crop is mature (when seed is 35% moisture or less). For many varieties, this is when the backs of the heads are turning yellow and the bracts are turning brown. Sunflower and safflower can be harvested 5 days after application.

To ensure thorough coverage, use 15 to 30 gallons of spray solution per acre and select nozzle type using manufacturer's gallonage and pressure guidelines for postemergence application.

## DIRECTIONS FOR USE IN SWEET POTATO [For Use in the States of Arizona, California and Hawaii Only]

#### **RESTRICTIONS**

- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 1 application of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply more than 3 oz (0.095 lb ai) of **Frigate 51% WDG** per acre per year.
- **DO NOT** apply postemergence to sweet potatoes.
- **DO NOT** use greenhouse grown transplants.
- **DO NOT** use transplants harvested more than 2 days prior to transplanting.
- **DO NOT** use on any sweet potato variety other than "BEAUREGARD", unless user has tested **Frigate 51% WDG** on other variety and has found crop tolerance to be acceptable.
- **DO NOT** apply as a part of any tank mix, except with labeled rates of Command, if tank mix is applied prior to transplanting.

#### **TIMING TO SWEET POTATOES**

**Frigate 51% WDG** must be applied prior to transplanting sweet potatoes.

#### **TIMING TO WEEDS**

##### **Preemergence To Weeds**

Apply **Frigate 51% WDG** to soil prior to transplanting sweet potato slips for the preemergence control of the weeds listed in Table 1.

## DIRECTIONS FOR USE IN WHEAT [Not For Use in California]

### RESTRICTIONS

- **DO NOT** apply more than 2 oz (0.063 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 1 application of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** apply more than 2 oz (0.063 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.

### PRE-PLANT APPLICATIONS. PRE-EMERGENCE WEED CONTROL

[For use in the states of DE, ID, KY, MD, MN, MT, NC, ND, NJ, OR, PA, SC, SD, TN, VA, WA and WI Only]

#### RESTRICTIONS

- For pre-plant weed control, use only on no-till or minimum tillage fields where the previous year's crop residue has not been incorporated into the soil.
- [Plant wheat no sooner than 7 days after **Frigate 51% WDG** Herbicide application in the states of DE, ID, KY, MD, MN, MT, NC, ND, NJ, OR, PA, SC, SD, TN, VA, WA or WI]
- [Plant wheat no sooner than 14 days after **Frigate 51% WDG** Herbicide application in the states of DE, ID, KY, MD, MN, MT, NC, ND, NJ, OR, PA, SC, SD, TN, VA, WA or WI]
- [DO NOT use on Durum wheat.]
- **DO NOT** irrigate between emergence and spike.
- Wheat must be planted a minimum of 1" deep.
- **DO NOT** graze until wheat has reached 5 inches in height.

#### Burndown Use Directions

[All States] [All States Except California]

**Frigate 51% WDG** Herbicide, applied as part of a burndown program, at 2 oz/A, may be used for residual weed control, as well as to assist in postemergence burndown of many weeds where wheat will be planted directly into the residue of the previous crop. See Directions for Use in Fall Burndown Programs in Fields to be Planted to Barley, Field Peas, Flax, Lentil, Safflower, Sunflower and Spring Wheat for rates and timing of applications. For control of emerged weeds, **Frigate 51% WDG** Herbicide must be applied with an appropriate burndown tank mix partner. To ensure thorough coverage, use a minimum of 15 gallons of spray solution per acre. Refer to tank mix partner's label for application pressure and adjuvant systems.

### POST-PLANT. PRE-EMERGENCE WEED CONTROL

[For use in the states of DE, ID, KY, MD, MN, MT, NC, ND, NJ, OR, PA, SC, SD, TN, VA, WA and WI Only]

#### RESTRICTIONS

- For post-plant, pre-emergence weed control, use only on no-till or minimum tillage fields where the previous crop residue has not been incorporated into the soil.
- Apply **Frigate 51% WDG** Herbicide up to 2 days after planting.
- [DO NOT use on Durum wheat.]
- **DO NOT** irrigate between emergence and spike.
- Wheat must be planted a minimum of 1" deep.
- **DO NOT** graze until wheat has reached 5 inches in height.

#### Use Directions

**Frigate 51% WDG** Herbicide, applied at 2 oz/A, may be used for residual weed control, where wheat has been planted directly into the residue of the previous year. Application must be made no later than 2 days after planting.

### HARVEST AID

[All States] [All States Except California]

#### RESTRICTIONS

- **DO NOT** harvest within 10 days of application.

**Use Directions**

**Frigate 51% WDG** Herbicide applied at 2 oz/A for desiccation requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 1 qt/A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lb/A or a 28 to 32% nitrogen solution at 1 to 2 qt/A) may be added to the spray mixture along with methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for methylated seed oil. Tank mixing **Frigate 51% WDG** Herbicide with glyphosate will increase control of emerged weeds and aid in harvest.

To ensure thorough coverage, use a minimum of 10 gallons spray solution per acre by ground application and a minimum of 5 gallons per acre by aerial application. Select nozzle based on manufacturer's gallonage and pressure guidelines for postemergence application.

**TIMING TO WHEAT**

Apply **Frigate 51% WDG**, at 1.5 to 2 oz/A, after wheat reaches the hard dough stage and grain has no more than 30% moisture. Wheat can be harvested 10 days after application. Tank mix with glyphosate to enhance desiccation.

## DIRECTIONS FOR USE IN BUSHBERRY, CANEBERRY, CITRUS FRUIT, GRAPE, OLIVE, POME FRUIT, POMEGRANATE, STONE FRUIT, TREE NUTS AND NON-BEARING FRUIT TREES

Bushberry (Subgroup 13-07B): Aronia Berry; Blueberry, Highbush; Blueberry, Lowbush; Buffalo Currant; Chilean Guava; Cranberry, Highbush; Currant, Black; Currant, Red; Elderberry, European Barberry, Gooseberry, Honeysuckle, edible; Huckleberry; Jostaberry; Juneberry (Saskatoon Berry); Lingonberry; Native Currant; Salal; Sea Buckthorn; cultivars, varieties, and/or hybrids of these.

Caneberry (Subgroup 13-07A): Blackberry, Loganberry, Black Raspberry, Red Raspberry, Wild Raspberry cultivars, varieties and/or hybrids of these.

Citrus Fruit (Crop Group 10-10): Australian Desert Lime; Australian Finger-lime; Australian Round Lime; Brown River Finger Lime; Calamondin; Citron; Citrus hybrids; Grapefruit; Japanese Summer Grapefruit; Kumquat; Lemon; Lime; Mediterranean Mandarin; Mount White Lime; New Guinea Wild Lime; Orange, Sour; Orange, Sweet; Pummelo; Russell River Lime; Satsuma Mandarin; Sweet Lime; Tachibana Orange; Tahiti Lime; Tangelo; Tangerine (mandarin); Tangor; Trifoliate Orange; Uniq Fruit; cultivars, varieties and/or hybrids of these.

Tree Nut (Crop Group 14-12): African Nut-tree; Almond, Beechnut; Brazil Nut; Brazilian Pine; Bunya; Bur Oak; Butternut; Cajou Nut; Candlenut; Cashew; Chestnut; Chinquapin; Coconut; Coquito Nut; Dika Nut; Ginkgo; Guiana Chestnut; Hazelnut (Filbert); Heartnut; Hickory Nut; Japanese Horse-chestnut; Macadamia Nut; Mongongo Nut; Monkey-pot; Monkey Puzzle Nut; Okari Nut; Pachira Nut; Peach Palm Nut; Pecan; Pequi; Pili Nut; Pine Nut; Pistachio; Sapucaia Nut; Tropical Almond; Walnut, Black; Walnut, English; Yellowhorn, cultivars, varieties and/or hybrids of these.

Pome Fruit (Crop Group 11-10): Apple; Azarole; Crabapple; Loquat; Mayhaw; Medlar; Pear; Pear, Asian; Quince; Quince, Chinese; Quince, Japanese; Tejocote; cultivars, varieties and/or hybrids of these.

Stone Fruit (Crop Group 12-12): Apricot; Apricot, Japanese; Capulin; Cherry, Black; Cherry, Nanking; Cherry, Sweet; Cherry, Tart; Jujube, Chinese; Nectarine; Peach; Plum; Plum, American; Plum, Beach; Plum, Canada; Plum, Cherry; Plum, Chickasaw; Plum, Damson; Plum, Japanese; Plum, Klamath; Plum, Prune; Plumcot; Sloe and cultivars, varieties and/or hybrids of these.

### PRECAUTIONS

- Follow the most restrictive label limitations and precautions of the tank mix product(s) being used.
- Use a maximum **Frigate 51% WDG** Herbicide rate of 6 oz/A per application on any soil that has a sand plus gravel content over 80% if bushes, trees or vines are less than 3 years of age. (Two applications of 6 oz/A in a 12 month period can still be made as long as there have been 60 days between applications).
- Raise mower height during all mowing to reduce dust that may drift onto desirable vegetation resulting in injury.
- Avoid direct or indirect spray contact to foliage and green bark or canes (non-barked trunk and non-barked vines with the exception of undesirable suckers).
- Irrigate after application with minimum of 1/4 inch of water to activate the herbicide and to reduce wind displacement of soil.

### PRECAUTIONS FOR BUSHBERRY

- If bushberries are established less than 2 years ensure that they are protected from spray contact by non-porous wrap, grow tubes or waxed containers.

### PRECAUTIONS FOR GRAPES

- If grapes are established less than 2 years ensure that they are trellised at least 3 ft from the soil surface or are protected from spray contact by non-porous wrap, grow tubes or waxed containers.
- Apply only to grapes that are trellised, staked or are free standing.
- Avoid direct or indirect spray contact to foliage and green bark (non-barked vines, with the exception of undesirable suckers).
- Plant new plantings of "own-rooted varieties", for example Concord, so that all roots are a minimum 8 inches below the soil surface to be treated. In some situations, this may require hilling soil around newly planted vines so that the settled depth of the hill will be 4 to 5 inches above the vineyard floor.

### Juice, Raisin and Wine Grapes

- If applied during the period after bud break through final harvest, use shielded application equipment and applicator can ensure spray drift will not come in contact with crop fruit or foliage.



**Table Grapes**

- Apply **Frigate 51% WDG** between final harvest up to bud break.

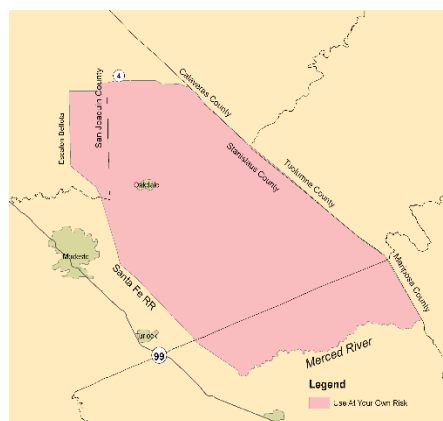
**PRECAUTIONS FOR CITRUS FRUIT, OLIVE, POME FRUIT, POMEGRANATE STONE FRUIT AND TREE NUTS**

- For pome fruit and stone fruit, **Frigate 51% WDG** Herbicide can only be applied as a uniform band directed at the base of the trunk prior to pink bud in apples and bud break in stone fruit.
- For pome fruit and stone fruit make applications only to berms.
- For olive, pomegranate and tree nuts apply after bud break through final harvest using shielded application equipment if the applicator can ensure the spray drift will not come into contact with non-target vegetation, crop fruit and/or foliage. Shielded application equipment is not required if the following application parameters are followed:
  - Application pressure (at boom) < 30 PSI.
  - Application speed < 5 MPH.
  - Applicator can ensure the spray drift will not come into contact with non-target vegetation, crop fruit and/or foliage.
- If application is made to trees established less than one year, ensure that they are protected from spray contact by non-porous wraps, grow tubes, paint or waxed containers.
  - For apples east of the Cascade Mountains in Washington, follow the restrictions above plus:
    - o Apply between final harvest and January 1.
    - o Apply only to apple blocks with an established (2 years or older) permanent cover crop that covers a minimum of 60% of the surface area in the block.
    - o Application must be incorporated with a minimum of one half inch of water within 48 hours after application.
    - o Apply only to orchard berms.
    - o **California only:** See “Precautions on Almond and Stone Fruit in defined areas of Merced, San Joaquin and Stanislaus Counties of California” section of this label

**PRECAUTIONS ON ALMOND AND STONE FRUIT IN DEFINED AREAS OF MERCED, SAN JOAQUIN AND STANISLAUS COUNTIES OF CALIFORNIA**

The use of **Frigate 51% WDG** Herbicide in soils common in parts of Merced, San Joaquin and Stanislaus counties in California is known to have resulted in injury to almonds under drought stress conditions. These soils are characterized by having been cut or filled, high sand content, low clay content and shallow profiles. Growers in the Defined Area must be aware and assume the risk of using **Frigate 51% WDG** Herbicide on almond or stone fruit crops. The Defined Area can be seen on the Map or by the description that follows:

- Intersection of Highway 4 and Escalon-Bellota Road at Farmington in San Joaquin County;
- Directly South on Escalon-Bellota to the Santa Fe Avenue railroad tracks at Escalon
- Southeast on Santa Fe Avenue down to the Merced River;
- East following the Merced River to the Merced/Mariposa County line;
- Northwest following the Merced County line through the intersection of Merced and Stanislaus County line following Stanislaus/Tuolumne County and Calaveras County line to Highway 4;
- West on Highway 4 back to the Farmington intersection of Escalon-Bellota Road.



and

the

**PRECAUTIONS FOR NON-BEARING FRUIT TREES****Non-Bearing Avocado and Fig**

- If trees are established less than one year, ensure that they are protected from spray contact by non-porous wraps, grow tubes or waxed containers.
- If applied after flowering through leaf drop, use shielded application equipment and the applicator can ensure spray drift will not come in contact with the crop foliage.

**RESTRICTIONS**

- **DO NOT** apply more than 12 oz (0.375 lb ai) of **Frigate 51% WDG** Herbicide per acre per application; **except:**
  - **Caneberry, DO NOT apply more than 6 oz (0.188 lb ai) Frigate 51% WDG Herbicide per acre per application.**
- **DO NOT** apply more than 24 oz (0.750 lb ai) of **Frigate 51% WDG** Herbicide per acre per year; **except:**
  - **Bushberry, DO NOT apply more than 12 oz per acre per year (0.375 lb ai/A);**
  - **Caneberry, DO NOT apply more than 6 oz per acre per year (0.188 lb ai/A).**
- Minimum retreatment interval 30 days **except:**
  - **Tree nut**, Minimum retreatment interval 60 days.
- **DO NOT** apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- **DO NOT** apply within 300 yards of non-dormant pome fruit and stone fruit.
- **DO NOT** apply to powdery soils or soils that are susceptible to wind displacement unless irrigation can be applied immediately after application.
- **DO NOT** mow treated areas between bud break and final harvest. Dust created by mowing may drift onto desirable vegetation resulting in injury.
- **DO NOT** apply to tree nuts established less than one year, unless protected from spray contact by non-porous wraps, grow tubes, or waxed containers.
- For non-bearing fruit trees (avocado and fig), **DO NOT** harvest fruit from treated trees within one year of application.
- Preharvest Interval (PHI)
  - Citrus Fruit: 3 days
  - Bushberry: 7 days
  - Caneberry: 7 days
  - Grape: 60 days
  - Tree Nuts: 60 days
  - Olive: 60 days
  - Pome Fruit: 60 days
  - Pomegranate: 60 days
  - Stone Fruit: 60 Days

**DIRECTION FOR USE FOR BUSHBERRY, CANEBERRY, CITRUS FRUIT, GRAPE, OLIVE, POMEGRANATE, TREE NUTS AND NON-BEARING FRUIT TREES**

For bushberries, caneberries, citrus fruit, grape, olive, pomegranate, tree nuts and non-bearing fruit trees, apply **Frigate 51% WDG** Herbicide as a uniform broadcast application to the orchard or vineyard floor or as a uniform band application directed at the base of the bush, cane, trunk or vine. For stone fruit and pear, **Frigate 51% WDG** Herbicide can only be applied as a uniform band directed at the base of the trunk prior to "bud break". For apple, **Frigate 51% WDG** Herbicide can only be applied as a uniform band directed at the base of the trunk prior to "pink bud". For other pome fruit, check with Yifan personnel for application timing. The preferred application timing for **Frigate 51% WDG** Herbicide is in the fall to maximize the potential for rainfall to activate and set the herbicide. **DO NOT** apply over the top of crop or allow spray to come in contact with crop as a result of application or drift.

**Preemergence Application**

Apply 6 to 12 oz (0.188 to 0.375 lb ai) (maximum 6 oz/A (0.188 lb ai/A) for caneberries) of **Frigate 51% WDG** Herbicide per broadcast acre as a preemergence application. Make preemergence (to weed emergence) applications of **Frigate 51% WDG** Herbicide to a weed-free soil surface. Preemergence applications of **Frigate 51% WDG** Herbicide must be completed prior to weed emergence. Moisture is necessary to activate **Frigate 51% WDG** Herbicide on soil for residual weed control. Dry weather following application of **Frigate 51% WDG** Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, **Frigate 51% WDG** Herbicide will control susceptible germinating weeds.

**Postemergence Application**

If weeds are emerged at the time of application, apply 6 to 12 oz (0.188 to 0.375 lb ai) (maximum 6 oz/A (0.188 lb ai/A) for caneberries) of **Frigate 51% WDG** Herbicide per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant or 1 qt/A crop oil concentrate). The addition of an adjuvant enhances **Frigate 51% WDG** Herbicide activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of **Frigate 51% WDG** Herbicide.

**Frigate 51% WDG** Herbicide will not control emerged weeds without the addition of a labeled burndown product.

Refer to Table 10, Weeds Controlled by Preemergence Application of **Frigate 51% WDG** Herbicide for weeds controlled by the residual activity of **Frigate 51% WDG** Herbicide. Tank mix **Frigate 51% WDG** Herbicide with a labeled burndown herbicide for control of the emerged weeds listed in Table 13, Weeds Controlled by Postemergence Activity of **Frigate 51% WDG** Herbicide Tank Mixes. Refer to tank mix partner's label for additional weed species and increased weed heights claimed. Refer to tank mix partner's label for additional restrictions, including minimum carrier volume and crops in which tank mix partner may be used. Tank mixes with glyphosate or 2,4-D containing products are not advised during the period after bloom through final harvest to ensure crop safety from drift.

Residual weed control will be reduced if vegetation prevents the **Frigate 51% WDG** Herbicide from reaching the soil surface. If vegetation is heavy, use a burndown herbicide with **Frigate 51% WDG** Herbicide and make a sequential **Frigate 51% WDG** Herbicide application prior to the emergence of new weeds.

**Carrier Volume and Spray Pressure**

To ensure thorough coverage in burndown applications, use a minimum of 15 gallons of spray solution per acre. Use higher gallonage if dense vegetation or heavy crop residue is present.

Nozzle selection must meet manufacturer's gallonage and pressure guidelines.

**Banded Application**

Rates listed in Table 13, *Weeds Controlled by Postemergence Activity of Frigate 51% WDG Herbicide Tank Mixes*, refer to a broadcast application covering the entire acre. Refer to the Band Application table in Use Information section to calculate amount needed per acre when making a banded application.

Table 13. Weeds Controlled by Postemergence Activity of *Frigate 51% WDG* Herbicide Tank mixes

BROADLEAF WEED SPECIES			
COMMON NAME	SCIENTIFIC NAME	WEED HEIGHT/LENGTH (inches)	FRIGATE 51% WDG HERBICIDE RATE
Bindweed, Field <sup>1</sup>	<i>Convolvulus arvensis</i>	8	6 to 12 oz/A (0.188 to 0.375 lb ai/A)
Carpetweed	<i>Mollugo verticillata</i>	4	
Chickweeds			
Common	<i>Stellaria media</i>	4	
Mouseear	<i>Cerastium vulgatum</i>	4	
Cocklebur, Common	<i>Xanthium strumarium</i>	4	
Evening-primrose, Cutleaf <sup>2</sup>	<i>Oenothera laciniata</i>	12	
Filaree			
Broadleaf	<i>Erodium botrys</i>	4	
Redstem	<i>Erodium cicutarium</i>	4	
Florida Beggarweed	<i>Desmodium tortuosum</i>	2	
Hemp Sesbania	<i>Sesbania exaltata</i>	8	
Jimsonweed	<i>Datura stramonium</i>	4	
Lambsquarters, Common	<i>Chenopodium album</i>	4	
Morningglories			
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integruscula</i>	4	
Ivyleaf	<i>Ipomoea hederacea</i>	4	
Pitted	<i>Ipomoea lacunosa</i>	6	
Red/Scarlet	<i>Ipomoea coccinea</i>	4	
Tall	<i>Ipomoea purpurea</i>	4	
Mustard, Wild	<i>Brassica kaber</i>	6	
Pigweeds			
Palmer Amaranth	<i>Amaranthus palmeri</i>	6	
Redroot	<i>Amaranthus retroflexus</i>	6	
Smooth	<i>Amaranthus hybridus</i>	6	
Plantain, Broadleaf	<i>Plantago major</i>	6	
Prickly Sida (Teaweed)	<i>Sida spinosa</i>	6	
Purslanes			
Common	<i>Portulaca oleracea</i>	4	
Rock	<i>Calandrinia</i> spp.	2	
Ragweeds			
Common	<i>Ambrosia artemisiifolia</i>	2	
Giant	<i>Ambrosia trifida</i>	4	
Rice Flatsedge	<i>Cyperus iria</i>	4	
Sicklepod	<i>Senna obtusifolia</i>	4	
Smartweeds			
Ladysthumb	<i>Polygonum persicaria</i>	4	
Pale	<i>Polygonum lapathifolium</i>	4	
Pennsylvania	<i>Polygonum pennsylvanicum</i>	4	
Spotted Spurge	<i>Euphorbia maculata</i>	4	
Velvetleaf	<i>Abutilon theophrasti</i>	4	
Venice Mallow	<i>Hibiscus trionum</i>	4	
Waterhemp			
Common	<i>Amaranthus rudis</i>	2	
Tall	<i>Amaranthus tuberculatus</i>	2	

<sup>1</sup> *Frigate 51% WDG* Herbicide will only provide control of the above ground portion of bindweed. Repeated applications will be needed to control regrowth. <sup>2</sup> For acceptable control, Cutleaf Evening-primrose must be 12 inches or less and in the rosette stage. Add crop oil concentrate, at 1 pt/A, or non-ionic surfactant at 0.25% v/v, to glyphosate tank mixes for Cutleaf Evening-primrose control, including glyphosate formulations that contain a built-in adjuvant system.

**ADDITIONAL RESIDUAL WEED CONTROL**

**Frigate 51% WDG** Herbicide maybe tank mixed with oryzalin (Surflan®), simazine or diuron for additional residual weedcontrol. Always read and follow label use directions for all products being used.

**DIRECTIONS FOR FALLOWBED USE ON TRANSPLANTED MELON, PEPPER AND TOMATO BEDS  
[For Use in Arizona, California and Hawaii Only]**

**RESTRICTIONS**

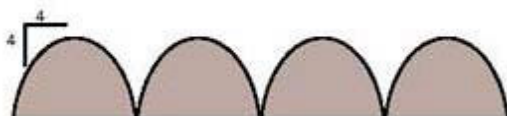
- **DO NOT** apply more than 4 oz (0.125 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** make more than 2 applications of **Frigate 51% WDG** Herbicide per acre per year.
- Minimum retreatment interval 14 days.
- **DO NOT** apply more than 8 oz (0.250 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.

Many weather-related factors, including high wind or heavy rains or cool conditions at or near crop transplanting, may result in crop injury in fields treated with **Frigate 51% WDG** Herbicide. On occasion this has resulted in a delay in maturity. Understand and accept these risks before using **Frigate 51% WDG** Herbicide.

<b>FRIGATE 51% WDG HERBICIDE RATES</b>	<b>ADJUVANT</b>	<b>GPA</b>	<b>TRANSPLANTING INTERVAL</b>
4 oz/A (0.125 lb ai/A)	Required by burndown tank mix partner	Ground – 20 to 40	2 Months
<b>Application Method:</b> Apply with a burndown herbicide labeled for the control of emerged weeds. <b>Frigate 51% WDG</b> Herbicide, when used alone, will not provide satisfactory control of emerged weeds.			

**Use Directions for Preemergence Fallowbed Weed Control Prior To Transplanting**

1. Always read and follow all label directions when using any pesticide alone or in tank mix combinations.
2. The top 4 inches of the bed, from a horizontal and vertical perspective, where the crop will be transplanted, must be removed prior to transplanting.
3. Irrigate treated field after application and prior to transplanting with minimum of 1/4 inch of water if rainfall does not occur between application and transplanting.
4. Use only healthy transplants. **DO NOT** use on direct seeded crops.
5. [On flat beds (tomato only), the soil must be incorporated to a depth of at least 4 inches, twice, prior to transplanting. Failure to incorporate may result in stand reduction and/or crop injury.]
6. This use pattern makes no claim for in-season weed control after the beds have been disturbed.



Beds are formed and **Frigate 51% WDG** Herbicide is applied with a burndown herbicide.



A minimum of 2 months after **Frigate 51% WDG** Herbicide application, the tops of the bides are removed and the soil from the tops of the beds is placed in the area between the beds.



Crops are transplanted into beds.

## DIRECTIONS FOR USE TO MAINTAIN BARE GROUND ON NON-CROP AREAS OF FARMS, ORCHARDS AND VINEYARDS

### RESTRICTIONS

- **DO NOT** apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- **DO NOT** apply to ditch banks.
- **DO NOT** apply more than 12 oz (0.375 lb ai) of **Frigate 51% WDG** Herbicide per acre per application.
- **DO NOT** apply more than 24 oz (0.750 lb ai) of **Frigate 51% WDG** Herbicide per acre per year.
- **DO NOT** make more than 6 applications per year.
- Minimum retreatment interval 30 days.

**Frigate 51% WDG**, when used as directed, can be used on farms, orchards and vineyards for non-selective vegetation control to maintain bare ground on non-crop areas that must be kept weed free. Follow all applicable directions as outlined above under "USE INFORMATION".

**Frigate 51% WDG** offers residual and postemergence control of susceptible broadleaf and grass weeds as well as an additional mode of action to assist in the control of ALS (acetolactate synthase) resistant weeds. **Frigate 51% WDG** can be tank mixed with the herbicides listed in Table 14 for increased residual or postemergence control. The length of residual control is dependent on the rate applied as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase. **Frigate 51% WDG** rates of 6 to 12 oz/A (0.188 to 0.375 lb ai/A) are required to provide residual control of the weeds listed in Table 10.

### PREEMERGENCE APPLICATION

Apply 6 to 12 oz (0.188 to 0.375 lb ai/A) of **Frigate 51% WDG** per broadcast acre as a preemergence application. Make preemergence (to weed emergence) applications of **Frigate 51% WDG** to a weed-free soil surface. Preemergence applications of **Frigate 51% WDG** must be completed prior to weed emergence. Moisture is necessary to activate **Frigate 51% WDG** on soil for residual weed control. Dry weather following application of **Frigate 51% WDG** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **Frigate 51% WDG** will control susceptible germinating weeds.

### POSTEMERGENCE APPLICATION

Apply 6 to 12 oz (0.188 to 0.375 lb ai/A) of **Frigate 51% WDG** per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant or 1 qt/A crop oil concentrate). The addition of an adjuvant enhances **Frigate 51% WDG** activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of **Frigate 51% WDG**. Emerged weeds are controlled postemergence with **Frigate 51% WDG**, however, translocation of **Frigate 51% WDG** within a weed is limited, and control is affected by spray coverage and by the addition of an adjuvant. The most effective postemergence weed control with **Frigate 51% WDG** occurs when applied in combination with a surfactant to weeds less than 2 inches in height. Use a tank mix partner in combination with **Frigate 51% WDG** for the postemergence control of weeds larger than 2 inches. Specified tank mix partners are listed in Table 14.

**IMPORTANT:** Completely read and follow the label of any potential tank mix partner with **Frigate 51% WDG**. When using tank mixtures, use conditions must be in accordance with the most restrictive of the label limitations and precautions on either herbicide label.

**Table 14. Tank Mix Combinations to Maintain Bare Ground on Non-Crop Areas**

glyphosate	2,4-D	Rely	paraquat
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## STORAGE AND DISPOSAL

**DO NOT** contaminate water, food or feed by storage or disposal.

### PESTICIDE STORAGE:

Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If the container is leaking or material spilled for any reason or cause, carefully sweep material into a pile. Refer to PRECAUTIONARY STATEMENTS on label for hazards associated with the handling of this material. **DO NOT** walk through spilled material. Dispose of pesticide as directed below. In spill or leak incidents, keep unauthorized people away.

### PESTICIDE DISPOSAL:

Wastes resulting from the use of **Frigate 51% WDG** may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### CONTAINER HANDLING:

**Non-refillable container. Rigid, Non-refillable containers small enough to shake (i.e., with capacities equal to or less than 5 gallons). DO NOT reuse or refill this container.** Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix-tank. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix-tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix-tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix-tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once container is rinsed, offer for recycling if available, or puncture and dispose of in a sanitary landfill.

**Non-refillable containers. Rigid Non-refillable containers that are too large to shake (i.e., with capacities greater than 5 gallons or 50 lbs). DO NOT reuse or refill this container.** After emptying product from container, rinse and either recycle or dispose of the container as follows: Bottom Discharge IBC (e.g. Schuetz Caged IBC or Snyder Square Stackable).

Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. To pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix-tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal.

Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

Top Discharge IBC, Drums, Kegs (e.g. Snyder 120 Next Gen, Bonar B120, Drums, and Kegs). Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. To triple rinse the container before final disposal, empty the remaining contents from this container into application equipment or rinsate collection system. Fill the container at least 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times.

Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill.

[Batch Code will be placed on the container.]

### Warranty and Disclaimer Statement

Read the entire DIRECTIONS FOR USE and Warranty and Disclaimer Statement before buying or using **Frigate 51% WDG**. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The DIRECTIONS FOR USE of **Frigate 51% WDG** must be followed carefully. It is impossible to eliminate all risks associated with the use of **Frigate 51% WDG** including risks that may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors. Such risks are all beyond the control of Yifan Biotechnology Group Co., Ltd. ("YIFAN") and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. All such risks shall be assumed by the user or buyer and to the extent permitted by applicable law, the user or buyer agree to hold YIFAN harmless for any claims relating to such risks.

YIFAN warrants that **Frigate 51% WDG** conforms to the chemical description on the label and is reasonably fit for the purposes stated in the DIRECTIONS FOR USE, subject to the inherent risks described above, when used in accordance with the DIRECTIONS FOR USE under normal conditions. To the extent permitted by applicable law, this warranty does not extend to the use of **Frigate 51% WDG** contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of YIFAN, and the user or buyer assume the risk of any such use.

**To the extent permitted by applicable law, YIFAN disclaims all other warranties, expressed or implied, including any warranty of merchantability or fitness for a particular purpose. To the extent permitted by applicable law, YIFAN, manufacturer, and seller disclaim and shall not be liable for any special, incidental, indirect, or consequential damages (including claims based on breach of warranty, contract, negligence, tort, strict liability or otherwise) resulting from the use, handling, application, storage, or disposal of Frigate 51% WDG or for damages in the nature of penalties, and the user and buyer waive any right that they may have to such damages. No agent, representative or employee of YIFAN is authorized to make any warranty, guarantee or representation beyond those contained herein or to modify the warranties contained herein.**

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE TOTAL LIABILITY OF YIFAN, MANUFACTURER, AND SELLER, SHALL BE LIMITED TO THE PURCHASE PRICE PAID, OR AT YIFAN'S ELECTION, THE REPLACEMENT OF THE PRODUCT.**

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**FLUMIOXAZIN GROUP 14 HERBICIDE**

[Pages 71-149: Non-Crop Use]

**FRIGATE 51% WDG Herbicide**

[Pages 71-100: Non-Crop Master Label]

**FRIGATE 51% WDG Herbicide**

**HERBICIDE FOR USE IN CONTAINER AND FIELD GROWN CONIFERS (INCLUDING CHRISTMAS TREES) AND DECIDUOUS TREES, AROUND ESTABLISHED WOOD ORNAMENTALS IN LANDSCAPES, TO MAINTAIN BARE GROUND NON CROP AREAS, CONIFER AND POPLAR RE-FORESTATION SITES, AND DORMANT TURFGRASS**

**FOR THE MANAGEMENT OF UNDESIRABLE AQUATIC VEGETATION IN SLOW MOVING OR QUIESCENT WATERS**

**FOR USE TO MAINTAIN BARE GROUND NON-CROP AREAS**

**Active Ingredient:****By Wt.**

Flumioxazin\* ..... 51%

**Other Ingredients** ..... 49%**Total** ..... **100%**

\*2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1 H-isoindole- 1,3(2H)-dione

**KEEP OUT OF REACH OF CHILDREN  
CAUTION/PRECAUCION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)

<b>FIRST AID</b>	
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• <b>DO NOT</b> induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• <b>DO NOT</b> give anything by mouth to an unconscious person.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
In the event of a leak, fire or medical emergency involving a human or animal please call INFOTRAC at 1-800-535-5053 or Outside the USA and Canada at 1-352-323-3500, 24/7/365.	

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS & DOMESTIC**  
**ANIMALS CAUTION**

Harmful if absorbed through the skin or inhaled. Avoid contact with skin, eyes, or clothing. Causes moderate eye irritation. Avoid breathing dust and spray mist. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some of the materials that are chemical-resistant to **Frigate 51% WDG** are listed below.

**Applicators and other handlers must wear:**

- long-sleeved shirt and long pants
- chemical-resistant gloves made of any waterproof material including polyethylene or polyvinyl chloride
- shoes and socks

**User Safety Requirements**

Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS**

**Users should:**

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling **Frigate 51% WDG**. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

**Frigate 51% WDG** is toxic to non-target plants and aquatic invertebrates. **DO NOT** apply to water except as specified on the label, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift or runoff may be hazardous to non-target plants and aquatic organisms in neighboring areas, if not used in accordance to the label directions. **DO NOT** apply where runoff is likely to occur. **DO NOT** apply when weather conditions favor drift from treated areas. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

This pesticide is toxic to plants and must be used strictly in accordance with the drift and run-off precautions on this label in order to minimize off-site exposures.

Under some conditions **Frigate 51% WDG** may have a potential to run-off to surface water or adjacent land.

NON-TARGET ORGANISM ADVISORY: **Frigate 51% WDG** is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

Where possible, use methods which reduce soil erosion, for example no till, limited till and contour plowing; these methods also reduce pesticide run-off. Use vegetation filter strips along rivers, creeks, streams, wetlands, or on the downhill side of fields, where run-off could occur to minimize water run-off.

*[Note to EPA reviewer: If **Frigate 51% WDG** is shipped in containers greater than 50 lbs., the following environmental hazard statement will be added to the label:*

**DO NOT** discharge effluent containing **Frigate 51% WDG** into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. **DO NOT** discharge effluent containing **Frigate 51% WDG** to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.]

**PHYSICAL OR CHEMICAL HAZARDS**

**DO NOT** mix or allow coming in contact with oxidizing agent. Hazardous chemical reaction may occur.

## DIRECTIONS FOR USE

It is a violation of Federal Law to use **Frigate 51% WDG** in a manner inconsistent with its labeling.

### READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

**DO NOT** apply **Frigate 51% WDG** in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use **Frigate 51% WDG** only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of **Frigate 51% WDG** that are covered by the Worker Protection Standard.

**DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

The following PPE is required for early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, including plants, soil, or water:

- Coveralls
- chemical-resistant gloves made of any waterproof material including polyethylene or polyvinyl chloride
- Shoes plus socks

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of **Frigate 51% WDG** that are NOT within the scope of the Worker Protection Standards for agricultural pesticides (40 CFR Part 170). The WPS applies when **Frigate 51% WDG** is used to produce agricultural plants on farms, forest, nurseries, or greenhouses.

Keep all unprotected persons out of operating areas, or vicinity where there may be drift.

**DO NOT** enter or allow others to enter treated areas until sprays have dried.

## RESISTANCE MANAGEMENT

**Frigate 51% WDG** is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to **Frigate 51% WDG** and other Group 14 herbicides. Weed species with acquired resistance to Group 14 herbicides can eventually dominate the weed population if Group 14 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by **Frigate 51% WDG** or other Group 14 herbicides. To delay development of herbicide resistance, follow appropriate resistance-management strategies.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of **Frigate 51% WDG** Herbicide or other Group 14 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method including hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with **Frigate 51% WDG**, discontinue use of **Frigate 51% WDG**, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management directions for specific crops and weed biotypes or to find out if suspected resistant weeds have been found in their region.
- For further information or to report lack of performance or suspected resistance, contact Yifan Bio-tech Group Co. at +86-677-86637855 86630101 or at [www.yifanchem.com](http://www.yifanchem.com).

### TANK MIXES NOTICE

Tank mixing and/or use of **Frigate 51% WDG** with another product that is not specifically and expressly authorized by the label shall be at the exclusive risk of user, applicator, and/or application advisor to the extent allowed by applicable law.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

### PRODUCT USE INFORMATION

**Frigate 51% WDG** is a pre-emergence and early post-emergence herbicide for control of selected grass and broadleaf weeds in and around ornamental woody shrubs, deciduous trees and conifers (including Christmas trees) grown outdoors in containers or in the field (in ground), to maintain bare ground non-crop areas, conifer and poplar re-forestation, and dormant warm season turfgrass.

**Frigate 51% WDG** is a selective herbicide to maintain bare ground non-crop areas when used in accordance with this label. **Frigate 51% WDG** is effective as a pre-emergence and/or post-emergence herbicide for control of selected grass and broadleaf weeds.

**Frigate 51% WDG** controls weeds by inhibiting protoporphyrinogen oxidase, an essential enzyme required by plants for chlorophyll biosynthesis. Seedling weeds are controlled pre-emergence when exposed to sunlight following contact with the soil applied herbicide.

**Frigate 51% WDG** may cause spotting or speckling on foliage if the spray solution directly contacts actively growing plant foliage or green bark. Leaves that receive indirect (drift) spray contact may be affected in a similar manner. Translocation of **Frigate 51% WDG** is limited, and under most conditions established and vigorously growing woody ornamentals will rapidly outgrow any injury symptoms. **However, direct application to actively growing foliage can cause severe injury or death with sensitive ornamental plant species, especially in herbaceous bedding plants and flowers.**

**IMPORTANT:** When applied as directed, plants listed on this label have shown tolerance to **Frigate 51% WDG**. However, **Frigate 51% WDG** is a very active herbicide and the user must exercise responsible judgment and caution until familiarity is gained with **Frigate 51% WDG**. Due to variability within species, crop growth stage, environmental conditions and application techniques, test **Frigate 51% WDG** under local growing conditions on a small number of plants and evaluate for 4 - 6 weeks for phytotoxicity. Testing **Frigate 51% WDG** on a small number of plants will determine if the herbicide can be used safely on a widespread application. Neither the seller nor the manufacturer of **Frigate 51% WDG** has investigated the safety to plants not listed on the label.

### PRODUCT INFORMATION

**Frigate 51% WDG** is a fast acting contact herbicide that controls selected submersed, emergent, and floating aquatic weeds. It is most effective when applied to young, actively growing weeds in water with a pH of less than 8.5.

**Frigate 51% WDG** may be applied to the following quiescent or slow moving bodies of water:

- Bayous
- Canals
- Drainage ditches
- Lakes
- Marshes
- Ponds (including golf course ponds)
- Reservoirs

Application of **Frigate 51% WDG** to public aquatic areas may require special approval and/or permits. Consult with local State agencies, if required.

### RESTRICTIONS - FOR TERRESTRIAL USES

- **DO NOT** apply **Frigate 51% WDG** in enclosed greenhouse structures if plants are present.
- **DO NOT** move plants for 24 hours into enclosed greenhouses until the area treated with **Frigate 51% WDG** has been watered.
- **DO NOT** apply **Frigate 51% WDG** when weather conditions favor spray drift from treated areas.
- **DO NOT** graze **Frigate 51% WDG** treated fields or hay to livestock.
- **DO NOT** incorporate into soil after application of **Frigate 51% WDG**.
- **DO NOT** apply **Frigate 51% WDG** through any type of irrigation system.
- **DO NOT** apply **Frigate 51% WDG** when plants are under stress from insects, diseases, animals or winter injury, planting shock or any other stresses.
- **DO NOT** apply **Frigate 51% WDG** to stressed or diseased trees and ornamentals - only apply to healthy established trees and ornamentals.
- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) of **Frigate 51% WDG** per acre per application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) of **Frigate 51% WDG** per acre per year.
- **DO NOT** apply more than 2 applications of **Frigate 51% WDG** at 12 oz. (0.383 lb. a.i.) or 3 applications of **Frigate 51% WDG** at 8 oz. (0.255 lb. a.i.) per acre per year.
- **DO NOT** re-apply **Frigate 51% WDG** within 30 days.
- Not for homeowner use.

### PRECAUTIONS - FOR SURFACE & SUBSURFACE WATER TREATMENT

- There is no post-application holding restriction against use of treated water for drinking or recreational purposes (e.g., swimming, fishing).
- Treated water may be used for irrigation purposes on turf and landscape ornamentals as outlined in the Irrigation Restrictions Following Application table.

**RESTRICTIONS - FOR SURFACE & SUBSURFACE WATER TREATMENT**

- **DO NOT** apply **Frigate 51% WDG** to intertidal or estuarine areas.
- **DO NOT** retreat the same section of water with **Frigate 51% WDG** within 28 days of prior application. In areas with dense weed vegetation only treat ½ the water body at one time and wait 10 - 14 days before treating the remaining area with **Frigate 51% WDG**
- **DO NOT** use water treated with **Frigate 51% WDG** for irrigation purposes on food crops until at least five (5) days after application.
- **DO NOT** use **Frigate 51% WDG** in water utilized for crawfish farming.
- **DO NOT** retreat the same section of water with **Frigate 51% WDG** more than 6 times per year.
- **DO NOT** exceed 400 ppb of **Frigate 51% WDG** during any one application.

**PRECAUTIONS - FOR IVM**

- Treatment of powdery, dry soil or light sandy soil when there is little to no likelihood of rainfall soon after may result in off target movement and possible damage to actively growing susceptible crops when soil particles are moved by wind or water. **DO NOT** apply when these soil and environmental conditions are present.
- **DO NOT** use spray equipment that had been used to apply **Frigate 51% WDG** to make applications with other products to any desirable plant foliage, as equipment with product residue remaining may result in crop injury to subsequently treated crops or plants.

**RESTRICTIONS - FOR IVM**

- **DO NOT** apply **Frigate 51% WDG** when weather conditions favor spray drift from treated areas.
- **DO NOT** incorporate **Frigate 51% WDG** into soil after application.
- **DO NOT** apply **Frigate 51% WDG** through any type of irrigation system.
- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) of **Frigate 51% WDG** per acre per application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) of **Frigate 51% WDG** per acre per year.
- **DO NOT** apply more than 2 applications of **Frigate 51% WDG** per year.
- **DO NOT** re-apply **Frigate 51% WDG** within 28 days.
- **DO NOT** apply **Frigate 51% WDG** to moist or wet desirable plant foliage.
- **DO NOT** apply **Frigate 51% WDG** within 300 feet of non-dormant pome or stone fruit crops.
- **DO NOT** apply **Frigate 51% WDG** when the crop or weeds are under stress due to drought, excessive water and extremes in temperatures or disease.

**PRE-EMERGENCE APPLICATION**

Pre-emergence weed control with **Frigate 51% WDG** is most effective when applied to clean, weed free soil surfaces prior to weed emergence. Moisture is necessary to activate **Frigate 51% WDG** on soil for residual weed control. Dry weather following application of **Frigate 51% WDG** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **Frigate 51% WDG** will control susceptible germinating weeds.

When adequate moisture is not received soon after **Frigate 51% WDG** is applied to soil, weed control may be improved by utilizing shallow cultivation. If weeds begin to emerge, irrigate (½" of water) or cultivate uniformly with shallow tillage equipment that will not damage the crop. **DO NOT** deep cultivate as this reduces the effectiveness of **Frigate 51% WDG**.

**POST-EMERGENCE APPLICATION**

The most effective post-emergence weed control with **Frigate 51% WDG** occurs when applied in combination with a surfactant to weeds less than 2 inches in height. Apply **Frigate 51% WDG** only to actively growing weeds. Applying **Frigate 51% WDG** under conditions that **DO NOT** promote active weed growth will reduce herbicide effectiveness. **Frigate 51% WDG** is most effective when applied under sunny conditions at temperatures above 65°F.

**Frigate 51% WDG** is rainfast 1 hour after application. **DO NOT** apply if rain is expected within 1 hour of application or efficacy may be reduced.

**SOIL CHARACTERISTICS**

Application of **Frigate 51% WDG** to soils with high organic matter and/or high clay content may require higher dosages than with soils with low organic matter and/or low clay content. Application to cloddy seedbeds can result in reduced weed control.

**CARRIER VOLUME AND SPRAY PRESSURE****Pre-Emergence Application**

To ensure uniform coverage when using boom sprayers, use 10 - 30 gals. of spray solution per acre. When making backpack applications, apply 50 - 100 gals. of spray solution per acre. Ensure that nozzle selection meets manufacturer's gallonage and pressure specifications for pre-emergence herbicide application.

**Post-Emergence Application**

To ensure thorough coverage when using boom sprayers, apply 15 - 30 gals. of spray solution per acre. Apply 20 - 30 gals. per acre when using a boom sprayer if dense vegetation or heavy residue is present on the soil surface. When applying with a backpack sprayer, apply 1 gal. of spray solution per 500 - 1,000 sq. ft. Ensure nozzle selection meets manufacturer's gallonage and pressure specifications for post-emergence herbicide application.

**CARRIER VOLUME AND SPRAY PRESSURE - FOR IVM****Pre-Emergence Application**

To ensure uniform coverage, use at least 10 gals. of spray solution per acre. Select nozzles that meet manufacturer's gallonage and pressure specifications for pre-emergence herbicide application.

**Post-Emergence Application**

To ensure thorough coverage, use at least 15 gals. of spray solution per acre. Use at least 20 gals. per acre if dense vegetation or heavy residue is present on the soil surface. Select nozzles that meet manufacturer's gallonage and pressure specifications for post-emergence herbicide application.

**ADDITIVES****Post-Emergence Application**

When applying **Frigate 51% WDG** after weeds emerge, mix with an agronomically approved adjuvant. Mix **Frigate 51% WDG** with a crop oil concentrate that contains at least 15% emulsifiers and 80% oil or a non-ionic surfactant containing at least 80% active ingredient when applying this product as part of a post-emergence weed control program. Verify mixing compatibility with a jar test before using. **DO NOT** mix **Frigate 51% WDG** with a surfactant when applying over the top of dormant woody ornamentals or conifer trees.

A spray-grade nitrogen source (either ammonium sulfate at 2.0 - 2.5 lbs./A or a 28 - 32% nitrogen solution at 1 - 2 qts./A) may be added to the spray mixture along with a crop oil concentrate or non-ionic surfactant to enhance weed control. The addition of a nitrogen source does not replace the need for crop oil concentrate or non-ionic surfactant.

**ADDITIVES**

When applying **Frigate 51% WDG** to the foliage of floating or emerged aquatic weeds, mix with an adjuvant approved for use in aquatic sites. Mix **Frigate 51% WDG** with a non-ionic surfactant containing at least 80% active ingredient. Follow adjuvant manufacturer's label rates. Verify mixing compatibility with a jar test before using.

**JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND FRIGATE 51% WDG HERBICIDE**

Perform a jar test before mixing commercial quantities of **Frigate 51% WDG**, when using **Frigate 51% WDG** for the first time, when using new adjuvants, or when a new water source is being used.

1. Add 1 pt. of water to a quart jar. Make sure that the water is from the same source and is the same temperature as the water used in the spray tank mixing operation.
2. Add 3 grams (approximately 1 level tsp.) of **Frigate 51% WDG** for the 8 oz./A rate or 4 grams (approximately 1 ½ tsp.) for 12 oz./A rate to the jar. Gently mix until product disperses.
3. Add 60 mL (4 Tbsp. or 2 fl. oz.) of additive to the quart jar and gently mix.
4. If nitrogen is being used, add 16 mL (1 Tbsp.) of the 28 - 32% nitrogen source to the quart jar. If ammonium sulfate is being used, add 19 grams of AMS to the quart jar in place of the 28 - 32% nitrogen.
5. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
6. An ideal tank mix combination will be uniform and free of suspended particles. If any of the following conditions are observed reconsider the choice of adjuvant:
  - a) Layer of oil or globules on the solution surface.
  - b) Flocculation: Fine particles in suspension or as a layer on the bottom of the jar.
  - c) Clabbering: Thickening texture (coagulated) like gelatin.

**APPLICATION EQUIPMENT**

**IMPORTANT:** Thoroughly clean spray equipment, including all tanks, hoses, booms, screens, and nozzles, after application of **Frigate 51% WDG**. Equipment with **Frigate 51% WDG**'s residue remaining in the system may result in crop injury to subsequently treated crops.

**SPRAYER PREPARATION**

Before applying **Frigate 51% WDG**, clean the spray tank, as well as all hoses and booms to ensure no residue from the previous spraying operation remains in the sprayer. Some pesticides, including but not limited to the sulfonylurea and phenoxy herbicides, are active at very small amounts and can cause crop injury when applied to susceptible crops. Clean spray equipment according to the manufacturer's directions for the last product used before the equipment is used to apply **Frigate 51% WDG**. If 2 or more products were tank mixed prior to **Frigate 51% WDG** application, follow the most restrictive cleanup procedure on the label of all products.

**MIXING INSTRUCTIONS**

1. Fill clean spray tank  $\frac{1}{2}$  -  $\frac{3}{4}$  of desired level with clean water.
2. To ensure a uniform spray mixture, pre-slurry the required amount of **Frigate 51% WDG** with water prior to addition to the spray tank. Use a minimum of 1 gal. of water per 10 oz. of **Frigate 51% WDG**.
3. While agitating, slowly add the pre-slurried mixture to the spray tank. Agitate mixture enough to create a rippling or rolling action on the water surface.
4. If tank mixing **Frigate 51% WDG** with other labeled herbicides, add water soluble bags first, followed by dry formulations, flowables, emulsifiable concentrates and then solutions. Prepare no more spray mixture than is required for the immediate spray operation.
5. Add any required adjuvants.
6. Fill spray tank to desired level with water. Continue agitation until spray solution has been applied.
7. Mix only the amount of spray solution that can be applied the day of mixing. Apply **Frigate 51% WDG** within 12 hours of mixing.

**MIXING INSTRUCTIONS**

1. Mix with water having pH of 5 - 7. If pH is higher than 7, use an appropriate buffer to reduce pH to desirable range.
2. Fill clean spray tank  $\frac{1}{2}$  full of desired level with water and add buffering agent if necessary.
3. Add the required amount of **Frigate 51% WDG** to the spray tank while agitating.
4. Fill spray tank to desired level with water. Ensure that **Frigate 51% WDG** is thoroughly mixed before making applications. Continue agitation until spray solution has been applied.
5. Mix only the amount of spray solution that can be applied the day of mixing. Apply **Frigate 51% WDG** within 12 hours of mixing.

**SPRAYER CLEANUP**

If spray equipment is dedicated to application of aquatic herbicides, be sure to completely drain the spray tank and rinse the application equipment thoroughly, including the inside and outside of the tank and all in-line screens.

If spray equipment will be used for purposes other than applying aquatic herbicides, it must be thoroughly cleaned following application of **Frigate 51% WDG**. Follow these steps to clean the spray equipment:

Except for dedicated bare ground herbicide application equipment, spray equipment must be cleaned each day following **Frigate 51% WDG** application. After **Frigate 51% WDG** is applied, use the following steps to clean the spray equipment:

1. Completely drain the spray tank and rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.
2. Fill the tank with clean water and flush all hoses, booms, screens, and nozzles.
3. Top off tank with clean water and household ammonia. Use 1 gal. of 3% household ammonia for every 100 gals. of water.
4. Circulate through sprayer for 5 minutes.
5. Flush all hoses, booms, screens, and nozzles for a minimum of 15 minutes.
6. Loosen any diaphragms before flushing the spray system, allowing cleaning solution to spray through the open diaphragm.
7. Drain tank completely.
8. Add enough clean water to the spray tank to flush hoses, booms, screens, and nozzles for 2 minutes.
9. Remove all nozzles and screens and rinse them with clean water.

**APPLICATION EQUIPMENT**

Application equipment must be clean and in good repair. Ensure nozzles are uniformly spaced on boom and frequently checked for accuracy.

**BROADCAST APPLICATION**

Apply **Frigate 51% WDG** and **Frigate 51% WDG**'s tank mixes, with ground equipment using standard commercial sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume.



**BAND APPLICATION**

When banding, use proportionately less water and **Frigate 51% WDG** per acre.

**BACKPACK APPLICATION**

When applying **Frigate 51% WDG** with a backpack sprayer follow all above restrictions. Calibrate backpack sprayers to deliver 1 gal. of spray solution per 500 - 1,000 sq. ft.

**For Backpack Applications of Frigate 51% WDG at 10 oz. per Acre For Terrestrial uses:**

**RESTRICTIONS:**

- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) of **Frigate 51% WDG** per acre per application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) of **Frigate 51% WDG** per acre per year.

Application Volume	Amount of Frigate 51% WDG to mix in 1 gal. of water	Amount of Frigate 51% WDG to mix in 2 gals. of water	Amount of Frigate 51% WDG to mix in 3 gals. of water
1 gal. per 500 sq. ft. (= 87 GPA)	1 ¼ tsp.	2 ½ tsp.	3 ¾ tsp.
1 gal. per 750 sq. ft. (= 58 GPA)	1 ¾ tsp.	3 ¾ tsp.	5 ¼ tsp.
1 gal. per 1,000 sq. ft. (= 43.5 GPA)	2 ½ tsp.	5 tsp.	7 ½ tsp.

1 level teaspoon (tsp.) holds 2.8 grams of **Frigate 51% WDG**.

**Example:** Applicator wants to spray 1 gal. of **Frigate 51% WDG** solution per 1,000 sq. ft. of ground bed, and wants to mix up 2 gals. of spray solution. Therefore, applicator would mix 5 teaspoons of **Frigate 51% WDG** in 2 gals. of water.

**HANDGUN APPLICATION**

Applications may also be made using a handgun sprayer. Use a spray volume of at least 40 gals. per acre to insure uniform coverage.

**AERIAL APPLICATION**

**[Aerial applications are limited to maintaining weed free railroad beds, railroad yards and surrounding areas and military installations.]**

To obtain satisfactory weed control with aerial application of **Frigate 51% WDG**, coverage must be uniform. When applied by air, **Frigate 51% WDG** may not provide adequate control of some submersed weeds. **DO NOT** spray when drift is possible or when wind velocity is more than 10 mph. **DO NOT** spray **Frigate 51% WDG** within 200 feet of dwellings, adjacent sensitive crops or environmentally sensitive areas. To obtain satisfactory application and drift, the following directions must be observed:

**Volume Pressure**

Apply **Frigate 51% WDG** in 5 - 10 gals. of water per acre, with a maximum spray pressure of 40 PSI. Application at less than 5 gals. per acre may not provide adequate weed control. Higher gallonage applications provide more consistent weed control.

**Nozzles and Nozzle Operation**

Use nozzles that produce flat or hollow cone spray patterns. Use non-drip type nozzles for example diaphragm type nozzles to avoid unwanted discharge of spray solution. The nozzle must be directed toward the rear of the aircraft, at an angle between 0° and 15° downward. **DO NOT** place nozzles on the outer 25% of the wings or rotors.

**Adjuvants**

Refer to the additive section or the tank mix partners label for adjuvant directions.

**CALIBRATION TABLE**

Frigate 51% WDG Rates Oz./A	Frigate 51% WDG Rates Grams/Gal.	Frigate 51% WDG Rates Per Gal.
8 (0.255 lb. a.i.)	2.3	¾ tsp.
10 (0.32 lb. a.i.)	2.8	1 level tsp.
12 (0.383 lb. a.i.)	3.4	1 ¼ tsp.

**IRRIGATION RESTRICTIONS FOLLOWING APPLICATION**

Application Method	Application Rate	Average Water Depth	Turf and Landscape Ornamentals	Ornamentals Grown for Production in Greenhouse and Nursery
Surface Spray	6 - 12 oz. (0.191 – 0.383 lb. a.i.) per surface acre	Greater than 3 feet	None	5 days
		Less than 3 feet	12 hours	5 days
Subsurface	Less than 200 ppb	N/A	1 day	5 days
	200 - 300 ppb	N/A	2 days	5 days
	300 - 400 ppb	N/A	3 days	5 days

**MANDATORY SPRAY DRIFT****Aerial Applications**

- **DO NOT** release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

**Ground Applications**

- Users must only apply with the release height specified by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

**Boom-less Ground Applications**

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

**SPRAY DRIFT ADVISORIES**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

**IMPORTANCE OF DROPLET SIZE**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

**Controlling Droplet Size - Ground Boom**

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure specified for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

**Controlling Droplet Size - Aircraft**

- Adjust Nozzles - Follow nozzle manufacturer's directions for setting up nozzles. Generally, to reduce fine droplets, orient nozzles parallel with the airflow in flight.

**BOOM HEIGHT - Ground Boom**

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, keep the boom level with the crop and have minimal bounce.

**RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift. When applying aerially to crops, **DO NOT** release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

**SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

**TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

**TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

**WIND**

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.** Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

**Boom-less Ground Applications:**

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

**Handheld Technology Applications:**

Take precautions to minimize spray drift.

**WEEDS CONTROLLED**

When **Frigate 51% WDG** is applied pre-emergence or post-emergence at specified rates and weed stages, the following grasses and broadleaf weeds are controlled:

**Table 1. Weeds Controlled by Frigate 51% WDG**

COMMON NAME	SCIENTIFIC NAME
Alyssum, Hoary	<i>Berteroa incana</i>
Amaranth	
Palmer	<i>Amaranthus palmeri</i>
Spiny	<i>Amaranthus spinosus</i>
American Burnweed	<i>Erechtites hieracifolia</i>
Barnyardgrass*	<i>Echinochloa crus-galli</i>
Beggarweed, Florida	<i>Desmodium tortuosum</i>
Bittercress, Hairy	<i>Cardamine hirsuta</i>
Bluegrass, Annual*	<i>Poa annua</i>
Burclover, California	<i>Medicago polymorpha</i>
Carpetweed	<i>Mollugo verticillata</i>
Chamberbitter	<i>Phyllanthus urinaria</i>
Chickweed	
Common	<i>Stellaria media</i>
Mouseear	<i>Cerastium vulgatum</i>
Crabgrass	
Large*	<i>Digitaria sanguinalis</i>
Smooth*	<i>Digitaria ischaemum</i>
Southern*	<i>Digitaria ciliaris</i>
Croton, Tropic	<i>Croton glandulosus var. septentrionalis</i>
Dandelion*	<i>Taraxacum officinale</i>

COMMON NAME	SCIENTIFIC NAME
Dogfennel	<i>Eupatorium capillifolium</i>
Doveweed	<i>Murdannia nudiflora</i>
Eclipta	<i>Eclipta prostrata</i>
Filaree, Redstem*	<i>Erodium cicutarium</i>
Foxtail	
Bristly*	<i>Setaria verticillata</i>
Giant*	<i>Setaria faberi</i>
Green*	<i>Setaria viridis</i>
Yellow*	<i>Setaria glauca</i>
Galinsoga, Hairy	<i>Galinsoga ciliata</i>
Geranium, Carolina	<i>Geranium carolinianum</i>
Goosegrass*	<i>Eleusine indica</i>
Groundsel, Common	<i>Senecio vulgaris</i>
Groundsel Tree	<i>Baccharis halimifolia</i>
Henbit	<i>Lamium amplexicaule</i>
Horseweed*	<i>Conyza Canadensis</i>
Indigo, Hairy	<i>Indigofera hirsute</i>
Ivy, Ground*	<i>Glechoma hederacea</i>
Jimsonweed	<i>Datura stramonium</i>
Kochia	<i>Kochia scoparia</i>
Kyllinga, Green*	<i>Kyllinga brevifolia</i>
Lady's Thumb	<i>Polygonum persicaria</i>
Lambsquarters, Common	<i>Chenopodium album</i>
Liverwort	<i>Marchantia polymorpha</i>
Lovegrass, California*	<i>Eragrostis diffusa</i>
Mallow	
Common	<i>Malva neglecta</i>
Little	<i>Malva parviflora</i>
Venice	<i>Hibiscus trionum</i>
Marsh Parsley	<i>Apium leptophyllum</i>
Marsh Yellowcress	<i>Rorippa islandica</i>
Mayweed*	<i>Anthemis cotula</i>
Morningglory	
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriuscula</i>
Ivyleaf	<i>Ipomoea hederacea</i>
Red/Scarlet	<i>Ipomoea coccinea</i>
Smallflower	<i>Jacquemontia tamnifolia</i>
Tall	<i>Ipomoea purpurea</i>
Moss	<i>Bryum</i> spp.
Mulberry Weed	<i>Fatoua villosa</i>
Mustard	
Tumble	<i>Sisymbrium altissimum</i>
Wild	<i>Brassica kaber</i>
Nightshade	
Black	<i>Solanum nigrum</i>
Eastern Black	<i>Solanum ptycanthum</i>
Hairy	<i>Solanum sarrachoides</i>
Northern Willowherb	<i>Epilobium ciliatum</i>
Panicum	
Fall*	<i>Panicum dichotomiflorum</i>
Texas*	<i>Panicum texanum</i>
Parsley Piert	<i>Alchemilla arvensis</i>
Pearlwort, Birdseye*	<i>Sagina procumbens</i>

COMMON NAME	SCIENTIFIC NAME
Pennycress, Field	<i>Thlaspi arvense</i>
Phyllanthus, Longstalked	<i>Phyllanthus tenellus</i>
Pigweed	
Prostrate	<i>Amaranthus blitoides</i>
Redroot	<i>Amaranthus retroflexus</i>
Smooth	<i>Amaranthus hybridus</i>
Tumble	<i>Amaranthus albus</i>
Pineapple-weed*	<i>Matricaria matricarioides</i>
Plantain	
Broadleaf*	<i>Plantago major</i>
Buckhorn*	<i>Plantago lanceolate</i>
Poinsettia, Wild	<i>Euphorbia heterophylla</i>
Puncturevine	<i>Tribulus terrestris</i>
Purslane, Common	<i>Portulaca oleracea</i>
Pusley, Florida	<i>Richardia scabra</i>
Ragweed	
Common	<i>Ambrosia artemisiifolia</i>
Giant	<i>Ambrosia trifida</i>
Redmaids	<i>Calandrinia ciliata</i>
Redweed	<i>Melochia corchorifolia</i>
Rocket, Yellow	<i>Barbarea vulgaris</i>
Senna, Coffee	<i>Cassia occidentalis</i>
Sesbania, Hemp	<i>Sesbania exaltata</i>
Shepherd's Purse	<i>Capsella bursa-pastoris</i>
Sida, Prickly (Teaweed)	<i>Sida spinosa</i>
Signalgrass*	<i>Brachiaria platyphylla</i>
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>
Sowthistle, Annual	<i>Sonchus oleraceus</i>
Spiderwort, Tropical	<i>Commelina benghalensis</i>
Spurge	
Petty	<i>Euphorbia peplus</i>
Prostrate	<i>Euphorbia humistrata</i> Engelm
Spotted	<i>Euphorbia maculata</i>
Starbur, Bristly*	<i>Acanthospermum hispidum</i>
Tassel-flower	<i>Emilia</i> spp.
Thickhead	<i>Crassocephalum crepidioides</i>
Thistle	
Canada*	<i>Cirsium arvense</i>
Russian	<i>Salsola iberica</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Waterhemp	
Common	<i>Amaranthus rudis</i>
Tall	<i>Amaranthus tuberculatus</i>
Woodsorrel, Yellow*	<i>Oxalis stricta</i>

\*pre-emergence control only.

**DIRECTIONS FOR USE****TO CONTROL FLOATING AND EMERGED WEEDS USING SURFACE APPLICATION**

**Frigate 51% WDG** will control weeds and algae listed in Table 1 when applied as a broadcast spray with appropriate equipment. For best results, apply **Frigate 51% WDG** to the foliage of actively growing weeds.

**Table 1. Floating and Emerged Weeds**

<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>
Alligator Weed	<i>Alternanthera philoxeroides</i>
Duckweed*	<i>Lemna</i> spp.
Frog's-bit	<i>Limnobium spongia</i>
Water Fern	<i>Salvinia</i> spp.
Water Lettuce	<i>Pistia stratiotes</i>
Watermeal*	<i>Wolffia</i> spp.
Water Pennywort	<i>Hydrocotyle</i> spp.
Filamentous Algae	<i>Pithophora</i>
Filamentous Algae	<i>Cladophora</i>

\*200 ppb water concentration is required to treat duckweed and watermeal – see **DIRECTIONS FOR USE TO CONTROL SUBMERSED AND FLOATING WEEDS USING SUBSURFACE APPLICATIONS** section for additional application information.

**SURFACE APPLICATION**

**Frigate 51% WDG** product as a broadcast spray at 6 - 12 ounces (0.191 – 0.383 lb. a.i.) of formulated product per acre plus an adjuvant approved for use in aquatics.

**Frigate 51% WDG** is a contact herbicide that quickly degrades in the water column so plants that **DO NOT** initially come in contact with the herbicide will not be controlled. Apply **Frigate 51% WDG** in a minimum of 30 gallons of water per acre to all areas of the water body where weeds exist. Coverage is essential for effective control as all floating weeds need to be exposed to lethal concentrations in all parts of the water body. Any untreated escapes or re-introductions of plants that were not treated will reestablish in areas where surface weeds had previously been controlled. If a second application is required to provide control, make the treatment once weeds are first observed, but no sooner than 28 days after the last treatment.

Application of **Frigate 51% WDG** during early morning hours enhances weed control. When applying to densely packed actively growing surface weeds, ensure adequate coverage. Rapid decomposition of vegetation resulting from herbicide treatment can result in loss of oxygen in water. A sudden decrease in dissolved oxygen can result in fish suffocation. If aquatic vegetation is dense, treat floating surface weeds in sections to avoid a rapid decrease in dissolved oxygen.

**Frigate 51% WDG** may be tank mixed with 2,4-D, diquat, glyphosate or other registered foliar applied herbicides for enhanced control of floating and emergent weeds.

Consult a manufacturer's label for specific rate restrictions and weeds controlled. Always follow the most restrictive label restrictions and precautions for all products used when making an application involving tank mixes.

**APPLICATION EQUIPMENT**

Apply **Frigate 51% WDG** with sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume. Apply by backpack or handgun sprayer, airboat, helicopter, airplane or other application equipment that will ensure thorough coverage of target plant foliage.

**RESTRICTIONS**

- **DO NOT** apply more than 12 oz./A (0.383 lb. a.i.) of **Frigate 51% WDG** per single application.
- **DO NOT** apply more than 24 oz./A (0.765 lb. a.i.) of **Frigate 51% WDG** per year.
- **DO NOT** apply more than 2 applications of **Frigate 51% WDG** per acre per year.
- **DO NOT** re-apply **Frigate 51% WDG** within 28 days.

**DIRECTIONS FOR USE  
IN ESTABLISHED CONTAINER AND FIELD GROWN  
CONIFERS(INCLUDING CHRISTMAS TREES)**

Apply **Frigate 51% WDG** as a single or split application to established container and field grown conifers, which includes applications to Christmas tree plantations. The conifers listed in Table 2 have exhibited tolerance to **Frigate 51% WDG** only when the product is applied to dormant or hardened off plant material. If applied over the top of plant foliage, apply **Frigate 51% WDG** before spring bud break or after conifers have sufficiently hardened off. During periods of cool, cloudy weather, use caution to ensure conifers have hardened off prior to herbicide application. **DO NOT** apply to conifers within 1 year of seedling emergence.

**PRE-EMERGENCE APPLICATION**

Apply 8 - 12 oz. (0.25 - 0.38 lb. a.i./A) of **Frigate 51% WDG** per broadcast acre before weeds emerge. Apply to weed free, established conifers grown in containers or in the field (in ground). If possible, irrigate treated areawith 0.5 - 0.75 inch of water immediately following application. Spray **Frigate 51% WDG** directly over conifers listed in Table 2, provided bud break has not occurred or plants are hardened off. Needle burn may be observed on new flush if plants are actively growing at time of application. However, **Frigate 51% WDG** will typically not affect subsequent growth. If conifers are not dormant or hardened off at time of application, and foliar injury cannot be tolerated, apply **Frigate 51% WDG** as a directed spray, taking care to minimize direct contact or drift of sprays onto foliage. Mechanically incorporating **Frigate 51% WDG** after application will disturb soil surfaces, which may reduce herbicidal efficacy. When applied before weed germination, **Frigate51% WDG** will control broadleaf and grassy weeds listed in Table 1.

**POST-EMERGENCE APPLICATION**

Apply 8 - 12 oz. (0.25 - 0.38 lb. a.i./A) of **Frigate 51% WDG** per broadcast acre after weeds have emerged. **Frigate 51% WDG** may be sprayed directly over conifers listed in Table 2, provided bud break has not occurred or plants are hardened off. Needle burn may be observed on new flush if plants are actively growing at time of application. However, **Frigate 51% WDG** will typically not affect subsequent growth. If conifers are not dormant or hardened off at the time of application, and foliar injury cannot be tolerated, apply **Frigate 51% WDG** as a directed spray, taking care to minimize direct contact or drift of sprays onto foliage.

If applied when weeds are actively growing and no larger than 2 inches in height, **Frigate 51% WDG** will provide post-emergence control of broadleaf weeds and grasses listed in Table 1. Post-emergence control of **Frigate 51% WDG** may be more effective with certain weed species, and may not control mature, stressed or hardened off weeds that are not actively growing at the time of application.

**TANK MIXTURES FOR CONTAINER AND FIELD GROWN CONIFERS**

Tank mixing **Frigate 51% WDG** with other pre-emergence and post-emergence herbicides registered for use on conifers may provide a broader spectrum of weed control than **Frigate 51% WDG** applied alone, **Frigate 51% WDG** may also be applied as part of a post-emergence burndown program for control of annual and perennial weeds. Tank mixing **Frigate 51% WDG** with glyphosate will increase the speed of burndown compared to glyphosate applied alone.

**Frigate 51% WDG** may be tank mixed with products containing the following active ingredients labeled for use in conifers:

Clethodim	glyphosate*	oryzalin	prodiamine	simazine*
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\***DO NOT** apply glyphosate or simazine to containerized ornamentals.

**IMPORTANT:** It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**TOLERANT CONIFERS**

Apply **Frigate 51% WDG** to the conifer species listed in Table 2. If a desired conifer species is not listed in Table 2, evaluate the safety of **Frigate 51% WDG** on a small number of plants under commercial growing conditions, and monitor plant response for 4 - 6 weeks for phytotoxicity. Testing **Frigate 51% WDG** on a small number of plants will determine if this product can be used safely on a widespread basis.

**RESTRICTIONS**

- **DO NOT** apply more than 24 oz./A (0.765 lb. a.i.) of **Frigate 51% WDG** per year.
- **DO NOT** apply more than 12 oz./A (0.383 lb. a.i.) **Frigate 51% WDG** in a single application.
- **DO NOT** apply more than 2 applications at 12 oz./A or 3 applications at 8 oz./A per year.
- **DO NOT** re-apply **Frigate 51% WDG** within 30 days.

Table 2. Tolerant Conifers

COMMON NAME	SCIENTIFIC NAME
<b>Arborvitae</b>	
American	<i>Thuja occidentalis</i>
Oriental	<i>Thuja orientalis</i>
<b>Fir</b>	
Concolor	<i>Abies concolor</i>
Cork Bark	<i>Abies lasiocarpa</i>
Douglas	<i>Pseudotsuga menziesii</i>
Fraser	<i>Abies fraseri</i>
Grand	<i>Abies grandis</i>
Noble	<i>Abies procera</i>
Turkish	<i>Abies bornmuelleriana</i>
<b>Hemlock</b>	
Eastern	<i>Tsuga canadensis</i>
Western	<i>Tsuga heterophylla</i>
<b>Juniper</b>	
Blue Star	<i>Juniperus scopularum</i>
Creeping	<i>Juniperus horizontalis</i>
Japanese Garden	<i>Juniperus chinensis</i>
Tamarix	<i>Juniperus sabina</i>
<b>Pine</b>	
Austrian	<i>Pinus nigra</i>
Eastern White	<i>Pinus strobus</i>
Jack	<i>Pinus banksiana</i>
Japanese Black	<i>Pinus thunbergiana</i>
Loblolly	<i>Pinus taeda</i>
Lodgepole	<i>Pinus contorta</i>
Longleaf	<i>Pinus palustris</i>
Mugo	<i>Pinus mugo</i>
Ponderosa	<i>Pinus ponderosa</i>
Sand	<i>Pinus clausa</i>
Scotch	<i>Pinus sylvestris</i>
Shortleaf	<i>Pinus echinata</i>
Slash	<i>Pinus elliotii</i>
Virginia	<i>Pinus virginiana</i>
<b>Spruce</b>	
Blue	<i>Picea pungens</i>
Dwarf Alberta	<i>Picea glauca conica</i>
Norway	<i>Picea abies</i>
Sitka	<i>Picea sitchensis</i>
<b>Yew</b>	
English	<i>Taxus baccata</i>
Japanese	<i>Taxus cuspidata</i>



**DIRECTIONS FOR USE  
TO CONTROL SUBMERSED AND FLOATING WEEDS USING SUBSURFACE  
APPLICATIONS**

**Frigate 51% WDG** controls submersed and floating weeds listed in Table 2, **Submersed and Floating Weeds Controlled by Subsurface Application**, when applied subsurface with appropriate equipment.

**Table 2. Submersed and Floating Weeds Controlled by Subsurface Application**

<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>
Coontail	<i>Ceratophyllum demersum</i>
Duckweed*	<i>Lemna</i> spp.
Fanwort	<i>Cabomba caroliniana</i>
Hydrilla	<i>Hydrilla verticillata</i>
Hygrophila	<i>Hygrophila polysperma</i>
Naiad, Southern	<i>Najas guadalupensis</i>
Pondweed, Curlyleaf	<i>Potamogeton crispus</i>
Pondweed, Sago	<i>Potamogeton pectinatus</i>
Pondweed, Variable-Leaf	<i>Potamogeton diversifolius</i>
Water Fern	<i>Salvinia</i> spp.
Water Lettuce	<i>Pistia stratiotes</i>
Watermeal	<i>Wolffia</i> spp.
Watermilfoil, Eurasian	<i>Myriophyllum spicatum</i>
Watermilfoil, Variable-Leaf	<i>Myriophyllum heterophyllum</i>

**SUBSURFACE APPLICATION**

Apply **Frigate 51% WDG** at a rate that will produce an initial concentration of 200 to 400 ppb (of active ingredient flumioxazin) in the water column.

**Frigate 51% WDG** is rapidly absorbed by target plants, but also breaks down quickly in water with a pH greater than 8.5. The pH of water surrounding mats of submersed vegetation can exceed 8.5 by early to mid-day, due to photosynthetic processes. Application of **Frigate 51% WDG** under these conditions may provide only partial weed control, and regrowth is

likely. For best control, apply **Frigate 51% WDG** in a minimum of 30 gallons of water per acre in the early morning to actively growing weeds and early in the season before surface matting occurs. Complete coverage and sufficient contact time of submersed weeds with **Frigate 51% WDG** is required for optimal performance. Application of **Frigate 51% WDG** with subsurface trailing hoses designed to distribute the herbicide within the plant stand will provide more effective and longer term control of submersed weeds. Use Table 3, **Subsurface Application Rates** to determine the amount of **Frigate 51% WDG** needed to achieve desired concentration at different water depths. Use higher concentrations when weed biomass is heavy and/or weeds are more mature and topped out. Any untreated plants that are left in the water column can re-infest treated areas that had previously been controlled. If a second application is required to provide control, it is directed that a treatment be made once the return of these weeds is first observed, but no sooner than 28 days after the last treatment.

When applying **Frigate 51% WDG** to densely packed actively growing submersed weeds, a rapid decomposition of vegetation resulting from herbicide treatment can result in loss of oxygen in water. A sudden decrease in dissolved oxygen can result in fish suffocation. If aquatic vegetation is dense, treat submersed weeds in sections to avoid a rapid decrease in dissolved oxygen.

**Frigate 51% WDG** may be tank mixed with other registered submersed applied herbicides for enhanced control of submersed and floating weeds.

**APPLICATION EQUIPMENT FOR WATER COLUMN TREATMENT**

To improve distribution in the water column and ensure adequate coverage, when possible apply **Frigate 51% WDG** with subsurface trailing hoses in order to place the herbicide under the surface and throughout the biomass of aquatic vegetation. Keep swath width to a minimum in order to maximize contact with submersed aquatic vegetation. In small shallow water bodies, surface sprays may be required to apply **Frigate 51% WDG**. Apply by backpack or handgun sprayer or other application equipment that will ensure adequate coverage of target plant.

**INFORMATION ON *HYDRILLA* CONTROL IN FLORIDA**

Apply **Frigate 51% WDG** as a subsurface treatment for *Hydrilla* control. For best control of *Hydrilla* apply during the late Winter/early Spring and/or early to late Fall. Efficacy of **Frigate 51% WDG** will be enhanced at these timings due to lower potential biomass present and lower pH of the water. If applied to mature topped out *Hydrilla*, **Frigate 51% WDG** will cause some discoloration and loss of growing tips, but regrowth will be rapid.

Tank mix **Frigate 51% WDG** with other registered herbicides, especially if *Hydrilla* is approaching maturity or biomass is heavy.

**Table 3. Subsurface Application Rates**

**DO NOT exceed 400 ppb of Frigate 51% WDG during any one application.**

Water Depth (feet)	Pounds of Frigate 51% WDG Required Per Surface Acre to Achieve Desired Water Concentration		
	200 ppb	300 ppb	400 ppb
1	1.1 (0.651 lb. a.i.)	1.6 (0.816 lb. a.i.)	2.1 (1.071 lbs. a.i.)
2	2.1 (1.071 lbs. a.i.)	3.2 (1.632 lbs. a.i.)	4.2 (2.142 lbs. a.i.)
3	3.2 (1.632 lbs. a.i.)	4.8 (2.448 lbs. a.i.)	6.4 (3.264 lbs. a.i.)
4	4.2 (2.142 lbs. a.i.)	6.4 (3.264 lbs. a.i.)	8.5 (4.335 lbs. a.i.)
5	5.3 (2.703 lbs. a.i.)	8.0 (4.08 lbs. a.i.)	10.6 (5.406 lbs. a.i.)
6	6.4 (3.264 lbs. a.i.)	9.5 (4.845 lbs. a.i.)	12.7 (6.477 lbs. a.i.)
7	7.4 (3.774 lbs. a.i.)	11.1 (5.661 lbs. a.i.)	14.8 (7.548 lbs. a.i.)

**Example:** To achieve an initial concentration of 200 ppb of flumioxazin in a 4 foot deep water column, apply 4.2 lbs. of **Frigate 51% WDG** per surface acre.

**RESTRICTIONS**

- **DO NOT** apply more than 400 ppb of **Frigate 51% WDG** per single application.
- **DO NOT** apply more than 177.6 lbs of **Frigate 51% WDG** (90.58 lb. a.i.) per year.
- **DO NOT** apply more than 12 applications of **Frigate 51% WDG** per acre per year.
- **DO NOT** re-apply **Frigate 51% WDG** within 28 days.
- Not for homeowner use.

**DIRECTIONS FOR USE****IN CONTAINER AND FIELD GROWN DECIDUOUS TREES AND NON-BEARING FRUIT AND NON-BEARING NUT TREES**

Apply **Frigate 51% WDG** as single or split application to container and field grown deciduous trees with an established root system. The deciduous trees listed in Table 3 have exhibited tolerance to **Frigate 51% WDG** only when applied to the soil and base of plants. Application of **Frigate 51% WDG** to deciduous foliage or green bark may result in unacceptable injury.

Apply **Frigate 51% WDG** to established (or transplanted) container and field grown deciduous trees. **DO NOT** apply to trees that are less than 1 year old or have been transplanted less than 1 year, unless completely protected by non-porous wraps, grow tubes, waxed protectors or other forms of protection to young foliage and/or bark. **DO NOT** harvest fruit or nuts from treated trees within 1 year of application.

**IMPORTANT:** Direct application of **Frigate 51% WDG** to the soil surface and away from plant foliage and bark. Avoid direct spray contact on plant surfaces, foliage and green bark or injury may result. Application of **Frigate 51% WDG** after bud swell may cause injury if herbicide contacts foliage. **DO NOT** apply under environmental conditions that favor drift to non-targeted areas.

**PRE-EMERGENCE APPLICATION**

Apply 8 - 12 oz. (0.25 - 0.38 lb. a.i./A) of **Frigate 51% WDG** per broadcast acre as a pre-emergence (to weed emergence) application. Apply **Frigate 51% WDG** to weed free deciduous trees grown in containers or in the field (in-ground). If possible, irrigate treated area with 0.5 to 0.75 inch of water immediately following application and apply **Frigate 51% WDG** to the soil surface and base of deciduous trees, provided that direct and indirect (drift) applications to plant foliage, flowers and green bark does not occur. Mechanically incorporating **Frigate 51% WDG** will disturb soil surfaces, which may reduce herbicidal efficacy. Use spray shields that limit exposure of foliage and bark to **Frigate 51% WDG**. When applied before weed germination, **Frigate 51% WDG** will control broadleaf and grassy weeds listed in Table 1.

**POST-EMERGENCE APPLICATION**

Apply 8 - 12 oz. (0.25 - 0.38 lb. a.i./A) of **Frigate 51% WDG** per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant or 1 qt./A crop oil concentrate). Make post-emergence (to weed emergence) applications of **Frigate 51% WDG** when weeds are actively growing and are no larger than 2 inches in height. The addition of a surfactant enhances **Frigate 51% WDG** activity on emerged weeds. Thorough spray coverage is necessary to maximize the post-emergence activity of **Frigate 51% WDG**. When applied after weed germination, **Frigate 51% WDG** will provide pre-emergence and post-emergence control of broadleaf weeds and grasses listed in Table 1. If plant injury is a concern, use a spray shield to limit the exposure of trees to **Frigate 51% WDG**.

Post-emergence control of **Frigate 51% WDG** may be more effective with certain weed species, and may not control mature, stressed or hardened off weeds that are not actively growing at the time of application.

**TANK MIXTURES FOR FIELD AND CONTAINER GROWN DECIDUOUS TREES**

Tank mixing **Frigate 51% WDG** with other pre-emergence and post-emergence herbicides registered for use on deciduous trees may provide a broader spectrum of weed control than **Frigate 51% WDG** alone. **Frigate 51% WDG** may also be applied as part of a post-emergence burndown program of control of annual and perennial weeds. Tank mixing **Frigate 51% WDG** with glyphosate will increase the speed of burndown compared to glyphosate applied alone. Tank mix **Frigate 51% WDG** with products containing the following active ingredient labeled for use in deciduous trees:

Clethodim	glyphosate*	metolachlor	oryzalin
Pendimethalin	prodiamine	simazine*	

\***DO NOT** apply glyphosate or simazine to containerized plants.

**IMPORTANT:** It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**TOLERANT DECIDUOUS TREES, NON-BEARING FRUIT AND NON-BEARING NUT TREES**

Apply **Frigate 51% WDG** as a directed spray to the deciduous, non-bearing fruit and non-bearing nut trees species listed in Table 3. If a desired tree species is not listed in Table 3, evaluate the safety of **Frigate 51% WDG** on a small number of plants under commercial growing conditions and monitor plant response for 4 -6 weeks for phytotoxicity. Testing **Frigate 51% WDG** on a small number of plants will determine if this product can be used safely on a widespread basis.

**RESTRICTIONS**

- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) per acre per single application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) per acre per year.
- **DO NOT** apply more than 2 applications at 12 oz./A (0.383 lb. a.i.) or 3 applications at 8 oz./A (0.255 lb. a.i.) per year.
- **DO NOT** re-apply **Frigate 51% WDG** within 30 days.
- Not for use by homeowners.

**Table 3. Tolerant Deciduous Tree Species**

<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>
Apricot*	<i>Prunus</i> spp.
Ash	<i>Fraxinus</i> spp.
Birch	<i>Betula</i> spp.
Buckeye	<i>Aesculus</i> spp.
Cherry*	<i>Prunus</i> spp.
Chestnut	<i>Castanea</i> spp.
Citrus*	<i>Citrus</i> spp.
Dogwood	<i>Comus</i> spp.
Eucalyptus	<i>Eucalyptus</i> spp.
Ginkgo	<i>Ginkgo</i> spp.
Hawthorn	<i>Crataegus</i> spp.
Honeylocust	<i>Gleditsia</i> spp.
Larch	<i>Larix</i> spp.
Lilac	<i>Syringa</i> spp.
Maple**	<i>Acer</i> spp.
Myrtle, Crepe	<i>Lagerstroemia indica</i>
Oak	<i>Quercus</i> spp.
Poplar	<i>Populus</i> spp.
Peach*	<i>Prunus</i> spp.
Plum*	<i>Prunus</i> spp.
Pecan*	<i>Carya</i> spp.
Redbud	<i>Cercis canadensis</i>
Sweetgum	<i>Liquidambar styraciflua</i>
Sycamore	<i>Platanus</i> spp.
Walnut, Black	<i>Juglans nigra</i>
Willow	<i>Salix</i> spp.

\*Non-bearing trees only.

\*\*Not for use on maple trees used for production of maple sap or syrup.

## DIRECTIONS FOR USE AROUND ESTABLISHED WOODY LANDSCAPE ORNAMENTALS AND TO MAINTAIN BARE GROUND NON-CROP AREAS

In residential and commercial landscapes, application of **Frigate 51% WDG** must be done by commercial licensed applicators. Application of **Frigate 51% WDG** in the vicinity of ornamental plants is limited to directed sprays around well-established woody shrubs and trees including azalea, euonymus, holly, and the conifers and deciduous trees listed in Tables 2 and 3.

Apply **Frigate 51% WDG** to maintain bare ground in non-crop areas in apartment complexes, fence rows, gravel surfaces, ground mats, golf courses, lumberyards, office complexes, parks, parking areas, recreational sites, schools, sidewalks, storage areas and other similar industrial sites. **DO NOT** apply **Frigate 51% WDG** within any enclosed structure in residential or commercial landscapes.

**Frigate 51% WDG** offers post-emergence and residual control of susceptible grasses and broadleaf weeds, as well as additional mode of action to assist in the control of resistant weeds. The length of residual control is dependent on the rate applied, rainfall and temperature. Length of residual control will decrease as temperature and precipitation increase.

**IMPORTANT: Contact with spray or spray drift of Frigate 51% WDG may cause severe injury or destruction of certain desirable plants, especially herbaceous species including bedding plants or direct seeded annual and perennial flowers. Therefore, DO NOT apply Frigate 51% WDG over the top of ornamental plants growing in the landscape, and DO NOT allow spray of Frigate 51% WDG to contact, drift or splash from soil onto the foliage, green stems, exposed roots or fruit of desirable plants. Avoid application of Frigate 51% WDG under conditions that favor drift of sprays onto desired ornamentals or turfgrass. Limit the plant exposure to Frigate 51% WDG applying this product near desirable plants.**

**DO NOT apply Frigate 51% WDG around landscape ornamentals until plants have been actively growing for at least 30 days after transplanting, or for at least 2 months before ornamentals will be planted into treated areas.**

### PRE-EMERGENCE APPLICATION (NO WEEDS ARE PRESENT)

Mix 1 ¼ - 2 ½ tsp. of **Frigate 51% WDG** per gal. (10 oz./A) of spray solution, and apply 1 gal. of spray solution to 500 - 1,000 sq. ft. (10 oz./A) prior to weed germination (see **CALIBRATION TABLE** for backpack sprayers). Apply **Frigate 51% WDG** to weed free soil, mulch or gravel surfaces. Moisture is necessary to activate **Frigate 51% WDG** on soil for residual weed control. When applied before weed germination, **Frigate 51% WDG** will control the broadleaf weeds and grasses listed in Table 1.

Established landscape ornamentals have shown tolerance to **Frigate 51% WDG** only when applied to the soil at the base of the plant. For maximum plant safety when using around desirable ornamentals, direct applications of **Frigate 51% WDG** to the soil, and leave a sufficient untreated buffer to ensure spray solution does not contact desired plants. **DO NOT** harvest fruit or nuts from treated trees within 1 year of application.

### POST-EMERGENCE APPLICATION (WEEDS ARE PRESENT)

Mix 1 ¼ - 2 ½ tsp. of **Frigate 51% WDG** per gal. (10 oz./A) and apply 1 gal. of spray solution to 500 - 1,000 sq. ft. to actively growing weeds (see **CALIBRATION TABLE** for backpack sprayers). Tank mixing **Frigate 51% WDG** with glyphosate will increase the spectrum of post-emergent weed control over **Frigate 51% WDG** alone, provide faster post-emergence weed control than glyphosate alone, and provide pre and post-emergence control of the broadleaf weeds and grasses listed in Table 1.

Established landscape ornamentals have shown tolerance to applications of **Frigate 51% WDG** plus glyphosate only when applied to the soil at the base of the plant, and sprays **DO NOT** directly contact or drift onto desirable plants. For maximum plant safety when using around desirable ornamentals, direct applications of **Frigate 51% WDG** plus glyphosate towards the soil, and leave a sufficient non-treated buffer to ensure spray solution does not contact desired plants.

Thorough spray coverage of weeds is necessary to maximize weed control. Spray coverage must be uniform, but **DO NOT** spray to the point of runoff.

**DO NOT** harvest fruit or nuts from treated trees within 1 year of application.

**IMPORTANT: Completely read and follow the glyphosate label. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.**

**RESTRICTIONS**

- **DO NOT** apply more than 10 oz. (0.32 lb. a.i.) of **Frigate 51% WDG** per acre per single application.
- **DO NOT** apply more than 20 oz. (0.64 lb. a.i.) of **Frigate 51% WDG** per acre per year.
- **DO NOT** apply more than 2 applications of **Frigate 51% WDG** per year.
- **DO NOT** re-apply **Frigate 51% WDG** within 30 days.
- Not for use by homeowners.

**DIRECTIONS FOR USE  
TO MAINTAIN BARE GROUND NON-CROP AREAS IN AND AROUND  
ORNAMENTAL NURSERIES**

**Frigate 51% WDG**, when used as directed, can be used for non-selective vegetation control to maintain bare ground non-crop areas that must be kept weed-free. Apply **Frigate 51% WDG** only to:

- Bare ground areas around buildings and other structures. **DO NOT** apply within any enclosed structure.
- Bare ground along fence rows.
- Gravel surfaces and driveways.
- Ground matting and gravel pads prior to the addition of containerized plants (conifers, deciduous trees and ornamentals).

**IMPORTANT:** Follow all applicable directions as outlined above under Product Information. See Table 1 for a list of grasses and broadleaf weeds controlled by **Frigate 51% WDG**.

**Frigate 51% WDG** offers residual and post-emergence control of susceptible grasses and broadleaf weeds as well as additional mode of action to assist in the control of resistant weeds. The length of residual control is dependent on the rate applied as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase.

**PRE-EMERGENCE APPLICATION**

Apply 8 - 12 oz. (0.25 - 0.38 lb. a.i./A) of **Frigate 51% WDG** per broadcast acre as a pre-emergence application. Make pre-emergence (to weed emergence) applications of **Frigate 51% WDG** to weed free surfaces. Moisture is necessary to activate **Frigate 51% WDG** for residual weed control. Dry weather following application of **Frigate 51% WDG** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **Frigate 51% WDG** will control susceptible germinating weeds.

**POST-EMERGENCE APPLICATION**

Apply 8 - 12 oz. (0.25 - 0.38 lb. a.i./A) of **Frigate 51% WDG** per broadcast acre plus a surfactant (0.25% v/v non-ionic surfactant or 1 qt./A crop oil concentrate). The addition of a surfactant enhances **Frigate 51% WDG** activity on emerged weeds. Thorough spray coverage is necessary to maximize the post-emergence activity of **Frigate 51% WDG**. Emerged weeds are controlled post-emergence with **Frigate 51% WDG**, however, translocation of **Frigate 51% WDG** within a weed is limited, and control is affected by spray coverage and by the addition of a surfactant. The most effective post-emergence weed control with **Frigate 51% WDG** occurs when applied in combination with a surfactant to weeds less than 2 inches in height.

**RESTRICTIONS**

- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) of **Frigate 51% WDG** per acre per single application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) of **Frigate 51% WDG** per acre per year.
- **DO NOT** apply more than 2 applications at 12 oz./A (0.383 lb. a.i.) or 3 applications at 8 oz./A (0.255 lb. a.i.) of **Frigate 51% WDG** per year.
- **DO NOT** re-apply **Frigate 51% WDG** within 30 days.
- Not for use by homeowners.

## DIRECTIONS FOR USE TO MAINTAIN BARE GROUND NON-CROP AREAS

**Frigate 51% WDG** can be used for non-selective vegetation management to maintain bare ground non-crop areas that must be kept free of weed. Apply **Frigate 51% WDG** only to:

- Bare ground areas under guard rails, above-ground pipelines, railroad beds, railroad yards and surrounding areas
- Bare ground areas in parking lots and storage areas, industrial plant sites, substations, pumping stations, and tank farms
- Bare ground areas of airports, brick yards, industrial plant sites, lumber yards, military installations, and storage areas
- Bare ground areas around farm buildings and along ungrazed fence rows, wind breaks and shelter belts
- Improved roadside areas, road surfaces, and gravel shoulders

Follow all applicable directions as outlined above under Product Information. See Table 1 for a list of broadleaf weeds and grasses controlled by **Frigate 51% WDG**.

**Frigate 51% WDG** provides residual and post-emergence control of susceptible broadleaf and grass weed species as well as additional mode of action to assist in the control of ALS (acetolactate synthase) resistant weeds. The timing of residual of control depends on the application rate, as well as on rainfall and temperature conditions. The length of control will be reduced as temperature and precipitation increase.

### PRE-EMERGENCE APPLICATION

Make a pre-emergence application of 8 to 12 oz. (0.25 - 0.38 lb. a.i./A) of **Frigate 51% WDG** per broadcast acre. Make pre-emergence (up to weed emergence) applications of **Frigate 51% WDG** to surfaces that are free of weeds. Pre-emergence applications of **Frigate 51% WDG** must be completed before weeds emerge. For residual weed control and optimal performance on soil, moisture is necessary to activate **Frigate 51% WDG**. Dry weather or lack of moisture following application of **Frigate 51% WDG** may reduce effectiveness. When adequate moisture is received after dry conditions, **Frigate 51% WDG** will control susceptible weeds that are germinating.

### POST-EMERGENCE APPLICATION

Make a post-emergence application of 8 to 12 oz. (0.25 - 0.38 lb. a.i./A) of **Frigate 51% WDG** per broadcast acre plus a surfactant (0.25% v/v non-ionic surfactant or 1 qt./A crop oil concentrate). Adding a surfactant enhances the activity of **Frigate 51% WDG** on emerged weeds. Thorough spray coverage is necessary to maximize the post-emergence activity of **Frigate 51% WDG**. Weeds that have emerged are controlled with a post-emergence application of **Frigate 51% WDG**. However, translocation of **Frigate 51% WDG** within a weed is limited, and control is improved by ensuring thorough spray coverage and by the addition of a surfactant. The most effective post-emergence weed control with **Frigate 51% WDG** results when application is made in combination with a surfactant and to weeds that are less than 2 inches in height.

### TANK MIX APPLICATIONS

Tank mixtures with other pre- and post-emergence herbicides registered for use in non-crop areas provide a broader spectrum of weed control in addition to weeds controlled by **Frigate 51% WDG** used alone, **Frigate 51% WDG** must be tank mixed with other herbicides registered for use in bare ground vegetation management, (non-crop uses) including, but not limited to those products listed below.

**Tank Mixture Combinations For Non-Selective Vegetation Management Weed Control**

2,4-D	Glyphosate	Norflurazon	Proflam
Bromacil	Hexazinone	Oryzalin	Simazine
Chlorsulfuro	Imazapic	Pendimethalin	Sulfometuron methyl
Clorpyralid	Imazapyr	Picloram	Tebuthiuron
Dicamba	Metsulfuron methyl	Pramitol	Triclopyr
Diuron			

**IMPORTANT:** It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

### RESTRICTIONS

- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) of **Frigate 51% WDG** per acre per single application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) of **Frigate 51% WDG** per acre per year.
- **DO NOT** make more than 2 applications at 12 oz./A (0.383 lb. a.i.) or 3 applications at 8 oz./A (0.255 lb. a.i.) of **Frigate 51% WDG** per year.
- **DO NOT** make an additional application of **Frigate 51% WDG** within 30 days.

## DIRECTIONS FOR USE IN CONIFER RE-FORESTATION SITES FOLLOWING TIMBER HARVEST

**Not for use in California.**

**Frigate 51% WDG** is a pre-emergence and post-emergence herbicide for control of selected grass and broadleaf weeds in conifer re-forestation sites following timber harvest operations. Apply **Frigate 51% WDG** as a site preparation treatment prior to transplanting of conifers or as a conifer release treatment after standestablishment.

### Site Preparation — Application Before Transplanting

Apply 8 - 12 oz. of **Frigate 51% WDG** per acre. Transplant operations must take place at least 3 months after application. To obtain optimal weed control, apply **Frigate 51% WDG** before weed emergence or after a burndown herbicide has controlled existing vegetation. If existing weed canopy is less than 40%, tank mix **Frigate 51% WDG** with a burndown herbicide to provide pre-emergence weed control.

Apply **Frigate 51% WDG** in at least 10 gals. of water per acre to achieve uniform spray coverage using ground or aerial spray equipment.

### Conifer Release Treatments — Applications Only Within 3 Years After Transplanting

Apply 8 - 12 oz. of **Frigate 51% WDG** per acre over the top of trees prior to budbreak in the spring or after dormancy in fall. **DO NOT** apply **Frigate 51% WDG** over the top of trees after budbreak or needlespotting and defoliation may occur. **Frigate 51% WDG** should not affect new growth of trees. See Table 4 for a list of tolerant conifers for over the top treatments.

### TANK MIXING — Conifer Release Treatments

Certain liquid formulations of other pesticides may increase the post-emergence activity of **Frigate 51% WDG**, but may also increase the potential for injury when applied over the top of various plants. Therefore, tank mixtures of these materials with **Frigate 51% WDG** may be more injurious than this product applied alone and need to be tested to determine if they can be used safely on a widespread basis.

### ADJUVANTS — Conifer Release Treatments

When using as a Conifer Release Treatment, **DO NOT** mix **Frigate 51% WDG** with any adjuvant or fertilizer.

**IMPORTANT:** When applied as directed, the conifers listed in Table 4 have shown tolerance to **Frigate 51% WDG**. However, **Frigate 51% WDG** is a very active herbicide and the user must exercise responsible judgment and caution until familiarity is gained with this product. If a desired conifer species is not listed in Table 4, evaluate the safety of **Frigate 51% WDG** on a small number of plants under commercial growing conditions, and monitor plant response for 4 - 6 weeks for phytotoxicity. Test **Frigate 51% WDG** on a small number of plants to determine if this product can be used safely on a widespread basis. **DO NOT** apply **Frigate 51% WDG** over the top of conifers until trees have been growing in the treated area for at least 1 year. The use of nylon mesh wraps, commonly used to deter animal browsing, may increase plant injury if placed on plants after over the top application of **Frigate 51% WDG**.

### RESTRICTIONS

- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) of **Frigate 51% WDG** per acre per single application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) of **Frigate 51% WDG** per acre per year.
- **DO NOT** apply more than 2 applications at 12 oz./A (0.383 lb. a.i.) or 3 applications at 8 oz./A (0.255 lb. a.i.) of **Frigate 51% WDG** per year.
- **DO NOT** re-apply **Frigate 51% WDG** within 30 days.



**Table 4. Tolerant Conifer Tree Species: Common**

<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>
<b>Fir</b>	
Concolor	<i>Abies concolor</i>
Cork Bark	<i>Abies lasiocarpa</i>
Douglas	<i>Pseudotsuga menziesii</i>
Fraser	<i>Abies fraseri</i>
Grand	<i>Abies grandis</i>
Noble	<i>Abies procera</i>
Turkish	<i>Abies bornmuelleriana</i>
<b>Hemlock</b>	
Eastern	<i>Tsuga canadensis</i>
Western	<i>Tsuga heterophylla</i>
Tamarix	<i>Juniperus sabina</i>
<b>Pine</b>	
Austrian	<i>Pinus nigra</i>
Eastern White	<i>Pinus strobus</i>
Jack	<i>Pinus banksiana</i>
Japanese Black	<i>Pinus thunbergiana</i>
Loblolly	<i>Pinus taeda</i>
Lodgepole	<i>Pinus contorta</i>
Longleaf	<i>Pinus palustris</i>
Mugo	<i>Pinus mugo</i>
Ponderosa	<i>Pinus ponderosa</i>
Sand	<i>Pinus clausa</i>
Scotch	<i>Pinus sylvestris</i>
Shortleaf	<i>Pinus echinata</i>
Slash	<i>Pinus elliotii</i>
Virginia	<i>Pinus virginiana</i>
<b>Spruce</b>	
Blue	<i>Picea pungens</i>
Dwarf Alberta	<i>Picea glauca conica</i>
Norway	<i>Picea abies</i>
Sitka	<i>Picea sitchensis</i>

## DIRECTIONS FOR USE IN POPLAR PLANTATIONS AND TIMBER RE-FORESTATION SITES

**Not for use in California.**

**Frigate 51% WDG** is a pre-emergence and post-emergence herbicide for control of selected grass and broadleaf weeds in poplar plantations and timber re-forestation sites following timber harvest operations. **Frigate 51% WDG** may be used as a site preparation treatment prior to transplanting of trees or as a release treatment after stand establishment.

### Site Preparation — Application Before Transplanting

Apply 8 - 12 oz. of **Frigate 51% WDG** per acre. Transplant operations must take place at least 3 months after application. To obtain optimal weed control, apply **Frigate 51% WDG** before weed emergence or after a burndown herbicide has controlled existing vegetation. If existing weed canopy is less than 40%, **Frigate 51% WDG** may be tank mixed with a burndown herbicide to provide pre-emergence weed control.

Apply **Frigate 51% WDG** in at least 10 gals. of water per acre to achieve uniform spray coverage using ground or aerial spray equipment.

### Release Treatments — Applications Within 3 Years After Transplanting

Apply 8 - 12 oz. of **Frigate 51% WDG** per acre over the top of trees prior to budbreak in the spring or after dormancy in fall. **DO NOT** apply **Frigate 51% WDG** over the top of trees after budbreak or leaf spotting and defoliation may occur. **Frigate 51% WDG** should not affect new growth of trees of tolerant poplars for over the top treatments.

### TANK MIXING — Poplar Release Treatments

Certain liquid formulations of other pesticides may increase the post-emergence activity of **Frigate 51% WDG**, but may also increase the potential for injury when applied over the top of various plants. Therefore, tank mixtures of these materials with **Frigate 51% WDG** may be more injurious than this product applied alone and need to be tested to determine if they can be used safely on a widespread basis.

### ADJUVANTS — Poplar Release Treatments

When applying Release Treatments, **DO NOT** mix **Frigate 51% WDG** with any adjuvant or fertilizer.

**IMPORTANT:** When applied as directed, poplars (*Populus balsamifera*, *P. niger* and *P. tremuloides*), hybrid poplars (*P. sp. x sp.*), and cottonwoods (*P. deltoids* and *P. trichocarpa*) have shown tolerance to **Frigate 51% WDG**. However, **Frigate 51% WDG** is a very active herbicide and the user must exercise responsible judgment and caution until familiarity is gained with **Frigate 51% WDG**. Test **Frigate 51% WDG** on a small number of plants to determine if this product can be used safely on a widespread basis. **DO NOT** apply **Frigate 51% WDG** over the top unless trees are more than 1 year old.

### RESTRICTIONS

- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) of **Frigate 51% WDG** per acre per single application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) of **Frigate 51% WDG** per acre per year.
- **DO NOT** apply more than 2 applications at 12 oz./A (0.383 lb. a.i.) or 3 applications at 8 oz./A (0.255 lb. a.i.) of **Frigate 51% WDG** per year.
- **DO NOT** re-apply **Frigate 51% WDG** within 30 days.

## DIRECTIONS FOR USE ON DORMANT WARM-SEASON TURFGRASS GROWN ON RESIDENTIAL SITES, GOLF COURSES, SOD PRODUCTION AND SIMILAR AREAS

**Not for use in California.**

Only for use in the following states: Alabama, Arizona, Arkansas, Colorado, Delaware, Florida, Georgia, Iowa, Indiana, Illinois, Kansas, Kentucky, Louisiana, Maryland, Mississippi, Missouri, Nebraska, Nevada, New Mexico, New Jersey, North Carolina, Oklahoma, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, and West Virginia

Apply **Frigate 51% WDG** as a single or split application to well established dormant turfgrass listed in Table 5, and will control winter annual weeds found in Table 1. Apply **Frigate 51% WDG** to dormant turfgrass in such areas as apartment complexes, golf courses, sod farms, roadsides, sports fields, campgrounds, office complexes, parks, parking areas, recreational sites, schools, and other similar sites. Dormant bermudagrass, centipedegrass, seashore paspalum, St. Augustine and zoysiagrass have exhibited tolerance to **Frigate 51% WDG** only when applied after turf has become dormant in the late fall and before turf breaks dormancy in the late winter/early spring. Application of **Frigate 51% WDG** to actively growing turfgrass (warm season and cool season) or during green-up will cause unacceptable injury. **Frigate 51% WDG** will injure warm season turf grown in southern areas where grass does not become completely dormant.

**BROADCAST APPLICATIONS**

Apply 8 - 12 oz. of **Frigate 51% WDG** per broadcast acre as a pre-emergence (to weed emergence) application. If weeds are present at the time of application apply **Frigate 51% WDG** plus an adjuvant (0.25% v/v non-ionic surfactant). Make post-emergence (to weed emergence) applications of **Frigate 51% WDG** when weeds are actively growing and no larger than 2 inches in height. Thorough spray coverage is necessary to maximize the post-emergence activity of **Frigate 51% WDG**. When applied after weed germination, **Frigate 51% WDG** will provide pre-emergence and post-emergence control of broadleaf weeds and grasses listed in Table 1. Post-emergence control of **Frigate 51% WDG** may be more effective on certain weed species, and may not control mature, stressed or hardened off weeds that are not actively growing at the time of application.

A second application of **Frigate 51% WDG** may be required to provide adequate season-long weed control. Apply the second application using the above mentioned rate guidelines prior to the turfgrass breaking spring dormancy.

**APPLICATION WITH DRY BULK FERTILIZERS**

Dry bulk fertilizer can be impregnated or coated with **Frigate 51% WDG**.

Application of dry bulk fertilizer with **Frigate 51% WDG** provides weed control equal to, or slightly below, the same rate of **Frigate 51% WDG** applied in liquid carriers, due to better coverage with an application via spray equipment. Follow label directions for **Frigate 51% WDG** regarding rates, special instructions, cautions, and special precautions. Apply 400-700 lbs. of the fertilizer/herbicide mixture per acre to obtain adequate soil coverage. Apply the mixture to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential to prevent possible turf injury and to obtain uniform weed control. **DO NOT** use ammonium nitrate and/or limestone as the sole source of fertilizer, as **Frigate 51% WDG** may not adhere to these materials. Compliance with all Federal and State regulations relating to blending pesticide mixtures with dry bulk fertilizer, registrations, labeling, and application are the responsibility of the individual and/or company offering the fertilizer and **Frigate 51% WDG** mixture for sale. Premix **Frigate 51% WDG** with water to form a slurry prior to impregnation on dry bulk fertilizer. Use a minimum of 1 pt. of water for each 2 oz. of **Frigate 51% WDG** and use a minimum of 6 pts. of **Frigate 51% WDG** slurry to impregnate 2,000 lbs. of the fertilizer for uniform coverage of the fertilizer. Closed drum, belt, ribbon, or other commonly used dry bulk blenders may be used.

The amount of **Frigate 51% WDG** required can be calculated with the following formula:

**Frigate 51% WDG** per ton of Fertilizer = Ounces of **Frigate 51% WDG** per acre x 2,000

÷ Pounds of Fertilizer per acre.

Thoroughly clean dry fertilizer blending equipment after placing **Frigate 51% WDG** in the system to avoid injury to sensitive crops that may be treated with fertilizers blended after the equipment has been used for **Frigate 51% WDG**. Rinse the sides of the blender and the herbicide tank with water. Then impregnate the rinsate onto a load of dry fertilizer intended for an approved crop. Use a maximum rate of 1 gal. of rinsate per ton of fertilizer. Follow with 1 - 2 loads of unimpregnated fertilizer in the blender before switching herbicides.

**SPOT TREATMENTS**

Mix 2 ½ tsp. per gal. of **Frigate 51% WDG** and 2 tsp. (⅓ fl. oz.) of non-ionic surfactant in 1 gal. of water and apply 1 gal. of spray solution per 1,000 sq. ft. Occasionally shake the spray solution while spraying to ensure the spray solution remains well mixed. Spray the target weeds until the leaves are wet.

**TANK MIXING WITH OTHER TURFGRASS HERBICIDES**

Tank mixing **Frigate 51% WDG** with other pre-emergence and post-emergence herbicides registered for use in dormant turfgrass may provide a broader spectrum of weed control than **Frigate 51% WDG** alone.

**IMPORTANT:** Turfgrass must be completely dormant at application. Any turfgrass that is not dormant will be injured by applications of **Frigate 51% WDG**. Scout area to be sprayed for any turf that is green in color and if encountered, delay application until turfgrass is completely dormant. Read and follow the label of any herbicides mixed with **Frigate 51% WDG**. When tank mixing **Frigate 51% WDG** with other herbicides, always follow the most restrictive limitations and precautions on the label of any tank mix partner.

**PRECAUTIONS**

Exercise good judgment and caution when applying to dormant turfgrass until familiarity is gained with **Frigate 51% WDG**.

**RESTRICTIONS**

- **DO NOT** apply **Frigate 51% WDG** to golf course putting greens.
- **DO NOT** **Frigate 51% WDG** apply to warm season turfgrass that has been over-seeded with cool season turfgrass (ex. perennial rye).
- **DO NOT** irrigate within 1 hour before or after application of **Frigate 51% WDG**.
- **DO NOT** apply **Frigate 51% WDG** if rain is expected within 1 hour after application.
- **DO NOT** mow turfgrass within 12 hours after application of **Frigate 51% WDG**.
- **DO NOT** apply **Frigate 51% WDG** within 30 days prior to cutting or lifting sod.
- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) of **Frigate 51% WDG** per acre per single application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) of **Frigate 51% WDG** per acre per year.
- **DO NOT** apply more than 2 applications at 12 oz./A (0.383 lb. a.i.) or 3 applications at 8 oz./A (0.255 lb. a.i.) of **Frigate 51% WDG** peryear.
- **DO NOT** re-apply **Frigate 51% WDG** within 30 days.
- **DO NOT** **Frigate 51% WDG** apply in fall before turfgrass has ceased active growth or in late winter/early spring after turfgrass has resumed active growth.
- Allow 8 weeks between application of **Frigate 51% WDG** and seeding or sodding of turfgrass.
- Not for homeowner use.

**Table 5. Tolerant Turfgrass Species**

<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>
Bermudagrass	<i>Cynodon</i> spp.
Centipedegrass	<i>Eremochloa ophiuroides</i>
Seashore paspalum	<i>Paspalum vaginatum</i>
St. Augustinegrass	<i>Stenotaphrum secundatum</i>
Zoysiagrass	<i>Zoysia</i> spp.

## STORAGE AND DISPOSAL

**DO NOT** contaminate water, food or feed by storage or disposal.

### PESTICIDE STORAGE:

Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If the container is leaking or material spilled for any reason or cause, carefully sweep material into a pile. Refer to PRECAUTIONARY STATEMENTS on label for hazards associated with the handling of this material. **DO NOT** walk through spilled material. Dispose of pesticide as directed below. In spill or leak incidents, keep unauthorized people away.

### PESTICIDE DISPOSAL:

Wastes resulting from the use of **Frigate 51% WDG** may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### CONTAINER HANDLING:

**Non-refillable container. Rigid, Non-refillable containers small enough to shake (i.e., with capacities equal to or less than 5 gallons). DO NOT reuse or refill this container.** Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix-tank. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix-tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix-tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix-tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once container is rinsed, offer for recycling if available, or puncture and dispose of in a sanitary landfill.

**Non-refillable containers. Rigid Non-refillable containers that are too large to shake (i.e., with capacities greater than 5 gallons or 50 lbs). DO NOT reuse or refill this container.** After emptying product from container, rinse and either recycle or dispose of the container as follows: Bottom Discharge IBC (e.g. Schuetz Caged IBC or Snyder Square Stackable).

Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. To pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix-tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal.

Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

Top Discharge IBC, Drums, Kegs (e.g. Snyder 120 Next Gen, Bonar B120, Drums, and Kegs). Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. To triple rinse the container before final disposal, empty the remaining contents from this container into application equipment or rinsate collection system. Fill the container at least 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times.

Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill.

[Batch Code will be placed on the container.]

### Warranty and Disclaimer Statement

Read the entire DIRECTIONS FOR USE and Warranty and Disclaimer Statement before buying or using **Frigate 51% WDG**. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The DIRECTIONS FOR USE of **Frigate 51% WDG** must be followed carefully. It is impossible to eliminate all risks associated with the use of **Frigate 51% WDG** including risks that may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors. Such risks are all beyond the control of Yifan Biotechnology Group Co., Ltd. ("YIFAN") and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. All such risks shall be assumed by the user or buyer and to the extent permitted by applicable law, the user or buyer agree to hold YIFAN harmless for any claims relating to such risks.

YIFAN warrants that **Frigate 51% WDG** conforms to the chemical description on the label and is reasonably fit for the purposes stated in the DIRECTIONS FOR USE, subject to the inherent risks described above, when used in accordance with the DIRECTIONS FOR USE under normal conditions. To the extent permitted by applicable law, this warranty does not extend to the use of **Frigate 51% WDG** contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of YIFAN, and the user or buyer assume the risk of any such use.

**To the extent permitted by applicable law, YIFAN disclaims all other warranties, expressed or implied, including any warranty of merchantability or fitness for a particular purpose. To the extent permitted by applicable law, YIFAN, manufacturer, and seller disclaim and shall not be liable for any special, incidental, indirect, or consequential damages (including claims based on breach of warranty, contract, negligence, tort, strict liability or otherwise) resulting from the use, handling, application, storage, or disposal of Frigate 51% WDG or for damages in the nature of penalties, and the user and buyer waive any right that they may have to such damages. No agent, representative or employee of YIFAN is authorized to make any warranty, guarantee or representation beyond those contained herein or to modify the warranties contained herein.**

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE TOTAL LIABILITY OF YIFAN, MANUFACTURER, AND SELLER, SHALL BE LIMITED TO THE PURCHASE PRICE PAID, OR AT YIFAN'S ELECTION, THE REPLACEMENT OF THE PRODUCT.**

**FLUMIOXAZIN GROUP 14 HERBICIDE**

[Pages 101-123: Trees, Ornamentals, Reforestation]

# Frigate 51% WDG

ABN: Frigate 51% WDG – Non-Crop

**Non-Crop Herbicide**

For Use in Container and Field Grown Conifers (Including Christmas Trees) and Deciduous Trees, Around Established Woody Ornamentals in Landscapes, To Maintain Bare Ground Non-Crop Areas, Conifer and Poplar Re-Forestation Sites, and Dormant Turfgrass

<b>Active Ingredient:</b>	<b>By Wt.</b>
Flumioxazin* .....	51%
<b>Other Ingredients</b> .....	<b>49%</b>
<b>Total</b> .....	<b>100%</b>
*2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1 H-isoindole- 1,3(2H)-dione	

**KEEP OUT OF REACH OF CHILDREN  
CAUTION/PRECAUCION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)

<b>FIRST AID</b>	
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• <b>DO NOT</b> induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• <b>DO NOT</b> give anything by mouth to an unconscious person.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
In the event of a leak, fire or medical emergency involving a human or animal please call INFOTRAC at 1-800-535-5053 or Outside the USA and Canada at 1-352-323-3500, 24/7/365.	

**Manufactured for:**  
Yifan Biotechnology Group Co., Ltd.  
No. 555, Changan Road, Yaoxi subdistrict,  
Longwan district, Wenzhou City, Zhejiang, China 325013

**EPA Reg No.: 95055-14**  
**EPA Est. No: 91233-CHN-001**

**Net Contents:**

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS & DOMESTIC  
ANIMALS CAUTION**

Harmful if absorbed through the skin or inhaled. Avoid contact with skin, eyes, or clothing. Causes moderate eye irritation. Avoid breathing dust and spray mist. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some of the materials that are chemical-resistant to **Frigate 51% WDG** are listed below.

**Applicators and other handlers must wear:**

- long-sleeved shirt and long pants
- chemical-resistant gloves made of any waterproof material including polyethylene or polyvinyl chloride
- shoes and socks

**User Safety Requirements**

Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS**

**Users should:**

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling **Frigate 51% WDG**. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

**Frigate 51% WDG** is toxic to non-target plants and aquatic invertebrates. **DO NOT** apply to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift or runoff may be hazardous to non-target plants and aquatic organisms in neighboring areas, if not used in accordance to the label directions. **DO NOT** apply where runoff is likely to occur. **DO NOT** apply when weather conditions favor drift from treated areas. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

This pesticide is toxic to plants and must be used strictly in accordance with the drift and run-off precautions on this label in order to minimize off-site exposures.

Under some conditions **Frigate 51% WDG** may have a potential to run-off to surface water or adjacent land.

**NON-TARGET ORGANISM ADVISORY:** **Frigate 51% WDG** is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

Where possible, use methods which reduce soil erosion, for example no till, limited till and contour plowing; these methods also reduce pesticide run-off. Use vegetation filter strips along rivers, creeks, streams, wetlands, or on the downhill side of fields, where run-off could occur to minimize water run-off.

*[Note to EPA reviewer: If **Frigate 51% WDG** is shipped in containers greater than 50 lbs., the following environmental hazard statement will be added to the label:*

**DO NOT** discharge effluent containing **Frigate 51% WDG** into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. **DO NOT** discharge effluent containing **Frigate 51% WDG** to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.]

**PHYSICAL OR CHEMICAL HAZARDS**

**DO NOT** mix or allow coming in contact with oxidizing agent. Hazardous chemical reaction may occur.



**DIRECTIONS FOR USE**

It is a violation of Federal Law to use **Frigate 51% WDG** in a manner inconsistent with its labeling.

**READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.**

**DO NOT** apply **Frigate 51% WDG** in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**AGRICULTURAL USE  
REQUIREMENTS**

Use **Frigate 51% WDG** only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of **Frigate 51% WDG** that are covered by the Worker Protection Standard.

**DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

The following PPE is required for early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, including plants, soil, or water:

- Coveralls
- chemical-resistant gloves made of any waterproof material including polyethylene or polyvinyl chloride
- Shoes plus socks

**NON-AGRICULTURAL USE  
REQUIREMENTS**

The requirements in this box apply to uses of **Frigate 51% WDG** that are NOT within the scope of the Worker Protection Standards for agricultural pesticides (40 CFR Part 170). The WPS applies when **Frigate 51% WDG** is used to produce agricultural plants on farms, forest, nurseries, or greenhouses.

Keep all unprotected persons out of operating areas, or vicinity where there may be drift.

**DO NOT** enter or allow others to enter treated areas until sprays have dried.

### RESISTANCE MANAGEMENT

**Frigate 51% WDG** is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to **Frigate 51% WDG** and other Group 14 herbicides. Weed species with acquired resistance to Group 14 herbicides may eventually dominate the weed population if Group 14 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by **Frigate 51% WDG** or other Group 14 herbicides. To delay development of herbicide resistance, follow appropriate resistance-management strategies.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of **Frigate 51% WDG** Herbicide or other Group 14 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method including hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with **Frigate 51% WDG**, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management directions for specific crops and weed biotypes or to find out if suspected resistant weeds have been found in their region.
- For further information or to report lack of performance or suspected resistance, contact Yifan Bio-tech Group Co. at +86-677-86637855 86630101 or at [www.yifanchem.com](http://www.yifanchem.com)

### TANK MIXES NOTICE

Tank mixing and/or use of **Frigate 51% WDG** with another product that is not specifically and expressly authorized by the label shall be at the exclusive risk of user, applicator, and/or application advisor to the extent allowed by applicable law.

Read and follow the entire label of each product to be used in the tank mix with **Frigate 51% WDG**.

### PRODUCT USE INFORMATION

**Frigate 51% WDG** is a pre-emergence and early post-emergence herbicide for control of selected grass and broadleaf weeds in and around ornamental woody shrubs, deciduous trees and conifers (including Christmas trees) grown outdoors in containers or in the field (in ground), to maintain bare ground non-crop areas, conifer and poplar re-forestation, and dormant warm season turfgrass.

**Frigate 51% WDG** controls weeds by inhibiting protoporphyrinogen oxidase, an essential enzyme required by plants for chlorophyll biosynthesis. Seedling weeds are controlled pre-emergence when exposed to sunlight following contact with the soil applied herbicide.

**Frigate 51% WDG** may cause spotting or speckling on foliage if the spray solution directly contacts actively growing plant foliage or green bark. Leaves that receive indirect (drift) spray contact may be affected in a similar manner. Translocation of **Frigate 51% WDG** is limited, and under most conditions established and vigorously growing woody ornamentals will rapidly outgrow any injury symptoms. **However, direct application to actively growing foliage can cause severe injury or death with sensitive ornamental plant species, especially in herbaceous bedding plants and flowers.**

**IMPORTANT:** When applied as directed, plants listed on this label have shown tolerance to **Frigate 51% WDG**. However, **Frigate 51% WDG** is a very active herbicide and the user must exercise responsible judgment and caution until familiarity is gained with **Frigate 51% WDG**. Due to variability within species, crop growthstage, environmental conditions and application techniques, test **Frigate 51% WDG** under local growing conditions on a small number of plants and evaluate for 4 - 6 weeks for phytotoxicity. Testing **Frigate 51% WDG** on a small number of plants will determine if the herbicide can be used safely on a widespread application. Neither the seller nor the manufacturer of **Frigate 51% WDG** has investigated the safety to plants not listed on the label.

### RESTRICTIONS

- **DO NOT** apply **Frigate 51% WDG** in enclosed greenhouse structures if plants are present.
- **DO NOT** move plants for 24 hours into enclosed greenhouses until the area treated with **Frigate 51% WDG** has been watered.
- **DO NOT** apply **Frigate 51% WDG** when weather conditions favor spray drift from treated areas.
- **DO NOT** graze fields treated with **Frigate 51% WDG** or feed hay from fields treated with **Frigate 51% WDG** to livestock.
- **DO NOT** incorporate **Frigate 51% WDG** into soil after application.
- **DO NOT** apply **Frigate 51% WDG** through any type of irrigation system.
- **DO NOT** apply **Frigate 51% WDG** when plants are under stress from insects, diseases, animals or winter injury, planting shock or any other stresses.
- **DO NOT** apply **Frigate 51% WDG** to stressed or diseased trees and ornamentals - only apply to healthy established trees and ornamentals.
- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) of **Frigate 51% WDG** per acre per application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) of **Frigate 51% WDG** per acre per year.
- **DO NOT** re-apply **Frigate 51% WDG** within 30 days.
- Not for homeowner use.

### PRE-EMERGENCE APPLICATION

Pre-emergence weed control with **Frigate 51% WDG** is most effective when applied to clean, weed free soil surfaces prior to weed emergence. Moisture is necessary to activate **Frigate 51% WDG** on soil for residual weed control. Dry weather following application of **Frigate 51% WDG** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **Frigate 51% WDG** will control susceptible germinating weeds.

When adequate moisture is not received soon after **Frigate 51% WDG** is applied to soil, weed control may be improved by utilizing shallow cultivation. If weeds begin to emerge, irrigate (½" of water) or cultivate uniformly with shallow tillage equipment that will not damage the crop. **DO NOT** deep cultivate **Frigate 51% WDG**.

### POST-EMERGENCE APPLICATION

The most effective post-emergence weed control with **Frigate 51% WDG** occurs when applied in combination with a surfactant to weeds less than 2 inches in height. Apply **Frigate 51% WDG** only to actively growing weeds. Applying **Frigate 51% WDG** under conditions that **DO NOT** promote active weed growth will reduce herbicide effectiveness, this product is most effective when applied under sunny conditions at temperatures above 65°F.

**Frigate 51% WDG** is rainfast 1 hour after application. **DO NOT** apply if rain is expected within 1 hour of application or efficacy may be reduced.

### SOIL CHARACTERISTICS

Application of **Frigate 51% WDG** to soils with high organic matter and/or high clay content may require higher dosages than with soils with low organic matter and/or low clay content. Application to cloddy seedbeds can result in reduced weed control.

## CARRIER VOLUME AND SPRAY PRESSURE

### Pre-Emergence Application

To ensure uniform coverage when using boom sprayers, use 10 - 30 gals. of spray solution per acre. When making backpack applications, apply 50 - 100 gals. of spray solution per acre. Nozzle selection must meet manufacturer's gallonage and pressure specifications for pre-emergence herbicide application.

### Post-Emergence Application

To ensure thorough coverage when using boom sprayers apply 15 - 30 gals. of spray solution per acre. Apply 20 - 30 gals. per acre when using a boom sprayer if dense vegetation or heavy residue is present on the soil surface. When applying with a backpack sprayer, apply 1 gal. of spray solution per 500 - 1,000 sq. ft. Nozzle selection must meet manufacturer's gallonage and pressure specifications for post-emergence herbicide application.

## ADDITIVES

### Post-Emergence Application

When applying **Frigate 51% WDG** after weeds emerge, mix with an agronomically approved adjuvant. Mix **Frigate 51% WDG** with a crop oil concentrate that contains at least 15% emulsifiers and 80% oil or a non-ionic surfactant containing at least 80% active ingredient when applying this product as part of a post-emergence weed control program. Verify mixing compatibility by a jar test before using. **DO NOT** mix **Frigate 51% WDG** with a surfactant when applying over the top of dormant woody ornamentals or conifer trees.

Add a spray-grade nitrogen source (either ammonium sulfate at 2.0 - 2.5 lbs./A or a 28 - 32% nitrogen solution at 1 - 2 qts./A) to the spray mixture along with a crop oil concentrate or non-ionic surfactant to enhance weed control. The addition of a nitrogen source does not replace the need for crop oil concentrate or non-ionic surfactant.

## JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND FRIGATE 51% WDG HERBICIDE

Perform a jar test before mixing commercial quantities of **Frigate 51% WDG**, when using **Frigate 51% WDG** for the first time, when using new adjuvants or when a new water source is being used.

1. Add 1 pt. of water to a quart jar. The water must be from the same source and have the same temperature as the water used in the spray tank mixing operation.
2. Add 3 grams (approximately 1 level tsp.) of **Frigate 51% WDG** for the 8 oz./A rate or 4 grams (approximately 1 ½ tsp.) for 12 oz./A rate to the jar. Gently mix until product disperses.
3. Add 60 mL (4 Tbsp. or 2 fl. oz.) of additive to the quart jar and gently mix.
4. If nitrogen is being used, add 16 mL (1 Tbsp.) of the 28 - 32% nitrogen source to the quart jar. If ammonium sulfate is being used, add 19 grams of AMS to the quart jar in place of the 28 - 32% nitrogen.
5. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
6. An ideal tank mix combination will be uniform and free of suspended particles. If any of the following conditions are observed, **DO NOT** use the adjuvant:
  - a) Layer of oil or globules on the solution surface.
  - b) Flocculation: Fine particles in suspension or as a layer on the bottom of the jar.
  - c) Clabbering: Thickening texture (coagulated) like gelatin.

## APPLICATION EQUIPMENT

**IMPORTANT:** Thoroughly clean spray equipment, including all tanks, hoses, booms, screens, and nozzles, after application of **Frigate 51% WDG**. Equipment with **Frigate 51% WDG**'s residue remaining in the system may result in crop injury to subsequently treated crops.

## SPRAYER PREPARATION

Before applying **Frigate 51% WDG**, clean the spray tank, as well as all hoses and booms to ensure no residue from the previous spraying operation remains in the sprayer. Some pesticides, including but not limited to the sulfonylurea and phenoxy herbicides, are active at very small amounts and can cause crop injury when applied to susceptible crops. Clean spray equipment according to the manufacturer's directions for the last product used before the equipment is used to apply **Frigate 51% WDG**. If 2 or more products were tank mixed prior to **Frigate 51% WDG** application, follow the most restrictive cleanup procedure on the label of all products.

## MIXING INSTRUCTIONS

1. Fill clean spray tank ½ - ¾ of desired level with clean water.
2. To ensure a uniform spray mixture, pre-slurry the required amount of **Frigate 51% WDG** with water prior to addition to the spray tank. Use a minimum of 1 gal. of water per 10 oz. of **Frigate 51% WDG**.
3. While agitating, slowly add the pre-slurried to the spray tank. Agitate enough to create a rippling or rolling action on the water surface.

- If tank mixing **Frigate 51% WDG** with other labeled herbicides, add water soluble bags first, followed by dry formulations, flowables, emulsifiable concentrates and then solutions. Prepare no more spray mixture than is required for the immediate spray operation.
- Add any required adjuvants.
- Fill spray tank to desired level with water. Continue agitation until spray solution has been applied.
- Mix only the amount of spray solution that can be applied the day of mixing. Apply **Frigate 51% WDG** within 12 hours of mixing.

### SPRAYER CLEANUP

Spray equipment must be cleaned each day following **Frigate 51% WDG** application. After **Frigate 51% WDG** is applied the following steps must be used to clean the spray equipment:

- Completely drain the spray tank and rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.
- Fill the tank with clean water and flush all hoses, booms, screens, and nozzles.
- Top off tank with clean water and household ammonia. Use 1 gal. of 3% household ammonia for every 100 gals. of water.
- Circulate through sprayer for 5 minutes.
- Then flush all hoses, booms, screens, and nozzles for a minimum of 15 minutes.
- Loosen any diaphragms before flushing the spray system, allowing cleaning solution to spray through the open diaphragm.
- Drain tank completely.
- Add enough clean water to the spray tank to flush hoses, booms, screens, and nozzles for 2 minutes.
- Remove all nozzles and screens and rinse them with clean water.

### APPLICATION EQUIPMENT

Application equipment must be clean and in good repair. Nozzles must be uniformly spaced on boom and frequently checked for accuracy.

### BROADCAST APPLICATION

Apply **Frigate 51% WDG** and this product's tank mixes, with ground equipment using standard commercial sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume.

### BAND APPLICATION

When banding, use proportionately less water and **Frigate 51% WDG** per acre.

### BACKPACK APPLICATION

When applying **Frigate 51% WDG** with a backpack sprayer follow all above restrictions. Calibrate backpack sprayers to deliver 1 gal. of spray solution per 500 - 1,000 sq. ft.

**For terrestrial uses:**

### RESTRICTIONS:

- DO NOT** apply more than 12 oz. (0.383 lb. a.i.) of **Frigate 51% WDG** per acre per application.
- DO NOT** apply more than 24 oz. (0.765 lb. a.i.) of **Frigate 51% WDG** acre per year.

### For Backpack Applications of Frigate 51% WDG at 10 oz. per Acre

Application Volume	Amount of Frigate 51% WDG to mix in 1 gal. of water	Amount of Frigate 51% WDG to mix in 2 gal. of water	Amount of Frigate 51% WDG to mix in 3 gals. of water
1 gal. per 500 sq. ft. (= 87 GPA)	1 ¼ tsp.	2 ½ tsp.	3 ¾ tsp.
1 gal. per 750 sq. ft. (= 58 GPA)	1 ¾ tsp.	3 ¾ tsp.	5 ¼ tsp.
1 gal. per 1,000 sq. ft. (= 43.5 GPA)	2 ½ tsp.	5 tsp.	7 ½ tsp.

1 level teaspoon (tsp.) holds 2.8 grams of **Frigate 51% WDG**.

**Example:** Applicator wants to spray 1 gal. of **Frigate 51% WDG** solution per 1,000 sq. ft. of ground bed, and wants to mix up 2 gals. of spray solution. Therefore, mix 5 teaspoons of **Frigate 51% WDG** in 2 gals. of water.

**AERIAL APPLICATION**

To obtain satisfactory weed control with aerial application of **Frigate 51% WDG**, coverage must be uniform. **DO NOT** spray when drift is possible or when wind velocity is more than 10 mph. **DO NOT** spray **Frigate 51% WDG** within 200 feet of dwellings, adjacent sensitive crops or environmentally sensitive areas. To obtain satisfactory application and drift, the following directions must be observed:

**Volume Pressure**

Apply **Frigate 51% WDG** in 5 - 10 gals. of water per acre, with a maximum spray pressure of 40 PSI. Application at less than 5 gals. per acre may not provide adequate weed control. Higher gallonage applications provide more consistent weed control.

**Nozzles and Nozzle Operation**

Use nozzles that produce flat or hollow cone spray patterns. Use non-drip type nozzles for example diaphragm type nozzles to avoid unwanted discharge of spray solution. The nozzle must be directed toward the rear of the aircraft, at an angle between 0° and 15° downward. **DO NOT** place nozzles on the outer 25% of the wings or rotors.

**Adjuvants**

Refer to the additive section or the tank mix partners label for adjuvant directions.

**CALIBRATION TABLE**

<b>Frigate 51% WDG Rates Oz./A</b>	<b>Frigate 51% WDG Rates Grams/Gal.</b>	<b>Frigate 51% WDG Rates Per Gal.</b>
8 (0.255 lb. a.i.)	2.3	¾ tsp.
10 (0.32 lb. a.i.)	2.8	1 level tsp.
12 (0.383 lb. a.i.)	3.4	1 ¼ tsp.

**MANDATORY SPRAY DRIFT****Aerial Applications**

- **DO NOT** release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply **Frigate 51% WDG** when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply **Frigate 51% WDG** during temperature inversions.

**Ground Applications**

- Users must only apply with the release height specified by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- **DO NOT** apply **Frigate 51% WDG** when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply **Frigate 51% WDG** during temperature inversions.

**Boom-less Ground Applications**

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- **DO NOT** apply **Frigate 51% WDG** when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply **Frigate 51% WDG** during temperature inversions.

**SPRAY DRIFT ADVISORIES**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

**IMPORTANCE OF DROPLET SIZE**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

**Controlling Droplet Size - Ground Boom**

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure specified for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

**Controlling Droplet Size - Aircraft**

- Adjust Nozzles - Follow nozzle manufacturers directions for setting up nozzles. Generally, to reduce fine droplets, orient nozzles parallel with the airflow in flight.

**BOOM HEIGHT - Ground Boom**

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, keep the boom level with the crop and have minimal bounce.

**RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift. When applying aerially to crops, **DO NOT** release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

**SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

**TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

**TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

**WIND**

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.** Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

**Boom-less Ground Applications:**

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

**Handheld Technology Applications:**

Take precautions to minimize spray drift.

**WEEDS CONTROLLED**

When **Frigate 51% WDG** is applied pre-emergence or post-emergence at specified rates and weed stages, the following grasses and broadleaf weeds are controlled.

**Table 1. Weeds Controlled by Frigate 51% WDG**

<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>
Alyssum, Hoary	<i>Berteroa incana</i>
Amaranth	
Palmer	<i>Amaranthus palmeri</i>
Spiny	<i>Amaranthus spinosus</i>
American Burnweed	<i>Erechtites hieracifolia</i>
Barnyardgrass*	<i>Echinochloa crus-galli</i>
Beggarweed, Florida	<i>Desmodium tortuosum</i>
Bittercress, Hairy	<i>Cardamine hirsuta</i>
Bluegrass, Annual*	<i>Poa annua</i>

COMMON NAME	SCIENTIFIC NAME
Burclover, California	<i>Medicago polymorpha</i>
Carpetweed	<i>Mollugo verticillata</i>
Chamberbitter	<i>Phyllanthus urinaria</i>
Chickweed	
Common	<i>Stellaria media</i>
Mouseear	<i>Cerastium vulgatum</i>
Crabgrass	
Large*	<i>Digitaria sanguinalis</i>
Smooth*	<i>Digitaria ischaemum</i>
Southern*	<i>Digitaria ciliaris</i>
Croton, Tropic	<i>Croton glandulosus var. septentrionalis</i>
Dandelion*	<i>Taraxacum officinale</i>
Dogfennel	<i>Eupatorium capillifolium</i>
Doveweed	<i>Murdannia nudiflora</i>
Eclipta	<i>Eclipta prostrata</i>
Filaree, Redstem*	<i>Erodium cicutarium</i>
Foxtail	
Bristly*	<i>Setaria verticillata</i>
Giant*	<i>Setaria faberi</i>
Green*	<i>Setaria viridis</i>
Yellow*	<i>Setaria glauca</i>
Galinsoga, Hairy	<i>Galinsoga ciliata</i>
Geranium, Carolina	<i>Geranium carolinianum</i>
Goosegrass*	<i>Eleusine indica</i>
Groundsel, Common	<i>Senecio vulgaris</i>
Groundsel Tree	<i>Baccharis halimifolia</i>
Henbit	<i>Lamium amplexicaule</i>
Horseweed*	<i>Conyza Canadensis</i>
Indigo, Hairy	<i>Indigofera hirsute</i>
Ivy, Ground*	<i>Glechoma hederacea</i>
Jimsonweed	<i>Datura stramonium</i>
Kochia	<i>Kochia scoparia</i>
Kyllinga, Green*	<i>Kyllinga brevifolia</i>
Lady's Thumb	<i>Polygonum persicaria</i>
Lambsquarters, Common	<i>Chenopodium album</i>
Liverwort	<i>Marchantia polymorpha</i>
Lovegrass, California*	<i>Eragrostis diffusa</i>
Mallow	
Common	<i>Malva neglecta</i>
Little	<i>Malva parviflora</i>
Venice	<i>Hibiscus trionum</i>
Marsh Parsley	<i>Apium leptophyllum</i>
Marsh Yellowcress	<i>Rorippa islandica</i>
Mayweed*	<i>Anthemis cotula</i>
Morningglory	
Entireleaf	<i>Ipomoea hederacea var. integriuscula</i>
Ivyleaf	<i>Ipomoea hederacea</i>
Red/Scarlet	<i>Ipomoea coccinea</i>
Smallflower	<i>Jacquemontia tamnifolia</i>
Tall	<i>Ipomoea purpurea</i>
Moss	<i>Bryum spp.</i>
Mulberry Weed	<i>Fatoua villosa</i>
Mustard	
Tumble	<i>Sisymbrium altissimum</i>
Wild	<i>Brassica kaber</i>



COMMON NAME	SCIENTIFIC NAME
Nightshade	
Black	<i>Solanum nigrum</i>
Eastern Black	<i>Solanum ptycanthum</i>
Hairy	<i>Solanum sarrachoides</i>
Northern Willowherb	<i>Epilobium ciliatum</i>
Panicum	
Fall*	<i>Panicum dichotomiflorum</i>
Texas*	<i>Panicum texanum</i>
Parsley Piert	<i>Alchemilla arvensis</i>
Pearlwort, Birdseye*	<i>Sagina procumbens</i>
Pennycress, Field	<i>Thlaspi arvense</i>
Phyllanthus, Longstalked	<i>Phyllanthus tenellus</i>
Pigweed	
Prostrate	<i>Amaranthus blitoides</i>
Redroot	<i>Amaranthus retroflexus</i>
Smooth	<i>Amaranthus hybridus</i>
Tumble	<i>Amaranthus albus</i>
Pineapple-weed*	<i>Matricaria matricarioides</i>
Plantain	
Broadleaf*	<i>Plantago major</i>
Buckhorn*	<i>Plantago lanceolate</i>
Poinsettia, Wild	<i>Euphorbia heterophylla</i>
Puncturevine	<i>Tribulus terrestris</i>
Purslane, Common	<i>Portulaca oleracea</i>
Pusley, Florida	<i>Richardia scabra</i>
Ragweed	
Common	<i>Ambrosia artemisiifolia</i>
Giant	<i>Ambrosia trifida</i>
Redmaids	<i>Calandrinia ciliata</i>
Redweed	<i>Melochia corchorifolia</i>
Rocket, Yellow	<i>Barbarea vulgaris</i>
Senna, Coffee	<i>Cassia occidentalis</i>
Sesbania, Hemp	<i>Sesbania exaltata</i>
Shepherd's Purse	<i>Capsella bursa-pastoris</i>
Sida, Prickly (Teaweed)	<i>Sida spinosa</i>
Signalgrass*	<i>Brachiaria platyphylla</i>
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>
Sowthistle, Annual	<i>Sonchus oleraceus</i>
Spiderwort, Tropical	<i>Commelina benghalensis</i>
Spurge	
Petty	<i>Euphorbia peplus</i>
Prostrate	<i>Euphorbia humistrata</i> Engelm
Spotted	<i>Euphorbia maculata</i>
Starbur, Bristly*	<i>Acanthospermum hispidum</i>
Tassel-flower	<i>Emilia</i> spp.
Thickhead	<i>Crassocephalum crepidioides</i>
Thistle	
Canada*	<i>Cirsium arvense</i>
Russian	<i>Salsola iberica</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Waterhemp	
Common	<i>Amaranthus rudis</i>
Tall	<i>Amaranthus tuberculatus</i>
Woodsorrel, Yellow*	<i>Oxalis stricta</i>

\*pre-emergence control only.

## DIRECTIONS FOR USE IN ESTABLISHED CONTAINER AND FIELD GROWN CONIFERS (INCLUDING CHRISTMAS TREES)

Apply **Frigate 51% WDG** as a single or split application to established container and field grown conifers, which includes applications to Christmas tree plantations. The conifers listed in Table 2 have exhibited tolerance to **Frigate 51% WDG** only when the product is applied to dormant or hardened off plant material. If applied

over the top of plant foliage, apply **Frigate 51% WDG** before spring bud break or after conifers have sufficiently hardened off. During periods of cool, cloudy weather, use caution to ensure conifers have hardened off prior to herbicide application. **DO NOT** apply to conifers within 1 year of seedling emergence.

### PRE-EMERGENCE APPLICATION

Apply 8 - 12 oz. (0.25 - 0.38 lb. a.i./A) of **Frigate 51% WDG** per broadcast acre before weeds emerge. Apply to weed free, established conifers grown in containers or in the field (in ground). If possible, irrigate treated area with 0.5 - 0.75 inch of water immediately following application. **Frigate 51% WDG** may be sprayed directly over conifers listed in Table 2, provided bud break has not occurred or plants are hardened off. Needle burn may be observed on new flush if plants are actively growing at time of application. However, **Frigate 51% WDG** will typically not effect subsequent growth. If conifers are not dormant or hardened off at time of application, and foliar injury cannot be tolerated, apply **Frigate 51% WDG** as a directed spray, taking care to minimize direct contact or drift of sprays onto foliage. Mechanically incorporating **Frigate 51% WDG** after application will disturb soil surfaces, which may reduce herbicidal efficacy. When applied before weed germination, **Frigate 51% WDG** will control broadleaf and grassy weeds listed in Table 1.

### POST-EMERGENCE APPLICATION

Apply 8 - 12 oz. (0.25 - 0.38 lb. a.i./A) of **Frigate 51% WDG** per broadcast acre after weeds have emerged. **Frigate 51% WDG** may be sprayed directly over conifers listed in Table 2, provided bud break has not occurred or plants are hardened off. Needle burn may be observed on new flush if plants are actively growing at time of application. However, **Frigate 51% WDG** will typically not affect subsequent growth. If conifers are not dormant or hardened off at the time of application, and foliar injury cannot be tolerated, apply **Frigate 51% WDG** as a directed spray, taking care to minimize direct contact or drift of sprays onto foliage.

If applied when weeds are actively growing and no larger than 2 inches in height, **Frigate 51% WDG** will provide post-emergence control of broadleaf weeds and grasses listed in Table 1. Post-emergence control of **Frigate 51% WDG** may be more effective with certain weed species, and may not control mature, stressed or hardened off weeds that are not actively growing at the time of application.

### TANK MIXTURES FOR CONTAINER AND FIELD GROWN CONIFERS

Tank mixing **Frigate 51% WDG** with other pre-emergence and post-emergence herbicides registered for use on conifers may provide a broader spectrum of weed control than **Frigate 51% WDG** applied alone, apply **Frigate 51% WDG** as part of a post-emergence burndown program for control of annual and perennial weeds. Tank mixing **Frigate 51% WDG** with glyphosate will increase the speed of burndown compared to glyphosate applied alone.

**Frigate 51% WDG** may be tank mixed with products containing the following active ingredients labeled for use in conifers:

Clethodim	glyphosate*	oryzalin	proflaminate	simazine*
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\***DO NOT** apply glyphosate or simazine to containerized ornamentals.

**IMPORTANT:** It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

### TOLERANT CONIFERS

**Frigate 51% WDG** may be applied to the conifer species listed in Table 2. If a desired conifer species is not listed in Table 2, evaluate the safety of **Frigate 51% WDG** on a small number of plants under commercial growing conditions, and monitor plant response for 4 - 6 weeks for phytotoxicity. Testing **Frigate 51% WDG** on a small number of plants will determine if this product can be used safely on a widespread basis.

### RESTRICTIONS

- **DO NOT** apply **Frigate 51% WDG** more than 12 oz. (0.383 lb. a.i.) per acre per single application.
- **DO NOT** apply **Frigate 51% WDG** more than 24 oz. (0.765 lb. a.i.) per acre per year.
- **DO NOT** apply more than 2 applications at 12 oz./A (0.383 lb. a.i.) or 3 applications at 8 oz./A (0.255 lb. a.i.) of **Frigate 51% WDG** per year.
- **DO NOT** re-apply **Frigate 51% WDG** within 30 days.

**Table 2. Tolerant Conifers**

<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>
<b>Arborvitae</b>	
American	<i>Thuja occidentalis</i>
Oriental	<i>Thuja orientalis</i>
<b>Fir</b>	
Concolor	<i>Abies concolor</i>
Cork Bark	<i>Abies lasiocarpa</i>
Douglas	<i>Pseudotsuga menziesii</i>
Fraser	<i>Abies fraseri</i>
Grand	<i>Abies grandis</i>
Noble	<i>Abies procera</i>
Turkish	<i>Abies bornmuelleriana</i>
<b>Hemlock</b>	
Eastern	<i>Tsuga canadensis</i>
Western	<i>Tsuga heterophylla</i>
<b>Juniper</b>	
Blue Star	<i>Juniperus scopularum</i>
Creeping	<i>Juniperus horizontalis</i>
Japanese Garden	<i>Juniperus chinensis</i>
Tamarix	<i>Juniperus sabina</i>
<b>Pine</b>	
Austrian	<i>Pinus nigra</i>
Eastern White	<i>Pinus strobus</i>
Jack	<i>Pinus banksiana</i>
Japanese Black	<i>Pinus thunbergiana</i>
Loblolly	<i>Pinus taeda</i>
Lodgepole	<i>Pinus contorta</i>
Longleaf	<i>Pinus palustris</i>
Mugo	<i>Pinus mugo</i>
Ponderosa	<i>Pinus ponderosa</i>
Sand	<i>Pinus clausa</i>
Scotch	<i>Pinus sylvestris</i>
Shortleaf	<i>Pinus echinata</i>
Slash	<i>Pinus elliotii</i>
Virginia	<i>Pinus virginiana</i>
<b>Spruce</b>	
Blue	<i>Picea pungens</i>
Dwarf Alberta	<i>Picea glauca conica</i>
Norway	<i>Picea abies</i>
Sitka	<i>Picea sitchensis</i>
<b>Yew</b>	
English	<i>Taxus baccata</i>
Japanese	<i>Taxus cuspidata</i>

## DIRECTIONS FOR USE IN CONTAINER AND FIELD GROWN DECIDUOUS TREES AND NON-BEARING FRUIT AND NON-BEARING NUT TREES

Apply **Frigate 51% WDG** as a single or split application to container and field grown deciduous trees with an established root system. The deciduous trees listed in Table 3 have exhibited tolerance to **Frigate 51% WDG** only when applied to the soil and base of plants. Application of **Frigate 51% WDG** to deciduous foliage or green bark may result in unacceptable injury.

Apply **Frigate 51% WDG** to established (or transplanted) container and field grown deciduous trees. **DO NOT** apply to trees that are less than 1 year old or have been transplanted less than 1 year, unless completely protected by non-porous wraps, grow tubes, waxed protectors or other forms of protection to young foliage and/or bark. **DO NOT** harvest fruit or nuts from treated trees within 1 year of application.

**IMPORTANT:** Direct application of **Frigate 51% WDG** to the soil surface and away from plant foliage and bark. Avoid direct spray contact on plant surfaces, foliage and green bark or injury may result. Application of **Frigate 51% WDG** after bud swell may cause injury if herbicide contacts foliage. Avoid application under environmental conditions that favor drift to non-targeted areas.

### PRE-EMERGENCE APPLICATION

Apply 8 - 12 oz. (0.25 - 0.38 lb. a.i./A) of **Frigate 51% WDG** per broadcast acre as a pre-emergence (to weed emergence) application. Apply **Frigate 51% WDG** to weed free deciduous trees grown in containers or in the field (in-ground). If possible, irrigate treated area with 0.5 to 0.75 inch of water immediately following application. Apply **Frigate 51% WDG** to the soil surface and base of deciduous trees, provided that direct and indirect (drift) applications to plant foliage, flowers and green bark does not occur. Mechanically incorporating **Frigate 51% WDG** will disturb soil surfaces, which may reduce herbicidal efficacy. Use spray shields that limit exposure of foliage and bark to **Frigate 51% WDG**. When applied before weed germination, **Frigate 51% WDG** will control broadleaf and grassy weeds listed in Table 1.

### POST-EMERGENCE APPLICATION

Apply 8 - 12 oz. (0.25 - 0.38 lb. a.i./A) of **Frigate 51% WDG** per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant or 1 qt./A crop oil concentrate). Make post-emergence (to weed emergence) applications of **Frigate 51% WDG** when weeds are actively growing and are no larger than 2 inches in height. The addition of a surfactant enhances **Frigate 51% WDG** activity on emerged weeds. Thorough spray coverage is necessary to maximize the post-emergence activity of **Frigate 51% WDG**. When applied after weed germination, **Frigate 51% WDG** will provide pre-emergence and post-emergence control of broadleaf weeds and grasses listed in Table 1. If plant injury is a concern, use a spray shield to limit the exposure of trees to **Frigate 51% WDG**.

Post-emergence control of **Frigate 51% WDG** may be more effective with certain weed species, and may not control mature, stressed or hardened off weeds that are not actively growing at the time of application.

### TANK MIXTURES FOR FIELD AND CONTAINER GROWN DECIDUOUS TREES

Tank mixing **Frigate 51% WDG** with other pre-emergence and post-emergence herbicides registered for use on deciduous trees may provide a broader spectrum of weed control than this product alone. Apply **Frigate 51% WDG** as part of a post-emergence burndown program of control of annual and perennial weeds. Tank mixing **Frigate 51% WDG** with glyphosate will increase the speed of burndown compared to glyphosate applied alone.

Tank mix **Frigate 51% WDG** with products containing the following active ingredient labeled for use in deciduous trees:

Clethodim	glyphosate*	metolachlor	oryzalin
Pendimethalin	prodiamine	simazine*	

\***DO NOT** apply glyphosate or simazine to containerized plants.

**IMPORTANT:** It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

### TOLERANT DECIDUOUS TREES, NON-BEARING FRUIT AND NON-BEARING NUT TREES

Apply **Frigate 51% WDG** as a directed spray to the deciduous, non-bearing fruit and non-bearing nut trees species listed in Table 3. If a desired tree species is not listed in Table 3, evaluate the safety of **Frigate 51% WDG** on a small number of plants under commercial growing conditions and monitor plant response for 4 -6 weeks for phytotoxicity. Testing **Frigate 51% WDG** on a small number of plants will determine if this product can be used safely on a widespread basis.

**RESTRICTIONS**

- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) of **Frigate 51% WDG** per acre per single application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) of **Frigate 51% WDG** per acre per year.
- **DO NOT** apply more than 2 applications at 12 oz./A (0.383 lb. a.i.) or 3 applications at 8 oz./A (0.255 lb. a.i.) of **Frigate 51% WDG** per year.
- **DO NOT** re-apply **Frigate 51% WDG** within 30 days.

**Table 3. Tolerant Deciduous Tree Species**

<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>
Apricot*	<i>Prunus</i> spp.
Ash	<i>Fraxinus</i> spp.
Birch	<i>Betula</i> spp.
Buckeye	<i>Aesculus</i> spp.
Cherry*	<i>Prunus</i> spp.
Chestnut	<i>Castanea</i> spp.
Citrus*	<i>Citrus</i> spp.
Dogwood	<i>Comus</i> spp.
Eucalyptus	<i>Eucalyptus</i> spp.
Ginkgo	<i>Ginkgo</i> spp.
Hawthorn	<i>Crataegus</i> spp.
Honeylocust	<i>Gleditsia</i> spp.
Larch	<i>Larix</i> spp.
Lilac	<i>Syringa</i> spp.
Maple**	<i>Acer</i> spp.
Myrtle, Crepe	<i>Lagerstroemia indica</i>
Oak	<i>Quercus</i> spp.
Poplar	<i>Populus</i> spp.
Peach*	<i>Prunus</i> spp.
Plum*	<i>Prunus</i> spp.
Pecan*	<i>Carya</i> spp.
Redbud	<i>Cercis canadensis</i>
Sweetgum	<i>Liquidambar styraciflua</i>
Sycamore	<i>Platanus</i> spp.
Walnut, Black	<i>Juglans nigra</i>
Willow	<i>Salix</i> spp.

\*Non-bearing trees only.

\*\*Not for use on maple trees used for production of maple sap or syrup.

**DIRECTIONS FOR USE****AROUND ESTABLISHED WOODY LANDSCAPE ORNAMENTALS AND TO MAINTAIN BARE GROUND  
NON-CROP AREAS**

In residential and commercial landscapes, **Frigate 51% WDG** must only be applied by commercial licensed applicators. Application of **Frigate 51% WDG** in the vicinity of ornamental plants is limited to directed sprays around well-established woody shrubs and trees including azalea, euonymus, holly, and the conifers and deciduous trees listed in Tables 2 and 3.

**Frigate 51% WDG** maintains bare ground in non-crop areas in apartment complexes, fence rows, gravel surfaces, ground mats, golf courses, lumberyards, office complexes, parks, parking areas, recreational sites, schools, sidewalks, storage areas and other similar industrial sites. **DO NOT** apply **Frigate 51% WDG** within any enclosed structure in residential or commercial landscapes.

**Frigate 51% WDG** offers post-emergence and residual control of susceptible grasses and broadleaf weeds, as well as additional mode of action to assist in the control of resistant weeds. The length of residual control is dependent on the rate applied, rainfall and temperature. Length of residual control will decrease as temperature and precipitation increase.

**IMPORTANT:** Contact with spray or spray drift of Frigate 51% WDG may cause severe injury or destruction of certain desirable plants, especially herbaceous species including bedding plants or direct seeded annual and perennial flowers. Therefore, **DO NOT** apply Frigate 51% WDG over the top of ornamental plants growing in the landscape, and **DO NOT** allow spray of Frigate 51% WDG to contact, drift or splash from soil onto the foliage, green stems, exposed roots or fruit of desirable plants. **DO NOT** apply Frigate 51% WDG under conditions that favor drift of sprays onto desired ornamentals or turfgrass. Use spray shields that limit the plant exposure to Frigate 51% WDG when applying this product near desirable plants.

**DO NOT** apply Frigate 51% WDG around landscape ornamentals until plants have been actively growing for at least 30 days after transplanting, or for at least 2 months before ornamentals will be planted into treated areas.

#### **PRE-EMERGENCE APPLICATION (NO WEEDS ARE PRESENT)**

Mix 1 ¼ - 2 ½ tsp. of Frigate 51% WDG per gal. (10 oz./A) of spray solution, and apply 1 gal. of spray solution to 500 - 1,000 sq. ft. (10 oz./A) prior to weed germination (see **CALIBRATION TABLE** for backpack sprayers). Apply Frigate 51% WDG to weed free soil, mulch or gravel surfaces. Moisture is necessary to activate Frigate 51% WDG on soil for residual weed control. When applied before weed germination, Frigate 51% WDG will control the broadleaf weeds and grasses listed in Table 1.

Established landscape ornamentals have shown tolerance to Frigate 51% WDG only when applied to the soil at the base of the plant. For maximum plant safety when using around desirable ornamentals, direct applications of Frigate 51% WDG to the soil, and leave a sufficient untreated buffer to ensure spray solution does not contact desired plants. **DO NOT** harvest fruit or nuts from treated trees within 1 year of application.

#### **POST-EMERGENCE APPLICATION (WEEDS ARE PRESENT)**

Mix 1 ¼ - 2 ½ tsp. of Frigate 51% WDG per gal. (10 oz./A) and apply 1 gal. of spray solution to 500 - 1,000 sq. ft. to actively growing weeds (see **CALIBRATION TABLE** for backpack sprayers). Tank mixing Frigate 51% WDG with glyphosate will increase the spectrum of post-emergent weed control over this product alone, provide faster post-emergence weed control than glyphosate alone, and provide pre and post-emergence control of the broadleaf weeds and grasses listed in Table 1.

Established landscape ornamentals have shown tolerance to applications of Frigate 51% WDG plus glyphosate only when applied to the soil at the base of the plant, and sprays **DO NOT** directly contact or drift onto desirable plants. For maximum plant safety when using around desirable ornamentals, direct applications of Frigate 51% WDG plus glyphosate towards the soil, and leave a sufficient non-treated buffer to ensure spray solution does not contact desired plants.

Thorough spray coverage of weeds is necessary to maximize weed control. Spray coverage must be uniform, but **DO NOT** spray to the point of runoff.

**DO NOT** harvest fruit or nuts from treated trees within 1 year of application.

**IMPORTANT:** Completely read and follow the glyphosate label. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### **RESTRICTIONS**

- **DO NOT** apply more than 10 oz. (0.32 lb. a.i.) of Frigate 51% WDG per acre per single application.
- **DO NOT** apply more than 20 oz. (0.64 lb. a.i.) of Frigate 51% WDG per acre per year.
- **DO NOT** apply more than 2 applications of Frigate 51% WDG per year.
- **DO NOT** re-apply Frigate 51% WDG within 30 days.

## DIRECTIONS FOR USE TO MAINTAIN BARE GROUND NON-CROP AREAS IN AND AROUND ORNAMENTAL NURSERIES

**Frigate 51% WDG**, when used as directed, can be used for non-selective vegetation control to maintain bare ground non-crop areas that must be kept weed-free. Apply **Frigate 51% WDG** only to:

- Bare ground areas around buildings and other structures. **DO NOT** apply within any enclosed structure.
- Bare ground along fence rows.
- Gravel surfaces and driveways.
- Ground matting and gravel pads prior to the addition of containerized plants (conifers, deciduous trees and ornamentals).

**IMPORTANT:** Follow all applicable directions as outlined above under Product Information. See Table 1 for a list of grasses and broadleaf weeds controlled by **Frigate 51% WDG**.

**Frigate 51% WDG** offers residual and post-emergence control of susceptible grasses and broadleaf weeds as well as additional mode of action to assist in the control of resistant weeds. The length of residual control is dependent on the rate applied as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase.

### PRE-EMERGENCE APPLICATION

Apply 8 - 12 oz. (0.25 - 0.38 lb. a.i./A) of **Frigate 51% WDG** per broadcast acre as a pre-emergence application. Pre-emergence (to weed emergence) applications of **Frigate 51% WDG** must be made to weed-free surfaces. Moisture is necessary to activate **Frigate 51% WDG** for residual weed control. Dry weather following application of **Frigate 51% WDG** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **Frigate 51% WDG** will control susceptible germinating weeds.

### POST-EMERGENCE APPLICATION

Apply 8 - 12 oz. (0.25 - 0.38 lb. a.i./A) of **Frigate 51% WDG** per broadcast acre plus a surfactant (0.25% v/v non-ionic surfactant or 1 qt./A crop oil concentrate). The addition of a surfactant enhances **Frigate 51% WDG** activity on emerged weeds. Thorough spray coverage is necessary to maximize the post-emergence activity of **Frigate 51% WDG**. Emerged weeds are controlled post-emergence with **Frigate 51% WDG**, however, translocation of **Frigate 51% WDG** within a weed is limited, and control is affected by spray coverage and by the addition of a surfactant. The most effective post-emergence weed control with **Frigate 51% WDG** occurs when applied in combination with a surfactant to weeds less than 2 inches in height.

### RESTRICTIONS

- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) of **Frigate 51% WDG** per acre per single application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) of **Frigate 51% WDG** per acre per year.
- **DO NOT** apply more than 2 applications at 12 oz./A (0.383 lb. a.i.) or 3 applications at 8 oz./A (0.255 lb. a.i.) of **Frigate 51% WDG** per year.
- **DO NOT** re-apply **Frigate 51% WDG** within 30 days.

## DIRECTIONS FOR USE IN CONIFER RE-FORESTATION SITES FOLLOWING TIMBER HARVEST

**Not for use in California.**

**Frigate 51% WDG** is a pre-emergence and post-emergence herbicide for control of selected grass and broadleaf weeds in conifer re-forestation sites following timber harvest operations. Apply **Frigate 51% WDG** as a site preparation treatment prior to transplanting of conifers or as a conifer release treatment after stand establishment.

### Site Preparation — Application Before Transplanting

Apply 8 - 12 oz. (0.255 - 0.383 lb. a.i.) of **Frigate 51% WDG** per acre. Transplant operations must take place at least 3 months after application. To obtain optimal weed control, apply **Frigate 51% WDG** before weed emergence or after a burndown herbicide has controlled existing vegetation. If existing weed canopy is less than 40%, tank mix **Frigate 51% WDG** with a burndown herbicide to provide pre-emergence weed control.

Apply **Frigate 51% WDG** in at least 10 gals. of water per acre to achieve uniform spray coverage using ground or aerial spray equipment.

### Conifer Release Treatments — Applications Only Within 3 Years After Transplanting

Apply 8 - 12 oz. (0.255 - 0.383 lb. a.i.) of **Frigate 51% WDG** per acre over the top of trees prior to budbreak in the spring or after dormancy in fall. **DO NOT** apply **Frigate 51% WDG** over the top of trees after budbreak or needle spotting and defoliation may occur. **Frigate 51% WDG** should not affect new growth of trees. See Table 4 for a list of tolerant conifers for over the top treatments.

**TANK MIXING — Conifer Release Treatments**

Certain liquid formulations of other pesticides may increase the post-emergence activity of **Frigate 51% WDG**, but may also increase the potential for injury when applied over the top of various plants. Therefore, tank mixtures of these materials with **Frigate 51% WDG** may be more injurious than this product applied alone and need to be tested to determine if they can be used safely on a widespread basis.

**ADJUVANTS — Conifer Release Treatments**

When using as a Conifer Release Treatment, **DO NOT** mix **Frigate 51% WDG** with any adjuvant or fertilizer.

**IMPORTANT:** When applied as directed, the conifers listed in Table 4 have shown tolerance to **Frigate 51% WDG**. However, **Frigate 51% WDG** is a very active herbicide and the user must exercise responsible judgment and caution until familiarity is gained with this product. If a desired conifer species is not listed in Table 4, evaluate the safety of **Frigate 51% WDG** on a small number of plants under commercial growing conditions, and monitor plant response for 4 - 6 weeks for phytotoxicity. Test **Frigate 51% WDG** on a small number of plants to determine if this product can be used safely on a widespread basis. **DO NOT** apply **Frigate 51% WDG** over the top of conifers until trees have been growing in the treated area for at least 1 year. The use of nylon mesh wraps, commonly used to deter animal browsing, may increase plant injury if placed on plants after over the top application of **Frigate 51% WDG**.

**RESTRICTIONS**

- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) of **Frigate 51% WDG** per acre per single application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) of **Frigate 51% WDG** per acre per year.
- **DO NOT** apply more than 2 applications at 12 oz./A (0.383 lb. a.i.) or 3 applications at 8 oz./A (0.255 lb. a.i.) **Frigate 51% WDG** per year
- **DO NOT** re-apply **Frigate 51% WDG** within 30 days.

**Table 4. Tolerant Conifer Tree Species: Common**

<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>
<b>Fir</b>	
Concolor	<i>Abies concolor</i>
Cork Bark	<i>Abies lasiocarpa</i>
Douglas	<i>Pseudotsuga menziesii</i>
Fraser	<i>Abies fraseri</i>
Grand	<i>Abies grandis</i>
Noble	<i>Abies procera</i>
Turkish	<i>Abies bornmuelleriana</i>
<b>Hemlock</b>	
Eastern	<i>Tsuga canadensis</i>
Western	<i>Tsuga heterophylla</i>
Tamarix	<i>Juniperus sabina</i>
<b>Pine</b>	
Austrian	<i>Pinus nigra</i>
Eastern White	<i>Pinus strobus</i>
Jack	<i>Pinus banksiana</i>
Japanese Black	<i>Pinus thunbergiana</i>
Loblolly	<i>Pinus taeda</i>
Lodgepole	<i>Pinus contorta</i>
Longleaf	<i>Pinus palustris</i>
Mugo	<i>Pinus mugo</i>
Ponderosa	<i>Pinus ponderosa</i>
Sand	<i>Pinus clausa</i>
Scotch	<i>Pinus sylvestris</i>
Shortleaf	<i>Pinus echinata</i>
Slash	<i>Pinus elliotii</i>
Virginia	<i>Pinus virginiana</i>
<b>Spruce</b>	
Blue	<i>Picea pungens</i>
Dwarf Alberta	<i>Picea glauca conica</i>
Norway	<i>Picea abies</i>
Sitka	<i>Picea sitchensis</i>



## DIRECTIONS FOR USE IN POPLAR PLANTATIONS AND TIMBER RE-FORESTATION SITES

**Not for use in California.**

**Frigate 51% WDG** is a pre-emergence and post-emergence herbicide for control of selected grass and broadleaf weeds in poplar plantations and timber re-forestation sites following timber harvest operations. Use **Frigate 51% WDG** as a site preparation treatment prior to transplanting of trees or as a release treatment after stand establishment.

### Site Preparation — Application Before Transplanting

Apply 8 - 12 oz. (0.25 - 0.38 lb. a.i./A) of **Frigate 51% WDG** per acre. Transplant operations must take place at least 3 months after application. To obtain optimal weed control, apply **Frigate 51% WDG** before weed emergence or after a burndown herbicide has controlled existing vegetation. If existing weed canopy is less than 40%, tank mix **Frigate 51% WDG** with a burndown herbicide to provide pre-emergence weed control.

Apply **Frigate 51% WDG** in at least 10 gals. of water per acre to achieve uniform spray coverage using ground or aerial spray equipment.

### Release Treatments — Applications Within 3 Years After Transplanting

Apply 8 - 12 oz. (0.25 - 0.38 lb. a.i./A) of **Frigate 51% WDG** per acre over the top of trees prior to budbreak in the spring or after dormancy in fall. **DO NOT** apply **Frigate 51% WDG** over the top of trees after budbreak or leaf spotting and defoliation may occur. **Frigate 51% WDG** should not affect new growth of trees of tolerant poplars for over the top treatments.

### TANK MIXING — Poplar Release Treatments

Certain liquid formulations of other pesticides may increase the post-emergence activity of **Frigate 51% WDG**, but may also increase the potential for injury when applied over the top of various plants. Therefore, tank mixtures of these materials with **Frigate 51% WDG** may be more injurious than this product applied alone and need to be tested to determine if they can be used safely on a widespread basis.

### ADJUVANTS — Poplar Release Treatments

When applying Release Treatments, **DO NOT** mix **Frigate 51% WDG** with any adjuvant or fertilizer.

**IMPORTANT:** When applied as directed, poplars (*Populus balsamifera*, *P. niger* and *P. tremuloides*), hybrid poplars (*P. sp. x sp.*), and cottonwoods (*P. deltoids* and *P. trichocarpa*) have shown tolerance to **Frigate 51% WDG**. However, **Frigate 51% WDG** is a very active herbicide and the user must exercise responsible judgment and caution until familiarity is gained with **Frigate 51% WDG**. Test **Frigate 51% WDG** on a small number of plants to determine if this product can be used safely on a widespread basis. **DO NOT** apply **Frigate 51% WDG** over the top unless trees are more than 1 year old.

### RESTRICTIONS

- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) of **Frigate 51% WDG** per acre per single application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) of **Frigate 51% WDG** per acre per year.
- **DO NOT** apply more than 2 applications at 12 oz./A (0.383 lb. a.i.) or 3 applications at 8 oz./A (0.255 lb. a.i.) of **Frigate 51% WDG** per year
- **DO NOT** re-apply **Frigate 51% WDG** within 30 days.

## DIRECTIONS FOR USE ON DORMANT WARM-SEASON TURFGRASS GROWN ON RESIDENTIAL SITES, GOLF COURSES, SOD PRODUCTION AND SIMILAR AREAS

**Not for use in California.**

Only for use in the following states: Alabama, Arizona, Arkansas, Colorado, Delaware, Florida, Georgia, Iowa, Indiana, Illinois, Kansas, Kentucky, Louisiana, Maryland, Mississippi, Missouri, Nebraska, Nevada, New Mexico, New Jersey, North Carolina, Oklahoma, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, and West Virginia

Apply **Frigate 51% WDG** as a single or split application to well established dormant turfgrass listed in Table 5 to control winter annual weeds found in Table 1. Apply **Frigate 51% WDG** to dormant turfgrass in such areas as apartment complexes, golf courses, sod farms, roadsides, sports fields, campgrounds, office complexes, parks, parking areas, recreational sites, schools, and other similar sites. Dormant bermudagrass, centipedegrass, seashore paspalum, St. Augustine and zoysiagrass have exhibited tolerance to **Frigate 51% WDG** only when applied after turf has become dormant in the late fall and before turf breaks dormancy in the late winter/early spring. Application of **Frigate 51% WDG** to actively growing turfgrass (warm season and cool season) or during green-up will cause unacceptable injury. **Frigate 51% WDG** will injure warm season turf grown in southern areas where grass does not become completely dormant.

**BROADCAST APPLICATIONS**

Apply 8 - 12 oz. (0.25 - 0.38 lb. a.i./A) of **Frigate 51% WDG** per broadcast acre as a pre-emergence (to weed emergence) application. If weeds are present at the time of application apply **Frigate 51% WDG** plus an adjuvant 41(0.25% v/v non-ionic surfactant). Make post-emergence (to weed emergence) applications of **Frigate 51% WDG** when weeds are actively growing and no larger than 2 inches in height. Thorough spray coverage is necessary to maximize the post-emergence activity of **Frigate 51% WDG**. When applied after weed germination, **Frigate 51% WDG** will provide pre-emergence and post-emergence control of broadleaf weeds and grasses listed in Table 1. Post-emergence control of **Frigate 51% WDG** may be more effective on certain weed species, and may not control mature, stressed or hardened off weeds that are not actively growing at the time of application.

Make a second application of **Frigate 51% WDG** to provide adequate season-long weed control. Apply the second application using the above mentioned rate guidelines prior to the turfgrass breaking spring dormancy.

**APPLICATION WITH DRY BULK FERTILIZERS**

Dry bulk fertilizer can be impregnated or coated with **Frigate 51% WDG**.

Application of dry bulk fertilizer with **Frigate 51% WDG** provides weed control equal to, or slightly below, the same rate of **Frigate 51% WDG** applied in liquid carriers, due to better coverage with an application via spray equipment. Follow label directions for **Frigate 51% WDG** regarding rates, special instructions, cautions, and special precautions. Apply 400-700 lbs. of the fertilizer/herbicide mixture per acre to obtain adequate soil coverage. Apply the mixture to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential to prevent possible turf injury and to obtain uniform weed control. **DO NOT** use ammonium nitrate and/or limestone as the sole source of fertilizer, as **Frigate 51% WDG** may not adhere to these materials.

Compliance with all Federal and State regulations relating to blending pesticide mixtures with dry bulk fertilizer, registrations, labeling, and application are the responsibility of the individual and/or company offering the fertilizer and **Frigate 51% WDG** mixture for sale. Premix **Frigate 51% WDG** with water to form a slurry prior to impregnation on dry bulk fertilizer. Use a minimum of 1 pt. of water for each 2 oz. of **Frigate 51% WDG** and use a minimum of 6 pts. of **Frigate 51% WDG** slurry to impregnate 2,000 lbs. of the fertilizer for uniform coverage of the fertilizer. Closed drum, belt, ribbon, or other commonly used dry bulk blenders may be used.

The amount of **Frigate 51% WDG** required can be calculated with the following formula:  
**Frigate 51% WDG** per ton of Fertilizer = Ounces of **Frigate 51% WDG** per acre x 2,000  
 ÷ Pounds of Fertilizer per acre.

Thoroughly clean dry fertilizer blending equipment after placing **Frigate 51% WDG** in the system to avoid injury to sensitive crops that may be treated with fertilizers blended after the equipment has been used for **Frigate 51% WDG**. Rinse the sides of the blender and the herbicide tank with water. Then impregnate the rinsate onto a load of dry fertilizer intended for an approved crop. Use a maximum rate of 1 gal. of rinsate per ton of fertilizer. Follow with 1 - 2 loads of unimpregnated fertilizer in the blender before switching herbicides.

**SPOT TREATMENTS**

Mix 2 ½ tsp. per gal. of **Frigate 51% WDG** and 2 tsp. (⅓ fl. oz.) of non-ionic surfactant in 1 gal. of water and apply 1 gal. of spray solution per 1,000 sq. ft. Occasionally shake the spray solution while spraying to ensure the spray solution remains well mixed. Spray the target weeds until the leaves are wet.

**TANK MIXING WITH OTHER TURFGRASS HERBICIDES**

Tank mixing **Frigate 51% WDG** with other pre-emergence and post-emergence herbicides registered for use in dormant turfgrass may provide a broader spectrum of weed control than **Frigate 51% WDG** alone.

**IMPORTANT:** Turfgrass must be completely dormant at application. Any turfgrass that is not dormant will be injured by applications of **Frigate 51% WDG**. Scout area to be sprayed for any turf that is green in color and if encountered, delay application until turfgrass is completely dormant. Read and follow the label of any herbicides mixed with **Frigate 51% WDG**. When tank mixing **Frigate 51% WDG** with other herbicides, always follow the most restrictive limitations and precautions on the label of any tank mix partner.

**PRECAUTIONS**

Exercise good judgment and caution when applying to dormant turfgrass until familiarity is gained with **Frigate 51% WDG**.

**RESTRICTIONS**

- **DO NOT** apply **Frigate 51% WDG** to golf course putting greens.
- **DO NOT** apply **Frigate 51% WDG** to warm season turfgrass that has been over-seeded with cool season turfgrass (ex. perennial rye).
- **DO NOT** irrigate within 1 hour before or after application of **Frigate 51% WDG**.
- **DO NOT** apply if rain is expected within 1 hour after application of **Frigate 51% WDG**.
- **DO NOT** mow turfgrass within 12 hours after application of **Frigate 51% WDG**.
- **DO NOT** apply **Frigate 51% WDG** within 30 days prior to cutting or lifting sod.
- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) of **Frigate 51% WDG** per acre per single application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) of **Frigate 51% WDG** per acre per year.
- **DO NOT** apply more than 2 applications at 12 oz./A (0.383 lb. a.i.) or 3 applications at 8 oz./A (0.255 lb. a.i.) of **Frigate 51% WDG** per year.
- **DO NOT** re-apply **Frigate 51% WDG** within 30 days.
- **DO NOT** apply **Frigate 51% WDG** in fall before turfgrass has ceased active growth or in late winter/early spring after turfgrass has resumed active growth.
- Allow 8 weeks between application of **Frigate 51% WDG** and seeding or sodding of turfgrass.
- Not for use by homeowners.

**Table 5. Tolerant Turfgrass Species**

<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>
Bermudagrass	<i>Cynodon</i> spp.
Centipedegrass	<i>Eremochloa ophiuroides</i>
Seashore paspalum	<i>Paspalum vaginatum</i>
St. Augustinegrass	<i>Stenotaphrum secundatum</i>
Zoysiagrass	<i>Zoysia</i> spp.

## STORAGE AND DISPOSAL

**DO NOT** contaminate water, food or feed by storage or disposal.

### PESTICIDE STORAGE:

Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If the container is leaking or material spilled for any reason or cause, carefully sweep material into a pile. Refer to PRECAUTIONARY STATEMENTS on label for hazards associated with the handling of this material. **DO NOT** walk through spilled material. Dispose of pesticide as directed below. In spill or leak incidents, keep unauthorized people away.

### PESTICIDE DISPOSAL:

Wastes resulting from the use of **Frigate 51% WDG** may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### CONTAINER HANDLING:

**Non-refillable container. Rigid, Non-refillable containers small enough to shake (i.e., with capacities equal to or less than 5 gallons). DO NOT reuse or refill this container.** Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix-tank. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix-tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix-tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix-tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once container is rinsed, offer for recycling if available, or puncture and dispose of in a sanitary landfill.

**Non-refillable containers. Rigid Non-refillable containers that are too large to shake (i.e., with capacities greater than 5 gallons or 50 lbs). DO NOT reuse or refill this container.** After emptying product from container, rinse and either recycle or dispose of the container as follows: Bottom Discharge IBC (e.g. Schuetz Caged IBC or Snyder Square Stackable).

Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. To pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix-tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal.

Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

Top Discharge IBC, Drums, Kegs (e.g. Snyder 120 Next Gen, Bonar B120, Drums, and Kegs). Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. To triple rinse the container before final disposal, empty the remaining contents from this container into application equipment or rinsate collection system. Fill the container at least 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times.

Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill.

[Batch Code will be placed on the container.]

### Warranty and Disclaimer Statement

Read the entire DIRECTIONS FOR USE and Warranty and Disclaimer Statement before buying or using **Frigate 51% WDG**. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The DIRECTIONS FOR USE of **Frigate 51% WDG** must be followed carefully. It is impossible to eliminate all risks associated with the use of **Frigate 51% WDG** including risks that may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors. Such risks are all beyond the control of Yifan Biotechnology Group Co., Ltd. ("YIFAN") and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. All such risks shall be assumed by the user or buyer and to the extent permitted by applicable law, the user or buyer agree to hold YIFAN harmless for any claims relating to such risks.

YIFAN warrants that **Frigate 51% WDG** conforms to the chemical description on the label and is reasonably fit for the purposes stated in the DIRECTIONS FOR USE, subject to the inherent risks described above, when used in accordance with the DIRECTIONS FOR USE under normal conditions. To the extent permitted by applicable law, this warranty does not extend to the use of **Frigate 51% WDG** contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of YIFAN, and the user or buyer assume the risk of any such use.

**To the extent permitted by applicable law, YIFAN disclaims all other warranties, expressed or implied, including any warranty of merchantability or fitness for a particular purpose. To the extent permitted by applicable law, YIFAN, manufacturer, and seller disclaim and shall not be liable for any special, incidental, indirect, or consequential damages (including claims based on breach of warranty, contract, negligence, tort, strict liability or otherwise) resulting from the use, handling, application, storage, or disposal of Frigate 51% WDG or for damages in the nature of penalties, and the user and buyer waive any right that they may have to such damages. No agent, representative or employee of YIFAN is authorized to make any warranty, guarantee or representation beyond those contained herein or to modify the warranties contained herein.**

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE TOTAL LIABILITY OF YIFAN, MANUFACTURER, AND SELLER, SHALL BE LIMITED TO THE PURCHASE PRICE PAID, OR AT YIFAN'S ELECTION, THE REPLACEMENT OF THE PRODUCT.**

**FLUMIOXAZIN | GROUP 14 | HERBICIDE**

[Pages 124-135: Aquatic]

**Frigate 51% WDG**

ABN: Frigate 51% WDG – Aquatic

**Non-Crop Herbicide**

For The Management of Undesirable Aquatic Vegetation in Slow Moving or Quiescent Waters

Active Ingredient:	By Wt.
Flumioxazin* .....	51%
Other Ingredients .....	49%
<b>Total</b> .....	<b>100%</b>

\*2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1 H-isoindole- 1,3(2H)-dione

**KEEP OUT OF REACH OF CHILDREN  
CAUTION/PRECAUCION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• <b>DO NOT</b> induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• <b>DO NOT</b> give anything by mouth to an unconscious person.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
In the event of a leak, fire or medical emergency involving a human or animal please call INFOTRAC at 1-800-535-5053 or Outside the USA and Canada at 1-352-323-3500, 24/7/365.	

**Manufactured for:**  
Yifan Biotechnology Group Co., Ltd.  
No. 555, Changan Road, Yaoxi subdistrict,  
Longwan district, Wenzhou City, Zhejiang, China 325013

**EPA Reg No.:** 95055-14  
**EPA Est. No.:** 91233-CHN-001

**Net Contents:**

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS & DOMESTIC  
ANIMALS CAUTION**

Harmful if absorbed through the skin or inhaled. Avoid contact with skin, eyes, or clothing. Causes moderate eye irritation. Avoid breathing dust and spray mist. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some of the materials that are chemical-resistant to **Frigate 51% WDG - Aquatic** are listed below.

**Applicators and other handlers must wear:**

- long-sleeved shirt and long pants
- chemical-resistant gloves made of any waterproof material including polyethylene or polyvinyl chloride
- shoes and socks

**User Safety Requirements**

Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS**

**Users should:**

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling **Frigate 51% WDG - Aquatic**. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

**Frigate 51% WDG – Aquatic** is toxic to non-target plants and aquatic invertebrates. **DO NOT** apply to water except as specified on the label. Drift or runoff may be hazardous to non-target plants and aquatic organisms in neighboring areas, if not used in accordance to the label directions. **DO NOT** apply where runoff is likely to occur. **DO NOT** apply when weather conditions favor drift from treated areas. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

This pesticide is toxic to plants and must be used strictly in accordance with the drift and run-off precautions on this label in order to minimize off-site exposures.

NON-TARGET ORGANISM ADVISORY: **Frigate 51% WDG – Aquatic** is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

*[Note to EPA reviewer: If **Frigate 51% WDG - Aquatic** is shipped in containers greater than 50 lbs., the following environmental hazard statement will be added to the label:*

**DO NOT** discharge effluent containing **Frigate 51% WDG - Aquatic** into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. **DO NOT** discharge effluent containing **Frigate 51% WDG - Aquatic** to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.]

**PHYSICAL OR CHEMICAL HAZARDS**

**DO NOT** mix or allow coming in contact with oxidizing agent. Hazardous chemical reaction may occur.

**DIRECTIONS FOR USE**

It is a violation of Federal Law to use **Frigate 51% WDG - Aquatic** in a manner inconsistent with its labeling.

**READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.**

**DO NOT** apply **Frigate 51% WDG - Aquatic** in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

## RESISTANCE MANAGEMENT

**Frigate 51% WDG – Aquatic** is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to **Frigate 51% WDG – Aquatic** and other Group 14 herbicides. Weed species with acquired resistance to Group 14 herbicides may eventually dominate the weed population if Group 14 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by **Frigate 51% WDG – Aquatic** or other Group 14 herbicides. To delay development of herbicide resistance, follow appropriate resistance-management strategies.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of **Frigate 51% WDG** Herbicide or other Group 14 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method including hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with **Frigate 51% WDG - Aquatic**, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management directions for specific crops and weed biotypes or to find out if suspected resistant weeds have been found in their region.
- For further information or to report lack of performance or suspected resistance, contact Yifan Bio-tech Group Co. at +86-677-86637855 86630101 or at [www.yifanchem.com](http://www.yifanchem.com)



**TANK MIXES NOTICE**

Tank mixing and/or use of **Frigate 51% WDG - Aquatic** with another product that is not specifically and expressly authorized by the label shall be at the exclusive risk of user, applicator, and/or application advisor to the extent allowed by applicable law.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**PRODUCT USE INFORMATION**

**Frigate 51% WDG - Aquatic** is a fast acting contact herbicide that controls selected submersed, emergent, and floating aquatic weeds. It is most effective when applied to young, actively growing weeds in water with a pH of less than 8.5.

**Frigate 51% WDG - Aquatic** may be applied to the following quiescent or slow moving bodies of water:

- *Bayous*
- *Canals*
- *Drainage ditches*
- *Lakes*
- *Marshes*
- *Ponds (including golf course ponds)*
- *Reservoirs*

Application of **Frigate 51% WDG - Aquatic** to public aquatic areas may require special approval and/or permits. Consult with local state agencies, if required.

**PRECAUTIONS**

- There is no post-application holding restriction against use of treated water for drinking or recreational purposes (e.g. swimming, fishing).
- In areas with dense weed vegetation only treat ½ the water body at one time and wait 10 - 14 days before treating the remaining area.
- Treated water may be used for irrigation purposes on turf and landscape ornamentals as outlined in the Irrigation Restrictions Following Application table.

**RESTRICTIONS**

- **DO NOT** apply **Frigate 51% WDG - Aquatic** to intertidal or estuarine areas.
- **DO NOT** use **Frigate 51% WDG - Aquatic** treated water irrigation purposes on food crops until at least five (5) days after application.
- **DO NOT** use **Frigate 51% WDG - Aquatic** in water utilized for crawfish farming.
- **DO NOT** re-treat the same section of water with **Frigate 51% WDG - Aquatic** more than 6 times per year.
- **DO NOT** exceed 400 ppb of **Frigate 51% WDG - Aquatic** during any one application.
- **DO NOT** retreat the same section of water with **Frigate 51% WDG - Aquatic** within 28 days of prior application.
- Not for use by homeowners.

**ADDITIVES**

When applying **Frigate 51% WDG - Aquatic** to the foliage of floating or emerged aquatic weeds, mix with an adjuvant approved for use in aquatic sites. Mix this product with a non-ionic surfactant containing at least 80% active ingredient. Follow adjuvant manufacturer's label rates. Verify mixing compatibility by a jar test before using.

## JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND FRIGATE 51% WDG – AQUATIC HERBICIDE

Perform a jar test before mixing commercial quantities of **Frigate 51% WDG - Aquatic**, when using **Frigate 51% WDG - Aquatic** for the first time, when using new adjuvants or when a new water source is being used.

1. Add 1 pt. of water to a quart jar. The water must be from the same source and have the same temperature as the water used in the spray tank mixing operation.
2. Add 3 grams (approximately 1 level tsp.) of **Frigate 51% WDG – Aquatic** for the 8 oz./A rate or 4 grams (approximately 1 ½ tsp.) for 12 oz./A rate to the jar. Gently mix until product disperses.
3. Add 60 mL (4 Tbsp. or 2 fl. oz.) of additive to the quart jar and gently mix.
4. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
5. An ideal tank mix combination will be uniform and free of suspended particles. If any of the following conditions are observed **DO NOT** use the adjuvant:
  - a) Layer of oil or globules on the solution surface.
  - b) Flocculation: Fine particles in suspension or as a layer on the bottom of the jar.
  - c) Clabbering: Thickening texture (coagulated) like gelatin.

## MIXING INSTRUCTIONS

1. Mix with water having pH of 5 - 7. If pH is higher than 7, use an appropriate buffer to reduce pH to desirable range.
2. Fill clean spray tank ½ full of desired level with water and add buffering agent if necessary.
3. Add the required amount of **Frigate 51% WDG - Aquatic** to the spray tank while agitating.
4. Fill spray tank to desired level with water. Ensure that **Frigate 51% WDG - Aquatic** is thoroughly mixed before making applications. Continue agitation until spray solution has been applied.
5. Mix only the amount of spray solution that can be applied the day of mixing. Apply **Frigate 51% WDG - Aquatic** within 12 hours of mixing.

## SPRAYER CLEANUP

If spray equipment is dedicated to application of aquatic herbicides, completely drain the spray tank and rinse the application equipment thoroughly, including the inside and outside of the tank and all in-line screens.

If spray equipment will be used for purposes other than applying aquatic herbicides, it must be thoroughly cleaned following application of **Frigate 51% WDG – Aquatic**. The following steps must be used to clean the spray equipment:

1. Completely drain the spray tank and rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.
2. Fill the tank with clean water and flush all hoses, booms, screens, and nozzles.
3. Top off tank with clean water.
4. Circulate through sprayer for 5 minutes.
5. Then flush all hoses, booms, screens, and nozzles for a minimum of 15 minutes.
6. Drain tank completely.
7. Remove all nozzles and screens and rinse them with clean water.

## AERIAL APPLICATION

To obtain satisfactory weed control with aerial application of **Frigate 51% WDG – Aquatic**, coverage must be uniform. When applied by air, **Frigate 51% WDG - Aquatic** may not provide adequate control of some submersed weeds. **DO NOT** spray when drift is possible or when wind velocity is more than 10 mph. **DO NOT** spray **Frigate 51% WDG – Aquatic** within 200 feet of dwellings, adjacent sensitive crops or environmentally sensitive areas. To obtain satisfactory application and drift, the following directions must be observed:

### Volume Pressure

Apply **Frigate 51% WDG – Aquatic** in 5 - 10 gals. of water per acre, with a maximum spray pressure of 40 PSI. Application at less than 5 gals. per acre may not provide adequate weed control. Higher gallonage applications provide more consistent weed control.

### Nozzles and Nozzle Operation

Use nozzles that produce flat or hollow cone spray patterns. Use non-drip type nozzles for example diaphragm type nozzles to avoid unwanted discharge of spray solution. The nozzle must be directed toward the rear of the aircraft, at an angle between 0° and 15° downward. **DO NOT** place nozzles on the outer 25% of the wings or rotors.

### Adjuvants

Refer to the additive section or the tank mix partners label for adjuvant directions.

## IRRIGATION RESTRICTIONS FOLLOWING APPLICATION

Application Method	Application Rate	Average Water Depth	Turf and Landscape Ornamentals	Ornamentals Grown for Production in Greenhouse and Nursery
Surface Spray	6 - 12 oz. (0.191 -0.383 lb. a.i.) persurface acre	Greater than 3 feet	None	5 days
		Less than 3 feet	12 hours	5 days
Subsurface	Less than 200 ppb	N/A	1 day	5 days
	200 - 300 ppb	N/A	2 days	5 days
	300 - 400 ppb	N/A	3 days	5 days

## MANDATORY SPRAY DRIFT

## Aerial Applications

- **DO NOT** release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply **Frigate 51% WDG - Aquatic** when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply **Frigate 51% WDG - Aquatic** during temperature inversions.

## Ground Applications

- Users must only apply with the release height specified by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- **DO NOT** apply **Frigate 51% WDG - Aquatic** when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply **Frigate 51% WDG - Aquatic** during temperature inversions.

## Boom-less Ground Applications

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- **DO NOT** apply **Frigate 51% WDG - Aquatic** when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply **Frigate 51% WDG - Aquatic** during temperature inversions.

## SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

## IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

## Controlling Droplet Size - Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure specified for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

## Controlling Droplet Size - Aircraft

- Adjust Nozzles - Follow nozzle manufacturer's directions for setting up nozzles. Generally, to reduce fine droplets, orient nozzles parallel with the airflow in flight.

**BOOM HEIGHT - Ground Boom**

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, keep the boom level with the crop and have minimal bounce.

**RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift. When applying aerially to crops, **DO NOT** release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

**SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

**TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

**TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

**WIND**

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.** Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

**Boom-less Ground Applications:**

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

**Handheld Technology Applications:**

Take precautions to minimize spray drift.

**DIRECTIONS FOR USE  
TO CONTROL FLOATING AND EMERGED WEEDS USING SURFACE  
APPLICATION**

**Frigate 51% WDG – Aquatic** will control weeds and algae listed in Table 1 when applied as a broadcast spray with appropriate equipment. For best results, apply **Frigate 51% WDG – Aquatic** to the foliage of actively growing weeds.

**Table 1. Floating and Emerged Weeds**

<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>
Alligator Weed	<i>Alternanthera philoxeroides</i>
Duckweed*	<i>Lemna</i> spp.
Frog's-bit	<i>Limnobium spongia</i>
Water Fern	<i>Salvinia</i> spp.
Water Lettuce	<i>Pistia stratiotes</i>
Watermeal*	<i>Wolffia</i> spp.
Water Pennywort	<i>Hydrocotyle</i> spp.
Filamentous Algae	<i>Pithophora</i>
Filamentous Algae	<i>Cladophora</i>

\*200 ppb water concentration rate may be required to treat duckweed and watermeal – see **DIRECTIONS FOR USE TO CONTROL SUBMERSED AND FLOATING WEEDS USING SUBSURFACE APPLICATIONS** section for additional application information.

### SURFACE APPLICATION

Apply **Frigate 51% WDG – Aquatic** as a broadcast spray at 6 - 12 ounces (0.191 - 0.383 lb. a.i.) of formulated product per acre plus an adjuvant approved for use in aquatics.

**Frigate 51% WDG – Aquatic** is a contact herbicide that quickly degrades in the water column so plants that **DO NOT** initially come in contact with the herbicide will not be controlled. Apply **Frigate 51% WDG – Aquatic** in a minimum of 30 gallons of water per acre to all areas of the water body where weeds exist. Coverage is essential for effective control as all floating weeds need to be exposed to lethal concentrations in all parts of the water body. Any untreated escapes or re-introductions of plants that were not treated will reestablish in areas where surface weeds had previously been controlled. Make a second application if required to provide control once the return of these weeds is first observed, but no sooner than 28 days after the last treatment.

Apply **Frigate 51% WDG – Aquatic** during early morning hours to enhance weed control. When applying to densely packed actively growing surface weeds, ensure adequate coverage. Rapid decomposition of vegetation resulting from herbicide treatment can result in loss of oxygen in water. A sudden decrease in dissolved oxygen can result in fish suffocation. If aquatic vegetation is dense, treat floating surface weeds in sections to avoid a rapid decrease in dissolved oxygen.

Tank mix **Frigate 51% WDG – Aquatic** may be tank mixed with 2,4-D, diquat, glyphosate or other registered foliar applied herbicides for enhanced control of floating and emergent weeds.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

### APPLICATION EQUIPMENT

Apply **Frigate 51% WDG – Aquatic** with sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume. Apply by backpack or handgun sprayer, airboat, helicopter, airplane or other application equipment that will ensure thorough coverage of target plant foliage.

### RESTRICTIONS

- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) of **Frigate 51% WDG - Aquatic** per acre per single application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) of **Frigate 51% WDG - Aquatic** per acre per year.
- **DO NOT** apply more than 2 applications of **Frigate 51% WDG - Aquatic** per acre per year.
- **DO NOT** re-apply **Frigate 51% WDG – Aquatic** within 28 days.
- Not for use by homeowners.

**DIRECTIONS FOR USE  
TO CONTROL SUBMERSED AND FLOATING WEEDS USING SUBSURFACE  
APPLICATIONS**

**Frigate 51% WDG – Aquatic** will control submersed and floating weeds listed in **Table 2, Submersed and Floating Weeds Controlled by Subsurface Application**, when applied subsurface with appropriate equipment.

**Table 2. Submersed and Floating Weeds Controlled by Subsurface Application**

COMMON NAME	SCIENTIFIC NAME
Coontail	<i>Ceratophyllum demersum</i>
Duckweed	<i>Lemna</i> spp.
Fanwort	<i>Cabomba caroliniana</i>
Hydrilla	<i>Hydrilla verticillata</i>
Hygrophila	<i>Hygrophila polysperma</i>
Naiad, Southern	<i>Najas guadalupensis</i>
Pondweed, Curlyleaf	<i>Potamogeton crispus</i>
Pondweed, Sago	<i>Potamogeton pectinatus</i>
Pondweed, Variable-Leaf	<i>Potamogeton diversifolius</i>
Water Fern	<i>Salvinia</i> spp.
Water Lettuce	<i>Pistia stratiotes</i>
Watermeal	<i>Wolffia</i> spp.
Watermilfoil, Eurasian	<i>Myriophyllum spicatum</i>
Watermilfoil, Variable-Leaf	<i>Myriophyllum heterophyllum</i>

**SUBSURFACE APPLICATION**

Apply **Frigate 51% WDG – Aquatic** at a rate that will produce an initial concentration of 200 to 400 ppb (of active ingredient flumioxazin) in the water column.

**Frigate 51% WDG – Aquatic** is rapidly absorbed by target plants, but also breaks down quickly in water with a pH greater than 8.5. The pH of water surrounding mats of submersed vegetation can exceed 8.5 by early to mid-day, due to photosynthetic processes. Application of **Frigate 51% WDG – Aquatic** under these conditions may provide only partial weed control, and regrowth is likely. For best control, apply **Frigate 51% WDG - Aquatic** in a minimum of 30 gallons of water per acre in the early morning to actively growing weeds and early in the season before surface matting occurs. Complete coverage and sufficient contact time of submersed weeds with **Frigate 51% WDG - Aquatic** is required for optimal performance.

Application of **Frigate 51% WDG – Aquatic** with subsurface trailing hoses designed to distribute the herbicide within the plant stand will provide more effective and longer term control of submersed weeds. Use Table 3, **Subsurface Application Rates** to determine the amount of **Frigate 51% WDG - Aquatic** needed to achieve desired concentration at different water depths. Use higher concentrations when weed biomass is heavy and/or weeds are more mature and topped out. Any untreated plants that are left in the water column can re-infest treated areas that had previously been controlled. Make a second application to provide control once the return of these weeds is first observed, but no sooner than 28 days after the last treatment.

When applying **Frigate 51% WDG – Aquatic** to densely packed actively growing submersed weeds, a rapid decomposition of vegetation resulting from herbicide treatment can result in loss of oxygen in water. A sudden decrease in dissolved oxygen can result in fish suffocation. If aquatic vegetation is dense, treat submersed weeds in sections to avoid a rapid decrease in dissolved oxygen.

Tank mix **Frigate 51% WDG – Aquatic** with other registered submersed applied herbicides for enhanced control of submersed and floating weeds.

**APPLICATION EQUIPMENT FOR WATER COLUMN TREATMENT**

To improve distribution in the water column and ensure adequate coverage, when possible apply **Frigate 51% WDG - Aquatic** with subsurface trailing hoses in order to place the herbicide under the surface and throughout the biomass of aquatic vegetation. Keep swath width to a minimum in order to maximize contact with submersed aquatic vegetation. In small shallow water bodies, surface sprays are required to apply **Frigate 51% WDG - Aquatic**. Apply by backpack or handgun sprayer or other application equipment that will ensure adequate coverage of target plant.

**INFORMATION ON HYDRILLA CONTROL IN FLORIDA**

Apply **Frigate 51% WDG – Aquatic** as a subsurface treatment for *Hydrilla* control. For best control of *Hydrilla*, apply during the late Winter/early Spring and/or early to late Fall. Efficacy of **Frigate 51% WDG – Aquatic** will be enhanced at these timings due to lower potential biomass present and lower pH of the water. If applied to mature topped out *Hydrilla*, **Frigate 51% WDG – Aquatic** will cause some discoloration and loss of growing tips, but regrowth will be rapid.

Tank mixing **Frigate 51% WDG - Aquatic** with other registered herbicides especially if *Hydrilla* is approaching maturity or biomass is heavy.

**Table 3. Subsurface Application Rates**

**DO NOT exceed 400 ppb of Frigate 51% WDG - Aquatic during any one application.**

Water Depth (feet)	Pounds of Frigate 51% WDG – Aquatic Required Per Surface Acre to Achieve Desired Water Concentration		
	200 ppb	300 ppb	400 ppb
1	1.1 (0.561 lb. a.i.)	1.6 (0.816 lb. a.i.)	2.1 (1.071 lbs. a.i.)
2	2.1 (1.071 lbs. a.i.)	3.2 (1.632 lbs. a.i.)	4.2 (2.142 lbs. a.i.)
3	3.2 (1.632 lbs. a.i.)	4.8 (2.448 lbs. a.i.)	6.4 (3.264 lbs. a.i.)
4	4.2 (2.142 lbs. a.i.)	6.4 (3.264 lbs. a.i.)	8.5 (4.335 lbs. a.i.)
5	5.3 (2.703 lbs. a.i.)	8.0 (4.08 lbs. a.i.)	10.6 (5.406 lbs. a.i.)
6	6.4 (3.264 lbs. a.i.)	9.5 (4.845 lbs. a.i.)	12.7 (6.477 lbs. a.i.)
7	7.4 (3.774 lbs. a.i.)	11.1 (5.661 lbs. a.i.)	14.8 (7.548 lbs. a.i.)

**Example:** To achieve an initial concentration of 200 ppb of flumioxazin in a 4 foot deep water column, apply 4.2 lbs. (2.142 lbs. a.i.) of **Frigate 51% WDG - Aquatic** per surface acre.

**RESTRICTIONS**

- **DO NOT** apply more than 400 ppb of **Frigate 51% WDG - Aquatic** per single application.
- **DO NOT** apply more than 177.6 lbs (90.58 lb. a.i.) of **Frigate 51% WDG - Aquatic** per year.
- **DO NOT** apply more than 12 applications of **Frigate 51% WDG - Aquatic** per acre per year.
- **DO NOT** re-apply **Frigate 51% WDG – Aquatic** within 28 days of prior application.
- Not for homeowner use.

## STORAGE AND DISPOSAL

**DO NOT** contaminate water, food or feed by storage or disposal.

### PESTICIDE STORAGE:

Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If the container is leaking or material spilled for any reason or cause, carefully sweep material into a pile. Refer to PRECAUTIONARY STATEMENTS on label for hazards associated with the handling of this material. **DO NOT** walk through spilled material. Dispose of pesticide as directed below. In spill or leak incidents, keep unauthorized people away.

### PESTICIDE DISPOSAL:

Wastes resulting from the use of **Frigate 51% WDG -Aquatic** may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### CONTAINER HANDLING:

**Non-refillable container. Rigid, Non-refillable containers small enough to shake (i.e., with capacities equal to or less than 5 gallons). DO NOT reuse or refill this container.** Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix-tank. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix-tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix-tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix-tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once container is rinsed, offer for recycling if available, or puncture and dispose of in a sanitary landfill.

**Non-refillable containers. Rigid Non-refillable containers that are too large to shake (i.e., with capacities greater than 5 gallons or 50 lbs). DO NOT reuse or refill this container.** After emptying product from container, rinse and either recycle or dispose of the container as follows: Bottom Discharge IBC (e.g. Schuetz Caged IBC or Snyder Square Stackable).

Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. To pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix-tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal.

Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

Top Discharge IBC, Drums, Kegs (e.g. Snyder 120 Next Gen, Bonar B120, Drums, and Kegs). Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. To triple rinse the container before final disposal, empty the remaining contents from this container into application equipment or rinsate collection system. Fill the container at least 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times.

Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill.

[Batch Code will be placed on the container.]



**Warranty and Disclaimer Statement**

Read the entire DIRECTIONS FOR USE and Warranty and Disclaimer Statement before buying or using **Frigate 51% WDG - Aquatic**. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The DIRECTIONS FOR USE of **Frigate 51% WDG - Aquatic** must be followed carefully. It is impossible to eliminate all risks associated with the use of **Frigate 51% WDG - Aquatic** including risks that may arise from weather conditions, soil factors, off- target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors. Such risks are all beyond the control of Yifan Biotechnology Group Co., Ltd. ("YIFAN") and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. All such risks shall be assumed by the user or buyer and to the extent permitted by applicable law, the user or buyer agree to hold YIFAN harmless for any claims relating to such risks.

YIFAN warrants that **Frigate 51% WDG - Aquatic** conforms to the chemical description on the label and is reasonably fit for the purposes stated in the DIRECTIONS FOR USE, subject to the inherent risks described above, when used in accordance with the DIRECTIONS FOR USE under normal conditions. To the extent permitted by applicable law, this warranty does not extend to the use of **Frigate 51% WDG - Aquatic** contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of YIFAN, and the user or buyer assume the risk of any such use.

**To the extent permitted by applicable law, YIFAN disclaims all other warranties, expressed or implied, including any warranty of merchantability or fitness for a particular purpose. To the extent permitted by applicable law, YIFAN, manufacturer, and seller disclaim and shall not be liable for any special, incidental, indirect, or consequential damages (including claims based on breach of warranty, contract, negligence, tort, strict liability or otherwise) resulting from the use, handling, application, storage, or disposal of Frigate 51% WDG - Aquatic or for damages in the nature of penalties, and the user and buyer waive any right that they may have to such damages. No agent, representative or employee of YIFAN is authorized to make any warranty, guarantee or representation beyond those contained herein or to modify the warranties contained herein.**

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE TOTAL LIABILITY OF YIFAN, MANUFACTURER, AND SELLER, SHALL BE LIMITED TO THE PURCHASE PRICE PAID, OR AT YIFAN'S ELECTION, THE REPLACEMENT OF THE PRODUCT.**

**FLUMIOXAZIN GROUP 14 HERBICIDE**

[Pages 136-149: IVM]

**Frigate 51% WDG**

ABN: Frigate 51% WDG - IVM

**Non-Crop Herbicide**

For Use To Maintain Bare Ground Non-Crop Areas

**Active Ingredient:**

Flumioxazin\* ..... 51%

**Other Ingredients** ..... 49%**Total** ..... **100%**

\*2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1 H-isoindole- 1,3(2H)-dione

**KEEP OUT OF REACH OF CHILDREN  
CAUTION/PRECAUCION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)

<b>FIRST AID</b>	
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• <b>DO NOT</b> induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• <b>DO NOT</b> give anything by mouth to an unconscious person.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
In the event of a leak, fire or medical emergency involving a human or animal please call INFOTRAC at 1-800-535-5053 or Outside the USA and Canada at 1-352-323-3500, 24/7/365.	

**Manufactured for:**  
Yifan Biotechnology Group Co., Ltd.  
No. 555, Changan Road, Yaoxi subdistrict,  
Longwan district, Wenzhou City, Zhejiang, China 325013

**EPA Reg No.: 95055-14**  
**EPA Est. No: 91233-CHN-001**

**Net Contents:**

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS & DOMESTIC**  
**ANIMALS CAUTION**

Harmful if absorbed through the skin or inhaled. Avoid contact with skin, eyes, or clothing. Causes moderate eye irritation. Avoid breathing dust and spray mist. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some of the materials that are chemical-resistant to **Frigate 51% WDG - IVM** are listed below.

**Applicators and other handlers must wear:**

- long-sleeved shirt and long pants
- chemical-resistant gloves made of any waterproof material including polyethylene or polyvinyl chloride
- shoes and socks

**User Safety Requirements**

Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS**

**Users should:**

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling **Frigate 51% WDG - IVM**. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

**Frigate 51% WDG - IVM** is toxic to non-target plants and aquatic invertebrates. **DO NOT** apply to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift or runoff may be hazardous to non-target plants and aquatic organisms in neighboring areas, if not used in accordance to the label directions. **DO NOT** apply where runoff is likely to occur. **DO NOT** apply when weather conditions favor drift from treated areas. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

This pesticide is toxic to plants and must be used strictly in accordance with the drift and run-off precautions on this label in order to minimize off-site exposures.

Under some conditions **Frigate 51% WDG - IVM** may have a potential to run-off to surface water or adjacent land.

**NON-TARGET ORGANISM ADVISORY:** **Frigate 51% WDG - IVM** is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

Where possible, use methods which reduce soil erosion, for example no till, limited till and contour plowing; these methods also reduce pesticide run-off. Use vegetation filter strips along rivers, creeks, streams, wetlands, or on the downhill side of fields, where run-off could occur to minimize water run-off.

*[Note to EPA reviewer: If **Frigate 51% WDG - IVM** is shipped in containers greater than 50 lbs., the following environmental hazard statement will be added to the label:*

**DO NOT** discharge effluent containing **Frigate 51% WDG - IVM** into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. **DO NOT** discharge effluent containing **Frigate 51% WDG - IVM** to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.]

**PHYSICAL OR CHEMICAL HAZARDS**

**DO NOT** mix or allow coming in contact with oxidizing agent. Hazardous chemical reaction may occur.

**DIRECTIONS FOR USE**

It is a violation of Federal Law to use **Frigate 51% WDG - IVM** in a manner inconsistent with its labeling.

**READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.**

**DO NOT** apply **Frigate 51% WDG - IVM** in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**NON-AGRICULTURAL USE  
REQUIREMENTS**

The requirements in this box apply to uses of **Frigate 51% WDG – IVM** that are NOT within the scope of the Worker Protection Standards for agricultural pesticides (40 CFR Part 170). The WPS applies when **Frigate 51% WDG – IVM** is used to produce agricultural plants on farms, forest, nurseries, or greenhouses.

Keep all unprotected persons out of operating areas, or vicinity where there may be drift.

**DO NOT** enter or allow others to enter treated areas until sprays have dried.

## RESISTANCE MANAGEMENT

**Frigate 51% WDG - IVM** is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to **Frigate 51% WDG - IVM** and other Group 14 herbicides. Weed species with acquired resistance to Group 14 herbicides can eventually dominate the weed population if Group 14 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by **Frigate 51% WDG - IVM** or other Group 14 herbicides. To delay development of herbicide resistance, follow appropriate resistance-management strategies.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of **Frigate 51% WDG** Herbicide or other Group 14 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method including hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with **Frigate 51% WDG - IVM**, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management directions for specific crops and weed biotypes or to find out if suspected resistant weeds have been found in their region.
- For further information or to report lack of performance or suspected resistance, contact Yifan Bio-tech Group Co. at +86-677-86637855 86630101 or at [www.yifanchem.com](http://www.yifanchem.com)

**TANK MIXES NOTICE**

Tank mixing and/or use of **Frigate 51% WDG - IVM** with another product that is not specifically and expressly authorized by the label shall be at the exclusive risk of user, applicator, and/or application advisor to the extent allowed by applicable law.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**PRODUCT INFORMATION**

**Frigate 51% WDG - IVM** is a selective herbicide to maintain bare ground non-crop areas when used in accordance with this label. **Frigate 51% WDG - IVM** is effective as a pre-emergence and/or post-emergence herbicide for control of selected grass and broadleaf weeds.

**Frigate 51% WDG - IVM** controls weeds by inhibiting protoporphyrinogen oxidase, an essential enzyme required by plants for chlorophyll biosynthesis. Seedling weeds are controlled pre-emergence when exposed to sunlight following contact with the soil applied herbicide.

**PRECAUTIONS - FOR IVM**

- Treatment of powdery, dry soil or light sandy soil when there is little to no likelihood of rainfall soon after may result in off target movement and possible damage to actively growing susceptible crops when soil particles are moved by wind or water. **DO NOT** apply when these soil and environmental conditions are present.

**DO NOT use spray equipment used to apply Frigate 51% WDG - IVM to make applications with other products to any desirable plant foliage, as equipment with product residue remaining may result in crop injury to subsequently treated crops or plants.**

**RESTRICTIONS - FOR IVM**

- **DO NOT** apply **Frigate 51% WDG - IVM** when weather conditions favor spray drift from treated areas.
  - **DO NOT** incorporate **Frigate 51% WDG - IVM** into soil after application.
  - **DO NOT** apply **Frigate 51% WDG - IVM** through any type of irrigation system.
  - **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) of **Frigate 51% WDG - IVM** per acre per application.
  - **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) of **Frigate 51% WDG - IVM** per acre per year.
  - **DO NOT** apply more than 2 applications per year.
  - **DO NOT** re-apply **Frigate 51% WDG - IVM** within 28 days.
  - **DO NOT** apply **Frigate 51% WDG - IVM** to moist or wet desirable plant foliage.
  - **DO NOT** apply **Frigate 51% WDG - IVM** within 300 feet of non-dormant pome or stone fruit crops.
- DO NOT** apply **Frigate 51% WDG - IVM** when the crop or weeds are under stress due to drought, excessive water and extremes in temperatures or disease.

**PRE-EMERGENCE APPLICATION**

Pre-emergence weed control with **Frigate 51% WDG - IVM** is most effective when applied to clean, weed free soil surfaces prior to weed emergence. Moisture is necessary to activate **Frigate 51% WDG - IVM** on soil for residual weed control. Dry weather following application of **Frigate 51% WDG - IVM** may reduce effectiveness.

**POST-EMERGENCE APPLICATION**

Apply **Frigate 51% WDG - IVM** only to actively growing weeds. Applying **Frigate 51% WDG - IVM** under conditions that **DO NOT** promote active weed growth will reduce herbicide effectiveness. **Frigate 51% WDG - IVM** is most effective when applied under sunny conditions at temperatures above 65°F.

**Frigate 51% WDG - IVM** is rainfast 1 hour after application. **DO NOT** apply if rain is expected within 1 hour of application or efficacy may be reduced.

**SOIL CHARACTERISTICS**

Application of **Frigate 51% WDG - IVM** to soils with high organic matter and/or high clay content may require higher dosages than with soils with low organic matter and/or low clay content. Application to cloddy seedbeds can result in reduced weed control.

**CARRIER VOLUME AND SPRAY PRESSURE****Pre-Emergence Application**

To ensure uniform coverage, use at least 10 gals. of spray solution per acre. Select nozzles that meet manufacturer's gallonage and pressure specifications for pre-emergence herbicide application.

**Post-Emergence Application**

To ensure thorough coverage, use at least 15 gals. of spray solution per acre. Use at least 20 gals. per acre if dense vegetation or heavy residue is present on the soil surface. Select nozzles that meet manufacturer's gallonage and pressure specifications for post-emergence herbicide application.

**ADDITIVES****Post-Emergence Application**

When applying **Frigate 51% WDG - IVM** after weeds emerge, mix with an agronomically approved adjuvant. Mix **Frigate 51% WDG - IVM** with a crop oil concentrate that contains at least 15% emulsifiers and 80% oil or a non-ionic surfactant containing at least 80% active ingredient when applying this product as part of a post-emergence weed control program. Verify mixing compatibility by a jar test before using. **DO NOT** mix **Frigate 51% WDG - IVM** with a surfactant when applying over the top of dormant woody ornamentals or conifer trees.

Add a spray-grade nitrogen source (either ammonium sulfate at 2.0 - 2.5 lbs./A or a 28 - 32% nitrogen solution at 1 - 2 qts./A) to the spray mixture along with a crop oil concentrate or non-ionic surfactant to enhance weed control. The addition of a nitrogen source does not replace the need for crop oil concentrate or non-ionic surfactant.

**JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND FRIGATE 51% WDG - IVM HERBICIDE**

Perform a jar test before mixing commercial quantities of **Frigate 51% WDG - IVM**, when using **Frigate 51% WDG - IVM** for the first time, when using new adjuvants or when a new water source is being used.

1. Add 1 pt. of water to a quart jar. The water must be from the same source and have the same temperature as the water used in the spray tank mixing operation.
2. Add 3 grams (approximately 1 level tsp.) of **Frigate 51% WDG - IVM** for the 8 oz./A rate or 4 grams (approximately 1 ½ tsp.) for 12 oz./A rate to the jar. Gently mix until product disperses.
3. Add 60 mL (4 Tbsp. or 2 fl. oz.) of additive to the quart jar and gently mix.
4. If nitrogen is being used, add 16 mL (1 Tbsp.) of the 28 - 32% nitrogen source to the quart jar. If ammonium sulfate is being used, add 19 grams of AMS to the quart jar in place of the 28 - 32% nitrogen.
5. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
6. An ideal tank mix combination will be uniform and free of suspended particles. If any of the following conditions are observed, **DO NOT** use the adjuvant:
  - a) Layer of oil or globules on the solution surface.
  - b) Flocculation: Fine particles in suspension or as a layer on the bottom of the jar.
  - c) Clabbering: Thickening texture (coagulated) like gelatin.

**APPLICATION EQUIPMENT**

**IMPORTANT:** Thoroughly clean spray equipment, including all tanks, hoses, booms, screens, and nozzles, after application of **Frigate 51% WDG - IVM**. Equipment with **Frigate 51% WDG - IVM**'s residue remaining in the system may result in crop injury to subsequently treated crops.

**SPRAYER PREPARATION**

Before applying **Frigate 51% WDG - IVM**, clean the spray tank, as well as all hoses and booms to ensure no residue from the previous spraying operation remains in the sprayer. Some pesticides, including but not limited to the sulfonylurea and phenoxy herbicides, are active at very small amounts and can cause crop injury when applied to susceptible crops. Clean spray equipment according to the manufacturer's directions for the last product used before the equipment is used to apply **Frigate 51% WDG - IVM**. If 2 or more products were tank mixed prior to **Frigate 51% WDG - IVM** application, follow the most restrictive cleanup procedure on the label of all products.

**MIXING INSTRUCTIONS**

1. Fill clean spray tank  $\frac{1}{2}$  -  $\frac{2}{3}$  of desired level with clean water.
2. To ensure a uniform spray mixture, pre-slurry the required amount of **Frigate 51% WDG - IVM** with water prior to addition to the spray tank. Use a minimum of 1 gal. of water per 10 oz. of **Frigate 51% WDG - IVM**  
– **NonCrop**.
3. While agitating, slowly add the pre-slurried mixture to the spray tank. Agitate enough to create a rippling or rolling action on the water surface.
4. If tank mixing **Frigate 51% WDG - IVM** with other labeled herbicides, add water soluble bags first, followed by dry formulations, flowables, emulsifiable concentrates and then solutions. Prepare no more spray mixture than is required for the immediate spray operation.
5. Add any required adjuvants.
6. Fill spray tank to desired level with water. Continue agitation until spray solution has been applied.
7. Mix only the amount of spray solution that can be applied the day of mixing. Apply **Frigate 51% WDG - IVM** within 12 hours of mixing.

**SPRAYER CLEANUP**

Except for dedicated bare ground herbicide application equipment, spray equipment must be cleaned each day following **Frigate 51% WDG - IVM** application. After **Frigate 51% WDG - IVM** is applied, use the following steps to clean the spray equipment:

1. Completely drain the spray tank and rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.
2. Fill the tank with clean water and flush all hoses, booms, screens, and nozzles.
3. Top off tank with clean water and household ammonia. Use 1 gal. of 3% household ammonia for every 100 gals. of water.
4. Circulate through sprayer for 5 minutes.
5. Flush all hoses, booms, screens, and nozzles for a minimum of 15 minutes.
6. Loosen any diaphragms before flushing the spray system, allowing cleaning solution to spray through the open diaphragm.
7. Drain tank completely.
8. Add enough clean water to the spray tank to flush hoses, booms, screens, and nozzles for 2 minutes.
9. Remove all nozzles and screens and rinse them with clean water.

**APPLICATION EQUIPMENT**

Application equipment must be clean and in good repair. Ensure nozzles are uniformly spaced on boom and frequently checked for accuracy.

**BROADCAST APPLICATION**

Apply **Frigate 51% WDG - IVM** and this product's tank mixes, with ground equipment using standard commercial sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume.

**BAND APPLICATION**

When banding, use proportionately less water and **Frigate 51% WDG - IVM** per acre.

**HANDGUN APPLICATION**

Applications may also be made using a handgun sprayer. Use a spray volume of at least 40 gals. per acre to insure uniform coverage.

**AERIAL APPLICATION**

**Aerial applications are limited to maintaining weed free railroad beds, railroad yards and surrounding areas and military installations.**

To obtain satisfactory weed control with aerial application of **Frigate 51% WDG - IVM**, coverage must be uniform. **DO NOT** spray when drift is possible or when wind velocity is more than 10 mph. **DO NOT** spray **Frigate 51% WDG - IVM** within 200 feet of dwellings, adjacent sensitive crops or environmentally sensitive areas. To obtain satisfactory application and drift, the following directions must be observed:

**Volume Pressure**

Apply **Frigate 51% WDG - IVM** in 5 - 10 gals. of water per acre, with a maximum spray pressure of 40 PSI. Application at less than 5 gals. per acre may not provide adequate weed control. Higher gallonage applications provide more consistent weed control.



**Nozzles and Nozzle Operation**

Use nozzles that produce flat or hollow cone spray patterns. Use non-drip type nozzles for example diaphragm type nozzles to avoid unwanted discharge of spray solution. The nozzle must be directed toward the rear of the aircraft, at an angle between 0° and 15° downward. **DO NOT** place nozzles on the outer 25% of the wings or rotors.

**Adjuvants**

Refer to the additive section or the tank mix partners label for adjuvant directions.

**MANDATORY SPRAY DRIFT****Aerial Applications**

- **DO NOT** release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply **Frigate 51% WDG – IVM** when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply **Frigate 51% WDG – IVM** during temperature inversions.

**Ground Applications**

- Users must only apply with the release height specified by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- **DO NOT** apply **Frigate 51% WDG – IVM** when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply **Frigate 51% WDG – IVM** during temperature inversions.

**Boom-less Ground Applications**

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- **DO NOT** apply **Frigate 51% WDG – IVM** when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply **Frigate 51% WDG – IVM** during temperature inversions.

**SPRAY DRIFT ADVISORIES**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

**IMPORTANCE OF DROPLET SIZE**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

**Controlling Droplet Size - Ground Boom**

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure specified for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

**Controlling Droplet Size - Aircraft**

- Adjust Nozzles - Follow nozzle manufacturers directions for setting up nozzles. Generally, to reduce fine droplets, orient nozzles parallel with the airflow in flight.

**BOOM HEIGHT - Ground Boom**

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, keep the boom level with the crop and have minimal bounce.

**RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift. When applying aerially to crops, **DO NOT** release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

**SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

**TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

**TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

**WIND**

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.** Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

**Boom-less Ground Applications:**

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

**Handheld Technology Applications:**

Take precautions to minimize spray drift.

**WEEDS CONTROLLED**

When **Frigate 51% WDG - IVM** is applied pre-emergence or post-emergence at specified rates and weed stages, the following grasses and broadleaf weeds are controlled:

**Table 1. Weeds Controlled by Frigate 51% WDG - IVM**

<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>
Alyssum, Hoary	<i>Berteroa incana</i>
Amaranth	
Palmer	<i>Amaranthus palmeri</i>
Spiny	<i>Amaranthus spinosus</i>
American Burnweed	<i>Erechtites hieracifolia</i>
Barnyardgrass*	<i>Echinochloa crus-galli</i>
Beggarweed, Florida	<i>Desmodium tortuosum</i>
Bittercress, Hairy	<i>Cardamine hirsuta</i>
Bluegrass, Annual*	<i>Poa annua</i>
Burclover, California	<i>Medicago polymorpha</i>
Carpetweed	<i>Mollugo verticillata</i>
Chamberbitter	<i>Phyllanthus urinaria</i>
Chickweed	
Common	<i>Stellaria media</i>
Mouseear	<i>Cerastium vulgatum</i>
Crabgrass	
Large*	<i>Digitaria sanguinalis</i>
Smooth*	<i>Digitaria ischaemum</i>
Southern*	<i>Digitaria ciliaris</i>
Croton, Tropic	<i>Croton glandulosus var. septentrionalis</i>
Dandelion*	<i>Taraxacum officinale</i>
Dogfennel	<i>Eupatorium capillifolium</i>
Doveweed	<i>Murdannia nudiflora</i>

COMMON NAME	SCIENTIFIC NAME
Eclipta	<i>Eclipta prostrata</i>
Filaree, Redstem*	<i>Erodium cicutarium</i>
Foxtail	
Bristly*	<i>Setaria verticillata</i>
Giant*	<i>Setaria faberi</i>
Green*	<i>Setaria viridis</i>
Yellow*	<i>Setaria glauca</i>
Galinsoga, Hairy	<i>Galinsoga ciliata</i>
Geranium, Carolina	<i>Geranium carolinianum</i>
Goosegrass*	<i>Eleusine indica</i>
Groundsel, Common	<i>Senecio vulgaris</i>
Henbit	<i>Lamium amplexicaule</i>
Horseweed*	<i>Conyza Canadensis</i>
Indigo, Hairy	<i>Indigofera hirsute</i>
Ivy, Ground*	<i>Glechoma hederacea</i>
Jimsonweed	<i>Datura stramonium</i>
Kochia	<i>Kochia scoparia</i>
Kyllinga, Green*	<i>Kyllinga brevifolia</i>
Lady's Thumb	<i>Polygonum persicaria</i>
Lambsquarters, Common	<i>Chenopodium album</i>
Liverwort	<i>Marchantia polymorpha</i>
Mallow	
Common	<i>Malva neglecta</i>
Little	<i>Malva parviflora</i>
Venice	<i>Hibiscus trionum</i>
Mayweed*	<i>Anthemis cotula</i>
Morningglory	
Entireleaf	<i>Ipomoea hederacea var. integriuscula</i>
Ivyleaf	<i>Ipomoea hederacea</i>
Red/Scarlet	<i>Ipomoea coccinea</i>
Smallflower	<i>Jacquemontia tamnifolia</i>
Tall	<i>Ipomoea purpurea</i>
Moss	<i>Bryum spp.</i>
Mustard	
Tumble	<i>Sisymbrium altissimum</i>
Wild	<i>Brassica kaber</i>
Nightshade	
Black	<i>Solanum nigrum</i>
Eastern Black	<i>Solanum ptycanthum</i>
Hairy	<i>Solanum sarrachoides</i>
Panicum	
Fall*	<i>Panicum dichotomiflorum</i>
Texas*	<i>Panicum texanum</i>
Parsley Piert	<i>Alchemilla arvensis</i>
Pearlwort, Birdseye*	<i>Sagina procumbens</i>

COMMON NAME	SCIENTIFIC NAME
Pennycress, Field	<i>Thlaspi arvense</i>
Phyllanthus, Longstalked	<i>Phyllanthus tenellus</i>
Pigweed	
Prostrate	<i>Amaranthus blitoides</i>
Redroot	<i>Amaranthus retroflexus</i>
Smooth	<i>Amaranthus hybridus</i>
Tumble	<i>Amaranthus albus</i>
Pineapple-weed*	<i>Matricaria matricarioides</i>
Plantain	
Broadleaf*	<i>Plantago major</i>
Buckhorn*	<i>Plantago lanceolata</i>
Poinsettia, Wild	<i>Euphorbia heterophylla</i>
Puncturevine	<i>Tribulus terrestris</i>
Purslane, Common	<i>Portulaca oleracea</i>
Pusley, Florida	<i>Richardia scabra</i>
Ragweed	
Common	<i>Ambrosia artemisiifolia</i>
Giant	<i>Ambrosia trifida</i>
Redmaids	<i>Calandrinia ciliata</i>
Redweed	<i>Melochia corchorifolia</i>
Rocket, Yellow	<i>Barbarea vulgaris</i>
Senna, Coffee	<i>Cassia occidentalis</i>
Sesbania, Hemp	<i>Sesbania exaltata</i>
Shepherd's Purse	<i>Capsella bursa-pastoris</i>
Sida, Prickly (Teaweed)	<i>Sida spinosa</i>
Signalgrass*	<i>Brachiaria platyphylla</i>
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>
Sowthistle, Annual	<i>Sonchus oleraceus</i>
Spurge	
Prostrate	<i>Euphorbia humistrata</i> Engelm
Spotted	<i>Euphorbia maculata</i>
Starbur, Bristly*	<i>Acanthospermum hispidum</i>
Thistle	
Canada*	<i>Cirsium arvense</i>
Russian	<i>Salsola iberica</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Waterhemp	
Common	<i>Amaranthus rudis</i>
Tall	<i>Amaranthus tuberculatus</i>
Woodsorrel, Yellow*	<i>Oxalis stricta</i>

\*pre-emergence control only.

### DIRECTIONS FOR USE TO MAINTAIN BARE GROUND NON-CROP AREAS

**Frigate 51% WDG - IVM** can be used for non-selective vegetation management to maintain bare ground non-crop areas that must be kept free of weed. Apply **Frigate 51% WDG - IVM** only to:

- Bare ground areas under guard rails, above-ground pipelines, railroad beds, railroad yards and surrounding areas
- Bare ground areas in parking lots and storage areas, industrial plant sites, substations, pumping stations, and tankfarms
- Bare ground areas of airports, brick yards, industrial plant sites, lumber yards, military installations, and storage areas
- Bare ground areas around farm buildings and along ungrazed fence rows, wind breaks and shelter beltsImproved roadside areas, road surfaces, and gravel shoulders

Follow all applicable directions as outlined above under Product Information. See Table 1 for a list of broadleaf weeds and grasses controlled by **Frigate 51% WDG - IVM**.

**Frigate 51% WDG - IVM** provides residual and post-emergence control of susceptible broadleaf and grass weed species as well as additional mode of action to assist in the control of ALS (acetolactate synthase) resistant weeds. The timing of residual of control depends on the application rate, as well as on rainfall and temperature conditions. The length of control will be reduced as temperature and precipitation increase.

#### PRE-EMERGENCE APPLICATION

Make a pre-emergence application of 8 to 12 oz. (0.25 - 0.38 lb. a.i./A) of **Frigate 51% WDG - IVM** per broadcast acre. Make pre-emergence (up to weed emergence) applications of **Frigate 51% WDG - IVM** to surfaces that are free of weeds. Pre-emergence applications of **Frigate 51% WDG - IVM** must be completed before weeds emerge. For residual weed control and optimal performance on soil, moisture is necessary to activate **Frigate 51% WDG - IVM**. Dry weather or lack of moisture following application of **Frigate 51% WDG - IVM** may reduce effectiveness. When adequate moisture is received after dry conditions, **Frigate 51% WDG - IVM** will control susceptible weeds that are germinating.

#### POST-EMERGENCE APPLICATION

Make a post-emergence application of 8 to 12 oz. (0.25 - 0.38 lb. a.i./A) of **Frigate 51% WDG - IVM** per broadcast acre plus a surfactant (0.25% v/v non-ionic surfactant or 1 qt./A crop oil concentrate). Adding a surfactant enhances the activity of **Frigate 51% WDG - IVM** on emerged weeds. Thorough spray coverage is necessary to maximize the post-emergence activity of **Frigate 51% WDG - IVM**. Weeds that have emerged are controlled with a post-emergence application of **Frigate 51% WDG - IVM**. However, translocation of **Frigate 51% WDG - IVM** within a weed is limited, and control is improved by ensuring thorough spray coverage and by the addition of a surfactant. The most effective post-emergence weed control with **Frigate 51% WDG - IVM** results when application is made in combination with a surfactant and to weeds that are less than 2 inches in height.

#### TANK MIX APPLICATIONS

Tank mixtures with other pre- and post-emergence herbicides registered for use in non-crop areas provide a broader spectrum of weed control in addition to weeds controlled by **Frigate 51% WDG - IVM** used alone, **Frigate 51% WDG - IVM** must be tank mixed with other herbicides registered for use in bare ground vegetation management, (non-crop uses) including, but not limited to those products listed below.

#### Tank Mixture Combinations For Non-Selective Vegetation Management Weed Control

2,4-D	Glyphosate	Norflurazon	Proflam
Bromacil	Hexazinone	Oryzalin	Simazine
Chlorsulfuro	Imazapic	Pendimethalin	Sulfometuron methyl
Clorpyralid	Imazapyr	Picloram	Tebuthiuron
Dicamba	Metsulfuron methyl	Pramitol	Triclopyr
Diuron			

**IMPORTANT:** It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### RESTRICTIONS

- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) of **Frigate 51% WDG – IVM** per acre per single application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) of **Frigate 51% WDG – IVM** per acre per year.
- **DO NOT** make more than 2 applications at 12 oz./A (0.383 lb. a.i.) or 3 applications at 8 oz./A (0.765 lb. a.i.) of **Frigate 51% WDG – IVM** per year.
- **DO NOT** make an additional application of **Frigate 51% WDG - IVM** within 30 days of prior application.

## STORAGE AND DISPOSAL

**DO NOT** contaminate water, food or feed by storage or disposal.

### PESTICIDE STORAGE:

Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If the container is leaking or material spilled for any reason or cause, carefully sweep material into a pile. Refer to PRECAUTIONARY STATEMENTS on label for hazards associated with the handling of this material. **DO NOT** walk through spilled material. Dispose of pesticide as directed below. In spill or leak incidents, keep unauthorized people away.

### PESTICIDE DISPOSAL:

Wastes resulting from the use of **Frigate 51% WDG – IVM** may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### CONTAINER HANDLING:

**Non-refillable container. Rigid, Non-refillable containers small enough to shake (i.e., with capacities equal to or less than 5 gallons). DO NOT reuse or refill this container.** Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix-tank. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix-tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix-tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix-tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once container is rinsed, offer for recycling if available, or puncture and dispose of in a sanitary landfill.

**Non-refillable containers. Rigid Non-refillable containers that are too large to shake (i.e., with capacities greater than 5 gallons or 50 lbs). DO NOT reuse or refill this container.** After emptying product from container, rinse and either recycle or dispose of the container as follows: Bottom Discharge IBC (e.g. Schuetz Caged IBC or Snyder Square Stackable).

Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. To pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix-tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal.

Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

Top Discharge IBC, Drums, Kegs (e.g. Snyder 120 Next Gen, Bonar B120, Drums, and Kegs). Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. To triple rinse the container before final disposal, empty the remaining contents from this container into application equipment or rinsate collection system. Fill the container at least 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times.

Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill.

[Batch Code will be placed on the container.]

### Warranty and Disclaimer Statement

Read the entire DIRECTIONS FOR USE and Warranty and Disclaimer Statement before buying or using **Frigate 51% WDG - IVM**. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The DIRECTIONS FOR USE of **Frigate 51% WDG - IVM** must be followed carefully. It is impossible to eliminate all risks associated with the use of **Frigate 51% WDG - IVM** including risks that may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors. Such risks are all beyond the control of Yifan Biotechnology Group Co., Ltd. ("YIFAN") and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. All such risks shall be assumed by the user or buyer and to the extent permitted by applicable law, the user or buyer agree to hold YIFAN harmless for any claims relating to such risks.

YIFAN warrants that **Frigate 51% WDG - IVM** conforms to the chemical description on the label and is reasonably fit for the purposes stated in the DIRECTIONS FOR USE, subject to the inherent risks described above, when used in accordance with the DIRECTIONS FOR USE under normal conditions. To the extent permitted by applicable law, this warranty does not extend to the use of **Frigate 51% WDG - IVM** contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of YIFAN, and the user or buyer assume the risk of any such use.

**To the extent permitted by applicable law, YIFAN disclaims all other warranties, expressed or implied, including any warranty of merchantability or fitness for a particular purpose. To the extent permitted by applicable law, YIFAN, manufacturer, and seller disclaim and shall not be liable for any special, incidental, indirect, or consequential damages (including claims based on breach of warranty, contract, negligence, tort, strict liability or otherwise) resulting from the use, handling, application, storage, or disposal of Frigate 51% WDG - IVM or for damages in the nature of penalties, and the user and buyer waive any right that they may have to such damages. No agent, representative or employee of YIFAN is authorized to make any warranty, guarantee or representation beyond those contained herein or to modify the warranties contained herein.**

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE TOTAL LIABILITY OF YIFAN, MANUFACTURER, AND SELLER, SHALL BE LIMITED TO THE PURCHASE PRICE PAID, OR AT YIFAN'S ELECTION, THE REPLACEMENT OF THE PRODUCT.**