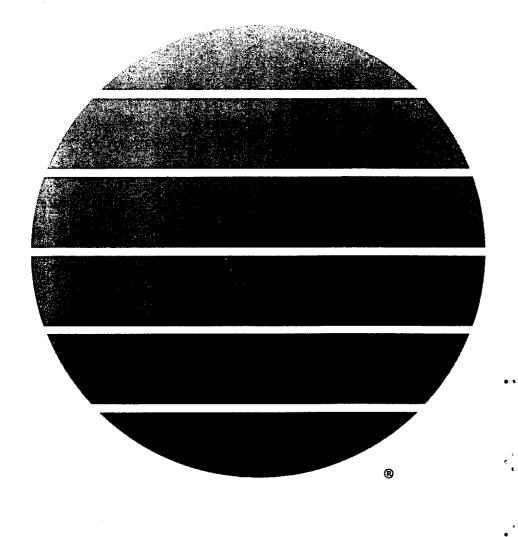


# DuPont<sup>™</sup> GF 1:2

herbicide

# DRAFT LABEL



"...... A Growing Partnership With Nature"

#### **GF 1:2 HIGHLIGHTS**

- For selective postemergence grass and broadleaf weed control in both winter and spring wheat.
- Apply postemergence to winter wheat in the fall or spring anytime after the crop has 2 leaves, but prior to jointing.
- Apply postemergence to spring wheat (including durum) anytime after emergence, but before the majority of plants have 4 total leaves on main stem plus two tillers.
- Must be applied by ground only.
- Use in tank mixtures with other registered herbicides for broader spectrum weed control (see TANK MIXTURES).
- GF1:2 Is recommended for land primarily dedicated to long-term production of wheat (see CROP ROTATION section for recropping information).
- Consult label text for complete instructions. Always read and follow label DIRECTIONS FOR USE.

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# **DuPont**<sup>TM</sup> **GF 1:2 Herbicide**

### A Unit Pack Product For Use on Wheat

Active Ingredients:	By Weight
Chlorsulfuron:	
2-Chloro-N-[(4-methoxy-6-methyl-	
1,3,5-triazin-2-yl)aminocarbonyl]	
benzenesulfonamide	25.0%
Flucarbazone-sodium*:	
4,5-Dihydro-3-methoxy-4-methyl-5-oxo-	
N-[[2-(trifluoromethoxy)phenyl]sulfonyl]-	
1H-1,2,4-triazole-1-carboxamide,	
sodium salt	46.7%
Inert Ingredients:	28.3%
TOTAL	100%

<sup>\*44%</sup> Flucarbazone acid equivalent

EPA Reg. No. 352-XXX

EPA Establishment No.

Net Weight: 18 ounces

E. I. du Pont de Nemours and Company Wilmington, Delaware 19898

OCT 18 2004

Under the Rederal Insections, Fungious, and Redensions Act

as amended for the posticite

# KEEP OUT OF REACH OF CHILDREN CAUTION

#### FIRST AID

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-441-3637 for emergency medical treatment information.

ACCEPTED

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION! Causes moderate eye irritation. Harmful if absorbed through stanton avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

#### PERSONAL PROTECTIVE EQUIPMENT

Some of the materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category A on an EPA chemical-resistance category selection chart.

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves (Category A) made of materials such as butyl rubber ≥14mils, natural rubber ≥14mils, neoprene rubber ≥14 mils, or nitrile rubber ≥14 mils.
- Shoes plus socks.

Discard clothing and other absorbent materials that have been drenched, or heavily contaminated with this product.

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

Engineering Control Statement: When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR Part 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### **USER SAFETY RECOMMENDATIONS**

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from areas treated. Do not contaminate water by cleaning of equipment or disposing of equipment washwaters or wastes.

Do not allow sprays to drift onto adjacent desirable plants.

#### **IMPORTANT**

DuPont GF 1:2 is recommended for use on land primarily dedicated to the long-term production of wheat.

Read these entire Directions for Use, and the Limitation of Warranty and Liability, before using this product.

#### PESTICIDE HANDLING

- Calibrate sprayers only with clean water away from the well site.
- Make scheduled checks of spray equipment.
- Assure accurate measurement of pesticides by all operation employees.
- Mix only enough product for the job at hand.
- Avoid over-filling of spray tank.
- Do not discharge excess material on the soil at a single spot in the field/grove or mixing/loading station.
- Dilute and agitate excess solution and apply at labeled rates/uses.
- Avoid storage of pesticides near well sites.
- Do not mix, load or clean spray equipment within 33 feet of well-heads or aquatic systems, including marshes, ponds, ditches, streams, lakes, etc.
- Do not apply within 50 feet of well-heads or the above mentioned aquatic systems.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product 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 this product 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 this product 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, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves (Category A) made of materials such as butyl rubber ≥14mils, natural rubber ≥14mils, neoprene rubber ≥14 mils, or nitrile rubber ≥14 mils Shoes plus socks.

GF 1:2 must be used only in accordance with recommendations on this label or in separate published DuPont recommendations. DuPont will not be responsible for losses or damages resulting from the use of this product in any manner not specifically recommended by DuPont.

Do not apply this product through any type of irrigation system. Do not use flood irrigation to apply or incorporate GF 1:2.

Do not apply this product by air.

#### GENERAL INFORMATION

GF 1:2 herbicide is a convenient unit pack that is mixed in water and applied as a spray. Open package completely and empty contents of both compartments into spray tank.

GF 1:2 controls weeds in wheat (including durum). Apply GF 1:2 as a uniform broadcast spray according to the recommendations given in this label. Failure to follow these directions may result in a reduction in weed control/suppression and/or a potential for crop injury. A surfactant should be used in the spray mix unless otherwise specified on this label.

GF 1:2 is noncorrosive, nonflammable, nonvolatile, and does not freeze.

GF 1:2 controls some broadleaf weeds by preemergence activity, and both grass and broadleaf weeds by postemergence activity. For best preemergence results, apply before weed seeds germinate. Use sprinkler irrigation or allow rainfall to move GF 1:2 2-3" deep into the soil profile. For best postemergence results, apply GF 1:2 to young, actively growing weeds. The degree and duration of control may depend on the following:

- weed spectrum and infestation intensity
- weed size at application
- environmental conditions at and following treatment.

#### Environmental Conditions and Biological Activity

GF 1:2 is absorbed through the roots and foliage of susceptible weeds, rapidly inhibiting their growth. One to 3 weeks after application to weeds, leaves of susceptible plants appear chlorotic, and the growing point subsequently dies.

Postemergent application of GF 1:2 provides the best control in vigorously growing crops that shade competitive weeds. Weed control in areas of thin crop stand or seeding skips may not be as satisfactory. However, a crop canopy that is too dense at application can intercept spray and reduce weed control.

GF 1:2 may injure crops that are stressed from adverse environmental conditions (such as extreme temperatures or moisture), abnormal soil conditions, or cultural practices. In addition, different varieties of the crop may be sensitive to treatment with GF 1:2 under otherwise normal conditions. Treatment of such varieties may injure crops.

In warm, moist conditions, the expression of herbicide symptoms is accelerated in weeds; in cold, dry conditions, expression of herbicide symptoms is delayed. In addition, weeds hardened-off by drought stress are less susceptible to GF 1:2.

Postemergence weed control may be reduced if rainfall occurs soon after application. Do not apply when rain is expected within the next hour after application.

#### APPLICATION TIMING

GF 1:2 must always be applied postemergence to crop and grass weeds. Do not apply preemergence, or before crop emergence is completed. To avoid crop injury, apply GF 1:2 before jointing begins.

Do not make more than one application of GF 1:2 per growing season.

Winter Wheat: Apply in the fall or spring anytime after the crop has 2 leaves, but before jointing begins.

Treat late-seeded winter wheat after the crop has started to tiller since the combined effect of herbicide stress and stress from cold weather and/or moisture could cause crop injury.

**Spring Wheat and Durum:** Apply anytime after emergence, but before the majority of plants have 4 total leaves on the main stem plus 2 tillers. Do not apply after jointing begins. Note – Apply to Vic durum after early tillering, but before boot.

# RATE OF APPLICATION AND WEEDS CONTROLLED OR PARTIALLY CONTROLLED

GF 1:2 is a unit pack product which will treat up to 30 acres of wheat as a broadcast application. Refer to the following table for acres treated by Rate I, Rate II, and Rate III of GF 1:2.

GF 1:2 Rate	Number of acres treated with one 18 ounce unit pack of GF 1:2		
Rate I	30		
Rate II	25		
Rate III	20		

GF 1:2 will provide control or partial control of the following weeds when applied at the specified rates and application timing.

#### GRASS WEED RECOMMENDATIONS

GRASS WEEDS	EARLY* APPLIED GF 1:2, Rate II	EARLY APPLIED GF 1:2, Rate I	LATE* APPLIED GF 1:2, Rate III	LATE APPLIED GF 1:2, Rate II
Annual				
Ryegrass ***	C **	PC	C	PC
Downy Brome (Bromus tectorum)	PC	NR	PC	NR
Cheat (Bromus secalinus)	С	C#	C	C#
Japanese Brome (Bromus japonicus)	С	Ċ#	С	C#
Wild Oat	С	C##	С	С

\*EARLY APPLIED: Timing - After winter wheat has 2 leaves and before jointing begins, but prior to December 15

LATE APPLIED: Timing - Winter Wheat -After December 15, but before jointing begins.

Spring Wheat-A maximum of 4 leaves on the main stem and 2 tillers.

Rate I – One 18 oz. Unit pack of GF 1:2 per 30 acres Rate II– One 18 oz. Unit pack of GF 1:2 per 25 acres

Rate III- One 18 oz. Unit pack of GF 1:2 per 20 acres

#### \*\* C = Control

PC = Partial Control (partially controlled weeds exhibit a visual reduction in numbers and/or a significant loss of vigor)

NR = Not recommended

- \*\*\* If GF 1:2 is applied in a tank-mix combination with a 2,4-D containing broadleaf herbicide, Ryegrass control may be reduced
- # For control of these weed species at the reduced rate, liquid nitrogen fertilizer as a carrier solution of 50% or greater must be added to the tank mix.
- ## For light to moderate populations only.

### **BROADLEAF WEED RECOMMENDATIONS**

BROADLEAF WEEDS	EARLY* APPLIED GF 1:2, Rate II	EARLY APPLIED GF 1:2, Rate I	LATE* APPLIED GF 1:2, Rate III	LATE APPLIED GF 1:2, Rate II
Bedstraw	PC**	NR	PC	PC
Black Mustard	PC	С	c	PC
Blue Mustard	С	С	С	С
Bur beakchervil	PC	NR	С	PC
Bushy Wallflower / Treacle Mustard	С	С	С	С
Buttercup	PC	NR	C	PC
Canada thistle	PC	NR	PC	PC
Coast Fiddleneck (tarweed)	PC	NR	С	PC
Common chickweed	PC	NR	С	PC
Common groundsel	PC	NR	С	PC
Conical catchfly	С	С	С	C
Corn gromwell	PC	NR	PC	PC
Curly dock	С	С	С	С
Corn spurry	PC	NR	С	PC
Cow cockle	PC	NR	С	PC
Cutleaf evening primrose	С	С	С	С
False chamomile	PC	NR	С	PC
Falseflax	PC	NR	С	PC
Field pennycress	С	C	С	С
Flixweed	С	С	С	С
Hempnettle	C	С	С	C
Henbit	С	С	С	C
Kochia +	PC	NR	PC	PC
Ladysthumb	PC	NR	С	PC
Lambsquarter	PC	NR	C	PC
Mayweed	С	C	С	С
Miners lettuce	C	С	C	С
Mouseear chickweed	PC	NR	С	PC
Pennsylvania smartweed	PC	NR	PC	PC
Pineappleweed	С	С	С	С
Pigweeds (redroot, smooth, prostrate,			The second secon	-
tumble)	С	С	С	С
Prickly lettuce +	PC	NR	PC	PC
Prostrate knotweed	PC	NR	PC	PC
Purslane (common)	PC	NR	С	PC
Redstem filaree	PC	NR	C	PC
Russian thistle +	PC	NR	PC	PC

BROADLEAF WEEDS	EARLY* APPLIED GF 1:2, Rate II	EARLY APPLIED GF 1:2, Rate I	LATE* APPLIED GF 1:2, Rate III	LATE APPLIED GF 1:2, Rate II
Shepherd's-purse	C**	С	C	C
Speedwell	PC	NR	PC	PC
Sunflower	PC	NR	PC	PC
Tansymustard	C	С	_ c	С
Volunteer canola	PC	NR	PC	PC
Waterpod	C	С	C	С
White cockle	PC	NR	C	PC
Wild buckwheat	PC	NR	PC	PC
Wild carrot	PC	NR	C	PC
Wild garlic/wild onion	PC	NR	PC	PC
Wild mustard	С	С	С	С
Wild radish	PC	NR	PC	PC
Wild turnip	PC	NR	C	PC

\*EARLY APPLIED: Timing - After winter wheat has 2 leaves and before jointing begins, but prior to December 15

LATE APPLIED: Timing - Winter Wheat -After December 15, but before jointing begins.

Spring Wheat-A maximum of 4 leaves on the main stem and 2 tillers.

Rate I - One 18 oz. Unit pack of GF 1:2 per 30 acres

Rate II- One 18 oz. Unit pack of GF 1:2 per 25 acres

Rate III- One 18 oz. Unit pack of GF 1:2 per 20 acres

#### \*\* C = Control

PC = Partial Control (partially controlled weeds exhibit a visual reduction in numbers and/or a significant loss of vigor)

NR = Not recommended

+ Naturally occurring resistant biotypes of these weeds are known to occur. See the Tank Mixtures and Resistance sections on the GLEAN label for additional information.

#### SPECIFIC WEED PROBLEMS

Annual Ryegrass: Apply GF 1:2 early postemergence when ryegrass is 1 leaf to tillering stage of growth. Under abnormally wet conditions, fall applications may not adequately control ryegrass and/or broadleaf weeds that germinate in the spring.

Canada Thistle: Apply GF 1:2 with surfactant after the majority of thistles have emerged and while they are small (rosette stage to 4"-6" tall) and actively growing. For maximum long-term effect, yearly treatment may be required.

Flixweed, Tansymustard: For best postemergence results, tank mix GF 1:2 with another herbicide that is effective on these weeds, such as 2,4-D (use a minimum of 1/4 lb active ingredient per acre of 2,4-D). Apply GF 1:2 when weeds are small and actively growing. If weeds are inactive due to cold, dry weather before and/or after treatment, delay application until moisture and temperature conditions are favorable for active weed growth.

Kochia: Naturally occurring biotypes resistant to GF 1:2 are known to occur. For best results, use GF 1:2 in a tank mix with Starane, Starane + Salvo, or bromoxynil containing products (such as "Buctril", "Bison", "Bronate" or "Bronate Advanced"). GF 1:2 should be applied in the spring when kochia are less than 2" tall and are actively growing (refer to the Tank Mixtures section of this label for additional details on rates and restrictions).

Russian thistle, Prickly lettuce: Naturally occurring biotypes resistant to GF 1:2 of these weeds are known to occur. For best results, use GF 1:2 in a tank mix with bromoxynil containing products (such as "Buctril", "Bison", "Bronate" or "Bronate Advanced"). GF 1:2 should be applied in the spring when Russian thistle, and prickly lettuce are less than 2" tall or 2" across and are actively growing (refer to the Tank Mixtures section of this label for additional details on rates and restrictions).

Lambsquarters: For best results, apply GF 1:2 in the fall. For best posternergence suppression, apply GF 1:2 plus 2,4-D after the majority of weeds have emerged (less than 2" tall or 2" across) and are actively growing. Soil moisture should be adequate, and daily temperatures should reach at least 60 °F.

**Prostrate Knotweed:** For best results, apply in the fall.

Sunflower (New Mexico, Oklahoma (Panhandle), and Texas): For best results, apply GF 1:2 after the majority of sunflowers have emerged, are actively growing, and are not more than 2" tall.

Wild Buckwheat: For postemergence applications, tank mix with 2,4-D, "Buctril", "Bison", "Bronate", or "Bronate Advanced" and surfactant, and apply after the majority of seedlings have emerged and are actively growing.

Wild Garlic/Wild Onion: GF 1:2 provides aerial bulblet control only.

#### TANK MIX INFORMATION AND PRECAUTIONS

<u>Tank Mixtures with Dicamba:</u> Tank mixtures of GF 1:2 with Dicamba may result in reduced control of grass weeds.

<u>Tank Mixes with Insecticides:</u> GF 12: may be tank mixed with insecticides registered for use on wheat. However, under certain conditions (stress from drought, cold weather or warm days and cold nights following application, or crops in the 2-4 leaf stage), tank

mixtures or sequential treatments of GF 1:2 and organophosphate insecticides (such as methyl or ethyl parathion, "Di-Syston", etc.) may produce temporary crop yellowing or, in severe cases, crop injury. Test these mixtures in a small area first. If no symptoms of crop injury occur 14 days after treatment, treat the rest of the acreage.

Do not use GF 1:2 plus Malathion, as crop injury may result.

Do not apply GF 1:2 within 60 days of crop emergence where an organophosphate insecticide (such as "Di- Syston") has been applied as an in-furrow treatment, as crop injury may result.

Surfactants: Unless otherwise specified, add a non-ionic surfactant (NIS) having at least 80% active ingredient at 0.5% v/v (2 quarts per 100 gallons of spray solution). Antifoaming agents may be used if needed. If another herbicide is tank mixed with GF 1:2, select adjuvants authorized for use with all the tank-mix partner herbicides. Adjuvants must contain only EPA-exempt ingredients (40 CFR 180.1001).

Ammonium Nitrogen Fertilizer: In addition to a non-ionic surfactant, use 2 qt. /acre of a high-quality urea ammonium nitrate (UAN), such as 28%N or 32%N, or 2 lbs./acre of a spray-grade ammonium sulfate (AMS). Use 4 qt/acre UAN or 4 lbs./acre AMS under arid conditions.

Do not use low rates of liquid fertilizer as a substitute for surfactant.

<u>Carrier Solutions (With Liquid Nitrogen Solution Fertilizer)</u>: Liquid nitrogen fertilizer solutions may be used as a carrier in place of water. Run a tank mix compatibility test before mixing GF 1:2 in fertilizer solution.

GF 1:2 must first be slurried with water, then added to liquid nitrogen solutions (e.g., 28-0-0, 32-0-0). Ensure that the agitator is running while GF 1:2 is added. Note that use of fertilizer as the carrier may result in temporary crop yellowing and stunting. If using rates of liquid nitrogen fertilizer in the spray solution that are less than 50% of the spray solution volume, the addition of non-ionic surfactant is necessary. Add surfactant at 1/2 pint to 1 quart per 100 gallons of spray solution (0.063 to 0.25% v/v) based on local recommendations.

When using rates of liquid nitrogen fertilizer in the spray solution that are greater than 50% of the spray solution, adding surfactant increases the risk of crop injury. Consult your agricultural dealer, consultant, fieldsman, or DuPont representative for a specific recommendation before adding surfactant to these tank mixtures.

#### TANK MIXTURES

GF 1:2 may be tank mixed with other suitable registered herbicides to control weeds that are listed on this label as partially controlled, weeds resistant to GF 1:2, and/or weeds not listed on this label as controlled. Read and follow all manufacturer's label recommendations for the companion herbicide. If those recommendations conflict with

this label, do not tank mix the herbicide with GF 1:2. Use the most restrictive label limitations for each product used in the tank-mix.

If GF 1:2 is applied in a tank mix with a dicamba containing broadleaf herbicide, grass control might be reduced.

Do not apply GF 1:2 In combination with MCPA/MCPA Ester (MCPE) within 72 hours of frost.

#### With 2,4-D (amine or ester)

When applying to winter wheat, GF 1:2 may be used as a tank-mix treatment with a 2,4-D containing herbicide (preferably ester formulations). For best results, add 2,4-D herbicides to the tank at 1/8 to 1/4 lb active ingredient per acre. Apply GF 1:2 plus 2,4-D after tillering (refer to appropriate 2,4-D's manufacturer's label). Tank mixtures of GF 1:2 plus 2,4-D may result in reduced control of grass weeds. Do not add a surfactant when mixing with 2,4-D ester formulations.

# With Bromoxynil containing products (such as "Buctril", "Bison", "Bronate" or "Bronate Advanced")

GF 1:2 may be tank mixed with bromoxynil containing herbicides registered for use on wheat. For best results, add bromoxynil containing herbicides to the tank at 3 to 6 oz active ingredient per acre (such as "Bronate" or "Bison" at 3/4 - 1 1/2 pt per acre). Tank mixes of GF 1:2 plus bromoxynil may result in reduced control of Canada thistle.

#### With "Starane", "Starane + Salvo"

For improved control of Kochia (2" tall) GF 1:2 may be tank mixed with 1/3 to 2/3 pints per acre of Starane, or 2/3 to 1 1/3 pints per acre of Starane + Salvo. Refer to the DuPont herbicide label, and the Starane, Starane + Salvo labels for information regarding use restrictions, labeled crops, rotational cropping recommendations, sprayer cleanup, use precautions and other information. 2,4-D herbicides (preferably ester formulations) may be tank mixed with GF 1:2 plus Starane. Consult local recommendations and the Tank Mixtures section of this label for additional information.

#### With "Aim"

GF 1:2 can be tank mixed with "Aim" herbicide for improved control of weeds in wheat. Refer to the "Aim" label for information regarding use restrictions, labeled crops, rotational cropping recommendations, sprayer cleanup, use precautions and other information.

#### With "Stinger" or "Curtail"

GF 1:2 can be tank mixed with "Stinger" or "Curtail" herbicides for improved control of weeds in wheat. Refer to the "Stinger" or "Curtail" label for information regarding use restrictions, labeled crops, rotational cropping recommendations, sprayer cleanup, use precautions and other information.

#### GROUND APPLICATION

To obtain optimum spray distribution and thorough coverage use flat-fan nozzles.

- For best performance, select nozzles and pressure that deliver MEDIUM spray droplets. Nozzles that deliver COARSE spray droplets may be used to reduce drift, provided spray volume is increased to maintain coverage on small weeds.
   For optimal product performance and minimal spray drift, adjust the spray boom to the lowest possible spray height recommended in manufacturers' specifications.
- Overlaps or starting, stopping, slowing, and turning while spraying may result in crop injury.
- When using flat-fan nozzles, use a spray volume of at least 5 gal per acre (GPA) at 30 to 50 PSI to ensure proper weed coverage.
- Use screens that are 50-mesh or larger.

#### **CROP ROTATION**

Before using GF 1:2, carefully consider your crop rotation plans and options. For rotational flexibility, it is recommended to not treat all of your wheat acres at the same time.

#### MINIMUM RECROPPING INTERVALS

Minimum recropping intervals\* are determined by the rate of breakdown of GF 1:2 applied. GF 1:2 breakdown in the soil is affected by soil pH, soil temperature, and soil moisture. Low soil pH, high soil temperature, and high soil moisture increase GF 1:2 breakdown in soil, while high soil pH, low soil temperature, and low soil moisture slow GF 1:2 breakdown.

Of these three factors, only soil pH remains relatively constant. Soil temperature, and to a greater extent, soil moisture, can vary significantly from year to year and from area to area. For this reason, soil temperatures and soil moisture should be monitored regularly when considering recropping.

\* The minimum recropping interval represents the period of time from the last application to the anticipated date of the next planting. Before using GF 1:2, carefully consider your crop rotation plans and options. For rotational flexibility, do not treat all of your wheat acres at the same time.

#### SOIL PH LIMITATIONS

GF 1:2 should not be used on soils having a pH above 7.9, as extended soil residual activity could extend crop rotation intervals beyond normal, and under certain conditions, could injure wheat. In addition, other crops planted in high-pH soils can be extremely sensitive to low concentrations of GF 1:2.

#### Checking Soil pH

Before using GF 1:2, determine the soil pH of the areas of intended use. To obtain a representative pH value for the test area, take several 0 to 4" samples from different areas of the field and analyze them separately. Consult local extension publications for additional information on recommended soil sampling procedures.

### Rotation Intervals for Cereal Crops\*

Location	Crop	Soil pH	Minimum Rotation Interval (months) *
All Areas	Wheat	7.9 or lower	4
NE, KS, OK, TX	Barley	7.9 or lower	10
ID, OR, UT, WA	Barley	6.5 or lower	10
		6.6 to 7.5	16
	Ţ.	7.6 - 7.9	24

<sup>\*</sup> Unless a crop rotation interval is specified, a field bioassay must be completed before rotating to any crop not listed. See "Bioassay" section of this label for information on conducting a field bioassay in target areas.

## Rotation Intervals for Noncereal Crops \*

Location		Crop	Soil pH	Cumulative Precipitation (Inches)	Minimum Rotation Interval
State	County or Area			(Inches)	(months) *
KS	Central (E. of Hwy 183, W. of the	Soybeans	7.5 or lower	25	14
	Flinthills)		7.6 to 7.9	46	26
	W. Central & Western(generally	Soybeans	7.5 or lower	40	24
	West of Hwy. 183 to the Western edge of Grant, Kearny, Logan, Rawlings, Stevens, Thomas and Wichita		7.6 to 7.9	60	36
	Far Western (In the last tier of counties	Soybeans	7.5 or	36	26
along the K border (C Greeley, H Morton, Sh Stanton, an	along the KS/CO border (Cheyenne, Greeley, Hamilton, Morton, Sherman, Stanton, and Wallace)		7.6 to 7.9	60	48
NE	S. Central (Franklin, Nuckolls, Thayer	Soybeans	7.5 or lower	25	14
	and Western counties)		7.6 to 7.9	46	26
	Western (W. of Hwy183 to WY	Soybeans	7.5 or lower	40	24
	border)		7.6 to 7.9	60	36
OK	East of the Panhandle	Soybeans	7.9 or lower	25	14
TX	Eastern counties (Archer, Bell, Bosque, Bowie, Camp, Cass, Clay, Colin, Cooke, Coryell, Dallas, Delta, Denton, Ellis,	Soybeans	7.9 or lower	25	14
	Falls, Fannin, Franklin, Grayson, Hill, Hood, Hopkins, Hunt,				

TX	Jack, Johnson,				
(cont'd)	Kaufman, Lamar,	•			
	Limestone,				
	McLennan, Milam,	(		1	
	Montague, Morris,				
	Navarro, Palo Pinto,				
	Parker, Rains, Red				
	River, Robertson,				
	Rockwall,				
]	Somervell, Tarrent,	]	}	ļ	]
	Titus, Upshur, Van				
	Zandt, Wichita,				
	Williamson, Wise,				İ
	Wood and Young.				
ID	Northern counties	Pea (dry)	6.5 or	35	24
	(Benewah, Bonner,		lower		
1	Boundary,	Lentils	6.5 or	50	36
	Clearwater Idaho,		lower		
	Koontenai, Letah,				
	Lewis and Nez				į
	Perce)				
OR	Northeastern	Pea (dry)	6.5 or	35	24
]	counties (Baker,		lower		
	Umatilla, Union,	Lentils	6.5 or	50	36
	and Wallowa)		lower		
WA	Eastern counties	Pea (dry)	6.5 or	35	24
	(Asotin, Columbia,		lower		
	Garfield, Pend	Lentils	6.5 or	50	36
	Oreille, Spokane,		lower		
1	Stevens, Walla				
	Walla, and				
	Whitman)			,	

<sup>\*</sup> Unless a crop rotation interval is specified, a field bioassay must be completed before rotating to any crop not listed. See "Bioassay" section of this label for information on conducting a field bioassay in target areas.

#### **BIOASSAY**

A field bioassay must be completed before rotating to any crop not listed (See the Rotation Intervals table), or if the soil pH is not in the specified range, or if the minimum cumulative precipitation has not occurred since application.

#### Field Bioassay

To conduct a field bioassay, grow test strips of the crop or crops you plan to grow the following year in fields previously treated with GF 1:2. Crop response to the bioassay will indicate whether or not to rotate to the crop(s) grown in the test strips. If a field bioassay is planned, check with your local DuPont representative for information detailing the field bioassay procedure.

#### GRAZING

Observe the minimum Interval to harvest of 60 days after treatment, after which wheat grain and straw from treated fields may be fed to livestock.

#### MIXING INSTRUCTIONS

- 1. Fill the tank 1/4 to 1/3 with clean water.
- 2. While agitating, add the required amount of GF 1:2.
- 3. Continue agitation until the GF 1:2 is fully dispersed, at least 5 minutes.
- 4. Once the GF 1:2 is fully dispersed, maintain agitation and continue filling tank with water. GF 1:2 should be thoroughly mixed with water before adding any other material.
- 5. As the tank is filling, add tank mix partners (if desired) then add the necessary volume of nonionic surfactant. Always add surfactant last. Antifoaming agents may be used.
- 6. If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
- 7. Apply GF 1:2 spray mixture within 24 hours of mixing to avoid product degradation.
- 8. If GF 1:2 and a tank mix partner are to be applied in multiple loads, pre-slurry the GF 1:2 in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of the GF 1:2.

Do not use GF 1:2 with spray additives that reduce the pH of the spray solution to below 3.0.

#### SPRAY EQUIPMENT

- For specific application equipment, refer to the manufacturer's recommendations for additional information on GPA, pressure, speed, nozzle types and arrangements, nozzle heights above the target canopy, etc.
- Be sure to calibrate equipment properly before application. Select a spray volume and delivery system that will ensure thorough coverage and a uniform spray pattern with minimum drift. Use higher spray volumes to obtain better coverage when crop canopy is dense. Avoid swath overlapping, and shut off spray booms while starting, turning, slowing, or stopping, to avoid injury to the crop.
- Do not make applications using equipment and/or spray volumes or under weather conditions that might cause spray to drift onto nontarget sites. For additional information on spray drift, refer to the Spray Drift Management section of this label.
- Continuous agitation is required to keep GF 1:2 in suspension.

#### SPRAYER CLEANUP

Spray equipment must be cleaned before GF 1:2 is sprayed. Follow the cleanup procedures specified on the labels of previously applied products. If no directions are provided, follow the six steps outlined in After Spraying GF 1:2 below.

#### At the End of the Day

When multiple loads of GF 1:2 herbicide are applied, it is recommended that at the end of each day of spraying, the interior of the tank be rinsed with fresh water and then partially filled, and the boom and hoses flushed. This will prevent the buildup of dried pesticide deposits, which can accumulate in the application equipment.

After Spraying GF 1:2 and Before Spraying Crops Other Than Wheat:

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of GF 1:2 as follows:

- 1. Drain tank; thoroughly rinse spray tanks, boom, and hoses with clean water. Loosen and physically remove any visible deposits.
- 2. Fill the tank with clean water and 1 gal of household ammonia\* (contains 3% active) for every 100 gal of water. Flush the hoses, boom, and nozzles with the cleaning solution. Then add more water to completely fill the tank. Circulate the cleaning solution through the tank and hoses for at least 15 min. Flush the hoses, boom, and nozzles again with the cleaning solution, and then drain the tank.
- 3. Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.
- 4. Repeat step 2.
- 5. Rinse the tank, boom, and hoses with clean water.
- 6. If only Ammonia is used as a cleaner, the rinsate solution may be applied back to the crop(s) recommended on this label. Do not exceed the maximum labeled use rate. If other cleaners are used, consult the cleaner label for rinsate disposal instructions. If no instructions are given, dispose of the rinsate on site or at an approved waste disposal facility.
- \* Equivalent amounts of an alternate-strength ammonia solution or a DuPont-approved cleaner can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions. Consult your Agricultural dealer, applicator, or DuPont representative for a listing of approved cleaners.

#### Notes:

- 1. Caution: Do not use chlorine bleach with ammonia, as dangerous gases will form. Do not clean equipment in an enclosed area.
- 2. Steam-cleaning spray tanks is recommended prior to performing the above cleanout procedure to facilitate the removal of any caked deposits.
- 3. When GF 1:2 is tank mixed with other pesticides, all required cleanout procedures should be examined and the most rigorous procedure should be followed.
- 4. In addition to this cleanout procedure, all precleanout guidelines on subsequently applied products should be followed as per the individual labels.
- 5. Where routine spraying practices include shared equipment frequently being switched between applications of GF 1:2 and applications of other pesticides to GF 1:2 sensitive crops during the same spray season, it is recommended that a sprayer be dedicated to GF 1:2 to further reduce the chance of crop injury.

#### SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions. Do not allow this product to drift onto other crops, especially canola, tame oats, or other non-target crops.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

#### IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS! See Wind, Temperature and Humidity, and Surface Temperature Inversions sections of this label.

#### Controlling Droplet Size - General Techniques

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE AHIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- Nozzle Type Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using lowdrift nozzles.

#### **BOOM LENGTH AND HEIGHT**

• Boom Height - Setting the boom at the lowest height which provides uniform coverage reduces the exposure of droplets to evaporation and wind. The boom should remain level with the crop and have minimal bounce.

#### **WIND**

Drift potential increases at wind speeds of less than 3 mph (due to variable direction and inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. AVOID APPLICATIONS DURING GUSTY ORWINDLESS CONDITIONS.

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they effect spray drift.

#### TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

#### SURFACE TEMPERATURE INVERSIONS

Drift potential is high during a surface temperature inversion. Surface inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Surface inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified 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 a surface inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

#### RESISTANCE

When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. Adequate control of these resistant weed biotypes cannot be expected. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

To better manage herbicide resistance through delaying the proliferation and possible dominance of herbicide resistant weed biotypes, it may be necessary to change cultural practices within and between crop seasons such as using a combination of tillage, retreatment, tank-mix partners and/or sequential herbicide applications that have a different site of action. Weed escapes that are allowed to go to seed will promote the spread of resistant biotypes. See the Weeds Controlled section of this label for additional information on managing herbicide resistant weed biotypes.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative cultural practices or herbicide recommendations available in your area.

#### INTEGRATED PEST MANAGEMENT

This product may be used as part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

#### **PRECAUTIONS**

For use only in wheat.

Do not apply by air.

Injury to or loss of desirable trees or vegetation may result from failure to observe the following:

- Do not apply, drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Do not use on lawns, walks, driveways, tennis courts, or similar areas.

Injury to or loss of adjacent sensitive crops and vegetation may result from failure to observe the following:

- Take all necessary precautions to avoid all direct or indirect contact (such as spray drift) with non-target plants or areas.
- Carefully observe sprayer cleanup instructions, both prior to and after using this product, as spray tank residue may damage crops other than wheat.

Do not harvest grain sooner than 60 days after the application of GF 1:2.

Wheat varieties may differ in their response to various herbicides. DuPont recommends that you first consult your state experiment station, university, or extension agent as to sensitivity to any herbicide. If no information is available, limit the initial use of GF 1:2 to a small area.

Do not apply GF 1:2 to wheat that is stressed by severe weather conditions, drought, low fertility, water-saturated soil, disease or insect damage, as crop injury may result. Severe winter stress, drought, disease, or insect damage following application may also result in crop injury.

Do not apply GF 1:2 after jointing begins because crop injury may result.

Do not apply to wheat undersown with legumes and grasses, as injury to the forages will result.

Do not apply to frozen ground where surface runoff may result.

Do not apply to snow-covered ground.

Do not apply to irrigated land where tailwater will be used to irrigate other cropland.

To prevent crop injury due to cold weather, avoid early postemergence applications (2-4 leaf stage) to wheat during late fall or winter when cold weather conditions are unpredictable and can be severe. The combined effects of herbicide stress plus cold weather stress can result in greater crop injury than either stress factor alone.

Fall applications on coarse textured soils (especially those having a pH of greater than 7.0) may not provide adequate control or suppression of spring germinating weeds.

To reduce the potential for movement of treated soil due to wind erosion, do not apply to powdery dry or light sandy soils until they have been stabilized by rainfall, trashy mulch, reduced tillage or other cultural practices. Injury to immediately adjacent crops may result when treated soil is blown onto land used to produce crops other than cereal grains.

For ground applications applied posternergence to weeds when dry, dusty field conditions exist; control of weeds in wheel track areas may be reduced. The addition of 2,4-D should improve weed control under these conditions.

Preemergence applications of 2,4-D or herbicides containing 2,4-D made within two weeks of planting spring cereals may cause crop injury when used in conjunction with early postemergence applications of GF 1:2.

Wherever GF 1:2 is used on land previously treated with "Finesse", "Ally", "Amber", "Assert", or other longer residual herbicides with the same mode of action, read the rotational guidelines on both labels and follow the one with the longest interval stated for your situation before choosing to rotate to crops other than wheat.

### PESTICIDE STORAGE AND DISPOSAL

Pesticide Storage: Store product in original container only.
Do not contaminate water, other pesticides, fertilizer, food or feed in storage.
Pesticide Disposal: Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.
Container Disposal: Completely empty bag into application equipment. Then dispose of bag in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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