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FEB 12 1997

Dennis H. Lade, Ph.D.  
DowElanco  
9330 Zionsville Road  
Indianapolis, IN 46268-1054

Dear Dr. Lade:

Subject: Broadstrike® SF + Dual®  
EPA Registration No. 62719-240  
Application and Letter Dated January 23, 1997, Request  
To Amend Pesticide Product Registration as  
Listed in Subject Letter

The proposed amendments described in the subject letter has been reviewed. The proposed labeling as submitted is acceptable under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) as amended, provided that you:

1. Revise the label by deleting the underline from the added text and the marked-out text; and any editorial notes.
2. Under the "Spike Stage (Corn Only):" section delete the statement "Do not apply to emerged soybeans as severe crop injury may result." This statement is misleading and is inappropriate under this heading.
3. Under "Soybeans - Tank Mixes", (page 19) revise the statement that reads: "Read and follow the manufacturer's label for applicable use directions, application timing, precautions, and limitations before use". Delete the words "before use".
4. Under the heading "Soil Condition" on page 10, added text on "Soil Condition" change the word "enhanced" to "severe" or "increased" for describing the resulting chlorosis and/or crop injury, which ever best describes what is to be expected by the using public.
5. In second paragraph on page 11, the word "these" should be replaced with the word "those".

## CONCURRENCES

SYMBOL							
SURNAME							
DATE							

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6. Submit one (1) copy of the final printed label before you release the product for shipment under the subject labeling.

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

A stamped copy of the supplemental label is enclosed for your records.

Sincerely yours,

Joanne I. Miller  
Product Manager (23)  
Fungicide-Herbicide Branch  
Registration Division (7505C)

Enclosure (1)

E.Wilson: Diskette AEC31:02-12-97

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(Base label):

(logo) DowElanco

**Broadstrike\* SF+Dual®**

**A selective herbicide for the control of annual grass and broadleaf weeds in soybeans and field corn.**

**Active Ingredients**

flumetsulam: <i>N</i> -(2,6-difluorophenyl)- 5-methyl-1,2,4-triazolo-[1,5a]- pyrimidine-2-sulfonamide .....	2.6%
metolachlor: 2-chloro- <i>N</i> -(2-ethyl-6- methylphenyl)- <i>N</i> -(2-methoxy- 1-methylethyl) acetamide .....	79.9%
Inert ingredients .....	17.5%
Total .....	100.0%

**ACCEPTED  
with COMMENTS  
In EPA Letter Dated**

**FEB 12 1997**

**Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
62719-240**

Contains 0.25 pounds of flumetsulam and 7.47 pounds of metolachlor per gallon.

U.S. Patents 4,818,273 and 4,954,163

**Precautionary Statements****Hazards to Humans and Domestic Animals**

**Keep Out of Reach of Children**

**WARNING                      AVISO**

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.)

**Causes Substantial But Temporary Eye Injury • Do Not Get In Eyes, On Skin, Or On Clothing •  
Harmful If Swallowed, Inhaled, Or Absorbed Through Skin**

**Avoid breathing spray mist. The active ingredient metolachlor may cause skin sensitization reactions in certain individuals.**

**Personal Protective Equipment (PPE)**

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

**Applicators and other handlers must wear:**

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves such as Barrier Laminate or Viton
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining

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PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### 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.

### First Aid

**If in eyes:** Hold eyelids open and flush with a steady stream of water for 15 minutes. Call a physician.

**If on skin:** Immediately wash with plenty of soap and water. Get medical attention.

**If swallowed:** Do not induce vomiting. Call a physician or Poison Control Center. If available, administer activated charcoal (6-8 heaping teaspoonfuls) with a large quantity of water. Do not give anything by mouth to an unconscious person. Immediately transport to a medical care facility and see a physician.

**If inhaled:** Remove individual to fresh air. Get medical attention if breathing difficulty occurs. If not breathing, give artificial respiration, preferably cardiopulmonary resuscitation assistance, and get medical help immediately.

**Note to Physician:** If swallowed, there is no specific antidote. Stomach lavage and immediate administration of activated charcoal (6-8 heaping teaspoonfuls) with water should be considered. Treatment is otherwise symptomatic and supportive.

### Environmental Hazards

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

Ingredients in this product have been identified in limited sampling of groundwater and there is the possibility that they may leach through the soil to groundwater, especially where soils are coarse and groundwater is near the surface. Following application and during rainfall events that cause runoff, this product may reach surface water bodies including streams, rivers, and reservoirs.

Care must be taken when using this product to prevent: 1) back siphoning into wells; 2) spills; or 3) improper disposal of excess pesticide spray mixtures or rinsates. Check-valves or anti-siphoning devices must be used on all mixing equipment.

### Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to label booklet for additional precautionary information including Personal Protective Equipment (PPE), User Safety Recommendations and Directions for Use including Storage and Disposal.

**Notice:** Read the entire label. Use only according to label directions. Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" inside label booklet.

In case of emergency endangering health or the environment involving this product, call collect 1-800-440-4400.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

**Shake Well Before Using.**

EPA Reg. No. 62719-240

EPA Est. 464-MI-1

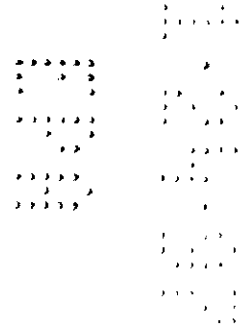
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®Dual is a registered trademark of Ciba-Geigy Corporation  
DowElanco • Indianapolis, IN 46268 U.S.A.

## Herbicide

Net Contents XXX



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(Datapack cover):

(logo) DowElanco

## Broadstrike\* SF+Dual®

A selective herbicide for the control of annual grass and broadleaf weeds in soybeans and field corn.

### Active Ingredients

flumetsulam: *N*-(2,6-difluorophenyl)-  
5-methyl-1,2,4-triazolo-[1,5a]-  
pyrimidine-2-sulfonamide..... 2.6%  
metolachlor: 2-chloro-*N*-(2-ethyl-6-  
methylphenyl)-*N*-(2-methoxy-  
1-methylethyl) acetamide..... 79.9%

Inert ingredients ..... 17.5%

Total ..... 100.0%

Contains 0.25 pounds of flumetsulam and 7.47 pounds of metolachlor per gallon.

Keep Out of Reach of Children

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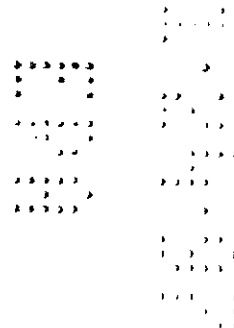
Refer to label booklet for additional precautionary information including Personal Protective Equipment (PPE), User Safety Recommendations and Directions for Use including Storage and Disposal.

**Notice:** Read the entire label. Use only according to label directions. Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" inside label booklet.

In case of emergency endangering health or the environment involving this product, call collect 517-636-4400.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

Shake Well Before Using.



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EPA Reg. No. 62719-240

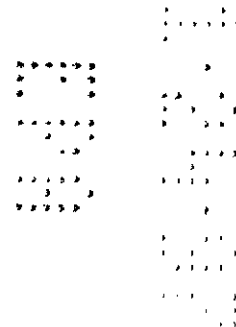
EPA Est. 464-MI-1

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®Dual is a registered trademark of Ciba-Geigy Corporation  
DowElanco • Indianapolis, IN 46268 U.S.A.

## Herbicide

Net Contents XXX



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## **Precautionary Statements**

### **Hazards to Humans and Domestic Animals**

## **WARNING                      AVISO**

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**Avoid breathing spray mist. The active ingredient metolachlor may cause skin sensitization reactions in certain individuals.**

### **Personal Protective Equipment (PPE)**

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

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**Applicators and other handlers must wear:**

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves such as Barrier Laminate or Viton
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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.

**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.

**First Aid**

**If in eyes:** Hold eyelids open and flush with a steady stream of water for 15 minutes. Call a physician.

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**If swallowed:** Do not induce vomiting. Call a physician or Poison Control Center. If available, administer activated charcoal (6-8 heaping teaspoonfuls) with a large quantity of water. Do not give anything by mouth to an unconscious person. Immediately transport to a medical care facility and see a physician.

**If inhaled:** Remove individual to fresh air. Get medical attention if breathing difficulty occurs. If not breathing, give artificial respiration, preferably cardiopulmonary resuscitation assistance, and get medical help immediately.

**Note to Physician:** If swallowed, there is no specific antidote. Stomach lavage and immediate administration of activated charcoal (6-8 heaping teaspoonfuls) with water should be considered. Treatment is otherwise symptomatic and supportive.

**Environmental Hazards**

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

Ingredients in this product have been identified in limited sampling of groundwater and there is the possibility that they may leach through the soil to groundwater, especially where soils are coarse and groundwater is near the surface. Following application and during rainfall events that cause runoff, this product may reach surface water bodies including streams, rivers, and reservoirs.

Care must be taken when using this product to prevent: 1) back siphoning into wells; 2) spills; or 3) improper disposal of excess pesticide spray mixtures or rinsates. Check-valves or anti-siphoning devices must be used on all mixing equipment.

**Directions for Use**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

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.

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### 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.

**Exception:** If the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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 over short-sleeved shirt and short pants
- Chemical-resistant gloves such as Barrier Laminate or Viton
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure

### Storage and Disposal

Do not contaminate water, food, or feed by storage or disposal.

**Storage:** Do not store below minus 30°F. To increase pump flow rate, the Traveler\* 110 returnable mini-bulk container should be stored indoors (> 40 °F) before use. Store in original container only. Do not store near heat or flame. In case of leak or spill, use absorbent materials to contain liquids and dispose as waste. For minor spills, leaks, etc., follow all precautions on this label and clean up immediately.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site according to label directions or at an approved waste disposal facility.

**Container Disposal:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Container Disposal for Refillable Containers:** Container must be returned to a collection site designated by DowElanco. If the container has been damaged and cannot be returned according to the recommended procedures, contact DowElanco Customer Service Center at 1-800-258-1470 to obtain proper handling instructions.

### General Information

Broadstrike\* SF+Dual® herbicide is a selective soil applied product for the control of annual grass and broadleaf weeds. Broadstrike SF+Dual may be preplant surface applied, preplant incorporated, or applied as a preemergence treatment in water or liquid fertilizer and can be impregnated on dry bulk fertilizer. Broadstrike SF+Dual controls broadleaf weeds during germination, or soon after emergence, and grass weeds during germination. Susceptible weeds exposed to Broadstrike SF+Dual either die or remain non-competitive with the crop. Adequate soil moisture is necessary for effective herbicidal activation, because uptake and translocation of Broadstrike SF+Dual involves uptake by both emerging shoots and/or roots. Broadstrike SF+Dual may provide control of susceptible broadleaf weeds which emerge after application.

## General Use Precautions

### **Safe Pesticide Handling Procedures**

- Calibrate sprayers only with clean water away from the well sites.
- 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 the spray tank.
- Do not discharge excess material on soil at a single spot in the field or at the mixing/loading station.
- Dilute and agitate excess spray solution and apply at labeled rates/uses on an approved crop site.
- ~~When Triple rinsing the pesticide container, be sure to~~ Add the rinsate to the spray mix.
- **Sprayer Cleanup:** To avoid injury or exposure to nontarget crops, thoroughly clean all mixing and spray equipment on approved rinse pads or on the field site where an approved crop is to be grown. Do this immediately after application and prior to use on crops other than those registered for use on this label. Spray equipment should be cleaned at the end of each day by the following procedure:
  1. Drain any remaining Broadstrike SF+Dual from the spray tank and dispose of according to label disposal instructions.
  2. Hose down the interior surfaces of the tank and fill the tank 1/2 full with water. Recirculate for 5 minutes. Spray part of the mixture through the hoses, boom and nozzles and drain the tank. All rinsate material should be collected in a suitable container and disposed of according to label directions (applied to cropland to be planted to crops recommended in this label) or in a locally approved manner (see "Storage and Disposal" section).
  3. Remove the nozzles and screens and clean separately.
  4. If the spray equipment will be used on crops other than those registered for use on this label, repeat steps 1 and 2 again and thoroughly wash the spray mixture from the outside of spray tank and the boom.

Placement of mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

## **General Use Precautions**

### **Application/Incorporation**

Uneven application or incorporation of Broadstrike SF+Dual can result in erratic weed control or crop injury. Over application may result in crop injury or rotational crop damage from soil residue.

If Broadstrike SF+Dual is incorporated, any supplemental tillage before planting must not exceed the depth of incorporation.

### **Tank Mixing**

Broadstrike SF+Dual may be tank-mixed or followed by overlay or postemergence treatments registered for use on corn or soybeans to broaden the spectrum of weeds controlled. Follow all applicable use directions, precautions, restrictions, and limitations on the labels of each product used in tank mixtures. Tank mixtures are permitted only in those states where the tank mix partner is registered.

Where directions for use on corn allow a tank mixture with AAtrex herbicide formulations, other brands of atrazine may also be used. Follow the rates, recommendations, and limitations on the product label for AAtrex or other atrazine product used. **Note:** Certain states may have established rate limitations for atrazine within specific geographical areas. Consult your State Lead Pesticide Control Agency for additional information. It is a violation of this label to deviate from state use regulations.

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**Adverse Weather Conditions**

Extended cold wet conditions (soil temperatures below 50°F for extended periods) following application of Broadstrike SF+Dual, or abnormally high soil moisture conditions during emergence and early crop development can cause injury symptoms on corn such as temporary yellowing of the leaves and/or crop stunting. Corn will quickly outgrow these symptoms once normal growing conditions resume.

Extended cold wet conditions (soil temperature below 50°F and excessive rainfall with wet soil conditions) following preemergence application of Broadstrike SF+Dual to field corn which persist during germination and early crop development may result in crop injury. Injury symptoms, which include yellowing of leaves and/or crop stunting, are usually temporary and affected corn plants usually recover without affecting yield.

When applications are made under adverse (dry or cold) conditions or when less susceptible species are treated, partial weed control may be observed. Partial weed control is a visual reduction in weed competition (reduced population, size, and/or vigor) as compared to an untreated area. If these conditions exist, a cultivation can provide enhanced control.

Dry weather following preplant surface or preemergence applications of Broadstrike SF+Dual may reduce effectiveness. If sufficient activating rainfall or overhead irrigation does not occur within 7 to 10 days of application, rotary hoe, harrow, or shallowly cultivate to incorporate the herbicide lightly into the soil. Use a preplant incorporated application if furrow irrigation is used or when a period of dry weather after application is expected.

**Corn Planting Depth:**

When using Broadstrike SF+Dual, corn ~~should~~must be planted at least 1 1/2 inches deep.

**Soil Conditions**

Use the lowest end of the application rate range in the use directions on treatment sites where soils contain gravel or have a sand or loamy sand texture throughout the soil profile.

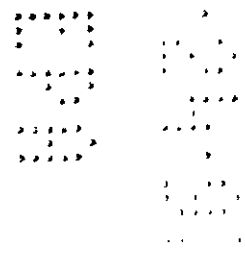
Do not use on peat or muck soils.

Do not apply to soils that contain greater than 5% O.M. with a pH below 5.9 or reduced weed control will result.

Do not apply to any soil with a pH greater than 7.8 as unacceptable crop injury may result.

Corn or soybeans growing in calcareous soils or on soils with historically high salt content (soil test results for salinity indicating electrical conductivity greater than 1.0 mmho/cm) may exhibit chlorosis and/or stunting resulting from reduced availability of iron or other micro nutrients essential for normal crop vigor and growth. The presence of soil-active herbicides, such as Broadstrike SF+Dual may cause additional stress under these conditions resulting in enhanced leaf chlorosis and/or crop stunting. This added stress may retard crop recovery, especially under conditions of limited rainfall. In fields which contain calcareous or high salt content soils and/or have a history of causing iron chlorosis in soybeans, growers should plant soybean varieties with known tolerance to iron deficient soils or plant "IR" or "IMR" designated varieties, commonly referred to as "imidazolinone resistant" corn hybrids. On these type soils, the likelihood of crop injury can also be reduced by using the lower end of the recommended rate range for the soil type and/or by applying Broadstrike SF+Dual 10-14 days prior to planting.

**Corn Only** - Use of Broadstrike SF+Dual on soils that average with less than 1.5% O.M. may result in crop injury. Apply ~~on soils which average~~ to fields that contain soils with less than 1.5% O.M. only if the risk of crop injury is acceptable.



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25**Use With Other Products**

Corn - Soil insecticides should be applied in a T-band or a band to avoid potential crop injury when Broadstrike SF+Dual is used for annual grass and broadleaf weed control in corn. Do not use Broadstrike SF+Dual if Counter insecticide has been applied to corn on corn when Counter (terbufos) or Thimet (phorate) insecticide are to be applied as severe crop injury may occur.

If any ALS (acetolactate synthase) inhibiting herbicides such as Pursuit, Preview, Canopy, Classic, Scepter, Squadron, etc. were applied the previous crop year, apply Broadstrike SF+Dual to corn, only if the rotational restrictions to corn for these products have been met.

Corn previously treated with Broadstrike SF+Dual that is stressed or damaged by conditions such as cold weather, hail, drought, water saturated soil, disease, or insects should not be treated with Accent, Beacon, Permit, Exceed, Basis, or other acetolactate synthase (ALS) inhibiting herbicides as this may cause further crop injury.

**Use With Genetically Modified Corn Varieties**

If an "IR" or "IMR" designated hybrid (commonly referred to as "imidazolinone resistant") is planted, any organophosphate insecticide, including Counter or Thimet, can be applied according to label directions without increasing the likelihood of injury to corn from Broadstrike SF+Dual. The adverse interaction between Counter or Thimet insecticides and Broadstrike SF+Dual does not occur in corn hybrids identified as "IR" or "IMR". This adverse interaction does occur in imidazolinone tolerant "IT", "PT" hybrids which are considered as "standard" hybrids regarding this effect. "IR" or "IMR" hybrids may also be planted to reduce injury to corn from Broadstrike SF+Dual on soils with less than 1.5% organic matter or pH greater than 7.8.

**Other Precautions and Restrictions**

Corn inbred lines grown for hybrid seed production may be injured by Broadstrike SF+Dual. Therefore, inbred lines should be thoroughly tested for crop tolerance before treating large acreage.

Do not apply to sweet corn or popcorn.

Do not apply to emerged soybeans.

Do not graze or feed treated soybean forage, hay, or straw to livestock.

**Chemigation:** Do not apply this product through any type of chemigation system.

**Preharvest Interval:** Do not apply Broadstrike SF+Dual within 85 days of harvest.

**Maximum Application Rate:** Do not exceed a total application rate of 2.25 pints per acre (0.07 lb a.i. flumetsulam/acre) in a single crop year.

**Do not aerially apply Broadstrike SF+Dual. Apply using ground equipment only.**

**Avoid all direct or indirect contact with nontarget plants.** Do not apply near desirable vegetation, and allow adequate distance between target area and desirable plants.

**Do not apply under conditions which favor runoff or wind erosion of soil containing Broadstrike to nontarget areas. To prevent off-site movement due to runoff or wind erosion:**

- Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
- Do not apply to impervious substrates such as paved or highly compacted surfaces, or frozen or snow covered ground.
- Do not apply to soils when saturated with water.
- Do not use tailwater from the first flood or furrow irrigation of treated fields to treat nontarget crops unless at least 1/2-inch of rainfall has occurred between application and the first irrigation.

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Do not apply when weather conditions favor drift to nontarget sites. To minimize spray drift to nontarget areas:

- Use low pressure application equipment capable of producing a large droplet spray.
- Do not use nozzles that produce a fine droplet spray.
- Minimize drift by using sufficient spray volume to ensure adequate coverage with large droplet sprays.
- Keep ground-driven spray boom as low as possible above the target surface.
- Spray when conditions are calm or wind speed is low. Do not spray when wind is gusting or steady wind speed is greater than 10 mph.

### Rotation Crop Restrictions

The following crops may be planted after the indicated interval following application of Broadstrike SF+Dual.

Crop	Rotational Crop Interval
soybeans, corn (Field, Silage, Seed)	0 months
alfalfa, dry beans, peas, peanuts, sweet potatoes	4 months
barley, oats, rye, wheat	4 1/2 months
rice, popcorn, tobacco	9 months
grain sorghum, potatoes	12 months
sweet corn, sunflower, cotton	18 months

**Note:** Rotation to sugar beets, canola, and all other crops requires a 26 month rotation interval and a successful field bioassay.

**Field Bioassay Instructions:** Using typical tillage, seeding practices, and timings for the particular crop, plant several strips of the desired crop variety across the field previously treated with Broadstrike SF+Dual. Plant the strips perpendicular to the direction Broadstrike SF+Dual was applied. The strips should also be located so that different field conditions are encountered, including differences in soil texture, pH, and drainage. If the crop does not show visible symptoms of injury, stand reduction, or yield reduction, the field can be seeded with the test crop in the growing season following the bioassay. If visible injury, stand reduction, or yield reduction occurs, the test crop should not be seeded, and the bioassay must be repeated the next growing season.

### Soil Textures and Herbicide Rates

Where rates are based on coarse, medium, or fine-textured soils, it is understood that soil textural classes are generally categorized as follows:

Coarse	Medium	Fine
Sand	Loam	Silty Clay Loam, Sandy Clay
Loamy Sand	Silt	Sandy Clay Loam, Clay Loam
Sandy Loam	Silt Loam	Silty Clay, Clay

Within rate ranges, use the lower rates on coarse-textured soils or soils low in organic matter and use the higher rates on soils relatively fine-textured or high in organic matter.

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## Mixing Instructions

### Broadstrike SF+Dual Alone

Fill the spray tank 1/2 to 3/4 full with water or fluid fertilizer. Add the required amount of Broadstrike SF+Dual, then add the rest of the water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

### Tank Mixtures

Fill the spray tank 1/4 full of water and start agitation. Add Broadstrike SF+Dual followed by the appropriate tank mix product and the remainder of the water. Refer to the label of the product to be tank mixed with Broadstrike SF+Dual for any special tank mixing instructions. For tank mixtures with liquid fertilizer, always check compatibility with the liquid fertilizer as described below before mixing in spray tank. For all tank mixtures, agitate during mixing and application to maintain a uniform spray mixture.

**Tank Mixtures With 2,4-D or AAtrex for Field Corn:** Fill the spray tank 1/4 full of water and start agitation. Add 2,4-D or AAtrex and allow to become dispersed, add Broadstrike SF+Dual, then add other products being used and the rest of the water. For tank mixtures with AAtrex, fluid fertilizers may replace all or part of the water as carrier. For tank mixtures with AAtrex, see additional mixing instructions on the label for AAtrex. For tank mixtures with liquid fertilizer, always check compatibility with the liquid fertilizer as described below before mixing in spray tank. For all tank mixtures, agitate during mixing and application to maintain a uniform spray mixture.

**Liquid Fertilizer Compatibility Test:** Since liquid fertilizers can vary, even within the same analysis, always check compatibility with herbicide(s) each time before use. Be especially careful when using complete suspension or fluid fertilizers as serious compatibility problems are more likely to occur. Commercial application equipment may improve compatibility in some instances. The following test assumes a spray volume of 25 gallons per acre. For other spray volumes, make appropriate changes in the ingredients. Check compatibility using this procedure:

1. Add 1 pint of fertilizer to each of 2 one-quart jars with tight lids.
2. To 1 of the jars add 1/4 teaspoon or 1.2 milliliters of a compatibility agent approved for this use, such as Compex or Unite (1/4 teaspoon is equivalent to 2 pints per 100 gallons spray). Shake or stir gently to mix.
3. To both jars add the appropriate amount of herbicide(s). If more than 1 herbicide is used, add them separately with dry herbicides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix. The appropriate amount of herbicides for this test follows:

Dry Herbicides - For each pound to be applied per acre, add 1.5 level teaspoons to each jar.

Liquid Herbicides - For each pint to be applied per acre, add 0.5 teaspoon or 2.5 milliliters to each jar.

4. After adding all ingredients, put lids on and tighten, and invert each jar 10 times to mix. Let the mixtures stand 15 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (a) slurry the dry herbicide(s) in water before addition, or (b) add 1/2 of the compatibility agent to the fertilizer and the other 1/2 to the emulsifiable concentrate or flowable herbicide before addition to the mixture. If incompatibility is still observed, do not use the mixture.

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## Application Instructions

### Application Timing

Application times for Broadstrike SF+Dual are indicated below. Broadstrike SF+Dual may also be applied in tank mix combination with other pesticides provided the label of the companion product allows such application timing. Refer to the tank mix product label to determine if the application times listed below are permitted.

**Preplant Surface-Applied:** For minimum-tillage or no-tillage systems only, Broadstrike SF+Dual alone and certain tank mixtures of Broadstrike SF+Dual may be applied up to 30 days before planting. If weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide such as Gramoxone Extra or Roundup herbicide. Observe directions for use, precautions, and restrictions on the label of the contact herbicide. To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.

**Preplant Incorporated:** Apply Broadstrike SF+Dual to the soil and incorporate into the top 2 inches of soil within 14 days before planting using a finishing disk, harrow, rolling cultivator, field cultivator, or similar implement capable of providing uniform 2 inch incorporation. If crop is to be planted in bedded culture, apply and incorporate Broadstrike SF+Dual after beds are formed. **Precaution:** To avoid crop injury, do not apply mixtures of Broadstrike SF+Dual and fertilizer in bedded culture.

**Preemergence:** Apply Broadstrike SF+Dual during planting (behind the planter) or after planting, but before weeds or crops emerge.

### Spike Stage (Corn Only):

Broadstrike SF+Dual may be applied from corn emergence (ground cracking stage) up to 2 inches in height (before the first leaf has completely unfurled), but before weed emergence. Use water only as the carrier.

**Precaution:** During periods of corn emergence, do not apply with liquid fertilizer as severe crop injury may result. Do not apply to emerged soybeans as severe crop injury may result.

### Ground Application

Apply Broadstrike SF+Dual alone or in tank mixtures by ground equipment in a minimum of 10 gallons of spray mixture per acre unless otherwise specified.

Use sprayers that provide accurate and uniform application. For tank mixtures of Broadstrike SF+Dual with wettable powder or dry flowable formulations, screens and strainers should be no finer than 50-mesh. Rinse sprayer thoroughly with clean water immediately after use.

**Band Application:** Calculate the amount of herbicide needed for band treatment by the formula:

$$\frac{\text{Band width in inches}}{\text{row width in inches}} \times \text{Broadcast rate per acre} = \text{Amount needed per acre of field}$$

### Low Carrier Application (Broadcast Ground Application Only)

Use sprayers such as Melroe Spra-Coupe, Hagie, John Deere Hi-Cycle, Willmar Air Ride, Tyler Patriot, or Ag-Chem RoGator to provide accurate and uniform application. **Only water may be used as a carrier.** Screens in suction and in-line strainers should be 50-mesh. Manufacturers may require that tip screens as fine as 100-mesh be used with some nozzles. Use a pump with capacity to: (1) maintain up to 35 to 40 psi at the nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension. Use a minimum of 5 gallons of spray mixture per acre. Maximum recommended sprayer speed is 15 mph. Rinse sprayer thoroughly with clean water immediately after each use.

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**Note:** Low pressure nozzles are recommended to reduce drift and increase application accuracy. Care should be taken when using automatic rate controlling devices to spray the material within the rated working pressure and flow ranges of the nozzles selected. Nozzle screens should be used when recommended by the manufacturer. All nozzles should be placed on 20-inch centers, except flooding types; which should be placed on 40-inch centers. When flat fan type nozzles are used, angles of 80° to 110° are recommended. Always read and follow the manufacturer's directions for optimum setup and performance of their nozzles to tips.

#### Application With Dry Bulk Granular Fertilizers

When applying Broadstrike SF+Dual with dry bulk granular fertilizers, follow all applicable directions for use and precautions on this label.

Many dry bulk granular fertilizers may be impregnated or coated with Broadstrike SF+Dual for preplant incorporated or preplant surface application to control weeds in crops on the label for Broadstrike SF+Dual.

Compliance with applicable federal and state laws and regulations relating to blending, registration, labeling, and application of pesticides mixed with dry bulk granular fertilizer is the responsibility of the individual and/or company distributing or offering the herbicide/fertilizer mixture for sale.

Prepare the granular fertilizer/herbicide mixtures by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Nozzles used to spray tank mixtures of Broadstrike SF+Dual onto the fertilizer must be placed to provide uniform spray coverage. Care should be taken to aim the spray directly onto the fertilizer only and to avoid spraying the walls of the blender.

If the fertilizer/herbicide mixture is too wet, add a highly absorptive material, such as Agsorb FG or Celatom MP-79, or similar granular clay or diatomaceous earth materials, to obtain a dry free-flowing mixture. Absorptive materials should be added only after the herbicide has been thoroughly blended into the fertilizer mixture. Best application results will be obtained by using a granule of 6/30 particle size or of a size similar to the fertilizer materials being used. Generally, less than 2% by weight of absorptive material will be needed. Avoid using more than 5% absorptive material by weight.

Calculate amounts of Broadstrike SF+Dual by the following formula:

$$\frac{2,000}{\text{Pounds of fertilizer per acre}} \times \frac{\text{Pints/ acre of liquid or flowable product}}{\text{Pounds/acre of dry product}} = \frac{\text{Pints of liquid or flowable product per ton of fertilizer}}{\text{Pounds of dry product per ton of fertilizer}}$$

#### Pneumatic (Compressed Air) Application (Broadstrike SF+Dual Alone)

High humidity, high urea concentrations, low fertilizer use rates, and dusty fertilizer may cause fertilizer mixture to build up or plug the distributor head, delivery tubes, or nozzle deflector plates on pneumatic applicators. Research has shown that certain additives can help the herbicide flow better, improve penetration, and reduce fertilizer mixture build-up. Premix Broadstrike SF+Dual with Exxon Aromatic 200<sup>®</sup> (A-200) at 1 to 2 pints/gallon of formulation and spray the mixture uniformly onto the dry fertilizer. It is important that the additive be blended well with the herbicide. Optimal A-200 rates of Aromatic 200 may vary depending on fertilizer rate and type and environmental conditions. Aromatic 200 is a noncombustible/nonflammable petroleum product. Aromatic 200 may be used in a fertilizer blender or through direct injection systems. Mineral seal oil additive may be used either in a fertilizer blender or through direct injection systems. Use only those oils recommended by Ciba Plant Protection, i.e., Kermac-60 Solvent or CV-600 or a similar mineral seal oil. Drying agents should not be used when using oil additives.

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**Notes:** (1) Broadstrike SF+Dual/A- Aromatic 200 blends should be used for impregnation onto dry fertilizer only. (2) Drying agents should not be used when using A- Aromatic 200 or other petroleum additives. (3) When switching impregnated herbicides, it is important to clean the blender, herbicide spray tank, and spraying apparatus thoroughly. Rinse the sides of the blender and the herbicide tank with undiluted A- Aromatic 200. Then, impregnate the rinsate onto a load of dry fertilizer intended for an approved crop. Use a maximum rate of 1 gallon of rinsate/ton of fertilizer. Follow with 1 to 2 loads of unimpregnated fertilizer in the blender before switching herbicides. The fertilizer application equipment must be empty, clean, and dry before applying any material to crops other than corn.

**Precautions:** To avoid potential for explosion, (1) Do not impregnate Broadstrike SF+Dual or mixtures of Broadstrike SF+Dual on ammonium nitrate, potassium nitrate, or sodium nitrate either alone or in blends with other fertilizers. (2) Do not use Broadstrike SF+Dual or tank mixtures of Broadstrike SF+Dual on straight limestone since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated.

**Application of Dry Bulk Fertilizer:** Apply 200 to 700 pounds of the fertilizer/herbicide mixture per acre. For best results, apply the mixture uniformly to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential to prevent possible crop injury. Non-uniform application may also result in unsatisfactory weed control. In areas where conventional tillage is practiced, a shallow incorporation of the mixture into the soil may improve weed control.

**Precaution:** To avoid crop injury, do not use the fertilizer/herbicide mixture on crops planted on beds.

### Weeds Controlled by Soil Applied Broadstrike SF+Dual

#### Grass Weeds:

barnyardgrass  
(watergrass)  
crabgrass  
crowfootgrass  
cupgrass, prairie  
cupgrass, Southwestern  
fall panicum  
foxtail, giant  
green  
millet  
yellow  
goosegrass  
johnsongrass (seedling)<sup>†</sup>  
millet, wild proso<sup>†</sup>  
nutsedge, yellow  
red rice  
sandbur<sup>†</sup>  
shattercane<sup>†</sup>  
signalgrass  
sorghum, volunteer<sup>†</sup>  
Witchgrass

#### Broadleaf Weeds:

anoda, spurred  
amaranth, palmer  
beggarweed, Florida<sup>††</sup>  
carpetweed  
chickweed  
cocklebur, common<sup>††</sup>  
goosefoot  
henbit  
horseweed (maretail)

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jimsonweed<sup>††</sup>  
 kochia  
 lambsquarters, common  
 ladythumb  
 mallow, Venice  
 mustard, wild  
 morningglory spp.<sup>††</sup>  
 nightshade, black  
 nightshade, cutleaf  
 nightshade, Eastern black  
 nightshade, hairy  
 pigweed, smooth  
 pigweed, redroot  
 poinsettia, wild  
 puncturevine  
 purslane, common  
 pusley, Florida  
 ragweed, common<sup>††</sup>  
 ragweed, giant<sup>†</sup>  
 Russian thistle  
 shepherd's purse  
 sicklepod<sup>††</sup>  
 sida, prickly  
 smartweed, Pennsylvania  
 spurge, nodding  
 spurge, spotted  
 sunflower, wild  
 velvetleaf  
 waterhemp, tall

<sup>†</sup> **Weeds partially controlled:** Control of these weeds may be improved by following the suggested procedures in 4-4 below. Control of giant ragweed may be improved by following 1-6 below.

<sup>††</sup> **Control of light to moderate infestations:** Control may vary according to weed density and soil conditions at the time of application. The level of control provided by Broadstrike SF+Dual on cocklebur, jimsonweed, common ragweed, Florida beggarweed, and sicklepod can vary depending on weed density and soil or environmental conditions. Control of moderate to heavy infestations of these weeds may be variable with satisfactory control of higher populations dependent on consistent soil moisture. Consistent control of these weeds may also require a tank mixture or a sequential application of a postemergence herbicide. Control of these weeds may be improved by following the suggested procedures in 1-6 below:

1. Thoroughly till moist soil prior to application to completely destroy germinating and emerged weeds. This tillage may be used to incorporate Broadstrike SF+Dual in preplant incorporated situations when uniform 2-inch incorporation is achieved.
2. Thoroughly and uniformly preplant incorporate to a depth of 2 inches utilizing two incorporation passes. Procedures 1 and 2 may be accomplished at the same time when a uniform 2-inch incorporation is achieved.
3. Apply the upper end of the rate range allowed for the soil texture and organic matter content to be treated.
4. Plant crop into moist soil immediately after tillage. If Broadstrike SF+Dual is to be applied preemergence, apply at planting or immediately afterwards.
5. If available, sprinkle-irrigate within 2 days after application. Apply 1/2 to 1 inch of water, depending on soil texture.
6. If irrigation is not possible and rain does not occur within 7 to 10 days after planting and application, weed control may be decreased. Under these situations a uniform shallow cultivation or rotary hoeing is recommended as soon as weeds emerge.
5. Common cocklebur and common ragweed are best controlled by preplant incorporated treatments.

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6. ~~Enhanced control of cocklebur, jimsonweed, morningglory, common ragweed, giant ragweed, Florida beggarweed, and sicklepod may be achieved by using the upper end of the rate range for the soil texture class to be treated, or with tank mixes.~~

**Note:** Triazine "resistant" weeds (triazine tolerant biotypes) on this label are controlled by Broadstrike SF+Dual.

### Approved Uses

#### **CORN - FIELD, SILAGE, AND SEED** (Do not apply to sweet corn or popcorn)

##### **Preplant Surface Applied Treatments**

Broadstrike SF+Dual may be surface applied as an early preplant treatment in minimum or no tillage systems in the states of CO, CT, DE, IA, IL, IN, KS, KY, MA, MD, ME, MI, MN, MO, MT, ND, NE, NH, NJ, NY, OH, PA, RI, SD, TN, VA, VT, WI, WV, and WY. On medium and fine textured soils, early preplant treatments may be applied up to 30 days before planting. On coarse textured soils, do not apply more than 14 days before planting.

##### **Broadcast application rates:**

Soil Texture	pt/acre	
	<3% O.M.	>3% O.M.
Coarse*	2.0	2.0
Medium*	2.0 - 2.2	2.2
Fine*	2.2	2.2

**Note:** Control of common ragweed, giant ragweed, cocklebur, morningglory, jimsonweed, Florida beggarweed, and sicklepod may be enhanced by using the upper end of the rate range or by adding up to 1.5 lb a.i./acre of atrazine to the mixture.

\*Where grass populations are expected, refer to Section 6 of the Corn Tank Mix section of this label for details on the use of additional Dual or Dual II for optimum grass control. The additional Dual or Dual II may be tank mixed with Broadstrike SF+Dual or can be applied at planting.

##### **Preplant Incorporated, or Preemergence, or Spike Stage Treatments**

Broadstrike SF+Dual may be applied as a preplant incorporated up to 14 days before planting or preemergence treatment during planting (behind the planter) or after planting before emergence of weeds or crop.

##### **Broadcast application rates:**

Soil Texture	pt/acre	
	<3% O.M.	>3% O.M.
Coarse	1.6 - 2.0	1.6 - 2.0
Medium*	1.8 - 2.2	2.0 - 2.2
Fine*	2.2	2.2

**Note:** Control of common ragweed, giant ragweed, cocklebur, morningglory, jimsonweed, Florida beggarweed, and sicklepod may be enhanced by using the upper end of the rate range or by adding up to 1.5 lb a.i./acre of atrazine to the mixture.

\*For optimum grass control, refer to Section 6 of the Corn Tank Mix section of this label for details on the use of additional Dual or Dual II.

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### Corn (Field, Silage, and Seed) - Tank Mixes

This product may be applied in tank mix combination with other products registered on this crop for the intended method and timing of application unless specifically prohibited by the label of the desired tank mix partner. When tank mixing with a companion herbicide, read and follow each manufacturer's label for weeds controlled, applicable use directions, precautions, and limitations before use.

#### 1. Broadstrike SF+Dual plus AAtrex

Broadstrike SF+Dual may be applied in tank mix combination with 1.5 to 3 pints/acre of AAtrex 4L or equivalent rates of AAtrex Nine-O to improve the control of cocklebur, morningglories, ragweeds, jimsonweed, Florida beggarweed, and sicklepod.

Soil Texture	AAtrex 4L (pt/acre)	AAtrex Nine-O (lb/acre)
Coarse	1.5	0.83
Medium	2.0	1.1
Fine	2.5 - 3.0	1.4 - 1.7

**Note:** Follow rate restrictions on the label for AAtrex if more restrictive than this label. If AAtrex is applied at rates lower than those recommended on this label, broadleaf weed control may be reduced.

#### 2. Broadstrike SF+Dual plus Bladex

Broadstrike SF+Dual may be applied in tank mix combination with 1 to 2.5 quarts/acre of Bladex 4L herbicide or equivalent rates of Bladex 90DF to improve the control of cocklebur, morningglories, ragweeds, jimsonweed, Florida beggarweed, and sicklepod (1 quart of Bladex 4L equals 1.1 lb of Bladex 90DF).

**Special Mixing Instructions:** When tank mixing Broadstrike SF+Dual with Bladex, use the following instructions: Fill the spray tank 1/4 full with water or fluid fertilizer and start agitation. When using Bladex in tank mixtures, first add a compatibility agent, such as Unite or Compex at 2 to 3 pints/100 gallons of spray mixture. Next add the Bladex and allow it to become completely dispersed. Then add Broadstrike SF+Dual, allowing time for complete dispersion before adding the remainder of the water or fluid fertilizer. Agitate during mixing and application to maintain a uniform suspension. Tank mixtures with Bladex should not be allowed to stand without agitation. Empty the spray tank during the spraying operation. If fluid fertilizer is used as a carrier, check the compatibility of the tank mixture by conducting a jar test as described under "Mixing Instructions" in the "General Information" section of this label.

#### 3. Broadstrike SF+Dual plus Gramoxone Extra or Roundup for minimum-tillage or no-tillage systems

In a minimum-tillage or no-tillage situation where corn is planted directly into a cover crop, stale seedbed, or previous crop residues, the contact herbicides Gramoxone Extra or Roundup may be tank mixed with Broadstrike SF+Dual. Apply in 20 to 60 gallons of water or fluid fertilizer per acre with ground equipment.

**Application timing:** Apply before, during (behind the planter), or after planting, but before the crop emerges.

**Gramoxone Extra:** Use a nonionic surfactant at a rate of 1 or 2 pints/100 gallons in tank mixtures with Gramoxone Extra. Use the 1 pint/100 gallon rate for surfactant products with 75% or greater nonionic active ingredient and the 2 pint/100 gallon rate for products containing 50% to 74% nonionic active ingredient. This treatment will not control weeds more than 6 inches tall. See the label for Gramoxone Extra for weeds controlled and recommended rates for specific weeds. Do not apply combinations containing Gramoxone Extra in suspension type fertilizers as the activity of the active ingredient, paraquat, will be reduced.

**Roundup:** See the Roundup label for weeds controlled and recommended rates for specific weeds.

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125**4. Broadstrike SF+Dual plus 2,4-D for minimum-tillage or no-tillage systems**

Where heavy crop residues exist, add 1 to 2 pints/acre of an appropriately labeled 3.8 lb. a.e./gallon 2,4-D amine or ester to the spray tank and apply in a minimum of 20 gallons of carrier/acre.

As carriers, nitrogen solutions and complete liquid fertilizers applied before corn emergence enhance burndown of existing weeds and, therefore, are recommended instead of water. Add a nonionic surfactant at 1 to 2 quarts/100 gallons diluted spray. Apply before weeds exceed 3 inches high. When tank mixing with 2,4-D, read and follow the manufacturer's label for applicable use directions, application timing, precautions, and limitations before use. **This tank mixture will not control emerged grasses.**

**5. Broadstrike SF+Dual Plus Princep (4L or Caliber 90)**

For enhanced control of heavy infestations of crabgrass or fall panicum in the central and northeastern U.S. (including the states of MI, IN, KY, IL, MO, OH, PA, NY, VT, NH, ME, MA, RI, CT, NJ, DE, MD, and VA), add up to 1 quart of Princep 4L herbicide (or 1.1 lb Caliber 90 herbicide) per acre to the recommended rate of Broadstrike SF+Dual.

**6. Broadstrike SF+Dual Plus Dual or Dual II**

For preplant surface, preplant incorporated, or preemergence application where severe grass populations are expected on medium or fine textured soils with relatively high organic matter content, Broadstrike SF+Dual may be tank mixed with additional Dual or Dual II for optimum performance. The total application rate of Broadstrike SF+Dual plus Dual or Broadstrike SF+Dual plus Dual II (pints/acre of each added together) cannot exceed the maximum application rate (pints/acre for Dual or Dual II specified in their respective labels for soybean corn combinations. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

**Corn - Broadstrike SF+Dual Followed by Postemergence Treatments**

Broadleaf weeds not controlled by Broadstrike SF+Dual may be treated using postemergence herbicide products such as AAtrex, Banvel, 2,4-D, Marksman, Buctril, or Beacon tank mixed with any of the previously mentioned products. Annual grasses such as foxtail not controlled by Broadstrike SF+Dual may be treated with Accent or atrazine. Grass weeds such as shattercane, quackgrass, or rhizome johnsongrass not controlled by Broadstrike SF+Dual may be treated with Beacon or Accent herbicide. Read and follow each manufacturer's label for weeds controlled, applicable use directions, precautions, and limitations before use.

**SOYBEANS****Preplant Surface Applied Treatments**

Broadstrike SF+Dual may be surface applied as an early preplant treatment in minimum or no tillage systems in the states of CO, CT, DE, IA, IL, IN, KS, KY, MA, MD, ME, MI, MN, MO, MT, ND, NE, NH, NJ, NY, OH, PA, RI, SD, TN, VA, VT, WI, WV, and WY. On medium and fine textured soils, early preplant treatments may be applied up to 30 days before planting. On coarse textured soils, do not apply more than 14 days before planting.

**Broadcast application rates:**

Soil Texture	pt/acre	
	<3% O.M.	>3% O.M.
Coarse <sup>†</sup>	2.0	2.0
Medium <sup>†</sup>	2.0 - 2.2	2.2
Fine <sup>†</sup>	2.2	2.2

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**Note:** Control of common ragweed, giant ragweed, cocklebur, morningglory, jimsonweed, Florida beggarweed, and sicklepod may be enhanced by using the higher end of the rate range for each soil textural class.

~~\*Where grass populations are expected, refer to Section 4 of the Soybean Tank Mix section of this label for details on the use of additional Dual or Dual II for optimum performance. The additional Dual or Dual II may be tank mixed with Broadstrike SF+Dual or can be applied at planting.~~

#### Preplant Incorporated or Preemergence Treatments

Broadstrike SF+Dual may be applied preplant incorporated within 14 days before planting.

Broadstrike SF+Dual may be applied as a preemergence treatment during planting (behind the planter) or after planting, but before weeds or crop emerge.

#### Broadcast application rates:

Soil Texture	pt/acre	
	<3% O.M.	>3% O.M.
Coarse	1.6 - 2.0	1.6 - 2.0
Medium*	1.8 - 2.2	2.0 - 2.2
Fine*	2.2	2.2

**Note:** Control of common ragweed, giant ragweed, cocklebur, morningglory, jimsonweed, Florida beggarweed, and sicklepod may be enhanced by using the higher end of the rate range for each soil textural class.

~~\*For optimum grass control, refer to Section 6 of the "Com Tank Mix" section of this label for details on the use of additional Dual or Dual II.~~

#### Soybeans - Tank Mixes

This product may be applied in tank mix combination with other products registered on this crop for the intended method and timing of application unless specifically prohibited by the label of the desired tank mix partner. When tank mixing with a companion herbicide, read and follow each manufacturer's label for weeds controlled, applicable use directions, precautions, and limitations before use.

##### 1. Broadstrike SF+Dual plus Lorox, Sencor or Lexone

Broadstrike SF+Dual may be tank mixed with either Lorox, Sencor, or Lexone herbicides and applied to control additional weeds in soybeans. Read and follow the manufacturer's label for applicable use directions, application timing, precautions, and limitations before use.

##### 2. Broadstrike SF+Dual plus Gramoxone Extra or Roundup for Minimum Tillage or No-Tillage systems.

In minimum-tillage or no-tillage systems where soybeans are planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides Gramoxone Extra or Roundup should be used in tank mix combination with Broadstrike SF+Dual. Apply in 20 to 60 gallons of water or fluid fertilizer per acre with ground equipment.

**Application timing:** Apply before, during (behind the planter), or after planting, but before the crop emerges.

**Gramoxone Extra:** Use a nonionic surfactant at a rate of 1 or 2 pints/100 gallons in tank mixes with Gramoxone Extra. Use the 1 pint/100 gallon rate for surfactant products with 75% or greater nonionic active ingredient and the 2 pint/100 gallon rate for products containing 50% to 74% nonionic active ingredient. This treatment will control weeds from 1 to 6 inches tall. See the Gramoxone Extra label for weeds controlled, recommended rates for specific weeds, and application instructions. **Do not apply**

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combinations containing Gramoxone Extra in suspension type fertilizers as the activity of the active ingredient paraquat will be reduced.

**Roundup:** See the label for Roundup for weeds controlled, recommended rates for specific weeds, and application instructions.

### 3. Broadstrike SF+Dual plus 2,4-D for minimum-tillage or no-tillage systems

For bumdown control of susceptible annual and perennial broadleaf weeds prior to planting soybeans in reduced tillage systems, Broadstrike SF+Dual may be applied in tank mix combination with an appropriately labeled 2,4-D product. Apply in a minimum of 20 gallons of carrier/acre. This use requires that planting of soybeans be delayed a minimum of 15 to 30 days following application to avoid potential crop injury from 2,4-D residues in soil. Follow the recommended rates, specific planting delays, and other use precautions and limitations on the label of the 2,4-D product used.

As carriers, nitrogen solutions and complete liquid fertilizers applied before crop emergence enhance bumdown of existing weeds and, therefore, are recommended instead of water. Add a nonionic surfactant at 1 to 2 quarts/100 gallons diluted spray. Apply before weeds exceed 3 inches high. When tank mixing with 2,4-D, read and follow the manufacturer's label for applicable use directions, application timing, precautions, and limitations before use. **This tank mixture will not control emerged grasses.**

### 4. Broadstrike SF+Dual plus Dual or Dual II

For preplant surface, preplant incorporated, or preemergence application where severe grass populations are expected on medium or fine textured soils with relatively high organic matter content, Broadstrike SF+Dual may be tank mixed with additional Dual or Dual II for optimum performance. The total application rate of Broadstrike SF+Dual plus Dual or Broadstrike SF+Dual plus Dual II (pints/acre of each added together) cannot exceed the maximum application rate (pints/acre for Dual or Dual II specified in their respective labels for soybean combinations. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

## Soybeans - Broadstrike SF+Dual Followed by Postemergence Herbicides

Broadleaf weeds not controlled by Broadstrike SF+Dual may be treated using postemergence herbicide products such as Basagran, Blazer, Cobra, Galaxy, Reflex, or Storm. For enhanced control of sicklepod, Classic herbicide can be applied postemergence following application of Broadstrike SF+Dual. Consult the manufacturer's labels for application rates, weeds controlled, additional use directions, precautions, and limitations before use.

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### Warranty Disclaimer

DowElanco warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. DowElanco MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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### Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of DowElanco or the seller. All such risks shall be assumed by buyer.

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### Limitation of Remedies

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The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at DowElanco's election, one of the following:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used

DowElanco shall not be liable for losses or damages resulting from handling or use of this product unless DowElanco is promptly notified of such loss or damage in writing. In no case shall DowElanco be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of DowElanco or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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