# PLEASE NOTE

This image contains more than one label approved for this product on this date.

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# U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (7505P) Ariel Rios Building 1200 Pennsylvania Ave., NW Washington, D.C. 20460

EPA Reg. Number:	Γ
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Date of Issuance:

352-653

1-6-09

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\_ Registration

X Reregistration (under FIFRA, as amended)

Term of Issuance:

Name of Pesticide Product:

DuPont Glean XP Herbicide

Name and Address of Registrant (include ZIP Code):

E. I. du Pont de Nemours and Company

**DuPont Crop Protection** 

Stine-Haskell Research Center

P.O. Box 30

Newark, DE 19714

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is reregistered in accordance with FIFRA section 4(g)(2)(C) provided you:

- 1. Submit and/or cite all data required for registration/reregistration review of your product when the Agency requires all registrants of similar products to submit data
- 2. Make the following changes to the product labeling.
  - a. Change the heading from "Inert Ingredients" to "Other Ingredients".
  - b. Add the text "(PPE)" immediately following the Personal Protective Equipment heading.
  - c. Revise the User Safety Requirements sentence to read "If not such instructions for washables exist, use detergent and hot water."
  - d. On page 2, revise the text to read "GLEAN XP must be used only in accordance with directions on this label or in separate published DuPont directions.", and "DuPont will not be responsible for...not specifically directed by DuPont."

Continued on page 2

Signature of Approving Official:

Jim Tompkins

Product Manager 25

Herbicide Branch

Registration Division (7505P)

Date

1-6-09

EPA Form 8570-6

- e. On page 3, revise the text to read "GLEAN XP is **used** for the control or suppression of broadleaf weeds in wheat (including Durum), barley, triticale, and oat."
- f. With the exception of drift-related text appearing in the Environmental Hazards ("Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas") and General Precautions and Restrictions ("Do not apply this product in a way that will contact workers or other persons, either directly or through drift"), all drift text appearing on the label must be placed together and be located below the following required text. Any conflicting text must be deleted from the label. Spray drift text must be added to the label which reads:

#### "Spray Drift Management

Avoid drift at the application site. This product should be applied only when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops, native plant communities) is minimal (e.g. when wind is blowing away from the sensitive areas). Avoid application under conditions that may allow spray drift since very small quantities of spray may seriously injure susceptible crops during either active growth periods or dormancy. Follow the additional precautions below to minimize the potential for spray drift.

The interaction of many equipment and weather-related factors determines the potential for spray drift. The user is responsible for considering all these factors when making application decisions.

Where states have more stringent regulations, they must be observed. The applicator should be familiar and take into account the information covered in the following:

#### **Drift Control Adjuvants**

A drift control adjuvant may be used to further reduce the potential for drift. If a drift control adjuvant is used, follow the use directions and precautions on the manufacturer's label. Do not use an adjuvant which increases viscosity with Microfoil, Thru-Valve booms, or other systems that cannot accommodate viscous sprays.

#### **Controlling Droplet Size:**

#### Nozzle Type

Use a nozzle type according to manufacturer's specifications that is designed for the intended application and produces a Coarse to Very Coarse droplet size spectrum (ASAE S572) under application conditions. Applicators must consider nozzle orientation, nozzle pressure, and flight speed in determining droplet size. Nozzles should always be oriented in the manner that minimizes the effects of air shear. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

#### Pressure

Do not exceed the nozzle manufacturer's recommended pressures. When higher flow rates are needed, use a higher-capacity nozzle instead of increasing pressure.

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#### Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the application equipment upwind. Swath adjustment distance should increase with increasing drift potential.

#### Wind

Drift potential is lowest with a sustained wind between 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given wind speed. Application should be avoided during gusty conditions, and when winds are below 2 mph due to variable wind direction and high potential for a temperature inversion. Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

#### Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

#### **Surface Temperature Inversions**

Applications must not occur during a local, surface temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds which are common during inversions. Temperature inversions 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 the smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### For ground application:

#### **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.

#### Boom Length/Height

Setting the boom at the lowest referenced height (if specified) 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. Limit nozzle height to no greater than 4 feet above the top of the largest plants.

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#### For aerial application:

#### **Application Height**

Application more than 10 ft. above the canopy increases the potential for spray drift. Make applications no higher than 10 feet above the top of the target vegetation, unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

#### **Boom Length**

The boom length must not exceed 75% of the wing span for fixed wing aircraft or 90% for rotor blade helicopters. Using shorter booms decreases drift potential."

- g. Revise the Precaution "Only make one application...per crop season." to read "Do not make more than one application of this product per growing season."
- h. Revise the Container Handling instructions for Nonrefillable Plastic and Metal Containers in IBC by adding the following.

"Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water, rinsing down all sides inside the container thoroughly. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining product...approved by state and local authorities."

i. Under the Supplemental Label "For Use in Montana and Northern Wyoming when Foxtail is the Targeted Weed", remove the instructions for split applications, as it exceeds the one application per growing season restriction for cereal grains.

The following texts must be removed:

- i) Under Preplant Incorporation (PPI) and Preplant Surface (PPS) Applications to Early Seeded Winter Wheat, the precaution "In high rainfall situations...a second application may be needed in the Spring. Refer to instructions for split applications."
- ii) Under Preemergence (After Planting) to Winter Wheat (Including Durum), the precaution "In high rainfall situations...a second application may be needed in the Spring. Refer to instructions for split applications."
- iii) Split-Treatment to Wheat directions and Precautions.

The Basic CSF dated 7/15/08 is acceptable and will supercede all other CSFs.

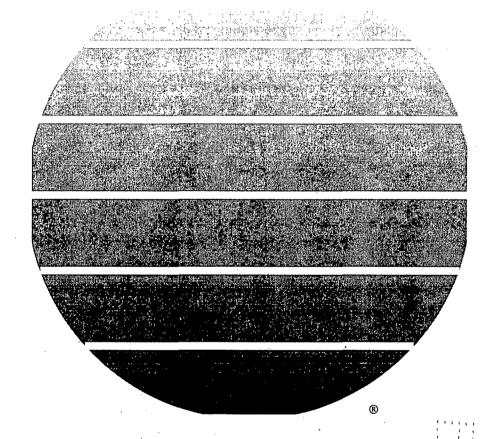
A stamped copy of your labeling is enclosed for your records. Submit one (1) copy of the revised final printed label for the record before you release the product for shipment. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.



# DuPont<sup>TM</sup> Glean® XP

herbicide

# DRAFT LABEL



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

# DUPONT™ GLEAN® XP HERBICIDE HIGHLIGHTS

- For preemergence weed control in winter wheat and winter oat.
- For selective postemergence broadleaf weed control in wheat, barley, tritcale, oat, and CRP grasses.
- Postemergence rates are 1/6 to 1/3 ounce per acre (see APPLICATION information).
- Apply postemergence to wheat, barley and oat from the 2-leaf stage but before boot (2-leaf to before flag leaf is visible on spring cereal crops in Pacific Northwest).
- May be applied by ground or by air.
- Use in tank mixtures with other registered herbicides for broader spectrum weed control (see TANK MIXTURES).
- Recommended for land primarily dedicated to long-term production of wheat, barley or oat (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>™</sup> **Glean® XP**

#### herbicide

Dry flowable

For Use on Wheat, Barley, Oat, Triticale, and CRP Grasses

Active Ingredient	By Weight
Chlorsulfuron	
2-Chloro-N-[(4-methox 1,3,5-triazin-2-yl)amino	ocarbonyl]
<u>benzenesulfonamide</u>	75%
Inert Ingredients	25%
TOTAL	100%
EPA Reg. No. 352-653	EPA Est. ACCEPTED
Nonrefillable Container	with COMMENTS
Net:	In EPA Letter Dated:
OR	UAN 0 2009
Refillable Container	Under the Federal Insecticide, Fungicide, and Rodenticide Act
Net:	as amended, for the pesticide registered under EPA Reg. No.

# KEEP OUT OF REACH OF CHILDREN CAUTION

#### **FIRST AID**

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything to an unconscious person.

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. 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.

### PRECAUTIONARY STATEMENTS

# HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION!** Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

#### 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.

Mixers, loaders, applicators, and other handlers must wear:

Long-sleeved shirt and long pants Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride. 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 STATEMENTS**

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. IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "Applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment break-down.

#### **USER SAFETY RECOMMENDATIONS**

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should 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 creas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposing of equipment washwaters or insate.

#### **IMPORTANT**

DuPont<sup>TM</sup> GLEAN® XP herbicide (GLEAN® XP) is recommended for use on land primarily dedicated to the long-term production of wheat, barley, or oat.

#### PESTICIDE HANDLING

- Calibrate sprayers only with clean water away from the well site.
- · Make scheduled checks of spray equipment.
- Ensure that all operation employees accurately measure pesticides.
- 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 or mixing/loading station.
- Dilute and agitate excess solution and apply at labeled rates or uses.
- · Avoid storage of pesticides near well sites.
- When triple rinsing the pesticide container, be sure to add the rinsate to the spray mix.

#### 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 4 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 made of any waterproofmaterial.

Shoes plus socks.

GLEAN® XP 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.

#### **GENERAL INFORMATION**

GLEAN® XP is a dry-flowable granule that controls many broadleaf weeds. GLEAN® XP is mixed in water or directly into liquid nitrogen fertilizer solutions and applied as a uniform broadcast spray. A surfactant should be used in the spray mix unless otherwise specified on this label.

**Note:** For definitions of portions of States recommended on this label, see listings of counties or area definitions on **Crop Rotation Interval** charts of this label.

GLEAN® XP is noncorrosive, nonflammable, nonvolatile, and does not freeze.

GLEAN® XP controls weeds by both preemergence and postemergence activity. For best preemergence results, apply GLEAN® XP before weed seeds germinate. Use sprinkler irrigation or allow rainfall to move GLEAN® XP 2 to 3" deep into the soil profile.

For best postemergence results, apply GLEAN® XP to young, actively growing weeds. The use rate depends upon the weed spectrum and size of weeds at time of application. 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

GLEAN® XP is absorbed through the roots and foliage of broadleaf weeds, rapidly inhibiting their growth. One to three weeks after application to weeds, leaves of susceptible plants appear chlorotic, and the growing point subsequently dies.

Postemergent application of GLEAN® XP 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.

GLEAN® XP may injure crops that are stressed from adverse environmental conditions (such as extreme temperatures or moisture), abnormal soil conditions, insect pressure, or cultural practices. In addition, different varieties of the crop may be sensitive to treatment with GLEAN® XP under otherwise normal conditions. Treatment of such varieties may result in crop injury.

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 GLEAN® XP.

Rainfall is needed to move DuPont<sup>TM</sup> GLEAN® XP into the soil for preemergence weed control, but postemergence weed control may be reduced if rainfall occurs soon after application.

#### Frequency of Application

GLEAN® XP can be used as either pre or postemergence application once per crop period, but not both pre and post in the same season.

#### **CEREALS APPLICATIONS**

GLEAN® XP is recommended for the control or suppression of broadleaf weeds in wheat (including Durum), barley, triticale, and oat.

#### Postemergence

Apply GLEAN® XP at 1/6 to 1/3 oz per acre for postemergence weed control in wheat (including Durum\*), barley, triticale, and oat.

Use 1/6 oz per acre for short-term control or suppression; use 1/3 oz per acre for contact and residual weed control. Where soil pH is 6.5 or lower, use 1/3 oz per acre where maximum soil residual weed control is desired. Do not use less than 1/6 oz per acre.

Apply in the fall or spring anytime after the crop is in the 2-leaf stage but before boot (before flag leaf for triticale). Applications during or after boot may result in crop injury.

In the Pacific Northwest, apply GLEAN® XP to spring cereals anytime from the 2-leaf stage through the second joint stage but before the flag leaf is visible.

In areas with severe winter weather, do not apply GLEAN® XP during late fall, winter, or early spring unless crop is well established and has started to tiller or crop injury may result.

GLEAN® XP should not be used within 60 days of crop emergence where organophosphate insecticides have been used as an in-furrow treatment or crop injury may result.

\*Note: Apply to Vic durum after early tillering but before boot.

#### Preemergence

Apply GLEAN® XP at 1/3 oz per acre for preemergence weed control in winter oat and winter wheat.

In North Central Texas and Southern Oklahoma, apply GLEAN® XP at 1/2 oz per acre for suppression of annual ryegrass in winter oat and winter wheat.

Apply GLEAN® XP after planting seed, but before the crop emerges. Rainfall or sprinkler irrigation following treatment is necessary to activate GLEAN® XP before weed seeds germinate and develop an established root system. Wheat and oat seeds should be planted at least 1" deep.

Do not apply GLEAN® XP preemergence if cold or dry weather conditions exist. Wait until the weather improves and the crop is growing vigorously before making the application (See Postemergence). Preemergence applications of GLEAN® XP are not recommended where organophosphate insecticides have been used as an infurrow treatment, as crop injury may result.

Do not apply GLEAN® XP preemergence to barley or triticale.

#### CRP APPLICATIONS

GLEAN® XP is recommended for control of broadleaf weeds in the following perennial native or improved grasses grown on land enrolled in the Conservation Reserve Program (CRP):

Bentgrasses	Sheep fescue
Blue Grama	Sideoats grama
Bluestems -	Switchgrass - blackwell
big	Tall fescue -
little	Wheatgrasses -
plains	bluebunch
sand	crested
WW spar	intermediate
Buffalograss	pubescent
Green sprangletop	Siberian
Indiangrass	slender
Kleingrass	streambank
Lovegrasses -	tall
atherstone	thickspike
sand	western
weeping	Wildrye grass - Russian
wilman	beardless
Orchardgrass	

Maximize potential for grass establishment by consulting with the Natural Resources Conservation Service (NRCS) or other local experts concerning planting techniques and other cultural practices. Because newly planted CRP grass stands do not sufficiently compete with weeds and because weed pressure in CRP fields is often severe, performance from GLEAN® XP may not always be satisfactory. An additional herbicide application or mowing may be needed.

#### Preplant (prior to planting)

GLEAN® XP may be applied at 1/6 to 1/3 oz per acre to all labelled grasses except bentgrasses, kleingrass, orchardgrass, plains and WW Spar bluestems, and sheep fescue. The 1/3 oz rate should be used for preemergence applications where residual weed control is important.

If weeds are emerged at time of application, apply GLEAN® XP with another herbicide having a different mode of action such as glyphosate. Read and follow all use instructions, label rates, warnings, and precautions for companion herbicides.

#### Early postemergence to new plantings

GLEAN® XP may be applied at 1/3 to 1/4 oz per acre to all labelled grasses except bentgrasses; of chardgrass, plains and WW Spar bluestems. Because grass species differ in time of emergence, apply only after the majority of grasses are in the 3 to 4 leaf stage.

If weeds are emerged at time of application, apply' ...... GLEAN® XP with another broadleaf herbicide having a different mode of action such as 2,4-D or dicamba. Read and follow all use instructions, label rates, warnings, and precautions for companion herbicides.

#### Early postemergence to established stands

DuPont<sup>TM</sup> GLEAN® XP may be applied at 1/6 to 1/4 oz per acre on all labelled grasses (except bentgrasses, kleingrass, orchardgras, plains, and WW Spar bluestems, and sheep fescue) when the majority of the grasses have one or more leaves. If stand shows signs of winter stress or a lack of vigor, do not treat as grass injury may result.

If weeds are emerged at time of application, apply GLEAN® XP with another broadleaf herbicide having a different mode of action such as 2,4-D or dicamba. Read and follow all use instructions, label rates, warnings, and precautions for companion herbicides.

#### Late postemergence to established stands

GLEAN® XP may be applied at 1/6 to 1/3 oz per acre on all labelled grasses (make applications to beardless wildrye grass only in the spring after tillering). If stand shows signs of stress or a lack of vigor, do not treat as grass injury may result.

If weeds are emerged at time of application, apply GLEAN® XP with another broadleaf herbicide having a different mode of action such as 2,4-D or dicamba. Read and follow all use instructions, label rates, warnings, and precautions for companion herbicides.

## TALL FESCUE GROWN FOR SEED APPLICATIONS

GLEAN® XP is recommended for control of broadleaf weeds in Tall Fescue grown for seed in KS, OR, and WA. Apply GLEAN® XP at 1/4 oz per acre in late summer to early fall after harvest. If weeds are present, add a non-ionic surfactant at 1 qt. per 100 gallons of spray solution. To maximize crop safety, add 0.5 to 1.0 lb. active ingredient of 2,4-D, and apply when Tall Fescue has less than 6" new foliar growth.

Treatment with GLEAN® XP may reduce the height of Tall Fescue. In areas of spray overlap, crop height and yields may be reduced significantly. Applications made in the spring while Tall Fescue is actively growing can result in very significant crop damage. Spring germinating wild carrot may not be controlled by a fall application of GLEAN® XP. Do not mix GLEAN® XP with an organophosphate insecticide as severe crop injury may occur.

#### **BORDER AREA APPLICATIONS**

GLEAN® XP is recommended for control of broadleaf weeds in field border areas and fence lines. Apply GLEAN® XP at 1/4 to 1/2 oz per acre.

#### **SURFACTANTS**

Unless otherwise specified, add a nonionic surfactant having at least 80% active ingredient at 0.25 to 0.5% v/v (1 to 2 qt per 100 gal of spray solution).

The higher rate is particularly useful with spray volumes of 5 GPA or less and when using low rates of GLEAN® XP. Consult your Agricultural dealer or applicator for recommended surfactants.

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

Antifoaming agents may be used if needed.

#### WEEDS CONTROLLED

GLEAN® XP effectively controls the following weeds when applied at the rates shown:

#### 1/6 - 1/4 oz per acre

Blue mustard	Pineappleweed
Conical catchfly	Prostrate pigweed
Curly dock	Redroot pigweed
Cutleaf evening primrose	Shepherd's purse
Field pennycress	Smooth pigweed
Flixweed <sup>2</sup>	Tansymustard <sup>2</sup>
Hempnettle	Treacle mustard
Henbit	Tumble mustard (Jim Hill)
Mayweed	Waterpod
Miners lettuce	Wild mustard

#### 1/3 oz per acre

Bur beakchervil	Falseflax
Buttercup	Ladysthumb
Coast fiddleneck (tarweed)	Lambsquarters <sup>2</sup>
Common chickweed	Mouseear chickweed
Common groundsel	Purslane (common)
Corn spurry	Redstem filaree
Cow cockle	White cockle
False chamomile	Wild carrot
	Wild turnip

#### WEEDS PARTIALLY CONTROLLED

GLEAN® XP partially controls the following weeds when applied at the rates shown:

#### 1/3 oz per acre

Annual ryegrass <sup>2</sup>	Prickly lettuce <sup>3</sup>
Bedstraw	Prostrate knotweed <sup>2</sup>
Canada thistle <sup>2</sup>	Russian thistle3.4
Corn gromwell	Sunflower <sup>2</sup>
Downy brome <sup>2,5</sup>	Speedwell
Green foxtail (pigeongrass) <sup>5</sup>	Wild buckwheat <sup>2</sup>
Kochia <sup>3, 4</sup>	Wild garlic/Wilc onion <sup>2</sup>
Pennsylvania smartweed	Wild radish <sup>2</sup>
Persian Darnel <sup>2.5</sup>	Yellow foxtail <sup>2,5</sup>

- 1 Partially controlled weeds exhibit a visual reduction in numbers as well as a significant loss of vigor. For better results, use 1/3 oz GLEAN® XP per acre and include a tank-mix partner (refer to Tank Mixtures).
- 2 See Specific Weed Problems for more information.
- 3 Naturally occurring resistant biotypes of these weeds at a known to occur in the Central Plains and the Pacific Northwest. See Tank Mixtures and Resistance for additional informations
- 4 Use GLEAN® XP to control these weeds in Central Kaiisas, Central Nebraska, Central Oklahoma, and North Central Texas only.
- 5 Use GLEAN® XP to suppress these weeds in MT, ND, SD and WY only.

#### SPECIFIC WEED PROBLEMS

Annual Ryegrass (Southeast Oklahoma, Central and North Central Texas): Apply DuPont™ GLEAN® XP preemergence at 1/2 oz per acre. One-half to 1" of rainfall is needed to move GLEAN® XP into the root zone of weeds prior to ryegrass emergence. Under abnormally wet conditions, fall applications may not adequately control ryegrass and/or broadleaf weeds that germinate in the spring.

Remove grazing cattle when fields are wet (muddy) to avoid disturbing the herbicide barrier.

Canada Thistle: Apply GLEAN® XP 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.

Downy Brome (MT, ND, SD and WY): Apply GLEAN® XP at 1/3 oz per acre in the fall for suppression of downy brome. Application before downy brome germinates is preferred. After emergence, best results are obtained if application is made before downy brome is more than 1" tall or beyond the 2 leaf stage. 1/2 to 1" of rainfall is needed to move GLEAN® XP into the weed root zone before the downy brome establishes a 2" root system.

Flixweed, Tansymustard (Northern Idaho, Oregon and Washington): For best postemergence results, tank mix GLEAN® XP at 1/3 oz per acre with another herbicide that is effective on these weeds, such as 2,4-D.

In all other areas, apply GLEAN® XP at 1/6 to 1/3 oz per acre 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, or use a tankmix treatment with 2,4-D or MCPA.

Foxtail/Pigeongrass (green and yellow) (MT, ND, SD and WY): Apply GLEAN® XP at 1/3 oz per acre in the fall or spring for suppression of these foxtail species. Application before the foxtail germinates is preferred. After emergence, best results are obtained if application is made before the foxtail is more than 1" tall or beyond the 2 leaf stage. 1/2 to 1" of rainfall is needed to move GLEAN® XP into the weed root zone before the foxtail reaches the 3 leaf stage.

Lambsquarters: For best results, apply 1/3 oz per acre GLEAN® XP in the fall.

For best postemergence suppression, apply GLEAN® XP plus either 2,4-D or MCPA 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. Add surfactant at 1/2 to 1 qt per 100 gal of spray solution. Ensure thorough spray coverage.

Persian Darnel (MT, ND, SD and WY): Apply GLEAN® XP at 1/3 oz per acre in the fall or spring for suppression of Persian darnel. Application before the Persian darnel germinates is preferred. After emergence, best results are obtained if application is made before the Persian darnel is beyond the 2 leaf stage. 1/2 to 1" of rainfall is needed to move GLEAN® XP into the weed root zone before the Persian darnel reaches the 3 leaf stage.

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

Sunflower (New Mexico, Oklahoma Panhandle, and Texas): For best results, apply GLEAN® XP after the majority of sunflowers have emerged, are actively growing, and are not more than 2" tall. Add surfactant at 2 qt per 100 gal of water. For preemergence applications, apply GLEAN® XP in early spring to allow rainfall to move GLEAN® XP into the weed root zone before weeds germinate or develop an established root system.

Wild Buckwheat: For best results, apply GLEAN® XP preemergence to wild buckwheat. For postemergence applications, tank mix with either 2,4-D, MCPA, dicamba, or bromoxynil and a surfactant and apply after the majority of seedlings have emerged and are actively growing.

Wild Garlic/Wild Onion: GLEAN® XP provides aerial bulblet control only.

Wild Radish: For best results, apply postemergence.

#### TANK MIXTURES

GLEAN® XP may be tank mixed with other suitable registered herbicides to control weeds listed under Weeds Partially Controlled, weeds resistant to GLEAN® XP, or weeds not listed under Weeds Controlled. GLEAN® XP may also be tank mixed with other suitable registered insecticides, fungicides, and liquid fertilizers. Read and follow all manufacturer's label recommendations for the companion product. If those recommendations conflict with this label, do not tank mix with GLEAN® XP.

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

GLEAN® XP may be tank mixed with 2,4-D or MCPA (preferably ester formulations) herbicides after weeds have emerged. For best results, use 1/6 to 1/3 oz of GLEAN® XP per acre; add 2,4-D or MCPA herbicides to the tank at 1/4 to 1/2 lb active ingredient. Surfactant may be added to the mixture at 1/2 to 1 qt per 100 gal of spray solution; however, adding surfactant may increase the potential for crop injury. Do not add a surfactant when GLEAN® XP plus 2,4-D or MCPA is applied with liquid fertilizer.

Apply GLEAN® XP plus MCPA after the 3- to 5-leaf stage but before boot. Apply GLEAN® XP plus 2,4-D after tillering (refer to appropriate 2,4-D's manufacturer's label), but before boot. Applying a tank mixture of GLEAN® XP and 2,4-D or MCPA, with liquid fertilizer, when temperatures are below freezing or when the crop is stressed from cold weather just prior to winter dormancy can result in severe foliar burn and/or crop injury.

Do not apply GLEAN® XP plus 2,4-D of MCPA in Combination with organophosphate insecticides.

#### With diuron (such as KARMEX® XP)

In the Pacific Northwest where prickly lettuce, corn gromwell, annual ryegrass and annual bluegrass are the main weed problems, apply 0.4 to 1.2 lb ai KARMEX® XP with GLEAN® XP. Apply preemergence or postemergence to actively growing weeds less than 2" tall or 2" across. One-half to 1" rainfall is needed within 1 to 2 weeks after application.

## With fluroxypyr containing products (such as Starane, Starane NXT, Starane + Salvo, Starane + Sword)

For improved control of kochia, Russian thistle, mustards, and wild buckwheat, DuPont<sup>TM</sup> GLEAN® XP may be tank mixed with 1/3 to 1 1/3 pints per acre of Starane, 14 to 21 ounces per acre of Starane NXT, 2/3 to 2 2/3 pints per acre of Starane + Salvo, or 3/4 to 2 3/4 pints per acre of Starane + Sword.

#### With "Everest"

GLEAN® XP may be tank mixed with Everest herbicide for improved control of grassy weeds in wheat. For Winter Wheat, apply in the fall or spring any time after the crop has two leaves on the main stem but before jointing begins. To reduce the potential for crop injury, treat late-seeded winter wheat after the crop has started to tiller but before jointing.

For Spring Wheat, apply any time 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. Do not apply to durum wheat. The addition of 0.25 to 0.75 pints per acre of 2,4-D (4 lbgal) or 2 to 4 floz per acre of dicamba (4 lbgal) to the GLEAN® XP plus Everest tank mix is required when applying to spring wheat.

#### With "Maverick"

GLEAN® XP may be tank mixed with Maverick herbicide for improved control of grassy weeds in wheat. Apply GLEAN® XP with 2/3 oz per acre of Maverick herbicide with 0.5% volume/volume (2 quarts per 100 gal of spray solution) of non-ionic surfactant (NIS). This tank mix may also include bromoxynil or fluroxypyr products for greater spectrum broadleaf control.

#### With metribuzin

Use 1/6 to 1/3 oz per acre of GLEAN® XP with 1 to 10 2/3 oz of metribuzin per acre. Metribuzin is recommended to control downy brome and cheatgrass in winter wheat in Kansas, Idaho, Oklahoma, Oregon, Texas, and Washington or to broaden the spectrum of weeds controlled. Use GLEAN® XP with low rates of metribuzin (1 to 4 oz) when winter wheat is at the 2-leaf to 3 tiller stage.

Higher rates of metribuzin (4 or more oz) should be used in combination with GLEAN® XP after the crop has at least 3 tillers and has a 2" secondary root system and is actively growing.

GLEAN® XP plus metribuzin is recommended for barley in Idaho, Oregon and Washington only.

#### With Other Herbicides

For broader spectrum weed control, GLEAN® XP can be tank mixed with other herbicides including products containing bomoxynil, dicamba, and clopyralid.

When tank mixing GLEAN® XP and "Assert", always include another broadleaf herbicide having a different mode of action (such as 2,4-D, MCPA, or bromoxynil)). Tank mix applications of GLEAN® XP plus "Assert" may cause temporary discoloration/stunting or injury to the crop when heavy rainfall occurs shortly after the application.

#### With Insecticides

GLEAN® XP may be tank mixed with insecticides. 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 GLEAN® XP 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 GLEAN® XP plus Malathion, as crop injury may result. Do not apply GLEAN® XP 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.

#### With Fungicides

GLEAN® XP may be tank mixed with DuPont<sup>TM</sup> MANZATE® Pro-Stick<sup>TM</sup> fungicide or other fungicides whenever the proper timing for herbicide and fungicide treatments coincide.

#### With Liquid Fertilizer

GLEAN® XP may be tank mixed with liquid fertilizer for application to crops. Note that adding surfactant to tank mixtures of GLEAN® XP and liquid fertilizer increases the risk of crop injury. Therefore, before mixing GLEAN® XP with fertilizer, check the compatibility of the tank mix on a small area before treating the entire crop.

Do not use GLEAN® XP with liquid fertilizers having a pH of 3.0 or less, as rapid product degradation can result.

Note: Liquid fertilizers are significantly heavier than water per gal of liquid; therefore, to maintain proper spray volumes, adjust the nozzle type and nozzle pressure as necessary. Consult fertilizer solution suppliers and/or sprayer systems company catalogs to determine the appropriate spray nozzles.

# GENERAL APPLICATION INFORMATION 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 air or ground 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 GLEAN® XP in suspension.

#### **GROUND APPLICATION**

To obtain optimum spray distribution and thorough coverage, use flat-fan or low-volume flood nozzles.

When using flat-fan nozzles, use a spray volume of at least 3 gal per acre (GPA). When using flood jet or "Raindrop RA" nozzles, use higher spray volume (minimum 20 GPA) to ensure thorough coverage. However, DuPont<sup>TM</sup> GLEAN® XP may not be applied at less than 10 GPA when using small orifice flooding nozzles such as flood jet TK 5 to TK 7.5 or equivalent. These flooding nozzles must be on a 30-inch spacing or not less than 13 GPA when on a 40-inch spacing. It is essential to overlap the nozzles 100% for all spacings.

Use screens that are 50-mesh or larger.

#### AERIAL APPLICATION

Use nozzle types and arrangements that provide optimum spray distribution and maximum coverage at 1 to 5 GPA. Use at least 3 GPA in Idaho, Oregon, or Utah.

When applying GLEAN® XP by air in areas where sensitive crops are nearby, use solid stream nozzles oriented straight back. Adjust swath to avoid spray drift damage to downwind sensitive crops and/or use ground equipment to treat border edge of field. See "Spray Drift Management" section of this label.

#### PRODUCT MEASUREMENT

GLEAN® XP is measured using the GLEAN® XP volumetric measuring cylinder. The degree of accuracy of this cylinder varies by  $\pm$  7.5 %. For more precise measurement, use scales calibrated in ounces.

#### MIXING INSTRUCTIONS

- 1. Fill the tank 1/4 to 1/3 full of water (If using liquid nitrogen fertilizer solution in place of water, see Tank Mixtures sections for additional details).
- 2. While agitating, add the required amount of GLEAN® XP.
- Continue agitation until the GLEAN® XP is fully dispersed, at least 5 minutes.
- 4. Once the GLEAN® XP is fully dispersed, maintain agitation and continue filling tank with water. GLEAN® XP 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.
- 6. If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
- 7. Apply GLEAN® XP spray mixture within 24 hours of mixing to avoid product degradation.
- 8. If GLEAN® XP and a tank mix partner are to be applied in multiple loads, pre-slurry the GLEAN® XP in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of the GLEAN® XP.

Do not use GLEAN® XP with spray additives that reduce the pH of the spray solution to below 3.0.

#### SPRAYER CLEANUP

#### Before Spraying GLEAN® XP

Spray equipment must be cleaned before GLEAN® XP 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 GLEAN® XP section on this label.

#### At the End of the Day

When multiple loads of GLEAN® XP 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 GLEAN® XP and Before Spraying Crops Not Labelled for a GLEAN® XP Application

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of GLEAN® XP as follows:

- 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 clabel. 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 cleaner which dissolves and removes sulfonylurea herbicide residues can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions.

#### Notes:

- 1. Caution: Do not use chlorine bleach with ammonia as dangerous gases will form. Do not clean equipment in an enclosed area.
- Steam-cleaning aerial spray tanks is recommended prior to performing the above cleanout procedure to facilitate the removal of any caked deposits.

- When DuPont™ GLEAN® XP 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 GLEAN® XP and applications of other pesticides to GLEAN® XP-sensitive crops during the same spray season, it is recommended that a sprayer be dedicated to GLEAN® XP to further reduce the chance of crop injury.

#### **GRAZING**

There are no grazing restrictions on GLEAN® XP.

#### **CROP ROTATION**

Before using GLEAN® XP, carefully consider your crop rotation plans and options. For rotational flexibility, do not treat all of your wheat, barley, oat, or fallow acres at the same time.

#### MINIMUM RECROPPING INTERVALS

Minimum recropping intervals\* are determined by the rate of breakdown of GLEAN® XP applied. GLEAN® XP 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 GLEAN® XP breakdown in soil, while high soil pH, low soil temperature, and low soil moisture slow GLEAN® XP 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.

#### **SOIL PH LIMITATIONS**

GLEAN® XP 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, barley, or oat. In addition, other crops planted in high-pH soils can be extremely sensitive to low concentrations of GLEAN® XP.

#### Checking Soil pH

Before using GLEAN® XP, 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.

#### **BIOASSAY**

A field bioassay must be completed before rotating to crops not listed on this label or when rotating at intervals shorter than those listed in the Crop Rotation section.

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 GLEAN® XP. 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 agricultural dealer, state cooperative extension service, or DuPont representative, for information detailing field bioassay procedure.

#### **Cereal Crops -- Recropping Intervals**

State	Crop	Soil pH	Application Rate (oz/A)	Rotation Interval (months)
AR, CO, DE, GA, KS,	wheat, rye, triticale	7.9 or lower	1/6 to 1/3	0
MD, MO, NC, NE,			1/2 (TX/OK only)	4
NM, OK, PA, SC, TX,	oat	7.9 or lower	1/6 to 1/2	10
VA, Southeastern WY	barley	7.9 or lower	1/6 to 1/3	10
MN, MT, ND, SD,	wheat, rye, triticale	7.9 or lower	1/6 to 1/3	0
WI, Northern WY	oat	7.9 or lower	1/6 to 1/3	10
	barley	6.5 or lower	1/6 to 1/3	10
		6.6 to 7.9	1/6 to 1/3	16
CA, ID, OR, UT, WA	wheat, rye, triticale	7.5 or lower	1/6 to 1/3	0 .
		7.6 to 7.9	1/6 to 1/3	4
	oat	7.5 or lower	1/6 to 1/3	10
		7.6 to 7.9	1/6 to 1/3	16 -
	barley	6.5 or lower	1/6 to 1/3	10
		6.6 to 7.5	1/6 to 1/3	16
		7.6 to 7.9	1/6 to 1/3	24

### **CRP** -- Recropping Intervals

State	Сгор	Soil pH	Application Rate (oz/A)	Rotation Interval (months)
AR, CA, CO, DE, GA,	all grasses*	7.9 or lower	1/6 to 1/3	2
ID, KS, MD, MO, NC, NE, NM, OK, OR, PA, SC, TX, UT, VA, WA, Southeastern WY		·	1/2 (TX/OK only)	4
MN, MT, ND, SD, WI,	all grasses*	6.5 or lower	1/6 to 1/3	2
Northern WY		6.6 to 7.5	1/6 to 1/3	4 ( , , ,
·	Wheatgrass* only	7.6 to 7.9	1/6 to 1/3	4

\*The following grasses may be planted for Conservation Reserve Program (CRP) acres after the intervals specified in the table above:

Bentgrasses

Blue grama

Bluestems - big, little, plains, sand, ww spar

Buffalograss

Galleta

Green needlegrass

Indiangrass

Indian ricegrass

Lovegrasses - sand, weeping

Orchardgrass (except Piaute)

Prairie sandreed

Sand dropseed

Sheep fescue

Sideoats grama

Switchgrass

Wheatgrasses - crested intermediate, pubescent, slender

streambank, tall, thickspike, western

Wild ryegrasses - beardless, Russian

### Noncereal Crops -- Recropping Intervals -- Non Irrigated Land

Loc	cation			A	Cumulative	Rotation
State County or Area		Crop	Soil pH	Application Rate (oz/A)	Precipitation (Inches)	Interval (Months)
Arkansas	all areas	Cotton, Grain Sorghum, Soybeans	7.9 or lower	1/6 to 1/3	25	14
		STS soybeans**	7.5 or lower	1/6 to 1/3		6
Colorado	All areas	STS soybeans**, IR Corn**	7.5 or lower***	1/6 to 1/3		4
		Grain Sorghum†	7.2 or lower	1/6 to 1/4		4
			7.3 to 7.5***	1/6 to 1/4		6
	Adams, Arapahoe, Logan	Field Corn, Millets	7.5 or lower	1/6 to 1/3	30	24
•	Morgan, Phillips, Sedgwick, Washington, Yuma	Field Corn, Millets	7.6 to 7.9	1/6 to 1/3	45	36
	Eastern, CO	Grain Sorghum	7.5 or lower	1/4 to 1/3	45	36
			7.6 to 7.9	1/6 to 1/3	60	48
Georgia	all areas	STS soybeans**	7.5 or lower	1/6 to 1/3		6
Idaho*	Northern counties	Pea (dry)	6.5 or lower	1/6 to 1/3	35	24
	(Benewah, Bonner, Boundary, Clearwater, Idaho, Koontenai, Letah, Lewis and Nez Perce)	Lentils	6.5 or lower	1/6 to 1/3	50	36
Kansas	all areas	STS soybeans**, IR Corn**	7.5 or lower***	1/6 to 1/3		4
•	Western (W. of Hwy 183)	Grain Sorghum†	7.2 or lower	1/6 to 1/4	,	4
			7.3 to 7.5***	1/6 to 1/4		6
	Eastern (E. of Hwy 183)		7.5 or lower	1/6 to 1/3		4
	W. Central & Western	Grain Sorghum	7.5 or lower	1/6 to 1/3	21	14
	(generally West of Hwy. 183 to the Western edge of Grant, Kearny, Logan Rawlings, Stevens Thomas and Wichita counties	. ,	7.6 to 7.9	1/6 to 1/3	42	26
	Far Western (In the last	Grain Sorghum	7.5 or lower	1/6 to 1/3	36	26
	tier of counties along the KS/CO border (Cheyenne, Greeley, Hamilton, Morton, Sherman, Stanton, and Wallace)		7.6 to 7.9	1/6 to 1/3	60	48
Maryland	all areas	STS soybeans**	7.5 or lower	1/6 to 1/3	(	, 66
Montana	all areas	Safflower	7.9 or lower	1/6 to 1/3	39 '	34
Nebraska	all areas	IR Corn**	7.5 or lower***	1/6 to 1/3	'	4
	Western (W. of Hwy. 183)	Grain Sorghum†	7.2 or lower.	1/6 to 1/4		(((4)
		E-14 Com Mill :	7.3 to 7.5***	1/6 to 1/4		6
		Field Corn, Millets, Grain Sorghum, Soybeans	7.5 or lower 7.6 to 7.9	1/6 to 1/3 1/6 to 1/3	40 60	36
	Eastern (E. of Hwy. 183)	Grain Sorghum†	7.5 or lower	1/6 to 1/3		4
	S. Central (Franklin,	Grain Sorghum	7.9 or lower	1/6 to 1/3	25	14
	Nuckolls, Thayer	Soybeans	7.5 or lower	1/6 to 1/3	25	14
	and Webster counties)		7.6 to 7.9	1/6 to 1/3	46	26
New Mexico	all areas	Grain Sorghum	7.9 or lower	1/6 to 1/3	30	25
North Carolina	all areas	STS soybeans**	7.5 or lower	1/6 to 1/3		6

Location		• .			Cumulative	Rotation	
State	County or Area	Crop	Soil pH	Application Rate (oz/A)	Precipitation (Inches)	Interval (Months)	
North	all areas	Safflower	7.9 or lower	1/6 to 1/3	45	34	
Dakota					, ,		
Oklahoma	all areas	STS soybeans**, IR Corn**	7.5 or lower***	1/6 to 1/3		4	
	panhandle	Grain Sorghum	7.2 or lower	1/6 to 1/4		4†	
	,	C	7.3 to 7.5***	1/6 to 1/4		6†	
			up to 7.9	up to 1/3	30	25	
	all areas except panhandle	Grain Sorghum†	7.5 or lower	1/6 to 1/3		4	
	Eastern (E. of Hwy 183)	Grain Sorghum, Cotton, Mung, Beans, Soybeans	7.9 or lower	1/6 to 1/2	25	14	
	Western (W. of Hwy 183 & E. of the Panhandle	Cotton, Grain Sorghum	7.9 or lower	1/6 to 1/3	25	14	
Oregon*	Northeastern counties	Pea (dry)	6.5 or lower	1/6 to 1/3	35	24	
3	(Baker, Umatilla, Union, and Wallowa)	Lentils	6.5 or lower	1/6 to 1/3	50	36	
	West of Cascade Mountains†	Annual ryegrass, perennial ryegrass, crimson clover	6.5 or less	1/6 to 1/4	20	9	
		Red clover, snap beans, field com	6.5 or less	1/6 to 1/4	40	15	
South Carolina	all areas	STS soybeans**	7.5 or lower	1/6 to 1/3		6	
Texas	all areas	STS soybeans**, IR Corn**	7.5 or lower***	1/6 to 1/3		4	
•	panhandle	Grain Sorghum	7.2 or lower	1/6 to 1/4		4†	
			7.3 - 7.5***	1/6 to 1/4		6†	
			up to 7.9	up to 1/3	30	25	
	all areas except panhandle	Grain Sorghum†	7.5 or lower	1/6 to 1/3		4	
	Eastern counties	Grain Sorghum, Cotton, Mung Beans, Soybeans	7.9 or lower	1/6 to 1/2	25	14	
	The Eastern counties are: Arch Fannin, Franklin, Grayson, Hil Morris, Navarro, Palo Pinto, P Williamson, Wise, Wood and Y	ll, Hood, Hopkins, Hunt arker, Rains, Red River,	, Jack, Johnson, K	aufman, Lamar, Lii	nestone, McLennan, M	lilam, Montague,	
	Central counties	Cotton, Grain	7.9 or lower	1/6 to 1/3	25	14	
		Sorghum	7.9 or lower	1/2	46	. 26	
	The Central counties are: Bay and Wilbarger.	lor, Callahan, Eastland,	Foard, Hardeman	, Haskell, Knox, Sh	ackelford, Stephens, Ti	rockmorton (	
Virginia	all areas	STS soybeans**	7.5 or lower	1/6 to 1/3		6	
Washington*	Eastern counties (Asotin,	Pea (dry)	6.5 or lower	1/6 to 1/3	35	e c c c c 24	
vvasning v	Columbia, Garfield, Pend Oreille, Spokane, Stevens, Walla Walla, and Whitman)	Lentils	6.5 or lower	1/6 to 1/3	50	(36	
Wyoming	Southeast	Proso and	7.5 or lower	1/6 to 1/3	30	24	
11 yourning	Southeast					-, -, -	
		Setaria Millets	7.6 to 7.9	1/6 to 1/3	45	· `c 36	

Unless a crop rotation interval is specified, a field bioassay must be completed before rotating to any crop not listed. See Bioassay for information on conducting a field bioassay in target areas.

<sup>\*</sup>A field bioassay is required if soil pH is above 6.5.

<sup>\*\*</sup>Under certain conditions (such as drought, prolonged cold weather, pH variability in the fields) temporary discoloration and/or crop injury may occur to STS soybeans or Ik corn planted after GLEAN® XP applications. These intervals do not apply to crops grown for seed. These intervals may also be used for irrigated land.

corn planted after GLEAN® XP applications. These intervals do not apply to crops grown for seed. These intervals may also be used for irrigated land.

\*\*\*Where a CATASTROPHIC CROP LOSS has occurred after a GLEAN® XP application due to a natural disaster (such as freezing weather, hail damage, insect damage, disease damage), grain sorghum can be planted at 4 months where the soil pH is 7.5 to 7.5 or STS soybeans and IR corn where the soil pH is 7.5 to 7.9. These crops will have some level of temporary discoloration and/or crop injury if planted at this reduced interval after GLEAN® XP application. This potential damage and yield loss is accepted by the grower due to the critical need to get a crop planted after this emergency. Growers not willing to accept this level of potential early season crop injury and yield loss should follow the standard rotational guidelines in the table above. In some cases, this injury may be severe and may affect the crop growth, development, and yield. The severity of the injury increases with higher pH levels, higher applied GLEAN® XP rate, drier soil conditions after GLEAN® XP application and prior to planting the rotational crop, and the shorter the rotational interval. Note: Do not plant sorghum grown for hybrid seed production.

<sup>†</sup>These intervals may also be used for irrigated land.

#### SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The user is responsible for considering all these factors when making application decisions. Follow the additional precautions below to minimize the potential for spray drift.

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

#### **Drift Control Adjuvants**

A drift control adjuvant may be used to reduce the potential for drift. However, because it is the combined physical-chemical properties of all the ingredients in the spray mix that can determine drift potential, the applicator must confirm that the drift control adjuvant used is having the desired effect with the tank mix that is being applied. If a drift control adjuvant is used, follow the use directions and precautions on the manufacturer's label. Do not use an adjuvant which increases viscosity with application systems that cannot accommodate viscous sprays.

Ground Application: With ground equipment, spray drift can be lessened by keeping the spray boom as low as possible (i.e., a release height of 4 feet or less above the application target); by applying 10 gallons or more of spray per acre; by keeping the operating spray pressures at the manufacturer's recommended minimum pressures for the specific nozzle type used; and by spraying when the wind velocity is low (follow all applicable state regulations).

Do not make ground applications within a surface temperature inversion when applying near an area requiring protection to avoid an unreasonable adverse effect. Applicators may determine presence of an inversion by noting the presence of ground fog, light variable wind, or layering of smoke and dust. Be particularly alert to the potential for a surface temperature inversion when winds are calm.

Direct the sprays no higher than the tops of target vegetation, and maintain spray pressures at levels which provide coarse to very coarse spray droplets to minimize drift.

**Aerial Application**: The following drift management requirements must be followed to avoid off-target drift movement from aerial applications:

- 1. The distance between the outer most operating nozzles on the boom must not exceed 75% of the wingspan. For helicopters, use a boom length and position that prevents droplets from entering the rotor vortices.
- 2. Nozzles should always point backward parallel with the air stream

Where states have more stringent regulations, they must be observed. The applicator should be familiar with and take into account the information presented below.

#### IMPORTANCE OF DROPLET SIZE

Since the most effective way to reduce drift potential is to apply large droplets (>150-200 microns), equipment producing a coarse to very coarse droplet spectrum must be used when applying this product. The best drift management strategy is to apply the coarsest drop size spectrum that provides 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 – Ground Application

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure Do not exceed the manufacturer's recommended pressures. Use the lower spray pressures recommended for the nozzle. Higher pressure generally reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- Nozzle Type Use a nozzle type according to manufacturer's specifications which is designed for the intended application, and that produces a coarse to very coarse droplet size spectrum. With most nozzle types, narrower spray angles produce larger droplets. To further reduce drift, low-drift or drift reducing nozzles should be used.

#### Controlling Droplet Size - Aircraft

- Number of Nozzles Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- Nozzle Orientation For some nozzle types, such as solid streams, orienting nozzles so that the spray is emitted backwards, parallel to the air stream minimizes the effects of air shear and will produce a coarser droplet spectrum than other orientations. For applications of this product, nozzles must be oriented in a manner that results in the application of a coarse to very coarse droplet size spectrum.
- Nozzle Type Use a nozzle type according to manufacturer's specifications which is designed for the intended application. With most nozzle types, narrower spray angles produce larger, droplets. Solid stream and other drift reducing nozzles should be used.

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

- Boom Height (ground) Setting the boom at the lowest referenced height (if specified) which provides uniform coverage reduces the exposure of droplets to exaporation and wind. The boom should remain level with the cop and have minimal bounce. Apply at a height no greater than 4 feet above the top of the largest plants.
- Application Height (aircraft) Apply at a height no greater than 10 feet above the top of the largest plants, unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.
- Boom Length (aircraft) The distance between the outermost operating nozzles on the boom must not exceed 3/4

(75%) of the wingspan - longer booms increase drift potential. For helicopters, use a boom length and position that prevents droplets from entering the rotor vortices.

#### SWATH ADJUSTMENT

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the application equipment upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

#### WIND (GROUND AND AERIAL APPLICATION)

Drift potential is lowest with a sustained wind of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given wind speed. Application should be avoided during gusty conditions, and when winds are below 2 mph due to variable wind direction and high potential for a temperature inversion. Avoid applying during calm conditions which may be conducive to air inversions.

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

# TEMPERATURE AND HUMIDITY (GROUND AND AERIAL APPLICATIONS)

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

# SURFACE TEMPERATURE INVERSIONS (GROUND AND AERIAL APPLICATIONS)

Applications must not occur during a local, surface temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds which are common during inversions. Temperature inversions are characterized by increasing temperatures with height 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 the smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### 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.

Do not apply this product in a way that will contact workers or other people, either directly or through drift. Only protected handlers may be in the area during application.

#### SENSITIVE AREAS

This product should be applied only when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas). Small quantities of spray may seriously injure susceptible crops either during active growth periods or dormancy.

#### **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.

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.

Naturally occurring weed biotypes that are resistant to "Amber" herbicide, DuPont™ ALLY® herbicide, DuPont™ FINESSE® herbicide, DuPont™ EXPRESS® herbicide or DuPont™ HARMONY® Extra herbicide will also be resistant to DuPont™ GLEAN® XP.

#### 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.

#### **GENERAL PRECAUTIONS**

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, barley, or oat.

Crop 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 DuPont<sup>TM</sup> GLEAN® XP to a small area.

Do not apply GLEAN® XP to crops that are 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 to crops mixed with legumes, as injury to the legumes 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.

Only make one application of the active ingredient chlorsulfuron per crop season.

Preemergence weed control or suppression may be unsatisfactory on soils containing 5% or more organic matter.

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 postemergence to weeds when dry, dusty field conditions exist, control of weeds in wheel track areas may be reduced. The addition of 2,4-D or MCPA should improve weed control under these conditions.

In far-western Kansas (last tier of counties along the Colorado/Kansas border), Western Nebraska, Eastern New Mexico, and the Oklahoma and Texas panhandles, take the following precautions:

- Do not use a tank mix containing DuPont<sup>™</sup> ALLY® herbicide within 22 months of GLEAN® XP application.
- Do not use GLEAN® XP in continuous cereals or cereal/fallow/cereal rotations.
- GLEAN® XP in a tank mix at 1/6 to 1/3 oz per acre may be used only as a fallow treatment in corn or sorghum stubble in wheat/sorghum/fallow, or wheat/corn/fallow rotations where other residual broadleaf herbicides having different modes of action are used.

In California, Northern Idaho, Oregon, and Washington, take the following precautions:

- Do not make an early season treatment where a tank mix cannot be made.
- Do not apply GLEAN® XP during fallow.

#### Additional Precautions for Cereals

Wherever GLEAN® XP 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 or barley.

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 preemergence or early postemergence applications of GLEAN® XP.

The combined effects of the preemergence use of GLEAN® XP plus preemergence wild oat herbicides may cause crop injury to spring wheat when crop stress (soil crusting, planting too deep, prolonged cold, wet weather, or drought) causes poor seedling vigor.

Do not apply GLEAN® XP during boot or early heading as crop injury may result.

Do not harvest grain sooner than 45 days after the application of GLEAN® XP.

In the Pacific Northwest, to prevent crop injury due to cold weather, avoid making preemergence applications or early postemergence applications (2-4 leaf stage) to wheat or barley during late fall or winter when cold vication 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.

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by 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 HANDLING:

Refer to the Net Contents section of this product's labeling for the applicable "Refillable Container" or "Nonrefillable Container" designation.

Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Nonrefillable container. Do not reuse or refill this container. Pressure rinse as follows: Empty the remaining product contents into application equipment or a mix tank. Insert pressure rinsing nozzle in the container, and rinse at about 40 PSI for at least 30 seconds. Drain rinsate for 10 seconds after the flow begins to drip. Pour or pump rinsate into application equipment or rinsate collection system. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Paper or Plastic Bags, Fiber Sacks including Flexible Intermediate Bulk Containers (FIBC) or Fiber Drums With Liners: Nonrefillable container. Do not reuse or refill this container. Completely empty paper or plastic bag, fiber sack or drum liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer for recycling if available or dispose of empty paper or plastic bag, fiber sack or fiber drum and liner in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Refillable Fiber Drums With Liners: Refillable container (fiber drum only). Refill this container with DuPont™ GLEAN® XP containing chlorsulfuron only. Do not reuse this container for any other purpose. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. Cleaning the container (fiber drum) before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container (fiber drum) before final disposal, completely empty container by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the container for recycling if available or dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

All Other Refillable Containers: Refillable container. Refill this container with DuPont™ GLEAN® XP containing chlorsulfuron only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. Check for leaks after refilling and before transporting.

**Outer Pouches of Water Soluble Packets (WSP):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or, dispose of the empty outer foil pouch in the trash as long as WSP is unbroken. If the outer pouch contacts the formulated product in any way, the pouch must be triple rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer pouch as described previously.

Do not transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact DuPont at 1-800-441-3637, day or night.

NOTICE TO BUYER: Purchase of this material does not confer any rights under patents of countries outside of the United States.

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#### LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read this Limitation of Warranty and Liability Before Buying or Using This Product. If the Terms Are Not Acceptable, Return the Product at Once, Unopened, and the Purchase Price Will Be Refunded.

It is impossible to eliminate all risks associated with the use of this product. Such risks arise from weather conditions, soil factors, off target movement, unconventional farming techniques, presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of DuPont. These risks can cause: ineffectiveness of the product, crop injury, or injury to non-target crops or plants. WHEN YOU BUY OR USE THIS PRODUCT, YOU AGREE TO ACCEPT THESE RISKS.

DuPont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purpose stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions.

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To the extent consistent with applicable law that allows such requirement, DuPont or its Ag Retailer must have prompt notice of any claim so that an immediate inspection of buyer's or user's growing crops can be made. Buyer and all users shall promptly notify DuPont or a DuPont Ag Retailer of any claims, whether based on contract, negligence, strict liability, other tort or otherwise, or be barred from any remedy.

This Limitation of Warranty and Liability may not be amended by any oral or written agreement.

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# NEXT

# LABEL



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Richard J. Ambrose
E. I. du Pont de Nemours and Company
DuPont Crop Protection
Stine-Haskell Research Center
P.O. Box 30
Newark, DE 19714

JAN 6 2009

Subject:

Label Amendment – Incorporating Supplemental Labeling

DuPont Glean XP Herbicide

EPA Reg. No. 352-653

Application Dated September 29, 2008

#### Dear Mr. Ambrose:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable, provided you make the following changes before you release the product for shipment.

- 1. Change the heading "Inert Ingredients" to "Other Ingredients".
- 2. Add the text "(PPE)" immediately following the Personal Protective Equipment heading.
- 3. Revise the User Safety Requirements sentence to read "If no such instructions for washables exist, use detergent and hot water."
- 4. On page 2, revise the text to read "GLEAN XP must be used only in accordance with directions on this label or in separate published DuPont directions.", and "DuPont will not be responsible for...not specifically directed by DuPont."
- 5. On page 3, revise the text to read "GLEAN XP is **used** for the control or suppression of broadleaf weeds in wheat (including Durum), barley, triticale, and oat."
- 6. With the exception of drift-related text appearing in the Environmental Hazards ("Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas") and General Precautions and Restrictions ("Do not apply this product in a way that will contact workers or other persons, either directly or through drift"), all drift text appearing on the label must be placed together and be located below the following required text. Any conflicting text must be deleted from the label. Spray drift text must be added to the label which reads:

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#### "Spray Drift Management

Avoid drift at the application site. This product should be applied only when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops, native plant communities) is minimal (e.g. when wind is blowing away from the sensitive areas). Avoid application under conditions that may allow spray drift since very small quantities of spray may seriously injure susceptible crops during either active growth periods or dormancy. Follow the additional precautions below to minimize the potential for spray drift.

The interaction of many equipment and weather-related factors determines the potential for spray drift. The user is responsible for considering all these factors when making application decisions.

Where states have more stringent regulations, they must be observed. The applicator should be familiar and take into account the information covered in the following:

#### **Drift Control Adjuvants**

A drift control adjuvant may be used to further reduce the potential for drift. If a drift control adjuvant is used, follow the use directions and precautions on the manufacturer's label. Do not use an adjuvant which increases viscosity with Microfoil, Thru-Valve booms, or other systems that cannot accommodate viscous sprays.

#### **Controlling Droplet Size:**

#### Nozzle Type

Use a nozzle type according to manufacturer's specifications that is designed for the intended application and produces a Coarse to Very Coarse droplet size spectrum (ASAE S572) under application conditions. Applicators must consider nozzle orientation, nozzle pressure, and flight speed in determining droplet size. Nozzles should always be oriented in the manner that minimizes the effects of air shear. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

#### **Pressure**

Do not exceed the nozzle manufacturer's recommended pressures. When higher flow rates are needed, use a higher-capacity nozzle instead of increasing pressure.

#### **Swath Adjustment**

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the application equipment upwind. Swath adjustment distance should increase with increasing drift potential.

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#### Wind

Drift potential is lowest with a sustained wind between 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given wind speed. Application should be avoided during gusty conditions, and when winds are below 2 mph due to variable wind direction and high potential for a temperature inversion. Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

#### Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

#### **Surface Temperature Inversions**

Applications must not occur during a local, surface temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds which are common during inversions. Temperature inversions 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 the smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### For ground application:

#### **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.

#### Boom Length/Height

Setting the boom at the lowest referenced height (if specified) 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. Limit nozzle height to no greater than 4 feet above the top of the largest plants.

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#### For aerial application:

#### **Application Height**

Application more than 10 ft. above the canopy increases the potential for spray drift. Make applications no higher than 10 feet above the top of the target vegetation, unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

#### **Boom Length**

The boom length must not exceed 75% of the wing span for fixed wing aircraft or 90% for rotor blade helicopters. Using shorter booms decreases drift potential."

- 7. Revise the Precaution "Only make one application...per crop season." to read "Do not make more than one application of this product per growing season."
- 8. Revise the Container Handling instructions for Nonrefillable Plastic and Metal Containers in IBC by adding the following.

"Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water, rinsing down all sides inside the container thoroughly. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining product...approved by state and local authorities."

9. Under the Supplemental Label "For Use in Montana and Northern Wyoming when Foxtail is the Targeted Weed", remove the instructions for split applications, as it exceeds the one application per growing season restriction for cereal grains.

The following texts must be removed:

- i) Under Preplant Incorporation (PPI) and Preplant Surface (PPS) Applications to Early Seeded Winter Wheat, the precaution "In high rainfall situations...a second application may be needed in the Spring. Refer to instructions for split applications."
- ii) Under Preemergence (After Planting) to Winter Wheat (Including Durum), the precaution "In high rainfall situations...a second application may be needed in the Spring. Refer to instructions for split applications."
- iii) Split-Treatment to Wheat directions and Precautions.

Page 5 EPA Reg. No. 352-653

Submit one (1) copy of final printed labeling incorporating the above changes before you release the product for shipment.

Please note that this stamped product labeling and the supplemental labeling titled "For Use in Montana and Northern Wyoming when Foxtail is the Targeted Weed" will supercede all previously accepted ones, including supplemental labeling.

A stamped copy of labeling is enclosed for your records.

Sincerely,

Jim Tompkins
Product Manager 25

Herbicide Branch

Registration Division (7505P)

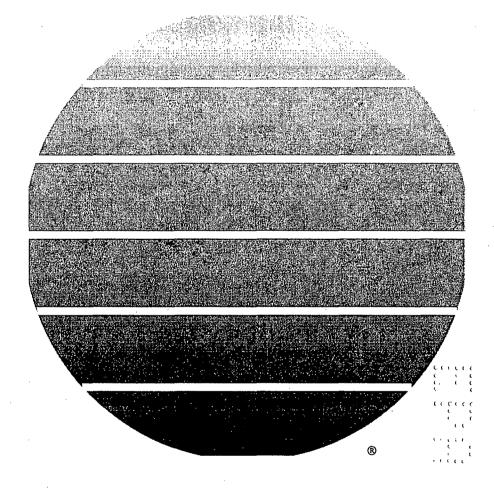
Enclosure



# DuPont<sup>TM</sup> Glean® XP

herbicide

# DRAFT LABEL



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

#### DUPONT™ GLEAN® XP HERBICIDE HIGHLIGHTS

- For preemergence weed control in winter wheat and winter oat.
- For selective postemergence broadleaf weed control in wheat, barley, tritcale, oat, and CRP grasses.
- Postemergence rates are 1/6 to 1/3 ounce per acre (see APPLICATION information).
- Apply postemergence to wheat, barley and oat from the 2-leaf stage but before boot (2-leaf to before flag leaf is visible on spring cereal crops in Pacific Northwest).
- May be applied by ground or by air.
- Use in tank mixtures with other registered herbicides for broader spectrum weed control (see TANK MIXTURES).
- Recommended for land primarily dedicated to long-term production of wheat, barley or oat (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>™</sup> **Glean®XP**

#### herbicide

Dry flowable

For Use on Wheat, Barley, Oat, Triticale, and CRP Grasses

Active Ingredient	By Weigh
Chlorsulfuron	
2-Chloro-N-[(4-metho	xy-6-methyl-
1,3,5-triazin-2-yl)amin	ocarbonyl]
benzenesulfonamide	75%
Inert Ingredients	25%
TOTAL	100%
EPA Reg. No. 352-653	EPA Est. No.
Nonrefillable Container	_
Net:	ACCEPTED with COMMENTS
OR	in EPA Letter Deted
Refillable Container	JAN - 6, 2009
Net:	Under the Federal Insectioide, Fungicide, and Rodenticide Act as amended, for the posticide registered under EPA Reg. No.

### KEEP OUT OF REACH OF CHILDREN

*3*5२-653

### CAUTION

#### **FIRST AID**

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything to an unconscious person.

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. 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.

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION!** Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

#### 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.

Mixers, loaders, applicators, and other handlers must wear:

Long-sleeved shirt and long pants Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride. 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 STATEMENTS**

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. IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "Applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment break-down.

#### **USER SAFETY RECOMMENDATIONS**

Users should wash hands before eating, crinking, cheving gum, using tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on cleán clithing. Users should remove PPE immediately after handling this control 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 contaminate water by cleaning of equipment or disposing of equipment washwaters or rinsate.

#### **IMPORTANT**

DuPont<sup>TM</sup> GLEAN® XP herbicide (GLEAN® XP) is recommended for use on land primarily dedicated to the long-term production of wheat, barley, or out

#### PESTICIDE HANDLING

- Calibrate sprayers only with clean water away from the well site.
- · Make scheduled checks of spray equipment.
- Ensure that all operation employees accurately measure pesticides.
- · 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 or mixing/loading station.
- Dilute and agitate excess solution and apply at labeled rates or uses.
- · Avoid storage of pesticides near well sites.
- When triple rinsing the pesticide container, be sure to add the rinsate to the spray mix.

#### 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 4 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 made of any waterproof material.

Shoes plus socks.

GLEAN® XP 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.

#### GENERAL INFORMATION

GLEAN® XP is a dry-flowable granule that controls many broadleaf weeds. GLEAN® XP is mixed in water or directly into liquid nitrogen fertilizer solutions and applied as a uniform broadcast spray. A surfactant should be used in the spray mix unless otherwise specified on this label.

Note: For definitions of portions of States recommended on this label, see listings of counties or area definitions on **Crop Rotation Interval** charts of this label.

GLEAN® XP is noncorrosive, nonflammable, nonvolatile, and does not freeze.

GLEAN® XP controls weeds by both preemergence and postemergence activity. For best preemergence results, apply GLEAN® XP before weed seeds germinate. Use sprinkler irrigation or allow rainfall to move GLEAN® XP 2 to 3" deep into the soil profile.

For best postemergence results, apply GLEAN® XP to young, actively growing weeds. The use rate depends upon the weed spectrum and size of weeds at time of application. 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

GLEAN® XP is absorbed through the roots and foliage of broadleaf weeds, rapidly inhibiting their growth. One to three weeks after application to weeds, leaves of susceptible plants appear chlorotic, and the growing point subsequently dies.

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

GLEAN® XP may injure crops that are stressed from adverse environmental conditions (such as extreme temperatures or moisture), abnormal soil conditions, insect pressure, or cultural practices. In addition, different verieties of the crop may be sensitive to treatment with GLFAN® XP under otherwise normal conditions. Treatment of such varieties may result in crop injury.

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 GLEAN® XP.

Rainfall is needed to move DuPont<sup>TM</sup> GLEAN® XP into the soil for preemergence weed control, but postemergence weed control may be reduced if rainfall occurs soon after application.

#### Frequency of Application

GLEAN® XP can be used as either pre or postemergence application once per crop period, but not both pre and post in the same season.

#### **CEREALS APPLICATIONS**

GLEAN® XP is recommended for the control or suppression of broadleaf weeds in wheat (including Durum), barley, triticale, and oat.

#### Postemergence

Apply GLEAN® XP at 1/6 to 1/3 oz per acre for postemergence weed control in wheat (including Durum\*), barley, triticale, and oat.

Use 1/6 oz per acre for short-term control or suppression; use 1/3 oz per acre for contact and residual weed control. Where soil pH is 6.5 or lower, use 1/3 oz per acre where maximum soil residual weed control is desired. Do not use less than 1/6 oz per acre.

Apply in the fall or spring anytime after the crop is in the 2-leaf stage but before boot (before flag leaf for triticale). Applications during or after boot may result in crop injury.

In the Pacific Northwest, apply GLEAN® XP to spring cereals anytime from the 2-leaf stage through the second joint stage but before the flag leaf is visible.

In areas with severe winter weather, do not apply GLEAN® XP during late fall, winter, or early spring unless crop is well established and has started to tiller or crop injury may result.

GLEAN® XP should not be used within 60 days of crop emergence where organophosphate insecticides have been used as an in-furrow treatment or crop injury may result.

\*Note: Apply to Vic durum after early tillering but before boot.

#### Preemergence

Apply GLEAN® XP at 1/3 oz per acre for preemergence weed control in winter oat and winter wheat.

In North Central Texas and Southern Oklahoma, apply GLEAN® XP at 1/2 oz per acre for suppression of annual ryegrass in winter oat and winter wheat.

Apply GLEAN® XP after planting seed, but before the crop emerges. Rainfall or sprinkler irrigation following treatment is necessary to activate GLEAN® XP before weed seeds germinate and develop an established root system. Wheat and oat seeds should be planted at least 1" deep.

Do not apply GLEAN® XP preemergence if cold or dry weather conditions exist. Wait until the weather improves and the crop is growing vigorously before making the application (See Postemergence). Preemergence applications of GLEAN® XP are not recommended where organophosphate insecticides have been used as an infurrow treatment, as crop injury may result.

Do not apply GLEAN® XP preemergence to barley or triticale.

#### CRP APPLICATIONS

GLEAN® XP is recommended for control of broadleaf weeds in the following perennial native or improved grasses grown on land enrolled in the Conservation Reserve Program (CRP):

Bentgrasses Sheep fescue Blue Grama Sideoats grama Bluestems -Switchgrass - blackwell big Tall fescue little Wheatgrasses plains bluebunch crested sand WW spar intermediate Buffalograss pubescent Siberian Green sprangletop Indiangrass slender Kleingrass streambank Lovegrasses tall atherstone thickspike sand western Wildrye grass - Russian weeping beardless wilman Orchardgrass

Maximize potential for grass establishment by consulting with the Natural Resources Conservation Service (NRCS) or other local experts concerning planting techniques and other cultural practices. Because newly planted CRP grass stands do not sufficiently compete with weeds and because weed pressure in CRP fields is often severe, performance from GLEAN® XP may not always be satisfactory. An additional herbicide application or mowing may be needed.

#### Preplant (prior to planting)

GLEAN® XP may be applied at 1/6 to 1/3 oz per acre to all labelled grasses except bentgrasses, kleingrass, orchardgrass, plains and WW Spar bluestems, and sheep fescue. The 1/3 oz rate should be used for preemergence applications where residual weed control is important.

If weeds are emerged at time of application, apply GLEAN® XP with another herbicide having a different mode of action such as glyphosate. Read and follow all use instructions, label rates, warnings, and precautions for companion herbicides.

#### Early postemergence to new plantings

GLEAN® XP may be applied at 1/6 to 1/4 oz per acre to all labelled grasses except bentgrasses, orchardgrass; plains and WW Spar bluestems. Because grass specifes differ in time of emergence, apply only after the majority of grasses are in the 3 to 4 leaf stage.

If weeds are emerged at time of application, apply GLEAN® XP with another broadleaf herbicide having a different mode of action such as 2,4-D or dicamba. Read and follow all use instructions, label rates, warnings, and precautions for companion herbicides.

#### Early postemergence to established stands

DuPont™ GLEAN® XP may be applied at 1/6 to 1/4 oz per acre on all labelled grasses (except bentgrasses, kleingrass, orchardgras, plains, and WW Spar bluestems, and sheep fescue) when the majority of the grasses have one or more leaves. If stand shows signs of winter stress or a lack of vigor, do not treat as grass injury may result.

If weeds are emerged at time of application, apply GLEAN® XP with another broadleaf herbicide having a different mode of action such as 2,4-D or dicamba. Read and follow all use instructions, label rates, warnings, and precautions for companion herbicides.

#### Late postemergence to established stands

GLEAN® XP may be applied at 1/6 to 1/3 oz per acre on all labelled grasses (make applications to beardless wildrye grass only in the spring after tillering). If stand shows signs of stress or a lack of vigor, do not treat as grass injury may result.

If weeds are emerged at time of application, apply GLEAN® XP with another broadleaf herbicide having a different mode of action such as 2,4-D or dicamba. Read and follow all use instructions, label rates, warnings, and precautions for companion herbicides.

# TALL FESCUE GROWN FOR SEED APPLICATIONS

GLEAN® XP is recommended for control of broadleaf weeds in Tall Fescue grown for seed in KS, OR, and WA. Apply GLEAN® XP at 1/4 oz per acre in late summer to early fall after harvest. If weeds are present, add a non-ionic surfactant at 1 qt. per 100 gallons of spray solution. To maximize crop safety, add 0.5 to 1.0 lb. active ingredient of 2,4-D, and apply when Tall Fescue has less than 6" new foliar growth.

Treatment with GLEAN® XP may reduce the height of Tall Fescue. In areas of spray overlap, crop height and yields may be reduced significantly. Applications made in the spring while Tall Fescue is actively growing can result in very significant crop damage. Spring germinating wild carrot may not be controlled by a fall application of GLEAN® XP. Do not mix GLEAN® XP with an organophosphate insecticide as severe crop injury may occur.

#### **BORDER AREA APPLICATIONS**

GLEAN® XP is recommended for control of broadleaf weeds in field border areas and fence lines. Apply GLEAN® XP at 1/4 to 1/2 oz per acre.

#### **SURFACTANTS**

Unless otherwise specified, add a nonionic surfactant having at least 80% active ingredient at 0.25 to 0.5% v/v (1 to 2 qt per 100 gal of spray solution).

The higher rate is particularly useful with spray volumes of 5 GPA or less and when using low rates of GLEAN® XP. Consult your Agricultural dealer or applicator for recommended surfactants.

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

Antifoaming agents may be used if needed.

#### **WEEDS CONTROLLED**

GLEAN® XP effectively controls the following weeds when applied at the rates shown:

#### 1/6 - 1/4 oz per acre

Blue mustard	Pineappleweed
Conical catchfly	Prostrate pigweed
Curly dock	Redroot pigweed
Cutleaf evening primrose	Shepherd's purse
Field pennycress	Smooth pigweed
Flixweed <sup>2</sup>	Tansymustard <sup>2</sup>
Hempnettle	Treacle mustard
Henbit	Tumble mustard (Jim Hill)
Mayweed	Waterpod
Miners lettuce	Wild mustard

#### 1/3 oz per acre

Bur beakchervil	Falseflax
Buttercup	Ladysthumb
Coast fiddleneck (tarweed)	Lambsquarters <sup>2</sup>
Common chickweed	Mouseear chickweed
Common groundsel	Purslane (common)
Corn spurry	Redstem filaree
Cow cockle	White cockle
False chamomile	Wild carrot
	Wild turnip

#### WEEDS PARTIALLY CONTROLLED'

GLEAN® XP partially controls the following weeds when applied at the rates shown:

#### 1/3 oz per acre

Annual ryegrass <sup>2</sup>	Prickly lettuce <sup>3</sup>
Bedstraw	Prostrate knotweed <sup>2</sup>
Canada thistle <sup>2</sup>	Russian thistle <sup>3, 4</sup>
Corn gromwell	Sunflower <sup>2</sup>
Downy brome <sup>2,5</sup>	Speedwell
Green foxtail (pigeongrass) <sup>5</sup>	Wild buckwheat <sup>2</sup>
Kochia <sup>3,4</sup>	Wild garlic/Wild onion2
Pennsylvania smartweed	Wild radish <sup>2</sup>
Persian Darnel <sup>2,5</sup>	Yellow foxtail <sup>2,5</sup>

- 1 Partially controlled weeds exhibit a visual reduction in numbers as well as a significant loss of vigor. For heiter results, use 1/3 oz GLEAN® XP per acre and include a tank-mix partner (refer to Tank Mixtures).
- 2 See Specific Weed Problems for more information.
- 3 Naturally occurring resistant biotypes of these weeds are known to occur in the Central Plains and the Pacific Northwest. See Tank Mixtures and Resistance for additional information.
- 4 Use GLEAN® XP to control these weeds in Central Kansas, Central Nebraska, Central Oklahoma, and North Central Texas only.
- 5 Use GLEAN® XP to suppress these weeds in MT, ND, SD and WY only.

#### SPECIFIC WEED PROBLEMS

Annual Ryegrass (Southeast Oklahoma, Central and North Central Texas): Apply DuPont™ GLEAN® XP preemergence at 1/2 oz per acre. One-half to 1" of rainfall is needed to move GLEAN® XP into the root zone of weeds prior to ryegrass emergence. Under abnormally wet conditions, fall applications may not adequately control ryegrass and/or broadleaf weeds that germinate in the spring.

Remove grazing cattle when fields are wet (muddy) to avoid disturbing the herbicide barrier.

Canada Thistle: Apply GLEAN® XP 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.

Downy Brome (MT, ND, SD and WY): Apply GLEAN® XP at 1/3 oz per acre in the fall for suppression of downy brome. Application before downy brome germinates is preferred. After emergence, best results are obtained if application is made before downy brome is more than 1" tall or beyond the 2 leaf stage. 1/2 to 1" of rainfall is needed to move GLEAN® XP into the weed root zone before the downy brome establishes a 2" root system.

Flixweed, Tansymustard (Northern Idaho, Oregon and Washington): For best postemergence results, tank mix GLEAN® XP at 1/3 oz per acre with another herbicide that is effective on these weeds, such as 2,4-D.

In all other areas, apply GLEAN® XP at 1/6 to 1/3 oz per acre 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, or use a tankmix treatment with 2,4-D or MCPA.

Foxtail/Pigeongrass (green and yellow) (MT, ND, SD and WY): Apply GLEAN® XP at 1/3 oz per acre in the fall or spring for suppression of these foxtail species. Application before the foxtail germinates is preferred. After emergence, best results are obtained if application is made before the foxtail is more than 1" tall or beyond the 2 leaf stage. 1/2 to 1" of rainfall is needed to move GLEAN® XP into the weed root zone before the foxtail reaches the 3 leaf stage.

Lambsquarters: For best results, apply 1/3 oz per acre GLEAN® XP in the fall.

For best postemergence suppression, apply GLEAN® XP plus either 2,4-D or MCPA 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. Add surfactant at 1/2 to 1 qt per 100 gal of spray solution. Ensure thorough spray coverage.

Persian Darnel (MT, ND, SD and WY): Apply GLEAN® XP at 1/3 oz per acre in the fall or spring for suppression of Persian darnel. Application before the Persian darnel germinates is preferred. After emergence, best results are obtained if application is made before the Persian darnel is beyond the 2 leaf stage. 1/2 to 1" of rainfall is needed to move GLEAN® XP into the weed root zone before the Persian darnel reaches the 3 leaf stage.

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

Sunflower (New Mexico, Oklahoma Panhandle, and Texas): For best results, apply GLEAN® XP after the majority of sunflowers have emerged, are actively growing, and are not more than 2" tall. Add surfactant at 2 qt per 100 gal of water. For preemergence applications, apply GLEAN® XP in early spring to allow rainfall to move GLEAN® XP into the weed root zone before weeds germinate or develop an established root system.

Wild Buckwheat: For best results, apply GLEAN® XP preemergence to wild buckwheat. For postemergence applications, tank mix with either 2,4-D, MCPA, dicamba, or bromoxynil and a surfactant and apply after the majority of seedlings have emerged and are actively growing.

Wild Garlic/Wild Onion: GLEAN® XP provides aerial bulblet control only.

Wild Radish: For best results, apply postemergence.

#### TANK MIXTURES

GLEAN® XP may be tank mixed with other suitable registered herbicides to control weeds listed under Weeds Partially Controlled, weeds resistant to GLEAN® XP, or weeds not listed under Weeds Controlled. GLEAN® XP may also be tank mixed with other suitable registered insecticides, fungicides, and liquid fertilizers. Read and follow all manufacturer's label recommendations for the companion product. If those recommendations conflict with this label, do not tank mix with GLEAN® XP.

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

GLEAN® XP may be tank mixed with 2,4-D or MCPA (preferably ester formulations) herbicides after weeds have emerged. For best results, use 1/6 to 1/3 oz of GLEAN® XP per acre; add 2,4-D or MCPA herbicides to the tank at 1/4 to 1/2 lb active ingredient. Surfactant may be added to the mixture at 1/2 to 1 qt per 100 gal of spray solution; however, adding surfactant may increase the potential for crop injury. Do not add a surfactant when GLEAN® XP plus 2,4-D or MCPA is applied with liquid fertilizer.

Apply GLEAN® XP plus MCPA after the 3- to 5-leaf stage but before boot. Apply GLEAN® XP plus 2,4-D after tillering (refer to appropriate 2,4-D's manufacturer's label), but before boot. Applying a tank mixture of GLEAN® XP and 2,4-D or MCPA, with liquid fertilizate when temperatures are below freezing or when the crops stressed from cold weather just prior to winter dormancy can result in severe foliar burn and/or crop injury.

Do not apply GLEAN® XP plus 2,4-D or MCPA in combination with organophosphate insecticides.

### With diuron (such as KARMEX® XP)

In the Pacific Northwest where prickly lettuce, corn grom well, annual ryegrass and annual bluegrass are the main weed problems, apply 0.4 to 1.2 lb ai KARMEX® XP with GLEAN® XP. Apply preemergence or postemergence to actively growing weeds less than 2" tall or 2" across. One-half to 1" rainfall is needed within 1 to 2 weeks after application.

# With fluroxypyr containing products (such as Starane, Starane NXT, Starane + Salvo, Starane + Sword)

For improved control of kochia, Russian thistle, mustards, and wild buckwheat, DuPont<sup>TM</sup> GLEAN® XP may be tank mixed with 1/3 to 1 1/3 pints per acre of Starane, 14 to 21 ounces per acre of Starane NXT, 2/3 to 2 2/3 pints per acre of Starane + Salvo, or 3/4 to 2 3/4 pints per acre of Starane + Sword.

# With "Everest"

GLEAN® XP may be tank mixed with Everest herbicide for improved control of grassy weeds in wheat. For Winter Wheat, apply in the fall or spring any time after the crop has two leaves on the main stem but before jointing begins. To reduce the potential for crop injury, treat late-seeded winter wheat after the crop has started to tiller but before jointing.

For Spring Wheat, apply any time 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. Do not apply to durum wheat. The addition of 0.25 to 0.75 pints per acre of 2,4-D (4 lbgal) or 2 to 4 floz per acre of dicamba (4 lbgal) to the GLEAN® XP plus Everest tank mix is required when applying to spring wheat.

#### With "Maverick"

GLEAN® XP may be tank mixed with Maverick herbicide for improved control of grassy weeds in wheat. Apply GLEAN® XP with 2/3 oz per acre of Maverick herbicide with 0.5% volume/volume (2 quarts per 100 gal of spray solution) of non-ionic surfactant (NIS). This tank mix may also include bromoxynil or fluroxypyr products for greater spectrum broadleaf control.

#### With metribuzin

Use 1/6 to 1/3 oz per acre of GLEAN® XP with 1 to 10 2/3 oz of metribuzin per acre. Metribuzin is recommended to control downy brome and cheatgrass in winter wheat in Kansas, Idaho, Oklahoma, Oregon, Texas, and Washington or to broaden the spectrum of weeds controlled. Use GLEAN® XP with low rates of metribuzin (1 to 4 oz) when winter wheat is at the 2-leaf to 3 tiller stage.

Higher rates of metribuzin (4 or more oz) should be used in combination with GLEAN® XP after the crop has at least 3 tillers and has a 2" secondary root system and is actively growing.

GLEAN® XP plus metribuzin is recommended for barley in Idaho, Oregon and Washington only.

# With Other Herbicides

For broader spectrum weed control, GLEAN® XP can be tank mixed with other herbicides including products containing bomoxynil, dicamba, and clopyralid.

When tank mixing GLEAN® XP and "Assert", always include another broadleaf herbicide having a different mode of action (such as 2,4-D, MCPA, or bromoxynil)). Tank mix applications of GLEAN® XP plus "Assert" may cause temporary discoloration/stunting or injury to the crop when heavy rainfall occurs shortly after the application.

#### With Insecticides

GLEAN® XP may be tank mixed with insecticides. 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 GLEAN® XP 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 GLEAN® XP plus Malathion, as crop injury may result. Do not apply GLEAN® XP 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.

# With Fungicides

GLEAN® XP may be tank mixed with DuPont<sup>TM</sup> MANZATE® Pro-Stick<sup>TM</sup> fungicide or other fungicides whenever the proper timing for herbicide and fungicide treatments coincide.

# With Liquid Fertilizer

GLEAN® XP may be tank mixed with liquid fertilizer for application to crops. Note that adding surfactant to tank mixtures of GLEAN® XP and liquid fertilizer increases the risk of crop injury. Therefore, before mixing GLEAN® XP with fertilizer, check the compatibility of the tank mix on a small area before treating the entire crop.

Do not use GLEAN® XP with liquid fertilizers having a pH of 3.0 or less, as rapid product degradation can result.

Note: Liquid fertilizers are significantly heavier than water per gal of liquid; therefore, to maintain proper spray volumes, adjust the nozzle type and nozzle pressure as necessary. Consult fertilizer solution suppliers and/or sprayer systems company catalogs to determine the appropriate spray nozzles.

# GENERAL APPLICATION INFORMATION 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 air or ground 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 GLEAN® XP in suspension.

#### GROUND APPLICATION

To obtain optimum spray distribution and thorough coverage, use flat-fan or low-volume flood nozzles.

When using flat-fan nozzles, use a spray volume of at least 3 gal per acre (GPA). When using flood jet or "Raindrop RA" nozzles, use higher spray volume (minimum 20 GPA) to ensure thorough coverage. However, DuPont<sup>TM</sup> GLEAN® XP may not be applied at less than 10 GPA when using small orifice flooding nozzles such as flood jet TK 5 to TK 7.5 or equivalent. These flooding nozzles must be on a 30-inch spacing or not less than 13 GPA when on a 40-inch spacing. It is essential to overlap the nozzles 100% for all spacings.

Use screens that are 50-mesh or larger.

# AERIAL APPLICATION

Use nozzle types and arrangements that provide optimum spray distribution and maximum coverage at 1 to 5 GPA. Use at least 3 GPA in Idaho, Oregon, or Utah.

When applying GLEAN® XP by air in areas where sensitive crops are nearby, use solid stream nozzles oriented straight back. Adjust swath to avoid spray drift damage to downwind sensitive crops and/or use ground equipment to treat border edge of field. See "Spray Drift Management" section of this label.

# PRODUCT MEASUREMENT

GLEAN® XP is measured using the GLEAN® XP volumetric measuring cylinder. The degree of accuracy of this cylinder varies by  $\pm$  7.5 %. For more precise measurement, use scales calibrated in ounces.

# **MIXING INSTRUCTIONS**

- 1. Fill the tank 1/4 to 1/3 full of water (If using liquid nitrogen fertilizer solution in place of water, see Tank Mixtures sections for additional details).
- 2. While agitating, add the required amount of GLEAN® XP
- 3. Continue agitation until the GLEAN® XP is fully dispersed, at least 5 minutes.
- 4. Once the GLEAN® XP is fully dispersed, maintain agitation and continue filling tank with water. GLEAN® XP 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.
- If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
- 7. Apply GLEAN® XP spray mixture within 24 hours of mixing to avoid product degradation.
- 8. If GLEAN® XP and a tank mix partner are to be applied in multiple loads, pre-slurry the GLEAN® XP in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of the GLEAN® XP.

Do not use GLEAN® XP with spray additives that reduce the pH of the spray solution to below 3.0.

# SPRAYER CLEANUP

# Before Spraying GLEAN® XP

Spray equipment must be cleaned before GLEAN® XP 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 GLEAN® XP section on this label.

### At the End of the Day

When multiple loads of GLEAN® XP 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 GLEAN® XP and Before Spraying Crops Not Labelled for a GLEAN® XP Application

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of GLEAN® XP as follows:

- 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 ammoria. Solution or a cleaner which dissolves and removes sulfonylurea herbicide residues can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions.

### Notes:

- Caution: Do not use chlorine bleach with ammonia as dangerous gases will form. Do not clean equipment in an enclosed area.
- Steam-cleaning aerial spray tanks is recommended prior to performing the above cleanout procedure to facilitate the removal of any caked deposits.

- When DuPont™ GLEAN® XP 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 GLEAN® XP and applications of other pesticides to GLEAN® XP-sensitive crops during the same spray season, it is recommended that a sprayer be dedicated to GLEAN® XP to further reduce the chance of crop injury.

# **GRAZING**

There are no grazing restrictions on GLEAN® XP.

# **CROP ROTATION**

Before using GLEAN® XP, carefully consider your crop rotation plans and options. For rotational flexibility, do not treat all of your wheat, barley, oat, or fallow acres at the same time.

### MINIMUM RECROPPING INTERVALS

Minimum recropping intervals\* are determined by the rate of breakdown of GLEAN® XP applied. GLEAN® XP 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 GLEAN® XP breakdown in soil, while high soil pH, low soil temperature, and low soil moisture slow GLEAN® XP 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.

### SOIL PH LIMITATIONS

GLEAN® XP 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, barley, or oat. In addition, other crops planted in high-pH soils can be extremely sensitive to low concentrations of GLEAN® XP.

# Checking Soil pH

Before using GLEAN® XP, 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.

# **BIOASSAY**

A field bioassay must be completed before rotating to crops not listed on this label or when rotating at intervals shorter than those listed in the Crop Rotation section.

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 GLEAN® XP. 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 agricultural dealer, state cooperative extension service, or DuPont representative, for information detailing field bioassay procedure.

# **Cereal Crops -- Recropping Intervals**

State	Crop	Soil pH	Application Rate (oz/A)	Rotation Interval (months)
AR, CO, DE, GA, KS,	wheat, rye, triticale	7.9 or lower	1/6 to 1/3	0
MD, MO, NC, NE,			1/2 (TX/OK only)	4
NM, OK, PA, SC, TX,	oat	7.9 or lower	1/6 to 1/2	10
VA, Southeastern WY	barley	7.9 or lower	1/6 to 1/3	10
MN, MT, ND, SD,	wheat, rye, triticale	7.9 or lower	1/6 to 1/3	0
WI, Northern WY	oat	7.9 or lower	1/6 to 1/3	10
	barley	6.5 or lower	1/6 to 1/3	10
		6.6 to 7.9	1/6 to 1/3	16
CA, ID, OR, UT, WA	wheat, rye, triticale	7.5 or lower	1/6 to 1/3	0
		7.6 to 7.9	1/6 to 1/3	4
	oat	7.5 or lower	1/6 to 1/3	10
		7.6 to 7.9	1/6 to 1/3	16
	barley	6.5 or lower	1/6 to 1/3	10
		6.6 to 7.5	1/6 to 1/3	16
		7.6 to 7.9	1/6 to 1/3	24

# **CRP** -- Recropping Intervals

State	Crop	Soil pH	Application Rate (oz/A)	Rotation Interval (months)	
AR, CA, CO, DE, GA,	all grasses*	7.9 or lower	1/6 to 1/3	2	
ID, KS, MD, MO, NC, NE, NM, OK, OR, PA, SC, TX, UT, VA, WA, Southeastern WY			1/2 (TX/OK only)	4	
MN, MT, ND, SD, WI,	all grasses*	6.5 or lower	1/6 to 1/3	2	
Northern WY		6.6 to 7.5	1/6 to 1/3	4 (	
	Wheatgrass* only	7.6 to 7.9	1/6 to 1/3	4	

<sup>\*</sup>The following grasses may be planted for Conservation Reserve Program (CRP) acres after the intervals specified in the table above:

Bentgrasses

Blue grama

Bluesterns - big, little, plains, sand, ww spar

Buffalograss

Galleta

Green needlegrass

Indiangrass

Indian ricegrass

Lovegrasses - sand, weeping

Orchardgrass (except Piaute)

Prairie sandreed

Sand dropseed

Sheep fescue

Sideoats grama

Switchgrass

Wheatgrasses - crested intermediate, pubescent, slender,

streambank, tall, thickspike, western

Wild ryegrasses - beardless, Russian

# Noncereal Crops -- Recropping Intervals -- Non Irrigated Land

Loc	ation			i	Cumulative	Rotation
State :	County or Area	Crop	Soil pH	Application Rate (oz/A)	Precipitation (Inches)	Interval (Months)
State	County or Area		7.9 or lower	1/6 to 1/3	25	(Wonths)
Arkansas	all areas	Sorghum, Soybeans	7.9 or lower	1/6 to 1/3	25	14
		STS soybeans**	7.5 or lower	1/6 to 1/3		6
Colorado	All areas	STS soybeans**, IR Corn**	7.5 or lower***	1/6 to 1/3		4
		Grain Sorghum†	7.2 or lower	1/6 to 1/4		4
			7.3 to 7.5***	1/6 to 1/4		6
	Adams, Arapahoe, Logan	Field Corn, Millets	7.5 or lower	1/6 to 1/3	30	24
	Morgan, Phillips, Sedgwick, Washington, Yuma	Field Corn, Millets	7.6 to 7.9	1/6 to 1/3	45	36
•	Eastern, CO	Grain Sorghum	7.5 or lower	1/4 to 1/3	45	36
			7.6 to 7.9	1/6 to 1/3	60	48
Georgia	all areas	STS soybeans**	7.5 or lower	1/6 to 1/3	<u></u> .	6
Idaho*	Northern counties	Pea (dry) ،	6.5 or lower	1/6 to 1/3	35	24
·	(Benewah, Bonner, Boundary, Clearwater, Idaho, Koontenai, Letah, Lewis and Nez Perce)	Lentils	6.5 or lower	1/6 to 1/3	50	36
Kansas	all areas	STS soybeans**, IR Com**	7.5 or lower***	1/6 to 1/3		4
	Western (W. of Hwy 183)	Grain Sorghum†	7.2 or lower	1/6 to 1/4		4
			7.3 to 7.5***	1/6 to 1/4		6
	Eastern (E. of Hwy 183)	Grain Sorghum†	7.5 or lower	1/6 to 1/3		4
	W. Central & Western	Grain Sorghum	7.5 or lower	1/6 to 1/3	21	14
	(generally West of Hwy. 183 to the Western edge of Grant, Kearny, Logan Rawlings, Stevens Thomas and Wichita counties		7.6 to 7.9	1/6 to 1/3	42	26
	Far Western (In the last	Grain Sorghum	7.5 or lower	1/6 to 1/3	36	26
	tier of counties along the KS/CO border (Cheyenne, Greeley, Hamilton, Morton, Sherman, Stanton, and Wallace)		7.6 to 7.9	1/6 to 1/3	60	48
Maryland	all areas	STS soybeans**	7.5 or lower	1/6 to 1/3	(	6
Montana	all areas	Safflower	7.9 or lower	1/6 to 1/3	39 , , , , (	34 (
Nebraska	all areas	STS soybeans**, IR Corn**	7.5 or lower***	1/6 to 1/3	(	ι 4 <sub>ς τ</sub>
	Western (W. of Hwy. 183)	Grain Sorghum†	7.2 or lower	1/6 to 1/4	((()	4
		Field Corn, Millets	7.3 to 7.5***	1/6 to 1/4	40	6 , 24
		Grain Sorghum, Soybeans	7.5 or lower 7.6 to 7.9	1/6 to 1/3 1/6 to 1/3	60	36
	Eastern (E. of Hwy. 183)	Grain Sorghum†	7.5 or lower	1/6 to 1/3	'	4
	S. Central (Franklin,	Grain Sorghum	7.9 or lower	1/6 to 1/3	25	14
	Nuckolls, Thayer	Soybeans	7.5 or lower	1/6 to 1/3	25	14
	and Webster counties)		7.6 to 7.9	1/6 to 1/3	46	26
New Mexico	all areas	Grain Sorghum	7.9 or lower	1/6 to 1/3	30	25
North Carolina	all areas	STS soybeans**	7.5 or lower	1/6 to 1/3		6

Location					Cumulative	Rotation	
State	County or Area	Crop	Soil pH	Application Rate (oz/A)	Precipitation (Inches)	Interval (Months)	
North Dakota	all areas	Safflower	7.9 or lower	1/6 to 1/3	. 45	34	
Oklahoma	all areas	STS soybeans**, IR Corn**	7.5 or lower***	1/6 to 1/3		4	
	panhandle	Grain Sorghum	7.2 or lower	1/6 to 1/4		4†	
			7.3 to 7.5***	1/6 to 1/4		6†	
			up to 7.9	up to 1/3	30	25	
	all areas except panhandle	Grain Sorghum†	7.5 or lower	1/6 to 1/3		4	
	Eastern (E. of Hwy 183)	Grain Sorghum, Cotton, Mung, Beans, Soybeans	7.9 or lower	1/6 to 1/2	25	14	
	Western (W. of Hwy 183 & E. of the Panhandle	Cotton, Grain Sorghum	7.9 or lower	1/6 to 1/3	25	14	
Oregon*	Northeastern counties	Pea (dry)	6.5 or lower	1/6 to 1/3	35	24	
	(Baker, Umatilla, Union, and Wallowa)	Lentils	6.5 or lower	1/6 to 1/3	50	36	
	West of Cascade Mountains†	Annual ryegrass, perennial ryegrass, crimson clover	6.5 or less	1/6 to 1/4	20	9 .	
		Red clover, snap beans, field com	6.5 or less	1/6 to 1/4	40 -	15	
South Carolina	all areas	STS soybeans**	7.5 or lower	1/6 to 1/3	-	6	
Texas	all areas	STS soybeans**, IR Corn**	7.5 or lower***	1/6 to 1/3		4	
	panhandle	Grain Sorghum	7.2 or lower	1/6 to 1/4		4†	
			7.3 - 7.5***	1/6 to 1/4		6†	
		·	up to 7.9	up to 1/3	30	25	
	all areas except panhandle	Grain Sorghum†	7.5 or lower	1/6 to 1/3		4	
	Eastern counties	Grain Sorghum, Cotton, Mung Beans, Soybeans	7.9 or lower	1/6 to 1/2	25	14	
	The Eastern counties are: Archer, Bell, Bosque, Bowie, Camp, Cass, Clay, Colin, Cooke, Coryell, Dallas, Delta, Denton, Ellis, Falls, Fannin, Franklin, Grayson, Hill, Hood, Hopkins, Hunt, Jack, Johnson, Kaufman, Lamar, Limestone, McLennan, Milam, Montague, Morris, Navarro, Palo Pinto, Parker, Rains, Red River, Robertson, Rockwall, Somervell, Tarrent, Titus, Upshur, Van Zandt, Wichita, Williamson, Wise, Wood and Young.						
	Central counties	Cotton, Grain	7.9 or lower	1/6 to 1/3	25	14	
		Sorghum	7.9 or lower	1/2	46	26	
	The Central counties are: Bayland Wilbarger.	lor, Callahan, Eastland,	Foard, Hardeman	, Haskell, Knox, Sha	ackelford, Stephens, T	(	
Virginia	all areas	STS soybeans**	7.5 or lower	1/6 to 1/3		6 6	
Washington*	Eastern counties (Asotin,	Pea (dry)	6.5 or lower	1/6 to 1/3	35 ( (	. 24 ,	
	Columbia, Garfield, Pend Oreille, Spokane, Stevens, Walla Walla, and Whitman)	Lentils	6.5 or lower	1/6 to 1/3	50	36	
Wyoming	Southeast	Proso and	7.5 or lower	1/6 to 1/3	30 ( ;	24 ,	
•	1.			· · · · · · · · · · · · · · · · · · ·	<del>                                     </del>		

Unless a crop rotation interval is specified, a field bioassay must be completed before rotating to any crop not listed. See Bioassay for information on conducting a field to the bioassay in target areas.

<sup>\*</sup>A field bioassay is required if soil pH is above 6.5.

\*\*Under certain conditions (such as drought, prolonged cold weather, pH variability in the fields) temporary discoloration and/or crop injury may occur to STS soybeais'or I'k com planted after GLEAN® XP applications. These intervals do not apply to crops grown for seed. These intervals may also be used for irrigated land.

<sup>\*\*\*</sup>Where a CATASTROPHIC CROP LOSS has occurred after a GLEAN® XP application due to a natural disaster (such as freezing weather, hail damage, insect damage, disease damage), grain sorghum can be planted at 4 months where the soil pH is 7.3 to 7.5 or STS soybeans and IR corn where the soil pH is 7.5 to 7.9. These crops will have some level of temporary discoloration and/or crop injury if planted at this reduced interval after GLEAN® XP application. This potential damage and yield loss is accepted by the grower due to the critical need to get a crop planted after this emergency. Growers not willing to accept this level of potential early season crop injury and yield loss should follow the standard rotational guidelines in the table above. In some cases, this injury may be severe and may affect the crop growth, development, and yield. The severity of the injury increases with higher pH levels, higher applied GLEAN® XP rate, drier soil conditions after GLEAN® XP application and prior to planting the rotational crop, and the shorter the rotational interval. Note: Do not plant sorghum grown for hybrid seed production.

<sup>†</sup>These intervals may also be used for irrigated land.

# SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The user is responsible for considering all these factors when making application decisions. Follow the additional precautions below to minimize the potential for spray drift.

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

# **Drift Control Adjuvants**

A drift control adjuvant may be used to reduce the potential for drift. However, because it is the combined physical-chemical properties of all the ingredients in the spray mix that can determine drift potential, the applicator must confirm that the drift control adjuvant used is having the desired effect with the tank mix that is being applied. If a drift control adjuvant is used, follow the use directions and precautions on the manufacturer's label. Do not use an adjuvant which increases viscosity with application systems that cannot accommodate viscous sprays.

Ground Application: With ground equipment, spray drift can be lessened by keeping the spray boom as low as possible (i.e., a release height of 4 feet or less above the application target); by applying 10 gallons or more of spray per acre; by keeping the operating spray pressures at the manufacturer's recommended minimum pressures for the specific nozzle type used; and by spraying when the wind velocity is low (follow all applicable state regulations).

Do not make ground applications within a surface temperature inversion when applying near an area requiring protection to avoid an unreasonable adverse effect. Applicators may determine presence of an inversion by noting the presence of ground fog, light variable wind, or layering of smoke and dust. Be particularly alert to the potential for a surface temperature inversion when winds are calm.

Direct the sprays no higher than the tops of target vegetation, and maintain spray pressures at levels which provide coarse to very coarse spray droplets to minimize drift.

Aerial Application: The following drift management requirements must be followed to avoid off-target drift movement from aerial applications:

- 1. The distance between the outer most operating nozzles on the boom must not exceed 75% of the wingspan. For helicopters, use a boom length and position that prevents droplets from entering the rotor vortices.
- 2. Nozzles should always point backward parallel with the air stream.

Where states have more stringent regulations, they must be observed. The applicator should be familiar with and take into account the information presented below.

# IMPORTANCE OF DROPLET SIZE

Since the most effective way to reduce drift potential is to apply large droplets (>150-200 microns), equipment producing a coarse to very coarse droplet spectrum must be used when applying this product. The best drift management strategy is to apply the coarsest drop size spectrum that provides 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 – Ground Application

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure Do not exceed the manufacturer's recommended pressures. Use the lower spray pressures recommended for the nozzle. Higher pressure generally reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- Nozzle Type Use a nozzle type according to manufacturer's specifications which is designed for the intended application, and that produces a coarse to very coarse droplet size spectrum. With most nozzle types, narrower spray angles produce larger droplets. To further reduce drift, low-drift or drift reducing nozzles should be used.

# Controlling Droplet Size - Aircraft

- Number of Nozzles Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- Nozzle Orientation For some nozzle types, such as solid streams, orienting nozzles so that the spray is emitted backwards, parallel to the air stream minimizes the effects of air shear and will produce a coarser droplet spectrum than other orientations. For applications of this product, nozzles must be oriented in a manner that results in the application of a coarse to very coarse droplet size spectrum.
- Nozzle Type Use a nozzle type according to manufacturer's specifications which is designed for the intended application. With most nozzle types, narrower spray angles produce-darger droplets. Solid stream and other drift reducing nozzles should be used.

# BOOM LENGTH AND HEIGHT

- Boom Height (ground) Setting the boom at the lowest referenced height (if specified) which provides uniform coverage reduces the exposure of droplet; to evaporation and wind. The boom should remain level with the crop and have minimal bounce. Apply at a height no greater than 4 feet.
- Application Height (aircraft) Apply at a height no greater than 10 feet above the top of the largest plants, unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.
- Boom Length (aircraft) The distance between the outermost operating nozzles on the boom must not exceed 3/4

(75%) of the wingspan - longer booms increase drift potential. For helicopters, use a boom length and position that prevents droplets from entering the rotor vortices.

# SWATH ADJUSTMENT

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the application equipment upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

# WIND (GROUND AND AERIAL APPLICATION)

Drift potential is lowest with a sustained wind of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given wind speed. Application should be avoided during gusty conditions, and when winds are below 2 mph due to variable wind direction and high potential for a temperature inversion. Avoid applying during calm conditions which may be conducive to air inversions.

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

# TEMPERATURE AND HUMIDITY (GROUND AND AERIAL APPLICATIONS)

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

# SURFACE TEMPERATURE INVERSIONS (GROUND AND AERIAL APPLICATIONS)

Applications must not occur during a local, surface temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds which are common during inversions. Temperature inversions are characterized by increasing temperatures with height 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 the smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

# 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.

Do not apply this product in a way that will contact workers or other people, either directly or through drift. Only protected handlers may be in the area during application.

# SENSITIVE AREAS

This product should be applied only when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas). Small quantities of spray may seriously injure susceptible crops either during active growth periods or dormancy.

# 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.

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.

Naturally occurring weed biotypes that are resistant to "Amber" herbicide, DuPont™ ALLY® herbicide, DuPont™ FINESSE® herbicide, DuPont™ EXPRESS® herbicide or DuPont™ HARMONY® Extra herbicide will also be resistant to DuPont™ GLEAN® XP.

# 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.

# **GENERAL PRECAUTIONS**

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, barley, or oat.

Crop 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 DuPont<sup>TM</sup> GLEAN® XP to a small area.

Do not apply GLEAN® XP to crops that are 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 to crops mixed with legumes, as injury to the legumes will result.

Do not apply to frozen ground where surface runoff may result.  $\dot{}$ 

Do not apply to snow-covered ground.

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

Only make one application of the active ingredient chlorsulfuron per crop season.

Preemergence weed control or suppression may be unsatisfactory on soils containing 5% or more organic matter.

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 postemergence to weeds when dry, dusty field conditions exist, control of weeds in wheel track areas may be reduced. The addition of 2,4-D or MCPA should improve weed control under these conditions.

In far-western Kansas (last tier of counties along the Colorado/Kansas border), Western Nebraska, Eastern New Mexico, and the Oklahoma and Texas panhandles, take the following precautions:

- Do not use a tank mix containing DuPont<sup>™</sup> ALLY® herbicide within 22 months of GLEAN® XP application.
- Do not use GLEAN® XP in continuous cereals or cereal/fallow/cereal rotations.
- GLEAN® XP in a tank mix at 1/6 to 1/3 oz per acre may be used only as a fallow treatment in corn or sorghum stubble in wheat/sorghum/fallow, or wheat/corn/fallow rotations where other residual broadleaf herbicides having different modes of action are used.

In California, Northern Idaho, Oregon, and Washington, take the following precautions:

- Do not make an early season treatment where a tank mix cannot be made.
- · Do not apply GLEAN® XP during fallow.

### Additional Precautions for Cereals

Wherever GLEAN® XP 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 or barley.

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 preemergence or early postemergence applications of GLEAN® XP.

The combined effects of the preemergence use of GLEAN® XP plus preemergence wild oat herbicides may cause crop injury to spring wheat when crop stress (soil crusting, planting too deep, prolonged cold, wet weather, or drought) causes poor seedling vigor.

Do not apply GLEAN® XP during boot or early heading as crop injury may result.

Do not harvest grain sooner than 45 days after the application of GLEAN® XP.

In the Pacific Northwest, to prevent crop injury due to cold weather, avoid making preemergence applications or early postemergence applications (2-4 leaf stage), to wheat of barley 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.

# STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by 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 HANDLING:

Refer to the Net Contents section of this product's labeling for the applicable "Refillable Container" or "Nonrefillable Container" designation.

Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities..

Nonrefillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Nonrefillable container. Do not reuse or refill this container. Pressure rinse as follows: Empty the remaining product contents into application equipment or a mix tank. Insert pressure rinsing nozzle in the container, and rinse at about 40 PSI for at least 30 seconds. Drain rinsate for 10 seconds after the flow begins to drip. Pour or pump rinsate into application equipment or rinsate collection system. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Paper or Plastic Bags, Fiber Sacks including Flexible Intermediate Bulk Containers (FIBC) or Fiber Drums With Liners: Nonrefillable container. Do not reuse or refill this container. Completely empty paper or plastic bag, fiber sack or drum liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer for recycling if available or dispose of empty paper or plastic bag, fiber sack or fiber drum and liner in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Refillable Fiber Drums With Liners: Refillable container (fiber drum only). Refill this container with DuPont™ GLEAN® XP containing chlorsulfuron only. Do not reuse this container for any other purpose. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. Cleaning the container (fiber drum) before final disposal is the responsibility of the person. disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container (fiber drum) before final disposal, completely empty container by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer; the container for recycling if available or (lispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

All Other Refillable Containers: Refillable container. Refill this container with DuPont™ GLEAN® XP containing chlorsulfuron only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. Check for leaks after refilling and before transporting.

Outer Pouches of Water Soluble Packets (WSP): Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or, dispose of the empty outer foil pouch in the trash as long as WSP is unbroken. If the outer pouch contacts the formulated product in any way, the pouch must be triple rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer pouch as described previously.

Do not transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact DuPont at 1-800-441-3637, day or night.

**NOTICE TO BUYER:** Purchase of this material does not confer any rights under patents of countries outside of the United States.

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# LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read this Limitation of Warranty and Liability Before Buying or Using This Product. If the Terms Are Not Acceptable, Return the Product at Once, Unopened, and the Purchase Price Will Be Refunded.

It is impossible to eliminate all risks associated with the use of this product. Such risks arise from weather conditions, soil factors, off target movement, unconventional farming techniques, presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of DuPont. These risks can cause: ineffectiveness of the product, crop injury, or injury to non-target crops or plants. WHEN YOU BUY OR USE THIS PRODUCT, YOU AGREE TO ACCEPT THESE RISKS.

DuPont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purpose stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, DUPONT MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL DUPONT OR SELLER BE LIABLE FOR ANY INCIDENTAL. CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. BUYER'S OR USER'S BARGAINED-FOR EXPECTATION IS CROP PROTECTION. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER AND THE EXCLUSIVE LIABILITY OF DUPONT OR SELLER, FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, TORT OR STRICT LIABILITY). WHETHER FROM FAILURE TO PERFORM OR INJURY TO CROPS OR OTHER PLANTS, AND RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT, OR AT THE ELECTION OF DUPONT OR SELLER, THE process REPLACEMENT OF THE PRODUCT.

To the extent consistent with applicable law that allows such requirement, DuPont or its Ag Retailer must have prompt notice of any claim so that all immediate inspection of buyer's or user's growing crops can be made. Buyer and all users shall promptly notify DuPont or a DuPont Ag Retailer of any claims, whether based on contract, negligence, strict liability, other fort or otherwise, or be barred from any remedy.

This Limitation of Warranty and Liability may not be amended by any oral or written agreement.

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# **DuPont Agricultural Products**

.... A Growing Partnership With Nature"

ACCEPTED with COMMENTS in EPA Letter Detect

JAN - 6 2009

Under the Pederal Insecticide, Fungioide, and Rodentioide Act as assembled, for the penticide registered under EPA Reg. No.

352-653

# Sul LEMENTAL LABELING

DUPONT™GLEAN® XP HERBICIDE FOR USE IN MONTANA AND NORTH-ERN WYOMING WHEN FOXTAIL IS THE TARGET WEED

# DUPONT™GLEAN® XP HERBICIDE

EPA Reg. No. 352-653

# FOR USE IN MONTANA AND NORTHERN WYOMING WHEN FOXTAIL IS THE TARGET WEED

# DIRECTIONS FOR USE

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

DuPont GLEAN® XP Herbicide should be used only in accordance with recommendations on this label, on the product container label, and/or in separate published DuPont recommendations available through local dealers.

DuPont will not be responsible for losses or damages resulting from the use of this product in any manner not specifically recommended by DuPont. User assumes all risks associated with such use.

# APPLICATION TECHNIQUES AND TIMING

# Preplant Incorporation (PPI) and Preplant Surface (PPS) Applications to Early Seeded Winter Wheat

NOTE: Preplant incorporation and preplant surface treatments are only recommended for early seeded winter wheat where growing conditions are favorable (good soil moisture, moderate temperatures) for good stand establishment prior to winter dormancy.

Apply GLEAN® XP as a uniform broadcast spray not more than 3 weeks prior to the anticipated planting of early seeded winter wheat.

Use 1/3 oz/acre. Winter wheat may be planted anytime after treatment.

INCORPORATION (PPI)--Follow spray application with shallow (not deeper than 3 to 4") mechanical incorporation. Use either single pass or double pass incorporation (second pass at right angle to first pass) with sweeps (duckfoot cultivator), spring tooth or field cultivator. Incorporation may be improved if a harrow is pulled behind the primary incorporation implement.

SEEDING AFTER EITHER PPI OR PPS TREATMENT - The use of disc type drills is recommended because of minimal soil disturbance. A hoe type drill may be used if drill spacing is not more than 10" wide and tractor speed is at least 5 mph. If a hoe drill is used, weed control results may be variable depending on amount of soil displacement in seed row. Where practical, a harrow pulled behind a hoe drill should increase the effectiveness of this treatment.

# **PRECAUTIONS**

- Because of variations in incorporation equipment and seeding techniques, it is recommended that growers limit first use of either PPI or PPS to a small area to be sure weed control results are satisfactory.
- Excessive displacement of treated soil may result in poor weed control in the seed row.
- Do not apply prior to late fall plantings as cold/dry weather can delay seedling emergence and reduce seedling vigor, making crop more vulnerable to the combination of herbicide and weather stress, resulting in crop injury.
- Do not make a preplant incorporated or preplant surface application prior to planting barley or spring oats.
- In high rainfall situations or on low pH soils (pH less than 6.5) a second application may be needed in the spring. Refer to instructions for split applications.

# Preemergence (After Planting) To Winter Wheat (Including Durum)

Apply GLEAN® XP at a rate of 1/3 oz/A for foxtail after planting, but before crop emergence. Rainfall or sprinkler irrigation following treatment is necessary to activate GLEAN® XP before weed seeds germinate and develop an established root system. Wheat must be planted at least 1" deep. For best results apply GLEAN® XP uniformly to a smooth seedbed.

Preemergence applications of GLEAN® XP are not recommended where organophosphate insecticides (such as DiSyston¹, etc.) have been used as an in-furrow treatment as crop injury may occur.

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When environmental conditions cause delayed seedling emergence and/or poor seedling vigor, delay post treatment irrigation until after the wheat is actively growing and is showing good vigor.

# **PRECAUTIONS**

- Do not apply preemergence to late fall seedlings when cold and/or dry weather can delay seedling emergence and reduce seedling vigor. If these conditions exist, delay treatment until crop has emerged and weather conditions allow active wheat growth and wheat is showing good vigor.
- Do not apply preemergence (fall or spring) to irrigated durum wheat
- Do not apply preemergence (fall or spring) to barley, spring oats or wampum variety of spring wheat as crop injury may result
- In high rainfall situations or on low pH soils (pH less than 6.5) a second application may be needed in the spring. Refer to instructions for split applications.

# **Split-Treatment To Wheat**

GLEAN® XP can be applied fall postemergence plus spring postemergence provided that each application is made with another broadleaf herbicide. Allow at least 30 days between treatments. Do not make more than 2 treatments per crop. Apply last application before boot stage. Base recropping interval on date of last application and total amount of GLEAN® XP used.

# **PRECAUTIONS**

• Do not make an early postemergence treatment to late seeded wheat or barley as the combined effect of herbicide stress plus cold weather results in temporary yellowing and stunting and may result in crop injury. Delay making a postemergence treatment to late seeded wheat or barley until crop has started to tiller.

# Fall Application Prior to Planting Spring Wheat (Including Durum)

Apply GLEAN® XP (1/3 oz/A) in the fall to undisturbed stubble where straw is spread evenly or after cultivation to a uniform soil surface. Shallow tillage, not more than 4" deep, may be done after application. In the spring use shallow tillage to prepare a seedbed. Do not moldboard plow. Fall application is not effective for Canada thistle emerging the following spring.

# **PRECAUTIONS**

• Do not plant irrigated durum wheat, spring barley, wampum spring wheat or spring oats after a fall application of GLEAN® XP

# Dry Fertilizer Impregnation And Application To Winter/Spring Wheat And Durum

IMPREGNATION - The herbicide/fertilizer impregnation process must be done at commercial fertilizer or chemical dealerships that are properly equipped for this procedure.

NOTE: The practice of impregnating GLEAN® XP on dry fertilizer is recommended only for dealers whose primary crop business is wheat, barley and oats. Failure to thoroughly clean all traces of GLEAN® XP from equipment used to mix or apply dry fertilizer for use on other crops will result in crop injury.

Not more than 1/3 oz of GLEAN® XP should be impregnated on a minimum of 150 lbs of dry fertilizer per acre.

Slurry the GLEAN® XP in water using 1 part GLEAN® XP to at least 5 parts water (1-20 oz jug in 3-4 qts water). Do not exceed slurry volume of 1 pt per 100 lbs of fertilizer. Continuous agitation (mechanical or recirculating) is required to keep GLEAN® XP in suspension during the impregnation process.

To impregnate, mix and blend the dry fertilizer and herbicide in a closed rotary drum-type mixer allowing sufficient time to ensure uniform coverage. The delivery nozzle(s) must be placed inside the mixer and positioned to provide uniform spray coverage of the tumbling fertilizer. Use GLEAN® XP impregnated dry fertilizer as soon as possible after blending.

Before using blending and/or application equipment to subsequently mix or apply fertilizer to crops other than wheat, barley or oats, thoroughly clean all traces of GLEAN® XP and GLEAN® XP impregnated fertilizer from equipment

NOTE: All state regulations relating to dry bulk fertilizer blending, registration, labeling and application are the responsibility of the individual and/or company selling the fertilizer/herbicide mixture.

APPLICATION--Apply GLEAN® XP impregnated dry fertilizer as an early fall treatment before planting or after crop emergence. Spring applications should only be made before planting. Spring wheat and durum may be planted into fall applications in accordance to directions provided in the "Fall Application Prior to Planting Spring Wheat (including Durum)" section of this label. Spread the herbicide treated fertilizer uniformly with a properly calibrated applicator. When using fan spreaders, a 100% overlap is recommended. Fan spreaders should be calibrated to apply 1/2 the desired rate per acre. Application pattern should be overlapped to cover 1/2 of the previous swath.

### INCORPORATION

FALL -- Mechanical incorporation is not needed for early fall applications as fall and winter rain and snow is usually sufficient to move GLEAN® XP into the weed root zone. Weed control may not be satisfactory in dry years or from late fall applications.

If mechanical incorporation is desired prior to planting, use single pass, double incorporation with sweeps (duckfoot cultivator) followed by springtooth (flextine) harrow, or use double-pass incorporation (second pass at right angle to first pass) with a culti-harrow, spike tooth or springtooth harrow or sweeps (duckfoot cultivator). Shallow incorporation not deeper than 3-4" is recommended.

SPRING-Because spring rainfall is often undependable, mechanical incorporation is recommended prior to planting. Use same incorporation procedures described for fall mechanical incorporation. Best results are obtained when rainfall (1-2") follows mechanical incorporation prior to weed emergence. In dry conditions, weed control may not be satisfactory.

# **IMPORTANT**

BEFORE USING THIS PRODUCT, READ AND FOLLOW ALL APPLICABLE DIRECTIONS, RESTRICTIONS AND PRECAUTIONS ON THE EPA-REGISTERED LABEL.

This bulletin contains new or supplemental instructions for use of this product which do not appear on the EPA-registered package label. Follow the instructions carefully.

Read the Limitation of Warranty and Liability on the Section 3 Federal product label before buying or using THIS product. If terms are not acceptable, return the unopened package at once to Seller for full refund of purchase price paid. Otherwise, use by Buyer or any other User constitutes acceptance of the terms of the Limitation of Warranty and Liability on the Section 3 Federal product label.

This labeling must be in the possession of the user at the time of pesticide application.

1 Registered trademark of Bayer Corporation

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