



## SOIL RESIDUAL ACTIVITY

5 In the states of CA, Northern ID, OR and WA, "Glean" FC is recommended for use on land having a soil pH of 7.9 or lower and dedicated to the long-term production of cereal grains. The soil residual activity of "Glean" FC can injure crops other than wheat, barley or oats for 2 to 3 years or more. "Glean" FC should not be used on soils above pH 7.9, as extended soil residual activity could adversely affect crop rotation options beyond normal intervals.

10 In the states of Southern ID, MN, MT, ND, SD, UT and Northern WY, "Glean" FC is recommended for use on land having a soil pH of 7.9 or lower and dedicated to the long-term production of cereal grains. The soil residual activity of "Glean" FC can injure crops other than wheat, barley or oats for 3 to 4 years or more. "Glean" FC should not be used on soils above pH 7.9, as the extended soil residual activity could adversely affect crop rotation options beyond normal intervals and under certain conditions cause injury to wheat, barley, or oats.

15 In the states of AR, CO, KS, LA, NE, NM, OK, TX, and Southeastern WY, "Glean" FC is recommended for use on land having a soil pH of 7.9 or lower. Unless otherwise specified in the "Crop Rotation Recommendations (Noncereal Crops)" section of this label, in the low rainfall areas of CO, KS, NE, NM, OK, TX, and Southeastern WY, "Glean" FC should only be used on land dedicated to the long-term production of wheat, barley or oats. The soil residual activity of "Glean" FC can injure crops other than wheat, barley or oats for 2 to 4 years or more. "Glean" FC should not be used on soils higher than pH 7.9, as extended soil residual activity could adversely affect crop rotation options beyond normal intervals.

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Rainfall, soil temperature and soil pH are important factors affecting "Glean" FC breakdown in soil. "Glean" FC breakdown is more rapid under conditions of low soil pH, high soil temperature and moist soil. The breakdown process is slow under conditions of high soil pH, low soil temperature and dry soil.

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IMPORTANT: UNLESS OTHERWISE SPECIFIED IN THE "CROP ROTATION RECOMMENDATIONS (NONCEREAL CROPS)" SECTION OF THIS LABEL, land previously treated with "Glean" FC cannot be rotated to crops other than wheat, barley, oats, rye or triticale until a bioassay confirms that residues of "Glean" FC that could cause crop injury are not present. See "Bioassay" section of this label for details. Failure to follow these instructions could result in injury to subsequent crops.

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For crop rotation flexibility do not use "Glean" FC on all your wheat, barley, oats or fallow acreage.

## HOW APPLICATION TIMING AND ENVIRONMENTAL CONDITIONS AFFECT WEED CONTROL AND CROP SAFETY

### How Growing Conditions and Crop Density Affect Weed Control

40 Postemergence application to weeds is most effective when "Glean" FC is applied to young, actively growing weeds which are less than 2" tall or 2" across. Warm, moist growing conditions promote active weed growth and enhance the activity of "Glean" FC by allowing maximum foliar uptake. If cold, dry conditions exist, delay postemergence treatment until weather conditions promote active weed growth. For best results with treatments made postemergence to weeds during periods of cold temperatures, apply "Glean" FC when minimum day/night temperatures are 40 Deg F or higher.

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Avoid postemergence applications to weeds which are inactive due to adverse weather conditions. Weeds hardened-off by cold weather or drought stress may not be controlled.

50 A vigorously growing crop will aid weed control by shading and providing competition for weeds. However, a dense crop canopy at time of application can intercept spray and result in reduced weed control. Weeds may not be adequately controlled in areas of thin crop stand or seeding skips.

### How Rainfall After Treatment Affects Weed Control

all your wheat, barley, oats or fallow acres.

5 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. Prevent drift of spray to desirable plants. Do not contaminate any body of water, including irrigation water that may be used on other crops.

10 Carefully observe sprayer cleanup instructions, as spray tank residue may damage crops other than wheat, oats or barley.

#### INFORMATION ON RESISTANT WEEDS

15 Following the use of "Glean" FC in monoculture cereals production (continuous cereals or cereal-fallow-cereal), some naturally-occurring biotypes\* of certain weeds listed on this label may not be effectively controlled by this product.

20 If weeds listed on this label are not satisfactorily controlled, respray problem areas in a timely and effective manner using a broadleaf herbicide having a different mode of action\*\*, such as: 2,4-D, Banvel[1]/Barvel" SGF, Buctril[2], Bronate[2], Curtail[3], MCPA, Du Pont "Karmex" DF Herbicide or Du Pont "Lexone" DF Herbicide.

To delay the occurrence of resistant biotypes, use "Glean" FC in tank mixes and/or sequential treatments with other herbicides having different modes of action effective on the same broadleaf weed species. Do not let weed escapes go to seed.

25 Consult your Ag chemical dealer, applicator, consultant, appropriate state agricultural extension service representative or your local Du Pont representatives for specific recommendations

30 \* Biotypes are naturally-occurring individuals of the species which have a slightly different genetic makeup. Resistant biotypes may look exactly the same as susceptible biotypes. Herbicide-resistant biotypes are able to survive a use rate several times higher than needed to control susceptible biotypes. These resistant biotypes will not be controlled by "Glean" FC or other herbicides having the same mode of action such as Du Pont "Ally" Herbicide, "Express" Herbicide and "Harmony" Extra Herbicide.

\*\* Mode of action is the chemical interaction that interrupts a biological process necessary for plant growth and development.

#### GENERAL INFORMATION

40 "Glean" FC Herbicide is a dry flowable granule containing 75% active ingredient, to be mixed in water or directly into liquid nitrogen fertilizer solutions and applied as a uniform broadcast spray for selective weed control in wheat (including durum), barley and spring oats. In the states of TX, Western OR and Western WA, "Glean" FC may also be used on winter oats. "Glean" FC is also recommended for selective weed control in grasses on acreage enrolled in the Conservation Reserve Program. It is noncorrosive, nonflammable, nonvolatile and does not freeze.

45 Prior to using "Glean" FC, careful consideration should be given to crop rotation plans. Crops other than wheat, barley and oats can be extremely sensitive to low concentrations of "Glean" FC in the soil.

50 READ AND FOLLOW ALL APPROPRIATE SECTIONS OF LABEL INCLUDING PRECAUTIONS BEFORE USING THIS PRODUCT.

#### GRAZING

"Glean" FC has no grazing restrictions.

Rainfall after treatment will affect "Glean" FC performance when applied postemergence or preemergence to weeds. Without sufficient rainfall to move "Glean" FC into the weed root zone, weeds that germinate after treatment will not be controlled.

- 5 Postemergence treatments control or suppress weeds through both foliar and root uptake. To maximize "Glean" FC activity on existing weeds, sufficient rainfall is needed soon after treatment to move "Glean" FC into the weed root zone, before weeds develop an established root system and grow beyond the seedling stage.

- 10 Avoid making postemergence applications to weeds when rainfall is threatening. Rainfall immediately after treatment can wash "Glean" FC off weed foliage and result in reduced weed control effectiveness. Several hours of dry weather are needed to allow "Glean" FC to be absorbed by weed foliage.

- 15 When weed emergence is uneven, control of weeds that germinate after treatment will be dependent on the timing and amount of rainfall following application. Sufficient rainfall is needed to move "Glean" FC 2 to 3" deep into the weed root zone before weeds that germinate after treatment can develop an established root system. When favorable growing conditions exist, rainfall may be needed within a few days after treatment.

- 20 For best preemergence results, it is important to apply "Glean" FC when you can expect at least 1 to 2" (clay soils require more than sandy soils) of rain or sprinkler irrigation to move "Glean" FC 2 to 3" deep into the soil profile before weed seeds germinate and develop an established root system. Weeds that germinate after treatment and develop an established root system before rainfall moves "Glean" FC into the soil profile may not be controlled.

#### How Growing Conditions Affect Crop Safety

- 25 Prolonged cold weather (daily maximum temperature below 50 Deg. F) and/or drought, and/or low fertility while crop is in seedling stage (1 to 5 leaf), can cause crop injury following either a preemergence or postemergence treatment.

- 30 To avoid the risk of cold weather-related injury, apply "Glean" FC when good growing conditions are expected to continue until crop has started to tiller.

#### 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 through any type of irrigation system.

- 40 "Glean" FC Herbicide should be used only in accordance with recommendations on this label or in separate published Du Pont recommendations available through local dealers.

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

- 45 MAXIMUM USE RATES, AND SOIL pH LIMITATIONS

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In the states of CA, Northern ID, OR and WA, the maximum use rate is 1/3 oz/A per crop on soils having a pH of 7.9 or lower. Do not apply more than 1/3 oz/A in an 18-month period. Do not use on soils having a pH greater than 7.9.

- 50 In the states of Southern ID, MN, MT, ND, SD, UT and Northern WY, the maximum use rate is 1/6 oz/A in a 48-month period on soils having a pH of 7.9 or lower. Do not use on soils having a pH greater than 7.9.

In the states of CO, Western KS, Western NE, Eastern NM, OK Panhandle, TX Panhandle and Southeastern WY, the maximum use rate is 1/3 oz/A in a 36-month period on soils having a pH of 7.9 or lower. Do not use on soils having a

pH greater than 7.9.

In the states of Central KS, Central NE and Central OK, the maximum use rate is 1/3 oz/A per crop period on soils having a pH of 7.9 or lower. Do not use on soils with a pH greater than 7.9.

In the states of AR, LA, Central and North Central TX and Southern OK, the maximum use rate is 1/2 oz/A per crop period on soils having a pH of 7.9 or lower. Do not use on soils with a pH greater than 7.9.

NOTE: Prior to using "Glean" FC, take soil samples at 0-4" depth and determine soil pH by laboratory analysis using a 1:1 (soil:water) suspension. Samples should be representative of the different conditions in the field (for example, slope, soil texture, low areas, eroded areas, etc.). Consult local extension publications for recommended soil sampling procedures.

#### APPLICATION TECHNIQUES, TIMING AND APPLICATION INTERVALS

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

Preemergence applications of "Glean" FC are recommended only where annual ryegrass is the target weed.

Apply "Glean" FC after planting, but before crop emergence, at 1/2 oz/A for the suppression of annual ryegrass. Rainfall or sprinkler irrigation following treatment is necessary to activate "Glean" FC before weed seeds germinate and develop an established root system. Wheat must be planted at least 1" deep. For best results apply "Glean" FC uniformly to a smooth seedbed.

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.

Preemergence applications of "Glean" FC are not recommended where organophosphate insecticides (such as Di-Syston[4], etc.) have been used as an in-furrow treatment, as crop injury may occur.

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

##### Postemergence to Winter/Spring Wheat, Durum, Winter/Spring Barley and Spring Oats in Cereal/Fallow/Cereal and Continuous Cereal Production

"Glean" FC ~~may~~ **must** be used as a tank mix treatment with another broadleaf herbicide having a different mode of action. Follow the application intervals and maximum use rates specified for each geographical area:

Max.  
Area Use Rate Minimum Application Interval

AR, Central KS  
(east of Hwy. 183),  
LA, South Central NE, 1/3 oz/A Once per crop period  
Central OK and  
North Central TX

CA, Northern ID, OR, 1/3 oz/A Once every 18 months  
and WA

CO, Western KS  
(west of Hwy. 183),  
Western NE Do not use for broadleaf  
-- weed control. ~~"Ally"~~ "Ally", "Harmony"

(west of Hwy. 183), NM,  
OK Panhandle, TX Panhandle  
and Southeastern WY

~~Herbicide, Harmony Extra or "Express" herbicides  
Herbicide or "Express" are recommended.~~

5 Southern ID, MN, MT, ND,  
SD, UT and Northern WY 1/6 oz/A Once every 48 months  
WY

- WINTER WHEAT/WINTER BARLEY

10 Use "Glean" FC at 1/6 to 1/3 oz/A in all areas except the Northern Plains where the maximum use rate is 1/6 oz/A.  
Apply in the fall or spring anytime after the crop is in the 2-leaf stage, but before boot stage.

15 Do not make an early postemergence treatment to late seeded wheat or barley as the combined effect of herbicide stress plus cold weather and/or moisture stress could cause crop injury. Delay making a postemergence treatment to late seeded wheat or barley until crop has started to tiller.

20 In areas where cold weather conditions can be severe (ID, OR, UT, WA, MN, MT, ND, SD, WY) do not make a late fall, winter or early spring application to wheat or barley until crop is well established and has started to tiller.

20 Do not apply "Glean" FC within 60 days of crop emergence where organophosphate insecticides (such as "Di-Syston", etc.) have been used as an in-furrow treatment, as crop injury may result.

25 DO NOT apply during boot stage or early heading as crop injury may occur.

- SPRING WHEAT, DURUM\*, SPRING BARLEY AND SPRING OATS

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30 In the Northern Plains, apply "Glean" FC at 1/6 oz/A anytime after crop is in the 2-leaf stage, but before boot stage. Do not apply during boot stage as crop injury may occur.

30 In the Pacific Northwest, apply "Glean" FC at 1/6 to 1/3 oz/A anytime after crop is in the 2-leaf stage through the 2nd joint stage. DO NOT apply once the flag leaf is visible as crop injury may occur.

30 In all other areas, apply "Glean" FC at 1/6 to 1/3 oz/A anytime after crop is in the 2-leaf stage, but before boot stage. Do not apply during boot stage as crop injury may occur.

For irrigated cereal crops, delay first posttreatment irrigation for at least 3 days after application.

40 To avoid the risk of cold weather-related crop injury, apply "Glean" FC when good growing conditions (adequate soil moisture, daily high temperature of 50 Deg. F or more) are expected to continue until crop has started to tiller.

45 Do not apply prior to tillering when cold and/or dry weather can reduce seedling vigor, making crop more vulnerable to the combination of herbicide and weather stress. The combined effect of herbicide and stress from cold and/or dry weather can result in temporary yellowing or crop injury (yield reduction).

\*NOTE: APPLY TO VIC DURUM AFTER EARLY TILLERING, BUT BEFORE BOOT STAGE.

Postemergence To Crop For Use In Wheat/Sorghum and Wheat/Soybean Annual Rotations

50 In areas where the interval between an application of "Glean" FC and the planting of sorghum or soybeans is 14 months (see "Crop Rotation Recommendations (Noncereal crops)" section of label), "Glean" FC may be used at 1/6 to 1/3 oz/A alone or in a tank mix in planned crop rotation programs where other residual broadleaf herbicides having different modes of action are used. Follow the application intervals specified for each geographical area.



**Max.  
Area Use Rate Minimum Application Interval**

5 West Central and Western KS, 1/3 oz/A Once every 36 months (west of Hwy. 183)

10 AR, Central KS (east of Hwy. 183), LA, South Central NE, OK (east of the Panhandle), and TX (east of the Panhandle) 1/3 oz/A Once per crop period

15 ~~Preemergence~~ Preemergence Or Postemergence Application To Winter Oats - TX, Western OR And Western WA Only

15 Preemergence to Oats: Apply "Glean" FC at 1/3 oz/A as a postplanting preemergence treatment to early seeded winter oats. Use 1/2 oz/A (Central and Northeast TX) rate where annual ryegrass is the primary weed problem.

20 Do not make a preemergence treatment to late fall plantings (after November 1) as herbicide stress plus cold weather stress can cause crop injury.

Remove grazing cattle during wet (muddy) field conditions to avoid disturbing the herbicide barrier.

25 Heavy rainfall between the time of treatment and the 2-leaf crop stage can result in temporary yellowing and stunting and may result in crop injury.

30 Postemergence to Oats (broadleaf control only): Apply "Glean" FC at 1/6 to 1/3 oz/A when crop is in 2-leaf to boot stage. When weeds are present at the time of application, add a surfactant (80% active ingredient or more) at the rate of 1 to 2 quarts per 100 gallons of spray solution. Fall applications of less than 1/3 oz/A may not provide adequate control of spring germinating broadleaf weeds.

NOTE: Under abnormally wet conditions, especially on coarse textured soils fall applications may not provide adequate control of ryegrass and/or spring germinating broadleaf weeds.

Remove grazing cattle during wet (muddy) field conditions to avoid disturbing the herbicide barrier.

Postemergence applications generally do not provide adequate suppression of annual ryegrass.

40 **Weed Control In Corn Or Sorghum Stubble (Preceding Wheat)**

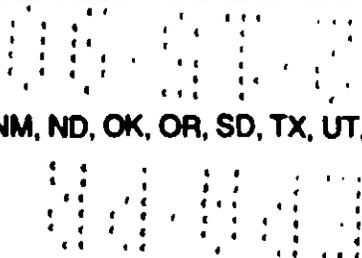
40 In the states of Eastern CO, Far Western KS (last tier of counties along the CO/KS border), Western NE, Eastern NM, OK Panhandle, and TX Panhandle where the interval between an application of "Glean" FC and the planting of corn or sorghum is at least 24 months (see "Crop Rotation Recommendations (Noncereal Crops)" section of label), "Glean" FC may be used as a fallow treatment preceding the planting of wheat.

45 Use "Glean" FC at 1/6 to 1/3 oz/A in a tank mix in planned rotation programs where other residual broadleaf herbicides having different modes of action are used. "Glean" FC may not be used on a given field more often than once in a 36-month period.

50 o DO NOT USE "GLEAN" FC AS A FALLOW HERBICIDE IN CEREAL/FALLOW/CEREAL ROTATIONS.

**Weed Control For The Conservation Reserve Program (CRP)**

"Glean" FC is registered for CRP use in CO, IA, ID, KS, MN, MT, NE, NM, ND, OK, OR, SD, TX, UT, WA and WY.



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Consult "Glean" FC supplemental label for CRP use instructions.

**WEED CONTROL**

5

**General Information**

"Glean" FC rapidly inhibits growth of susceptible weeds. However, typical symptoms of dying weeds (discoloration) may not be noticeable for 1 to 3 weeks after application depending on growing conditions and weed susceptibility.

10

Degree of control and duration of effect depend on: a) rate used, b) weed spectrum, c) weed size, d) degree of weed infestation, e) growing conditions at and following time of treatment, f) length of growing season, g) soil pH, h) soil organic matter and i) precipitation.

15

For maximum weed control or suppression, always use the highest recommended rate for your area, soil pH and weed problem. Do not use less than 1/6 oz/A.

Because of rapid breakdown in soil, "Glean" FC may not provide season-long weed control on soils below pH 6.5.

20

For best results with application made postemergence to weeds, apply "Glean" FC to small (less than 2" tall or 2" across), actively growing weeds. Add a surfactant of at least 80% active ingredient at the rate of 1-2 quarts/100 gallons of spray solution. The higher rate of surfactant is particularly useful with spray volumes of 5 GPA or less and when using low rates of "Glean" FC. The use of surfactants having less than 80% active ingredient may reduce weed control.

25

Sufficient rainfall after preemergence or postemergence treatment is necessary to move "Glean" FC 2-3" into the weed root zone before weed seeds germinate and develop an established root system or existing weeds grow beyond the seedling stage. In most areas, fall treatments provide the best opportunity for rainfall activation and most consistent residual weed control. Late spring applications may not receive enough rainfall after treatment, resulting in poor weed control. Without sufficient rainfall to move "Glean" FC into the weed root zone, weeds that germinate after treatment will not be controlled.

30

**Weed Control/Use Rate Table**

NOTE: Read and follow all instructions under "Specific Weed Problems" for all weeds marked with \*\*\*.

For broadleaf weed control, the maximum use rate is 1/3 oz/A in all areas except Southern ID, MN, MT, ND, SD, UT and Northern WY where the maximum use rate is 1/6 oz/A.

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The 1/6 oz/A use rate is recommended only for short-term control or suppression. Use 1/3 oz/A where soil residual weed control is important.

Where soil pH is 6.5 or lower, use the 1/3 oz/A rate where maximum soil residual weed control is important.

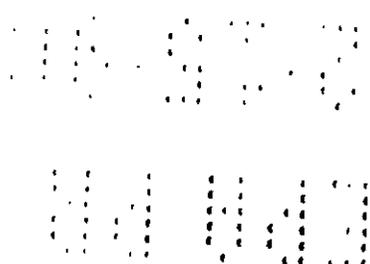
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The 1/2 oz/A use rate is recommended only for the control/suppression of annual ryegrass in AR, LA, OK and TX.

**Weeds Controlled at 1/6 thru 1/4 Ounce Per Acre**

50

- Blue mustard
- Conical catchfly
- Curly dock
- Cutleaf eveningprimrose
- Field pennycress
- Flixweed\* (except ID, OR, UT, WA)
- Hempnettle



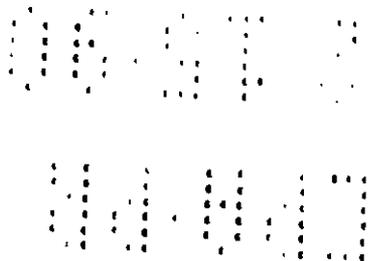
- 7/2/81
- Herbit
  - Mayweed
  - Miners lettuce
  - Pineappleweed
  - 5 Prostrate pigweed
  - Redroot pigweed
  - Sheperdspurse
  - Smooth pigweed
  - Tansymustard\* (except ID, OR, UT, WA)
  - 10 Treacle mustard
  - Tumble mustard (Jim Hill)
  - Waterpod
  - Wild mustard
  - 15 \*See "Specific Weed Problems."

**Weeds Controlled at 1/3 Ounce Per Acre**

- 20 Bur beakchervil
- Buttercup
- Coast fiddleneck (tarweed)
- Common chickweed
- Common groundsel
- 25 Corn spurry
- Cow cockle
- False chamomile
- Falseflax
- + Kochia\* (Central KS, Central NE, Central OK and North Central TX only)
- 30 Ladysthumb
- Lambsquarters\*
- Mouseear chickweed
- Purslane (common)
- Redstem filaree
- + Russian thistle\* (Central KS, Central NE, Central OK and North  
Central TX only)
- White cockle
- Wild carrot
- Wild turnip
- 40

**Weeds Suppressed<sup>1</sup> at 1/3 Ounce Per Acre**

- 45 Annual ryegrass\*
- Bedstraw
- Canada thistle\*
- Corn groundwell
- Flixweed\* (ID, OR, UT, WA only)
- Pennsylvania smartweed
- 50 + Prickly lettuce
- Prostrate knotweed\*
- Sunflower\* (in TX partial control only)
- Speedwell
- Tansymustard\* (ID, OR, UT, WA only)



Wild buckwheat  
Wild garlic/Wild onion\*  
Wild radish\*

5 \* See "Specific Weed Problems".

+ Naturally-occurring resistant biotypes of these weeds are known to occur in the Central Plains and the Pacific Northwest. See "Tank Mixtures and Guidelines for Resistant Weed Management in Specific Areas" section of label for additional information.

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1 Weed suppression is a visual reduction in weed competition (reduced population and/or vigor) as compared to an untreated area. Degree of suppression will vary with rate used, size of weeds and environmental conditions following treatment.

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### SPECIFIC WEED PROBLEMS

20 Canada Thistle: Apply "Glean" FC plus surfactant after majority of thistles have emerged and while they are small (rosette stage to 4"-6" tall), but actively growing. A single application will effectively inhibit the ability of Canada thistle to compete with the crop. For maximum long-term effect, yearly treatment may be required.

25 Annual Ryegrass: (Southwest AR/Northwest LA): Apply "Glean" FC at 1/2 oz/A preemergence to ryegrass. 1/2 to 1" of rainfall is needed to move "Glean" FC into the weed root zone prior to ryegrass emergence. Remove grazing cattle during wet (muddy) field conditions to avoid disturbing the herbicide barrier. Under abnormally wet conditions, especially on coarse textured soils, fall applications may not adequately control ryegrass and/or spring germinating broadleaf weeds.

30 Annual Ryegrass: (Southeast OK, Central and North Central TX): Apply "Glean" FC at 1/2 oz/A preemergence to ryegrass. 1/2 to 1" of rainfall is needed to move "Glean" FC into the weed root zone prior to ryegrass emergence. Remove grazing cattle during wet (muddy) field conditions to avoid disturbing the herbicide barrier. Under abnormally wet conditions, especially on coarse textured soils, fall applications may not adequately control ryegrass and/or spring germinating broadleaf weeds.

40 For best results, a sequential treatment of "Glean" FC followed by ~~Du Pont~~ "Ally" Herbicide is recommended. Apply "Glean" FC as stated above then follow with "Ally" at 1/10 oz/A immediately after completion of wheat grazing. For fields not grazed, apply the sequential application of "Ally" as soon as ryegrass starts to grow after winter dormancy. "Ally" may be applied with a surfactant or with a liquid nitrogen fertilizer topdressing application. Do not add a surfactant to liquid nitrogen fertilizer plus "Ally" combinations. In mixing "Ally" with liquid fertilizer, slurry "Ally" in water then thoroughly mix the slurry into the fertilizer. Run a tank mix compatibility test before mixing "Ally" in fertilizer solution. DO NOT use with fertilizers having a pH of 3.0 or less, as rapid product degradation can occur. The addition of 2,4-D is not recommended for annual ryegrass suppression.

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Wild Buckwheat: For best results, apply "Glean" FC + "Karmex" DF preemergence to wild buckwheat. Postemergence tank mixes with 2,4-D, MCPA, "Banvel"/"Banvel" SGF, "Buctril" or "Bronate" should be made with surfactant after majority of seedlings have emerged and are actively growing.

50 Lambsquarters: For best results, use not less than 1/3 oz/A applied in the fall. For spring postemergence application, apply when lambsquarters are less than 2" tall or 2" across and are actively growing. Use not less than the 1/3 oz/A rate of "Glean" FC plus 2 qt surfactant/100 gal of spray solution.

Russian Thistle and Kochia: "Glean" FC is only recommended for the control of these two weeds in Central KS.

Central NE, Central OK and North Central TX.

5 Postemergence Suppression: Apply "Glean" FC plus either 2,4-D (ester or amine) or MCPA (ester or amine) after majority of weeds have emerged. For best results, weeds must be actively growing at time of application (adequate soil moisture and daily temperatures above 60 Deg. F). Add surfactant at 1/2 but not more than 1 qt/100 gal of spray solution. Thorough coverage is important. See "Tank Mixtures and Guidelines for Resistant Weed Management In Specific Areas" section of label.

10 Sunflower: For best results in NM, OK (Panhandle) and TX, apply "Glean" FC after majority of sunflowers have emerged and are small (not more than 2" tall) and actively growing. Add surfactant at 2 qt/100 gal of water. If "Glean" FC is applied preemergence, make application in early spring to allow for timely and adequate rainfall to move "Glean" FC into the weed root zone before weeds germinate or develop an established root system.

15 Flixweed, Tansymustard:

STATES OF NORTHERN ID, OR, WA  
- POSTEMERGENCE TREATMENTS

20 For best results, tank mix "Glean" FC at 1/3 oz/A with another herbicide effective on flixweed and tansymustard such as 2,4-D (ester or amine). See "Tank Mixtures and Guidelines for Resistant Weed Management In Specific Areas" section of label.

ALL OTHER AREAS

25 Rates of 1/6 to 1/3 oz/A applied when weeds are small and actively growing will provide control. If weeds are inactive due to adverse weather conditions (cold, dry weather before and/or after treatment), delay application until moisture and temperature conditions are favorable for active weed growth, or use a tank mix treatment with 2,4-D or MCPA.

Wild Garlic/Wild Onion: "Glean" FC will provide aerial bulblet control only.

30 Wild Radish: Postemergence application will provide best results.

Prostrate Knotweed: For best results apply in the fall.

TANK MIXTURES AND GUIDELINES FOR RESISTANT WEED MANAGEMENT IN SPECIFIC AREAS

"Glean" FC may be tank mixed with the following ~~herbicides~~ herbicides: 2,4-D, "Barvel"/"Banvel" SGF, "Bronate", "Buctril", "Curtail", "Karmex" DF, Diuron DF, "Lexone" DF and MCPA. Before using, read and follow all use instructions, warnings and precautions on companion herbicide label.

40 AR, Central KS, LA, South Central NE, Central OK and North Central TX:

If resistant ~~weeds~~ weed biotypes are suspected or known to be present, consider using another herbicide treatment or adjust the use rate of the "Glean" FC tank mix partner so that it alone will control the resistant ~~biotype(s)~~ biotypes.

45 "GLEAN" FC + 2,4-D OR MCPA

50 o "Glean" FC may be used annually as a tank mix treatment with 2,4-D or MCPA after weeds have emerged. Use 1/6 to 1/3 oz/A of "Glean" FC plus 1/4 to 1/2 lb active ingredient 2,4-D or MCPA (ester formulations of 2,4-D or MCPA have provided best results). Surfactant may be added at 1/2, but not more than 1 qt/100 gal of spray solution; however, the addition of surfactant may increase the chance of crop injury. Do not add a surfactant when "Glean" FC plus 2,4-D or MCPA are applied with liquid fertilizer. Apply "Glean" FC plus MCPA from 3-5 leaf stage, but prior to boot stage. Apply "Glean" FC plus 2,4-D after tillering (refer to appropriate 2,4-D's manufacturer's label), but prior to boot stage. Apply "Glean" FC plus 2,4-D or MCPA with liquid fertilizer only when temperatures are above freezing. Applications of "Glean" FC + MCPA + liquid fertilizer made when crop is under cold weather stress just prior to winter dormancy can result in severe foliar burn and/or crop injury. Do not apply "Glean" FC plus 2,4-D or MCPA in combination with

organophosphate insecticides.

o Make only one application per crop.

- 5 o In wheat/sorghum and wheat/soybean annual rotations, control winter annual broadleaf weeds either by tillage or by using a different mode of action herbicide before planting sorghum or soybeans.

**"GLEAN" FC + "LEXONE" DF**

- 10 o "Lexone" DF at 1/3 to 2/3 lb/A is recommended for downy brome and cheatgrass suppression in winter wheat in KS, OK and TX and may be mixed with "Glean" FC at 1/6 to 1/3 oz/A to broaden the spectrum of weeds controlled. Apply after winter wheat is well tillered (at least 3 tillers) and has a 2" secondary root system throughout the field. 1/2 to 1" of rainfall is needed within 1 to 2 weeks of application.

- 15 o See the "Lexone" DF Winter Wheat, Barley, and Fallow supplemental label for additional information.

o Do not use "Lexone" DF plus "Glean" FC on barley in the states of KS, OK and TX.

**"GLEAN" FC + "KARMEX" DF**

- 20 o "Glean" FC may be used annually as a tank mix treatment after winter wheat has started to tiller before or after weeds emerge.

25 Read and follow all use instructions, label rates, weed control claims, warnings and precautions for the companion herbicide(s).

West Central and Western KS (generally west of Hwy. 183 to the western edge of these counties - Grant, Kearny, Logan, Rawlins, Stevens, Thomas and Wichita):

30 If resistant weed biotypes are suspected or known to be present, consider using another herbicide treatment or adjust the use rate of the "Glean" FC tank mix partner so that it alone will control the resistant biotypes.

o In areas where the interval between an application of "Glean" FC and the planting of sorghum is 14 months, "Glean" FC may be used at 1/6 to 1/3 oz/A alone or in a tank mix in a planned crop rotation program where other residual broadleaf herbicides having different modes of action are used.

o In wheat/sorghum rotations, control winter annual weeds either by tillage or by using a different mode of action herbicide before planting sorghum.

- 40 o Do not use "Glean" FC for the control of kochia or Russian thistle.

o Do not apply "Glean" FC more often than once every 36 months.

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o Do not use an "Ally" tank mix within 22 months of a "Glean" FC application.

- 45 o Do not use "Glean" FC in ~~continuous~~ continuous cereals or cereal/fallow/cereal rotations.

50 ~~o If resistant weeds are suspected or known to be present, consider using another herbicide treatment or adjust the use rate of the "Glean" FC tank mix partner so that it alone will control the resistant biotype(s).~~

Read and follow all use instructions, label rates, weed control claims, warnings and precautions for the companion herbicide(s).

Eastern CO, Far Western KS (last tier of counties along the CO/KS border), Western NE, Eastern NM, OK Panhandle and TX Panhandle:

5 | If resistant weed biotypes are suspected or known to be present, consider using another herbicide treatment or adjust the use rate of the "Glean" FC tank mix partner so that it alone will control the resistant biotypes.

o "Glean" FC may be used in a tank mix at 1/6 to 1/3 oz/A only as a fallow treatment in corn or sorghum stubble in wheat/sorghum/fallow and wheat/corn/fallow rotations where other residual broadleaf herbicides having different modes of action are used.

10 | o Do not use "Glean" FC for the control of kochia or Russian thistle.

o Do not apply "Glean" FC more often than once every 36 months.

15 | o Do not use an "Ally" tank mix within 22 months of a "Glean" FC application.

| o Do not use "Glean" FC in ~~continuous~~ continuous cereals or cereal/fallow/cereal rotations.

20 | ~~e If resistant weeds are suspected or known to be present, consider using another herbicide treatment or adjust the rate of the "Glean" FC tank mix partner so that it alone will control the resistant biotype(s).~~

25 | Read and follow all use instructions, label rates, weed control claims, warnings and precautions for the companion herbicide(s).

Southern ID, MI, ND, SD, UT and Northern WY:

30 | If resistant weed biotypes are suspected or known to be present, consider using another herbicide treatment or adjust the use rate of the "Glean" FC tank mix partner so that it alone will control the resistant biotypes.

| ~~o Do not~~ Only use "Glean" FC at ~~more than~~ 1/6 oz/A postemergence to weeds in a tank mix with another broadleaf herbicide having a different mode of action.

o Do not use "Glean" FC for the control of kochia or Russian thistle.

o Do not apply "Glean" FC more than once every 48 months.

o Do not apply "Glean" FC during fallow.

40 | ~~e If resistant weeds are suspected or known to be present, consider using another herbicide treatment or adjust the use rate of the "Glean" FC tank mix partner so that it alone will control the resistant biotype(s).~~

45 | Read and follow all use instructions, label rates, weed control claims, warnings and precautions for the companion herbicide(s).

CA, Northern ID, OR and WA:

50 | ~~If resistant weeds are~~ weed biotypes are suspected or known to be present, consider using another herbicide treatment or adjust the use rate of the "Glean" FC tank mix partner so that it alone will control the resistant ~~biotype(s)~~ biotypes.

o Do not use more than 1/3 oz/A in an 18-month period.

o Do not make an early season treatment where a tank mix cannot be made.

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o Do not use "Glean" FC for the control of kochia or Russian thistle.

o Do not apply "Glean" FC during fallow.

5 | o Use 1/6 to 1/3 oz/A of "Glean" FC plus one of the ~~products~~ products listed below:

2,4-D (amine or ester) 4 to 8 oz active ingredient/acre

MCPA (amine or ester) 4 to 8 oz active ingredient/acre

10 "Buctril" 4EC 1/4 pt to 1 pt/acre

"Bronate" 1/2 pt to 2 pt/acre

| "Karmex" DF or ~~diuron~~ Diuron DF 1/2 lb to 1-1/2 lb/acre

"Lexone" DF 1/8 to 2/3 lb/acre

"Banvel" 1/8 to 1/4 pt/acre

15 "Banvel" SGF 1/4 to 1/2 pt/acre

"Curtail" 1 to 2 pt/acre

~~Read and follow all instructions, warnings and precautions on the companion product label.~~

20 "GLEAN" FC + "LEXONE" DF

o "Lexone" DF at 1/3 to 2/3 lb/A is recommended for downy brome and cheatgrass suppression in winter wheat and barley in ID, OR and WA and may be mixed with "Glean" FC at 1/6 to 1/3 oz/A to broaden the spectrum of weeds  
25 controlled. Apply after winter wheat is well tillered (at least 3 tillers) and has a 2" secondary root system throughout the field. 1/2 to 1" of rainfall is needed within 1 to 2 weeks of application.

o For additional information, see the "Lexone" DF supplemental label for Winter Wheat, Barley and Fallow.

30 o Do not use "Lexone" DF plus "Glean" FC in California.

| "GLEAN" FC + "KARMEX" DF or Diuron DF

o Where prickly lettuce, corn groundsel, annual ryegrass and annual bluegrass are the main weed problems, apply  
{ "Karmex" DF or Diuron DF at 1 to 1 1/2 lb/A with "Glean" FC at 1/6 to 1/3 oz/A to improve weed control. Apply  
preemergence or postemergence to actively growing weeds less than 2" tall or across. 1/2 to 1" rainfall is needed  
| within 1 to 2 weeks after application. Follow all restrictions on the "Karmex" DF ~~label~~ or Diuron DF labels.

40 Read and follow all use instructions, label rates, weed control claims, warnings and precautions for the companion herbicide(s).

SPRAY PREPARATION, ADDITIVES, PRODUCT MEASUREMENT, SURFACTANT AND LIQUID FERTILIZER

45 Spray Preparation: Mix the proper amount of "Glean" FC into the necessary volume of water in the spray tank with the agitator running. Agitation is required for uniform mixing and application. If spray preparation is left standing, thoroughly reagituate before using.

Additives: Do not use with spray tank additives that lower the pH of the spray solution below pH 3.0, as rapid product degradation can occur.

50 Product Measurement: The "Glean" FC volumetric measuring cylinder is to be used as a guide as the degree of accuracy is plus or minus 10%. For more precise measurement, use scales calibrated in ounces.

Surfactant: Use a surfactant of at least 80% active ingredient in postemergence applications to weeds to improve wetting and/or foliar activity of "Glean" FC. Add surfactant at 1 to 2 qt/100 gal of spray as the last ingredient. The higher

rate of surfactant is particularly useful with spray volumes of 5 GPA or less and when using low rates of "Glean" FC. Antifoaming agents may be needed.

Do not use liquid fertilizer as a substitute for surfactant.

5

Liquid fertilizer: To apply "Glean" FC with liquid fertilizer, simply add the "Glean" FC directly to the liquid fertilizer with the agitator running. The addition of surfactant to tank mixtures of "Glean" FC plus liquid fertilizer increases the risk of crop injury.

10 Run a tank mix compatibility test before mixing "Glean" FC in fertilizer.

Do not use with liquid fertilizers having a pH of 3.0 or less as rapid product degradation can occur.

Do not use liquid fertilizer as a substitute for surfactant.

15

### TANK MIXTURES WITH OTHER HERBICIDES, INSECTICIDES AND FUNGICIDES

20 When using a tank mixture for the first time, run a standard compatibility test and use on a small portion of the field to be sure there is adequate crop safety and satisfactory performance before adopting large scale use. "Glean" FC must be in suspension before adding companion pesticides. Follow all instructions, warnings and precautions on the companion product label.

Other Herbicides: Use a suitable registered companion herbicide if weeds greater than 2" tall or 2" across are present or if weeds and grasses other than those listed on this label are present. When tank mixing "Glean" FC and Asser[5], ALWAYS include another broadleaf herbicide with a different mode of action, for example: MCPA ester, 2,4-D ester, "Bronate" or "Buctril". "Glean" FC must be in suspension in the spray tank before adding the companion herbicide. Follow the surfactant recommendation on the companion herbicide label.

30 Insecticides: "Glean" FC may be tank mixed with insecticides registered for use on cereal grains. However, under certain conditions, (drought or cold stress, while crop is in 2-4 leaf stage) tank mixtures or sequential treatments of "Glean" FC and organophosphate insecticides (such as methyl or ethyl parathion, "Di-Syston", etc.) may produce temporary crop yellowing or, in severe cases, crop injury. Limit first use to a small area. If no symptoms of crop injury occur 14 days after treatment, balance of acreage can be treated.

### DO NOT USE "GLEAN" FC AND MALATHION, AS CROP INJURY MAY RESULT.

40 Do not apply "Glean" FC 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 occur.

45 Fungicides: "Glean" FC may be tank mixed with Du Pont "Benlate" Fungicide / Du Pont "Benlate" 50 DF Fungicide or Du Pont "Manzate" 200 DF Fungicide or other fungicides whenever the proper timing for herbicide and fungicide treatments coincide.

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### EQUIPMENT—SPRAY VOLUMES

5p Prior to using "Glean" FC, thoroughly clean sprayer (tanks, booms, hoses, nozzles, mixing cones, all mixing equipment, etc.) ~~Follow~~ soybean sprayer cleanout on the label(s) of the last product(s) used

Apply using properly calibrated air or ground equipment. Select a spray volume and delivery system that will insure thorough coverage and uniform spray pattern. For ground application, flat fan nozzles are recommended (minimum 3 GPA). When using airblast or "Raindrop" [6] nozzles, use higher spray volume (minimum 20 GPA) to ensure thorough

coverage. However, "Glean" FC may be applied at not less than 10 GPA when using small orifice flooding nozzles such as flood jet TK 5 to TK 7.5 or equivalent, providing these nozzles are on a 30-inch spacing or not less than 13 GPA when these flooding nozzles are on a 40-inch spacing.

- 5 Do not use equipment and/or spray volumes that will cause spray to drift onto nontarget sites. Do not make applications during weather conditions which cause spray to drift onto nontarget sites. For additional information, refer to "Caution - Avoid Spray Drift" section of label.

Do not apply this product through any type of irrigation system.

- 10 Use 50-mesh screens or larger.

- 15 Unless otherwise stated, use at least 1 gallon spray volume (GPA) per acre by air. Use higher spray volumes to obtain better coverage when either the crop canopy or stubble is dense. Do not apply during inversion conditions, when winds are gusty or when other conditions will favor poor coverage and/or off-target spray movement.

For aerial application in the State of Washington, refer to and follow the directions on the Washington special local need label, "Glean" FC Herbicide Aerial Application to Wheat, Barley and Spring Oats In the State of Washington.

- 20 Continuous agitation is required to keep "Glean" FC in suspension. Avoid overlapping, and shut off spray booms while starting, turning, slowing or stopping, or injury to the crop may result.

25 CAUTION - AVOID SPRAY DRIFT

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Follow these practices to minimize drift.

- 30 Do not allow spray from either ground or aerial equipment to drift onto adjacent crops or land, as even small amounts will can injure ~~other~~ susceptible plants. When spraying near adjacent, sensitive crops or plants, do everything possible to reduce spray drift. This includes:

- o Stop spraying if wind speed becomes excessive. DO NOT SPRAY IF WIND SPEED IS 10 MPH OR GREATER. Spray drift can occur at wind speeds less than 10 MPH. If sensitive crops or plants are downwind, extreme caution must be used even in relatively low wind conditions! DO NOT SPRAY IF WINDS ARE GUSTY.
- o High temperatures, drought and low relative humidity increase the possibility of harmful spray drift. EXTREME CAUTION MUST BE USED WHEN THESE CONDITIONS ARE PRESENT AND SENSITIVE CROPS OR PLANTS ARE NEARBY, REGARDLESS OF WIND SPEED.
- o Do not apply when a temperature inversion exists. An inversion is characterized by low air movement and an increase in air temperature with an increase in altitude. In humid regions, a fog or mist may form. An inversion may be detected by producing a smoke column and checking for a layering effect. Smoke-producing devices on aircraft are recommended. If not sure whether inversion conditions are present, consult with local weather services before making an application.
- o Drift from aerial or ground equipment may be further reduced by:
  1. Using large droplet size sprays to minimize drift. DO NOT APPLY WITH HOLLOW-CONE INSECTICIDE NOZZLES ON GROUND EQUIPMENT. Do not use nozzles that produce small droplets, such as Sprayfoi(7) or airblast-type nozzles. Nozzles should be oriented at an angle between straight down and straight back for ground applications.

- For aerial applications, orient nozzles straight back along the ~~windstream~~ windstream using straight stream

orifices (such as disk with no swirl plate). If using flood-type nozzles on aircraft, orient them so spray is produced in direction of the airstream. Use the lowest number of nozzles practical with the largest orifice size per nozzle to obtain minimum of 1 GPA. Application height should not exceed 1/2 length of wing span to minimize drift potential. Boom length must not exceed 2/3 the wing span.

2. Increasing volume of spray mix per acre (for example, minimum 5 GPA by air, 10 GPA by ground) by using higher flow rate nozzles.

3. Reducing pressure (PSI). - DO NOT EXCEED 40 PSI when applying "Glean" FC. (Vehicle speed must also be reduced to maintain spray mix volume per acre). Consult manufacturers' catalogs for details on correct calibration.

4. Apply as close to target plants as possible, while still maintaining a good spray pattern.

NOTE: Do not allow spray to drift onto adjacent crops or onto agricultural land scheduled to be planted to crops other than wheat, as injury to the crop may occur. Extreme care must be taken to prevent drift ~~to desirable~~ onto susceptible plants or nontarget agricultural land.

### CEREAL RECROPPING INTERVALS

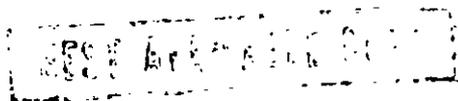
RECROPPING TO WHEAT, OATS, BARLEY, RYE AND TRITICALE IN AR, CO, KS, LA, NE, NM, OK, TX AND SOUTHEASTERN WY: Recropping plans are determined by soil pH, rate of "Glean" FC applied and a minimum recropping interval. The minimum recropping interval is from time of last application to the anticipated date of planting.

Minimum Recropping Interval (Months)	Use Rate	Soil pH*	(oz/acre)	Wheat/Rye/Triticale	Oats	Barley
7.9 or lower	1/6 to 1/3	0	10	10		
7.9 or lower	1/2	4	10	16		
above 7.9	Do Not Use	Not Applicable				

\*Soil pH is to be determined by laboratory analysis using the 1:1; soil:water suspension method on representative soil samples taken at 0-4" depth. Consult local extension publications for recommended soil sampling procedures.

RECROPPING TO WHEAT, OATS, BARLEY, RYE AND TRITICALE IN MN, MT, ND, SD AND NORTHERN WY: Recropping plans are determined by soil pH, rate of "Glean" FC applied and a minimum recropping interval. The minimum recropping interval is from time of last application to the anticipated date of planting.

Minimum Recropping Interval (Months)	Use Rate	Soil pH*	(oz/acre)	Wheat/Rye/Triticale	Oats	Barley
6.5 or lower	1/6 to 1/3	0	10	10		
6.5 or lower	1/2	4	10	10		
6.6 to 7.9	1/6 to 1/3	0	10	16		
above 7.9	Do Not Use	Not Applicable				



\*Soil pH is to be determined by laboratory analysis using the 1:1; soil:water suspension method on representative soil samples taken at 0-4" depth. Consult local extension publications for recommended soil sampling procedures.

RECROPPING TO WHEAT, OATS, BARLEY, RYE AND TRITICALE IN CA, NORTHERN ID, OR AND WA: Recropping plans are determined by soil pH, rate of "Glean" FC applied and a minimum recropping interval. The minimum

recropping interval is from time of last application to the anticipated date of planting.

**Minimum Recropping Interval (Months)**

Use Rate	Soil pH*	(oz/acre)	Wheat/Rye/Triticale	Oats	Barley
5	6.5 or lower	1/6 to 1/3	0	10	10
	6.5 or lower	1/2	4	10	10
	6.6 to 7.5	1/6 to 1/3	0	10	16
10	6.6 to 7.5	1/2	4	16	24
	7.6 to 7.9	1/6 to 1/3	4	16	24
	above 7.9	Do Not Use	Not Applicable		

15 \*Soil pH is to be determined by laboratory analysis using the 1:1; soil:water suspension method on representative soil samples taken at 0-4" depth. Consult local extension publications for recommended soil sampling procedures.

**ROTATION INTERVAL FOR PLANTING GRASSES ON CONSERVATION RESERVE PROGRAM (CRP) ACRES**

20 Wherever "Glean" FC has previously been used in wheat, barley, oats or fallow, the following grasses may be planted after the intervals specified in the tables below. The planting of grass and legume mixtures is not recommended as injury to the legume may occur.

- Bentgrasses
  - Blue Grama
  - 25 - Bluestems — Big, Little, Plains, Sand, WW Spar
  - Buffalograss
  - Galleta
  - Green needlegrass
  - Green sprangletop
  - 30 - Indiangrass
  - Indian ricegrass
  - Lovegrasses — Sand, Weeping
  - Orchardgrass (excluding Piaute)
  - Prairie sandreed
  - Sand dropseed
  - Sheep fescue
  - Sideoats Grama
  - Switchgrass
  - Wheatgrasses — Crested, Intermediate, Pubescent, Slender,
  - 40 - Wild-rye grasses — Beardless, Russian
- Streambank, Tall, Thickspike, Western

**ROTATION INTERVALS IN STATES OF:**

Southern ID, MN, MT, ND, SD, UT, and Northern WY:

Use Rate	Soil pH*	(oz/acre)	Minimum Interval for Planting Grasses
45	6.5 or lower	1/6 to 1/2	2 months (all grasses)
	6.6 to 7.5	1/6 to 1/3	4 months (all grasses)
	7.6 to 7.9	1/6 to 1/3	4 months (Wheatgrasses only)

AR, CO, KS, LA, NE, NM, OK, TX and Southeastern WY:

- Use Rate  
Soil pH\* (oz/acre) Minimum Interval for Planting Grasses
- 5 7.9 or lower 1/6 to 1/2 2 months (all grasses)  
7.9 or lower 1/2 4 months (all grasses)

CA, Northern ID, OR and WA:

- 10 Use Rate  
Soil pH\* (oz/acre) Minimum Interval for Planting Grasses
- 7.9 or lower 1/6 to 1/2 2 months (all grasses)  
7.5 or lower 1/2 4 months (all grasses)

- 15 \*Soil pH is to be determined by laboratory analysis using the 1:1; soil:water suspension method on representative soil samples taken at 0-4" depth. Consult local extension publications for recommended soil sampling procedures.

20 CROP ROTATION RECOMMENDATIONS  
(NONCEREAL CROPS)

The crop rotation intervals specified in this section of the label must be followed unless a field or LRBsm bioassay indicates a shorter planting interval.

- 25 Soil pH as specified in this section of the label is to be determined by laboratory analysis using the 1:1; soil:water suspension method on representative soil samples taken at 0-4" depth. Consult local extension publications for recommended soil sampling procedures.

- 30 Cumulative Precipitation as specified in this section of the label is defined as the total amount received from the date of "Glean" FC application to the date of planting. Should accumulated precipitation not be sufficient to meet the indicated amounts, do not rotate to the indicated crops until the following growing season.  
ARKANSAS/LOUISIANA

Unless a Crop Rotation Interval is specified, a field bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section. DO NOT USE ON SOILS WITH A pH GREATER THAN 7.9.

Cotton, Grain Sorghum, Soybeans:

- 40 In Southwest AR and Northwest LA on nonirrigated land, the interval for these crops is:

- | Cumulative Rotation    | Use Rate     | Precipitation | Interval |
|------------------------|--------------|---------------|----------|
| Crop Soil pH (oz/acre) | (in.)        | (months)      |          |
| Cotton,                |              |               |          |
| 45 Grain Sorghum,      | 7.9 or lower | 1/6 to 1/2    | 25 14    |
| Soybeans               |              |               |          |

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COLORADO

- 50 Unless a Crop Rotation Interval is specified, a field bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section. DO NOT USE ON SOILS WITH A pH GREATER THAN 7.9.

Field Corn, Proso and Setaria (Hay) Millets, Grain Sorghum:



In the counties of Adams, Arapahoe, Logan, Morgan, Phillips, Sedgwick, Washington and Yuma on nonirrigated land, the intervals for field corn and millets are:

	Cumulative Rotation			
5	Use Rate Precipitation Interval			
	Crop Soil pH (oz/acre) (in.) (months)			
	7.5 or lower	1/6 to 1/3	30	24
	Field Corn, 7.5 or lower	1/2	45	36
	Millets 7.6 to 7.9	1/6 to 1/3	45	36
10	7.6 to 7.9	1/2	60	48

In Eastern CO on nonirrigated land, the intervals for grain sorghum are:

	Grain Sorghum 7.5 or lower	1/6 to 1/2	45	36
15	7.6 to 7.9	1/6 to 1/2	60	48

**KANSAS**

Unless a Crop Rotation Interval is specified, a field bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section. DO NOT USE ON SOILS WITH A pH GREATER THAN 7.9.

Grain Sorghum and Soybeans:

In Central KS (generally east of Hwy. 183 and west of the Flint Hills) on nonirrigated land, the intervals for grain sorghum and soybeans are:

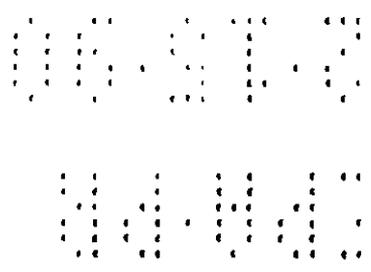
	Cumulative Rotation			
	Use Rate Precipitation Interval			
	Crop Soil pH (oz/acre) (in.) (months)			
30	Grain Sorghum 7.9 or lower	1/6 to 1/2	25	14
	7.5 or lower	1/6 to 1/3	25	14
	Soybeans 7.5 or lower	1/2	46	26
	7.6 to 7.9	1/6 to 1/3	46	26
	7.6 to 7.9	1/2	64	36

In West Central and Western KS (generally west of Hwy. 183 to the western edge of these counties—Grant, Kearny, Logan, Rawlins, Stevens, Thomas, Wichita) on nonirrigated land, the intervals are:

40	7.5 or lower	1/6 to 1/3	21	14
	Grain Sorghum 7.5 or lower	1/2	42	26
	7.6 to 7.9	1/6 to 1/3	42	26
	7.6 to 7.9	1/2	54	36

45 Far Western KS: In the last tier of counties along the Kansas/Colorado border (Cheyenne, Greeley, Hamilton, Morton, Sherman, Stanton, Wallace) on nonirrigated land, the intervals are:

50	Grain Sorghum 7.5 or lower	1/6 to 1/3	36	26
	7.5 or lower	1/2	45	36
	7.6 to 7.9	1/6 to 1/2	60	48



**MINNESOTA**

A field or LRBsm bioassay must be completed before rotating to crops other than the cereal grains or Conservation Reserve Program grasses listed on this label.

5

**MONTANA**

Unless a Crop Rotation Interval is specified, a field or LRBsm bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section. DO NOT USE ON SOILS WITH A pH GREATER THAN 7.9.

10

Safflower:

In MT on nonirrigated land, the interval is:

15

Cumulative Rotation			
Use Rate Precipitation Interval			
Crop Soil pH (oz/acre) (in.) (months)			
Safflower 7.9 or lower 1/6 to 1/3	39	34	
6.5 or lower 1/2	—	*	

20

Note: Safflower may be planted sooner than 34 months upon the successful completion of a field bioassay or when recommended by the LRBsm bioassay.

\*Field or LRBsm Bioassay

25

**NEBRASKA**

Unless a Crop Rotation Interval is specified, a field bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section. DO NOT USE ON SOILS WITH A pH GREATER THAN 7.9.

30

Grain Sorghum and Soybeans:

In the South Central NE counties of Franklin, Nuckolls, Thayer and Webster on nonirrigated land, the intervals for grain sorghum and soybeans are:

35

Cumulative Rotation				
Use Rate Precipitation Interval				
Crop Soil pH (oz/acre) (in.) (months)				
Grain Sorghum 7.9 or lower 1/6 to 1/2	25	14		
7.5 or lower 1/6 to 1/3	25	14		
Soybeans 7.5 or lower 1/2	46	26		
7.6 to 7.9 1/6 to 1/3	46	26		
7.6 to 7.9 1/2	64	36		

40

45

Field Corn, Proso and Setaria (Hay) Millers, Grain Sorghum, Soybeans:

In Western NE (generally west of Hwy. 183 to the WY border) on nonirrigated land, the intervals are:

Cumulative Rotation			
Use Rate Precipitation Interval			
Crop Soil pH (oz/acre) (in.) (months)			
Field Corn, 7.5 or lower 1/6 to 1/3	40	24	

50

Millets, 7.5 or lower	1/2	60	36
Grain Sorghum, 7.6 to 7.9	1/6 to 1/3	60	36
Soybeans 7.6 to 7.9	1/2	80	48

5 NEW MEXICO

Unless a Crop Rotation Interval is specified, a field bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section. DO NOT USE ON SOILS WITH A pH GREATER THAN 9.  
Grain Sorghum:

10

In the counties of Curry and Quay, the interval for grain sorghum on nonirrigated land is:

Cumulative Rotation  
Use Rate Precipitation Interval  
Crop Soil pH (oz/acre) (in.) (months)

15 Grain Sorghum 7.9 or lower 1/6 to 1/3 30 25

NORTH DAKOTA

20 Unless a Crop Rotation Interval is specified, a field or LRBsm bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section. DO NOT USE ON SOILS WITH A pH GREATER THAN 7.9.

Safflower:

25 In ND on nonirrigated land, the interval is:

Cumulative Rotation  
Use Rate Precipitation Interval  
Crop Soil pH (oz/acre) (in.) (months)

30 Safflower 7.9 or lower 1/6 to 1/3 45 34  
6.5 or lower 1/2 — \*

Note: Safflower may be planted sooner than 34 months upon the successful completion of a field bioassay or when recommended by the LRBsm bioassay.

\*Field or LRBsm Bioassay

OKLAHOMA

40 Unless a Crop Rotation Interval is specified, a field bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section. DO NOT USE ON SOILS WITH A pH GREATER THAN 7.9.

Cotton, Mungbeans, Grain Sorghum, Soybeans:

45 In Central and Eastern OK (generally east of Hwy. 183) on nonirrigated land, the intervals for these crops are:

Cumulative Rotation  
Use Rate Precipitation Interval  
Crop Soil pH (oz/acre) (in.) (months)

50 Grain Sorghum,  
Cotton, 7.9 or lower 1/6 to 1/2 25 14  
Mungbeans,  
Soybeans

In Western OK (generally west of Hwy. 183 and east of the Panhandle) on nonirrigated land, the interval for cotton and grain sorghum is:

5 Cotton, 7.9 or lower 1/6 to 1/3 25 14  
 Grain Sorghum 7.9 or lower 1/2 46 26

In the OK Panhandle, on nonirrigated land, the interval for grain sorghum is:

10 Grain Sorghum 7.9 or lower 1/6 to 1/3 30 25

**OREGON**

Unless a Crop Rotation Interval is specified, a field or LRBsm bioassay must be completed before rotating to crops other than those listed on this or other "Glean" FC labels.

15 See Oregon 24(c) label for rotation intervals for annual and perennial ryegrasses, crimson and red clovers, snap beans and corn.

**PACIFIC NORTHWEST (NORTHERN ID, NORTHEASTERN OR, EASTERN WA)**

20 Unless a Crop Rotation Interval is specified, a field or LRBsm bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section.

25 NOTE: Successful rotation to peas and lentils can be expected in fields of even terrain having well drained soils with a uniform pH of 6.5 or less. Localized areas of crop injury may occur in fields that have highly variable terrain with areas of poor drainage and/or areas of high soil pH (eroded knolls, exposed calcareous subsoil where pH is above 6.5).

Peas and Lentils:

30 Northern ID, Northeastern OR, Eastern WA Counties:

- ID: Benewah, Bonner, Boundary, Clearwater, Idaho, Koontenai, Letah, Lewis, Nez Perce
- OR: Baker, Umatilla, Union, Wallowa
- WA: Asotin, Columbia, Garfield, Pend Oreille, Prokane, Stevens, Walla Walla, Whitman

In the above counties on nonirrigated land, the intervals are:

40 Cumulative Rotation  
 Use Rate Precipitation Interval  
 Crop Soil pH (oz/acre) (in.) (months)  
 Pea 6.5 or lower 1/6 to 1/3 35 24  
 (Alaska, 6.5 or lower 1/2 — \*  
 45 Columbian) 6.6 to 7.5 1/6 to 1/2 — \*  
 7.6 to 7.9 1/6 to 1/3 — \*  
 6.5 or lower 1/6 to 1/3 50 36  
 Lentils 6.5 or lower 1/2 — \*  
 50 (Chilean) 6.6 to 7.5 1/6 to 1/2 — \*  
 7.6 to 7.9 1/6 to 1/3 — \*

\*Field or LRBsm Bioassay

**SOUTH DAKOTA**

5 A field or LRBsm bioassay must be completed before rotating to crops other than the cereal grains or Conservation Reserve Program grasses listed on this label.

**TEXAS**

10 Unless a Crop Rotation Interval is specified, a field bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section. DO NOT USE ON SOILS WITH A pH GREATER THAN 7.9.

15 Cotton, Mungbeans, Grain Sorghum, Soybeans:

Eastern TX Counties:

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, Tarrant, Titus, Upshur, Van Zandt, Wichita, Williamson, Wise, Wood, Young

In the above counties of Eastern TX on nonirrigated land, the interval for these crops is:

Cumulative Rotation  
Use Rate Precipitation Interval  
25 Crop Soil pH (oz/acre) (in.) (months)  
Grain Sorghum,  
Cotton, 7.9 or lower 1/6 to 1/2 25 14  
Mungbeans,  
Soybeans

30 Central TX Counties:

Baylor, Callahan, Eastland, Foard, Hardeman, Haskell, Knox, Shackelford, Stephens, Throckmorton, Wilbarger

In the above counties of Central TX on nonirrigated land, the interval for cotton and grain sorghum is:

Cotton, 7.9 or lower 1/6 to 1/3 25 14  
Grain Sorghum 7.9 or lower 1/2 46 26

40 In the TX Panhandle, on nonirrigated land, the interval for commercial grain sorghum is:

Grain Sorghum 7.9 or lower 1/6 to 1/3 30 25

NOTE: Do not plant sorghum grown for hybrid seed production.

45 **SOUTHEASTERN WYOMING**

Unless a Crop Rotation Interval is specified, a field bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section. DO NOT USE ON SOILS WITH A pH GREATER THAN 7.9.

50 Proso and Setaria (Hay) Millets:

In the counties of Goshen, Laramie and Platte on nonirrigated land, the intervals are:

Cumulative Rotation

Use Rate	Precipitation Interval	Crop	Soil pH (oz/acre)	(in.)	(months)
7.5 or lower	1/6 to 1/3	30	24		
Millets	7.5 or lower	1/2	45	36	
7.6 to 7.9	1/6 to 1/3	45	36		
7.6 to 7.9	1/2	60	48		

## SPRAYER CLEANUP

To avoid subsequent injury to crops other than wheat, oats or barley, immediately after spraying, thoroughly remove all traces of "Glean" FC from mixing and spray equipment as follows:

- 1) Drain tank; rinse interior surfaces of tank; then flush tank, boom and hoses with clean water for a minimum of 5 minutes.
- 2) Fill the tank full with clean water, then add cleaning solution\*. Flush solution through boom, hoses and nozzles, then allow to sit for 15 minutes with agitation running; then drain.
- 3) Repeat Step 2.
- 4) Repeat Step 1.
- 5) Nozzles and screens should then be removed and cleaned separately. To remove traces of cleaning solution, rinse the tank thoroughly with clean water and flush through hoses and boom.
- 6) Flush boom and hoses with clean water for 5 minutes just prior to using the sprayer for the first time after the "Glean" FC application.

\*Use any of the following cleaning solutions:

1. One gallon ammonia (containing 3% active) per 100 gallons of water.
2. Nutra-Sol[8] (carefully read and follow Nutra-Sol label directions).
3. Loveland Spray Tank Cleaner[9] (carefully read and follow Loveland Spray Tank Cleaner label directions).
4. Tank-Aid[10] (carefully read and follow Tank-Aid label directions).

NOTE: To reduce the amount of water required in the above procedure, see separate Du Pont bulletin, "Reduced Volume Cleanout Procedure for Large Sprayers".

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## PRECAUTIONS

Varieties of wheat, oats and barley differ in their tolerance to herbicides. When using "Glean" FC for the first time on a particular variety, limit initial use to one 18 oz jug. If no symptoms of crop injury occur 7-14 days after treatment, balance of acreage can be treated.

- Do not apply "Glean" FC to wheat, oats or barley 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.
- In the states of CA, Northern ID, OR and WA, the maximum use rate is 1/3 oz/A per crop or fallow period on soils having a pH of 7.9 or lower. Do not apply more than 1/3 oz/A in an 18-month period. Do not use on soils having a pH greater than 7.9.
- In the states of Southern ID, MN, MT, ND, SD, UT and Northern WY, the maximum use rate is 1/6 oz/A in a 48-month period on soils having a pH of 7.9 or lower. Do not use on soils having a pH greater than 7.9.
- In the states of Western KS, Western NE, Eastern NM, OK Panhandle, TX Panhandle and Southeastern WY, the maximum use rate is 1/3 oz/A in a 36-month period on soils having a pH of 7.9 or lower. Do not use on soils having a pH greater than 7.9.
- In the states of Central KS, Central NE and Central OK, the maximum use rate is 1/3 oz/A per crop period on soils having a pH of 7.9 or lower. Do not use on soils with a pH greater than 7.9.
- In the states of AR, LA, Central and North Central TX and Southern OK, the maximum use rate is 1/2 oz/A per crop period on soils having a pH of 7.9 or lower. Do not use on soils with a pH greater than 7.9.
- Do not apply to wheat, barley or oats undersown with legumes and grasses, as injury to the forages will result.
- Do not apply to frozen ground where surface runoff may occur.
- Do not apply to snow covered ground.
- Do not apply to irrigated land where tailwater will be used to irrigate other cropland.
- Do not use on fields that have variable soil conditions where large areas are gravelly or sandy, have eroded knolls, calcium deposits or widely variable pH readings or organic matter content. Use of "Glean" FC on fields with these conditions may result in crop injury or adversely affect crop rotation intervals.
- The combined effects of preemergence "Glean" FC 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.
- Tank mixtures or sequential treatments of "Glean" FC and organophosphate insecticides (such as methyl or ethyl parathion, "Di-Syston", etc.) may cause temporary discoloration or crop injury.
- Wherever land has been or will be treated with "Assert" herbicide and "Glean" FC, plant only wheat or barley until a bioassay (see "Bioassay" section of label) demonstrates that other crops can be successfully grown. On land that is frequently rotated to crops other than wheat or barley, do not use "Glean" FC wherever "Assert" has been or will be used. The additive effect of soil residues from these treatments has not been determined and crop rotation guidelines and minimum rotation intervals are not known; injury to rotational crops may occur.
- Under certain conditions such as hot, dry weather, heavy rainfall, prolonged cool weather (daily high temperature less than 50 Deg. F) or wide fluctuations in day/night temperatures just prior to or soon after treatment, temporary discoloration and/or crop injury may occur. Risk of injury is greatest when crop is in first 1-5 leaf stage.
- To prevent cold weather-related crop injury, avoid making preemergence applications or early postemergence applications (2-4 leaf stage) to wheat or barley during late fall, winter or early spring when cold weather conditions are

unpredictable and can be severe. The combined effects of herbicide stress plus cold weather stress can result in greater crop injury than either stress factor alone.

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 adjacent crops may occur 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.

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" FC.

## BIOASSAY

A bioassay (field or LRBsm) must be completed before rotating to crops not listed on this label or rotating at intervals shorter than those listed in the "Crop Rotation Recommendations (Noncereal Crops)" section.

### - FIELD BIOASSAY

"Glean" FC herbicide is a useful tool for weed control in wheat, barley, oats or fallow. However, under some conditions small amounts of "Glean" FC can remain in the soil and injure crops other than wheat, barley or oats for 2 to 4 years or more after application. Therefore, before you use "Glean" FC, you should carefully consider your crop rotation plans during the 2 to 4 year period following treatment.

A field bioassay will be necessary if crops other than wheat, barley or oats or those listed on the label are to be planted on land previously treated with "Glean" FC. Crop response will indicate whether or not to rotate to the crop(s) grown in the test strips.

A field bioassay involves growing test strips of the crop or crops you plan to grow the following year in fields previously treated with "Glean" FC. Crop response will indicate whether or not to rotate to the crop(s) grown in the test strips.

"Glean" FC breaks down most rapidly in soils having a pH less than 7.0, in areas having 20" or more of annual rainfall, and a long growing season with warm soil temperatures. "Glean" FC residues breakdown more slowly as soil pH increases above 7.0. Other contributing factors that slow the disappearance of "Glean" FC are low rainfall and prolonged periods of soil temperatures less than 40 Deg. F.

Of the key factors that influence the rate of disappearance, only soil pH remains relatively constant from year to year. Soil temperature, and to a larger degree soil moisture, can vary greatly from year to year and from area to area. Consequently, it is not always possible to accurately predict when areas treated with "Glean" FC can be rotated to crops other than those listed on label.

A bioassay of your "Glean" FC treated field is the only sure way of determining when crops other than those listed on label can be grown.

1. The accuracy and reliability of any field bioassay is largely dependent on the location and number of strips planted.

Be sure to select areas of the field previously treated with "Glean" FC that are representative of the various field conditions. Be sure to consider factors such as field size, soil texture, drainage, turnaround areas, eroded knolls or alkaline spots when selecting the sites that are most representative of the soil conditions in the field.

5 Even in small fields, more than one test strip is required to accurately determine whether it is safe to rotate to a crop not listed on the label. On large fields, several test strips will be needed in order to obtain reliable results based on the field variables mentioned above.

10 2. Plant the test strips perpendicular to the direction in which the field was sprayed. Each strip should be long enough to cross the width of several spray swaths- swathes. A large test strip area is more reliable than a small one. Suggested size is 1/4 to 1/2 acre per test strip.

3. Use standard tillage and seeding equipment to plant the bioassay.

15 4. Prepare a seed bed and plant the crops and varieties you want the option of growing the following year. IT IS IMPORTANT TO USE THE SAME PLANTING TIME, CONDITIONS, TECHNIQUES AND CULTURAL PRACTICES YOU NORMALLY USE TO PLANT AND GROW THE BIOASSAY CROP(S). If possible, plant into an adjacent area not treated with "Glean" FC to use as a comparison.

20 5. Do not overspray the test strips with herbicides that may damage the bioassay crop(s).

25 6. If the crop(s) in the test strip(s) grow to maturity with a normal harvest, the assay is positive and you may now rotate to the new crop. However, if the crop(s) in the test strips dies, are stunted, or fail to yield a normal harvest, the assay is negative and you should not rotate to the new crop(s). Run the assay until positive results are obtained before rotating to the new crop(s).

7. If the bioassay indicates that "Glean" FC residues are still present, do not rotate to crops other than wheat, barley, or oats or those listed on label until bioassay results indicate that the assay crops are growing normally.

30

#### - DU PONT LRBsm BIOASSAY SERVICE

In the states of ID, MN, MT, ND, OR, SD and WA, the Du Pont LRBsm Bioassay Service is available through certain dealers and/or consultants. This service uses soil samples taken by Du Pont certified individuals for laboratory bioassay analysis. LRBsm results will serve as a crop rotation recommendation.

Check with your local Du Pont representative or call toll free 1-800-782-3557 for information regarding the LRBsm Bioassay Service.

40 With any chemical, follow labeling instructions and warnings carefully.

45

**BEST AVAILABLE COPY**

#### 50 STORAGE AND DISPOSAL

**STORAGE:** Store product in original container only, away from other pesticides, fertilizer, food or feed.

**PRODUCT DISPOSAL:** Do not contaminate water, food or feed by storage or disposal. Wastes resulting from the use

of this product may be disposed of on site or at an approved waste disposal facility.

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

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

#### NOTICE OF WARRANTY

Du Pont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Du Pont. In no case shall Du Pont be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer. DU PONT MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

[1] Registered trademark of Sandoz Crop Protection Corporation.

[2] Registered trademark of Rhone-Poulenc Ag Co

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[5] Registered trademark of American Cyanamid Company.

[6] Registered trademark of Delavan Corporation.

[7] Registered trademark of D. and W. Corporation.

[8] Sold by Thomas G. Killoil, San Bruno, CA.

[9] Registered trademark of Loveland Industries, Inc.

[10] Manufactured for Combelt Chemical Company.

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100 PPM...  
In Accordance with EPA Reg. 204-2  
Based on... EPA



# Glean®

FERTILIZER COMPATIBLE  
HERBICIDE



DRY FLOWABLE

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REGISTRATION CODE 0190-001

PACKAGE SIZE  
12 - 18 OUNCE JUGS/CARTON



GLEAN®

FERTILIZER COMPATIBLE  
HERBICIDE

DRY FLOWABLE

ACTIVE INGREDIENT:

Chlorsulfuron

BY WEIGHT

2-Chloro-N-[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)aminocarbonyl]benzenesulfonamide.....75%

INERT INGREDIENTS.....25%

TOTAL 100%

EPA Reg. No. 352-522

U.S. Pat. 4,127,405

KEEP OUT OF REACH OF CHILDREN

## CAUTION

PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION! MAY IRRITATE EYES, NOSE, THROAT OR SKIN.**

Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse.

### STATEMENT OF PRACTICAL TREATMENT

If **swallowed**: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

If in **eyes**: Flush eyes with plenty of water. Call a physician if irritation persists.

If on **skin**: Wash with plenty of soap and water. Call a physician if irritation persists.

For **medical emergencies** involving this product, call toll-free 1-800-441-3637.

### ENVIRONMENTAL HAZARDS

Do not apply directly to water or wetlands (swamps, bogs, marshes and potholes). Do not contaminate water when disposing of equipment washwaters.

### IMPORTANT INFORMATION—(READ BEFORE USING)

Du Pont "Glean" Fertilizer Compatible Herbicide ("Glean" FC) is recommended for use on land primarily dedicated to the long-term production of wheat, barley or oats. "Glean" FC should not be used in any area where annual crop rotation is frequently practiced except as indicated for the states of AR, KS, LA, OK and TX. See "Cereal Recropping Intervals" and "Crop Rotation Recommendations (Noncereal Crops)" sections for details.

In areas having soil pH greater than 7.0, a short growing season, prolonged periods of low soil temperature and low annual rainfall, "Glean" FC can remain in the soil for 3 to 4 years or more and cause severe injury to crops other than wheat, barley, oats, rye or triticale.

Before using "Glean" FC, carefully consider your crop rotation plans and options. For rotational flexibility, do not treat all your wheat, barley, oats or fallow acres.

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. Prevent drift of spray to desirable plants. Do not contaminate any body of water, including irrigation water that may be used on other crops.

Carefully observe sprayer cleanup instructions, as spray tank residue may damage crops other than wheat, oats or barley.

## INFORMATION ON RESISTANT WEEDS

Following the use of "Glean" FC in monoculture cereals production (continuous cereals or cereal-fallow-cereal), some naturally-occurring biotypes\* of certain weeds listed on this label may not be effectively controlled by this product

If weeds listed on this label are not satisfactorily controlled, respray problem areas in a timely and effective manner using a broadleaf herbicide having a different mode of action\*\*, such as: 2,4-D, Banvel[1], Banvel\* SGF, Buctril[2], Bronate[2], Curtail[3], MCPA, Du Pont "Karmex" DF Herbicide or Du Pont "Lexone" DF Herbicide

To delay the occurrence of resistant biotypes, use "Glean" FC in tank mixes and/or sequential treatments with other herbicides having different modes of action effective on the same broadleaf weed species. Do not let weed escapes go to seed.

Consult your Ag chemical dealer, applicator, consultant, appropriate state agricultural extension service representative or your local Du Pont representatives for specific recommendations.

\* Biotypes are naturally-occurring individuals of the species which have a slightly different genetic makeup. Resistant biotypes may look exactly the same as susceptible biotypes. Herbicide-resistant biotypes are able to survive a use rate several times higher than needed to control susceptible biotypes. These resistant biotypes will not be controlled by "Glean" FC or other herbicides having the same mode of action such as Du Pont "Ally" Herbicide, "Express" Herbicide and "Harmony" Extra Herbicide.

\*\* Mode of action is the chemical interaction that interrupts a biological process necessary for plant growth and development

## GENERAL INFORMATION

"Glean" FC Herbicide is a dry flowable granule containing 75% active ingredient, to be mixed in water or directly into liquid nitrogen fertilizer solutions and applied as a uniform broadcast spray for selective weed control in wheat (including durum), barley and spring oats. In the states of TX, Western OR and Western WA, "Glean" FC may also be used on winter oats. "Glean" FC is also recommended for selective weed control in grasses on acreage enrolled in the Conservation Reserve Program. It is noncorrosive, nonflammable, nonvolatile and does not freeze

Prior to using "Glean" FC, careful consideration should be given to crop rotation plans. Crops other than wheat, barley and oats can be extremely sensitive to low concentrations of "Glean" FC in the soil

READ AND FOLLOW ALL APPROPRIATE SECTIONS OF LABEL INCLUDING PRECAUTIONS BEFORE USING THIS PRODUCT

## GRAZING

"Glean" FC has no grazing restrictions.

## SOIL RESIDUAL ACTIVITY

In the states of CA, Northern ID, OR and WA, "Glean" FC is recommended for use on land having a soil pH of 7.9 or lower and dedicated to the long-term production of cereal grains. The soil residual activity of "Glean" FC can injure crops other than wheat, barley or oats for 2 to 3 years or more. "Glean" FC should not be used on soils above pH 7.9, as extended soil residual activity could adversely affect crop rotation options beyond normal intervals

In the states of Southern ID, MN, MT, ND, SD, UT and Northern WY, "Glean" FC is recommended for use on land having a soil pH of 7.9 or lower and dedicated to the long-term production of cereal grains. The soil residual activity of "Glean" FC can injure crops other than wheat, barley or oats for 3 to 4 years or more. "Glean" FC should not be used on soils above pH 7.9, as the extended soil residual activity could adversely affect crop rotation options beyond normal intervals and under certain conditions cause injury to wheat, barley, or oats

In the states of AR, CO, KS, LA, NE, NM, OK, TX, and Southeastern WY, "Glean" FC is recommended for use on land having a soil pH of 7.9 or lower. Unless otherwise specified in the "Crop Rotation Recommendations (Noncereal Crops)" section of this label, in the low rainfall areas of CO, KS, NE, NM, OK, TX, and Southeastern WY, "Glean" FC should only be used on land dedicated to the long-term production of wheat, barley or oats. The soil residual activity of "Glean" FC can injure crops other than wheat, barley or oats for 2 to 4 years or more. "Glean" FC should not be used on soils higher than pH 7.9, as extended soil residual activity could adversely affect crop rotation options beyond normal intervals

Rainfall, soil temperature and soil pH are important factors affecting "Glean" FC breakdown in soil. "Glean" FC breakdown is more rapid under conditions of low soil pH, high soil temperature and moist soil. The breakdown process is slow under conditions of high soil pH, low soil temperature and dry soil

IMPORTANT UNLESS OTHERWISE SPECIFIED IN THE "CROP ROTATION RECOMMENDATIONS (NONCEREAL CROPS)" SECTION OF THIS LABEL, land previously treated with "Glean" FC cannot be rotated to crops other than wheat, barley, oats, rye or triticale until a bioassay confirms that residues of "Glean" FC that could cause crop injury are not present. See "Bioassay" section of this label for details. Failure to follow these instructions could result in injury to subsequent crops

For crop rotation flexibility do not use "Glean" FC on all your wheat, barley, oats or fallow acreage

## HOW APPLICATION TIMING AND ENVIRONMENTAL CONDITIONS AFFECT WEED CONTROL AND CROP SAFETY

### How Growing Conditions and Crop Density Affect Weed Control

Postemergence application to weeds is most effective when "Glean" FC is applied to young, actively growing weeds which are less than 2" tall or 2" across. Warm, moist growing conditions promote active weed growth and enhance the activity of "Glean" FC by allowing maximum foliar uptake. If cold, dry conditions exist, delay postemergence treatment until weather conditions promote active weed growth. For best results with treatments made postemergence to weeds during periods of cold temperatures, apply "Glean" FC when minimum day/night temperatures are 40 Deg F or higher

Avoid postemergence applications to weeds which are inactive due to adverse weather conditions. Weeds hardened-off by cold weather or drought stress may not be controlled

A vigorously growing crop will aid weed control by shading and providing competition for weeds. However, a dense crop canopy at time of application can intercept spray and result in reduced weed control. Weeds may not be adequately controlled in areas of thin crop stand or seeding skips

### How Rainfall After Treatment Affects Weed Control

Rainfall after treatment will affect "Glean" FC performance when applied postemergence or preemergence to weeds. Without sufficient rainfall to move "Glean" FC into the weed root zone, weeds that germinate after treatment will not be controlled.

Postemergence treatments control or suppress weeds through both foliar and root uptake. To maximize "Glean" FC activity on existing weeds, sufficient rainfall is needed soon after treatment to move "Glean" FC into the weed root zone, before weeds develop an established root system and grow beyond the seedling stage.

Avoid making postemergence applications to weeds when rainfall is threatening. Rainfall immediately after treatment can wash "Glean" FC off weed foliage and result in reduced weed control effectiveness. Several hours of dry weather are needed to allow "Glean" FC to be absorbed by weed foliage.

When weed emergence is uneven, control of weeds that germinate after treatment will be dependent on the timing and amount of rainfall following application. Sufficient rainfall is needed to move "Glean" FC 2 to 3" deep into the weed root zone before weeds that germinate after treatment can develop an established root system. When favorable growing conditions exist, rainfall may be needed within a few days after treatment.

For best preemergence results, it is important to apply "Glean" FC when you can expect at least 1 to 2" (clay soils require more than sandy soils) of rain or sprinkler irrigation to move "Glean" FC 2 to 3" deep into the soil profile before weed seeds germinate and develop an established root system. Weeds that germinate after treatment and develop an established root system before rainfall moves "Glean" FC into the soil profile may not be controlled.

### How Growing Conditions Affect Crop Safety

Prolonged cold weather (daily maximum temperature below 50 Deg. F) and/or drought, and/or low fertility while crop is in seedling stage (1 to 5 leaf), can cause crop injury following either a preemergence or postemergence treatment.

To avoid the risk of cold weather-related injury, apply "Glean" FC when good growing conditions are expected to continue until crop has started to tiller.

### 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 through any type of irrigation system.

"Glean" FC Herbicide should be used only in accordance with recommendations on this label or in separate published Du Pont recommendations available through local dealers.

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

### MAXIMUM USE RATES, AND SOIL pH LIMITATIONS

In the states of CA, Northern ID, OR and WA, the maximum use rate is 1/3 oz/A per crop on soils having a pH of 7.9 or lower. Do not apply more than 1/3 oz/A in an 18-month period. Do not use on soils having a pH greater than 7.9.

In the states of Southern ID, MN, MT, ND, SD, UT and Northern WY, the maximum use rate is 1/6 oz/A in a 48-month period on soils having a pH of 7.9 or lower. Do not use on soils having a pH greater than 7.9.

In the states of CO, Western KS, Western NE, Eastern NM, OK Panhandle, TX Panhandle and Southeastern WY, the maximum use rate is 1/3 oz/A in a 36-month period on soils having a pH of 7.9 or lower. Do not use on soils having a pH greater than 7.9.

In the states of Central KS, Central NE and Central OK, the maximum use rate is 1/3 oz/A per crop period on soils having a pH of 7.9 or lower. Do not use on soils with a pH greater than 7.9.

In the states of AR, LA, Central and North Central TX and Southern OK, the maximum use rate is 1/2 oz/A per crop period on soils having a pH of 7.9 or lower. Do not use on soils with a pH greater than 7.9.

NOTE: Prior to using "Glean" FC, take soil samples at 0-4" depth and determine soil pH by laboratory analysis using a 1:1 (soil water) suspension. Samples should be representative of the different conditions in the field (for example, slope, soil texture, low areas, eroded areas, etc.). Consult local extension publications for recommended soil sampling procedures.

### APPLICATION TECHNIQUES, TIMING AND APPLICATION INTERVALS

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

Preemergence applications of "Glean" FC are recommended only where annual ryegrass is the target weed.

Apply "Glean" FC after planting, but before crop emergence, at 1/2 oz/A for the suppression of annual ryegrass. Rainfall or sprinkler irrigation following treatment is necessary to activate "Glean" FC before weed seeds germinate and develop an established root system. Wheat must be planted at least 1" deep. For best results apply "Glean" FC uniformly to a smooth seedbed.

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.

Preemergence applications of "Glean" FC are not recommended where organophosphate insecticides (such as Di-Syston[4], etc.) have been used as an in-furrow treatment, as crop injury may occur.

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

#### Postemergence to Winter/Spring Wheat, Durum, Winter/Spring Barley and Spring Oats in Cereal/Fallow/Cereal and Continuous Cereal Production

"Glean" FC must be used as a tank mix treatment with another broadleaf herbicide having a different mode of action. Follow the application intervals and maximum use rates specified for each geographical area.

Area	Max. Use Rate	Minimum Application Interval
AR, Central KS (east of Hwy. 183), LA, South Central NE, Central OK and North Central TX	1/3 oz/A	Once per crop period
CA, Northern ID, OR, and WA	1/3 oz/A	Once every 18 months
CO, Western KS (west of Hwy 183), Western NE (west of Hwy 183), NM, OK Panhandle, TX Panhandle and Southeastern WY		Do not use for broadleaf weed control. "Atly", "Harmony" Extra or "Express" herbicides are recommended
Southern ID, MN, MT, ND, SD, UT and Northern WY	1/6 oz/A	Once every 48 months

To avoid the risk of cold weather-related crop injury, apply "Glean" FC when good growing conditions (adequate soil moisture, daily high temperature of 50 Deg. F or more) are expected to continue until crop has started to tiller.

Do not apply prior to tillering when cold and/or dry weather can reduce seedling vigor, making crop more vulnerable to the combination of herbicide and weather stress. The combined effect of herbicide and stress from cold and/or dry weather can result in temporary yellowing or crop injury (yield reduction)

\*NOTE: APPLY TO VIC DURUM AFTER EARLY TILLERING. BUT BEFORE BOOT STAGE

#### Postemergence To Crop For Use In Wheat/Sorghum and Wheat/Soybean Annual Rotations

In areas where the interval between an application of "Glean" FC and the planting of sorghum or soybeans is 14 months (see "Crop Rotation Recommendations (Noncereal crops)" section of label), "Glean" FC may be used at 1/6 to 1/3 oz/A alone or in a tank mix in planned crop rotation programs where other residual broadleaf herbicides having different modes of action are used. Follow the application intervals specified for each geographical area:

#### WINTER WHEAT/WINTER BARLEY

Use "Glean" FC at 1/6 to 1/3 oz/A in all areas except the Northern Plains where the maximum use rate is 1/6 oz/A. Apply in the fall or spring anytime after the crop is in the 2-leaf stage, but before boot stage

Do not make an early postemergence treatment to late seeded wheat or barley as the combined effect of herbicide stress plus cold weather and/or moisture stress could cause crop injury. Delay making a postemergence treatment to late seeded wheat or barley until crop has started to tiller.

In areas where cold weather conditions can be severe (ID, OR, UT, WA, MN, MT, ND, SD, WY) do not make a late fall, winter or early spring application to wheat or barley until crop is well established and has started to tiller

Do not apply "Glean" FC within 60 days of crop emergence where organophosphate insecticides (such as "Di-Syston", etc.) have been used as an in-turrow treatment, as crop injury may result.

DO NOT apply during boot stage or early heading as crop injury may occur.

#### SPRING WHEAT, DURUM, SPRING BARLEY AND SPRING OATS

In the Northern Plains, apply "Glean" FC at 1/6 oz/A anytime after crop is in the 2-leaf stage, but before boot stage. Do not apply during boot stage as crop injury may occur

In the Pacific Northwest, apply "Glean" FC at 1/6 to 1/3 oz/A anytime after crop is in the 2-leaf stage through the 2nd joint stage. DO NOT apply once the flag leaf is visible as crop injury may occur.

In all other areas, apply "Glean" FC at 1/6 to 1/3 oz/A anytime after crop is in the 2-leaf stage, but before boot stage. Do not apply during boot stage as crop injury may occur.

For irrigated cereal crops, delay first posttreatment irrigation for at least 3 days after application.

Area	Max. Use Rate	Minimum Application Interval
West Central and Western KS, (west of Hwy 183)	1/3 oz/A	Once every 36 months
AR, Central KS (east of Hwy. 183), LA, South Central NE, OK (east of the Panhandle), and TX (east of the Panhandle)	1/3 oz/A	Once per crop period

#### Preemergence Or Postemergence Application To Winter Oats - TX, Western OR And Western WA Only

Preemergence to Oats: Apply "Glean" FC at 1/3 oz/A as a postplanting preemergence treatment to early seeded winter oats. Use 1/2 oz/A (Central and Northeast TX) rate where annual ryegrass is the primary weed problem.

Do not make a preemergence treatment to late fall plantings (after November 1) as herbicide stress plus cold weather stress can cause crop injury

Remove grazing cattle during wet (muddy) field conditions to avoid disturbing the herbicide barrier

Heavy rainfall between the time of treatment and the 2-leaf crop stage can result in temporary yellowing and stunting and may result in crop injury

Postemergence to Oats (broadleaf control only). Apply "Glean" FC at 1/6 to 1/3 oz/A when crop is in 2-leaf to boot stage. When weeds are present at the time of application, add a surfactant (80% active ingredient or more) at the rate of 1 to 2 quarts per 100 gallons of spray solution. Fall applications of less than 1/3 oz/A may not provide adequate control of spring germinating broadleaf weeds.

NOTE: Under abnormally wet conditions, especially on coarse textured soils, fall applications may not provide adequate control of ryegrass and/or spring germinating broadleaf weeds.

Remove grazing cattle during wet (muddy) field conditions to avoid disturbing the herbicide barrier.

Postemergence applications generally do not provide adequate suppression of annual ryegrass

#### Weed Control In Corn Or Sorghum Stubble (Preceding Wheat)

In the states of Eastern CO, Far Western KS (last tier of counties along the CO/KS border), Western NE, Eastern NM, OK Panhandle, and TX Panhandle where the interval between an application of "Glean" FC and the planting of corn or sorghum is at least 24 months (see "Crop Rotation Recommendations (Noncereal Crops)" section of label), "Glean" FC may be used as a fallow treatment preceding the planting of wheat.

Use "Glean" FC at 1/6 to 1/3 oz/A in a tank mix in planned rotation programs where other residual broadleaf herbicides having different modes of action are used. "Glean" FC may not be used on a given field more often than once in a 36-month period.

o DO NOT USE "GLEAN" FC AS A FALLOW HERBICIDE IN CEREAL/FALLOW/CEREAL ROTATIONS

#### Weed Control For The Conservation Reserve Program (CRP)

"Glean" FC is registered for CRP use in CO, IA, ID, KS, MN, MT, NE, NM, ND, OK, OR, SD, TX, UT, WA and WY. Consult "Glean" FC supplemental label for CRP use instructions.

#### WEED CONTROL

##### General Information

"Glean" FC rapidly inhibits growth of susceptible weeds. However, typical symptoms of dying weeds (discoloration) may not be noticeable for 1 to 3 weeks after application depending on growing conditions and weed susceptibility.

Degree of control and duration of effect depend on: a) rate used, b) weed spectrum, c) weed size, d) degree of weed infestation, e) growing conditions at and following time of treatment, f) length of growing season, g) soil pH, h) soil organic matter and i) precipitation.

For maximum weed control or suppression, always use the highest recommended rate for your area, soil pH and weed problem. Do not use less than 1.6 oz/A.

Because of rapid breakdown in soil, "Glean" FC may not provide season-long weed control on soils below pH 6.5.

For best results with application made postemergence to weeds, apply "Glean" FC to small (less than 2" tall or 2" across), actively growing weeds. Add a surfactant of at least 80% active ingredient at the rate of 1-2 quarts/100 gallons of spray solution. The higher rate of surfactant is particularly useful with spray volumes of 5 GPA or less and when using low rates of "Glean" FC. The use of surfactants having less than 80% active ingredient may reduce weed control.

Sufficient rainfall after preemergence or postemergence treatment is necessary to move "Glean" FC 2-3" into the weed root zone before weed seeds germinate and develop an established root system or existing weeds grow beyond the seedling stage. In most areas, fall treatments provide the best opportunity for rainfall activation and most consistent

residual weed control. Late spring applications may not receive enough rainfall after treatment, resulting in poor weed control. Without sufficient rainfall to move "Glean" FC into the weed root zone, weeds that germinate after treatment will not be controlled.

#### Weed Control/Use Rate Table

NOTE: Read and follow all instructions under "Specific Weed Problems" for all weeds marked with \*\*\*.

For broadleaf weed control, the maximum use rate is 1/3 oz/A in all areas except Southern ID, MN, MT, ND, SD, UT and Northern WY where the maximum use rate is 1/6 oz/A.

The 1/6 oz/A use rate is recommended only for short-term control or suppression. Use 1/3 oz/A where soil residual weed control is important.

Where soil pH is 6.5 or lower, use the 1/3 oz/A rate where maximum soil residual weed control is important.

The 1/2 oz/A use rate is recommended only for the control/suppression of annual ryegrass in AR, LA, OK and TX.

#### Weeds Controlled at 1/6 thru 1/4 Ounce Per Acre

Blue mustard  
Conical catchfly  
Curly dock  
Cutleaf evening primrose  
Field pennycress  
Flixweed\* (except ID, OR, UT, WA)  
Hempnettle  
Henbit  
Mayweed  
Miners lettuce  
Pineappleweed  
Prostrate pigweed  
Redroot pigweed  
Shepherdspurse  
Smooth pigweed  
Tansymustard\* (except ID, OR, UT, WA)  
Treacle mustard  
Tumble mustard (Jim Hill)  
Waterpod  
Wild mustard

\*See "Specific Weed Problems"

#### Weeds Controlled at 1/3 Ounce Per Acre

Bur beakchervil  
Buttercup  
Coast fiddleneck (tarweed)  
Common chickweed  
Common groundsel  
Corn spurry  
Cow cockle  
False chamomile  
Falseflax  
+ Kochia\* (Central KS, Central NE, Central OK and North Central TX only)  
Ladysthumb  
Lambsquarters\*  
Mouseear chickweed  
Purslane (common)

Redstem Maree\*  
+ Russian thistle\* (Central KS, Central NE, Central OK and North Central TX only)

White cockle  
Wild carrot  
Wild turnip

#### Weeds Suppressed<sup>1</sup> at 1/3 Ounce Per Acre

Annual ryegrass\*  
Bedsraw  
Canada thistle\*  
Corn groundsel  
Flixweed\* (ID, OR, UT, WA only)  
Pennsylvania smartweed  
+ Prickly lettuce  
Prostrate knotweed\*  
Sunflower\* (in TX partial control only)  
Speedwell  
Tansymustard\* (ID, OR, UT, WA only)  
Wild buckwheat  
Wild garlic/Wild onion\*  
Wild radish\*

\* See "Specific Weed Problems".

+ Naturally-occurring resistant biotypes of these weeds are known to occur in the Central Plains and the Pacific Northwest. See "Tank Mixtures and Guidelines for Resistant Weed Management In Specific Areas" section of label for additional information.

<sup>1</sup> Weed suppression is a visual reduction in weed competition (reduced population and/or vigor) as compared to an untreated area. Degree of suppression will vary with rate used, size of weeds and environmental conditions following treatment.

#### SPECIFIC WEED PROBLEMS

**Canada Thistle:** Apply "Glean" FC plus surfactant after majority of thistles have emerged and while they are small (rosette stage to 4"-6" tall), but actively growing. A single application will effectively inhibit the ability of Canada thistle to compete with the crop. For maximum long-term effect, yearly treatment may be required.

**Annual Ryegrass: (Southwest AR/Northwest LA):** Apply "Glean" FC at 1/2 oz/A preemergence to ryegrass. 1/2 to 1" of rainfall is needed to move "Glean" FC into the weed root zone prior to ryegrass emergence. Remove grazing cattle during wet (muddy) field conditions to avoid disturbing the herbicide barrier. Under abnormally wet conditions, especially on coarse textured soils, fall applications may not adequately control ryegrass and/or spring germinating broadleaf weeds.

**Annual Ryegrass: (Southeast OK, Central and North Central TX):** Apply "Glean" FC at 1/2 oz/A preemergence to ryegrass. 1/2 to 1" of rainfall is needed to move "Glean" FC into the weed root zone prior to ryegrass emergence. Remove grazing cattle during wet (muddy) field conditions to avoid disturbing the herbicide barrier. Under abnormally wet conditions, especially on coarse textured soils, fall applications may not adequately control ryegrass and/or spring germinating broadleaf weeds.

For best results, a sequential treatment of "Glean" FC followed by "Ally" is recommended. Apply "Glean" FC as stated above then follow with "Ally" at 1/10 oz/A immediately after completion of wheat grazing. For fields not grazed, apply the sequential application of "Ally" as soon as ryegrass starts to grow after winter dormancy. "Ally" may be applied with a surfactant or with a liquid nitrogen fertilizer topdressing application. Do not add a surfactant to liquid nitrogen fertilizer plus "Ally" combinations. In mixing "Ally" with liquid fertilizer, slurry "Ally" in water then thoroughly mix the slurry into the fertilizer. Run a tank mix compatibility test before mixing "Ally" in fertilizer solution. DO NOT use with fertilizers having a pH of 3.0 or less, as rapid product degradation can occur. The addition of 2,4-D is not recommended for annual ryegrass suppression.

**Wild Buckwheat:** For best results, apply "Glean" FC + "Karmex" DF preemergence to wild buckwheat. Postemergence tank mixes with 2,4-D, MCPA "Banvel"/"Banvel" SGF, "Buctril" or "Bronate" should be made with surfactant after majority of seedlings have emerged and are actively growing.

**Lambsquarters:** For best results, use not less than 1/3 oz/A applied in the fall. For spring postemergence application, apply when lambsquarters are less than 1" tall or 2" across and are actively growing. Use not less than the 1/3 oz/A rate of "Glean" FC plus 2 qt surfactant/100 gal of spray solution.

**Russian Thistle and Kochia:** "Glean" FC is only recommended for the control of these two weeds in Central KS, Central NE, Central OK and North Central TX.

**Postemergence Suppression:** Apply "Glean" FC plus either 2,4-D (ester or amine) or MCPA (ester or amine) after majority of weeds have emerged. For best results, weeds must be actively growing at time of application (adequate soil moisture and daily temperatures above 60 Deg F). Add surfactant at 1/2 but not more than 1 qt/100 gal of spray solution. Thorough coverage is important. See "Tank Mixtures and Guidelines for Resistant Weed Management In Specific Areas" section of label.

**Sunflower:** For best results in NM, OK (Panhandle) and TX, apply "Glean" FC after majority of sunflowers have emerged and are small (not more than 2" tall) and actively growing. Add surfactant at 2 qt/100 gal of water. If "Glean" FC is applied preemergence, make application in early spring to allow for timely and adequate rainfall to move "Glean" FC into the weed root zone before weeds germinate or develop an established root system.

#### Flixweed, Tansymustard:

STATES OF NORTHERN ID, OR, WA  
- POSTEMERGENCE TREATMENTS

For best results, tank mix "Glean" FC at 1/3 oz/A with another herbicide effective on flixweed and tansymustard such as 2,4-D (ester or amine). See "Tank Mixtures and Guidelines for Resistant Weed Management In Specific Areas" section of label.

#### ALL OTHER AREAS

Rates of 1/6 to 1/3 oz/A applied when weeds are small and actively growing will provide control. If weeds are inactive due to adverse weather conditions (cold, dry weather before and/or after treatment), delay application until moisture and temperature conditions are favorable for active weed growth or use a tank mix treatment with 2,4-D or MCPA.

**Wild Garlic/Wild Onion:** "Glean" FC will provide aerial budlet control only.

**Wild Radish:** Postemergence application will provide best results.

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

## TANK MIXTURES AND GUIDELINES FOR RESISTANT WEED MANAGEMENT IN SPECIFIC AREAS

"Glean" FC may be tank mixed with the following herbicides; 2,4-D, "Banvel"/"Banvel" SGF, "Bronate", "Buctril", "Curtail", "Karmex" DF, Diuron DF, "Lexone" DF and MCPA. Before using, read and follow all use instructions, warnings and precautions on companion herbicide label

AR, Central KS, LA, South Central NE, Central OK and North Central TX.

If resistant weed biotypes are suspected or known to be present, consider using another herbicide treatment or adjust the use rate of the "Glean" FC tank mix partner so that it alone will control the resistant biotypes

### "GLEAN" FC + 2,4-D OR MCPA

o "Glean" FC may be used annually as a tank mix treatment with 2,4-D or MCPA after weeds have emerged. Use 1/6 to 1/3 oz/A of "Glean" FC plus 1/4 to 1/2 lb active ingredient 2,4-D or MCPA (ester formulations of 2,4-D or MCPA have provided best results). Surfactant may be added at 1/2, but not more than 1 qt/100 gal of spray solution, however, the addition of surfactant may increase the chance of crop injury. Do not add a surfactant when "Glean" FC plus 2,4-D or MCPA are applied with liquid fertilizer. Apply "Glean" FC plus MCPA from 3-5 leaf stage, but prior to boot stage. Apply "Glean" FC plus 2,4-D after tillering (refer to appropriate 2,4-D's manufacturer's label), but prior to boot stage. Apply "Glean" FC plus 2,4-D or MCPA with liquid fertilizer only when temperatures are above freezing. Applications of "Glean" FC + MCPA + liquid fertilizer made when crop is under cold weather stress just prior to winter dormancy can result in severe foliar burn and/or crop injury. Do not apply "Glean" FC plus 2,4-D or MCPA in combination with organophosphate insecticides

o Make only one application per crop

o In wheat/sorghum and wheat/soybean annual rotations, control winter annual broadleaf weeds either by tillage or by using a different mode of action herbicide before planting sorghum or soybeans

### "GLEAN" FC + "LEXONE" DF

o "Lexone" DF at 1/3 to 2/3 lb/A is recommended for downy brome and cheatgrass suppression in winter wheat in KS, OK and TX and may be mixed with "Glean" FC at 1/6 to 1/3 oz/A to broaden the spectrum of weeds controlled. Apply after winter wheat is well tillered (at least 3 tillers) and has a 2" secondary root system throughout the field. 1/2 to 1" of rainfall is needed within 1 to 2 weeks of application.

o See the "Lexone" DF Winter Wheat, Barley, and Fallow supplemental label for additional information

o Do not use "Lexone" DF plus "Glean" FC on barley in the states of KS, OK and TX

### "GLEAN" FC + "KARMEX" DF

o "Glean" FC may be used annually as a tank mix treatment after winter wheat has started to tiller before or after weeds emerge

Read and follow all use instructions, label rates, weed control claims, warnings and precautions for the companion herbicide(s)

West Central and Western KS (generally west of Hwy. 183 to the western edge of these counties - Grant, Kearny, Logan, Rawlins, Stevens, Thomas and Wichita):

If resistant weed biotypes are suspected or known to be present, consider using another herbicide treatment or adjust the use rate of the "Glean" FC tank mix partner so that it alone will control the resistant biotypes

o In areas where the interval between an application of "Glean" FC and the planting of sorghum is 14 months, "Glean" FC may be used at 1/6 to 1/3 oz/A alone or in a tank mix in a planned crop rotation program where other residual broadleaf herbicides having different modes of action are used

o In wheat/sorghum rotations, control winter annual weeds either by tillage or by using a different mode of action herbicide before planting sorghum

o Do not use "Glean" FC for the control of kochia or Russian thistle

o Do not apply "Glean" FC more often than once every 36 months

o Do not use an "Ally" tank mix within 22 months of a "Glean" FC application

o Do not use "Glean" FC in continuous cereals or cereal/fallow/cereal rotations

Read and follow all use instructions, label rates, weed control claims, warnings and precautions for the companion herbicide(s)

Eastern CO, Far Western KS (last tier of counties along the CO/KS border), Western NE, Eastern NE, OK Panhandle and TX Panhandle:

If resistant weed biotypes are suspected or known to be present, consider using another herbicide treatment or adjust the use rate of the "Glean" FC tank mix partner so that it alone will control the resistant biotypes

o "Glean" FC may be used in a tank mix at 1/6 to 1/3 oz/A only as a fallow treatment in corn or sorghum stubble in wheat/sorghum fallow and wheat/corn fallow rotations where other residual broadleaf herbicides having different modes of action are used

o Do not use "Glean" FC for the control of kochia or Russian thistle

o Do not apply "Glean" FC more often than once every 36 months

o Do not use an "Ally" tank mix within 22 months of a "Glean" FC application

o Do not use "Glean" FC in continuous cereals or cereal/fallow/cereal rotations

Read and follow all use instructions, label rates, weed control claims, warnings and precautions for the companion herbicide(s)

Southern ID, MT, ND, SD, UT and Northern WY:

If resistant weed biotypes are suspected or known to be present, consider using another herbicide treatment or adjust the use rate of the "Glean" FC tank mix partner so that it alone will control the resistant biotypes

o Only use "Glean" FC at 1/6 oz/A postemergence to weeds in a tank mix with another broadleaf herbicide having a different mode of action

- o Do not use "Glean" FC for the control of kochia or Russian thistle.
- o Do not apply "Glean" FC more than once every 48 months.
- o Do not apply "Glean" FC during fallow.

Read and follow all use instructions, label rates, weed control claims, warnings and precautions for the companion herbicide(s).

#### CA, Northern ID, OR and WA:

If resistant weed biotypes are suspected or known to be present, consider using another herbicide treatment or adjust the use rate of the "Glean" FC tank mix partner so that it alone will control the resistant biotypes.

- o Do not use more than 1/3 oz/A in an 18-month period.
- o Do not make an early season treatment where a tank mix cannot be made.
- o Do not use "Glean" FC for the control of kochia or Russian thistle
- o Do not apply "Glean" FC during fallow.
- o Use 1/6 to 1/3 oz/A of "Glean" FC plus one of the products listed below:

2,4-D (amine or ester)	4 to 8 oz active ingredient/acre
MCPA (amine or ester)	4 to 8 oz active ingredient/acre
"Buctril" 4EC	1/4 pt to 1 pt/acre
"Bronate"	1/2 pt to 2 pt/acre
"Karmex" DF or Diuron DF	1/2 lb to 1-1/2 lb/acre
"Lexone" DF	1/8 to 2/3 lb/acre
"Banvel"	1/8 to 1/4 pt/acre
"Banvel" SGF	1/4 to 1/2 pt/acre
"Curtail"	1 to 2 pt/acre

#### "GLEAN" FC + "LEXONE" DF

- o "Lexone" DF at 1/3 to 2/3 lb/A is recommended for downy brome and cheatgrass suppression in winter wheat and barley in ID, OR and WA and may be mixed with "Glean" FC at 1/6 to 1/3 oz/A to broaden the spectrum of weeds controlled. Apply after winter wheat is well tillered (at least 3 tillers) and has a 2" secondary root system throughout the field. 1/2 to 1" of rainfall is needed within 1 to 2 weeks of application
- o For additional information, see the "Lexone" DF supplemental label for Winter Wheat, Barley and Fallow
- o Do not use "Lexone" DF plus "Glean" FC in California

#### "GLEAN" FC + "KARMEX" DF or Diuron DF

- o Where prickly lettuce, corn groundsel, annual ryegrass and annual bluegrass are the main weed problems, apply "Karmex" DF or Diuron DF, at 1 to 1 1/2 lb/A with "Glean" FC at 1/6 to 1/3 oz/A to improve weed control. Apply preemergence or postemergence to actively growing weeds less than 2" tall or across. 1/2 to 1" rainfall is needed within 1 to 2 weeks after application. Follow all restrictions on the "Karmex" DF or Diuron DF, labels

Read and follow all use instructions, label rates, weed control claims, warnings and precautions for the companion herbicide(s)

#### SPRAY PREPARATION, ADDITIVES, PRODUCT MEASUREMENT, SURFACTANT AND LIQUID FERTILIZER

**Spray Preparation:** Mix the proper amount of "Glean" FC into the necessary volume of water in the spray tank with the agitator running. Agitation is required for uniform mixing and application. If spray preparation is left standing, thoroughly reagit before using.

**Additives:** Do not use with spray tank additives that lower the pH of the spray solution below pH 3.0, as rapid product degradation can occur.

**Product Measurement:** The "Glean" FC volumetric measuring cylinder is to be used as a guide as the degree of accuracy is plus or minus 10%. For more precise measurement, use scales calibrated in ounces.

**Surfactant:** Use a surfactant of at least 80% active ingredient in post-emergence applications to weeds to improve wetting and/or foliar activity of "Glean" FC. Add surfactant at 1 to 2 qt/100 gal of spray as the last ingredient. The higher rate of surfactant is particularly useful with spray volumes of 5 GPA or less and when using low rates of "Glean" FC. Antifoaming agents may be needed.

Do not use liquid fertilizer as a substitute for surfactant.

**Liquid fertilizer:** To apply "Glean" FC with liquid fertilizer, simply add the "Glean" FC directly to the liquid fertilizer with the agitator running. The addition of surfactant to tank mixtures of "Glean" FC plus liquid fertilizer increases the risk of crop injury.

Run a tank mix compatibility test before mixing "Glean" FC in fertilizer

Do not use with liquid fertilizers having a pH of 3.0 or less as rapid product degradation can occur

Do not use liquid fertilizer as a substitute for surfactant

#### TANK MIXTURES WITH OTHER HERBICIDES, INSECTICIDES AND FUNGICIDES

When using a tank mixture for the first time, run a standard compatibility test and use on a small portion of the field to be sure there is adequate crop safety and satisfactory performance before adopting large scale use. "Glean" FC must be in suspension before adding companion pesticides. Follow all instructions, warnings and precautions on the companion product label.

**Other Herbicides:** Use a suitable registered companion herbicide if weeds greater than 2" tall or 2" across are present or if weeds and grasses other than those listed on this label are present. When tank mixing "Glean" FC and Assort[5], ALWAYS include another broadleaf herbicide with a different mode of action, for example MCPA ester, 2,4-D ester, "Bronate" or "Buctril". "Glean" FC must be in suspension in the spray tank before adding the companion herbicide. Follow the surfactant recommendation on the companion herbicide label

**Insecticides:** "Glean" FC may be tank mixed with insecticides registered for use on cereal grains. However, under certain conditions, (drought or cold stress, while crop is in 2-4 leaf stage) tank mixtures or sequential treatments of "Glean" FC and organophosphate insecticides (such as methyl or ethyl parathion, "Di-Syston", etc.) may produce temporary crop yellowing or, in severe cases, crop injury. Limit first use to a small area. If no symptoms of crop injury occur 14 days after treatment, balance of acreage can be treated.

DO NOT USE "GLEAN" FC AND MALATHION, AS CROP INJURY MAY RESULT.

Do not apply "Glean" FC 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 occur.

**Fungicides:** "Glean" FC may be tank mixed with Du Pont "Benlate" Fungicide / Du Pont "Benlate" 50 DF Fungicide or Du Pont "Manzate" 200 DF Fungicide or other fungicides whenever the proper timing for herbicide and fungicide treatments coincide.

#### EQUIPMENT—SPRAY VOLUMES

Prior to using "Glean" FC, thoroughly clean sprayer (tanks, booms, hoses, nozzles, mixing cones, all mixing equipment, etc.) Follow sprayer cleanout on the label(s) of the last product(s) used.

Apply using properly calibrated air or ground equipment. Select a spray volume and delivery system that will insure thorough coverage and a uniform spray pattern. For ground application, flat fan nozzles are recommended (minimum 3 GPA). When using flood jet or "Raindrop" [6] nozzles, use higher spray volume (minimum 20 GPA) to ensure thorough coverage. However, "Glean" FC may be applied at not less than 10 GPA when using small orifice flooding nozzles such as flood jet TK 5 to TK 7.5 or equivalent, providing these nozzles are on a 30-inch spacing or not less than 13 GPA when these flooding nozzles are on a 40-inch spacing.

Do not use equipment and/or spray volumes that will cause spray to drift onto nontarget sites. Do not make applications during weather conditions which cause spray to drift onto nontarget sites. For additional information, refer to "Caution - Avoid Spray Drift" section of label.

Do not apply this product through any type of irrigation system.

Use 50-mesh screens or larger.

Unless otherwise stated, use at least 1 gallon spray volume (GPA) per acre by air. Use higher spray volumes to obtain better coverage when either the crop canopy or stubble is dense. Do not apply during inversion conditions, when winds are gusty or when other conditions will favor poor coverage and/or off-target spray movement.

For aerial application in the State of Washington, refer to and follow the directions on the Washington special local need label, "Glean" FC Herbicide Aerial Application to Wheat, Barley and Spring Oats In the State of Washington.

Continuous agitation is required to keep "Glean" FC in suspension. Avoid overlapping, and shut off spray booms while starting, turning, slowing or stopping, or injury to the crop may result.

#### CAUTION - AVOID SPRAY DRIFT

Follow these practices to minimize drift.

Do not allow spray from either ground or aerial equipment to drift onto adjacent crops or land, as even small amounts can injure susceptible plants. When spraying near adjacent, sensitive crops or plants, do everything possible to reduce spray drift. This includes:

o Stop spraying if wind speed becomes excessive. DO NOT SPRAY IF WIND SPEED IS 10 MPH OR GREATER. Spray drift can occur at wind speeds less than 10 MPH. If sensitive crops or plants are downwind, extreme caution must be used even in relatively low wind conditions! DO NOT SPRAY IF WINDS ARE GUSTY.

o High temperatures, drought and low relative humidity increase the possibility of harmful spray drift. EXTREME CAUTION MUST BE USED WHEN THESE CONDITIONS ARE PRESENT AND SENSITIVE CROPS OR PLANTS ARE NEARBY, REGARDLESS OF WIND SPEED

o Do not apply when a temperature inversion exists. An inversion is characterized by low air movement and an increase in air temperature with an increase in altitude. In humid regions, a fog or mist may form. An inversion may be detected by producing a smoke column and checking for a layering effect. Smoke-producing devices on aircraft are recommended. If not sure whether inversion conditions are present, consult with local weather services before making an application.

o Drift from aerial or ground equipment may be further reduced by:

1. Using large droplet size sprays to minimize drift. DO NOT APPLY WITH HOLLOW-CONE INSECTICIDE NOZZLES ON GROUND EQUIPMENT. Do not use nozzles that produce small droplets, such as Sprayloil[7] or airblast-type nozzles. Nozzles should be oriented at an angle between straight down and straight back for ground applications.

For aerial applications, orient nozzles straight back along the wind-stream using straight stream orifices (such as disk with no swirl plate). If using flood-type nozzles on aircraft, orient them so spray is produced in direction of the airstream. Use the lowest number of nozzles practical with the largest orifice size per nozzle to obtain minimum of 1 GPA. Application height should not exceed 1/2 length of wing span to minimize drift potential. Boom length must not exceed 2/3 the wing span.

2. Increasing volume of spray mix per acre (for example, minimum 5 GPA by air, 10 GPA by ground) by using higher flow rate nozzles.

3. Reducing pressure (PSI): - DO NOT EXCEED 40 PSI when applying "Glean" FC. (Vehicle speed must also be reduced to maintain spray mix volume per acre). Consult manufacturers' catalogs for details on correct calibration.

4. Apply as close to target plants as possible, while still maintaining a good spray pattern.

NOTE: Do not allow spray to drift onto adjacent crops or onto agricultural land scheduled to be planted to crops other than wheat, as injury to the crop may occur. Extreme care must be taken to prevent drift onto susceptible plants or nontarget land.

#### CEREAL RECROPPING INTERVALS

**RECROPPING TO WHEAT, OATS, BARLEY, RYE AND TRITICALE IN AR, CO, KS, LA, NE, NM, OK, TX AND SOUTHEASTERN WY:** Recropping plans are determined by soil pH, rate of "Glean" FC applied and a minimum recropping interval. The minimum recropping interval is from time of last application to the anticipated date of planting.

Soil pH*	Use Rate (oz/acre)	Minimum Recropping Interval (Months)		
		Wheat/Rye/Triticale	Oats	Barley
7.9 or lower	1/6 to 1/3	0	10	10
7.9 or lower	1/2	4	10	16
above 7.9	Do Not Use	Not Applicable		

\*Soil pH is to be determined by laboratory analysis using the 1:1 soil water suspension method on representative soil samples taken at 0-4" depth. Consult local extension publications for recommended soil sampling procedures.

**RECROPPING TO WHEAT, OATS, BARLEY, RYE AND TRITICALE IN MN, MT, ND, SD AND NORTHERN WY:** Recropping plans are determined by soil pH, rate of "Glean" FC applied and a minimum recropping interval. The minimum recropping interval is from time of last application to the anticipated date of planting.

Soil pH*	Use Rate (oz/acre)	Minimum Recropping Interval (Months)		
		Wheat/Rye/Triticale	Oats	Barley
6.5 or lower	1/6 to 1/3	0	10	10
6.5 or lower	1/2	4	10	10
6.6 to 7.9	1/6 to 1/3	0	10	16
above 7.9	Do Not Use	Not Applicable		

\*Soil pH is to be determined by laboratory analysis using the 1:1 soil water suspension method on representative soil samples taken at 0-4" depth. Consult local extension publications for recommended soil sampling procedures.

**RECROPPING TO WHEAT, OATS, BARLEY, RYE AND TRITICALE IN CA, NORTHERN ID, OR AND WA:** Recropping plans are determined by soil pH, rate of "Glean" FC applied and a minimum recropping interval. The minimum recropping interval is from time of last application to the anticipated date of planting.

Soil pH*	Use Rate (oz/acre)	Minimum Recropping Interval (Months)		
		Wheat/Rye/Triticale	Oats	Barley
6.5 or lower	1/6 to 1/3	0	10	10
6.5 or lower	1/2	4	10	10
6.6 to 7.5	1/6 to 1/3	0	10	16
6.6 to 7.5	1/2	4	16	24
7.6 to 7.9	1/6 to 1/3	4	16	24
above 7.9	Do Not Use	Not Applicable		

\*Soil pH is to be determined by laboratory analysis using the 1:1 soil water suspension method on representative soil samples taken at 0-4" depth. Consult local extension publications for recommended soil sampling procedures.

### ROTATION INTERVAL FOR PLANTING GRASSES ON CONSERVATION RESERVE PROGRAM (CRP) ACRES

Wherever "Glean" FC has previously been used in wheat, barley, oats or fallow, the following grasses may be planted after the intervals specified in the tables below. The planting of grass and legume mixtures is not recommended as injury to the legume may occur.

- Bentgrasses
- Blue Grama
- Bluestems — Big, Little, Plains, Sand, WW Spar
- Buffalograss

- Galleta
- Green needlegrass
- Green sprangletop
- Indiangrass
- Indian ricegrass
- Lovegrasses — Sand, Weeping
- Orchardgrass (excluding Piaute)
- Prairie sandreed
- Sand dropseed
- Sheep fescue
- Sideoats Grama
- Switchgrass
- Wheatgrasses — Crested, Intermediate, Pubescent, Slender, Streambank, Tall, Thickspike, Western
- Wild-rye grasses — Beardless, Russian

### ROTATION INTERVALS IN STATES OF:

Southern ID, MN, MT, ND, SD, UT, and Northern WY:

Soil pH*	Use Rate (oz/acre)	Minimum Interval for Planting Grasses
6.5 or lower	1/6 to 1/2	2 months (all grasses)
6.6 to 7.5	1/6 to 1/3	4 months (all grasses)
7.6 to 7.9	1/6 to 1/3	4 months (Wheatgrasses only)

AR, CO, KS, LA, NE, NM, OK, TX and Southeastern WY:

Soil pH*	Use Rate (oz/acre)	Minimum Interval for Planting Grasses
7.9 or lower	1/6 to 1/2	2 months (all grasses)
7.9 or lower	1/2	4 months (all grasses)

CA, Northern ID, OR and WA:

Soil pH*	Use Rate (oz/acre)	Minimum Interval for Planting Grasses
7.9 or lower	1/6 to 1/2	2 months (all grasses)
7.5 or lower	1/2	4 months (all grasses)

\*Soil pH is to be determined by laboratory analysis using the 1:1 soil water suspension method on representative soil samples taken at 0-4" depth. Consult local extension publications for recommended soil sampling procedures.

### CROP ROTATION RECOMMENDATIONS (NONCEREAL CROPS)

The crop rotation intervals specified in this section of the label must be followed unless a field or LRB<sup>SM</sup> bioassay indicates a shorter planting interval.

Soil pH as specified in this section of the label is to be determined by laboratory analysis using the 1:1 soil water suspension method on representative soil samples taken at 0-4" depth. Consult local extension publications for recommended soil sampling procedures.

Cumulative Precipitation as specified in this section of the label is defined as the total amount received from the date of "Glean" FC application to the date of planting. Should accumulated precipitation not be sufficient to meet the indicated amounts, do not rotate to the indicated crops until the following growing season.

## ARKANSAS/LOUISIANA

Unless a Crop Rotation Interval is specified, a field bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section. DO NOT USE ON SOILS WITH A pH GREATER THAN 7.9.

### Cotton, Grain Sorghum, Soybeans:

In Southwest AR and Northwest LA on nonirrigated land, the interval for these crops is

Crop	Soil pH	Use Rate (oz/acre)	Cumulative Precipitation (in.)	Rotation Interval (months)
Cotton, Grain Sorghum, Soybeans	7.9 or lower	1/6 to 1/2	25	14

## COLORADO

Unless a Crop Rotation Interval is specified, a field bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section. DO NOT USE ON SOILS WITH A pH GREATER THAN 7.9.

### Field Corn, Proso and Setaria (Hay) Millets, Grain Sorghum:

In the counties of Adams, Arapahoe, Logan, Morgan, Phillips, Sedgwick, Washington and Yuma on nonirrigated land, the intervals for field corn and millets are

Crop	Soil pH	Use Rate (oz/acre)	Cumulative Precipitation (in.)	Rotation Interval (months)
Field Corn,	7.5 or lower	1/6 to 1/3	30	24
	7.5 or lower	1/2	45	36
Millets	7.6 to 7.9	1/6 to 1/3	45	36
	7.6 to 7.9	1/2	60	48

In Eastern CO on nonirrigated land, the intervals for grain sorghum are

Grain Sorghum	7.5 or lower	1/6 to 1/2	45	36
	7.6 to 7.9	1/6 to 1/2	60	48

## KANSAS

Unless a Crop Rotation Interval is specified, a field bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section. DO NOT USE ON SOILS WITH A pH GREATER THAN 7.9.

### Grain Sorghum and Soybeans:

In Central KS (generally east of Hwy 183 and west of the Flint Hills) on nonirrigated land, the intervals for grain sorghum and soybeans are

Crop	Soil pH	Use Rate (oz/acre)	Cumulative Precipitation (in.)	Rotation Interval (months)
Grain Sorghum	7.5 or lower	1/6 to 1/2	25	14
Soybeans	7.5 or lower	1/6 to 1/3	25	14
	7.5 or lower	1/2	46	26
	7.6 to 7.9	1/6 to 1/3	46	26
	7.6 to 7.9	1/2	64	36

In West Central and Western KS (generally west of Hwy 183 to the western edge of these counties—Grant, Kearny, Logan, Rawlins, Stevens, Thomas, Wichita) on nonirrigated land, the intervals are

Grain Sorghum	7.5 or lower	1/6 to 1/3	21	14
	7.5 or lower	1/2	42	26
	7.6 to 7.9	1/6 to 1/3	42	26
	7.6 to 7.9	1/2	54	36

Far Western KS: In the last tier of counties along the Kansas/Colorado border (Cheyenne, Greeley, Hamilton, Morton, Sherman, Stanton, Wallace) on nonirrigated land, the intervals are:

Grain Sorghum	7.5 or lower	1/6 to 1/3	36	26
	7.5 or lower	1/2	45	36
	7.6 to 7.9	1/6 to 1/2	60	48

## MINNESOTA

A field or LRB<sup>SM</sup> bioassay must be completed before rotating to crops other than the cereal grains or Conservation Reserve Program grasses listed on this label

## MONTANA

Unless a Crop Rotation Interval is specified, a field or LRB<sup>SM</sup> bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section. DO NOT USE ON SOILS WITH A pH GREATER THAN 7.9.

### Safflower:

In MT on nonirrigated land, the intervals are

Crop	Soil pH	Use Rate (oz/acre)	Cumulative Precipitation (in.)	Rotation Interval (months)
Safflower	7.9 or lower	1/6 to 1/3	39	34
	6.5 or lower	1/2	—	—

Note: Safflower may be planted sooner than 34 months upon the successful completion of a field bioassay or when recommended by the LRB<sup>SM</sup> bioassay

\*Field or LRB<sup>SM</sup> Bioassay

## NEBRASKA

Unless a Crop Rotation Interval is specified, a field bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section. DO NOT USE ON SOILS WITH A pH GREATER THAN 7.9.

### Grain Sorghum and Soybeans:

In the South Central NE counties of Franklin, Nuckolls, Thayer and Webster on nonirrigated land, the intervals for grain sorghum and soybeans are

Crop	Soil pH	Use Rate (oz/acre)	Cumulative Precipitation (in.)	Rotation Interval (months)
Grain Sorghum	7.5 or lower	1/6 to 1/2	25	14
Soybeans	7.5 or lower	1/6 to 1/3	25	14
	7.5 or lower	1/2	46	26
	7.6 to 7.9	1/6 to 1/3	46	26
	7.6 to 7.9	1/2	64	36

**Field Corn, Proso and Setaria (Hay) Millets, Grain Sorghum, Soybeans:**

In Western NE (generally west of Hwy. 183 to the WY border) on nonirrigated land, the intervals are:

Crop	Soil pH	Use Rate (oz/acre)	Cumulative Precipitation (in.)	Rotation Interval (months)
Field Corn.	7.5 or lower	1/6 to 1/3	40	24
Millets,	7.5 or lower	1/2	60	36
Grain Sorghum,	7.6 to 7.9	1/6 to 1/3	60	36
Soybeans	7.6 to 7.9	1/2	80	48

**NEW MEXICO**

Unless a Crop Rotation Interval is specified, a field bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section. **DO NOT USE ON SOILS WITH A pH GREATER THAN 7.9**  
Grain Sorghum:

In the counties of Curry and Quay, the interval for grain sorghum on nonirrigated land is:

Crop	Soil pH	Use Rate (oz/acre)	Cumulative Precipitation (in.)	Rotation Interval (months)
Grain Sorghum	7.9 or lower	1/6 to 1/3	30	25

**NORTH DAKOTA**

Unless a Crop Rotation Interval is specified, a field or LRB<sup>SM</sup> bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section. **DO NOT USE ON SOILS WITH A pH GREATER THAN 7.9**

**Safflower:**

In ND on nonirrigated land, the intervals are:

Crop	Soil pH	Use Rate (oz/acre)	Cumulative Precipitation (in.)	Rotation Interval (months)
Safflower	7.9 or lower	1/6 to 1/3	45	34
	6.5 or lower	1/2	—	•

Note: Safflower may be planted sooner than 34 months upon the successful completion of a field bioassay or when recommended by the LRB<sup>SM</sup> bioassay

\*Field or LRB<sup>SM</sup> Bioassay

**OKLAHOMA**

Unless a Crop Rotation Interval is specified, a field bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section. **DO NOT USE ON SOILS WITH A pH GREATER THAN 7.9**

**Cotton, Mungbeans, Grain Sorghum, Soybeans:**

In Central and Eastern OK (generally east of Hwy. 183) on nonirrigated land the intervals for these crops are:

Crop	Soil pH	Use Rate (oz/acre)	Cumulative Precipitation (in.)	Rotation Interval (months)
Grain Sorghum,				
Cotton,	7.9 or lower	1/6 to 1/2	25	14
Mungbeans,				
Soybeans				

In Western OK (generally west of Hwy. 183 and east of the Panhandle) on nonirrigated land, the interval for cotton and grain sorghum is:

Cotton,	7.9 or lower	1/6 to 1/3	25	14
Grain Sorghum	7.9 or lower	1/2	46	26

In the OK Panhandle, on nonirrigated land, the interval for grain sorghum is:

Grain Sorghum	7.9 or lower	1/6 to 1/3	30	25
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**OREGON**

Unless a Crop Rotation Interval is specified, a field or LRB<sup>SM</sup> bioassay must be completed before rotating to crops other than those listed on this or other "Clean" FC labels

See Oregon 24(c) label for rotation intervals for annual and perennial ryegrasses, crimson and red clovers, snap beans and corn

**PACIFIC NORTHWEST (NORTHERN ID, NORTHEASTERN OR, EASTERN WA)**

Unless a Crop Rotation Interval is specified, a field or LRB<sup>SM</sup> bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section

NOTE: Successful rotation to peas and lentils can be expected in fields of even terrain having well drained soils with a uniform pH of 6.5 or less. Localized areas of crop injury may occur in fields that have highly variable terrain with areas of poor drainage and/or areas of high soil pH (eroded knolls, exposed calcareous subsoil where pH is above 6.5).

**Peas and Lentils:**

Northern ID, Northeastern OR, Eastern WA Counties

- ID: Benewah, Bonner, Boundary, Clearwater, Idaho, Koontena, Letah, Lewis, Nez Perce
- OR: Baker, Umatilla, Union, Wallowa
- WA: Asotin, Columbia, Garfield, Pend Oreille, Spokane, Stevens, Waiilatpu, Whitman

In the above counties on nonirrigated land, the intervals are:

Crop	Soil pH	Use Rate (oz/acre)	Cumulative Precipitation (in.)	Rotation Interval (months)
Pea	6.5 or lower	1/6 to 1/3	35	24
	(Alaska,	6.5 or lower	1/2	•
	Columbian)	6.6 to 7.5	1/6 to 1/2	•
	7.6 to 7.9	1/6 to 1/3	•	•
Lentils	6.5 or lower	1/6 to 1/3	50	36
	(Chelan)	6.5 or lower	1/2	•
		6.6 to 7.5	1/6 to 1/2	•
	7.6 to 7.9	1/6 to 1/3	•	•

\*Field or LRB<sup>SM</sup> Bioassay

**SOUTH DAKOTA**

A field or LRB<sup>SM</sup> bioassay must be completed before rotating to crops other than the cereal grains or Conservation Reserve Program grasses listed on this label

## TEXAS

Unless a Crop Rotation Interval is specified, a field bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section. DO NOT USE ON SOILS WITH A pH GREATER THAN 7.9.

### Cotton, Mungbeans, Grain Sorghum, Soybeans:

#### Eastern TX Counties:

Archer, Bell, Bosque, Bowie, Camp, Cass, Clay, Collin, 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, Tarrant, Titus, Upshur, Van Zandt, Wichita, Williamson, Wise, Wood, Young

In the above counties of Eastern TX on nonirrigated land, the interval for these crops is:

Crop	Soil pH	Use Rate (oz/acre)	Cumulative Precipitation (in.)	Rotation Interval (months)
Grain Sorghum, Cotton, Mungbeans, Soybeans	7.9 or lower	1/6 to 1/2	25	14

#### Central TX Counties:

Baylor, Callahan, Eastland, Foard, Hardeman, Haskell, Knox, Shackelford, Stephens, Throckmorton, Wilbarger

In the above counties of Central TX on nonirrigated land, the interval for cotton and grain sorghum is:

Cotton	7.9 or lower	1/6 to 1/3	25	14
Grain Sorghum	7.9 or lower	1/2	46	26

In the TX Panhandle, on nonirrigated land, the interval for commercial grain sorghum is:

Grain Sorghum	7.9 or lower	1/6 to 1/3	30	25
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NOTE: Do not plant sorghum grown for hybrid seed production

## SOUTHEASTERN WYOMING

Unless a Crop Rotation Interval is specified, a field bioassay must be completed before rotating to any crop other than those listed below. See "Bioassay" section. DO NOT USE ON SOILS WITH A pH GREATER THAN 7.9.

### Proso and Setaria (Hay) Millets:

In the counties of Goshen, Laramie and Platte on nonirrigated land, the intervals are:

Crop	Soil pH	Use Rate (oz/acre)	Cumulative Precipitation (in.)	Rotation Interval (months)
Millets	7.5 or lower	1/6 to 1/3	30	24
	7.5 or lower	1/2	45	36
	7.6 to 7.9	1/6 to 1/3	45	36
	7.6 to 7.9	1/2	60	48

## SPRAYER CLEANUP

To avoid subsequent injury to crops other than wheat, oats or barley, immediately after spraying, thoroughly remove all traces of "Glean" FC from mixing and spray equipment as follows:

- 1) Drain tank; rinse interior surfaces of tank; then flush tank, boom and hoses with clean water for a minimum of 5 minutes
- 2) Fill the tank full with clean water, then add cleaning solution\*. Flush solution through boom, hoses and nozzles, then allow to sit for 15 minutes with agitation running, then drain
- 3) Repeat Step 2.
- 4) Repeat Step 1
- 5) Nozzles and screens should then be removed and cleaned separately. To remove traces of cleaning solution, rinse the tank thoroughly with clean water and flush through hoses and boom
- 6) Flush boom and hoses with clean water for 5 minutes just prior to using the sprayer for the first time after the "Glean" FC application

\*Use any of the following cleaning solutions.

- 1 One gallon ammonia (containing 3% active) per 100 gallons of water.
- 2 Nutra-Sol[8] (carefully read and follow Nutra-Sol label directions)
- 3 Loveland Spray Tank Cleaner[9] (carefully read and follow Loveland Spray Tank Cleaner label directions)
- 4 Tank-Aid[10] (carefully read and follow Tank-Aid label directions).

NOTE: To reduce the amount of water required in the above procedure, see separate Du Pont bulletin, "Reduced Volume Cleanout Procedure for Large Sprayers".

## PRECAUTIONS

Varieties of wheat, oats and barley differ in their tolerance to herbicides. When using "Glean" FC for the first time on a particular variety, limit initial use to one 18 oz jug. If no symptoms of crop injury occur 14 days after treatment, balance of acreage can be treated.

Do not apply "Glean" FC to wheat, oats or barley 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.

In the states of CA, Northern ID, OR and WA, the maximum use rate is 1/3 oz/A per crop or fallow period on soils having a pH of 7.9 or lower. Do not apply more than 1/3 oz/A in an 18-month period. Do not use on soils having a pH greater than 7.9.

In the states of Southern ID, MN, MT, ND, SD, UT and Northern WY, the maximum use rate is 1/6 oz/A in a 48-month period on soils having a pH of 7.9 or lower. Do not use on soils having a pH greater than 7.9.

In the states of Western KS, Western NE, Eastern NM, OK Panhandle, TX Panhandle and Southeastern WY, the maximum use rate is 1/3 oz/A in a 36-month period on soils having a pH of 7.9 or lower. Do not use on soils having a pH greater than 7.9.

In the states of Central KS, Central NE and Central OK, the maximum use rate is 1/3 oz/A per crop period on soils having a pH of 7.9 or lower. Do not use on soils with a pH greater than 7.9.

In the states of AR, LA, Central and North Central TX and Southern OK, the maximum use rate is 1/2 oz/A per crop period on soils having a pH of 7.9 or lower. Do not use on soils with a pH greater than 7.9.

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

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

Do not apply to snow covered ground.

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

Do not use on fields that have variable soil conditions where large areas are gravelly or sandy, have eroded knolls, calcium deposits or widely variable pH readings or organic matter content. Use of "Glean" FC on fields with these conditions may result in crop injury or adversely affect crop rotation intervals.

The combined effects of preemergence "Glean" FC 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.

Tank mixtures or sequential treatments of "Glean" FC and organophosphate insecticides (such as methyl or ethyl parathion, "Di-Syston", etc.) may cause temporary discoloration or crop injury.

Wherever land has been or will be treated with "Assent" herbicide and "Glean" FC, plant only wheat or barley until a bioassay (see "Bioassay" section of label) demonstrates that other crops can be successfully grown. On land that is frequently rotated to crops other than wheat or barley, do not use "Glean" FC wherever "Assent" has been or will be used. The additive effect of soil residues from these treatments has not been determined and crop rotation guidelines and minimum rotation intervals are not known; injury to rotational crops may occur.

Under certain conditions such as hot, dry weather, heavy rainfall, prolonged cool weather (daily high temperature less than 50 Deg. F) or wide fluctuations in day/night temperatures just prior to or soon after treatment, temporary discoloration and/or crop injury may occur. Risk of injury is greatest when crop is in the 1-5 leaf stage.

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

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 adjacent crops may occur 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.

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" FC.

## BIOASSAY

A bioassay (field or LRB<sup>SM</sup>) must be completed before rotating to crops not listed on this label or rotating at intervals shorter than those listed in the "Crop Rotation Recommendations (Noncereal Crops)" section.

### - FIELD BIOASSAY

"Glean" FC herbicide is a useful tool for weed control in wheat, barley, oats or fallow. However, under some conditions small amounts of "Glean" FC can remain in the soil and injure crops other than wheat, barley or oats for 2 to 4 years or more after application. Therefore, before you use "Glean" FC, you should carefully consider your crop rotation plans during the 2 to 4 year period following treatment.

A field bioassay will be necessary if crops other than wheat, barley or oats or those listed on the label are to be planted on land previously treated with "Glean" FC. Crop response will indicate whether or not to rotate to the crop(s) grown in the test strips.

A field bioassay involves growing test strips of the crop or crops you plan to grow the following year in fields previously treated with "Glean" FC. Crop response will indicate whether or not to rotate to the crop(s) grown in the test strips.

"Glean" FC breaks down most rapidly in soils having a pH less than 7.0, in areas having 20" or more of annual rainfall, and a long growing season with warm soil temperatures. "Glean" FC residues breakdown more slowly as soil pH increases above 7.0. Other contributing factors that slow the disappearance of "Glean" FC are low rainfall and prolonged periods of soil temperatures less than 40 Deg. F.

Of the key factors that influence the rate of disappearance, only soil pH remains relatively constant from year to year. Soil temperature, and to a larger degree soil moisture, can vary greatly from year to year and from area to area. Consequently, it is not always possible to accurately predict when areas treated with "Glean" FC can be rotated to crops other than those listed on label.

A bioassay of your "Glean" FC treated field is the only sure way of determining when crops other than those listed on label can be grown.

1 The accuracy and reliability of any field bioassay is largely dependent on the location and number of strips planted. Be sure to select areas of the field previously treated with "Glean" FC that are representative of the various field conditions. Be sure to consider factors such as

field size, soil texture, drainage, turnaround areas, eroded knolls or alkaline spots when selecting the sites that are most representative of the soil conditions in the field.

Even in small fields, more than one test strip is required to accurately determine whether it is safe to rotate to a crop not listed on the label. On large fields, several test strips will be needed in order to obtain reliable results based on the field variables mentioned above.

- 2 Plant the test strips perpendicular to the direction in which the field was sprayed. Each strip should be long enough to cross the width of several spray swaths. A large test strip area is more reliable than a small one. Suggested size is 1/4 to 1/2 acre per test strip.
- 3 Use standard tillage and seeding equipment to plant the bioassay.
- 4 Prepare a seed bed and plant the crops and varieties you want the option of growing the following year. IT IS IMPORTANT TO USE THE SAME PLANTING TIME, CONDITIONS, TECHNIQUES AND CULTURAL PRACTICES YOU NORMALLY USE TO PLANT AND GROW THE BIOASSAY CROP(S). If possible, plant into an adjacent area not treated with "Glean" FC to use as a comparison.
- 5 Do not overspray the test strips with herbicides that may damage the bioassay crop(s).
- 6 If the crop(s) in the test strip(s) grow to maturity with a normal harvest, the assay is positive and you may now rotate to the new crop. However, if the crop(s) in the test strips dies, are stunted, or fail to yield a normal harvest, the assay is negative and you should not rotate to the new crop(s). Run the assay until positive results are obtained before rotating to the new crop(s).
- 7 If the bioassay indicates that "Glean" FC residues are still present, do not rotate to crops other than wheat, barley or oats or those listed on label until bioassay results indicate that the assay crops are growing normally.

#### - DU PONT LRB<sup>SM</sup> BIOASSAY SERVICE

In the states of ID, MN, MT, ND, OR, SD and WA the Du Pont LRB<sup>SM</sup> Bioassay Service is available through certain dealers and/or consultants. This service uses soil samples taken by Du Pont certified individuals for laboratory bioassay analysis. LRB<sup>SM</sup> results will serve as a crop rotation recommendation.

Check with your local Du Pont representative or call toll free 1-800-782-3557 for information regarding the LRB<sup>SM</sup> Bioassay Service.

With any chemical, follow labeling instructions and warnings carefully.

#### STORAGE AND DISPOSAL

**STORAGE:** Store product in original container only, away from other pesticides, fertilizer, food or feed.

**PRODUCT DISPOSAL:** Do not contaminate water, food or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

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

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

#### NOTICE OF WARRANTY

Du Pont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Du Pont. In no case shall Du Pont be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer. DU PONT MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

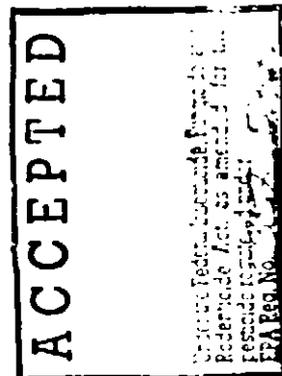
- [1] Registered trademark of Sandoz Crop Protection Corporation
- [2] Registered trademark of Rhone-Poulenc Ag Co
- [3] Registered trademark of The Dow Chemical Company
- [4] Registered trademark of Bayer Ag, Leverkusen
- [5] Registered trademark of American Cyanamid Company
- [6] Registered trademark of Delavan Corporation
- [7] Registered trademark of D and W Corporation
- [8] Sold by Thomas G. Killoil, San Bruno, CA.
- [9] Registered trademark of Loveland Industries, Inc
- [10] Manufactured for Cornbelt Chemical Company

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RESERVE PROGRAM

"GLEAN" FERTILIZER COMPATIBLE HERBICIDE  
EPA REG. NO. 352-522

SUPPLEMENTAL LABELING  
"GLEAN" FERTILIZER COMPATIBLE HERBICIDE  
SELECTIVE WEEDING TO AID IN THE  
ESTABLISHMENT AND MAINTENANCE OF GRASSES  
IN THE CONSERVATION RESERVE PROGRAM  
IN THE STATES OF CO, IA, ID, KS, MN, MT, NE  
NM, ND, OK, OR, SD, TX, UT, WA and WY



DIRECTIONS FOR USE

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

Du Pont "Glean" Fertilizer Compatible Herbicide ("Glean" FC) is recommended for the control or suppression of certain broadleaf weeds in the following native or improved perennial grasses grown on land enrolled in the Conservation Reserve Program (CRP):

Bentgrasses	Orchardgrass ( <u>excluding</u> Piaute)
Blue Grama	Prairie sandreed
Bluestems - Big, Little, Plains, Sand, WW Spar	Sand dropseed
	Sheep fescue
Buffalograss	Sideoats Grama
Galleta	Switchgrass
Green needlegrass	Wheatgrasses - Crested, Intermediate, Pubescent, Slender, Streambank, Tall, Thickspike, Western
Green sprangletop	
Indiangrass	
Indian ricegrass	
Kleingrass	Wildrye grasses - Beardless, Russian
Lovegrass - Sand, Weeping	

GENERAL INFORMATION

"Glean" FC provides both preemergence and postemergence control or suppression of labeled weeds. Degree of control and duration of effect depends on weed spectrum and density; weed size and variability; amount of cover canopy; growing conditions before, at and following application; rate and timing of application and spray coverage.

Maximize potential for grass establishment by consulting with the Soil Conservation Service or other local experts concerning planting techniques and other cultural practices.

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\*Biotypes are naturally-occurring individuals of the species which have a slightly different genetic makeup. Resistant biotypes may look exactly the same as susceptible biotypes. Herbicide-resistant biotypes are able to survive a use rate several times higher than needed to control susceptible biotypes.

### USE RATES

In the Northern Plains (MN, MT, ND, SD, N. WY), the maximum use rate for "Glean" FC is 1/6 oz/A. This rate should be used in a tank mix with another broadleaf herbicide (unless treating legume/grass mixtures) having a different mode of action postemergence to weeds. See "Tank Mixtures" section of label.

In all other areas, "Glean" FC may be used at 1/6 to 1/3 oz/A. The 1/3 oz rate should be used for preemergence applications where residual weed control is important.

### APPLICATION TIMING

#### Preplant (prior to planting)

In all areas except the Northern Plains, "Glean" FC may be applied at 1/3 oz/A to all labeled grasses except bentgrasses, kleingrass, orchardgrass, and sheep fescue. For plantings of Plains and WW Spar bluestems, time application not less than 90 days prior to planting.

#### Preemergence (after planting but before grass emergence)

In all areas except the Northern Plains, "Glean" FC may be applied at 1/3 oz/A to all labeled grasses except bentgrasses, kleingrass, orchardgrass, Plains and WW Spar bluestems and sheep fescue.

#### Early postemergence to new plantings

"Glean" FC may be used in all areas on all labeled grasses except bentgrasses, orchardgrass, 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 present at time of application, apply "Glean" FC with another broadleaf herbicide having a different mode of action. See "Tank Mixtures" section of label.

**Postemergence applications to stands planted the previous season**

"Glean" FC may be applied when the majority of the grasses have one or more leaves. This application may be used in all areas on all labeled grasses except bentgrasses, kleingrass, orchardgrass, Plains and WW Spar bluestems and sheep fescue.

If weeds are present at time of application, apply "Glean" FC with another broadleaf herbicide having a different mode of action. See "Tank Mixtures" section of label.

**DO NOT TREAT STANDS SHOWING WINTER STRESS OR LACK OF VIGOR SYMPTOMS AS GRASS INJURY MAY OCCUR.**

**Late postemergence (tillered stands)**

"Glean" FC may be used in all areas on all labeled grasses.

If weeds are present at time of application, apply "Glean" FC with another broadleaf herbicide having a different mode of action. See "Tank Mixtures" section of label.

**Note:** Applications to Beardless wildrye grass can be made only after tillering and only in the spring.

**Postemergence applications to established mixed stands of grass/alfalfa (MN, MT, ND, SD only)**

"Glean" FC may be used on one year old stands of grass/alfalfa mixtures. Temporary yellowing and/or stunting of the alfalfa may occur. This application may be made to all labeled grasses.

**DO NOT TREAT STANDS SHOWING WINTER STRESS OR LACK OF VIGOR SYMPTOMS AS GRASS/ALFALFA INJURY MAY OCCUR.**

**WEED CONTROL**

Apply "Glean" FC preemergence to weeds or postemergence to small actively growing weeds before they are larger than 2" tall or 2" in diameter.

One to two inches of rainfall (enough to wet the top 2-3 inches of soil profile) may be needed to move the herbicide into the weed root zone before the next flush of weeds emerge. The amount of moisture required for sufficient activation increases with crop or weed residue and for finer textured soils. Without sufficient rainfall to move "Glean" FC into the weed root zone, weeds that germinate after treatment will not be controlled.

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For best results postemergence to weeds, use "Glean" FC in a tank mix with 2,4-D (ester formulations perform best). This tank mix works best where weed biotypes resistant to "Glean" FC, Du Pont ALLY[1] Herbicide, Du Pont HARMONY[1] Extra Herbicide or Du Pont EXPRESS[1] Herbicide are not suspected or known to occur.

Where resistant weed biotypes, such as kochia and Russian thistle, are suspected (land which has had 2 or more previous applications of "Glean" FC or is immediately adjacent to land where "Glean" FC has been used 2 or more times) or known to be present, select the most effective tank mix partner labeled for the control of kochia and/or Russian thistle and adjust the rate so that it alone will control the resistant biotype(s).

Note: If resistant biotypes are present, degree of control will depend solely on the effectiveness of the tank mix partner.

For all postemergence applications add a surfactant of at least 80% active ingredient at the rate of 1 to 2 qt/100 gallons of spray solution. The use of surfactants having less than 80% active ingredient may reduce weed control.

Avoid postemergence applications to weeds which are not actively growing due to adverse weather conditions. Weeds hardened off by cold weather or drought stress may not be adequately controlled.

Performance: 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" FC may not always be satisfactory. An additional herbicide application or mowing may be needed.

#### Use Rate Table

The 1/6 oz/A use rate is recommended only for short term control or suppression. Use 1/3 oz/A where soil residual weed control is important.

#### Weeds Controlled or Suppressed\* at 1/6 through 1/3 Ounce Per Acre

Blue mustard	Miners lettuce	Conical catchfly
Pineappleweed	Field pennycress	Prostrate pigweed
Flixweed	Redroot pigweed	Hempnettle
Shepherdspurse	Henbit	Smooth pigweed
Lambsquarters	Tansymustard	Mayweed
Treacle mustard	Tumble mustard (Jim Hill)	Wild mustard

Weeds Controlled or Suppressed\* at 1/3 Ounce Per Acre

Above list plus:

Canada thistle	Redstem filaree
Coast fiddleneck (tarweed)	Russian thistle (Central KS, Central NE, Central OK, and North Central TX only)
Common chickweed	Speedwell
Flixweed	Sunflower - In MT, ND, SD and TX Kochia partial control only
Kochia (Central KS, Central OK and North Central TX only)	Tansymustard
Lambsquarters	Wild buckwheat
Prickly lettuce	Wild carrot
Prostrate knotweed	Wild radish
Purslane (common)	Wild turnip

\*Weed suppression is a visual reduction in weed competition (reduced population or vigor) as compared to untreated area. Degree of suppression will vary with size of weed and environmental conditions following treatment.

It is recommended that a .25 acre area be left untreated in each tract of land entering the Conservation Reserve Program to confirm efficacy and grass selectivity of the treatment.

TANK MIXTURES

Preplant

"Glean" FC can be tank mixed with Roundup[3] or Landmaster[3] II as a preplant treatment to control broadleaf and grassy weeds. When using "Landmaster" II tank mix, allow at least 7 days after application before planting grasses. Refer to "Roundup" and "Landmaster" II fact sheets and labels for all use instructions, label rates, weed control claims, warnings and precautions.

Postemergence

2,4-D can be tank mixed with "Glean" FC at 1/4 lb AI/A for all labeled grass larger than the 5-leaf stage. For fully tillered stands up to 1/2 lb AI/A 0 2,4-D may be used. Surfactant may be added at 1 to 2 pts per 100 gallons of spray. However, the addition of surfactant may increase the chance of grass injury.

"Glean" FC can also be tank mixed with "Banvel". Use not more than 1/8 to 1 lb AI/A "Banvel" plus "Glean" FC after majority of grasses are in the 3-leaf stage. In established grasses (2nd year stands), use not more than 1/4 to 1 lb AI/A "Banvel" plus "Glean" FC.

Read and follow all use instructions, label rates, weed control claims, warn and precautions for the companion herbicides.

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## SPRAY PREPARATION EQUIPMENT, SPRAY VOLUMES AND APPLICATION

Mix the proper amount of "Glean" FC into the necessary volume of water in the spray tank with the agitator running. Agitation is required for uniform mixing and application. If spray preparation is left standing, thoroughly reagitrate before using. "Glean" FC must be added to the spray tank first, followed by other tank mix chemicals and surfactant. If tank contains part of previous mix, slurry "Glean" FC in a bucket of water before adding to spray tank.

"Glean" FC should be applied in sufficient spray volume to obtain thorough coverage of the target area and existing weed foliage. Include one quart of an 80% (minimum concentration) active ingredient surfactant for every 100 gallons of spray mix when weeds are present at application.

For ground applications minimum spray volume is 3 GPA (gallon per acre). Flat fan nozzles are recommended. Volumes exceeding the minimum should be used as weed populations or canopy cover increases.

For aerial applications use nozzle types and arrangements that will provide for optimum spray distribution and maximum coverage at 1 to 5 GPA.

Note: When applying "Glean" FC in areas where crops other than wheat, barley, oats or CRP grasses are grown, take extra precautions to minimize drift by following these instructions:

- o Stop spraying if wind speed become excessive. DO NOT SPRAY IF WIND SPEED IS 10 MPH OR GREATER. Spray drift can occur at wind speeds less than 10 MPH. If sensitive crops or plants are downwind, extreme caution must be used even in relatively low wind conditions! DO NOT SPRAY IF WINDS ARE GUSTY.
- o High temperatures, drought and low relative humidity increase the possibility of harmful spray drift. EXTREME CAUTION MUST BE USED WHEN THESE CONDITIONS ARE PRESENT AND SENSITIVE CROPS OR PLANTS ARE NEARBY, REGARDLESS OF WIND SPEED.
- o Do not apply when a temperature inversion exists. An inversion is characterized by low air movement and an increase in air temperature with an increase in altitude. In humid regions, a fog or mist may form. An inversion may be detected by producing a smoke column and checking for a layering effect. Smoke-producing devices on aircraft are recommended. If not sure whether inversion conditions are present, consult with local weather services before making an application.

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- o Drift from aerial or ground equipment may be further reduced by:
  1. Using large droplet size sprays to minimize drift. DO NOT APPLY WITH HOLLOW-CONE INSECTICIDE NOZZLES ON GROUND EQUIPMENT. Do not use nozzles that produce small droplets, such as Sprayfoil[4] or airblast-type nozzles. Nozzles should be oriented at an angle between straight down and straight back for ground applications.

For aerial applications, orient nozzles straight back along the windstream using straight stream orifices (such as disk with no swirl plate). If using flood-type nozzles on aircraft, orient them so spray is produced in direction of the airstream. Use the lowest number of nozzles practical with the largest orifice size per nozzle to obtain minimum of 1 GPA. Application height should not exceed 1/2 length of wind span to minimize drift potential. Boom length must not exceed 2/3 the wind span.

2. Increasing volume of spray mix per acre (for example, minimum 5 GPA by air, 10 GPA by ground) by using higher flow rate nozzles.
3. Reducing pressure (PSI). - DO NOT EXCEED 40 PSI when applying "Glean" FC (Vehicle speed must also be reduced to maintain spray mix volume per acre). Consult manufacturers' catalogs for details on correct calibration.
4. Apply as close to target plants as possible, while still maintaining a good spray pattern.

**NOTE:** Do not allow spray to drift onto adjacent crops or onto agricultural land scheduled to be planted to crops other than wheat or grasslands for the CRP program, as injury to the crop may occur. Extreme care must be taken to prevent drift onto susceptible plants or nontarget land.

### PRECAUTIONS

Grass grown on Conservation Reserve Acres cannot be grazed or used for hay.

Under certain conditions such as high soil pH, heavy rainfall, prolonged cool weather or frost conditions just prior to or soon after application, temporary discoloration or stunting may occur.

Legumes in a seeding mixture may be severely injured or killed following an application of "Glean" FC.

Do not apply to frozen ground where surface runoff may occur. Do not apply when snow covers the ground.

Because cultivars of perennial grasses differ in their tolerance to herbicides, limit first use of "Glean" FC to a small area prior to adoption as a field practice. Likewise, components in a seed mixture will vary in tolerance to "Glean" FC so that the final stand may not reflect seed ratio.

Rotational guidelines should be referred to on the current "Glean" FC product label before land treated with "Glean" FC in the Conservation Reserve Program is taken out and planted to other crops as certain crops may be injured by herbicide residue in the soil.

### IMPORTANT

BEFORE USING "GLEAN" FC, READ AND CAREFULLY OBSERVE THE CAUTIONARY STATEMENTS AND ALL OTHER INFORMATION APPEARING ON THE PRODUCT LABEL.

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

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

- [1]Registered trademark of E.I. du Pont and Company.
- [2]Registered trademark of Sandoz Crop Protection Corporation.
- [3]Registered trademark of Monsanto Company.
- [4]Registered trademark of D. and W. Corporation.

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