

FERTILIZER COMPATIBLES
HERBICIDE



DRY FLOWABLE.

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PACKAGE SIZE 12 - 1 LB. 4 OUNCE CANISTERS/CARTON



# FERTILIZER COMPATIBLE HERBICIDE

**DRY FLOWABLE** 

**ACTIVE INGREDIENT:** 

BY WEIGHT

Chlorsulfuron

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 imitation 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 potholies). 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: "Glecin" 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, tye or triticale

Before using "Glean" FC, carefully consider your crop rotation plans and options. For rotational flexibility, do not treat all your wheat, barley, pats 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 or lawns, welks, driveways, tennis courts or similar areas. Prevent drift of spray to desirable plants. Do not contaminate any body of water, including or gation water that may be used on other crops.

Carefully observed prayer cleanup instructions, as specifically end to enable may decige crops other than wheat, bats or barley

#### **PESTICIDE HANDLING**

- Calibrate sprayers only with clean water away from the well site
- Make scheduled checks of spray equipment
- Assure accurate measurement of pesticides by all operation employees
- Mix only enough product for the job at hand.
- Avoid over-filling of spray tank.
- Do not discharge excess material on the soil at a single spot in the field/grove or mixing/loading station.
- Dilute and agitate excess solution and apply at labeled rates/uses.
- Avoid storage of pesticides near well sites.

#### 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], Curtail M[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 Amber[4]. 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. 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" | C has no grazing restrictions

# SOIL RESIDUAL ACTIVITY

In the srates of CA, Nurthern 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 injute crops other than wheat, barley or oats for 2 to 3 years or more. "Glean" C 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 in ruse 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, 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 KS, NE, NM, CK, 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, tye 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, bariey, oats or fallow acreage.

# HOW APPLICATION ITMING AND ENVIRONMENTAL CONDITIONS AFFECT WEED SONTROL 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 tollar uptake. It cold, dry conditions exist, delay postemergence treatment until weather conditions promote active weed growth. For best results with treatments

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made postemergence to weeds during periods of cold. (Emperatures, apply "Glean" FC when minimum day/night temperatures are 40 Deg. Flor 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.

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.

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

# **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 rish 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 Herhicide should be used only in accordance with recommendations on this label of 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 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. Soil pH is to be determined by laboratory analysis using the 1:1, soil to water suspension method on representative soil samples taken at 0-4" depth. Representative soil sampling requires the collection of soil samples from each district topographical area in a field, for example, hilltops, hillsides, low areas. This means that several soil samples must be taken and analyzed separately in order to obtain a correct assessment of the soil pH variation in a given field. Consult local extension publications for additional information on 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[5], 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.

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

If broadleaf weeds are up at time of application, "Glean" FC must be applied as a tank mix treatment. The tank mix partner must be a broadleaf herbicide having a different mode of action than "Glean" FC. For best results, apply to actively growing weeds and add a surfactant.

If weeds are not up at the time of application, a tank mix treatment is optional. However, if weeds escape this application, then a sequential broadleaf herbicide having a different mode of action than "Glean" FC must be applied to control these weeds. DO NOT ALLOW WEED ESCAPES TO GO TO SEED.

Follow the application intervals and maximum use rates specified for each geographical area:

| Area   | Max.<br>Use Rate | Minimum Application Interval  |
|--|------------------|---|
| AR, Central KS<br>(east of Hwy. 183),<br>LA, South Central NE,<br>Central OK and<br>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<br>(west of Hwy 183),<br>Western NE<br>(west of Hwy, 183), NM,<br>OK Panhandle, TX Panha<br>and Southeastern WY | <br>nd'e         | Do not use for broadleaf<br>weed control TA ly", "Harmony<br>Extra or "Express" nerbicides<br>are recommended |
| Southern ID, MN, MT, ND, SD, UT and Northern WY  | 1 6 oz:A         | Once every 48 months  |

# - 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-furrow treatment, as crop injury may result.

DO NOT apply during boot stage on ( ) the ding as or a 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.

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 1/2 1/2 Soybean Annual Rotations

In artias 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:

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

Preemergence Or Postemergence Application To Wirler Oats - TX, Western OR And Western WA Only.

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



Do not make a preemergence treatment to late fail plantings (after November 1) as herbicide stress plus cold weather stress can cause cropinjury.

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 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 held more often than once in a 36-month period

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

# **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, of wiced 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 () p.e. ipitation.

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 perminate 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 or 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 eveningprimrose

Field pennycress

Flixweed\* (except ID, OR, UT, WA)

Hempnettle

Henbit

Mayweed

Miners lettuce

Pineappleweed

Prostrate pigweed

Redroot pigweed

Shepherd's purse

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 fidcleneck (tarweed)

Common chickweed

Common groundsel

Corn spurry

Cow cockle

False chamomile

Falseflax

Ladysthuinb

Lambsquarters'

Mouseear chickweed

Purslane (common)

Redstem filaree

White cockle

Wild carrot

Wild turnip

#### Weeds Suppressed! at 1/3 Ounce Per Acre

Annual ryegrass\*

Bedstraw

Canada thistle

Corn gromwell

Flixweed\* (ID, OR, UT, WA only)

- Kochia (Central KS, Central NE, Central OK and North Central TX only)
   Pennsylvania smartweed
- + Prickly lettuce

Prostrate knotweed\*

+ Russian thistle (Central KS, Central NE, Central OK and North Central TX only)

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.
- 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

#### 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" combination. In mixing "Ally" with liquid fertilizer, sturry "Ally" in water then thoroughly mix the sturry into the fertilizer. Bun 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 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.

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 io. Resistant Weed Management In Specific Areas" section of label

#### AL' OTHER AREAS

Bates 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

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conditions (cold, dry weather before and/or after treatment), delay application until moisture and temperature onditions are favorable for active weed growth, or use a tank mix treatment with 2,4-D or MCPA

Wind Gartic/Wild Onion: "Glean" FC will provide aerial bulblet 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", "Curtail M", "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 MCFA 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 MC 'A have provided best results). Surfactant may be added at 1/2, but not more than 1 gt/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 liquic 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.
- in wheat/sorghum and wheat/soyuean annual rotations, control winter annual broadleaf weeds either by tiliage or by using a different mode of action herbicide before planting sorghum or so/beans

# "GLEAN" FC, + "LEXONE" DF

- o "Lexone" DF.at 1/3 to 2/3 lb/A is recommended for downy brome and cheatgrass sufpression in winter wheat in KS, OK and TX and may be mixed with "Glean" >C at 1/5 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."
- Do not use "Fexone" DF plus "Glean" FC on barley in the charles of KS, OK and TX

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, Rawlings, 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.
- 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.
- Do not use an "Ally" tank mix within 22 months of a "Glean" FC application
- 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)

# Far Western KS (last tier of counties along the CO.KS border), Western NE, Eastern NM, 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.
- Do not use an "Ally" tank mix within 22 months of a "Glean" FC applicatio:
- Do not use "Glean" FC in continuous cereals or cereal/fallow/cereal rotations

Read and follow all use instructions, label rates, weed control chains, 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.
- Do not use "Glean" FC for the control of kochia or Russian thistle.
- Do not apply "Glean" FC more than once every 48 months.
- 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
- o. Do not use "Glean" FC for the control of kochia or Russian thictie.
- Do not apply "Glean" FC during failow
- 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)   | <ul> <li>4 to 8 oz active ingredient acre.</li> </ul> |
|--------------------------|---|
| 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 iu.a is recommended for downy brome and cheatgrass suppression in winter wheat and barley in ID, OR and WA and may be mixed with "Gleari" FC at 1/6 to 1/3 oz A to broaden the spectrum of weeds controlled. Apply after winter wheat is well tiliered (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 Failch
- Do not use "Lexone" DF plus "Glean" FC in California.

 Where prickly lettuce, corn gromwell, 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 reagitate before using.

Additives: Do not use with spray tank additives that lower the pH of the spray solution below pH 3.0, as rapid prinduct 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 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 ingrede ent. 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 "Glear." FC and Assert[6], ALWAYS include another broadleaf herbicide with a different mode of action, for example, MCPA ester, 2,4-D ester, "Bronate" or



\*Buctrif\* \*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 RESUL".

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 "Bentate" Fungicide / Du Pont "Pentate" 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**

It is important that spray equipment is cleaned and free of existing posticide deposits before using "Glean" FC. Follow the cleanup procedures specified on the label of the product previously sprayed. If no cleanout is provided, follow this cleanout procedure for all application equipment.

- Thoroughly rinse sprayer, tanks, boom, and hoses with clean water.
- Partially fill the tank with water and add ammonia (1 gallon of 3% [household] ammonia per 100-gallons of tank volume) or a tank cleaner (follow individual label instructions for amount of tank cleaner to use). Complete filling the tank and flush the cleaning colution through the boom and hoses. Let stand for 15 minutes with agilia tion/recirculation and then drain the tank after flushing itse hoses, boom and nozzles.
- 3 Thoroughly rinse sprayer, tanks, boom, and hoses with clean water
- 4 Follow label directions of the product previously sprayed for rinsate disposal.

#### NOTE

Apply using properly calibrated an or ground equipment. Select a spray volume and, delivery system that will insure thorough coverage and a uniform spray pattern. For ground application, that fan nozzles are recommended (minimum 3 GPA). When using flood jet or "Raindrop" [7] nozzles, use higher spray volume (minimum 20 GPA) to ensure thorough coverage. However, "Grean" FC may be applied at not less than 10 GPA when using small orthice 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, <u>"Glean" FC Herbicide Aerial Application to Wheat, Barley and Spring Oats In the State of Washington.</u>

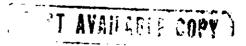
Continuous agitation is required to keep "Glean" FC in suspension. Avoid overlapping, and shut off spray booms white starting, turning, slowing or stopping, or injury to the crop may result.

#### **CAUTION - AVOID SPRAY DRIFT**

Follow liese 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

- Stop spraying if wind speed becomes excessive. DO NOT SPRAY IF WIND SPEED to 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 SENSI-TIVE 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 log 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.
- 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[8] or airblast-type nozzles. Nozzles should be oriented at an angle between straight down and straight back for ground applications.



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For aerial applications, orient nozzles straight bink along the wind stream using straight stream ordices/barch as disk with no rivid plate). If using flood type nozzles on archaft, orient them so lightay is produced in direction of the airstream. Use the lowest number of nozzles practical with the largest ordice 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
- 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.
- Apply as close to target plants as possible, while till 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 happened and a minimum recropping interval. The minimum recropping interval in from time of last application to the anticipated date of planting.

|              |                       | Minimum Recropping  | interval | (Months) |
|--------------|-----------------------|---------------------|----------|----------|
| Soil pH*     | Use Rate<br>(oz/acre) | Wheat Rye Triticale | Oats     | Bartey   |
| 7.9 or lower | 16 to 13              | 0                   | :)       | 10       |
| 7.9 or lower | 1.2                   | 4                   | 10       | 16       |
| above 7.9    | Do Not Use            | Not Applica         | Die -    |          |

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

| Han Bota     | Minimum Recropping Interval (Months) |                     |      |             |
|--------------|--------------------------------------|---------------------|------|-------------|
| Soil pH*     | Use Rate<br>(oz acre)                | Wheat Rye-Triticale | Oats | Bartey      |
| 6 5 or lower | 1/6 to 1/3                           | 0                   | 10   | 10          |
| 65 or lower  | 1/2                                  | 4                   | 10   | 10          |
| 6 6 to 7.9   | 1/6 to 1/3                           | 0                   | 10   | 15          |
| above 7.9    | Do Not Use                           |                     | hle  | <del></del> |

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 is from time of last application to the antic; at edidate of planting.

# Minimum Recropping Interval (Month

|              | Use Rate   | •••                 | •                | •      |
|--------------|------------|---------------------|------------------|--------|
| Soil pH*     | (oz acre)  | Wheat Rye Triticale | Oats             | Barley |
| 6.5 or lower | 161013     | 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     |
| 661o75       | 12         | 4                   | 16               | 24     |
| 7.6 to 7.9   | 1/6 to 1/3 | 4                   | 16               | 24     |
| above 7.9    | Do Not Use | Not Applica         | ıbl <del>e</del> |        |

# 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
- Bulfalograss
- Galleta
- Green needlegrass
- Green sprangletop.
- Indiangrass
- Indian ricegrass
- Lovegrasses -- Sand Weeping
- Orchardgrass (excluding Plaute)
- Prairie sandreed
- Sand dropseed
- Sheep fescue
- Sideoais Grama
- Switchgrass
- Wheatgrasses Crested Intermediate, Pubescent, Slender Streamberk, Tall, Thickspike, Western
- Wild-rye grasses Beardless Russian

# 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 |
| 6 5 or lower | 16 to 12   | 2 months (all grasses)                |
| 6 6 to 7 5   | 16 to 13   | 4 months (all grasses)                |
| 7 5 to 7 9   | 1 6 to 1/3 | 4 months (Wheatgrasses obly)          |

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

| Soil pH'                     | Use Rate<br>(oz acre) | Minimum Interval for Planting Grasses            |
|------------------------------|-----------------------|--|
| 7.9 or lower<br>7.9 or lower | 151o13                | 2 months (all grasses)<br>4 months (all grasses) |



# CA, Northern ID, OR and WA:

| Soil pH*                     | Use Rate<br>(oz/acre) | Minimum Interval for Planting Grasses         |
|------------------------------|-----------------------|---|
| 7.9 or lower<br>7.5 or lower | 1/6 to 1/3<br>1/2     | 2 months (all grasses) 4 months (all grasses) |

\*See \*Maximum Use Rates, and Soil pH Limitations\* section of label

# 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 epresentative 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 fabel 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 bloassay murtiple complet ed before rotating to any crop other than those is the below. See: Hill array's section, DO NOT USE ON SOILS WITH A pHIGREATER THAN 1.9.

#### Cotton, Grain Sorghum, Soybeans:

In Southwest AR and Northwest LA on non-rigated, and, the intendent invise crops is:

| Crop                     | Soil pH                               | Use Rate<br>(oz acre) | Cumulative<br>Precipitation<br>(in.) | Rotation<br>Interval<br>(months) |
|--------------------------|---------------------------------------|-----------------------|--------------------------------------|----------------------------------|
| Cotton,<br>Grain Sorghum | 7.9 or lower                          | 1 6 to 1 2            | 25                                   | *4                               |
| So, beans                | · · · · · · · · · · · · · · · · · · · |                       |                                      |                                  |

# COLORADO

Unless a Crop Rotation Interval is specified, a field bloassay must be completed before rotating to any crop other than those listed below. See "Bicassay" section, DO NOT UCF ON SOILS WITH A pHIGREATER THAN 7.9.

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

In the counties, th Adams, Arapahoe, Logan, Morgan, Philippi Shopkick. Washington and Yuma on non-regated land, the intervals for the source and milets are

| Сгор        | Soil pH      | Use Rate<br>(oz/acre) | Cumulative<br>Precipitation<br>(in.) | Rotation<br>Interval<br>(months) |
|-------------|--------------|-----------------------|--------------------------------------|----------------------------------|
|             | 7.5 or lower | 1/6 to 1/3            | 30                                   | 24                               |
| Field Corn, | 7.5 or lower | 1/2                   | 45                                   | 36                               |
| Milets      | 76 to 79     | 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<br>7 6 to 7.9 |  | 36<br>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 "Bicassay" section, DO NOT USE ON SOILS WITH A pHIGREATER THAN 7.9.

#### Grain Sorghum and Soybeans:

In Central KS (generally east of Hwy 183 and west of the Finith is) on illohing gated land, the intervals for grain sorghum and soybeans are

| Crop          | Soil pH      | Use Rate<br>(oz'acre) | Cumulative<br>Precipitation<br>(in.) | Rotation<br>Interval<br>(months) |
|---------------|--------------|-----------------------|--------------------------------------|----------------------------------|
| Grain Sorghum | 7.9 or lower | 16 to 12              | 25                                   | 14                               |
|               | 7.5 or lower | 16 to 13              | 25                                   | 14                               |
| Soyteins      | 7.5 or lower | 1.5                   | 46                                   | 28                               |
|               | 7.6 to 7.9   | 1.6 to 1.3            | 46                                   | 2€                               |
|               | 76 to 79     | • 2                   | 64                                   | 36                               |

in West Central and Western KS (generally west of Hwy 163 to the western edge of these counties—Grant, Kearny, Logan, Rawings, Stevens, Thomas Wishitalion non-rigated land, the intervals are.

|               | 7.5 or lower | 16 to 13 | 21 | 14 |
|---------------|--------------|----------|----|----|
| Grain Sorgnum | 75 or ower   | 1 2      | 42 | 26 |
|               | 76 to 79     | 16 to 13 | 42 | 26 |
|               | 76 to 79     | 1.2      | 54 | 36 |
| 1             |              |          |    |    |

Far Western KS. In the last tier of counties along the Kansas Colorado border consyence. Greeley, Hamilton, Morton, Sherman, Stanton, Wallace) on non-regated land, the intervals are

| Grain Sorgnum | 7.5 or lower | 1:6 to 1:3 | 36 | 26 |
|---------------|--------------|------------|----|----|
| 1             | 7.5 or lower |            | 45 | 36 |
|               | 76 to 79     | 16 to 12   | 60 | 48 |
|               |              |            |    |    |

#### MINNESOTA

A field or LRB<sup>Sm</sup> bloassay must be completed before rotating to crops other than the cereal grains or Conservation Reserve Program grasses listed on this late.

#### MONTANA

Unless a Crop Rotation Interval is specified, a field or LRBsm bipassay murt be completed before rotating to any crop other than those linted below. See "Bipassay" section. DO NOT USE ON SOILS WITH A phi GREATER THAN 7.9

#### Sattlower:

In MT on nonirrigated land, the interval is:

| Сгор      | Soil pH      | Use Rate<br>(oz/acre) | Cumulative<br>Precipitation<br>(in.) | Rotation<br>Interval<br>(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 bloassay or when recommended by the LRB<sup>SM</sup> bloassay.

'Field or LRBSM Bloassay

#### **NEBRASKA**

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

#### Grain Sorghum and Soybeans:

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

| Crop          | Use Rate<br>Soil pH (oz acre) |            | Cumulative<br>Precipitation<br>(in.) | Rotation<br>Interval<br>(months) |  |
|---------------|-------------------------------|------------|--------------------------------------|----------------------------------|--|
| Grain Sorghum | 79 or ower                    | 1/6 to 1/2 | 25                                   | ٠٤                               |  |
|               | 7.5 or lower                  | 1 6 to 1/3 | 25                                   | 14                               |  |
| Soybeans      | 7.5 or lower                  | 1/2        | 46                                   | 26                               |  |
|               | 76 to 79                      | 1/6 to 1/3 | 46                                   | 26                               |  |
|               | 76 to 79                      | 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; or inchirrigated and, the intervals are:

| Crop           | Soil pH      | Use Rate<br>(oz/acre) | Cumulative<br>Precipitation<br>(in.) | Rotation<br>Interval<br>(months) |  |
|----------------|--------------|-----------------------|--------------------------------------|----------------------------------|--|
| Field Corn,    | 7.5 or lower | 1/6 to 1/3            | 40                                   | 24                               |  |
| Milets,        | 7.5 or lower | 1/2                   | 60                                   | 36                               |  |
| Grain Sorghum, | 7 6 to 7.9   | 1/6 to 1/3            | 50                                   | 36                               |  |
| Soybeans       | 7 6 to 7.9   | 1/2                   | 80                                   | 48                               |  |

# **NEW MEXICO**

Unless a Grop Rotation Interval is specified, alife dibipassay must be completed before rotating to any crop off in than those listed below. See "Bipassay" section, DO NOT USE ON SOILS WITH AlpH GREATER THAN 7.9

#### Grain Sorghum:

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

| Сгор          | Soil pH      | Use Rate<br>(oz/acre) | Cumulative<br>Precipitation<br>(in.) | Rotation<br>Interval<br>(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 CRB<sup>SM</sup> pioassay 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.

#### Salllower:

In ND on nonirrigated land, the interval is:

| Сгор      | Soil pH      | Use Rate<br>(oz/acre) | Cumulative<br>Precipitation<br>(in.) | Rotation<br>Interval<br>(months) |  |
|-----------|--------------|-----------------------|--------------------------------------|----------------------------------|--|
| Sattiower | 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 LRBS" Bloassay

#### **OKLAHOMA**

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

# Cotton, Mungbeans, Grain Sorghum, Soybeans:

In Central and Eastern OK (generally east of Hwy 183) on non-rigated land, the intervals for these crops are:

| Стор  | Soil pH      | Use Rate<br>(oz acre) | Cumulative<br>Precipitation<br>(in.) | Rotation<br>Interval<br>(months) |  |
|---|--------------|-----------------------|--------------------------------------|----------------------------------|--|
| Grain Sorghum,<br>Cotton,<br>Mungbeans,<br>Soybeans | 7.9 or lower | 1 6 to 1 2            | 25                                   | 14                               |  |

In Western OK (generally west of Hw, in 130 and least of the Panhandle) on non-rigated land, the interval for cotton and grain sorghum is  $\pi$ .

| Cotton,       |              | 1/6 to 1/3 | _  | 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 |   |
| l             |              |            |    |    |   |

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15-18

Unions a Crop Rotation Interval is specified, a field or LRB <sup>off</sup> to hall say must be completed before rotating to crops offer than the existing on this or other "Glean" FC labels.

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

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

Unless a Crc<sub>r</sub> 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 knotts, 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 Letan, Lewis, Nez Perce

OR: Baker, Umatilla, Union, Wallowa

WA. Asotin, Columbia, Garfield, Pend Oreille, Spokane, Stevens Walla Walla, Whitman

In the above counties on nontrigated land, the intervals are

| Soil pH      | Use Rate<br>(oz/acre)                      | Cumulative<br>Precipitation<br>(in.)   | Rotation<br>Interval<br>(months)   |
|--------------|--|--|--|
| 6.5 or lower | 1/6 to 1/3                                 | 35   | 24   |
| 6.5 or lower | 1.2  | _  | •  |
| 6 6 to 7 5   | 1/6 to 1/2                                 |  | •  |
| 76.579       | 1/6 to ±3                                  | _  | •  |
| -            | 6 5 or lower<br>6 5 or lower<br>6 6 to 7 5 | Soil pH         (oz/acre)           6.5 or lower         1/6 to 1/3           6.5 or lower         1/2           6.6 to 7.5         1/6 to 1/2 | Soil pH         Use Rate (oz/acre)         Precipitation (in.)           6.5 or lower 6.5 or lower 6.6 to 7.5         1/6 to 1/3         35           6.5 or lower 6.6 to 7.5         1/6 to 1/2         — |

|           | 6.5 or lower | 1/6 to 1/3 | 50 | 36 |
|-----------|--------------|------------|----|----|
| Lentils   | 6.5 or lower | 1/2        |    | •  |
| (Chilean) | 66 to 75     | 1.3 to 1/2 |    | •  |
|           | 76 to 79     | 1/6 to 1/3 | -  | •  |

"Field or LRESM Broassay

### SOUTH DAY OTA. "

A field or LRBsth ulpassay must be completed before rotating to crops other than the cereal grains or Conservation-Reserve Program grasses listed on this liabel.

TEXAS • • • •

Unless a Crop-Rotation Interval is specified, a field bloass before rotating to any crop other than those listed by section DO NCT USE ON SOILS WITH A pHIGRE ATER TO THE SECTION OF THE PROPERTY OF THE PROPE

#### **Eastern TX Counties**

Archer, Bell, Bosque, Bowie, Camp, Cass, Clay, Coin, Cooke, Coryer Darlas, Delta, Denton, Ellis, Falts, Fannin, Frinkin, Grayson, Hill, Hood, Hopkins, Hunt, Jack, Johnson, Kaufman, Lamar, Limestone, McLennan, Milam, Montague, Morris, Navario, Palo Pirito, Parker, Rains, Red River, Robertson, Rockwall, Somervell, Tarrent, 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<br>(oz/acre) | Cumulative<br>Precipitation<br>(in.) | Rotation<br>Interval<br>(months) |
|---|--------------|-----------------------|--------------------------------------|----------------------------------|
| Grain Sorghum,<br>Cotton,<br>Mungbeans,<br>Soybeans | 7 9 or lower | 1/6 to 1/2            | 25                                   | 14                               |

#### Central TX Counties.

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

In the above counties of Central TX on nonirrigated land, the interval for cotton and grain sorghum  $\,s\,$ 

| Cotton, 73                       | 3 or lower - 1/6 | i to 1/3 25 | 14 |   |
|----------------------------------|------------------|-------------|----|---|
| Cotton, 7.9<br>Grain Sorghum 7.9 | 3 or lower 1/2   | 46          | 26 | į |

In the TX Panhandle, on nontrigated land, the interval for commercial grain scronum is

| ,                    |              |            |    |    |  |
|----------------------|--------------|------------|----|----|--|
| 1                    |              |            |    |    |  |
| l Grain Sorghum<br>I | 7.9 or lower | 1.6 to 1/3 | 30 | 25 |  |

NOTE. Do not plant sorghum grown for hybrid seed production

# SOUTHEASTERN WYOMING

Unless a Crop Rotation Interval is specified, alfield broassay must be completed before rotating to any crop other than those Futed before See TB pass is section, DO NOT USE ON SOILS WITH A pHIGREATER THAN 7.9.

# Proso and Setaria (Hay) Millets:

In the counties of Goshen, Larame and Platte on non-rigated land, the intervalsiare.

| Сгор   | Soil pH      | Use Rate<br>(oz acre) | Cumulative<br>Precipitation<br>(in.) | Rotation<br>Interval<br>(months) |
|--------|--------------|-----------------------|--------------------------------------|----------------------------------|
|        | 7.5 or lower | 1/6 to 1/3            | 30                                   | 24                               |
| Mirets | 7.5 or lower | 1.2                   | 45                                   | 36                               |
| 1      | 76 to 79     | 16 to 1/3             | 45                                   | 36                               |
|        | 76to79       | 1/2                   | 60                                   | 48                               |

# SPRAYER CLEANUP

#### AT THE END OF THE DAY

It is recommended that during periods when multiple loads of "Glean" FC during will be applied at the end of each day of sprays a ringe the interior—the tank with fresh water, then partially fill the tank and flush the boom

and hoses. This will prevent the buildup of dried pesticide deposits which can accumulate in the application equipment.

# AFTER SPRAYING "GLEAN" FC AND BEFORE SPRAYING CROPS OTHER THAN WHEAT, OATS OR BARLEY

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of "Glean" FC as follows:

- Drain tank; thoroughly rinse spray tanks, boom, and hoses with clean water.
- 2. Fill the tank with clean water and one gallon of household ammonia\* (contains 3% active) for every 100 gallons of water. Flush the hoses, boom and nozzles with the cleaning solution. Then add more water to completely fill the tank. Circluste the cleaning solution through the tank and hoses for at least 15 minutes. Again flush the hoses, boom and nozzles with the cleaning solution and then drain the tank.
- Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.
- 4. Repeat step 2.
- Rinse the tank, boom and hoses with clean water.
- 6 The rinsate may be disposed of on site or at an approved waste disposal facility.

\*Equivalent amounts of an alternate strength ammonia solution or a DuPont approved cleaner (listed below) can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions.

#### Du Pont approved cleaners

- Protank Cleaner Manufactured for Cenex Land O'Lakes Agronomy Company.
- 2 Chem-Tank Cleaner & Neutralizer Manufactured by Farmbelt Chemicals, Inc.
- 3 "Incide-Out"[9]
- 4 Nutra-Sol[10] (carefully read and follow Nutra-Sol label directions)
- 5 Loveland Tank and Equipment Cleaner[11] (carefully read and follow Loveland Spray Tank Cleaner label directions)
- 6 Tank-Aid[12] (carefully read and follow Tank-Aid label directions):

# **NOTES**

- 1 A steam cleaning of aerial spray tanks is recommended prior to performing the above cleanout procedure to facilitate the removal of any caked deposits
- When "Glean" FC is tank mixed with other pesticides, all cleanout procedures should be examined and the most rigorous procedure should be followed.
- 3 In addition to this cleanout procedure, all precleanout guidelines on subsequently applied products should be followed as per the individual labels
- Where routine spraying practices include shared equipment frequently being switched between applications of "Glean" FC and applications to sensitive crops during the same spray season, it is recommended a sprayer be dedicated to "Glean" FC to further reduce the chance of crop injury.

# **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 1 lb 4 oz canister. 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  $\Theta K$  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 grasces 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

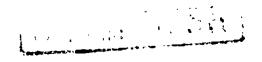
Do not apply to irrigated land where tailwater will be used to irrigate offer cropland

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 "Glear" FC on fields with these conditions may result in crop injury or adversely affect crop rotation intervals.

The combined effects of preemergence of Gloan FC plus preemergence wild oat herbicides may cause crop injury to spring wheat when crop stress (sof crusting, planting too deep, prolonged cold, we 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" or "Amber" herbinose and "Glean" FC, plant only wheat or barley until a bioassay (see "Bioa day section of label) demonstrates that other crops can be successfully grown.



On land that is frequently rotated to crops other than wheat or bariey, do not use "Glean" EC wherever "Assert" has been or will be used. The additional effect of soil residues from these treatments has not been determined and crop rotation guidelines and minimum rotation intervals are not known, if july 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 respectably 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 so lidue to which erop on identify apply to powdery dry or light sandy so is until they have been standed by rainfall, trashy mulch, reduced tillage or other cultural practices. Injury to adjacent crops may occur when treated so it is blown onto as a board to produce crops other than cereal grains.

For ground applications applied politic eigente to where where any ourly field conditions exist, control of weeds in where track area in an twink audies. The adoption of 2,4 D or MOPA should improve which north, is prair these conditions.

Preemergence applications of 2.4-D or herbicides containing 2.4-D in a sew thin two weeks of planting spring cerears may discending only which used in conjunction with preemergence or early postemergence of Glean\* FC.

Tank mix applications of "Grean" FC Herbicide plus. Ascert in as cause temporary discoloration stunting or in ury to the crub when he say rainfal oncurs shortly after the application.

# **BIOASSAY**

A bloassay (field or LRBSM) must be completed before rotating to cropmot listed on this larger rotating at intervals shorter than this and depict the "Crop Rotations Recommends governous Rotations".

# - FIELD BIOASSAY

\*Gleant FC herbicide is a userul tool for weed control in wheat barry oats or fallow. However, under syme conditions small amounts of "Greant FC can remaining the soil and injure crops other than wheat ibarry or oats for 2 to 4 years or more after application. Therefore, but the you one "Gleant FC" your should carefully conside your crop in tating and the 2 to 4 year period following treatment.

A field bloassay will be necessary if crops other than wheat, builey or oats or those listed on the fiabilitiare to be planted on land previously treated with "Glean" FC. Cro. — sonse will indicate whether or not to rotate to the crops) 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 bipassay 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 knotis or alkaline spots when selecting the sites that are most representative of the soil conditions in the field.

Even in small feas, 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 remable regults 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 swathes. A large test strip area is more reliable than a smallone. Suggested size is 1/4 to 1/2 acre per test strip.
- 3 Use standard tillage and seeding equipment to plant the bioassay.
- Prepare a ceed 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 bloassay crop(s)
- 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). But the assay until positive results are obtained before rotating to the new crop(s).



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 biopusay results indicate that the assay crops are growing normally.

- DU PONT LRBSM 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 confultants. This service uses soil samples taken by Du Pont certified individuals for laboratory bioassay analysis. LRB<sup>SM</sup> results will serve as a crc<sub>F</sub> satation 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 landfull 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 lit 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 Ciba Geigy Corporation
- [5] Registered trademark of Bayer Ag, Leverkusen
- [6] Registered trademark of American Cyanamid Company
- [7] Registered trademark of Delavan Corporation
- [8] Registered trademark of D. and W. Corporation
- [9] Registered Trademark of Precision Laboratories, Inc.
- [10] Sold by Thomas G. Kilfoil, San Bruno, CA
- [11] Registered trademark of Loveland Industries, Inc.
- [12] Manufactured for Combelt Chemical Company

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