MAR 2 5 1993

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 352-435



**ACTIVE INGREDIENT** 

BY WEIGHT

Metsulfuron Methyl

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Methyl 2-[[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]carbonyl]amino]sulfonyl]benzoate....... 60%

TOTAL ..... 100%

EPA Reg. No. 352-455

U.S. Pat. 4,383,113

# KEEP OUT OF REACH OF CHILDREN CAUTION

### **PRECAUTIONARY STATEMENTS**

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION! Harmful if absorbed through skin. Causes eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing dust or spray mist. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse.

#### STATEMENT OF PRACTICAL TREATMENT

In case of contact with eyes, immediately flush with plenty o. water.

If on skin, wash with plenty of soap and water. Get medical attention 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)**

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 all sprager cleanup instructions both prior to and after using this product, as spray tank residue may damage crops other than wheat, barley, grasses grown on Conservation Reserve Program (CRP) acres or grasses grown in pastures and rangeland.

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

#### PESTICIDE HANDLING

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

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## **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.

"Ally" 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.

# CEREAL AND CRP USE INSTRUCTIONS GENERAL INFORMATION

Du Pont "Ally" Herbicide is reco:nmended for use on wheat and barley in CO, ID, KS, MN, MT, NE, NM, ND, OK, SD, TX, UT and WY. Do not use this product in the following counties of Colorado: Alamosa, Conejos, Costilla, Rio Grande and Saquache.

"Ally" is recommended for use on land primarily dedicated to the production of wheat (including durum) and barley. Rotation options are provided for certain other crops such as oats, proso millet, dryland grain sorghum, dryland corn, soybeans, flax, sunflower, safflower, alfalfa, hay and dry beans. In areas hare a short growing season, prolonged periods of low soil temperature and low annual rainfall, "Ally" can remain in the soil for 34 months or more and cause severe injury to certain crops other than those listed in the "CerealCrop Rotation Guidelines" section of this label. Read and follow the "CerealCrop Rotation Guidelines" section for the specific rotation intervals. Before using "Ally", carefully consider your crop rotation plans and options. For maximum rotational flexibility, do not neat all your wheat or barley acres with "Ally".

"Ally" is a 60% active ingredient herbicide formulated as a dry flowable granule to be mixed in water and applied for use as a uniform broadcast spray for selective weed control in wheat (including durum), barley and in grasses on acreage enrolled in the CPP. "Alay" may be applied by air or with ground spray equipment. It is noncorrosive, nonflammable, nonvolatile and does not freeze.

For application to wheat or barley, "Ally" should be applied posternergence to actively growing broadleaf weeds. Herbicide combinations may be required for a clain weeds as indic. I under "Tank Mixtures for Resistant Weed Management" or "Tank Mixtures" in the "Weed Control in Wheat and Barley" section.

"Ally" rapidly inhibits growth of susceptible weeds; however, typical symptoms (discoloration) of dying weeds may not be noticeable for 1 to 3 weeks after application depending on growing conditions and weed susceptibility. Warm, moist conditions following treatment enhance the activity of "Ally", while cold, dry conditions delay activity. Weeds hardened-off by cold weather or drought stress may not be fully controlled or suppressed and regrowth may occur. Snow or rainfall received within 4 hours after application can reduce the level of weed control.

Degree of control and duration of effect depend on: weed spectrum and density; weed size and variability; growing conditions prior to, at and following time of application; amount of precipitation, and spray coverage. With adequate rainfall for soil activation, short-term residual control of the more sensitive species may be obtained for a few weeks after application.

### INFORMATION ON RESISTANT WEEDS

Naturally-occurring weed biotypes\* resistant to this product are known to exist. To delay the development of resistant biotypes, spray "Ally" only in tank mixtures with broadleaf herbicides having a different mode of action\*\*, such as: 2,4-D, Banvel' / "Banvel" SGF, Buctril', Bronate', Curtail', Curtail M', MCPA, Du Pont Karmex\* DF Herbicide or Du Pont Lexone\* DF Herbicide as specified in the "Tank Mixtures for Resistant Weed Management" section of this label.

Note: Because these resistant biotypes are known to be present, accurate record keeping of pesticides applied to individual fields is advisable in order to obtain information on the spread and dispersal of the resistant biotypes.

- \* 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 "Ally" Herbicide or other herbicides that have the same mode of action such as Amber', Du Pont Express' Herbicide, Du Pont Glean" FC Herbicide and Du Pont Harmony" Extra Herbicide.
- \*\* Mode of action is the chemical interaction that interrupts a biological process necessary for plant growth and development.

#### **GRAZING**

"Ally" has no grazing restrictions.

### MAXIMUM USE RATE AND SOIL PH LIMITATION

In CO, ID, Western KS and Western NE (west of Highway 183), MN, MT, NM, ND, OK Panhandle, TX Panhandle, SD, UT and WY, the maximum crop use rate is 1/10 ounce per acre (oz/A) in a 22-month period.

In Central KS, Central NE, Central OK and \* orth Central TX, the maximum crop use rate is 1/10 oz/A in a 10-month period.

Do not use "Ally" on soils with a pH greater than 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 and barley.

Note: Prior to using "Ally", take soil samples at 0-4" depth and determine the 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 distinct topographical area in a field, for example, hilltops, hillsides and 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 varia is a in a given field. Consult legal extension publications for additional information or recommended soil sampling procedures.

#### WEED CONTROL IN WHEAT AND BARLEY

For best weed control or weed suppression, apply "Ally" postemergence to weeds when environmental conditions favor active growth of broadleaf weeds and when crop canopy will allow thorough coverage of target weeds. Unless otherwise directed, always include a surfactant.

For best weed control performance, use "Ally" in a tank mix with 2,4-D (ester formulations perform best). This tank mix works best where weed biotypes resistant to "Ally", "Amber", "Glean" FC, "Harmony" Extra or "Express" Herbicides are not suspected or known to cour.

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.

Determine crop rotation plans according to "Cereal Crop Rotation Guidelines" section of this label.

#### TIMING OF CROP APPLICATION

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For winter wheat and winter parley, apply "Ally" (1/10 oz/A) postemergence after crop is in the 2-leaf stage but before the boot stage. Do not apply during boot stage or early heading, as crop injury may occur.

For spring barley and spring wheat (except durum or Wampum variety' apply "Ally" (1/10 oz/A) postemergence after crop is in the 2-leaf stage but before the boot stage. Do not apply during boot stage or early heading, as crop injury may occur.

For durum "ring wheat and Wampum variety of spring wheat, apply "Ally" (1/10 oz/A) postemergence only after crop is tillering (refer to 2,4-D manufacturers' labels) but before the boot stage and only in combination with 2,4-D. Do not apply during boot stage or early heading, as crop injury may occur.

Irrigated Cereals (wheat/barley): On land dedicated to cereal production, which includes supplemental irrigation, delay first post treatment irrigation following treatment t for at least 3 days after treatment. The first post treatment irrigation should not exceed 1". Apply "Ally" after crop tillering has begun. Do not apply "Ally" to stressed plants.

## WEEDS CONTROLLED WITH TANK MIXES OF "ALLY" PLUS OTHER BROADLEAF HERBICIDES

1/10 Ounce Per Acre

(80 acres treated per 8 ounce container)

Unless otherwise directed, treat when weeds are less than 4" tall or in diameter and are actively growing. See "Specific Weed Problems", "Tank Mixtures For Resistant Weed Management" and "Tank Mixtures" sections for additional information.

Blue/purple mustard*	Mayweed chamomile
Bur buttercup	Miners lettuce
(testiculate)	Pigweed (redroot,
Coast fiddleneck	smooth, tumble)
(tarweed)	Plains coreopsis
Common chickweed	Prickly lettuce**
Common purslane	Russian thistle**
Conical catchfly	Shepherd's-purse
Cowcockle	Smallseed falseflax
False chamomile	Smartweed (green,
Field pennycress	ladysthumb, pale)
(fanweed)	Snow speedwell
Filaree	Tansymustard*
Flixweed*	Trecale mustard
Groundsel (common)	Tumble/Jim Hill
Henbit	mustard
Kochia**	Volunteer sunflower
Lambsquarters	Waterpod
(common, slimleaf)	Wild mustard

- \* See "Specific Weed Problems".
- \*\* Naturally-occurring resistant biotypes of these weeds are known to occur in the Central Plains and in Southern ID and UT. "Ally" will not control these resistant biotypes. See "Tank Mixtures For Resistant Weed Management" section of label for additional information.

## WEEDS SUPPRESSED†\* WITH TANK MIXES OF "ALLY" PLUS OTHER BROADLEAF HERBICIDES

Annual Ryegrass Knotweed (prostrate)
Canada thistle Sowthistle (annual)
Common sunflower Wild buckwheat

- Corn groniwell
  - † 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.
  - See "Specific Weed Problems".

#### SPECIFIC WEED PROBLEMS

Annual Ryegrass (OK, TX): To obtain the best results, a sequential treatment of "Glean" FC in the fall followed by "Ally" in the spring is recommended. Apply "Glean" FC at 1/2 oz/A preemergenc, to rvegrass, 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. Immediately after completion of wheat grazing. apply "Ally" with a surfactant or with a liquid nitrogen fertilizer topdressing application. For fields not grazed, apply the sequential application of "Ally" as soon as ryegrass starts to grow after winter dormancy. 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.

Blue Mustard, Flixweed and Tansymustard (ID, MN, MT, ND, SD, UT and WY): For best results, apply "Ally" tank mixtures with 2,4-D or MCPA postemergence to mustards, but before bloom.

Canada Thistle and Sowthistle: Apply either "Ally" plus surfactant or "Ally" plus 2,4-D or MCPA in the spring after majority of thistles have emerged and are small (rosette stage to 6" elongating stems) and actively growing. An application will inhibit the ability of emerged thistles to compete with the crop.

Sunflower (common/volunteer): Apply either "Ally" plus surfactant or "Ally" plus 2,4-D or MCPA after the majority of sunflowers have emerged, are 2" to 4" tall and are actively growing. Thorough coverage is important. Use minimum spray volumes of 3 gal by air and 5 gal by ground.

Corn Gromwell and Prostrate Knotweed: Apply "Ally" plus surfactant when weeds are actively growing, no larger than 2" tall and crop canopy will allow thorough coverage. The addition of 2,4-D or MCPA may or may not improve the results.

Wild Buckwheat: For best results, apply "Ally" plus 2,4-D or "Ally" plus MCPA when plants have no more than 3 true leaves (not counting the cotyledons). If plants are not actively growing, delay treatment until environmental conditions favoring active weed growth are present. Thorough coverage is important.

## TANK MIXTURES FOR RESISTANT WEED MANAGEMENT

#### Central KS, Central NE, Central OK and North Central TX:

Apply "Ally" only as a tank mix treatment with 2,4-D (amine or ester), MCPA (amine or ester) or "Banvel" / "Banvel" SGF. Use 1/10 oz/A of "Ally" plus either 1/4 to 1/2 lb active ingredient 2,4-D/MCPA (ester formulations of 2,4-D or MCPA have provided best results) or 1/16 to 1/8 lb active ingredient "Banvel" / "Banvel" SGF. Surfactant may be added at 1 to 2 pt per 100 gal of spray

volume; however, the addition of surfactant may increase the chance for crop injury. Apply "Ally" plus MCPA from 3-5 leaf stage, but prior to boot stage. Apply "Ally" plus 2,4-D after tillering (refer to 2,4-D manufacturer's label), but prior to boot stage. Refer to "Banvel" / "Banvel" SGF labels for application timing of "Ally" tank mix.

If 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, consider using another herbicide treatment or adjust the use rate of the "Ally" tank mix partner labeled for the control of kochia and/or Russian thistle so that it alone will control the resistant biotypes.

"Ally" tank mixes can be applied annually in this area.

Do not apply "Ally" during fallow unless specified otherwise.

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

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

Where resistant weeds are not suspected (land not previously treated more than once with "Glean" FC and not immediately adjacent to other land where "Glean" FC has been used 2 or more times), apply "Ally" as a tank mix treatment with 2 4-D (amine or ester), MCPA (amine or ester) or "Banvel" / "Banvel" SGF. Use 1/10 oz/A of "Ally" plus either 1/4 to 1/2 lb active ingredient 2,4D/ MCPA (ester formulations of 2,4-D/MCPA have provided best results) or 1/16 to 1/8 lb active ingredient "Banvel" / "Banvel" SGF. Surfactant may be added at 1 to 2 pt per 100 gal of spray volume; however, the addition of surfactant may increase the chance for crop injury. Apply "Ally" plus MCPA from 3-5 leaf stage, but prior to boot stage. Apply "Ally" plus 2,4-D after tillering (refer to 2,4-D manufacturer's label), but prior to boot stage. Refer to "Banvel" / "Banvel" SGF labels for application timing of "Ally" tank mix.

If 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, consider using another herbicide treatment or adjust the use rate of the "Ally" tank mix partner labeled for the control of kochia and/or Russian thistle so that it alone will control the resistant biotypes.

Do not apply "Ally" during fallow.

Do not apply "Ally" more often than once in a 22-month period for a given field.

Do not apply "Ally" for 22 months before or after a "Glean" FC treatment.

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

#### \*CO, Western KS and Western NE (west of Highway 183), Eastern NM, OK Panhandle, TX Panhandle and Southeastern WY:

Where resistant weeds are not suspected (land not previously treated more than once with "Glean" FC and not immediately adjacent to other land where "Glean" FC has been used 2 or more times), apply "Ally" as a tank mix treatment with 2,4-D (amine or ester), MCPA (amine or ester) or "Banvel" / "Banvel" SGF. Use 1/10 oz/A of "Ally" plus either 1/4 to 1/2 lb active ingredient 2,4-D /MCPA (ester formulations of 2,4-D/MCPA have provided best results) or 1/16 to 1/8 lb active ingredient "Banvel" / "Banvel" SGF. Surfactant may be added at 1 to 2 pt per 100 gal of spray volume; however, the addition of surfactant may increase the chance for crop injury. Apply "Ally" plus MCPA from 3-5 leaf stage, but prior to boot stage. Apply "Ally" plus 2,4-D after tillering (refer to 2,4-D manufacturer's label), but prior to boot stage. Refer to "Banvel" / "Banvel" SGF labels for application timing of "Ally" tank mix.

If 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, consider using another herbicide treatment or adjust the use rate of the "Ally" tank mix partner labeled for the control of kochia and/or Russian thistle so that it alone will control the resistant biotypes.

Do not apply "Ally" more often than once in a 22-month period on a given field.

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

#### TANK MIXTURES

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"Ally" must be in suspension before adding companion herbicide(s) or spray adjuvant(s).

For tank mixtures with other broadleaf weed herbicides, see "Tank Mixtures For Resistant Weed Management" section of this label.

Other Tank Mixtures: "Ally" will not control wild oats or other grasses. If broadleaf weeds plus wild oats and/or grasses are present, apply "Ally" with a suitable registered product either as a tank mix or sequential treatment. When tank mixing "Ally" and Assert' herbicide, ALWAYS include another broadleaf herbicide with a different mode of action for control of resistant weeds, for example: 2,4-D ester, MCPA ester, "Bronate" or "Buctril".

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

DO NOT tank mix with Hoelon' 3EC as wild out or green foxtail control may be reduced.

"Ally" may be tank mixed with insecticides registered for use on cereal grains. However, under certain conditions (drought stress, crop in 2-4 leaf stage), tank mixes of "Ally" plus organophosphate insecticides (such as methyl or ethyl parathion, Di-Syston', etc.) may produce temporary crop

yellowing or, in severe cases, crop injury. The potential for crop injury is greatest when there are fluctuations in day/night temperatures just prior to or soon after application. Limit first use to a small area before treating large acreage.

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

DO NOT USE "ALLY" PLUS MALATHION AS CROP INJURY MAY RESULT.

See "Spray Preparation, Additives, Product Measurements, Surfactant and Liquid Fertilizer" section of label.

## WEED CONTROL FOR THE CONSERVATION RESERVE PROGRAM (CRP)

"Ally" is registered for CRP use in CO, Southern ID, KS, MT, NE, NM, ND, OK, SD, TX, UT and WY. Consult "Ally" supplemental label for CRP use instructions.

## WEED CONTROL IN REDUCED TILLAGE FALLOW

DO NOT USE "ALLY" IN FALLOW UNLESS SPECIFIED OTHERWISE.

#### **EQUIPMENT-SPRAY VOLUMES**

Read before using: It is important that spray equipment is cleaned and free of existing pesticide deposits before using "Ally". Follow the cleanup procedures specified on the label of the product previously sprayed. If no cleanup is provided, follow sprayer cleanup procedure in "Sprayer Cleanout" section of this label for all application equipment.

Spray Equipment: 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. Avoid overlapping, and shut off spray booms while starting, turning, slowing or stopping, or injury to the crop or following crops may result.

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.

Refer to specific manufacturer's recommendations for additional information on gallons per acre(GPA), pressure, speed, nozzle types and arrangements, nozzle heights above the target canopy, etc., for respective application equipment.

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

Agitation: Continuous agitation is required to keep "Ally" in suspension.

Ground Application: For optimum spray distribution and thorough coverage, use flat fan or low volume flood nozzles. For flat fan nozzles, do not use less than 3-GPA.

For flood nozzles on 30-inch nozzle spacings, use not less than 10 GPA and no larger than TK10 nozzles or equivalent and not less than 30 psi. On 40-inch nozzle spacings, use not

less than 13 GPA. 100% overlapping of nozzle spray pattern is recommended for 30 and 40-inch spacings.

With Raindrop\* nozzles, do not use less than 30 GPA and insure for 100% overlap of nozzle spray patterns.

Use 50-mesh screens or larger.

Aerial Application: Use nozzle types and arrangements that will provide for optimum spray distribution and maximum coverage at 1 to 5 GPA. Do not apply during inversion conditions, when winds are gusty, or when other conditions will favor poor coverage and/or off-target spray movement.

#### CEREAL CROP ROTATION GUIDELINES

The crop rotation intervals specified in this section of the label must be followed unless a LRB<sup>un</sup> bioassay indicates a shorter planting interval. See "Bioassay" section of label for details.

Crop rotation plans are determined by the crop to be planted and a minimum rotation interval. Minimum rotation interval is the time from the last application of "Ally" to the anticipated date of planting. For maximum rotational flexibility, do not use "Ally" on all your wheat or barley. Do not use on soils with a grant or than 7.9.

Where "Ally" is used on land previously treated with "Gk" a" FC, read the rotational guidelines on both labels and follow the one with the longest interval stated for your situation.

#### **CROP TO BE PLANTED**

Prior to planting a rotational crop, determine the 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 distinct topographical area in a field, for example, hillt pps, hillsides and 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.

Cumulative Precipitation equals the total amount of moisture received from the date of "Ally" application to the date of planting the rotational crop. Should accumulated precipitation not be sufficient to meet the indicated amounts or the soil pH is above 7.9, do not rotate to the indicated crops until the following growing season.

These crops can be planted on nonirrigated land following the use of "Ally" at 1/10 oz/A:

Winter and spring wheat

Area: all'

Soil pH: 7.9 or less

Cumulative Precipitation (inches): none Minimum Rotation Interval (months): 1

CRP grasses<sup>1</sup>

Arca: all'

Soil pH: 7.9 or less

Cumulative Precipitation (inches): none Minimum Rotation Interval (months): 4 Durum wheat, barley, spring/winter oats

Arca: all'

Soi' H: 7.9 or less

Cumulative Precipitation (inches): none Minimum Rotation Interval (months): 10

Grain sorghum, proso millet

Area: CO, KS, NE, NM, OK, TX, Southern WY

Soil pH: 7.9 or less

Area: SD3

Soil pH: 7.9 or less

Cumulative Precipitation (inches): 13
Minimum Rotation Interval (months): 12

Area: MT, Northern WY

Soil pH: 7.9 or less

Cumulative Precipitation (inches): 22 Minimum Rotation Interval (months): 22

Area: ND (west of State Hwy 1)

Soil pH: 7.9 or less

Cumulative Precipitation (inches): 22

Minimum Rotation Interval (months): 22

Area: ND (east of State Hwy 1)

Soil pH: 7.9 or less

Cumulative Precipitation (inches): 34
Minimum Rotation Interval (months): 34

Field corn

Area: Central KS<sup>4</sup> Soil pH: 7.9 or less

Cumulative Precipitation (inches): 25 Minimum Rotation Interval (months): 14

Area: CO', KS', NE', North Central TX', Southern WY'

Soil pH: 7.5 or less

Cumulative Precipitation (inches): 15
Minimum Rotation Interval (months): 12

Area: CO', KS', NE', TX Panhandle, Southern WY'

Soil pH: 7.6 to 7.9

Cumulative Precipitation (inches): 22 Minimum Rotation Interval (months): 22

Алеа: SD<sup>4</sup>

Soil pH: 7.9 or less

Cumulative Precipitation (inches): 15

Minimum Rotation Interval (months; ?

Area: MT, Northern WY

Soil pH: 7.9 or less

Cumulative Precipitation (inches): 22

Minimum Rotation Interval (months): 22

Area: ND (west of State Hwy 1) Flax, Safflower, Sunflower Soil pH: 7.9 or less Area: CO, KS, MT, NE, NM, OK, SD, TX, UT, WY, Southern ID. Cumulative Precipitation (inches): 22 Soil pH: 7.9 or less Minimum Rotation Interval (months): 22 Cumulative Precipitation (inches): None Area: ND (east of State Hwy 1) Minimum Rotation Interval (months): 22 Soil pH: 7.9 or less Area: ND (west of State Hwy 1) Cumulative Precipitation (inches): 34 Soil pH: 7.9 or less Minimum Rotation Interval (months): 34 Cumulative Precipitation (inches): 22 Soybeans Minimum Rotation Interval (months): 22 Area: Central KS' Area: ND (east of State Hwy 1) Soil pH: 7.9 or less Soil pH: 7.9 or less Cumulative Precipitation (inches): 25 Cumulative Precipitation (inches): 34 Minimum Rotation Interval (months): 14 Minimum Rotation Interval (months): 34 Area: KS', NE' All other crops\* Soil pH: 7.5 or less Area: all' Cumulative Precipitation (inches): 22 Soil pH: 7.9 or less Minimum Rotation Interval (months): 22 Cumulative Precipitation (inches): 28 Area: KS\*, NE\* Minimum Rotation Interval (months): 34 Soil pH: 7.6 to 7.9 \* All other crops refers to any crop not listed above or to a crop Cumulative Precipitation (inches): 33 listed above where a specific crop rotation interval is not given. Minimum Rotation Interval (months): 34 1 All — CO, KS, MT, NE, NM, ND, OK, SD, TX, UT, Cotton (dryland only) WY, Southern ID Area: OK (east of the Panhandle), North Central TX\* 2 CRP grasses — Soil pH: 7.9 or less Blue Grama Cumulative Precipitation (inches): 25 Bluestems - Big, Little, Plains, Sand, WW Spar Minimum Rotation Interval (months): 14 **Buffalograss** Area: OK Panhandle and TX Panhandle, Eastern NM Green Sprangletop Soil pH: 7.9 or less Indiangrass Cumulative Precipitation (inches): 30 Kleingrass Minimum Rotation Interval (months): 22 Lovegrasses - Atherstone, Sand, Weeping, Wilman Alfalfa (hay only) Orchardgrass Area: MT Sideoats Grama Soil pH: 7.5 or less Switchgrass - Blackwell Cumulative Precipitation (inches): none Wheatgrasses - Bluebunch, Crested, Intermediate, Minimum Rotation Interval (months): 22 Pubescent, Siberian, Slender, Streambank, Tall, Area: MT Thickspike, Western Soil pH: 7.6 to 7.9 Wildrye grass - Russian Cumulative Precipitation (inches): none The planting of grass and legume mixtures is not recom-Minimum Rotation Interval (months): 34 mended as injury to the legume may occur. Dry beans 3 SD—Generally south of state Highway 212; nd east of the Missouri River, and generally south of state Highway Area: ND (west of State Hwy 1) 34 and west of the Missouri River Soil pH: 7.9 or less 4 Central KS-Generally east of state Highway 183 and Cumulative Precipitation (inches): 22 west of the Flinthills Minimum Rotation Interval (months): 22 5 CO—Generally north of 1-70 Area: ND (east of State Hwy 1) 5 KS—Generally north of 1-70 and west of state Highway 183 Soil pH: 7.9 or less Cumulative Precipitation (inches): 34 5 NE-Generally west of state Highway 77 and east of the

Minimum Rotation Interval (months): 34

**Panhandle** 

5 WY—Counties of Goshen, Laramie, Platte

- 6 SD—Generally east of the Missouri River and south of state Highway 14 and west of the Missouri River
- 7 Central KS—Generally east of state Highway 183 and west of the Flinthills
- 8 KS-Generally north of 1-70 and west of state Highway 183
- 8 NE—Generally west of state Highway 77 and east of the Panhandle
- 9 Counties of:

Archer	Dallas	Hill	Montague	Tarrent
Baylor	Delta	Hood	Morris	Throckmorton
Bell	Denton	Hopkins	Navarro	Titus
Bosque	Eastland	Hunt	Palo Pinto	Upshur
Bowie	Ellis	Jack	Parker	Van Zandt
Callahan	Falls	Johnson	Rains	Wilbarger
Camp	Fannin	Kaufman	Red River	Wichita
Cass	Foard	Knox	Robertson	Williamson
Clay	Franklin	Lamar	Rockwall	Wise
Collin	Grayson	Limestone	Shackelford	Wood
Cooke	Hardeman	McLennan	Somervell	Young
Coryell	Haskell	Milam	Stephens	

#### **PRECAUTIONS**

In CO, ID, Western KS and Western NE (west of Highway 183), MN, NM, ND, OK Panhandle, TX Panhandle, SD, UT and WY, the maximum use rate is 1/10 oz/A in a 22 month period.

In Central KS, Central NE, Central OK and North Central TX, the maximum use rate is 1/10 oz/A in a 10 month period.

Do not use on soils with pH greater than 7.9 (for example, highly calcareous soils) as extended soil residual activity could adversely affect minimum rotation intervals for all crops.

Wherever "Ally" is used on land previously treated with "Glean" FC, read the rotational guidelines on both labels and follow the one with the longest interval stated for your situation.

Wherever land has been or will be treated with "Ally", "Amber" and "Assert", 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 "Ally" 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.

Do not apply to irrigated land where tailwater will be used to irrigate crops other than wheat and barley.

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

Do not apply to snow covered ground.

Varieties of wheat and barley differ in their tolerance to herbicides. When using "Ally" for the first time on a particular variety, limit initial use to one 8 oz container. If no symptoms of crop injury occur within 14 days after treatment, balance of acreage can be treated.

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

Under certain conditions such as heavy rainfall, prolonged cool weather (daily high temperatures less than 50 degrees 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 2-5 leaf stage.

Tank mixtures of "Ally" and organophosphate insecticides (such as methyl or ethyl parathion or "Di-Syston", etc.) may cause temporary discoloration or crop injury. The potential for crop injury is greatest when there are wide fluctuations in day/night temperatures just prior to or soon after treatment.

The combined treatment effects of "Ally" postemergence preceded by preemergence wild out herbicides may cause crop injury to spring wheat when crop stress (s ill crusting, planting too deep, prolonged cold weather or drought) causes poor seedling vigor.

To prevent cold weather related crop injury, avoid making applications during winter months when weather conditions are unpredictable and can be severe.

Do not apply to wheat or barley undersown with legumes or grasses, as injury to the forage may result.

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 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.

Tank mix applications of "Ally" plus "Assert" may cause temporary crop discoloration/stunting or injury when heavy rainfall occurs shortly after application.

Preplant or preemergence applications of 2,4-D or herbicides containing 2,4-D made within two weeks of planting spring cereals may cause crop injury when used in conjunction with early postemergence applications of "Ally". Under these conditions, delay "Ally" treatment until crop tillering has begun.

With any chemical, follow labeling instruction and warnings carefully.

# WEED CONTROL IN PASTURES GENERAL INFORMATION

Du Pont "Ally" Herbicide is formulated as a dry flowable granule to be mixed in water and applied as a spray for selective weed control in grasses grown in pastures and rangeland.

"Ally" rapidly inhibits growth of susceptible weeds; however, typical symptoms (discoloration) of dying weeds may not be noticeable for 1 to 3 weeks after application, depending on growing conditions and weed susceptibility. Warm, moist conditions following treatment enhance the activity of "Ally"; cold, dry conditions delay activity. Weeds hardened off by cold weather or drought stress may not be fully controlled or suppressed and regrowth may occur. Rainfall received within 4 hours after application can reduce the level of weed control.

Degree of control and duration of effect depend on: weed spectrum and density; weed size; growing conditions prior to, at and following time of application; amount of precipitation, and spray coverage. With adequate rainfall for soil activation, short-term residual control of the more sensitive species may be obtained for a few weeks after application.

Do not exceed a single application per year.

Do not apply "Ally" through any type of irrigation system.

#### IMPORTANT PRECAUTIONS

Do not use on lawns, golf courses, athletic fields, commercial sod operations, or other high maintenance, fine turfgrass areas.

Do not use on grasses grown for seed.

Injury to or loss of subsequently sprayed crops may result from failure to observe the following procedures:

"Ally" must be cleaned from application equipment according to cleanup procedures described in the SPRAYER CLEANUP section of this label, prior to spraying crops other than grasses grown in pastures, rangeland, wheat, barley, or Conservation Reserve Program acres.

#### GRASS SELECTIVITY

Bermudagrass, bluegrass, orchardgrass, bromegrass, timothy and native grasses such as bluestems and grama have demonstrated good tolerance to "Ally".

Note: Bermudagrass should be established for 60 days, bluegrass, bromegrass, orchardgrass, and timothy should be established for 6 months, and fescue should be established for 24 months at time of application or injury may result.

Applications of "Ally" to fescue may cause temporary stunting and yellowing of the grass as well as seedhead suppres: ion. These symptoms may be minimized by: making application later in the spring or in the fall, using lowest recommended rate for target weed, using 1/16 to 1/8% v/v surfactant (1/2 to 1 pint/100 gallons), and/or tankmixing "Ally" and 2,4-D.

Following "Ally" application, a reduction in production of the first cutting may result primarily due to seedhead suppression.

Applications of "Ally" to timothy should be made after greenup in the spring. The timothy should be 4 - 6 inches tall at application.

Do not apply "Ally" to ryegrass (Italian or perennial) pastures as injury to or loss of pasture may result.

Broadleaf pasture species, such as alfalfa and the clovers, are highly sensitive to "Ally" and will be severely stunted or killed by application of "Ally".

#### **APPLICATION VOLUMES**

GROUND: Use a minimum of 10 gallons per acre for weed control in improved pastures.

AERIAL: Use orifice discs, cores and nozzle types and arrangements that will provide for optimum spray distribution and maximum coverage at 2 to 5 GPA. For higher density pasture grasses and/or weeds use nigher spray volume. Do not apply during inversion conditions, when winds are gusty, or when other conditions will favor poor coverage and/or drift.

Note: Aerial application of "Ally" is restricted to the states of CO, ID, KS, MN, MO, ND, NE, NM, OK, OR, SD, TX, UT, WA and WY.

Note: See "Spray Preparation, Additives, Product Measurements, Surfactant and Liquid Fertilizer" section of label for further information.

#### **GRAZING**

"Ally" has no grazing restriction.

### WEED CONTROL, RATES, AND TIMING OF APPLICATION

Pensacola bahiagrass (Paspalum notatum) control in established bermudagrass:

Apply "Ally" at 3/10 ounce of product per acre plus surfactant.

Apply after green-up in the spring but before bahiagrass seedhead formation. Application should be made when adequate moisture is available to enhance grass growth.

"Ally" is very effective for removal of bahiagrass from bermudagrass pastures. In highly infested pastures, use of "Ally" can result in areas that may be bare of useful forage until the bermudagrass has the time to recolonize the area. Therefore, in areas where heavy bahiagrass infestations exist, it is strongly advised that "Ally" not be applied to an entire farm or ranch in one year, but that treatments be spread out over a period of years. Fertilization (particularly with nitrogen and potassium) and/or replanting, may accelerate the process of recolonization by bermudagrass.

Under heavy bahiagrass pressure, grazing pressure or adverse weather conditions (heat and drought), some regrowth may occur.

Note: Ally should not be used for the control of common or Argentine bahiagrass. "Ally" should not be applied in liquid fertilizer solutions for Pensacola bahiagrass control as poor control and/or regrowth may occur.

#### Broadleaf Weed Control:\*(a)

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Apply "Ally" at the rate of 1/10 to 2/10 ounces product per acre for control of:

Bitter sneezeweed	Groundsel
Buttercup	Henbit
Carolina geranium	Marestail
Common broomweed	Mayweed
Common chickweed	Pigweed
Common mullein	Plains coreopsis
Common purslane	Plantain
Conical catchfly	Shepherd's-purse
Cow cockle	Smallseed faiseflax
Curly dock	Snow speedwell
Dandelion	Wild garlic*(b)
False chamomile	Wild mustard
Field pennycress	Woolly creton*(c)

Apply "Ally" at the rate of 2/10 to 3/10 ounce product per acre plus surfactant for the control of:

Annual marshelder	Horsemint (beebalm)
Blackeyed-susan	Musk thist' *(e)
Buckbrush*(d)	Purple sciolous
Burclover	Western snowberry *(d)
Common yarrow	Wild carrot
Dogtennel	

- \*(a) Apply before weeds are 4 inches tall or in diameter unless otherwise indicated. Apply when weeds are actively growing.
- \*(b) Apply in the early spring when wild garlic is less than 12 inches tall with 2 to 4 inches of new growth. Thorough spray coverage of all wild garlic plants is essential.
- \*(c) Apply in the late spring or early summer, preemergence through two true leaf stage.
- \*(d) Western snowberry or Buckbrush may be controlled or suppressed by "Ally". 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 the rate used, size of weeds and environmental conditions following treatment.
- \*(e) Apply in the spring or early summer prior to flowering or in the fall after newly emerged plants have reached the rosette stage of growth. Fall applications should be made prior to freezing of soil. Cold, dry conditions delay herbicidal activity and weeds hardened off by cold or drought weather conditions may not be fully controlled, resulting in regrowth

#### TANK MIXTURES FOR SPECIFIC WEEDS

"Ally" can be applied in a tank mix combination with Grazon' P+D, "Grazon" PC / "Tordon" 22K, 2,4-D, Banvel' or Weedmaster' in states where these products are labeled for postemergence control of the following weeds:

Annual marshelder	Giant ragweed
Burclover	Prickly lettuce
Carolina horsenettle	Sunflower
Common cocklebut	Sumower
Common milkweed	Western ragweed
Common ragweed	

#### Application Rates

"Ally" at 1/10 to 2/10 ounce per acre may be tank mixed with one of the following products:

PRODUCT		OZ/A	
"Grazon" P+D	at	8 to 32	
"Grazon" PC / "Tordon" 22K	al	4 to 16	
2,4-D	<u>at</u>	16 to 32	
"Panvel"	at	4 to 32	
"Weedmaster"	2t	8 to 32	

#### PERENNIAL WEED CONTROL

Broadcast applications: Apply "Ally" at the rate of 3/10 ounce of product per acre plus surfactant for the suppression of:

Blackberry	Multiflora rose
Dewberry	

Application should be made in the spring, soon after fully leafed. Multiflora rose must be less than 3 feet tall for a broadcast application to give effective control.

**Spot application:** Apply "Ally" at the rate of 1 ounce of product per 100 gallons of water, plus surfactant, for the control of:

Blackberry	Canada thistle
Dewberry	Multiflora rose

Apply as a foliar spray to runoff. Do not exceed 75 gallons of total spray per acre. Foliar applications should be made after brush is fully leafed. Complete coverage of all foliage and stems is required for control. Effectiveness may be reduced if rainfal! occurs within 4 hours after application. On tall, dense stands, it is often necessary to spray from both sides to obtain adequate coverage. For Canada thistle, apply in the spring when the Canada thistle is at least 6-10 inches tall and before flowering.

## CROP ROTATION GUIDELINES (INCLUDING OVERSEEDING AND PASTURE RENOVATION)

After application of "Ally", a period of time must elapse before the treated pasture can be overseeded, renovated, or rotated to other crops. This period of time is refe. ed to as the Minimum Rotation Interval. In more technical terms, The Minimum Rotation Interval is the time in months from the date of the last application of "Ally" to the date of planting of any crop or forage.

Note: Failure to observe the Minimum Rotation Interval may result in injury to or loss of any planted crop or forage.

The length of the Minimum Rotation Interval depends upon the rate of "Ally" applied, the method of application (broadcast vs. spot), the pH of the soil, and the environmental conditions after application. In general, longer Minimum Rotation Intervals are associated with higher rates; higher soil pH's; cooler, drier environmental conditions, and shorter growing seasons.

For maximum rotational flexibility, do not use "Ally" on all your pasture.

Do not use "Ally" on pastures with a soil pH greater than 7.9 (for example, highly calcareous soils) as extended soil residual activity could adversely affect Minimum Rotation Intervals for a'l crops.

Unless a Minimum Rotation Interval is specified, a FIELD BIOASSAY must be completed before rotating to any crop other than those listed below. See "FIELD BIOASSAY" section of this label.

#### Section I:

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AL, AR, FL, GA, KY, LA, MS, NC, OK, SC, TN, TX, VA and WV.

After treatment with "Ally" at 3/10 ounce product per acre, or less:

The Minimum Rotation Interval for overseeding with desirable broadleaf forage plants, such as alfalfa, red clover, white clover or sweet clover, is 4 months.

The Minimum Rotation Interval for overseeding or renovating with bermudagrass, bluegrass, orchardgrass, bromegrass, ryegrass, fescue or timothy is 4 months.

The Minimum Rotation Interval for rotating to winter or spring wheat is 1 month.

The Minimum Rotation Interval for rotating to durum wheat, barley, or oats is 10 months.

The Minimum Rotation Interval for rotating to all row crops except those listed above is 34 months, unless a FIELD BIOASSAY is performed.

After treatment with "Ally" at greater than 3/10 ounce product per acre:

The Minimum Rotation Interval for rotating to any crop or forage is 34 months unless a FIELD BIOASSAY is performed.

#### Section 11:

All states not listed in Section I

After treatment with "Ally" at rates of 2/10 ounce product per acre or less:

The Minimum Rotation Interval for overseeding with desirable broadleaf forage plants, such as red clover, white clover or sweet clover is 12 months.

The Minimum Rotation Interval for overseeding or renovating with bermudagrass, bluegrass, orchardgrass, bromegrass, ryegrass or timothy is 6 months. For over-

seeding or renovating with fescue, the Minimum Rotation Interval is 18 months.

The Minimum Rotation Interval for rotating to winter or spring wheat is 1 month.

The Minimum Rotation Interval for rotating to durum wheat, barley, or oats is 10 months.

After treatment with "Ally" at greater than 2/10 ounce product per acre:

The Minimum Rotation Interval for rotating to any crop or forage is 34 months unless a FIELD BIOASSAY is performed.

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

Spray Preparation: Pour the proper amount of "Ally" into the necessary volume of water in the spray tank with the agitator running. Continuous agitation is required for a uniform suspension and application. "Ally" must be added first to the spray tank followed by any other tank mix chemicals or surfactants.

Use spray preparation of "Ally" within 24 hours cr product degradation may occur. If spray preparation is left standing without agitation, thoroughly agitate before reusing.

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

Product Measurement: The "Ally" volumetric measuring cylinder is to be used as a guide, since the degree of accuracy varies by plus or minus 7.5%. For more precise measurement, use scales calibrated in ounces.

Surfactant: Unless directed otherwise, use a surfactant of at least 80% active ingredient and add it as the last ingredient at the rate of 1 to 2 quarts per 100 gal of spray volume on winter wheat or 1/2 to 1 quart on spring wheat, spring or winter barley, durum spring wheat and Wampurn variety of spring wheat. Antifoaming agents may be needed. DO NOT use liquid fertilizer in addition to or as a substitute for a surfactam. Pastures only - If applying in liquid nitrogen fertilizer, see "Liquid N Carrier" section of this label.

Note: If applying "Ally" to fescue pastures, use 1/2 to 1 pint surfactant/100 gallons (1/16 to 1/8% v/v).

Liquid Fertilizer: Slurry "Ally" in water; then thoroughly mix the slurry into the liquid fertilizer. DO NOT add a surfactant. 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. If 2,4-D is included in "Ally" and liquid fertilizer mixture, the ester formulations are generally more compatible.

Liquid N Carrier: Slurry "Ally" in water; then thoroughly mix the slurry into the liquid fertilizer. The addition of a surfactant can cause crop injury. 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.

Note: When "Ally" is applied using liquid nitrogen fertilizer solution as spray carrier; early, temporary, crop yellowing and stunting may occur.

Note: Since the presence of tank-mix partners can interfere with the dispersion of "Ally", when multiple tank loads of the same tank mix are being prepared, preslurry "Ally" in a dedicated container of clean water prior to adding to the tank.

#### CAUTION - AVOID SPRAY DRIFT

Follow these practices to minimize drift.

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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 JPRAY 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.

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.

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.

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

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\* 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 wing span, to minimize drift potential. Boom length must not exceed 2/3 of wing span.

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 "Ally". (Vehicle speed must also be reduced to maintain spray mix volume per acre). Consult manufacturer's catalogs for details on correct calibration.

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, barley, grasses grown on Conservation Reserve Program (CRP) acres or grasses grown in pastures and rangeland, as injury to the crop may occur. Extreme care must be taken to prevent drift onto susceptible nontarget plants or nontarget land.

#### **BIOASSAY**

#### DU PONT LRB BIOASSAY SERVICE

In the states of ID, MT, ND and SD, the Du Pont LRB<sup>m</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>m</sup> results will serve as a crop rotation recommendation.

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

#### FIELD BIOASSAY

"Ally" is a useful tool for weed control in pastures; however, under some conditions small amounts of "Ally" can remain in the soil and injure crops other than thos listed on the "Ally" label under "Crop Rotation Guidelines" for 34 months or more after application. Therefore, before yo i use "Ally" you should carefully consider your crop rotation plans during the three (or more) year period following treatment.

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

"Ally" breaks down most rapidly in soils that have high microbial populations. Factors that favor microbial activity include having annual rainfall of 10" or more and having long growing seasons with warm soil temperatures. Factors that reduce microbial activity, hence slow the disappearance of "Ally" in soils, are low rainfall and prolonged periods of soil temperatures less than 46 Deg. F.

Microbial activity, soil temperature, and to a large 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 "Ally" can be rotated to crops other than those listed on the label.

A biological assay of your "Ally" treated field is the only sure way of determining when crops other than those listed on the label can be grown and is conducted as follows:

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 "Ally" that are representative of the various field conditions. Be sure to consider factors such as fiel." size, soil texture, drainage, turnaround areas, eroded keedls 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 labei. 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 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 crop(s).
- 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 "Ally" 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 crop(s) in the test strips dic, 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 "Ally" residues are still present, do not rotate to crops other than wheat, barley, oats, rye, or triticale or those listed on label until bioassay results indicate that the assay crop(s) are growing normally.

#### SPRAYER CLEANUP

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#### AT THE END OF THE DAY

It is recommended that during periods when multiple loads of "Ally" will be applied, at the end of each day of spraying rinse the interior of 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 "ALLY" AND BEFORE SPRAYING CROPS OTHER THAN PASTURE AND RANGELAND GRASSES, CRP GRASSES, WHEAT, OR BARLEY.

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

- Drain tank; thoroughly rinse spray tanks, boom, and hoses with clean water. Loosen and physically remove any visible deposits.
- 2. Fill the tank with clean water and 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. Circulate 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.
- 3. Remove the nozzles and screens and clean separately in a bucket containing ci aning agent and water.
- 4. Repeat step 2.
- 5. Rinse the tank, boom and hoses with clean water.
- 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 D i Pont 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 Co.
- Chem-Tank Cleaner & Neutralizer, Manufactured by Farmbelt Chemicals, Inc.
- Incide Out, Precision Laboratories, Inc.
- Nutra-Sol, Compounded for Thomas G. Kilfoil Co., Inc.
- Tank and Equipment Cleaner, Manufactured by Loveland Industries, Inc.
- Tank-Aid, Manufactured for Combelt Chemical Company

#### 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 "Ally" 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.
- 4. Where routine spraying practices include shared equipment frequently being switched between applications of "Ally" and applications to sensitive crops during the same spray season, it is recommended a sprayer be dedicated to "Ally" to further reduce the chance of crop injury.

## STORAGE AND DISPOSAL

STORAGE: Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage.

PRODUCT DISPOSAL: Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. 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  $\varepsilon_{\gamma}$  uivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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 risk, 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.

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#### D-030893





## HERBICIDE



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

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