



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

JAN 4 1993

Marie M. Chubb
E.I. DU PONT DE NEMOURS AND CO.
BARLEY MILL PLAZA, WALKER'S MILL
WILMINGTON, DE 19880

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Subject: Label Amendment Submission of 08/10/93 in Response to PR Notice 93-7
EPA REG. NO. 352-541
DUPONT ASSURE II HERBICIDE

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

WHAT THIS ACCEPTANCE MEANS:

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

WHAT YOU NEED TO DO NEXT:

Send to EPA one (1) copy of the final printed labeling:

- **BEFORE** selling or distributing any product bearing the final printed labeling
- AND**
- **WITHIN** one year from date of this acceptance.



Recycled/Recyclable
Printed with Soy/Canola Ink on paper that
contains at least 50% recycled fiber

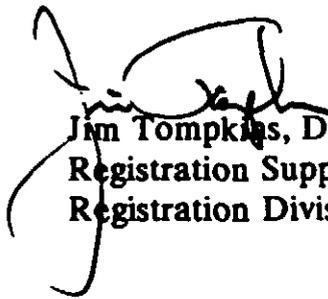
Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs (7505C)
U.S. Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

Sincerely,



Jim Tompkins, Deputy Chief
Registration Support Branch
Registration Division (7505W)

Attachment



ASSURE* II HERBICIDE

Emulsifiable Concentrate

<u>Active Ingredients:</u>	<u>By Weight</u>
Quizalofop P-Ethyl: Ethyl(R)-2-[4-[(6-chloro-2-quinoxalin-2-yl)oxy]-phenoxy]propionate	10.3%*
<u>INERT INGREDIENTS:</u>	89.7%
<u>TOTAL</u>	100.0%

Contains petroleum-based distillates.

*Equivalent to 0.88 lb ai per gal

EPA Reg. No. 352-541

U.S. Patent No. 4,629,493

ACCEPTED
with COMMENTS
In EPA Letter Dated

JAN 14 1994

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
352-541

KEEP OUT OF REACH OF CHILDREN DANGER - PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

STATEMENT OF PRACTICAL TREATMENT

If in eyes: Immediately flush with a steady gentle stream of water for at least 15 minutes.

Call a physician if irritation persists.

If on skin: Wash with plenty of soap and water. Get medical attention if irritation persists.

If swallowed: Do not induce vomiting. Give large quantities of water. Never give anything by mouth to an unconscious person. Call a physician.

If large amounts are inhaled: Remove to fresh air. If not breathing, give artificial respiration, preferably by mouth. If breathing is difficult, give oxygen and call a physician.

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

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER! Causes severe eye irritation. May irritate skin, nose, and throat. May be harmful if absorbed through the skin, swallowed, or inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing vapors or spray mist.

PERSONAL PROTECTIVE EQUIPMENT

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

Applicators and other handlers must wear:

Long-sleeve shirt and long pants.

Chemical-resistant gloves, such as barrier laminate or Viton.

Shoes plus socks.

Protective eyewear.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove personal protective equipment immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENGINEERING CONTROL STATEMENTS

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

ENVIRONMENTAL HAZARDS

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

PHYSICAL AND CHEMICAL HAZARDS

Combustible. Keep away from heat, sparks, and open flames. Keep container closed.

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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 in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls.
- Chemical-resistant gloves, such as barrier laminate or Viton.
- Shoes plus socks.
- Protective eyewear.

GENERAL INFORMATION

Du Pont's ASSURE™ II Herbicide is a selective postemergence herbicide that controls annual and perennial grasses in soybeans, cotton, and noncrop areas. ASSURE II does not control sedges or broadleaf weeds.

APPLICATION INFORMATION – SOYBEANS AND COTTON

Timing to Crops

Apply ASSURE II to soybeans and cotton any time prior to 80 days before harvest. Do not apply to soybeans after pod set.

Timing to Weeds

Apply ASSURE II to young, actively growing grasses according to the rate charts that follow. If a field is to be irrigated, apply ASSURE II after the irrigation. Applications made to grasses that are larger than the sizes listed in the rate charts or to grasses under stress may result in unsatisfactory control.

GEOGRAPHIC RATE RECOMMENDATIONS

The grasses controlled by ASSURE II and the rates needed for control differ geographically. A description of the areas and recommended use rates (for use alone or in tank mixes, if allowed) by species follows:

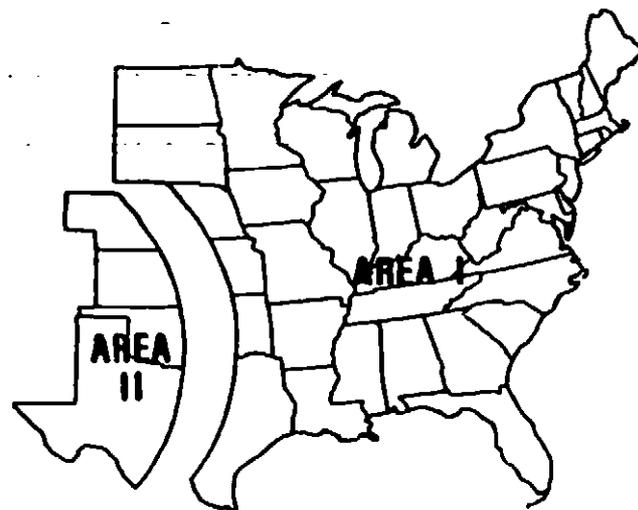
AREA I – (Areas with Adequate Rainfall)

Area I encompasses most of the eastern half of the United States. This area generally has enough rainfall to support crop production without irrigation during the growing season. The states in Area I are Alabama, Arkansas, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kansas (broadly defined as east of Interstate 135), Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska (broadly defined as east of State Highway 183), New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma (broadly defined as east of Interstate 35), Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas (broadly defined as east of Interstate 35), Vermont, Virginia, West Virginia, and Wisconsin.

Applied at recommended rates and timings, ASSURE II controls the grasses listed in the Weed Control – Area I chart that follows. Subsequent flushes of grass weeds require additional treatment.

AREA II – (Arid Conditions)

Area II encompasses the western portion of several states west of the Mississippi River. This area is arid and requires irrigation during the growing season in many locations. The states in Area II are Arizona, Kansas (broadly defined as west of Interstate 135), Nebraska (broadly defined as west of State Highway 183), New Mexico, Oklahoma (broadly defined as west of Interstate 35), and Texas (broadly defined as west of Interstate 35).



WEED CONTROL – AREA I (*Areas with Adequate Rainfall*)

Annual Grasses	Size at Application (in)	ASSURE II Applied Alone (oz product/A)	ASSURE II* Tank Mixed with Broadleaf Herbicide (oz product/A)
Barnyardgrass (<i>Echinochloa crus-galli</i>)	2-6	8	Split†
Broadleaf signalgrass (<i>Brachiaria platyphylla</i>)	2-6	8	Split†
Crabgrass			
Large (<i>Digitaria sanguinalis</i>)	2-6‡	8	Split†
Smooth (<i>Digitaria ischaemum</i>)	2-6‡	8	Split†
Crowfootgrass (<i>Dactyloctenium aegyptium</i>)	2-6	7	9
Fall Panicum (<i>Panicum dichotomiflorum</i>)	2-6	7	9
Field Sandbur (<i>Cenchrus incertus</i>)	2-6	7	9
Foxtails			
Bristly (<i>Setaria verticillata</i>)	2-4	7	9
Giant (<i>Setaria faberi</i>)	2-8	7	7
Green (<i>Setaria viridis</i>)	2-4	7	9
Yellow (<i>Setaria lutescens</i>)	2-4	7	Split†
Goosegrass (<i>Eleusine indica</i>)	2-6‡	7	9
Itchgrass (<i>Rottboellia exaltata</i>)	2-8	7	9
Junglerice (<i>Echinochloa colonum</i>)	2-6	8	10
Red Rice (<i>Oryza sativa</i>)	1-4	9	Split†
Seedling Johnsongrass (<i>Sorghum halepense</i>)	2-8	5	5
Shattercane (<i>Sorghum bicolor</i>)	6-12	5	5
Sprangletop (<i>Leptochloa filiformis</i>)	2-6	7	9
Texas panicum (<i>Panicum texanum</i>)	2-4	8	Split†
Volunteer Corn (<i>Zea mays</i>)	6-18	5	5
Volunteer Cereals			
Wheat (<i>Triticum aestivum</i>)	2-6	7	9
Barley (<i>Hordeum vulgare</i>)	2-6	7	9
Oats (<i>Avena sativa</i>)	2-6	7	9
Rye (<i>Secale cereale</i>)	2-6	7	9
Wild Oat (<i>Avena fatua</i>)	2-6	7	9
Wild Proso Millet (<i>Panicum miliaceum</i>)	2-6	5	7
Witchgrass (<i>Panicum capillare</i>)	2-6	7	9
Woolly cupgrass (<i>Eriochloa villosa</i>)§	2-4§	9	Split†
Perennial Grasses			
Bermudagrass (<i>Cynodon dactylon</i>)	3" tall (or up to 6" runners)	10	Split†
Rhizome Johnsongrass (<i>Sorghum halepense</i>)	10-24	10	10
Quackgrass (<i>Agropyron repens</i>)	6-10	10	Split†
Wirestem Muhly (<i>Muhlenbergia frondosa</i>)	4-8	8	Split†

* See "Applications With Broadleaf Herbicides", page 7.

† Split = Split Application. May not be controlled adequately using a tank mix with broadleaf herbicides. For best results, alternate applications of ASSURE II with a broadleaf herbicide, ensuring that ASSURE II is applied either 24 hours before or 7 days after the broadleaf herbicide.

‡ Length of lateral growth.

§ Size in height or diameter, whichever is more restrictive. Applications to plants with more than three tillers may result in unsatisfactory control.

If perennial grasses regrow, reapply ASSURE II at 7 oz product per acre. Application timing should be as follows: Bermudagrass (3" tall or up to 6" runners), Rhizome Johnsongrass (6"-10"), Quackgrass(4"-8"), Wirestem Muhly (4"-8"). Do not apply more than 18 oz of ASSURE II per acre per season.

AREA I - Sequential Applications for Johnsongrass**Control**

For control of rhizome johnsongrass in Alabama, Arkansas, Florida, Georgia, Louisiana, Maryland, Mississippi, Tennessee, Virginia, and West Virginia, a reduced rate of ASSURE II may be used if applied in a sequential application program as follows:

1. Apply ASSURE II at 5 oz per acre when johnsongrass is 10 to 24" tall.
2. Apply ASSURE II a second time at 5 oz per acre when johnsongrass regrowth is 6 to 10" tall.

Do not apply ASSURE II in a tank mix with postemergence broadleaf herbicides when using this reduced rate, sequential application program.

WEED CONTROL – AREA II* (Arid Conditions)

Annual Grasses	Size at Application (in)	ASSURE II Applied Alone (oz product/A)
Barnyardgrass (<i>Echinochloa crus-galli</i>)	2-4	8
Broadleaf Signalgrass (<i>Brachiaria platyphylla</i>)	2-4	8
Field Sandbur (<i>Cenchrus incertus</i>)	2-6	7
Foxtails		
Green (<i>Setaria viridis</i>)	2-4	8
Yellow (<i>Setaria lutescens</i>)	2-4	8
Junglerice (<i>Echinochloa colozum</i>)	2-4	8
Large Crabgrass (<i>Digitaria sanguinalis</i>)	2-4†	8
Shattercane (<i>Sorghum bicolor</i>)	6-10	7
Seedling Johnsongrass (<i>Sorghum halepense</i>)	2-6	7
Texas Panicum (<i>Panicum texanum</i>)	2-4	10
Volunteer cereals		
Barley (<i>Hordeum vulgare</i>)	2-4	8
Oats (<i>Avena sativa</i>)	2-4	8
Rye (<i>Secale cereale</i>)	2-4	8
Wheat (<i>Triticum aestivum</i>)	2-4	8
Volunteer Corn (<i>Zea mays</i>)	6-10	7
Perennial Grasses		
Bermudagrass (<i>Cynodon dactylon</i>)	3" tall (or up to 6" runners)	12
Rhizome Johnsongrass (<i>Sorghum halepense</i>)	10-16	12

* Do not apply tank mixes of ASSURE II and other herbicides in Area II.

† Length of lateral growth.

If perennial grasses regrow, reapply ASSURE II at 6 oz product per acre. Application timing should be as follows: Bermudagrass (3" tall or up to 4" runners), rhizome johnsongrass (6"-10"). Do not apply more than 18 oz of ASSURE II per acre per season.

SPRAY ADDITIVES

ALWAYS INCLUDE A SPRAY ADJUVANT WITH APPLICATIONS OF ASSURE II. Select one of the adjuvant types listed in Spray Adjuvants. For additional information, refer to the Du Pont bulletin "Approved Adjuvants for Use with Du Pont Row Crop and Cereal Herbicides".

Spray Adjuvants

- Avoid products that do not accurately list their contents on the product label.
- Use products composed only of EPA-exempt ingredients (40 CFR § 180.1001).

Nonionic surfactants

- Use only adjuvants containing a minimum concentration of 50% actual nonionic surfactant.
- Apply at 2 pt of product per 100 gal of spray solution so that a minimum of 0.125% v/v of actual nonionic surfactant is used.

Crop Oil Concentrates

- Use only adjuvants containing a minimum of 80% oils and 15% emulsifiers/surfactants.
- Use only petroleum-based crop oil concentrates.
- Because they may not perform as well as petroleum-based crop oil concentrates, methylated seed oils are not recommended.

Adjuvant Rates for ASSURE II Applied Alone

Ground Application

Use either

- a crop oil concentrate
Soybeans: 8 to 16 pt per 100 gal of spray solution (concentration of 1.0 to 2.0% v/v)
Cotton: 8 pt per 100 gal of spray solution (concentration of 1.0% v/v)
OR
- a nonionic surfactant
Cotton and soybeans: 2 pt per 100 gal of spray solution

Aerial Application

Use either

- a crop oil concentrate at 4 pt per 100 gal of spray solution (concentration of 0.5% v/v).
OR
- a nonionic surfactant at 2 pt per 100 gal of spray solution.

TEST AVAILABLE ONLY

APPLICATIONS WITH INSECTICIDES

ASSURE II may be tank mixed with postemergence insecticides such as Du Pont's ASANA[™] XL Insecticide, Du Pont's BIOBIT[™] Insecticide, Du Pont's BIOCOT[™] Insecticide, Du Pont's BIDRIN[™] Insecticide, Du Pont's LANNATE[™] Insecticide, Du Pont's LANNATE[™] LV Insecticide, Du Pont's Vydate[™] C-LV Insecticide, and Du Pont's VYDATE[™] L Insecticide for use on cotton and/or soybeans where labeled. Refer to the labels of all products in the mix for information regarding rates, timing, application information, species controlled, use restrictions, sprayer cleanup use precautions, and other information. The most restrictive provisions apply.

Always conduct a jar test to evaluate physical compatibility before applying a particular insecticide mixture to crops.

APPLICATIONS WITH BROADLEAF HERBICIDES

For best results, apply ASSURE II alone or in sequence with a broadleaf herbicide(s).

Antagonism

Tank mixes of ASSURE II with postemergence broadleaf herbicides have shown some reduction in control of most grass species and failure to control certain grass species normally controlled by ASSURE II used alone. Activity of the postemergence broadleaf herbicide in the tank mixture is not affected.

Split Applications with Postemergence Broadleaf Herbicides

Applying ASSURE II immediately prior to or following an application of a postemergence broadleaf herbicide may reduce control of some grasses. For best results, follow these recommendations when making split applications:

- Apply postemergence broadleaf herbicides at least 24 hours after applying ASSURE II.
- Apply ASSURE II when grass begins to develop new leaves (generally 7 days after the postemergence broadleaf herbicide application) in fields treated with a postemergence broadleaf herbicide.

Tank Mixes with Postemergence Soybean Broadleaf Herbicides

ASSURE II can be tank mixed with Du Pont's CLASSIC[™] Herbicide, Du Pont's PINNACLE[™] Herbicide, CLASSIC and PINNACLE, and Du Pont's CONCERT[™] SP Herbicide or Basagran[®] for use on soybeans to control broadleaf weeds and selected grasses. Refer to labels of all products in the mix for information regarding rates, weeds controlled, use restrictions, rotational cropping recommendations, sprayer cleanup use precautions, and other information. The most restrictive provisions apply.

Note: Do not apply ASSURE II in a tank mix with a post-emergence broadleaf herbicide in AREA II (arid conditions as defined on this label) as grass control will not be satisfactory. If control of both grass and broadleaf weeds is desired, apply the necessary herbicides separately.

Spray Adjuvants for Soybean Tank Mixes

When tank mixing ASSURE II with CLASSIC, PINNACLE, CONCERT SP, or CLASSIC and PINNACLE, a spray adjuvant must be included. Adjuvant rates for tank mixes of ASSURE II with postemergence broadleaf herbicides follow. Use either a crop oil concentrate or a nonionic surfactant as specified:

Assure II Tank mix partner	(Pints per 100 gal of spray solution)			
	Ground		Aerial	
	COC	or NIS	COC	or NIS
Classic	8	2	4	2
Pinnacle	-*	1-2†	-*	1-2†
Classic + Pinnacle	-*	1-2†	-*	1-2†
Concert SP	-*	1-2†	-*	1-2†
Basagran	8	-	4	-

* Do not use Dash or crop oil concentrate when tank mixing ASSURE II with PINNACLE, CLASSIC plus PINNACLE, or CONCERT SP.

† Using the higher rate of nonionic surfactant, particularly under hot, humid conditions, may increase temporary crop injury.

SPOT/SMALL AREA SPRAY RECOMMENDATIONS IN SOYBEANS AND COTTON (AREAS I AND II)

To spot treat small areas of annuals (i.e., volunteer corn) or perennials (i.e., rhizome johnsongrass)

- use a 0.375% solution of ASSURE II and water.
- include a nonphytotoxic crop oil concentrate at 8 pt per 100 gal of spray solution (1% v/v) or a nonionic surfactant at 2 pt per 100 gal of spray solution (0.25% v/v).
- treat plants on a spray-to-wet basis to ensure good coverage.

Desired spray volumes for ASSURE II on soybeans and cotton in small areas are as follows:

ASSURE II – DESIRED SPRAY VOLUMES FOR SMALL AREAS

Desired Spray Volume (gal)	ASSURE II	Crop Oil Concentrate PLUS	Nonionic Surfactant OR
	(fl oz product)		
1	0.5 (1 tbsp)	1.25 (2.5 tbsp)	0.3 (2 tsp)
25	12 (3/4 pt)	32 (1 qt)	8 (1 cup)
50	24 (1.5 pt)	64 (2 qt)	16 (1 pt)
100	48 (3 pt)	128 (1 gal)	32 (1 qt)

Do not spot treat grasses using a tank mix of ASSURE II and broadleaf herbicides.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Weed control in "Noncrop Areas" is not within the scope of WPS.

Keep unprotected persons out of treated areas until sprays have dried.

APPLICATION INFORMATION – NONCROP AREAS

ASSURE II is recommended for postemergence control of certain grasses on noncrop sites such as fence rows, roadsides, equipment storage areas, and other similar areas.

Apply 12 to 16 oz of ASSURE II per acre to actively growing grasses as follows:

Quackgrass. Apply when plants are 6 to 10" tall. If grass regrows, apply ASSURE II second time.

Wild Oats. Apply when plants are 2 to 6" tall.

1. Determine the spray volume required. The volume should be between 10 and 40 gal of water per acre.
2. Mix the ASSURE II (12 to 16 oz per acre) in the water.
3. Add a nonphytotoxic petroleum-based crop oil concentrate at 4 qt per 100 gal of water (1% v/v) to the spray mix. Do not use vegetable oils.
4. Using flat fan nozzles, cover the weed foliage thoroughly.

If new plants emerge, additional postemergence treatments are required for control.

APPLICATION EQUIPMENT

Many crops are sensitive to ASSURE II. All direct or indirect contact (such as spray drift) with crops other than soybeans or cotton should be avoided.

Ground Application (See Also Spray Drift)

Broadcast Application

- Use flat fan or hollow cone nozzles at 25-60 psi.
- Do not use flood, rain drop, whirl chamber, or any other nozzle types that produce coarse, large spray droplets. In addition, do not use controlled droplet applicator (CDA) type nozzles as poor weed control or excessive spray drift may result.

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- Use a minimum of 10 gal of water per acre in Area I.
- Use a minimum of 15 gal of water per acre in Area II.
- Increase spray volume and pressure as weed or crop density and size increase.
- Do not exceed 40 gal of water per acre in Area I or Area II.
- Adjust the boom and nozzle height according to the nozzle manufacturer's specifications to obtain proper spray coverage.

Band Application

- Because band application equipment sprays a narrower area than broadcast application equipment, calibrate equipment to use proportionately less spray solution.
- To avoid crop injury, carefully calibrate the band applicator not to exceed the labeled rate.
- Carefully follow the manufacturer's instructions for nozzle type, nozzle orientation, distance of the nozzles from the crop and weeds, spray volumes, calibration, and spray pressure.
- For additional information on row banders see Du Pont's bulletin, "Application Accuracy - Row Banders".

Aerial Application (See Also Spray Drift)

- Use nozzle types and arrangements that provide optimum spray distribution and maximum coverage.
- Use a minimum of 3 gal of water per acre in Area I.
- Use a minimum of 5 gal of water per acre in Area II.
- Do not apply during a temperature inversion, when winds are gusty, or when other conditions favor poor coverage and/or off-target spray movement.

CULTIVATION

Do not cultivate during or within 7 days before or after applying ASSURE II as damage to the grass roots may result in unsatisfactory control.

ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY

ASSURE II is a systemic herbicide that is rapidly absorbed by treated foliage and translocated to the roots and other growing points of the plant. When affected, younger plant tissues become chlorotic/necrotic and eventually die, leaving treated plants stunted and noncompetitive. In general, these symptoms are first observed within 7 to 14 days after application depending on the grass species treated and the environmental conditions.

The degree of control and duration of the effect of ASSURE II depend upon the rate used, weed spectrum, weed size and variability, growing conditions at and following treatment, soil moisture, precipitation, tank mixtures, and spray adjuvant used.

Conditions conducive to healthy, actively growing plants optimize the performance of ASSURE II. Do not apply ASSURE II to grasses stressed from

- abnormal weather (hot or cold),
- drought,
- water saturated soils, or
- prior herbicide injury.

Grasses under these conditions are often less sensitive to herbicide activity. Delay application until the stress passes and weeds and crop resume growth.

ASSURE II is rainfast 1 hour after application.

RESISTANCE

Biotypes of johnsongrass and other grass species resistant to postemergence grass herbicides such as ASSURE II are known to exist. Biotypes are naturally occurring individuals of a species identical in appearance but with slightly different genetic makeups.

If grass control is unsatisfactory, several other factors that could negatively affect herbicide performance should be investigated in addition to the selection for resistant biotypes. These factors include unfavorable environmental conditions, application errors, applications to plants under stress, or uses not according to the product label (off-label rates, grass sizes, tank mixes, improper adjuvant type or rate, etc.).

If the initial postemergent grass herbicide treatment is ineffective because of the presence of a resistant biotype, applications of herbicides with the same mode of action (herbicides that affect the plant in the same way) may not control the resistant biotypes effectively. A balanced grass control program should then be followed. Consult your Du Pont representative, agrichemical dealer, extension specialist, or consultant for specific recommendations.

CROP ROTATION

Do not rotate to crops other than soybeans or cotton within 120 days after application.

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SPRAYER PREPARATION AND CLEANUP

Spray equipment must be clean and free of previous pesticide deposits before applying ASSURE II and properly cleaned out after applying ASSURE II. Using the cleanup procedures specified on the label of the previously used product, clean all application equipment before applying ASSURE II. If no cleanup procedure is provided, use the procedure that follows. Immediately following applications of ASSURE II, thoroughly clean all mixing and spray equipment according to the following instructions.

1. Drain tank; thoroughly hose down the interior surfaces of the tank; then flush tank, boom, and hoses with clean water for a minimum of 5 minutes. Loosen and physically remove any visible deposits.
2. Fill the tank with clean water and add one gal of household ammonia* (3% active) for every 100 gal of water. Flush the cleaning solution through the boom, hoses, and nozzles. Add more water to completely fill the tank and allow to agitate/recirculate for at least 15 minutes. Again, flush the hoses, boom, and nozzles with the cleaning solution, then drain the tank.
3. Remove the nozzles and screens and clean separately in a bucket containing the cleaning agent and water.
4. Repeat Step 2.
5. Thoroughly rinse the tank with clean water for a minimum of 5 minutes, flushing the water through the hoses and boom.
6. Dispose of the rinsate on site or at an approved waste disposal facility.

Notes

- Steam cleaning of aerial spray tanks is recommended in order to dislodge any visible pesticide deposits.
- During an extended period where spraying (or mixing) equipment will be used to apply multiple loads of ASSURE II, at the end of each day partially fill the tank with fresh water, flush the boom and hoses, and allow to sit overnight.

* Equivalent amounts of an alternate-strength ammonia solution or Du Pont approved cleaner can be used in the cleanup procedure (see Bulletin "A Guide To Application Equipment Cleanup for Du Pont Sulfonyleurea Herbicides"). Carefully read and follow the individual cleaner instructions.

SPRAY DRIFT

THE MINIMIZATION OF PESTICIDE DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR. Interactions between weather conditions and land configurations may contribute to unpredictable drift patterns of all crop protection products. Responsibility for plant injury caused by spray drift lies with the applicator. As an aid for applying any crop protection product, follow these practices to minimize spray drift.

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

- Stop spraying if wind becomes excessive. **DO NOT SPRAY IF WIND SPEED IS 10 MPH OR GREATER.** Spray drift can occur at wind speeds less than 10 MPH. If sensitive crops or plants are downwind, extreme caution must be used even in relatively low wind conditions. **DO NOT SPRAY IF WINDS ARE GUSTY.**
- High temperature, drought, and low relative humidity increase the possibility of spray drift. **EXTREME CAUTION MUST BE USED WHEN THESE CONDITIONS ARE PRESENT AND SENSITIVE CROPS ARE NEARBY, REGARDLESS OF WIND SPEED.**
- Do not apply during a temperature inversion. 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 an inversion exists, consult with local weather services before making an application.

Drift from ground equipment may be further reduced by:

- Using coarse sprays to minimize drift. Do not use nozzles that produce small droplets, such as spray-foil or airblast-type nozzles.
- Increasing the volume of spray mix per acre by using higher flow rate nozzles.
- Reducing pressure (PSI).
- Applying as close to target plants as possible while still maintaining a good spray pattern.

IMPORTANT PRECAUTIONS

Do not tank mix ASSURE II with any pesticide or spray adjuvant except as directed on this label or on other supplemental labels.

- Most grass crops, including wheat, barley, rye, oats, sorghum, rice, and corn are highly sensitive to ASSURE II. All direct or indirect contact (such as spray drift) should be avoided.

Injury to or loss of desirable trees or vegetation may result from failure to observe the following:

- Do not apply ASSURE II or drain or flush equipment on or near desirable trees or other plants, 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 spray drift to desirable plants.

Do not contaminate any body of water.

Keep ASSURE II from coming in contact with fertilizers, insecticides, fungicides, and seeds during storage.

Thoroughly clean all application equipment immediately after use and prior to spraying crops other than soybeans or cotton.

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

Do not graze treated fields or harvest for forage or hay.

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.

STORAGE AND DISPOSAL

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 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 the container for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incinerator. Or, if allowed by state and local authorities, the container can be burned on site. If burned, stay out of smoke.

NOTICE OF WARRANTY

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

NOTICE TO BUYER

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AG - 7645 9033 3/15/93



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