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DU PONT

"ASSURE"  
HERBICIDE

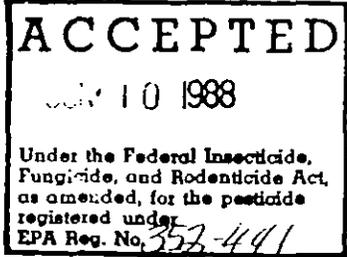
ACTIVE INGREDIENT:

2-[4-[(6-chloro-2-quinoxalinyloxy]phenoxy]  
propionic acid, ethyl ester.....9.5%

INERT INGREDIENTS.....90.5%

Contains petroleum distillates

\*Equivalent to 0.8 pounds ai per gallon



KEEP OUT OF REACH OF CHILDREN  
PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS

CAUTION! MAY IRRITATE EYES, NOSE, THROAT AND SKIN

Avoid Breathing Vapors or Spray Mist. Avoid contact with skin, eyes and clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if skin irritation persists. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse.

For medical emergencies involving this product, call toll free  
1-800-441-2637.

ENVIRONMENTAL HAZARDS

Do not apply directly to water or wetlands. Do not contaminate water by cleaning of equipment or disposal of waste.

PHYSICAL AND CHEMICAL HAZARDS

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

STORAGE AND DISPOSAL

Do not subject to temperatures below 32°F. Do not contaminate water, food or feed by storage or disposal. Keep from contact with fertilizers, insecticides, fungicides, and seeds during storage.

PESTICIDE DISPOSAL: Pesticides, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to applicable Federal, State or local procedures.

CONTAINER DISPOSAL: Triple rinse (or equivalent) and dispose of in a sanitary landfill or by incineration if allowed by State and local authorities.

IMPORTANT

Injury to or loss of desirable trees or vegetation may result from failure to observe the following: Do not apply or drain or flush equipment on or near desirable trees or 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. Keep from contact with fertilizers, insecticides, fungicides, and seeds during storage.

Use caution when handling "Assure" Herbicide as accidental spills or splashes may harm the finish on painted equipment.

Thoroughly clean all traces of "Assure" from application equipment immediately after use. Flush tank, pump, hoses and boom with several changes of water after removing nozzle tips and screens (clean these parts separately). Failure to thoroughly clean the equipment may result in injury to subsequently sprayed grass crops.

#### NOTICE OF WARRANTY

Du Pont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purposes stated on such label only when used in accordance with the 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 such 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 are 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.

E. I. du Pont de Nemours and Company, Inc., Agricultural Products Department,  
Wilmington, DE 19898.

### GENERAL INFORMATION

"Assure" is a selective postemergence herbicide recommended for the control of annual and perennial grasses in soybeans.

"Assure" does not control sedges or broadleaf weeds.

Recommended rates and timing for "Assure" Herbicide application will provide control of the emerged grasses present. Subsequent flushes of grass weeds require a separate treatment.

Most grass crops, including wheat, barley, rye, oats, sorghum, rice and corn are highly sensitive to "Assure" Herbicide and all direct or indirect contact should be avoided.

When not in use, keep container closed to prevent evaporation or loss through spillage.

Under certain environmental conditions, minor leaf spotting may occur on soybeans. New growth and crop yields are unaffected.

### BIOLOGICAL ACTIVITY

"Assure" is a systemic herbicide which is rapidly absorbed and readily translocated from the treated foliage to the root system and growing points of the plant.

Control Symptoms - Treated plants show a reduction in growth and a loss of competitiveness. An early chlorosis/necrosis of the younger plant tissues is followed by a progressive collapse of the remaining foliage. These symptoms will generally be observed in one to three weeks depending on the grass species treated and the environmental conditions.

### DIRECTIONS FOR USE

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

#### TIMING OF APPLICATION

Apply "Assure" Herbicide postemergence to actively growing grasses according to the accompanying rate table recommendations. Provide thorough and uniform spray coverage.

Applications made to grass plants stressed due to insufficient moisture or cold temperatures, or to grass plants exceeding the stage of growth recommended in the rate table may result in unsatisfactory control.

4

In arid regions where irrigation is used to supplement limited rainfall, "Assure" Herbicide should be applied as soon as possible after an irrigation.

Under no-till crop production, increase spray pressure and volume to ensure proper coverage.

### APPLICATION INFORMATION

#### SPRAY ADJUVANTS

Always include a spray adjuvant with postemergence applications of "Assure". Petroleum oil concentrates should be of good quality and contain a minimum of 15% emulsifier/surfactant. Nonionic surfactants should contain at least 80% active ingredient. DO NOT use vegetable (crop origin) oils as spray adjuvants with "Assure" herbicide. (USE ONLY EPA APPROVED OIL CONCENTRATES AND SURFACTANTS).

#### Ground Application

**Nozzles:** Use standard fan or hollow cone nozzles to apply "Assure" herbicide. Do not use flood nozzles.

#### Spray

**Volume:** Use a minimum of 10 gallons of water per acre in Area I (adequate rainfall<sup>1/</sup>). Use a minimum of 15 gallons of water per acre in Area II (arid conditions<sup>1/</sup>). Do not exceed 40 gallons of water per acre in Area I or Area II.

#### Spray

**Adjuvant:** Always include a nonphytotoxic petroleum oil concentrate at 1% v/v (4 Qts/100 Gal) or a nonionic surfactant at 0.25% v/v (1 Qt/100 Gal).

#### Aerial Application

#### Spray

**Volume:** Use a minimum of 3 gallons of water per acre in Area I (adequate rainfall<sup>1/</sup>). Use a minimum of 5 gallons of water in Area II (arid conditions<sup>1/</sup>).

#### Spray

**Adjuvant:** Always include a nonphytotoxic petroleum oil concentrate at 0.5% v/v or (2 Qts/100 Gal) a nonionic surfactant at 0.25% v/v (1 Qt/100 Gal).

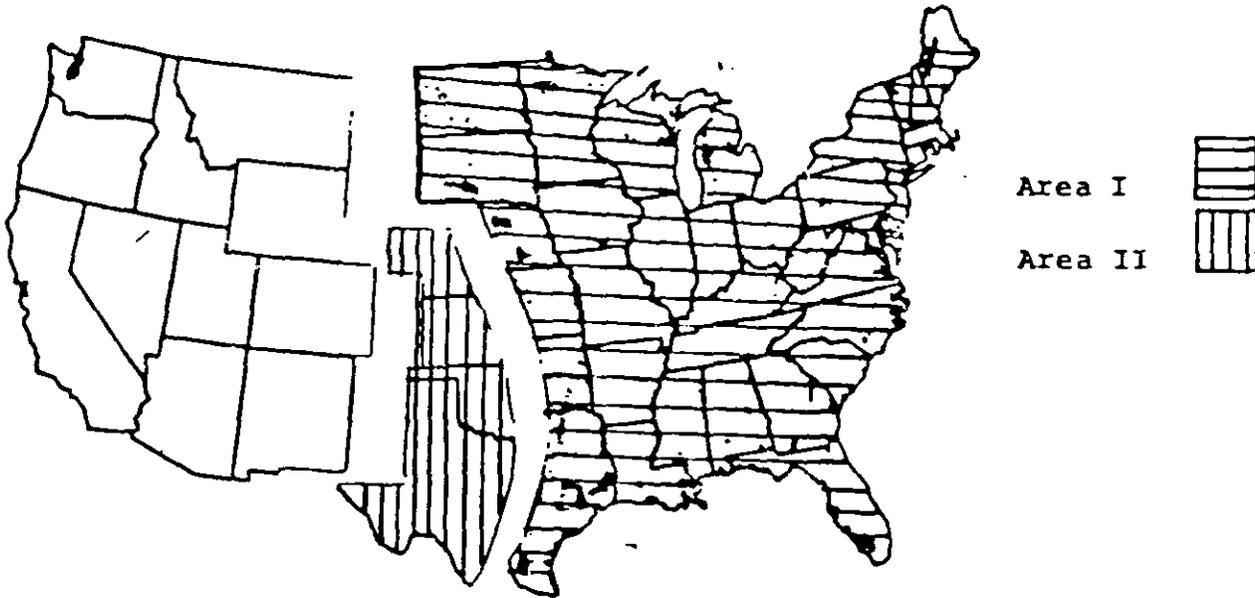
<sup>1/</sup> A description of the area boundaries is included below.

Areas I & II

Area I - encompasses most of the eastern half of the United States. It is characterized as having adequate rainfall to support crop production and generally does not require irrigation during the growing season. States included 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.

Area II - encompasses the western portion of four states west of the Mississippi river. It is characterized as having arid conditions and in many locations requires irrigation during the growing season. States included in area II are, Kansas (broadly defined as west of Interstate 135), Nebraska (broadly defined as west of State Highway 183), Oklahoma (broadly defined as west of Interstate 35) and Texas (broadly defined as west of Interstate 35).

1/ Note: Applications of "Assure" herbicide should be made to actively growing grasses. If a field is to receive an irrigation, wait until after the irrigation to apply "Assure" herbicide.



6-3

RESTRICTIONS

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

Do not use vegetable (crop origin) oils as spray adjuvant or carrier.

Do not apply "Assure" Herbicide to plants stressed due to insufficient moisture. Grass weeds under this condition frequently become less sensitive to herbicide activity.

Do not cultivate within 7 days before or 7 days after an application of "Assure" as control may be unsatisfactory.

Do not apply if rain is expected within 1 hour of application as control may be unsatisfactory.

Do not apply "Assure" Herbicide when environmental conditions are such that drift to other crops and non-target areas is possible. Grass crops such as corn, sorghum, wheat, rice, etc. are highly sensitive to "Assure" Herbicide.

Do not apply more than 40 ounces of product per acre per season.

Do not apply "Assure" within 80 days of harvest.

Do not apply after pod set.

Do not tank mix "Assure" Herbicide with any pesticide, fertilizer, or additive except as directed in this label. Application of a broadleaf herbicide within one day following an application of "Assure" or within seven days preceding an application of "Assure" may result in reduced grass control.

Users in Texas must confer with personnel of regional U.S. Fish and Wildlife Service offices to insure that federally-protected plants are not exposed to this product.

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

**RECOMMENDATIONS FOR GRASS CONTROL IN SOYBEANS**

**Area I - (Areas with Adequate Rainfall)**

- o Apply only to actively growing grasses at the recommended weed stages.
- o Always add a non-phytotoxic petroleum oil concentrate or a nonionic surfactant according to label
- o Follow spray volume recommendations and field calibrate equipment to assure uniform plant coverage

ANNUAL GRASSES	SPECIES	SIZE AT APPLICATION (INCHES)	"ASSURE" OZ PRODUCT/A	---SPRAY ADJUVANT (% OIL CONCENTRATE	
				GROUND	AIR
Corn (volunteer)	<i>Zea mays</i>	6-18	10	1.0% v/v	0.5% v/v
Shattercane	<i>Sorghum bicolor</i>	6-12	10	(4 Qt/100 Gal)	(2 Qt/100 Gal)
Johnsongrass (seedling)	<i>Sorghum halepense</i>	2-8	10		
Wild Proso Millet	<i>Panicum miliaceum</i>	2-6	10		
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	2-6	14	1.0% v/v	0.5% v/v
Fall Panicum	<i>Panicum dichotomiflorum</i>	2-6	14	(4 Qt/100 Gal)	(2 Qt/100 Gal)
<b>Foxtails</b>					
Giant	<i>Setaria faberi</i>	2-8	14		
Green	<i>Setaria viridis</i>	2-4	14		
Yellow	<i>Setaria lutescens</i>	2-4	14		
Bristly	<i>Setaria verticillata</i>	2-4	14		
Goosegrass	<i>Eleusine indica</i>	2-6 <sup>a</sup>	14		
Itchgrass	<i>Rottboellia exaltata</i>	2-8	14		
Sandbur (field)	<i>Cenchrus incertus</i>	2-6	14		
Sprangletop	<i>Leptochloa filiformis</i>	2-6	14		
<b>Volunteer Cereals</b>					
Wheat	<i>Triticum aestivum</i>	2-6	14		
Barley	<i>Hordeum vulgare</i>	2-	14		
Oats	<i>Avena sativa</i>	2-6	14		
Rye	<i>Secale cereale</i>	2-6	14		
Wild Oat	<i>Avena fatua</i>	2-6	14		
Witchgrass	<i>Panicum capillare</i>	2-6	14		
Woollycupgrass	<i>Eriochloa villosa</i>	2-4	14		
Barnyardgrass	<i>Echinochloa crus-galli</i>	2-6	16	1.0% v/v	0.5% v/v
Broadleaf signalgrass	<i>Brachiaria platyphylla</i>	2-6	16	(4 Qt/100 Gal)	(2 Qt/100 Gal)
<b>Crabgrass</b>					
Large	<i>Digitaria sanguinalis</i>	2-6 <sup>a</sup>	16		
Smooth	<i>Digitaria ischaemum</i>	2-6 <sup>a</sup>	16		
Junglerice	<i>Echinochloa colonum</i>	2-6	16		
Red Rice	<i>Oryza sativa</i>	1-4	16		
Texas panicum	<i>Panicum texanum</i>	2-4	16		

<sup>a</sup>/Length of late

PERENNIAL GRASSES	SPECIES	SIZE AT APPLICATION (INCHES)	"ASSURE" OZ PRODUCT/A	---SPRAY ADJUVANT (% CONCENTRATION)---		
				OIL CONCENTRATE GROUND	AIR	OR NONIONIC SURFACTANT GROUND/AIR
<b>Area I (Cont'd)</b>						
Bermudagrass First Application	Cynodon dactylon	-----3 tall (or up to 6" runners)	20	1.0% v/v (4 Qt/100 Gal)	0.5% v/v (2 Qt/100 Gal)	OR 0.25% v/v (1 Qt/100 Gal)
Rhizome Johnsongrass First Application	Sorghum halepense	-----10-24	20			
Quackgrass First Application	Agropyron repens	-----6-10	20			
Wirestem Muhly First Application	Muhlenbergia frondosa	-----4-8	16			

If regrowth of perennial grasses occurs, make a second application of "Assure" using 14 ounces product/A timed to grass weed sizes as follows: Bermudagrass (3" tall or up to 6" runners), Rhizome Johnsongrass (6"-10"), Quackgrass (4"-8"), Wirestem (4"-8").

RECOMMENDATIONS FOR GRASS CONTROL IN SOYBEANS (cont'd)

Area II (Arid conditions)

- o Apply only to actively growing grasses at the recommended weed stages
- o Always add a nonphytotoxic petroleum oil concentrate or a nonionic surfactant according to the label recommendations.
- o Make applications as soon as possible after a rainfall or irrigation.
- o Follow spray volume recommendations and field calibrate equipment to assure uniform plant coverage.

ANNUAL GRASSES	SPECIES	SIZE AT APPLICATION (INCHES)	"ASSURE" OZ PRODUCT/A	---SPRAY ADJUVANT (% CONCENTRATION)---			
				OIL CONCENTRATE GROUND	AIR	OR	NONIONIC SURFACTANT GROUND/AIR
Corn (volunteer)	Zea mays	6-10	14	1.0% v/v	0.5% v/v	OK	0.25% v/v
Shattercane	Sorghum bicolor	6-10	14	(4 Qt/100 Gal)	(2 Qt/100 Gal)		(1 Qt/100 Gal)
Johnsongrass (seedling)	Sorghum halepense	2-6	14				
Sandbur (field)	Cenchrus incertus	2-6	14				
Barnyardgrass	Echinochloa crus-galli	2-4	16	1.0% v/v	0.5% v/v	OK	0.25% v/v
Broadleaf Signalgrass	Brachiaria platyphylla	2-4	16	(4 Qt/100 Gal)	(2 Qt/100 Gal)		(1 Qt/100 Gal)
Crabgrass (large)	Digitaria sanguinalis	2-4	16				
Foxtails							
Green	Setaria viridis	2-4	16				
Yellow	Setaria lutescens	2-4	16				
Junglerice	Echinochloa colonum	2-4	16				
Texas Panicum	Panicum texanum	2-4	20				
Volunteer cereals							
Wheat	Triticum aestivum	2-4	16				
Barley	Hordeum vulgare	2-4	16				
Oats	Avena Sativa	2-4	16				
Rye	Secale cereale	2-4	16				

PERENNIAL GRASSES	SPECIES	SIZE AT APPLICATION (INCHES)	"ASSURE" OZ PRODUCT/A	---SPRAY ADJUVANT (% CONCENTRATION)---			
				OIL CONCENTRATE GROUND	AIR	OR	NONIONIC SURFACTANT GROUND/AIR
Bermudagrass	Cynodon dactylon						
First Application		3 tall (or up to 6" runners)	24	1.0% v/v	0.5% v/v	OK	0.25% v/v
				(4 Qt/100 Gal)	(2 Qt/100 Gal)		(1 Qt/100 Gal)
Rhizome Johnsongrass	Sorghum halepense						
First Application		10-16	24				

If regrowth of perennial grasses occurs, make a second application of "Assure" using 16 ounces product/A timed to grass weed sizes as follows: Bermudagrass (3" tall or up to 6" runners). Rhizome Johnsongrass (6"-10").

### Spot/Small Area Spray Recommendations (Areas I and II)

Make a 3/4 percent solution of "Assure" in water for spot treating annual species such as volunteer corn or perennial species such as rhizome johnsongrass. The spray solution should include a nonphytotoxic oil concentrate at 1% v/v or a nonionic surfactant at 0.25% v/v. Treat plants on a spray-to-wet basis insuring a good coverage.

<u>Desired Spray Volume</u>	<u>"Assure"</u>	<u>Petroleum Oil Concentrate</u>	<u>Nonionic Surfactant</u>
1 gallon	1.0 fl. oz. (2 tbsp)	1.25 fl. oz. (2.5 tbsp)	0.3 fl. oz. (2 tsp)
25 gallons	24.0 fl. oz.	1.0 quart	8.0 fl oz (1 cup)
50 gallons	1.5 quarts	2.0 quarts	0.5 qt.
100 gallons	3.0 quarts	4.0 quarts	1.0 qt.

### Tank-mix Applications of "Assure" with "Basagran"<sup>1/</sup> or "Classic"<sup>2/</sup>

o Tank mixes of "Assure" herbicide with post broadleaf herbicides have typically shown some reduction in grass control over applications of "Assure" alone. If "Assure" is to be tank-mixed with "Basagran",<sup>1/</sup> or "Classic"<sup>2/</sup> the label rate of "Assure" should be increased by 4 ounces product/A.

- Do not use "Assure"/Basagran or "Assure"/"Classic" tank-mixes for infestations of annual grasses including; barnyardgrass, broadleaf signalgrass, crabgrass, red rice, texas panicum, or for infestations of perennial grasses including; bermudagrass, quackgrass, or wirestem muhly.
- Do not use "Assure"/Basagran or "Assure"/"Classic" tank-mixes in Area II (as defined in this label).

### Sequential Applications with Post Broadleaf Herbicides

- o Some reduction in grass control is possible when "Assure" is applied immediately prior to or sequentially after an application of a post broadleaf herbicide.
  - After an application of "Assure", wait a minimum of 24 hours before applying a post broadleaf herbicide.
  - In fields treated with a post broadleaf herbicide, do not apply "Assure" until grass plants are again developing new leaves (generally 7 days after the post broadleaf herbicide application).

<sup>1/</sup> bentazon (BASF) <sup>2/</sup> chlormuron (DU PONT)

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