

352-541

10/15/2003

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

OCT 15 2003

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Mr. Jacob J. Vukich
E.I. DuPont de Nemours & Company
DuPont Crop Protection
Stine Research Center
P. O. Box 30
Newark, DE 19714-0030

Dear Mr. Vukich:

Subject: DuPont Assure II Herbicide (Clarify Use Directions)
EPA Registration No. 352-541
Application Dated August 14, 2003

The labeling referred to above submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act as amended is acceptable provided you make the following changes before you release the product for shipment.

1. Based on the acute toxicology profile of this product, revise Precautionary Statements, Hazards to Humans and Domestic Animals to read:

-DANGER: Causes irreversible eye damage. Harmful if swallowed, inhaled or absorbed through the skin. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist.

2. Revise the last sentence of your Environmental Hazard section to read "Do not contaminate water by cleaning of equipment or disposing of equipment washwaters or wastes.

3. Revise the sections entitled Information on Resistant Weeds and Integrated Pest Management as per recent agreement.

4. Under Storage and Disposal revise "Storage" to read "Pesticide Storage".

Submit three (3) copies of final printed labeling incorporating the above changes before you release the product for shipment. Amended labeling supercedes all previously accepted ones. A stamped copy of labeling is enclosed for your records.

Sincerely,

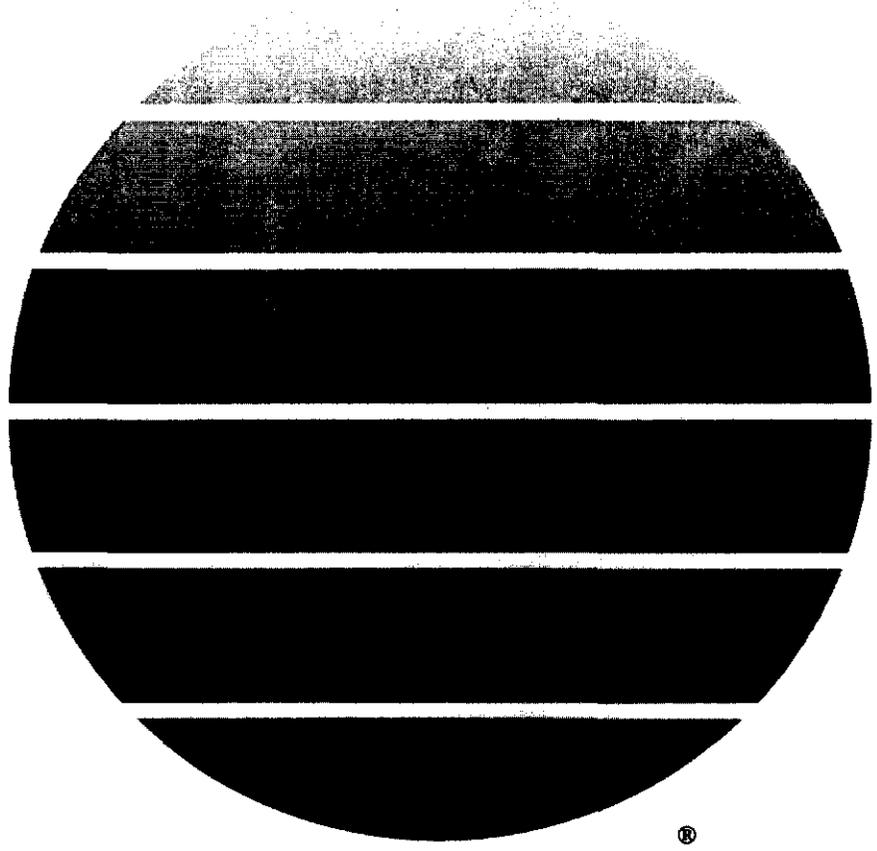
James A. Tompkins
James A. Tompkins
Product Manager 25
Herbicide Branch
Registration Division (7505C)



DuPont™ Assure® II

herbicide

DRAFT LABEL



“..... A Growing Partnership With Nature”

DuPont™ ASSURE® II Highlights

- Provides postemergence control of both annual and perennial grasses in canola, crambe, cotton, dry beans, dry and succulent peas, lentils, mint (spearmint and peppermint), snap beans, soybeans, sugarbeets, and noncrop areas.
- ASSURE® II has a flexible rate range and tank mix options.
- For Soybeans, ASSURE® II may be tank mixed with DuPont™ CLASSIC® and DuPont™ HARMONY® GT herbicides. See "Applications with Broadleaf Herbicides" and "Soybeans - Tank Mixes".
- For Dry Beans, ASSURE® II may be tank mixed with "Basagran". See "Applications with Broadleaf Herbicides."
- Include crop oil concentrate or nonionic surfactant as recommended in this label. See "Spray Additives."
- May be applied by ground (broadcast, band, or spot spray) or by air.
- For ground application, use a minimum of 10 gal water to 15 gal water per acre. Use flat fan or hollow cone nozzles at 25-60 psi. See "Application Equipment."
- Apply to actively growing grasses at the recommended sizes. See "Timing to Weeds" and "Environmental Conditions and Biological Activity."
- Consult label text for complete instructions. Always read and follow label directions for use.

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DuPont™ Assure® II

herbicide

Emulsifiable Concentrate

Active Ingredients	By Weight
Quizalofop P-Ethyl Ethyl(R)-2-[4-(6-chloroquinoxalin-2-yl oxy)- phenoxy]propionate	10.3%*
Inert Ingredients	89.7%
TOTAL	100.0%

Contains petroleum-based distillates.

* Equivalent to 0.88 lb ai per gal

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.)

FIRST AID

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-441-3637 for emergency medical treatment information.

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ACCEPTED
with COMMENTS
In EPA Letter Dated:
OCT 15 2003

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

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-sleeved 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.

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.

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.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. 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. DuPont™ ASSURE® II should be used only in accordance with recommendations on this label or in separate published DuPont recommendations.

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.

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 "Non-Agricultural Uses" is not within the scope of WPS. Keep unprotected persons out of treated areas until sprays have dried.

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. Unacceptable control may occur if ASSURE® II is applied to grasses stressed from :

- abnormal weather (excessive heat or cold, or widely fluctuating temperatures),
- hail damage,
- drought,
- water saturated soils,
- mechanical injury, 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.

Before making applications of ASSURE® II to crops previously under stress, or injured from other pesticide applications, the crop needs to be fully recovered and growing vigorously.

ASSURE® II is rainfast 1 hour after application.

APPLICATION INFORMATION

Agricultural Uses

ASSURE® II herbicide is a selective postemergence herbicide that controls annual and perennial grasses in canola, crambe, cotton, dry beans, dry and succulent peas, lentils, mint (spearmint and peppermint), snap beans, soybeans, sugarbeets, and noncrop areas. ASSURE® II does not control sedges or broadleaf weeds. Applied at recommended rates and timings, ASSURE® II controls the grasses listed in the "Weeds Controlled and Rate Selection" chart. See PRECAUTIONS for seasonal use limits, and harvest intervals for the specific crop.

Pre-plant Burndown

ASSURE® II herbicide may be applied as an early preplant burndown treatment for the control of small foxtails, fall panicum, barnyardgrass, volunteer corn, shattercane, and wild proso millet prior to planting crops included in this label, or supplemental labels.

Apply ASSURE® II as directed below using 2.5 to 5.0 ounces per acre. Applications must be made before grasses begin to tiller.

Grass Height (Inches)	ASSURE® II ounces per acre
Up to 3"	2.5
4" - 5"	5.0

Early preplant burndown applications of ASSURE® II, including applications made with tank mixes, must include a petroleum based crop oil concentrate at a rate of 1 gallon per 100 gallons of spray solution (1.0% v/v).

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Non-Agricultural Uses

Non-Crop Areas

DuPont™ 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.

Make a single application of ASSURE® II at a rate of 12 to 16 ounces per acre to actively growing grasses.

Non-Crop Areas - to aid in establishment of Wildflowers

- Since ASSURE® II controls many grasses but not most broadleaf plants, it may be used to enhance establishment and growth of certain broadleaf plants on non-crop sites (that is, plants identified as "wildflowers" such as indian blanket, cone flowers, bachelor button, dwarf cornflower, coreopsis, white yarrow, oxeye daisy, dames-rocket, blue flax, eveningprimrose, blackeyed-susan, marigolds, impatiens, bluebonnet, indian paintbrush, verbena, gaillardia, chrysanthemum, catchfly and scarlet pimpernel).
- For this use refer to use rates in the Weeds Controlled area of this label, and not the rates in the NON-CROP Section above.

Application Timing

Crop and Non-Crop Uses

Apply ASSURE® II to young, actively growing grasses according to the rate chart that follows. 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.

Pre-Plant Burndown

ASSURE® II Alone: Application of ASSURE® II may be made at any time after emergence of grasses up to planting.

ASSURE® II + DuPont™ CANOPY XL®: A tank mix of ASSURE® II plus CANOPY XL® may be applied after emergence of grasses, up to and including the planting of soybeans (refer to CANOPY XL® labeling for application timing).

ASSURE® II + CANOPY XL® + 2, 4-D (LVE): This three-way tank mix must be applied a minimum of 7 to 30 days prior to soybean planting. The rate of 2,4-D (LVE) will determine the minimum interval prior to planting. Refer to the 2,4-D (LVE), CANOPY XL® labeling for application information.

ASSURE® II + 2,4-D (LVE): A tank mix of ASSURE® II plus 2,4-D (LVE) may be made any time after emergence of grasses, but must be applied a minimum of 7 to 30 days prior to planting of soybeans. The rate of 2,4-D (LVE) will determine the minimum interval prior to planting. Refer to the 2,4-D (LVE) label for information on the preplant interval.

SEQUENTIAL APPLICATIONS

Do not exceed the maximum use rate per acre per year, as specified for the specific crop (see Precautions section: Seasonal use limits).

Annual Grasses

In the event of a subsequent flush of grass, or regrowth of previously treated grass occurs, a second application of ASSURE® II may be applied. Select the appropriate rate for the grassy weed from the "Weeds Controlled - Rate selection" chart.

Perennial Grasses

If perennial grasses regrow, reapply ASSURE® II at 6-7 ounces of 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").

SPRAY ADJUVANTS

Applications of ASSURE® II must include either a crop oil concentrate or a nonionic surfactant. Consult local DuPont fact sheets, technical bulletins, and service policies prior to using other adjuvant systems. If another herbicide is tank mixed with ASSURE® II to increase the weed spectrum, select adjuvants authorized for use with both products. Products must contain only EPA-exempt ingredients (40 CFR 1001).

Petroleum Crop Oil Concentrate (COC) or Modified Seed Oil (MSO)

- Apply petroleum-based crop oil concentrate at 1% v/v (1 gal per 100 gal spray solution) or 2% under arid conditions.
- **Petroleum-based crop oil concentrates are the preferred adjuvant system in arid areas.**
- Because they may not perform as well as petroleum-based crop oil concentrates, methylated seed oils are not the preferred adjuvant.
Note - In soybeans, up to 2% v/v may be used based on local recommendations.
- Oil adjuvants must contain at least 80% high quality, petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.
- For aerial applications apply 0.5% v/v (2 qts product per 100 gal spray solution)

Nonionic Surfactant (NIS)

- Apply at 0.25 % v/v (1 qt of product per 100 gal spray solution).
- Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12.

WEEDS CONTROLLED AND RATE SELECTION			
	Size at Application (in)	ASSURE® II Applied Alone (oz product/A)	DuPont™ ASSURE® II* Tank Mixed with Broadleaf Herbicide (oz product/A)
Annual Grasses**			
Volunteer Corn (<i>Zea mays</i>)***	6-30	5 - 8 oz.	5 - 8 oz
Foxtail, Giant (<i>Setaria faberi</i>)	2-4 (pretiller)		5 oz
Johnsongrass, Seedling (<i>Sorghum halepense</i>)	2-8		
Shattercane (<i>Sorghum bicolor</i>)	6-12		
Wild Proso Millet (<i>Panicum miliaceum</i>)	2-6		
Crowfootgrass (<i>Dactyloctenium aegyptium</i>)	2-6	7 - 8 oz.	8 oz.
Fall Panicum (<i>Panicum dichotomiflorum</i>)	2-6		
Field Sandbur (<i>Cenchrus incertus</i>)	2-6		
Foxtail, Bristly (<i>Setaria verticillata</i>)	2-4		
Foxtail, Giant (<i>Setaria faberi</i>)	2-8		
Foxtail, Green (<i>Setaria viridis</i>)	2-4		
Foxtail, Yellow (<i>Setaria lutescens</i>)	2-4		
Goosegrass (<i>Eleusine indica</i>)	2-6‡		
Itchgrass (<i>Rottboellia exaltata</i>)	2-8		
Sprangletop (<i>Leptochloa filiformis</i>)	2-6		
Volunteer Barley (<i>Hordeum vulgare</i>)	2-6		
Volunteer Oats (<i>Avena sativa</i>)	2-6		
Volunteer Rye (<i>Secale cereale</i>)	2-6		
Volunteer Wheat (<i>Triticum aestivum</i>)	2-6		
Wild Oat (<i>Avena fatua</i>)	2-6		
Witchgrass (<i>Panicum capillare</i>)	2-6		
Barnyardgrass (<i>Echinochloa crus-galli</i>)	2-6	8 - 10 oz.	Split†
Crabgrass, Large (<i>Digitaria sanguinalis</i>)	2-6‡		
Crabgrass, Smooth (<i>Digitaria ischaemum</i>)	2-6‡		
Junglerice (<i>Echinochloa colonum</i>)	2-6		
Texas Panicum (<i>Panicum texanum</i>)††	2-4		
Red Rice (<i>Oryza sativa</i>)	1-4	9 - 10 oz.	Split†
Woolly Cupgrass (<i>Eriochloa villosa</i>)	2-4§		
Broadleaf Signalgrass (<i>Brachiaria platyphylla</i>)	2-6	10 oz	Split
Perennial Grasses**			
Wirestem Muhly (<i>Muhlenbergia frondosa</i>)	4-8	8 - 10 oz.	Split†
Bermudagrass (<i>Cynodon dactylon</i>)	3" tall	10 - 12 oz.	Split†
	(or up to 6" runners)		
Johnsongrass, Rhizome (<i>Sorghum halepense</i>)	10-24		10 oz.
Quackgrass (<i>Agropyron repens</i>)	6-10		Split†
* See "Applications With Broadleaf Herbicides".			
** For annual and perennial grasses, up to 12 oz per acre may be applied, based on local recommendations. Under arid conditions the higher use rate is recommended.			
*** Control includes "Roundup" Ready (glyphosate resistant), Liberty Link, and IMI-Corn. Apply 5 fl oz/acre ASSURE® II for up to 18 inch volunteer corn; use 8 oz ASSURE® II for 18-30 inch volunteer corn.			
† 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.			
†† In Texas and other areas of the arid west, 10 oz is the recommended use rate for control of Texas panicum, use of lower rates may result in unsatisfactory control.			

Ammonium Nitrogen Fertilizer

- An ammonium nitrogen fertilizer may be added to the spray mixture, in addition to crop oil concentrate or nonionic surfactant, but is not required to optimize performance of this product.
- Use 2 qt/acre of a high-quality urea ammonium nitrate (UAN), such as 28%N or 32%N, or 2 lb/acre of a spray-grade ammonium sulfate (AMS). Use 4 qt/acre UAN or 4 lb/acre AMS under arid conditions.
- Do not use liquid nitrogen fertilizer as the total carrier solution.

Special Adjuvant Types

- Combination adjuvant products may be used at doses that provide the required amount of NIS, COC, MSO and/or ammonium nitrogen fertilizer. Consult product literature for use rates and restrictions.
- In addition to the adjuvants specified above, other adjuvant types may be used if they provide the same functionality and have been evaluated and approved by DuPont Product Management. Consult separate DuPont technical bulletins for detailed information before using adjuvant types not specified on this label.

Rhizome Johnsongrass - Southern States

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

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

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

Volunteer Glyphosate-Resistant Corn

For control of volunteer glyphosate resistant corn in other glyphosate resistant crops, ASSURE® II may be used in a tank mix with glyphosate as follows:

- Apply ASSURE® II at a rate of 5 fl oz/acre for up to 18 inch volunteer corn; use 8 oz ASSURE® II for 18-30 inch volunteer corn, tank mixed with a labeled rate of glyphosate. (See Tank Mixes section of this label for additional information on adjuvant use.)

TANK MIXES

Refer to the labels of all tank mix products for information regarding use information (such as rates, timing, application information, and sprayer cleanup) and product precautions and restrictions (especially adjuvants - ASSURE® II requires the use of an adjuvant). The most restrictive provisions apply. If those recommendations conflict with this label, do not tank mix the herbicide with ASSURE II.

DuPont also recommends that you first consult your state experiment station, university, or extension agent,

Agricultural dealer, or DuPont representative as to the potential for any adverse interactions (resulting in unacceptable grass control and/or crop injury) before using new herbicide, insecticide and fungicide mixtures. If no information is available, limit the initial use of ASSURE II and the new herbicide, insecticide or fungicide product to a small area.

Always conduct a jar test to evaluate physical compatibility before applying a particular mixture to crops for the first time.

Application With Insecticides and Fungicides

ASSURE® II may be tank mixed with postemergence insecticides registered for use in the specific crop (such as DuPont™ ASANA® XL insecticide, DuPont™ LANNATE® insecticide, LANNATE® LV insecticide, DuPont™ VYDATE® C-LV insecticide, and VYDATE® L insecticide).

ASSURE® II may be tank mixed with postemergence fungicides and bactericides (such as DuPont™ BENLATE® fungicide, and Copper containing products) registered for use in the specific crop.

Application With Broadleaf Herbicides

For best results, apply ASSURE® II alone or in sequence with a broadleaf herbicide(s). Tank mixtures of ASSURE® II with chlorimuron-ethyl (e.g. DuPont™ CLASSIC®) or with cloransulam-methyl (e.g. "FirstRate") containing herbicides may fail to control certain grass species normally controlled by ASSURE® II alone. Under arid or stressful environmental conditions, tank mixtures with other broadleaf herbicides may show a small reduction in control of some grass species. 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.

Dry Beans - Tank Mixes "Basagran"

When tank mixing ASSURE® II with "Basagran", annual grass antagonism can be minimized by increasing the recommended rate of ASSURE® II by 2 ounces. Perennial grasses may require a sequential application for acceptable control.

Glyphosate-Resistant Crops - Tank Mixes with Glyphosate

DuPont™ ASSURE® II may be used in a tank mix with glyphosate as follows:

1. If the glyphosate formulation does not include a built-in adjuvant system, nonionic surfactant must be included, per directions on this label.
2. If the glyphosate formulation contains a built-in adjuvant system (ie "Roundup UltraMax"), additional adjuvant is still required. Add nonionic surfactant at a rate of 0.125% v/v (1 pt per 100 gal spray solution).

Soybeans - Tank Mixes with Postemergence Broadleaf Herbicides

ASSURE® II can be tank mixed with postemergent soybean broadleaf herbicides such as DuPont™ CLASSIC® herbicide, CLASSIC® + DuPont™ HARMONY® GT herbicides, HARMONY® GT, "Flexstar", or "Basagran" for use on soybeans to control broadleaf weeds and selected grasses.

Include ammonium nitrogen fertilizer if specified on the tankmix partner label. Include either a crop oil concentrate or a nonionic surfactant as specified in the following table:

(Pints per 100 gal of spray solution)

ASSURE® II Tank mix partner	Ground		Aerial	
	COC	NIS	COC	NIS
CLASSIC®	8	2	4	2
HARMONY® GT	—*	1-2†	—*	1-2†
CLASSIC® + HARMONY® GT	—*	1-2†	—*	1-2†
"Basagran"	8	—	4	—
"Flexstar"	8	—	4	—

* Do not use "Dash" or crop oil concentrate when tank mixing ASSURE® II with HARMONY® GT or CLASSIC® + HARMONY®GT unless specified on other DuPont supplemental labeling.

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

SPOT/SMALL AREA SPRAY RECOMMENDATIONS

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

- use a 0.375% v/v solution of ASSURE® II and water.

SPRAY VOLUMES FOR SMALL AREAS

Spray Volume (gal)	ASSURE® II	Crop Oil Concentrate (fl oz)	Nonionic Surfactant (fl oz)
	(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.

- include a nonphytotoxic crop oil concentrate at 1 gallon per 100 gal of spray solution (1% v/v) or a nonionic surfactant at 1 qt per 100 gal of spray solution (0.25% v/v).
- treat plants on a spray-to-wet basis to ensure good coverage.

CULTIVATION

A timely cultivation may be necessary to control suppressed weeds, weeds that were beyond the maximum size at application, or weeds that emerge after an application of ASSURE® II.

Cultivation up to 7 days before the postemergence application of ASSURE® II may decrease weed control by pruning weed roots, placing the weeds under stress, or covering the weeds with soil and preventing coverage by ASSURE® II.

To allow ASSURE® II to fully control treated weeds, cultivation is not recommended for 7 days after application. Optimum timing for cultivation is 7 - 14 days after a postemergence application of ASSURE® II.

CROP ROTATION

Do not rotate to crops other than Canola, Cotton, Crambe, Dry Beans, Lentils, Mint (Spearmint and Peppermint), Peas (Dry and Succulent Peas), Snap Beans, Soybeans, or Sugarbeets within 120 days after application.

GRAZING

Do not graze livestock in treated areas. In addition, do not feed forage, hay, or straw from treated areas to livestock.

APPLICATION EQUIPMENT

- See SPRAY DRIFT MANAGEMENT section for additional information and precautions.

Ground Application

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.
- Use a minimum of 10 gal of water per acre in nonarid areas.
- Use a minimum of 15 gal of water per acre in arid areas.
- Do not exceed 40 gal of water per acre.
- Increase spray volume and pressure as weed or crop density and size increase.

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.

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- 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 DuPont bulletin, "Application Accuracy - Row Banders".

Aerial Application

- Use nozzle types and arrangements that provide optimum spray distribution and maximum coverage.
- Use a minimum of 3 gal of water per acre in nonarid areas.
- Use a minimum of 5 gal of water per acre in arid areas.

MIXING INSTRUCTIONS

1. Fill the tank 1/4 to 1/3 full of water.
2. While agitating, add the required amount of DuPont™ ASSURE® II. If ASSURE® II and a tank mix partner are to be applied together, consult the tank mix partner label for information on which should be added first (normally granules and powders are added first).
3. Continue agitation until the ASSURE® II is fully dispersed, at least 5 minutes.
4. Once the ASSURE® II is fully dispersed, maintain agitation and continue filling tank with water.
5. As the tank is filling, add the required volume of spray additives, always add these to the spray tank last.
6. Apply ASSURE® II spray mixture within a reasonable period of time of mixing to avoid product degradation (24 to 48 hrs). If the spray mixture stands for any period of time, thoroughly re-agitate before using.

SPRAYER CLEANUP

The spray equipment must be cleaned before ASSURE® II is sprayed. Follow the cleanup procedures specified on the labels of the previously applied products. If no directions are provided, follow the six steps outlined in After Spraying ASSURE® II. It is very important that any buildup of dried pesticide deposits which have accumulated in the application equipment be removed prior to spraying ASSURE® II. Steam-cleaning spray tanks to facilitate the removal of any caked deposits of previously applied products will help prevent accidental crop injury.

At the End of the Day

It is recommended that during periods when multiple loads of ASSURE® II herbicide are applied, at the end of each day of spraying the interior of the tank be rinsed with fresh water and then partially filled, and the boom and hoses flushed. This will prevent the buildup of dried pesticide deposits which can accumulate in the application equipment.

After Spraying ASSURE® II and Before Spraying Crops Other Than Those Listed in the Crop Rotation Section



1. 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 1 gal of household ammonia* (contains 3% active) for every 100 gal 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 min. Flush the hoses, boom, and nozzles again with the cleaning solution, and then drain the tank.
3. Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.
4. Repeat step 2.
5. Rinse the tank, boom, and hoses with clean water.
6. If only Ammonia is used as a cleaner, the rinsate solution may be applied back to the crop(s) recommended on this label. Do not exceed the maximum labeled use rate. If other cleaners are used, consult the cleaner label for rinsate disposal instructions. If no instructions are given, dispose of the rinsate on site or at an approved waste disposal facility.

*Equivalent amounts of an alternate-strength ammonia solution or a DuPont-approved cleaner can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions. Consult your Ag dealer, applicator, or DuPont representative for a listing of approved cleaners.

Notes:

1. CAUTION: Do not use chlorine bleach with ammonia as dangerous gases will form. Do not clean equipment in an enclosed area.
2. Steam-cleaning spray tanks is recommended prior to performing the above cleanout procedure to facilitate the removal of any caked deposits.
3. When ASSURE® II is tank mixed with other pesticides, all cleanout procedures should be examined and the most rigorous procedure should be followed.
4. In addition to this cleanout procedure, all pre-cleanout guidelines on subsequently applied products should be followed as per the individual labels.
5. Where routine spraying practices include shared equipment frequently being switched between applications of ASSURE® II and applications of other pesticides to ASSURE® II-sensitive crops during the same spray season, it is recommended that a sprayer be dedicated to ASSURE® II to further reduce the chance of crop injury.

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SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. **APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS!** See **Wind, Temperature and Humidity, and Temperature Inversions** sections of this label.

Controlling Droplet Size - General Techniques

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. **WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.**
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

Controlling Droplet Size - Aircraft

- **Number of Nozzles** - Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.
- **Nozzle Type** - Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
- **Boom Length** - The boom length should not exceed 3/4 of the wing or rotor length - longer booms increase drift potential.
- **Application Height** - Application more than 10 ft above the canopy increases the potential for spray drift.

BOOM HEIGHT

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

WIND

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. **AVOID GUSTY OR WINDLESS CONDITIONS.**

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring. **Note:** Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

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INFORMATION ON RESISTANT WEEDS

Biotypes of certain weeds listed on this label are resistant to DuPont™ ASSURE® II, and other herbicides with the same mode of action,* even at exaggerated application rates. Biotypes are naturally occurring individuals of a species identical in appearance but with slightly different genetic compositions; the mode of action of a herbicide is the chemical interaction that interrupts a biological process necessary for plant growth and development.

If weed control is unsatisfactory, it may be necessary to respray problem areas using a product with a different mode of action. If resistant weed biotypes (such as Wild Oats), are suspected or known to be present, consider using a planned herbicide rotation program to help control these biotypes. To better manage weed resistance when using ASSURE® II use a combination of tillage and sequential herbicide applications that have a different mode of action than ASSURE® II, to control escaped weeds. Do not let weed escapes go to seed.

Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative herbicide recommendations available in your area. It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes.

* Naturally occurring weed biotypes that are resistant to Hoelon or Poast, may also be resistant to ASSURE® II.

INTEGRATED PEST MANAGEMENT

DuPont recommends the use of Integrated Pest Management (IPM) programs to control pests. This product may be used as part of an Integrated Pest Management (IPM) program which can include biological, cultural, and genetic practices aimed at preventing economic pest damage. Application of this product should be based on IPM principles and practices including field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

IMPORTANT PRECAUTIONS

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

- Do not use on lawns, walks, driveways, tennis courts, or similar areas.
- Prevent drift of spray to desirable plants.
- Take all necessary precautions to avoid all direct or indirect contact (such as spray drift) with non-target plants or areas. Most grass crops, including wheat, barley, rye, oats, sorghum, rice, and corn are highly sensitive to ASSURE® II.

- Carefully observe all sprayer cleanup instructions both prior to and after using this product, as spray tank residue may damage crops other than those included in the crop rotation section.
- Do not contaminate any body of water.
- Do not apply this product through any type of irrigation system.

DuPont will not be responsible for losses or damages resulting from the use of this product in any manner not specifically recommended by DuPont.

Seasonal use limits and harvest intervals

Canola and Crambe

- Do not apply ASSURE® II within 60 days of harvest.
- The maximum use rate of ASSURE® II is 18 oz per acre per season.

Cotton

- Do not apply ASSURE® II within 80 days of harvest.
- The maximum use rate of ASSURE® II is 18 oz per acre per season.

Dry Beans

- Do not apply ASSURE® II within 30 days of harvest.
- The maximum use rate of ASSURE® II is 28 oz per acre per season.

Lentils

- Do not apply ASSURE® II within 60 days of harvest.
- The maximum use rate of ASSURE® II is 14 oz per acre per season.

Mint (Spearmint and Peppermint)

- Do not apply ASSURE® II within 30 days of harvest.
- The maximum use rate of ASSURE® II is 30 oz per acre per season.
- Do not apply more than 2 applications per acre per season.

Dry and Succulent Peas

- Do not apply ASSURE® II on dry peas within 60 days of harvest.
- Do not apply ASSURE® II on succulent peas within 30 days of harvest.
- The maximum use rate of ASSURE® II on dry and succulent peas is 14 oz per acre per season.

Snap Beans

- Do not apply ASSURE® II within 15 days of harvest.
- The maximum use rate of ASSURE® II is 14 oz per acre per season.

Soybeans

- Do not apply ASSURE® II within 80 days of harvest. Do not apply to soybeans after pod set.
- The maximum use rate of ASSURE® II is 18 oz per acre per season.

Sugarbeets

- Do not apply ASSURE® II within 45 days of beet harvest.
- The maximum use rate of ASSURE® II is 25 oz per acre per season.

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- Do not feed beet tops within 60 days of last application.
- Do not apply more than 4 applications per acre per season. Application intervals should be greater than 7 days apart to allow regrowth to occur.

STORAGE AND DISPOSAL

Storage: Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in a cool, dry place.

Product Disposal: Do not contaminate water, food, or feed by disposal. Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: For Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. **For Fiber Sacks:** Completely empty fiber sack by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing or application equipment. Then dispose of sack in a sanitary landfill or by incineration if allowed by State and local authorities. **For Fiber Drums With Liners:** Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by State and local authorities. If drum is contaminated and cannot be reused, dispose of in the same manner. **For Bags Containing Water Soluble Packets:** Do not reuse the outer box or the resealable plastic bag. When all water-soluble packets are used, the outer packaging should be clean and may be disposed of in a sanitary landfill or by incineration, or if allowed by State and local authorities, by open burning. If burned, stay out of smoke. If the resealable plastic bag contacts the formulated product in any way, the bag must be triple-rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer wrap as described above. **For Metal Containers (non aerosol):** Triple rinse (or equivalent) the container. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. **For Paper and Plastic Bags:** Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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