

(A)	United States Environmental Protection Agency Office of Pesticide Programs (H7505C) Washington, DC 20460	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number  <h2 style="text-align: center;">249681</h2>
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**Section I**

1. Company/Product Number 352-573	2. EPA Product Manager R. J. Taylor	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) DuPont Synchrony® STS® DF Herbicide	PM# 25	
5. Name and Address of Applicant (Include ZIP Code) E.I. du Pont de Nemours and Company Barley Mill Plaza, Walker's Mill Bldg. 37 Wilmington, DE 19880-0038 Attn: Tony E. Catka, WM6-174 <input type="checkbox"/> Check if this is a new address		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:  EPA Reg. No. _____  Product Name _____

**Section II**

<input type="checkbox"/> Amendment - Explain below <input type="checkbox"/> Resubmission in response to Agency letter dated _____ <input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____ <input type="checkbox"/> "Me Too" Application. <input type="checkbox"/> Other - explain below.
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NOTIFICATION  
 JAN 23 1997

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)

To submit notification for three non-substantive changes to main label as permitted under PR Notice 95-2 for DuPont Synchrony® STS® DF Herbicide.  
 Attachments: • Two (2) copies of proposed label, one with notifications highlighted, identified as SL-235-3 9126 9/28/95  
 • One (1) copy of current approved label, identified as SL-235-2 9115, EPA stamped accepted 9/28/95  
 • Ref. letter from R. J. Taylor to T. E. Catka, dated 10/17/95

**Section III**

<b>1. Material This Product Will Be Packaged In:</b>			
Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No * Certification must be submitted.	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No If "Yes," Unit Package wgt.    No. per container	2. Type of Container <input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) of Retail Container	5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product
6. Manner In Which Label Is Affixed To Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled <input type="checkbox"/> Other ( _____ )			

**Section IV**

<b>1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)</b>		
Name Tony E. Catka	Title Product Registration Manager	Telephone No. (Include Area Code) (302) 992-6275
I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature 	3. Title Product Registration Manager	
4. Typed Name Tony E. Catka	5. Date December 19, 1996	

2 7 14

DuPont Agricultural Products  
Registration & Regulatory Affairs  
Walker's Mill, Barley Mill Plaza  
P.O. Box 80038  
Wilmington, DE 19880-0038  
Fax: (302) 992-6470



DuPont Agricultural Products

December 19, 1996

Ms. Sherada D. Hobgood  
Document Processing Desk (NOTIF)  
Office of Pesticide Programs (H7504C)  
U.S. Environmental Protection Agency  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

**SUBJECT: 1) Notification per PR Notice 95-2 of Change to Label for  
DuPont Synchrony® STS® Herbicide (EPA Reg. No. 352-568)  
DuPont Synchrony® STS® DF Herbicide (EPA Reg. No. 352-573)  
DuPont Synchrony® STS® SP Herbicide (EPA Reg. No. 352-574)  
2) Final Printed Label**

Dear Ms. Hobgood:

I am enclosing a notification of changes made to the subject main label for DuPont Synchrony® STS®, DuPont Synchrony® STS® DF, and DuPont Synchrony® STS® SP Herbicides. This is limited to three non-substantive modifications appearing on the following pages of the label:

Page 1: Per EPA's letter dated 10/17/95 (attached), at the next printing of our subject labels, we should include EPA's modified precautionary statement

Page 2: *Under Rates and Weeds Controlled*  
Deletion of weed species - Waterhemp

Page 4: *Under Tank Mix Applications*  
*Synchrony STS DF/SP and Cobra*  
Incorporated previously approved supplemental of additional tank mix partner with reduced rate of "Cobra" to be consistent with our other soybean labels. DFU remains the same.

Reformatted weed control section under headers: Waterhemp and Nightshade; Prickly Sida and Hemp Sesbania. Thus, we eliminated the weed table and two species (cocklebur and morningglory) tank-mixed with "Cobra".

Page 8: Added section on "Integrated Pest Management"

Page 9: Upgraded our 'Warrantly Statement' to be consistent with our other soybean labels

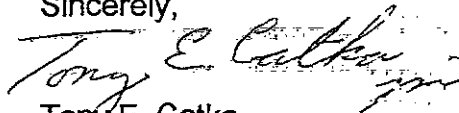
"This notification is consistent with the provisions of PR Notice 95-2 and EPA regulations at 40 CFR 152-46, and no other changes have been made to the labeling or the confidential statement of formula of this products. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 95-2 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA."

Attached for your use are:

- Notification, EPA form 8570-1 (OPP ID No. 249673 - Synchrony STS; OPP ID No. 249681 - Synchrony STS DF; OPP ID No.249682 - Synchrony STS SP)
- One copy of proposed label, identified as SL-239-2 9126 9/28/95 with notifications highlighted (*Synchrony STS*)
- One copy of proposed label, identified as SL-235-3 9126 9/28/95 with notifications highlighted (*Synchrony STS DF*)
- One copy of proposed label, identified as SL-236-2 9126 9/28/95 with notifications highlighted (*Synchrony STS SP*)
- One clean copy of each proposed label
- Current approved label, identified as SL-239-1 9115, EPA stamped accepted 9/28/95 (*Synchrony STS*)
- Current approved label, identified as SL-235-2 9115, EPA stamped accepted 9/28/95 (*Synchrony STS DF*)
- Current approved label, identified as SL-236 9115, EPA stamped accepted 9/28/95 (*Synchrony STS SP*)

Please contact me at (302) 992-6275 with any questions on this matter.

Sincerely,



Tony E. Catka  
Product Registration Manager

Enclosures

cc: R. J. Taylor, EPA (PM25)

4 9 14  
H-63023

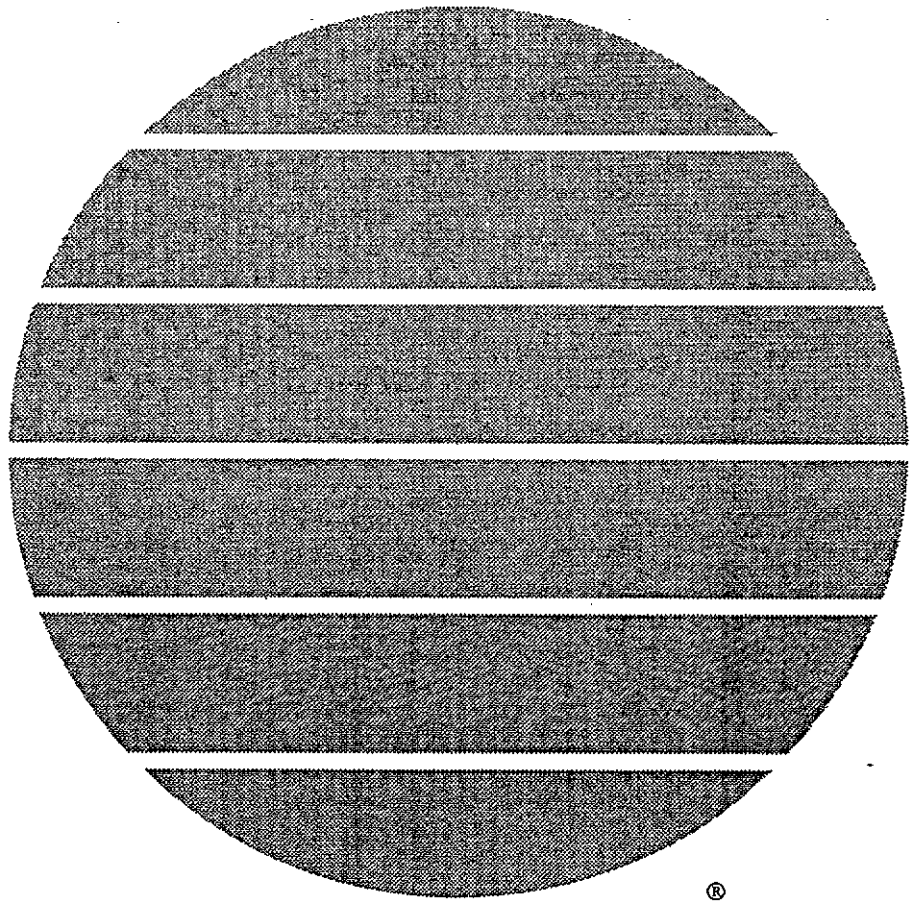
*Highlighted Copy  
(See Pgs. 1, 2, 4, 8, 9)*



# Synchrony<sup>®</sup> STS<sup>®</sup> DF

herbicide

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NOTIFICATION  
JAN 23 1997

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

## SYNCHRONY® STS DF HIGHLIGHTS

- SYNCHRONY STS DF provides selective postemergence weed control in soybean varieties designated as "STS".
- SYNCHRONY STS DF is applied at the rate of 1/2 ounce per acre. See Rate.
- SYNCHRONY STS DF may be tank mixed with ASSURE II, or other products for increased weed control.
- Include a crop oil concentrate and ammonium-based nitrogen fertilizer where required.
- SYNCHRONY STS DF may be applied by ground (broadcast or band) or by air.
- For ground application, apply in 10-25 gallons of water at 25-60 psi. Use flat fan nozzles to optimize SYNCHRONY STS DF performance.
- Apply to actively growing weeds at the recommended sizes. See Rate.
- Certain crop rotations apply. See Rotational Crop Guidelines.
- Certain environmental conditions, such as cool and dry, or hot and humid weather, affect the performance of SYNCHRONY STS DF. See Environmental Conditions.
- Consult label text for complete instructions. Always read and follow label directions for use.

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6-7-14



# Synchrony<sup>®</sup> STS<sup>®</sup> DF

herbicide

### Dispersible Granules

Active Ingredients	By Weight
Chlorimuron ethyl	
Ethyl 2-[[[(4-chloro-6-methoxypyrimidin-2-yl)amino]carbonyl]amino]sulfonyl]benzoate	31.8%
Thifensulfuron methyl	
Methyl 3-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]carbonyl]amino]sulfonyl]-2-thiophenecarboxylate	10.2%
Inert Ingredients	58.0%
TOTAL	100.0%

EPA Reg. No. 352 - 573  
U.S. Patent No. 4,394,506, 4,547,215 & 4,481,029

### FOR USE ONLY ON SOYBEAN VARIETIES DESIGNATED AS "STS".

- Application to soybean varieties not designated as "STS" will result in severe crop injury and/or yield loss.
- DuPont will not warrant the safety of this treatment to seed saved from previous year's production (bin run seed).
- These "STS" varieties must be purchased from an authorized seed supplier.
- The "STS" designation indicates the soybean variety contains a proprietary trait that enhances the soybean's natural tolerance to DuPont soybean sulfonylurea herbicides. Information on "STS" soybean varieties may be obtained from your seed supplier or DuPont representative.

KEEP OUT OF REACH OF CHILDREN

## CAUTION

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Caution! Harmful if absorbed through the skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling.

*modified*

### STATEMENT OF PRACTICAL TREATMENT

**IF IN EYES:** Flush eyes with plenty of water. Call a physician if irritation persists.

**IF ON SKIN:** Wash with plenty of soap and water. Get medical attention.

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

### PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Waterproof gloves.
- Shoes plus socks.

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 Section 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.

### 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 when disposing of equipment washwaters.

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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.
- Waterproof gloves.
- Shoes plus socks.

Use only in the geographies identified in the "Rotational Crop Guidelines" section of this label.

Make only one application of SYNCHRONY STS DF per season.

### APPLICATION INFORMATION

DuPont SYNCHRONY STS DF herbicide is a dispersible granule formulation which readily dissolves in water.

#### Timing To Crop Stage

\* SYNCHRONY STS DF may be applied any time after the first trifoliate has opened but no later than 60 days before soybean maturity.

#### Timing To Weeds

- Apply SYNCHRONY STS DF when weeds are young and actively growing (after the first true leaves have expanded, but before the weeds exceed the size indicated below).
- Applications made to weeds larger than the sizes indicated below, or to weeds under stress, may result in unsatisfactory control.
- Applications made after July 15 may result in less than satisfactory weed control due to the large sizes of the weeds and increased weather stress.

### Cultivation

Do not cultivate within 7 days of application. Cultivation may put weeds under stress by pruning roots, thus diminishing control.

Cultivation approximately 14 days after application will help control suppressed weeds.

### Rate and Weeds Controlled

Apply SYNCHRONY STS DF at a rate of 1/2 ounce per acre for selective postemergence broadleaf weed control.

When applied as directed, SYNCHRONY STS DF will control the following weeds:

Weed	Height (in inches)
Beggarticks (Bidens sp)	2-6
Bristly Starbur	2-3
Burcucumber*	2-3
Cocklebur	2-8
Common Milkweed (above ground portion)	2-6
Cowpea	2-5
Florida Beggarweed	2-5
Florida Pusley	1-3
Hemp Sesbania	2-5
Lambsquarters	2-4
Jerusalem Artichoke (above ground portion)	2-6
Jimsonweed	2-5
Marestail	2-5
Morningglory* (annual)	
Entireleaf	1-3
Ivyleaf	1-3
Pitted	1-3
Smallflower	1-3
Tall	1-3
Mustard	5**
Pigweeds	
Redroot (Rough)	2-8
Others	2-8
Ragweed	
Common	2-4
Giant*	2-4
Sicklepod*	1-3
Smartweed	
Ladysthumb	2-8
Pennsylvania	2-8
Sunflower	2-8
Wild Poinsettia	1-2
Yellow Nutsedge	2-3
Velvetleaf	2-8

\* See Split Applications section.

\*\* Diameter

When applied as directed, SYNCHRONY STS DF will suppress the following weeds:

Weed	Height (in inches)
Buffalobur	2-6
Canada Thistle	2-4
Kochia	1-3
Spurred Anoda	1-3
Purple Nutsedge	2-4
Venice Mallow	1-3

~~Waterhemp sp. deleted~~

**Sequential Applications**

A follow up application of DuPont Classic® Herbicide may be made 2-3 weeks after a SYNCHRONY STS DF application to control weeds with multiple germination flushes or weeds under stress such as burcucumber, cowpea, giant ragweed, morningglory, and sicklepod. See Rotational Crop Guidelines for intervals following sequential applications.

**No-Till/Conservation Till**

SYNCHRONY STS DF may be used for postemergence weed control in no-till/conservation till operations. A burn-down treatment is recommended before planting. SYNCHRONY STS DF may be used alone, in a tank mix for postemergence broadleaf weed control, or tank mixed with postemergence grass herbicides such as DuPont ASSURE II Herbicide for total postemergence weed control. SYNCHRONY STS DF may be used in sequence with pre-emerge applications of DuPont CANOPY® herbicide for a pre-post No-Till herbicide program.

**Spray Additives**

Applications of SYNCHRONY STS DF must include a crop oil concentrate. Refer to the DuPont bulletin "Approved Adjuvants for Use with DuPont Row Crop and Cereal Herbicides" for a list of approved adjuvants and suggested use rates for SYNCHRONY STS DF. An ammonium nitrogen fertilizer may also be required. Products that combine ammonium fertilizers with surfactants or crop oils must meet all of the surfactant/crop oil and ammonium nitrogen fertilizer requirements.

**Crop Oil Concentrate**

- Apply crop oil concentrate at 8 pt per 100 gal of spray solution (1.0% v/v).
- Use a good-quality, petroleum-based or methylated seed oil-based crop oil concentrate with at least 14% emulsifiers and 80% oil.

**Ammonium Nitrogen Fertilizer**

In addition to a crop oil concentrate, an ammonium nitrogen fertilizer is recommended, and required where velvetleaf is present.

- Use a high-quality, liquid nitrogen fertilizer such as 28-0-0 or 30-0-0 at a rate of 4-8 pt per acre, or a 10-34-0 at a rate of 2-4 pt per acre.
- Alternatively, a high-quality, sprayable grade of ammonium sulfate (21-0-0) may be used at a rate of 2-4 lb per acre.
- Use the lower rate of fertilizer for spray volumes of less than 15 gal per acre.

**TANK MIX APPLICATIONS**

Do not tank mix SYNCHRONY STS DF with any other pesticide or spray adjuvant except as specified on this or other supplemental labeling.

**SYNCHRONY STS DF AND POSTEMERGENCE GRASS HERBICIDES**

SYNCHRONY STS DF may be tank mixed with postemergence grass herbicides such as DuPont ASSURE® II Herbicide.

The types of grass present determine the amount of ASSURE II to be tank mixed with SYNCHRONY STS DF. When applied as directed, a tank mix of SYNCHRONY STS DF and ASSURE II will control the following grasses:

**SYNCHRONY STS DF + 5 oz of ASSURE II per acre**

Grass	Height (Inches)
Volunteer Corn	6 - 18
Shattercane	6 - 12
Giant Foxtail	2 - 4 (pre-tiller)
Seedling Johnsongrass	2 - 8

**SYNCHRONY STS DF + 7 oz of ASSURE II per acre**

Grass	Height (Inches)
Giant Foxtail	4 - 8
Wild Proso Millet	2 - 6

**SYNCHRONY STS DF + 8 oz of ASSURE II per acre**

Grass	Height (Inches)
Crowfoot Grass	2 - 6
Fall Panicum	2 - 6
Green Foxtail	2 - 4
Bristly Foxtail	2 - 4
Goosegrass	2 - 4
Itchgrass	2 - 8
Field Sandbur	2 - 6
Sprangletop	2 - 6
Volunteer Cereals	2 - 6
Wild Oats	2 - 6
Witchgrass	2 - 6

**SYNCHRONY STS DF + 10 oz of ASSURE II per acre**

Grass	Height (Inches)
Junglerice	2 - 6
Rhizome Johnsongrass	10 - 24

- Include a crop oil concentrate with the tank mix of SYNCHRONY STS DF and postemergence grass herbicides such as ASSURE II. Use the rate listed in the Soybean Spray Additives section.
- SYNCHRONY STS DF may be tank mixed with other grass herbicides such as Poast Plus<sup>1</sup>, Select<sup>2</sup>, Fusion<sup>3</sup>, or Fusilade<sup>4</sup> 2000. Read and follow label directions for any tank mix product.
- Under certain conditions SYNCHRONY STS DF may reduce the activity of the grass herbicide. The broadleaf activity of SYNCHRONY STS DF will not be affected.
- For best results apply SYNCHRONY STS DF either 7 days before or 1 day after the grass herbicide. Refer to the grass herbicide label for precautions and specific use information.

**SYNCHRONY STS DF and 2,4-DB**

SYNCHRONY STS DF may be tank mixed with 1-2 fl oz per acre of 2,4-DB for improved control of giant ragweed, annual morningglory and other broadleaf weeds.

- Applications to morningglory species must be made before the weeds are 4" tall.
- Soybeans must be at least 8" tall before applying SYNCHRONY STS DF in a tank mix with 2,4-DB.
- Applications of SYNCHRONY STS DF and 2,4-DB must include a nonionic surfactant at the rate of 2 pints per 100 gal (minimum of 0.125% v/v of actual nonionic surfactant) or crop oil concentrate at 8 pints per 100 gal of spray solution (1.0% v/v). See Spray Additives.
- Apply a tank mix of SYNCHRONY STS DF and 2,4-DB by ground only.



Reformulated weed control section

- In Kansas and Missouri (except the bootheel area), when conditions are excessively hot and dry (> 90°F and < 30% relative humidity), make applications at the rate of 2 fl oz of 2,4-DB and SYNCHRONY STS DF.
- The use of crop oil concentrate may increase temporary injury to soybeans.

Some crop response may occur 5-7 days after application of SYNCHRONY STS DF and 2,4-DB to soybeans under stress. Temporary yellowing, leaf crinkling, and/or soybean growth retardation may occur following application of SYNCHRONY STS DF and 2,4-DB. Under favorable growing conditions, the crop will quickly recover.

Consult the 2,4-DB label for use precautions.

**SYNCHRONY STS DF AND COBRA<sup>2</sup>**

Waterhemp and Nightshade

*Incorporated Supplemental*

SYNCHRONY STS DF may be tank mixed with reduced rates of "Cobra". Use 1/2 oz per acre of SYNCHRONY STS DF and 4.0 to 6.0 fl oz of "Cobra" per acre to control Waterhemp species (up to 4 inches tall) and Eastern Black Nightshade (up to 2 inches tall). Include 0.5% v/v (4 pts/100 gal) crop oil concentrate.

**Prickly Sida and Hemp Sesbania**

For control of Prickly Sida and Hemp Sesbania, use a tank mix at the rate of 1/2 oz per acre SYNCHRONY STS DF and 8.0 to 12.5 fl oz of "Cobra" per acre. Use the higher rate of "Cobra" when Prickly Sida and Hemp Sesbania are heavy or if Prickly Sida and Hemp Sesbania approach the maximum size of 1" or 4", respectively. Include a nonionic surfactant at 1 to 2 pt per 100 gal of spray solution (minimum of 0.125% v/v actual surfactant). Do not use crop oil concentrate when tank mixing SYNCHRONY STS DF + "Cobra" at these rates.

- Tank mix applications of SYNCHRONY STS DF and "Cobra" may not control weeds listed on the SYNCHRONY STS DF label as completely as applications of SYNCHRONY STS DF alone.
- Applications made with less than 20 gal per acre spray volume may result in erratic weed control.

**Tank Mix Precautions**

Do not tank mix SYNCHRONY STS DF with any other pesticide or spray adjuvant except as specified on this or other supplemental labeling.

**MIXING INSTRUCTIONS**

1. Fill the tank 1/4 to 1/3 full of water.
2. While agitating, add the required amount of SYNCHRONY STS DF.
3. Continue adequate agitation.
4. SYNCHRONY STS DF should be thoroughly mixed with water in the spray tank before adding any other material. As the tank is filling, add (in order): other herbicide(s), the required spray adjuvant, and the nitrogen fertilizer where required.
5. Apply SYNCHRONY STS DF spray preparation within 24 hours of mixing to avoid product degradation.
6. If the mixture has settled, thoroughly reagituate before using.

**APPLICATION EQUIPMENT**

**Ground Application**

*(See Also Spray Drift Management)*

**Broadcast Application**

- Use a minimum of 10 gal water per acre.
- Under heavy weed pressure or dense crop foliage, increase minimum spray volume to 15-25 gal per acre.
- Use flat fan nozzles at 25-60 psi for SYNCHRONY STS DF applications.
- Do not use flood, rain drop, whirl chamber, or controlled droplet applicator (CDA) type nozzles. Unacceptable crop injury, excessive spray drift, or poor weed control may result.
- For proper spray coverage adjust the boom and nozzle height according to the specifications listed by the nozzle manufacturer.

**Band Application**

- Because band applicators spray a narrower area than broadcast applicators, use proportionately less spray solution for band applications.
- Carefully calibrate the band applicator to not exceed the labeled rate.
- Flat fan nozzles are recommended.
- Carefully follow the nozzle manufacturer's instructions for nozzle orientation, distance of the nozzles from the crop and weeds, spray volumes, calibration, and spray pressure for band applications.
- For additional information on row banders, see DuPont bulletin, "Application Accuracy - Row Banders."

**Aerial Application**

*(See Also Spray Drift Management)*

- Use nozzle types and arrangements that will provide optimum spray distribution and maximum coverage at 3-5 gal per acre.
- Use a minimum of 3 gal water per acre. Under heavy weed pressure or dense crop foliage, increase the minimum spray volume to 5 gal per acre.
- Do not apply during a temperature inversion, when winds are gusty, or when other conditions could produce poor coverage and/or off-target spray movement.

# ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY

SYNCHRONY STS DF rapidly inhibits the growth of susceptible weeds. Leaves of susceptible plants yellow 3-5 days after application, followed, in controlled plants, by the death of the growing point. SYNCHRONY STS DF will provide complete control of susceptible weeds in 7-21 days. Suppressed plants may remain green but will be stunted and noncompetitive.

SYNCHRONY STS DF will provide best results when applied to young, actively growing weeds. Degree of control depends on: weed spectrum; weed size (if weeds are large, use higher spray volume); growing conditions at and following treatment; soil moisture; precipitation; and spray adjuvants. Treating weeds under stress or large weeds may result in only partial control. Stress may be caused by:

- abnormal weather (hot or cold)
- mechanical injury from cultivation
- drought
- water saturated soil
- disease
- insect injury
- prior herbicide injury

Stress affects some weeds, such as pigweed, more than others. Delay application until stress passes and weeds start to grow again.

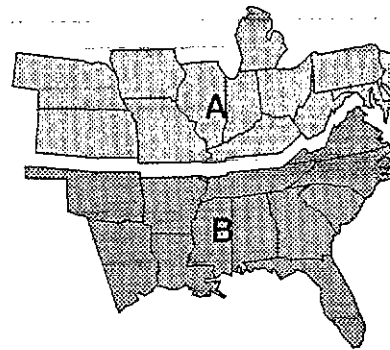
Severe stress (drought, disease, insect damage, or nutrient deficiency such as iron chlorosis) following application may also result in poor weed control.

Do not apply SYNCHRONY STS DF if rain is expected within 1 hour or weed control may decrease.

## ROTATIONAL CROP GUIDELINES

- Important: Crops other than soybeans following a SYNCHRONY STS DF application can vary in their sensitivity to low concentrations of SYNCHRONY STS DF remaining in the soil. Rotational crop guidelines must be followed.
- When SYNCHRONY STS DF is applied in sequence with CANOPY, follow rotational crop guidelines listed on the CANOPY label.
- If SCEPTER, PURSUIT, or any product containing the active ingredients imazaquin or imazethapyr (such as SQUADRON or PASSPORT) is applied to soybeans the same year as SYNCHRONY STS DF, follow the more restrictive rotational crop guideline.

## Rotational Crop Groups A & B



**Region A:** The states of Delaware, Illinois, Indiana, Iowa (Fields located outside the boundaries of the Clarion-Nicollet-Webster and Hamburg-Ida-Monona soil associations and fields located outside the historic flood plain of the Missouri River.), Kansas, Kentucky, Maryland, Michigan (Fields south of Interstate 96 or per supplemental labeling.), Missouri (Except the Bootheel), Nebraska (Fields south of Route 30 and east of Route 281.), New Jersey, Ohio, Pennsylvania, and West Virginia.

**Region B:** The states of Alabama (Except the "Black Belt" where soil pH must be less than 7.0.), Arkansas, Florida, Georgia, Louisiana, Missouri (Bootheel region only), Mississippi (Except the "Black Belt" where soil pH must be less than 7.0.), North Carolina, Oklahoma, South Carolina, Tennessee, Texas (Fields east of Route 183), and Virginia.

### Follow Recrop Interval 1 if:

- The field is located in a "Region A" state (all pH soils) AND, EITHER
- A maximum of one application of SYNCHRONY STS DF at a rate of 1/2 oz/acre for the growing season is applied, OR
- A maximum of one application of SYNCHRONY STS DF at a rate of 1/2 oz/acre in sequence with 1/3 oz/acre of Classic.

### Follow Recrop Interval 1 if:

- The field is located in a "Region A" state with soil pH 7.0 or less AND
- A maximum rate of one application of SYNCHRONY STS DF at a rate of 1/2 oz/acre in sequence with a maximum rate of 3/4 oz/acre of CLASSIC.

### Follow Recrop Interval 2 if:

- The field is located in a "Region B" state (all pH soils except those with pH greater than 7.0 in Virginia and the Black Belt region of Alabama and Mississippi) AND
- A maximum of one application of SYNCHRONY STS DF at a rate of 1/2 oz/acre in sequence with 3/4 oz/acre of CLASSIC is applied.

**Rotational Interval (months)  
Following the Use of SYNCHRONY STS DF\***

Crop	Interval 1	Interval 2
Soybeans	Anytime	Anytime
Cereal Grains		
Pasture Grasses (such as Fescue and Ryegrass)	3	3
Dry Beans		
Kidney Beans	9	9
Peas		
Snap Beans		
Field Corn (IR)	8	7
Field Corn**(States in Regions A)	9	---
Field Corn**(States of AR, MO (Bootheel only), NC, OK, TN, and TX)	---	8
Field Corn**(States of AL, FL, GA, LA, MS, and SC)	---	7
Popcorn		
Sorghum	9	9
Tobacco (transplant)		
Tomato (transplant)		
Peanuts	15	6
Rice	15	9
Cotton	9	8
Alfalfa		
Clover	12	9
Cabbage		
Canola (Rapeseed)		
Cucumber		
Flax		
Lentils		
Mustard	18	18
Pumpkins		
Sunflower		
Sweet Corn		
Watermelon		
Carrots		
Onions		
Potatoes	30	30
Sugar Beets		
Any crop not listed		

\* If SYNCHRONY STS DF or the latter part of a sequential treatment containing chlorimuron ethyl (such as CLASSIC) is applied after August 1, extend rotational crop intervals 2 months for alfalfa, clover, corn (non-IR), cotton, popcorn, rice, sorghum, tobacco, and tomato.

\*\*The term "Field Corn" is defined to include only that corn grown for grain or silage or for seed corn relative to the Rotational Crop Guidelines section of this label.

**THE IMPORTANCE OF SOIL PH**

Soil pH varies greatly, even within the same field. pH variations as much as 2 pH units are common. Composite soil samples taken across an entire field, such as those samples taken for soil fertility recommendations, may not detect areas of high pH. Sub-sampling is recommended for areas likely to have pH values higher than the field average. The following is a non-inclusive list of potential high pH areas where subsampling is recommended.

- Where different soil types are evident within a field, sample soil types separately.

- Where conditions vary within a field, sample areas separately, such as:

- areas bordered by limestone gravel roads,
- river bottoms subject to flooding,
- low areas in hardpan soils where evaporative ponds may occur,
- eroded hillsides,
- along drain tile lines, and
- areas where drainage ditch spoil has been spread.

- Where lime has not been deeply incorporated, soil may exhibit significantly higher pH values in the upper 3 inches of soil. Composite soil samples taken at a 6-8 inch depth may not reflect the elevated pH near the surface. In these cases shallow sampling, the upper 3 inches, is advised.

Determine soil pH by laboratory analysis using a 1:1 soil:water suspension.

**SPRAYER PREPARATION AND CLEANUP**

Prior to application of SYNCHRONY STS DF, start with clean, well maintained application equipment. Immediately following application, thoroughly clean all application equipment. Postponing action, even for a few hours, only makes effective cleanup more difficult. Failure to clean spraying equipment thoroughly may result in injury to subsequently sprayed crops.

When spraying multiple loads of SYNCHRONY STS DF over an extended period of time, rinse the equipment with clean water at the end of the day. Leave water in the equipment overnight to prevent deposits from drying on surfaces.

When applications of SYNCHRONY STS DF are completed and prior to using the sprayer and associated equipment for other products or for crops other than soybeans, thoroughly clean the equipment using the procedure below.

- STEP 1. Drain spray equipment. Thoroughly rinse sprayer, and flush hoses, boom and nozzles with clean water. Loosen and physically remove visible deposits.
- STEP 2. Fill the sprayer with clean water and add household ammonia (one gallon of 3% active for every 100 gallons of water) or correct amount of a DuPont approved cleaner\*. Flush hoses, boom and nozzles. Turn off the boom and top off the tank with clean water. Circulate through the spraying system for 15 minutes. Flush the hoses, boom and nozzles with the cleaning solution. Drain the tank.
- STEP 3. Remove and clean nozzle, screens and strainers in a bucket of fresh cleaner and water.
- STEP 4. Repeat STEP 2.
- STEP 5. Thoroughly rinse the sprayer, hoses, boom and nozzles with clean water, several times.

Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. Do not clean near wells, water sources or near desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

- \* For additional information on sprayer cleanup and a listing of DuPont-approved cleaners, see DuPont Bulletin "A Guide To Application Equipment Cleanout For DuPont Sulfonyleurea Herbicides".

## 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.

Added Section 13 & 14

### AIR ASSISTED (AIR BLAST) TREE AND VINE SPRAYERS

Air assisted tree and vine sprayers carry droplets into the canopy of trees and vines via a radially or laterally directed air stream. These sprayers are not suitable for applying herbicides.

In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift:

- Adjust deflectors and aiming devices so that spray is only directed into the canopy.
- Block off upward pointed nozzles when there is no overhanging canopy.
- Use only enough air volume to penetrate the canopy and provide good coverage.
- Do not allow spray to go beyond the edge of the cultivated area. Spray the outside row only from outside the planting.

### IMPORTANT PRECAUTIONS

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

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

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

- Do not apply SYNCHRONY STS DF 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.
- Many crops are sensitive to SYNCHRONY STS DF. All direct or indirect contact (such as spray drift) with crops other than soybeans should be avoided.
- Thoroughly clean all application equipment immediately after use and prior to spraying crops other than soybeans.

SYNCHRONY STS DF is for use only on soybean varieties designated as "STS".

### INFORMATION ON RESISTANT WEEDS

When herbicides with the same mode of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant weed biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. These resistant weed biotypes may not be adequately controlled. Cultural practices such as tillage, preventing weed escapes from going to seed, and using herbicides with different modes of action within and between crop seasons can aid in delaying the proliferation and possible dominance of herbicide resistant weed biotypes.

### 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 or site systems in your area.

### STORAGE AND DISPOSAL

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

**Product Disposal:** Do not contaminate water, food or feed by 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) the container. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or, if allowed by state and local authorities, by burning. If the containers are burned, stay out of smoke.

**Notice to Buyer:** Purchase of these materials does not confer any rights under patents of countries outside of the United States. Use of this quantity of purchased SYNCHRONY STS DF herbicide is permitted under claim 24 of U.S. Patent 5,084,082.

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**LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read This Limitation of Warranty and Liability Before Buying or Using This Product. If the Terms Are Not Acceptable, Return the Product at Once, Unopened, and the Purchase Price Will Be Refunded.

It is impossible to eliminate all risks associated with the use of this product. Such risks arise from weather conditions, soil factors, off target movement, unconventional farming techniques, presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of DuPont. These risks can cause: ineffectiveness of the product; crop injury, or; injury to non-target crops or plants.

DuPont does not agree to be an insurer of these risks. **WHEN YOU BUY OR USE THIS PRODUCT, YOU AGREE TO ACCEPT THESE RISKS.**

DuPont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purpose stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions.

DUPONT MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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DuPont or its Authorized Retailer must have prompt notice of any claim so that an immediate inspection of buyer's or user's growing crops can be made. Buyer and all users shall promptly notify DuPont or a DuPont Authorized Retailer of any claims, whether based on contract, negligence, strict liability, other tort or otherwise or be barred from any remedy.

This Limitation of Warranty and Liability may not be amended by any oral or written agreement.

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