



John Elias Baldacci  
GOVERNOR

STATE OF MAINE  
MAINE DEPARTMENT OF AGRICULTURE, FOOD & RURAL RESOURCES  
BOARD OF PESTICIDES CONTROL  
28 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0028

SETH H. BRADSTREET III  
COMMISSIONER  
HENRY JENNINGS  
DIRECTOR

To: Board of Pesticides Control Members  
From: Mary Tomlinson, Pesticides Registrar  
Re: EPA Special Local Need (SLN) [24(c)] application to approve the use of Express Herbicide (EPA Reg. No. 352-632) for Bunchberry Control in Lowbush Blueberry (Wild Blueberry)  
Date: May 3, 2010

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Enclosed are the above-referenced SLN application and supplemental product label for your consideration. You approved an identical request in September of 2008, but stipulated a December 31, 2009, expiration date, due to ground water concerns. The application is for use of Express (EPA Reg. No. 352-632), for control of bunchberries and other weeds in lowbush blueberry (wild blueberry).

The request is to reapprove this product for use, as many growers never had the opportunity to use Express on all their fields, due to the fact that its use was not approved until late 2008. Blueberries are a biennial crop, and Express can only be applied 365 days prior to harvest, at the earliest.

Dr. David Yarborough, of the University of Maine Cooperative Extension, has provided, and will continue to provide, education for growers on timing of application and using spot treatments, when feasible. Water quality monitoring has not occurred due to staffing constraints, but will be considered when planning the next water quality monitoring phase.

Your package includes the additional following documents for your review:

- State product label and MSDS
- Letters of support from David Yarborough, dated November 17, 2009, and March 26, 2010

Please review these materials and let me know if you have any questions.



United States Environmental Protection Agency  
Office of Pesticide Programs  
Registration Division (TS-767)  
Washington, DC 20460

Application for/Notification of State Registration of a Pesticide To Meet a Special Local Need  
(Pursuant to Section 24(C) of the Federal Insecticide, Fungicide, and Rodenticide Act, as Amended)

For State Use Only	
Registration No. Assigned	ME-100002
Date Registration Issued	

1. Name and Address of Applicant for Registration Ms. Miriam Carr E. I. du Pont de Nemours and Company DuPont Crop Protection Stine-Haskell Research Ctr., S300/427 P. O. Box 30, Elkton Road Newark, DE 19714-0030		2. Product is (Check one) EPA Registered <input checked="" type="checkbox"/> New (not EPA-registered) <input type="checkbox"/> Attach EPA Form 8570-4, Confidential Statement of Formula, fix now products. <input type="checkbox"/>		EPA Registration Number 352-632
4. Product Name DuPont Express Herbicide (with TotalSol soluble granules)		3. Active Ingredient(s) in Product Tribenuron methyl		
6. Type of Registration (Give details in Item 13 or on a separate page, property identified and attached to this form). a. To permit use of a new product. b. To amend EPA registrations for one or more of the following purposes: <input checked="" type="checkbox"/> (1) To permit use on additional crops or animals. <input type="checkbox"/> (2) To permit use at additional sites. <input type="checkbox"/> (3) To permit use against additional pests. <input type="checkbox"/> (4) To permit use of additional application techniques or equipment. <input type="checkbox"/> (5) To permit use at different application rates. <input type="checkbox"/> (6) Other (specify below).		5. If this is a food/feed use, a tolerance or other residue clearance is required. Cite appropriate regulations in 40 CFR Part 180, 185, and/or 186. Not a food/feed use		
10. Has FIFRA section 24(c) registration for this use of the product ever, by another State, been (check appropriate box(es), if known): <input type="checkbox"/> Sought <input type="checkbox"/> Issued <input type="checkbox"/> Denied <input type="checkbox"/> Revoked If any of the above are checked, list States in item 13 below <input checked="" type="checkbox"/> No FIFRA section 24(c) Action		7. Nature of Special Local Need (check one) <input type="checkbox"/> There is no pesticide product registered by EPA for such use. <input checked="" type="checkbox"/> There is no EPA-registered pesticide product which, under the conditions of use within the State, would be as safe and/or as efficacious for use within the terms and condition of EPA registration <input type="checkbox"/> An appropriate EPA-registered pesticide product is not available.		
Certification 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.		8. If this registration is an amendment to an EPA-registered product, is it for a "new use" as defined in 40 CCFR 152.3? <input type="checkbox"/> Yes (discuss in item 12 below) <input checked="" type="checkbox"/> No		
Signature of Applicant or Authorized Representative <i>Miriam Carr</i>		9. Has an EPA Registration or Experimental Use Permit for this chemical ever been (check applicable box(es), if known): <input type="checkbox"/> Sought <input checked="" type="checkbox"/> Issued <input type="checkbox"/> Denied <input type="checkbox"/> Canceled <input type="checkbox"/> Suspended <input checked="" type="checkbox"/> Registration <input type="checkbox"/> Experimental Use Permit <input type="checkbox"/> No Previous Permit Action		
Title State Registration Specialist		11. Endangered Species Act: (Give details in Item 13 or on a separate page, properly identified and attached to this form) Identify the counties where this pesticide will be used. If Statewide, indicate "all". Provide a list of Federally protected endangered/threatened species which occur in the areas of proposed use.		
Telephone Number 302-366-5702		12. Indicate use statue of Special Local Need, i.e., planned dates of use: From: <u>July 19, 2013</u> To: <u>December 31, 2018</u>		
Date July 18, 2013		13. Comments (attach additional sheet, if needed) This is an amendment to extend the expiration date of SLN ME-100002 to December 31, 2018. This SLN is for use in all counties.		

Determination by State Agency

This registration is for a Special Local Need and is being issued in accordance with section 24(c) of FIFRA as amended. To the best of our knowledge, the information above is correct, except as noted in "Comments" below or in attachments.

Name, Title, and Address of State Agency Official Mary Tomlinson Maine Board of Pesticides Control 28 State House Station Augusta, ME 04333	Comments (by State Agency Only)	Received by EPA
Title Pesticides Registrar/Water Quality Specialist		
Telephone Number (207-287-2731)	Date Sept. 6, 2013	

## Tomlinson, Mary E

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**From:** MIRIAM.CARR-1@dupont.com  
**Sent:** Monday, July 22, 2013 7:25 AM  
**To:** Tomlinson, Mary E  
**Subject:** Express SLN Extension  
**Attachments:** 20130719095138403.pdf; 20130719095153691.pdf; R-1359 Express Blueberry.PDF

Mary,

Thank you very much for taking time to discuss the renewal of the Special Local Need for Express on Blueberries (ME-100002). As discussed, please proceed with the cancellation of ME-080003 as this SLN has been replaced with ME-100002.

At this time we wish to renew ME-100002. Per your request, I have attached the following items in support of the renewal of ME-100002:

Proposed Label	R-1359 071913 (Revised ME-100002 to renew & include the expiration date)
Currently approved label	R-1359 041113
Application Form	EPA 8570-25

Should you require additional information, please let me know.  
Thank you!

Miriam Carr  
DuPont States Registration Specialist  
(302) 366-5702



Wild Blueberry Office Deering Hall University of Maine, Orono 04469

August 20, 2013

Henry Jennings  
Director  
Maine Board of Pesticides Control  
28 State House Station  
Augusta, ME 04333

Dear Henry:

This letter is in support of the DuPont request to renew the 24C application for the use of Express Herbicide with Total Sol to control bunchberry and other weeds in wild blueberry fields in Maine. Wild blueberry growers have consistently indicated that bunchberry has been a major weed problem in their fields for many years and have requested a solution for this problem. I am still receiving requests from growers for the use of this material to control bunchberry. The label has lapsed and it is necessary to have it renewed by early September for them to use it effectively.

I will continue to provide educational programming on the fall timing and the spot treatment use of this herbicide in grower meetings and field days.

Please request that the board review this soon, so we do not have a late approval as we did in 2008.

Sincerely,

A handwritten signature in black ink that reads 'Dave'.

David Yarborough, PhD.  
Blueberry Specialist  
Professor of Horticulture  
the University of Maine  
5722 Deering Hall Rm. 414  
Orono, ME 04469-5722

**SPECIAL LOCAL NEED  
24(C)LABELING**

**DuPont Crop  
Protection**

**DUPONT™ EXPRESS® HERBICIDE  
(with TotalSol™ Soluble Granules)  
FOR BUNCHBERRY CONTROL IN  
LOWBUSH BLUEBERRY  
IN THE STATE OF MAINE**

**FOR DISTRIBUTION AND USE ONLY WITHIN THE STATE OF MAINE  
DUPONT™ EXPRESS® HERBICIDE  
with TotalSol™ (soluble granules)**

**EPA Reg. No. 352-632  
SLN No. ME-100002**

**FOR BUNCHBERRY CONTROL IN LOWBUSH BLUEBERRY ONLY IN  
THE STATE OF MAINE**

**This label is valid until December 31, 2018 or until otherwise revised, amended, cancelled or suspended.**

**GENERAL INFORMATION**

DuPont™ EXPRESS® Herbicide (with TotalSol™ soluble granules) (EXPRESS®) is recommended for selective postemergence control/suppression of certain broadleaf weeds in lowbush blueberry (or also known as, wild blueberry).

EXPRESS® may be used on lowbush blueberry providing user accepts all risk of possible crop injury.

**USE RATES AND APPLICATION TIMING**

Apply EXPRESS® at 0.8 to 1.0 ounce per acre in the fall after blueberry harvest, until a killing frost occurs, after which bunchberry control will not occur.

EXPRESS® applied earlier in the fall will result in increased blueberry cover and increased bunchberry control in the following year. The degree and duration of effect are dependent upon the rate used, sensitivity and size of the target weeds, and environmental conditions at the time and following application.

**WEEDS CONTROLLED**

The following weeds are controlled in addition to the weeds listed on the EPA registered package label.

Bunchberry

**Surfactant**

Always use a nonionic surfactant of at least 80% active ingredient at the rate of 0.25% volume/volume (1 quart per 100 gallon of spray solution).

**Precautions/Restrictions**

The use of methylated seed oil (MSO) or crop oil is not recommended with EXPRESS® on lowbush blueberry as these adjuvants may produce unsatisfactory crop injury.

Do not apply more than 1.0 ounce of EXPRESS® per acre per growing season.

Do not graze or cut for hay, or feed associated by-products to livestock, after application.

Do not apply within 365 days of blueberry harvest.

Do not apply EXPRESS® in a tank mix with organophosphate insecticides as severe crop injury may occur.

Do not apply to lowbush blueberry that is under stress from severe weather conditions, drought, low fertility, water saturated soil, disease or insect damage, as crop injury may result. Under certain conditions such as prolonged cool weather (daily high temperature less than 50° F) or wide fluctuations in day/night temperatures just prior to or soon after treatment, temporary yellowing and/or crop stunting may occur.

**For product information call 1-888-6-DUPONT**

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**IMPORTANT  
BEFORE USING EXPRESS®, READ AND  
FOLLOW ALL APPLICABLE DIRECTIONS,  
RESTRICTIONS AND PRECAUTIONS ON THE  
EPA-REGISTERED LABEL.**

This bulletin contains new or supplemental instructions for use of this product which do not appear on the EPA-registered package label. Follow the instructions carefully.

This labeling must be in the possession of the user at the time of pesticide application.

Read the Limitation of Warranty and Liability on the Section 3 Federal product label before buying or using THIS product. If terms are not acceptable, return the unopened package at once to Seller for full refund of purchase price paid. Otherwise, use by Buyer or any other User constitutes acceptance of the terms of the Limitation of Warranty and Liability on the Section 3 Federal product label.

(Replaces: R-807 072408 09-15-08)



# DuPont™ Express®

herbicide  
(with TotalSol®  
soluble granules)

### Soluble Granule

### Active Ingredient

Tribenuron methyl

Methyl 2-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)

methylamino]carbonyl]amino]sulfonyl]benzoate . . . . . 50%

Other Ingredients . . . . . 50%

TOTAL 100%

EPA Reg. No. 352-632

EPA Est. 352-IL-001

### By Weight

**KEEP OUT OF REACH OF  
CHILDREN  
CAUTION**

**Net 15 oz Nonrefillable Container**

See back panel for additional Precautionary Statements.

### 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 cleaning equipment or disposing of equipment washwaters.

Refer to accompanying labeling for additional precautions and complete directions for use.

### Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

**Notice to Buyer:** Purchase of this material does not confer any rights under patents of countries outside of the United States.



**DuPont™ Express®**  
herbicide (with TotalSol® soluble granules)

### FIRST AID

**IF ON SKIN:** 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. 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.

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes or clothing.

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

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

### Applicators and other handlers must wear:

Long-sleeved shirt and long pants.  
Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.  
Shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### USER SAFETY RECOMMENDATIONS

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

**E. I. du Pont de Nemours and Company,  
1007 Market Street, Wilmington, DE 19898 U.S.A.**

A01552821  
(SL-1600-1 061312 12-20-11)

## **DUPONT™ EXPRESS® HERBICIDE (WITH TOTALSOL® SOLUBLE GRANULES) HIGHLIGHTS**

- For selective postemergence broadleaf weed control in wheat, barley, triticale, oats, burndown, DuPont™ ExpressSun® sunflowers, and grass grown for seed.
- In wheat, barley and triticale apply after the crop is in the 2-leaf stage, but before the flag leaf is visible. In spring oats, apply after the crop is in the 3-leaf stage, but before jointing. In ExpressSun® sunflowers, apply any time from the 2-leaf stage, but before bud formation.
- In burndown uses apply when the majority of weeds have emerged and are actively growing.
- Apply at the rate of 0.25 to 0.5 ounce per acre (see USE RATE).
- Unless otherwise specified, always add a surfactant (see SPRAY ADJUVANTS).
- May be applied by ground or by air.
- Use in tank mixtures with other registered herbicides for broader spectrum weed control (see Tank Mixtures).
- Consult label text for complete instructions. Always read and follow label "Directions For Use".



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# DuPont™ Express®

herbicide (with TotalSol® soluble granules)

Soluble Granule

For Use on Cereals, ExpressSun® Sunflowers, Grass grown for seed, Fallow and as a Pre-plant or Post-harvest Burndown Herbicide

By Weight

Active Ingredient

Tribenuron methyl

Methyl 2-[[[[(4-methoxy-6-methyl

-1,3,5-triazin-2-yl)methylamino]carbonyl]

amino]sulfonyl]benzoate .....50%

Other Ingredients .....50%

TOTAL 100%

EPA Reg. No. 352-632

## KEEP OUT OF REACH OF CHILDREN CAUTION FIRST AID

**IF ON SKIN:** 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.

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.

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes or clothing.

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

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

**Applicators and other handlers must wear:**

Long-sleeved shirt and long pants.

Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.

Shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

## USER SAFETY RECOMMENDATIONS

**USERS SHOULD:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE 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 when cleaning equipment or disposing of equipment washwaters.

## PESTICIDE HANDLING

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

## 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:

Chemical resistant gloves made of any waterproof material.  
Shoes plus socks.

DuPont™ EXPRESS® herbicide (with TotalSol® soluble granules), referred to below as EXPRESS®, must be used only in accordance with instructions on this label or in separately published DuPont instructions.

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

EXPRESS® may be used on wheat, barley, triticale, oats, burndown, and DuPont™ ExpressSun® sunflowers in most states. Check with your state extension service or Department of Agriculture before use, to be certain EXPRESS® is registered in your state.

## PRODUCT INFORMATION

EXPRESS® is a water soluble granule that is used for selective postemergence weed control in wheat (including durum), barley, triticale, oats and ExpressSun® sunflowers; and for post-harvest burndown, fallow, and pre-plant burndown weed control. The best control is obtained when EXPRESS® is applied to young, actively growing weeds. The use rate will depend on weed spectrum and size of weed at time of application. The degree and duration of control may depend on the following:

- weed spectrum and infestation intensity
- weed size at application
- environmental conditions at and following treatment
- EXPRESS® is noncorrosive, nonflammable, nonvolatile, and does not freeze. EXPRESS® should be mixed in water and applied as a uniform broadcast spray.

### BIOLOGICAL ACTIVITY AND ENVIRONMENTAL CONDITIONS

EXPRESS® is absorbed through the foliage of broadleaf weeds, rapidly inhibiting their growth. Leaves of susceptible plants appear chlorotic from 1 to 3 weeks after application and the growing point subsequently dies.

EXPRESS® provides the best control in vigorously growing crops that shade competitive weeds. Weed control in areas of thin crop stand or seeding skips may not be as satisfactory. However, a crop canopy that is too dense at application can intercept spray and reduce weed control.

EXPRESS® may injure crops that are stressed from adverse environmental conditions (such as extreme temperatures or moisture), abnormal soil conditions, or cultural practices. In addition, different varieties of the crop may have differing levels of sensitivity to treatment with EXPRESS® under otherwise normal conditions.

Treatment of sensitive crop varieties may injure crops. To reduce the potential of crop injury to cereals, tank mix DuPont™ EXPRESS® with 2,4-D (ester formulations perform best—see the Tank Mixtures section of this label) and apply after the crop is in the tillering stage of growth.

In warm, moist conditions, the expression of herbicide symptoms is accelerated in weeds; in cold, dry conditions, expression of herbicide symptoms is delayed. In addition, weeds hardened-off by drought stress are less susceptible to EXPRESS®.

Weed control may be reduced if rainfall or snowfall occurs soon after application. Several hours of dry weather are needed to allow EXPRESS® to be sufficiently absorbed by weed foliage.

### IMPORTANT USE RESTRICTIONS

- Do not apply to wheat, barley, oats or triticale underseeded with another crop.
- Injury to or loss of desirable trees or vegetation may result from failure to observe the following:
  - Do not apply, drain or flush equipment on or near desirable trees or other plants or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
  - Do not use on lawns, walks, driveways, tennis courts, or similar areas. Prevent drift of spray to desirable plants.
- When using EXPRESS® in tank mixes or sequential applications with other products containing tribenuron-methyl, do not exceed the following limits.

Use	Active Ingredient	Maximum oz ai per Single Application	Maximum oz ai per Use Period
wheat, barley triticale	tribenuron-methyl	0.25	0.25
oats	tribenuron-methyl	0.1	0.1
fallow, burndown, post harvest	tribenuron-methyl	0.25	0.25
DuPont™ ExpressSun® sunflowers, grass grown for seed	tribenuron-methyl	See "USE RATES". Do not use other products that contain tribenuron methyl.	

### IMPORTANT USE PRECAUTIONS

- Injury to or loss of adjacent sensitive crops and vegetation may result from failure to observe the following:
  - Take all necessary precautions to avoid all direct or indirect contact (such as spray drift) with non-target plants or areas.
  - Carefully observe all sprayer cleanup instructions both prior to and after using this product, as spray tank residue may damage crops other than wheat or barley.
- Varieties of wheat (including durum), barley, oats and triticale may differ in their response to various herbicides. DuPont recommends that you first consult your state experiment station, university, or extension agent as to crop sensitivity to any herbicide. If no information is available, limit the initial use to a small area.
- Under certain conditions such as heavy rainfall, prolonged cold weather, or wide fluctuations in day/night temperatures prior to or soon after EXPRESS® application, temporary discoloration and/or crop injury may occur. To reduce the potential of crop injury, tank mix EXPRESS® with 2,4-D (ester formulations perform best - see the "TANK MIXTURES" section of this label) and apply after the crop is in the tillering stage of growth.
- EXPRESS® should not be applied to wheat, barley, oats or triticale that is stressed by severe weather conditions, drought, low fertility, water-saturated soil, disease, or insect damage, as crop injury may result. Risk of injury is greatest when crop is in the 2 to 5- leaf stage. Severe winter stress, drought, disease, or insect damage following application also may result in crop injury.
- Dry, dusty field conditions may result in reduced control in wheel track areas.

### RESISTANCE

When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. Adequate control of these resistant weed biotypes cannot be expected. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

To better manage herbicide resistance through delaying the proliferation and possible dominance of herbicide resistant weed biotypes, it may be necessary to change cultural practices within and between crop seasons such as using a combination of tillage, retreatment, tank-mix partners and/or sequential herbicide applications that have a different site of action. Weed escapes that are allowed to go to seed will promote the spread of resistant biotypes.

If applicable, see the Weeds Controlled section of this label for additional information on managing herbicide resistant weed biotypes. 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. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative cultural practices or herbicide recommendations available in your area.

#### **INTEGRATED PEST MANAGEMENT**

This product may be used as part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include 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.

### **LABELED USES**

#### **WHEAT, BARLEY, OATS AND TRITICALE**

##### **APPLICATION TIMING**

Apply DuPont™ EXPRESS® after the crop is in the 2-leaf stage, but before the flag leaf is visible.

For spring oats, make applications after the crop is in the 3-leaf stage, but before jointing. Do not use on "Ogle", "Porter" or "Premier" varieties as crop injury can occur.

Since EXPRESS® has very little or no soil activity, it controls only those weeds that have germinated; therefore, apply EXPRESS® when all or most of the weeds have germinated. Annual broadleaf weeds should be past the cotyledon stage, actively growing, and less than 4" tall or wide.

Do not harvest within 45 days of the last application.

##### **CEREALS USE RATE**

Use 0.5 oz EXPRESS® per acre (except oats) for heavy infestation of those weeds listed under the "WEEDS CONTROLLED" section of this label or when application timing and environmental conditions are marginal (see "BIOLOGICAL ACTIVITY AND ENVIRONMENTAL CONDITIONS").

Use 0.25 to 0.375 oz EXPRESS® per acre (except oats) for light infestation of the weeds listed under the "WEEDS CONTROLLED" section of this label. Conditions at application should be optimum for effective treatment of these weeds.

Two applications of EXPRESS® may be made per season provided the total amount does not exceed 0.5 oz per acre.

**For oats,** apply 0.2 oz of EXPRESS® per acre for control of light populations of the weeds listed in Weeds Controlled table. In oats, EXPRESS® must be tank mixed with another registered herbicide. Do not make more than one application of EXPRESS® per crop season on oats.

#### **BURNDOWN - POST HARVEST, FALLOW, PRE-PLANT**

##### **APPLICATION TIMING**

EXPRESS® may be used as a burndown treatment when the majority of weeds have emerged and are actively growing. EXPRESS® may be applied to crop stubble, as a fallow treatment, or as a pre-plant burndown prior to planting any crop. See "CROP ROTATION" for the minimum interval allowed between the burndown application and when a crop may be planted.

##### **BURNDOWN USE RATE**

Apply 0.25 to 0.5 oz EXPRESS® per acre as a burndown treatment prior to planting any crop (except cotton), or shortly after planting wheat (including durum), barley or triticale (prior to emergence). Use the 0.5 ounce per acre rate when weed infestation is heavy, or predominantly consists of those weeds listed under the "Weeds Partially Controlled" section of this label, or when application timing and environmental conditions are marginal.

See "CROP ROTATION" for the minimum interval allowed between the burndown application and when a crop may be planted.

Sequential treatments of EXPRESS® may also be made provided the total amount of EXPRESS® applied during one post harvest/fallow/pre-plant time period does not exceed 0.5 ounce per acre.

EXPRESS® should be applied in combination with other suitable registered burndown herbicides (See the "TANK MIXTURES" section of this label for additional information).

**For cotton,** apply 0.25 oz EXPRESS® per acre as a burndown treatment any time up to 14 days prior to planting. Seedling disease, nematodes, cold weather, deep planting (more than 2"), excessive moisture, high salt concentration, and/or drought may weaken cotton seedlings and increase the possibility of crop injury. Cotton resumes normal growth once favorable growing conditions return.

#### **DUPONT™ EXPRESSUN® SUNFLOWERS**

DuPont™ EXPRESS® is intended for application only to sunflowers with the ExpressSun® trait for tolerance to EXPRESS®. Apply only on sunflowers labeled ExpressSun® and warranted by the seed supplier to have tolerance to direct application of EXPRESS® herbicide. DO NOT apply EXPRESS® to sunflowers that lack tolerance/resistance to EXPRESS®.

#### APPLICATION TIMING

Apply EXPRESS® to sunflowers any time from the 2-leaf stage of growth up to but not including the bud formation stage.

Temporary crop yellowing may be observed shortly after application of EXPRESS®, especially when applied to crops growing under environmentally stressful conditions.

Depending upon rainfall or other environmental conditions, annual weeds may have a second flush of germinating seedlings. To maximize control of such weeds, it may be necessary to apply EXPRESS® again, 14 or more days after the prior application. The combined rate of the postemergence applications cannot exceed 1.0 oz. EXPRESS® per acre per use season.

Avoid application to ExpressSun® sunflower fields in which germination is uneven (i.e., some plants are outside the specified leaf stage for application), as crop injury may result.

Application to ExpressSun® sunflowers that are, or have been, stressed by severe weather conditions, frost, abnormally hot or cold or wet or dry conditions, low fertility, drought, water saturated soil, disease and/or insect damage prior to application may result in crop injury. If the above stress conditions are expected to occur within 3 days after application of EXPRESS® to ExpressSun® sunflowers, crop injury may also occur.

Do not apply EXPRESS® within 70 days of sunflower harvest.

#### EXPRESSUN® SUNFLOWER USE RATE

Apply EXPRESS® at a rate of 0.25 to 0.5 ounce per acre. Use the 0.5 ounce per acre rate when weed infestation is heavy or predominantly consists of those weeds listed under the "Weeds Partially Controlled" section of this label, or when application timing and environmental conditions are marginal. Do not apply more than 1.0 oz. EXPRESS® per acre postemergence during the same sunflower growing season.

#### CULTIVATION

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

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

#### GRASS GROWN FOR SEED

(in the states of ID, OR, UT, WA)

EXPRESS® may be used for selective postemergence control or suppression of certain broadleaf weeds in seedling and established stands of bentgrass, bluegrass, annual ryegrass, orchardgrass, tall fescue, and fine fescue grown for seed. EXPRESS® may be used on seedling and established perennial ryegrass providing user accepts all risk of possible crop injury and/or reduced seed yield. EXPRESS® may cause temporary yellowing and stunting of grass. Certain varieties of grass may be sensitive to EXPRESS®. When using EXPRESS® for the first time on a particular variety, limit use to a small area.

EXPRESS® should be applied in combination with other suitable registered herbicides (See the "TANK MIXTURES" section of this label for additional information). Always use a nontoxic surfactant of at least 80% active ingredient at the rate of 0.25% volume/volume (1 quart per 100 gallon of spray solution).

Do not apply more than 0.5 ounce of EXPRESS® per acre per growing season. Do not apply EXPRESS® in a tank mix with organophosphate insecticides as severe crop injury may occur.

Do not apply to grass that is under stress from severe weather conditions, drought, low fertility, water saturated soil, disease or insect damage, as crop injury may result. Under certain conditions such as prolonged cool weather (daily high temperature less than 50° F) or wide fluctuations in day/night temperatures just prior to or soon after treatment, temporary yellowing and/or crop stunting may occur.

#### BENTGRASS, BLUEGRASS, ANNUAL RYEGRASS, ORCHARDGRASS, FINE FESCUE AND TALL FESCUE

**Seeding Stands:** For use on annual ryegrass, orchard grass, tall fescue and fine fescue, apply at 0.25 oz per acre after stand is in 4-leaf stage. For use on bentgrass, apply at 0.25 oz per acre after stand is in 5 inches across. For use on bluegrass, apply at 0.25 to 0.5 oz per acre after stand is in 4-leaf stage.

**Established Stands:** For stands that have been established for at least one growing season (fall or spring), apply EXPRESS® at 0.25 to 0.5 oz per acre. Use the higher rate for larger weeds and hard to control weeds like wild carrot. Apply prior to jointing.

#### PERENNIAL RYEGRASS

Perennial ryegrass is more sensitive to DuPont™ EXPRESS® than other grass species. Crop injury in the form of stunting and possible reduced seed yield may occur. To minimize the risk of crop injury, use the 0.25 oz per acre rate and always use either 2,4-D or dicamba and liquid nitrogen with EXPRESS®.

**Seeding Stands:** Apply EXPRESS® at 0.25 oz per acre in a tank mix with another suitable broadleaf herbicide after grass is in 5- to 6-leaf stage.

**Established Stands:** For stands that have been established for one growing season (fall or spring) apply EXPRESS® at 0.25 to 0.5 oz per acre in a tank mix with another suitable broadleaf herbicide. Apply prior to jointing.

**Note:** The 0.5 oz rate of EXPRESS® should be used only for the control or suppression of problem weeds like wild carrot where the benefit of weed control can be offset by possible crop injury including possible yield reduction.

#### **SPRAY ADJUVANTS - ALL CROPS OR USES**

Include a spray adjuvant with applications of EXPRESS®. In addition, an ammonium nitrogen fertilizer may be used.

Consult your Ag dealer or applicator, local DuPont fact sheets and technical bulletins prior to using an adjuvant system. If another herbicide is tank mixed with EXPRESS®, select adjuvants authorized for use with both products. Products must contain only EPA-exempt ingredients.

#### **NONIONIC SURFACTANT (NIS)**

• Apply 0.06 to 0.50% volume/volume (0.5 pt to 4 pt per 100 gal of spray solution).

• Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12.

#### **CROP OIL CONCENTRATE (COC) - PETROLEUM OR MODIFIED SEED OIL (MSO)**

• Apply at 1% v/v (1 gal per 100 gal spray solution) or 2% under arid conditions. MSO adjuvants may be used at 0.5% v/v if specified on local DuPont product literature or service policies.

• Oil adjuvants must contain at least 80% high quality, petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.

#### **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.

#### **AMMONIUM NITROGEN FERTILIZER**

• 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.

• See TANK MIXTURES With Liquid Nitrogen Fertilizer for instructions on using fertilizer as a carrier in place of water.

## **WEED CONTROL INFORMATION**

### **WEEDS CONTROLLED**

DuPont™ EXPRESS® effectively controls the following weeds when used according to label directions:

Black mustard	London Rocket
Blue/Purple mustard	Marestail***†
Bushy wallflower	Marshelder†
/Treacle mustard†	Mayweed chamomile/Stinking chamomile/dog fennel (Anthemis cotula L.)**†
Canada thistle**	Miners lettuce
Coast fiddleneck	Narrowleaf hawksbeard *** **
Common Chickweed†	Nightflowering catchfly
Common Groundsel	Pineappleweed
Common Lambsquarters†	Poison hemlock***
Common Purslane	Prickly lettuce**†
Corn, Gromwell**	Puncturevine
Corn spurry	Purslane speedwell (@ 0.5 oz)**
Cowcockle	Redroot pigweed†
Cressleaf groundsel ***	Russian thistle**†
(butterweed)	Shepherd's-purse
Curly Dock**	Slimleaf lambsquarters
Dandelion	Small-flower buttercup (@ 0.5 oz)**
Deadnettle††	Smallseed falseflax†
Early whitlowgrass	Tansymustard
False chamomile/	Tarweed fiddleneck
Wild chamomile/Scentless chamomile (Matricaria maritima L.)	Tumble pigweed (@ 0.5 oz)
Field pennycress	Tumble/Jim Hill mustard**
Flaxweed†	White cockle (@ 0.5 oz)
Hairy buttercup	Wild mustard†
Kochia**†	

## WEEDS PARTIALLY CONTROLLED\*

EXPRESS® partially controls the following weeds when used according to label directions:

Annual sowthistle  
Common cocklebur†  
Common sunflower  
(volunteer)††  
Common vetch\*\*  
Eastern black nightshade†  
Hairy nightshade  
Hairy vetch\*\*  
Henbit

Narrowleaf hawksbeard  
Pennsylvania smartweed  
Prostrate knotweed  
Redmaids  
Redstem filaree \*\*\*  
Wild buckwheat  
Wild carrot  
Wild garlic  
Wild radish\*\*

\* Partially controlled weeds exhibit a visual reduction in numbers as well as a significant loss of vigor. For better results, use 0.375 to 0.5 oz EXPRESS® per acre and include a tankmix partner such as 2,4-D, MCP, bromoxynil or dicamba. See the "TANK MIXTURES" section of this label.

\*\* See the Specific Weed Instructions section of this label for more information.\*\*\*2,4-D LVE addition required.

† Naturally occurring resistant biotypes are known to occur.

†† 0.5 oz EXPRESS® only

## SPECIFIC WEED INSTRUCTIONS

**Canada thistle:** For best results, apply 0.5 oz per acre when all thistles are 4" to 8" with 2" to 6" of new growth. Make the application in the spring.

**Corn Gromwell :** For best results, apply 0.5 oz of EXPRESS® per acre in combination with 2,4-D or MCP (refer to the Tank Mixtures section of this label).

**Curly Dock:** For best results, apply 0.375 to 0.5 oz of EXPRESS® per acre in combination with 2,4-D or MCP (refer to the Tank Mixtures section of this label).

**Kochia:** For best results, use EXPRESS® in a tank mix with Starane, Starane + Salvo, Starane + Sword, dicamba (such as "Banvel"/ "Clarity") and 2,4-D or MCP (ester or amine), or bromoxynil containing products (such as "Buctril", "Bison", "Bronate" or "Bronate Advanced").

EXPRESS® should be applied in the spring when kochia are less than 2" tall and are actively growing (refer to the Tank Mixtures section of this label for additional details on rates and restrictions).

**Mayweed chamomile / Stinking Chamomile / dog fennel:** For best results, apply 0.375 to 0.5 oz of EXPRESS® per acre.

**Narrowleaf hawksbeard:** During the post harvest, fallow, and/or pre-plant burn-down period, EXPRESS® may be used in a tank mix with 1 to 2 pints of glyphosate per acre (4 lb per gallon formulation or equivalent) for postemergence control of narrowleaf hawksbeard.

For wheat, DuPont™ EXPRESS® may be used in a tank mix with 2,4-D for postemergence control of narrowleaf hawksbeard. Add 2,4-D at 0.25 to 0.375 lb active ingredient per acre (such as 0.5 to 0.75 pt of a 4 lb/gal product). Apply this tank mix only in the spring when the wheat is fully tillered and before the jointing stage.

**Russian thistle, Prickly lettuce:** For best results, use EXPRESS® in a tank mix with dicamba (such as "Banvel"/ "Clarity") and 2,4-D or MCP (ester or amine), or bromoxynil containing products (such as "Buctril", "Bison", "Bronate" or "Bronate Advanced").

EXPRESS® should be applied in the spring when Russian thistle, and prickly lettuce are less than 2" tall or 2" across and are actively growing (refer to the Tank Mixtures section of this label for additional details on rates and restrictions).

**Tumble/Jim Hill mustard:** For best results, apply 0.5 oz of EXPRESS® per acre in combination with 2,4-D or MCP (refer to the Tank Mixtures section of this label).

**Vetch (common and hairy):** For best results, apply 0.375 to 0.5 oz of EXPRESS® per acre when vetch is less than 6" in length. For severe infestations of vetch, or when vetch is greater than 6" in length, apply EXPRESS® in combination with 2,4-D or MCP (refer to the Tank Mixtures section of this label).

**Wild radish:** For best results, apply 0.25 - 0.5 oz EXPRESS® per acre plus 0.25 - 0.375 lb active ingredient per acre MCP plus 0.25% v/v nonionic surfactant (1 qt per 100 gal of spray solution) to wild radish rosettes less than 6" diameter. Make the application either in the fall or spring. Applications made later than 30 days after weed emergence will result in partial control. Fall applications should be made before plants harden-off.

**SU/IMI Tolerant Volunteer Sunflowers:** Varieties resistant to SU and IMI products (like EXPRESS®, "Beyond", "Pursuit", "Raptor") are under development. For best results, use EXPRESS® in a tank mix with Starane, Starane + Salvo, Starane + Sword, dicamba (such as "Banvel"/ "Clarity") and 2,4-D or MCP (ester or amine), or bromoxynil containing products (such as "Buctril", "Bison", "Bronate" or "Bronate Advanced").

## TANK MIXTURES

EXPRESS® may be tank mixed with other suitable registered herbicides to control weeds listed as partially controlled, weeds resistant to EXPRESS® or weeds not listed under the "WEEDS CONTROLLED" sections of this label.



Read and follow all manufacturers' label instructions for any companion herbicides, fungicides, and/or insecticides. If those instructions conflict with this label, do not tank mix that product with EXPRESS®. Read and follow all label instructions on timing, precautions, and warnings for any companion products before using these tank mixtures. Follow the most restrictive labeling.

#### **WHEAT, BARLEY, OATS AND TRITICALE**

##### **With 2,4-D (amine or ester) or MCP (amine or ester)**

EXPRESS® may be tank mixed with 2,4-D and MCP (preferably ester formulations) herbicides for use on wheat, barley, oats and triticale. For best results, add 2,4-D or MCP herbicides to the tank at 0.125 to 0.375 lb active ingredient per acre. In tank mixes containing 0.125 lb active ingredient 2,4-D or MCP per acre, add 1 to 2 pt of nonionic surfactant; in tank mixes containing 0.25 to 0.375 lb active ingredient 2,4-D or MCP per acre, add 1 pt of nonionic surfactant. Higher rates of 2,4-D or MCP may be used, but do not exceed the highest rate allowed by those respective labels. When using rates of 0.375 lb ai per acre or higher, use of additional nonionic surfactant may not be needed, unless specified otherwise in the 2,4-D or MCP label, or local guidance.

**With 2,4-D or MCP (amine or ester) and Dicamba (such as "Banvel"/"Clarity")**  
EXPRESS® may be applied in a 3-way tank mix with formulations of dicamba (such as "Banvel"/"Clarity") and 2,4-D or MCP.

Make applications at 0.25 - 0.5 oz of EXPRESS® + 1-1.5 oz active dicamba (such as "Banvel"/"Clarity") + 0.25 to 0.375 lb active ingredient of 2,4-D or MCP (ester or amine) per acre. Use higher rates when weed infestation is heavy. Add 1-2 pt of nonionic surfactant to the 3 way mixture, where necessary, as deemed by local guidance. Use of additional nonionic surfactant may not be needed with the higher phenoxy rates and ester phenoxy formulations. Consult the specific 2,4-D or MCP and dicamba labels, or local guidance for more information.

Apply this 3-way combination to winter wheat after the crop is tillering and prior to jointing (first node). In Spring Wheat (including Durum), apply after the crop is tillering and before it exceeds the 5-leaf stage.

Do not apply this 3-way mixture at high rates more than once a year, or more than twice per year at the low rates.

**With Bromoxynil containing products (such as "Buctril", "Bison", "Bronate" or "Bronate Advanced")**

EXPRESS® may be tank mixed with bromoxynil containing herbicides registered for use on wheat, barley or triticale. For best results, add bromoxynil containing herbicides to the tank at 3 to 6 oz active ingredient per acre (such as "Bronate" or "Bison" at 0.75 - 1.5 pt per acre). Tank mixes of EXPRESS® plus bromoxynil may result in reduced control of Canada thistle.

##### **With fluroxypyr (such as "Starane" brands)**

EXPRESS® may be tank mixed with fluroxypyr containing herbicides for improved control of Kochia (2-4" tall) and other broadleaf weeds. For best results, add fluroxypyr containing herbicides to the tank at 1 to 2 oz active ingredient per acre (such as "Starane" 0.33 to 0.67 pints per acre). 2,4-D and MCP herbicides (preferably ester formulations) may be tank mixed with EXPRESS® plus Starane.

##### **With Other Broadleaf Control Products**

DuPont™ EXPRESS® can be tank mixed with other broadleaf herbicides registered on cereals such as DuPont™ HARMONY® SG, DuPont™ ALLY® XP, "Widematch", "Aim", "Stinger", or "Curtail".

Tank mixes of EXPRESS® plus metribuzin may result in reduced control of wild garlic.

Tank mixes of EXPRESS® plus dicamba (such as "Banvel"/"Clarity") may result in reduced control of some broadleaf weeds.

##### **With "Axial"**

EXPRESS® can be tank mixed with "Axial" brand herbicides for improved control of wild oats and other grasses.

##### **With "Discover" NG**

EXPRESS® can be tank mixed with "Discover" NG herbicide for improved control of weeds in spring wheat.

##### **With "Everest"**

EXPRESS® can be tank mixed with "Everest" herbicide for improved control of weeds in spring wheat.

##### **With "Assert" Herbicide or "Avenge" Herbicide**

EXPRESS® can be tank mixed with "Avenge" or "Assert". When tank mixing EXPRESS® with "Assert", always include another broadleaf weed herbicide with a different mode of action (for example 2,4-D ester, MCP ester, or bromoxynil (such as "Buctril", "Bison", "Bronate" or "Bronate Advanced")). Applications of EXPRESS® plus "Assert" may cause temporary crop discoloration, stunting, or injury when heavy rainfall occurs shortly after application.

##### **With Other Grass Control Products**

EXPRESS® can be tank mixed with other grass control herbicides registered on cereals such as "Maverick", or "Puma".

Tank mixes of EXPRESS® with "Hoelon 3EC", may result in reduced grass control.

##### **With Fungicides**

EXPRESS® may be tank mixed or used sequentially with fungicides registered for use on cereal crops.

#### With Insecticides

EXPRESS® may be tank mixed or used sequentially with insecticides registered for use on cereal crops. However, under certain conditions (drought stress, or if the crop is in the 2-4 leaf stage), tank mixes or sequential applications of EXPRESS® with organophosphate insecticides (such as Lorsban) may produce temporary crop yellowing or, in severe cases, crop injury. The potential for crop injury is greatest when wide fluctuations in day/night temperatures occur just prior to or soon after application.

Test these mixtures in a small area before treating large areas.

Do not apply EXPRESS® within 60 days of crop emergence where an organophosphate insecticide has been applied as an in-furrow treatment because crop injury may result.

Do not use EXPRESS® plus Malathion because crop injury may result.

#### With Liquid Nitrogen Solution Fertilizer

Liquid nitrogen fertilizer solutions may be used as a carrier in place of water. Run a tank mix compatibility test before mixing EXPRESS® in fertilizer solution. EXPRESS® must first be slurried with water and then added to liquid nitrogen solutions (e.g., 28-0-0, 32-0-0). Ensure that the agitator is running while the EXPRESS® is added. Use of this mixture may result in temporary crop yellowing and stunting.

If using low rates of liquid nitrogen fertilizer in the spray solution (less than 50% of the spray solution volume), the addition of surfactant is necessary. Add surfactant at 0.5 pt - 1 qt per 100 gal of spray solution (0.06 -0.25% v/v) based on local guidance.

When using high rates of liquid nitrogen fertilizer solution in the spray solution, adding surfactant increases the risk of crop injury. If 2,4-D or MCP is included with EXPRESS® and fertilizer mixture, ester formulations tend to be more compatible (see manufacturer's label). Additional surfactant may not be needed when using EXPRESS® in tank mix with 2,4-D ester or MCP ester and liquid nitrogen fertilizer solutions. Consult your agricultural dealer, consultant, field advisor, or DuPont representative for guidance before adding an adjuvant to these tank mixtures.

Note: In certain areas east of the Mississippi river unacceptable crop response may occur with use of straight or dilute nitrogen fertilizer carrier solutions where cold temperatures or widely fluctuating day/night temperatures exist. In these areas consult your agricultural dealer, consultant, field advisor, or DuPont representative for guidance before using nitrogen fertilizer carrier solutions. Do not use low rates of liquid nitrogen fertilizer solution as a substitute for a surfactant.

Liquid nitrogen fertilizer solutions that contain sulfur can increase crop response.

Do not use with liquid fertilizer solutions with a pH less than 3.0.

#### TANK MIXTURES IN BURNDOWN APPLICATIONS

EXPRESS® may be tank mixed with one or more herbicides that are registered for use at the appropriate burndown timing, including glyphosate, 2,4-D, and dicamba. Read and follow all label instructions on timing, precautions, and warnings for any companion products before using these tank mixtures.

#### TANK MIXTURES FOR DUPONT™ EXPRESSUN® SUNFLOWERS

For the control of annual grasses, apply a grass herbicide such as DuPont™ ASSURE® II (refer to the ASSURE® II product labeling for use rates, weed size, adjuvant selection, precautions, and restrictions). For maximum performance, apply ASSURE® II Herbicide at least one day before, or seven days after, the application of DuPont™ EXPRESS®.

#### TANK MIXTURES FOR GRASS GROWN FOR SEED

Always use EXPRESS® in a tank mix with another broadleaf herbicide such as 2,4-D, MCP or dicamba as these herbicides soften the effects of EXPRESS® on grasses while improving weed control performance on most broadleaf weeds. Testing has shown that 2,4-D and dicamba are more effective in a tank mix with EXPRESS® than MCP. Use a minimum of 0.25 to 0.5 lb. ai per acre of 2,4-D or MCP (8 to 16 fluid ounces of 4 lb/gal product). Use a minimum of 0.125 to 0.25 lb ai per acre of dicamba (such as 4 to 8 fluid ounces of "Banvel" or "Clarity"). EXPRESS® can be applied with liquid fertilizers. Liquid fertilizers (20%, 28%, 32% N at a minimum of 4 gallons/100 gallons of spray solution) enhance the performance of EXPRESS® and may improve crop safety. Always use a surfactant and another broadleaf herbicide when using liquid fertilizer with EXPRESS®.

## GRAZING

Allow at least 7 days between application and grazing of treated forage. In addition, allow at least 7 days between application and feeding of forage (green chop) from treated areas to livestock. Allow at least 30 days between application and feeding of hay from treated areas to livestock. Allow at least 45 days between application and harvesting of grain. Harvested straw may be used for bedding and/or feed.

## CROP ROTATION

Labeled crops may be planted at specified time intervals following application of labeled rates of EXPRESS®. Use the time intervals listed below to determine the required time interval before planting.

### Time Interval Before Planting\* (days after treatment with EXPRESS®)

Crop	Days
Barley, Rice, Triticale, ExpressSun® sunflowers and Wheat (including durum)	0
Oats and Soybeans (at EXPRESS® rate of 0.25 oz/a)	1**
Soybeans	7**
Cotton, Field Corn, and Grain/forage Sorghum	14**
Sugarbeets, Winter Rape, and Canola	60
Any other crop	45

\* Refer to individual product labels to determine rotational crop restrictions when tank mixtures are used.

\*\* Where EXPRESS® is used on light textured soils (such as sands and loamy sands) or on high pH soils (>7.9), extend time to planting by 7 additional days.

## APPLICATION INFORMATION

### PRODUCT MEASUREMENT

EXPRESS® can be measured using the EXPRESS® volumetric measuring cylinder provided by DuPont. The degree of accuracy of this cylinder varies by  $\pm 7.5\%$ . For more precise measurement, use scales calibrated in ounces.

### MIXING INSTRUCTIONS

1. Fill the tank 1/4 to 1/3 full of water.
2. While agitating, add the required amount of EXPRESS®.
3. Continue agitation until the EXPRESS® is fully dispersed, at least 5 minutes.
4. Once the EXPRESS® is fully dispersed, maintain agitation and continue filling tank with water. EXPRESS® should be thoroughly mixed with water before adding any other material.
5. As the tank is filling, add tank mix partners (if desired) then add the required volume of spray adjuvant. Always add spray adjuvant last. Antifoaming agents may be used. Do not use with spray additives that alter the pH of the spray solution below pH 6.0 as rapid product degradation can occur. Spray solutions of pH 7.0 and higher allow for optimum stability of EXPRESS®.

6. If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
7. Apply EXPRESS® spray mixture within 24 hours of mixing to avoid product degradation.

8. If EXPRESS® and a tank mix partner are to be applied in multiple loads, pre-slurry the EXPRESS® in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of the EXPRESS®.

## APPLICATION METHOD

### GROUND APPLICATION

For optimum spray distribution and thorough coverage, use flat-fan or low-volume flood nozzles.

- Select nozzles and pressure that deliver medium spray droplets.
- Nozzles that deliver coarse spray droplets may be used to reduce drift, provided spray volume is increased to maintain coverage on small weeds. For optimal product performance and minimal spray drift, adjust the spray boom to the lowest possible spray height listed in manufacturers' specifications.
- Overlaps or starting, stopping, slowing, and turning while spraying may result in crop injury.
- For flat-fan nozzles, use a spray volume of at least 5 gal per acre (GPA).
- For flood nozzles on 30" spacing, use flood nozzles no larger than TK10 (or the equivalent), a pressure of at least 30 psi and a spray volume of at least 10 GPA only. For 40" nozzle spacing, use at least 13 GPA; for 60" spacing use at least 20 GPA. It is essential to overlap the nozzles 100% for all spacings.
- "Raindrop RA" nozzles are not recommended for DuPont™ EXPRESS® applications, as weed control performance may be reduced.
- Use screens that are 50-mesh or larger.

For application in California refer to the "CALIFORNIA APPLICATION REQUIREMENTS FOR PROTECTION OF SENSITIVE CROPS" section of this label for specific ground application requirements.

### AERIAL APPLICATION

For aerial application, select nozzles and pressure that deliver medium or coarse spray and that provide optimum spray distribution and maximum coverage at 2 to 5 GPA.

Use at least 2 GPA. In Idaho, Oregon and Utah use at least 3 GPA.

Do not apply EXPRESS® by air in the state of New York.

For aerial applications, do not apply during a temperature inversion, when wind speed is less than 3 mph or above 10 mph, or when conditions favor poor coverage and/or off-target spray drift.

See the **Spray Drift Management** section of this label.

For application in California refer to the "CALIFORNIA APPLICATION REQUIREMENTS FOR PROTECTION OF SENSITIVE CROPS" section of this label for specific aerial application requirements.

### CHEMIGATION

EXPRESS® may be applied through sprinkler irrigation systems in the State of Idaho for use in fall-seeded wheat, spring seeded barley and spring seeded wheat. Use 0.375 to 0.5 oz EXPRESS® per acre in combination with bromoxynil containing herbicides at 3 to 6 oz active ingredient per acre (such as "Bromate" or "Bison" at 0.75 - 1.5 pt per acre). Apply to wheat and barley after the 3-leaf stage but before the flag leaf is visible. Make only one chemigation application of this tank mixture per crop year. For best results, apply to broadleaf weeds up to the 4-leaf stage, or 2 inches in height or 1 inch in diameter, which ever comes first.

Apply this tank mix through sprinkler irrigation systems including center pivot, lateral move, side (wheel) roll, solid set or hand move irrigation systems only. Do not apply these herbicides through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts. Do not connect an irrigation system (including greenhouse systems) used for EXPRESS® application to any public water system. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

The sprinkler chemigation system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment.

### CHEMIGATION REQUIREMENTS

1. In center pivot and continuous lateral move systems, EXPRESS® + bromoxynil containing herbicides should be applied continuously for the duration of the water application. In solid set systems, application of the tank mix should be made during the last 30 to 45 minutes of the irrigation.
2. Set the sprinkler system to deliver approximately 0.5 inch or less of water per acre for best product performance.
3. Fill the supply tank with half of the water amount desired, add the DuPont™ EXPRESS® and agitate it well. Add the bromoxynil containing herbicide and then add the remaining water amount with agitation. Bromoxynil containing herbicides require a dilution with at least 4 parts water to 1 part bromoxynil containing herbicide.
4. Agitation is recommended in the pesticide supply tank when applying this tank mix.
5. Inject the EXPRESS® + bromoxynil containing herbicides solution at least 8 feet ahead of a right angle turn of irrigation pipe to insure adequate mixing. Allow sufficient time for the herbicide mixture to be flushed through the lines before turning off irrigation water.
6. Follow both EXPRESS® and bromoxynil containing herbicides label instructions for spray tank cleanup both before and after application. Flush lines with clean water following application.
7. Do not apply when wind speed favors drift beyond the area intended for treatment. Avoiding spray drift is the responsibility of the applicator.

### SPRAY EQUIPMENT

For specific application equipment, refer to the manufacturer's instructions for additional information on GPA, pressure, speed, nozzle types and arrangements, nozzle heights above the target canopy, etc.

Be sure to calibrate air or ground equipment properly before application. Select a spray volume and delivery system that will ensure thorough coverage and a uniform spray pattern with minimum drift. Use higher spray volumes to obtain better coverage when crop canopy is dense. Avoid swath overlapping, and shut off spray booms while starting, turning, slowing, or stopping, to avoid injury to the crop.

Do not make applications using equipment and/or spray volumes or during weather conditions that might cause spray to drift onto nontarget sites. For additional information on spray drift refer to Spray Drift Management section of label. Continuous agitation is not required to keep EXPRESS® in suspension but may be required to keep tank mix partners in solution or suspension. Refer to tank mix partner labels for additional information.

### **BEFORE SPRAYING EXPRESS®**

The spray equipment must be clean before EXPRESS® 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 the After Spraying EXPRESS® section of this label.

### **AT THE END OF THE DAY**

When multiple loads of EXPRESS® herbicide are applied, it is recommended that 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 EXPRESS® AND BEFORE SPRAYING CROPS OTHER THAN WHEAT, BARLEY, OATS, AND TRITICALE**

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of EXPRESS® as follows:

1. Empty the tank and drain the sump completely.
2. Spray the tank walls with clean water using a minimum volume of 10% of the tank volume. Circulate the water through the lines, including all by-pass lines, for at least two minutes. Flush the boom well and empty the sprayer. Completely drain the sump.

3. Repeat step 2.

4. Remove the nozzles and screens and clean separately in a bucket containing water. The rinsate solution may be applied back to the crop(s) specified on this label. Do not exceed the maximum-labeled use rate. If 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.

### **Notes:**

1. Steam-cleaning aerial spray tanks is recommended to facilitate the removal of any caked deposits.
2. When EXPRESS® is tank mixed with other pesticides, all cleanup procedures for each product should be examined and the most rigorous procedure should be followed.
3. Follow any pre-cleanup guidelines recommended on other product labels.

### **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. 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 **Surface 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 AND HEIGHT**

- **Boom Length (aircraft)** - The boom length should not exceed 3/4 of the wing length, using shorter booms decreases drift potential. For helicopters use a boom length and position that prevents droplets from entering the rotor vortices.

- **Boom Height (aircraft)** - Application more than 10 ft above the canopy increases the potential for spray drift.

- **Boom Height (ground)** Setting the boom at the lowest height which provides uniform coverage reduces the exposure of droplets to evaporation and wind. 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 variable direction and inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. For aerial application, do not apply when wind speed is less than 3 mph or above 10 mph.

**Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they effect 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.

## SURFACE TEMPERATURE INVERSIONS

Drift potential is high during a surface temperature inversion. Surface inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Surface 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 a surface 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.

## CALIFORNIA APPLICATION REQUIREMENTS FOR PROTECTION OF SENSITIVE CROPS

The following drift management requirements must be followed to minimize the potential for exposure of sensitive crops.

Determine the prevailing wind speed and direction before application.

### Spray quality

Apply with nozzles that give a coarse droplet size spectrum (volume median diameter (VMD) of 350-400 microns) and minimize droplets that are less than 200 microns.

## For aerial application:

- **Nozzle orientation:** Solid stream nozzles oriented straight back produce the largest droplet size spectrum and the lowest drift.
- **Spray volume:** Apply a spray volume between 5 and 10 GPA
- **Wind speed:** Avoid spraying when sustained wind speeds approach or exceed 10 mph. Avoid applications in gusty wind conditions.
- **Aircraft equipment:** Boom length should be 75 percent or less of wing span. For helicopters, use a boom length and position that prevents droplets from entering the rotor vortices.
- **Application height:** Application at more than 10 ft. above the canopy increases the potential for spray drift. Applications must be made at the lowest application height that provides uniform coverage and should be consistent with safe operation of the aircraft.

## For ground application,

- **Wind Speed:** Avoid spraying when sustained wind speeds approach or exceed 10 mph. Avoid applications in gusty wind conditions.
- **Boom height – ground sprayers:** Apply with a boom height no greater than 4 feet above the top of the largest plants. The buffer zones may be reduced when application is made with a low boom (20 inches) above the top of the crop canopy. The boom should remain level with the crop and have minimal bounce.

## California Buffer Zones

The following buffer zones between the treated area and sensitive crops are required when these sensitive crops are downwind of the application site.

Sensitive crop	Ground application low boom	Ground high boom	Aerial application
Tomato, cucumber, sugarbeet	350 ft	500 ft	1300 ft
Other broadleaf crops	50 ft	50 ft	500 ft

(continued)

**California Buffer Zones (continued)**

Sensitive crop	Ground application low boom	Ground high boom	Aerial application
Tree and vine crops	50 ft	50 ft	500 ft
Dormant tree and vine	No buffer zone required		
Tree and vine crops do not require buffer zones when crops are dormant.			

**PESTICIDE STORAGE AND DISPOSAL**

**Pesticide Storage:** Store the 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. Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**CONTAINER HANDLING:**

**Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" or "Refillable Container" designation.**

**Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds):** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinse into application equipment or a mix tank or store rinse for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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**Nonrefillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds):** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinse into application equipment or a mix tank or store rinse for later use or disposal. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers (IBC) (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down):** Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinse into application equipment or rinse collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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**Nonrefillable Paper or Plastic Bags, Fiber Sacks including Flexible Intermediate Bulk Containers (FIBC) or Fiber Drums With Liners:** Nonrefillable container. Do not reuse or refill this container. Completely empty paper or plastic bag, fiber sack or drum liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer for recycling if available or dispose of empty paper or plastic bag, fiber sack or fiber drum and liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

**Refillable Fiber Drums With Liners:** Refillable container (fiber drum only). Refilling Fiber Drum: Refill this fiber drum with DuPont™ EXPRESS® herbicide (with TOTALSOL® soluble granules) containing tribenuron methyl only. Do not reuse this fiber drum for any other purpose. Cleaning before refilling is the responsibility of the refiller. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Disposing of Fiber Drum and/or Liner: Do not reuse this fiber drum for any other purpose other than refilling (see preceding). Cleaning the container (liner and/or fiber drum) before final disposal is the responsibility of the person disposing of the container. Offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. To clean the fiber drum before final disposal, completely empty the fiber drum by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the fiber drum for recycling if available or dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

**All Other Refillable Containers:** Refillable container. Refilling Container: Refill this container with DuPont™ EXPRESS® herbicide (with TOTALSOL® soluble granules) containing tribenuron methyl only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. If damage is found, do not use the container, contact DuPont at the number below for instructions. Check for leaks after refilling and before transporting. If leaks are found, do not reuse or transport container, contact DuPont at the number below for instructions. Disposing of Container: Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container.

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To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Outer Foil Pouches of Water Soluble Packets (WSP):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or, dispose of the empty outer foil pouch in the trash as long as WSP is unbroken. If the outer pouch contacts the formulated product in any way, the pouch must be triple rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer pouch as described previously.

Do not transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact DuPont at 1-800-441-3637, day or night.

**NOTICE TO BUYER:** Purchase of this material does not confer any rights under patents of countries outside of the United States.

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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. **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.

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To the extent consistent with applicable law that allows such requirement, DuPont or its Ag 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 Ag 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.

For product information call: 1-888-6-DUPONT (1-800-638-7668)  
Internet address: <http://cropprotection.dupont.com/>  
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For Use on Cereals,  
ExpressSun® Sunflowers,  
Grass grown for seed,  
Fallow and as a Pre-plant  
or Post-harvest Burndown  
Herbicide



# DuPont™ Express®

herbicide  
(with TotalSol®  
soluble granules)

## Soluble Granule

### Active Ingredient

Tribenuron methyl

Methyl 2-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)

methylamino]carbonyl]amino]sulfonyl]benzoate . . . . . 50%

Other Ingredients . . . . . 50%

TOTAL 100%

EPA Reg. No. 352-632

EPA Est. 352-IL-001

**KEEP OUT OF REACH OF  
CHILDREN  
CAUTION**

**Net 15 oz Nonrefillable Container**

See back panel for additional Precautionary Statements.

### 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 cleaning equipment or disposing of equipment washwaters.

Refer to accompanying labeling for additional precautions and complete directions for use.

### Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

**Notice to Buyer:** Purchase of this material does not confer any rights under patents of countries outside of the United States.



## DuPont™ Express®

herbicide (with TotalSol® soluble granules)

### FIRST AID

**IF ON SKIN:** 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.

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.

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes or clothing.

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

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

#### Applicators and other handlers must wear:

Long-sleeved shirt and long pants.  
Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.  
Shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### USER SAFETY RECOMMENDATIONS

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

E. I. du Pont de Nemours and Company,  
1007 Market Street, Wilmington, DE 19898 U.S.A.  
A01552821



The MSDS format adheres to the standards and regulatory requirements of the United States and may not meet regulatory requirements in other countries.

DuPont  
Material Safety Data Sheet

Page 1

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 "DuPont" "Express" Herbicide (with "TotalSol" soluble granules)  
 M0000679 Revised 12-SEP-2006  
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 CHEMICAL PRODUCT/COMPANY IDENTIFICATION  
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Material Identification

"Express" is a registered trademark of DuPont.

"DuPont", "TotalSol" are trademarks of DuPont.

CAS Number : 101200-48-0  
 Formula : C15H17N5O6S  
 CAS Name : METHYL 2-[[[(4-METHOXY-6-METHYL-1,3,5-  
 TRIAZIN-2-YL)METHYLAMINO] CARBONYL]  
 AMINO] SULFONYL] BENZOATE

Tradenames and Synonyms

DPX-L5300  
 "DuPont" Tribenuron Methyl 50SG Herbicide  
 "DuPont" Harmony X-tra 2 Herbicide

Company Identification

MANUFACTURER/DISTRIBUTOR  
 DuPont  
 1007 Market Street  
 Wilmington, DE 19898

PHONE NUMBERS

Product Information : 1-800-441-7515 (outside the U.S.  
 302-774-1000)  
 Transport Emergency : CHEMTREC 1-800-424-9300 (outside U.S.  
 703-527-3887)  
 Medical Emergency : 1-800-441-3637 (outside the U.S.  
 302-774-1000)

-----  
 COMPOSITION/INFORMATION ON INGREDIENTS  
 -----

Components

Material	CAS Number	%
*TRIBENURON METHYL	101200-48-0	50
Methyl 2-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)methylamino]carbonyl]amino]sulfonyl]benzoate		
INERT INGREDIENTS		50

\* Disclosure as a toxic chemical is required under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

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HAZARDS IDENTIFICATION  
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## Emergency Overview

CAUTION. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. For medical emergencies involving this product, call toll free 1-800-441-3637.

## Potential Health Effects

Based on animal data, repeated skin contact with DuPont Express Herbicide (with TotalSol soluble granules) may cause allergic skin rashes.

## Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

-----  
FIRST AID MEASURES  
-----

## First Aid

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 INHALED: No specific intervention is indicated, as the compound is not likely to be hazardous by inhalation. Consult a physician if necessary.

IF SWALLOWED: No specific intervention is indicated, as the compound is not likely to be hazardous by ingestion. Consult a physician if necessary.

IF IN EYES: No specific intervention is indicated, as the compound is not likely to be hazardous to the eyes. Consult a physician if necessary.

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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FIRE FIGHTING MEASURES  
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## Flammable Properties

Not a fire or explosion hazard.

Like most organic powders or crystals, under severe dusting conditions, this material may form explosive mixtures in air.

## Extinguishing Media

Water Spray, Foam, Dry Chemical, CO2.

## Fire Fighting Instructions

Wear self-contained breathing apparatus. Wear full protective equipment. Runoff from fire control may be a pollution hazard.

If area is exposed to fire and conditions permit, let fire burn itself out. Burning chemicals may produce by-products more toxic than the original material. If product is on fire, wear self-contained breathing apparatus and full protective equipment. Use water spray. Control runoff.

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ACCIDENTAL RELEASE MEASURES  
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## Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Emergency Response - Chemical resistant coveralls, waterproof gloves, waterproof boots and face/eye protection. If dusting occurs, use NIOSH approved respirator protection.

## Initial Containment

Follow applicable Federal, State/Provincial and Local laws/regulations.

Prevent material from entering sewers, waterways, or low areas.

## Spill Clean Up

Shovel or sweep up.

-----  
HANDLING AND STORAGE  
-----

## Handling (Personnel)

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

## Storage

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

-----  
EXPOSURE CONTROLS/PERSONAL PROTECTION  
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## Personal Protective Equipment

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

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.
- 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.

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 made of any waterproof material.
- Shoes plus socks.

## Exposure Guidelines

## Exposure Limits

"DuPont" "Express" Herbicide (with "TotalSol" soluble granules)	
PEL (OSHA)	: None Established
TLV (ACGIH)	: None Established
AEL * (DuPont)	: 1 mg/m <sup>3</sup> , 8 Hr. TWA

\* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

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PHYSICAL AND CHEMICAL PROPERTIES  
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## Physical Data

Vapor Pressure	: 3.9 x 10 <sup>-10</sup> mm Hg @ 25°C (77°F)
Melting Point	: 141°C (286°F)
Solubility in Water	: 50 mg/L @ pH=5 @ 25°C
pH	: 8.7-9.7 (1% aqueous solution)
Odor	: Slightly pungent
Form	: Solid granules, dry flowable
Color	: Light brown
Specific Gravity	: 1.5 @ 25°C (77°F)
Bulk Density	: 0.6-0.8 g/mL (Tapped)

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STABILITY AND REACTIVITY  
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## Chemical Stability

Stable at normal temperatures and storage conditions.

## Incompatibility with Other Materials

None reasonably foreseeable.

## Polymerization

Polymerization will not occur.

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TOXICOLOGICAL INFORMATION  
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## Animal Data

DuPont Express Herbicide (with TotalSol soluble granules):  
Oral LD50: > 5000 mg/kg in rats  
Skin absorption LD50: > 5000 mg/kg in rats  
Inhalation 4 hour LC50: > 5.0 mg/L in rats

DuPont Express Herbicide (with TotalSol soluble granules) is a moderate skin sensitizer, but is not an eye or skin irritant in animals.

## TRIBENURON METHYL:

The effects in animals from a single ingestion exposure to Tribenuron Methyl include severe weight loss and decreased food consumption. Repeated ingestion doses caused body weight loss, increased liver and thyroid/parathyroid weights, altered clinical chemical parameters, but no significant gross or microscopic treatment related effects were noted. Long-term dosing caused body weight loss, alteration in clinical chemical parameters, and testicular atrophy (considered to be biologically insignificant).

Tribenuron Methyl produced an increased incidence of mammary



## (TOXICOLOGICAL INFORMATION - Continued)

tumors in female rats at dose levels also producing other significant effects. Developmental effects occurred in the rat, but only at a dose also toxic to the dam. No reproductive effects were observed in rats. Tribenuron Methyl did not produce genetic damage in bacterial or mammalian cell cultures or in animals.

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ECOLOGICAL INFORMATION  
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## Ecotoxicological Information

## AQUATIC TOXICITY:

## TRIBENURON METHYL

96 hour LC50 - Rainbow trout: > 1000 mg/L.

Very low to low toxicity.

## AVIAN TOXICITY:

## TRIBENURON METHYL

Acute Oral LD50 - Bobwhite Quail: > 2250 mg/kg.

Acute Dietary LC50 - Bobwhite Quail: > 5620 ppm.

Acute Dietary LC50 - Mallard Duck: > 5620 ppm

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DISPOSAL CONSIDERATIONS  
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## Waste 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.

## 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 cleaning equipment or disposing of equipment washwaters.

## 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

## (DISPOSAL CONSIDERATIONS - Continued)

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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TRANSPORTATION INFORMATION  
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## Shipping Information

DOT/IMO  
Proper Shipping Name : NOT REGULATED

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REGULATORY INFORMATION  
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## U.S. Federal Regulations

## TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute : Yes  
Chronic : No  
Fire : No  
Reactivity : No  
Pressure : No

In the United States this product is regulated by the US Environmental Protection Agency under the Federal Insecticide, Fungicide and Rodenticide Act. It is a violation of federal law to use this product in a manner inconsistent with its labeling.

## (REGULATORY INFORMATION - Continued)

EPA Reg. No. 352-632

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OTHER INFORMATION  
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## NFPA, NPCA-HMIS

NFPA Rating  
Health : 1  
Flammability : 1  
Reactivity : 0

NPCA-HMIS Rating  
Health : 1  
Flammability : 1  
Reactivity : 0

Personal Protection rating to be supplied by user depending on use conditions.

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The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS: DuPont Crop Protection  
Address : Wilmington, DE 19898  
Telephone : 1-888-638-7668

This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.

End of MSDS