

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

July 11, 2018

Richard J. Ambrose Product Registration Manager FMC Corporation c/o FMC Stine Research Center P.O. Box 30 Newark, Delaware 19714-0030

Subject: Notification per PRN 98-10 – Change primary brand name and registration transfer changes Product Name: Express Herbicide with TotalSol Soluble Granules EPA Registration Number: 279-9594 Application Date: June 20, 2018 Decision Number: 542138

Dear Mr. Ambrose:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped "Notification" and will be placed in our records.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If you have any questions, you may contact BeWanda Alexander at (703)347-0313 or via email at <u>alexander.bewanda@epa.gov</u>.

Page 2 of 2 EPA Reg. No. 279-9594 Decision No. 542138

Sincerely,

Inp .

Erik Kraft, Product Manager 24 Fungicide and Herbicide Branch Registration Division (7505P) Office of Pesticide Programs

This registration was transferred to FMC 05/25/2018. This is a copy of the new FMC labeling with changes highlighted vs. the currently accepted DuPont labeling identified with the EPA Reg. No. 352-632 (Label ID SL-2040 061217 06-20-17). This label is submitted via notification to the Agency showing the FMC labeling for newly transferred EPA Reg. No. 279-9594.

		,	Removed Du	Pont Logo and Brandbar
There is a set				
Throughout the label removed the word		led FMC Product Logo	,	
''DuPont'' from the		GROUP	2	HERBICIDE
name of the product.	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**

Active Ingredient		By Weight
Tribenuron methyl		
Methyl 2-[[[(4-methoxy-6-	methyl-1,3,5-triazin-2-yl)methylamino]carbonyl]amino]sulfonyl]b	benzoate 50%
Other Ingredients		50%
TOTAL		100%
EPA Reg. No. <mark>279-9594</mark>		EPA Est. No
Nonrefillable Container	Refillable Container	

Net:

Net:

OR

# **KEEP OUT OF REACH OF CHILDREN** CAUTION

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

# FIRST AID

IF 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 1-800-331-3148 for emergency medical treatment information.

#### **PRECAUTIONARY STATEMENTS** HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**Caution**: 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 1-800-331-3148.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### Mixers, loaders, 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 exists, use detergent and hot water. Keep and wash PPE separately from other laundry.

## ENGINEERING CONTROL STATEMENTS

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

Important: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "Applicators and Other Handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.



Added FMC Address and Logo, could not highlight this text.

# NOTIFICATION

#### 279-9594

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

07/11/2018

#### USER SAFETY RECOMMENDATIONS

#### **USERS SHOULD:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Users must 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 or rinsate.

# DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

# AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours. PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

Coveralls.		
Chemical resistant gloves made of any waterproof material.	Throughout the label removed the	
	word "DuPont" from the name of the	
Shoes plus socks.	product, only highlighted here.	

EXPRESS® herbicide (with TotalSol® soluble granules), referred to below as EXPRESS® herbicide or EXPRESS®, must be used only in accordance with instructions on this label, in separately published FMC instructions (Supplemental Labels, Special Local Need Registrations, FIFRA Section 18 exemptions, FIFRA 2(ee) Bulletins), or as otherwise permitted by FIFRA. Always read the entire label, including the Limitation of Warranty and Liability.

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

EXPRESS<sup>®</sup> may be used on wheat (including durum), barley, triticale, oats, burndown, certain grasses grown for seed, and DuPont<sup>™</sup> ExpressSun<sup>®</sup> sunflowers in most states. Check with your state extension service or Department of Agriculture before use, to be certain EXPRESS<sup>®</sup> 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 weeds 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. Mix EXPRESS® in water and apply as a uniform broadcast spray.

#### **Biological Activity**

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 the 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 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, the 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.

# RESTRICTIONS

- 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.
  - Do not discharge excess material on the soil at a single spot in the field, grove, or mixing/loading station.
  - **Do not** apply EXPRESS® 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.
- Do not store pesticides near well sites.
- **Do not** apply to wheat, barley, oats or triticale underseeded with another crop.
- **Do not** harvest within 45 days of the last application.
- **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.
- **Do not** apply EXPRESS® 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.
- Do not apply EXPRESS® within 70 days of sunflower harvest.
- Do not apply more than 1.0 oz/A of EXPRESS® postemergence during the same sunflower per year.
- Do not apply more than 0.5 oz/A of EXPRESS® per year for grass grown for seed in the states of ID, OR, UT, & WA.
- **Do not** apply EXPRESS® by air in the state of New York.
- Grazing, Feeding, and Harvesting
  - Allow at least 7 days between application and grazing of treated forage.
  - 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.

• When using EXPRESS® in tank mixes or sequential applications with other products containing tribenuron-methyl, **do not** exceed the following limits:

Active Ingredient: Tribenur		Manterior	Maria	Mari	Mart	Drug II
Use	Maximum AI Oz/A per Single Application	Maximum Oz/A of Product per Single Application	Maximum AI Oz/A per Use Period*	Maximum Oz/A of Product per Use Period*	Maximum Number of Applications per Use Period*	Pre-Harvest Interval, Days
Wheat, Barley, Triticale	0.25	0.50	0.25	0.50	2	45 (for grain)
Oats	0.1	0.2	0.1	0.2	1	45 (for grain)
Fallow, Burndown, Post-Harvest	0.25	0.50	0.25	0.50	2	
Burndown Prior to Cotton Seedling	0.125	0.25	0.125	0.25	2	
DuPont <sup>™</sup> ExpressSun® Sunflowers	0.25	0.50	0.50	1.0	2	70
		Do not use other products that contain tribenuron-methyl.				
Soybeans pre-plant & burndown, Postemergence, Post-harvest	0.5	1.0	0.5	1.0	1	
Field Corn – Pre-plant & burndown, Postemergence, Post-Harvest	0.5	1.0	0.5	1.0	1	
Grass Grown for Seed – • Seedling stands of: - annual ryegrass - bentgrass - fine fescue - orchardgrass - perennial ryegrass	0.125	0.25	0.125	0.25	1	
- tall fescue	Do not use other products that contain tribenuron-methyl.					
Grass Grown for Seed – • Seedling stands of: - bluegrass • Established stands of: - annual ryegrass - bentgrass - bluegrass - fine fescue	0.25	0.50	0.25	0.50	1	
<ul> <li>orchardgrass</li> <li>perennial ryegras</li> <li>tall fescue</li> </ul>		Do not use otl contain triben	her products that uron-methyl.			

\* Use Period:

For postemergence, fallow, burndown, or post-harvest applications, one maximum application per year or two applications not to exceed the maximum rate per year, see above chart for specific crop restrictions.

# 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, barley, oats and DuPont<sup>™</sup> ExpressSun® sunflowers.
- Varieties of wheat (including durum), barley, oats and triticale may differ in their response to various herbicides. 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.

- Dry, dusty field conditions may result in reduced control in wheel track areas.
- 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.
- Dilute and agitate excess solution and apply at labeled rates or uses.
- When triple-rinsing the pesticide container, be sure to add the rinsate to the spray mix.

# WEED RESISTANCE

EXPRESS<sup>®</sup>, which contains the active ingredient tribenuron methyl is a Group 2 herbicide based on the mode of action classification system of the Weed Science Society of America.

When herbicides with mode of action classifications that affect the same biological sites of action are used repeatedly over several years to control the same weed species in the same treatment area, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that area. 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 biological 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.

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 to determine appropriate actions for treating specific resistant weed biotypes 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.

# **APPLICATION INFORMATION**

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<sup>®</sup>. 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

## **APPLICATION TIMING**

Apply 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 may 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 must 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 EXPRESS® at 0.5 oz/A (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").

Use EXPRESS® at 0.25 to 0.375 oz/A (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/A.

**For oats**, apply 0.2 oz/A of EXPRESS® 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.

#### TANK MIXTURES FOR CEREALS

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### 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/A active ingredient. In tank mixes containing 0.125 lb/A active ingredient 2,4-D or MCP, add 1 to 2 pt of nonionic surfactant per 100 gallons of spray solution; in tank mixes containing 0.25 to 0.375 lb/A active ingredient 2,4-D or MCP, add 1 pt of nonionic surfactant per 100 gallons of spray solution.

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/A 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/A of EXPRESS® + 1-1.5 oz/A (0.063 - 0.094 lb/A) active dicamba (such as "Banvel"/"Clarity") + 0.25 to 0.375 lb/A active ingredient of 2,4-D or MCP (ester or amine). Use higher rates when weed infestation is heavy. Add 1-2 pt of nonionic surfactant per 100 gallons of spray solution 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 "Bison", "Broclean", "BROX", "Maestro", or "Moxy")

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/A (0.019 - 0.038 lb./A) active ingredient (such as "Bison", "Broclean", "BROX", "Mastreo", or "Moxy"). 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/A (0.063 - 0.13 lb./A) active ingredient (such as "Starane" 0.33 to 0.67 pt/A). 2,4-D and MCP herbicides (preferably ester formulations) may be tank mixed with EXPRESS® plus "Starane".

#### With Other Broadleaf Control Products

EXPRESS® can be tank mixed with other broadleaf herbicides registered on cereals such as HARMONY® SG, 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 "Osprey"

EXPRESS® can be tank mixed with "Osprey" herbicide for improved control of weeds in Fall-sown or winter wheat.

#### With "PowerFlex" HL

EXPRESS® can be tank mixed with "PowerFlex" HL herbicide for improved control of weeds in winter wheat and triticale.

#### With "Simplicity" CA

EXPRESS® can be tank mixed with "Simplicity" CA herbicide for improved control of weeds in spring and winter wheat including durum and triticale.

#### With "TeamMate"

EXPRESS® can be tank mixed with "TeamMate" herbicide for improved control of weeds in spring and winter wheat including durum and triticale.

#### 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 "Bison", "Broclean", "BROX", "Mastreo", or "Moxy"). 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"/ "Tacoma" (fenoxaprop-p-ethyl).

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 FMC 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 FMC 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 may increase crop response.

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

# **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/A of EXPRESS® 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 oz/A 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 oz/A.

Apply EXPRESS® 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/A of EXPRESS® 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.

#### TANK MIXTURES IN BURNDOWN APPLICATIONS

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

EXPRESS<sup>®</sup> may be tank mixed with one or more herbicides that are registered for use at the appropriate burndown timing, including DuPont<sup>™</sup> ABUNDIT<sup>®</sup> Edge herbicide (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.

## DUPONT™ EXPRESSSUN® SUNFLOWERS

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 to EXPRESS®.

#### **APPLICATION TIMING**

Apply EXPRESS® to ExpressSun® 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/A of EXPRESS® per use season.

**Do not** apply EXPRESS® 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.

#### EXPRESSSUN® SUNFLOWER USE RATE

Apply EXPRESS® at a rate of 0.25 to 0.5 oz/A. Use the 0.5 oz/A 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/A of EXPRESS® postemergence during the same sunflower growing year.

#### 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®.
- Do not cultivate for 7 days after application to allow EXPRESS® to fully control treated weeds.
- Optimum timing for cultivation is 7 14 days after a postemergence application of EXPRESS®.

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

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

For the control of annual grasses, apply a grass herbicide such as DuPont<sup>™</sup> 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 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.

Apply EXPRESS® in combination with other suitable registered herbicides (See the "TANK MIXTURES" section of this label for additional information). Always use a nonionic surfactant of at least 80% active ingredient at the rate of 0.25% v/v (1 qt per 100 gal of spray solution).

**Do not** apply more than 0.5 oz/A of EXPRESS® per growing year.

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.

#### TANK MIXTURES FOR GRASS GROWN FOR SEED

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Always use EXPRESS® in a tank mix with another broadleaf herbicide such as 2,4-D, MCP or dicamba as these herbicides safen 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/A. ai 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/A ai 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 gal/100 gal 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®.

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

**Seedling Stands**: For use on annual ryegrass, orchard grass, tall fescue and fine fescue, apply at 0.25 oz/A after stand is in 4-leaf stage. For use on bentgrass, apply at 0.25 oz/A after stolens are 3 to 5 inches across. For use on bluegrass, apply at 0.25 to 0.5 oz/A after stand is in the 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/A. 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 EXPRESS<sup>®</sup> 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/A rate and always use either 2,4-D or dicamba and liquid nitrogen with EXPRESS<sup>®</sup>.

**Seedling Stands**: Apply EXPRESS® at 0.25 oz/A in a tank mix with another suitable broadleaf herbicide after grass is in the 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/A in a tank mix with another suitable broadleaf herbicide. Apply prior to jointing.

**Note**: Use the 0.5 oz/A rate of EXPRESS® only for the control or suppression of problem weeds like wild carrot where the benefit of weed control may offset by possible crop injury including possible yield reduction.

# WEED CONTROL INFORMATION

# WEEDS CONTROLLED

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

Black mustard Blue/Purple mustard Bushy wallflower/Treacle mustard† Canada thistle\*\* Coast fiddleneck Common Chickweed<sup>†</sup> Common Groundsel Common Lambsquarters† Common Purslane Corn, Gromwell\*\* Corn spurry Cowcockle Cressleaf groundsel \*\*\* (butterweed) Curly Dock\*\* Dandelion Deadnettle<sup>††</sup> Early whitlowgrass False chamomile/Wild chamomile/Scentless chamomile (Matricaria maritima L.) Field pennycress Flixweed<sup>†</sup> Hairy buttercup Kochia\*\*† London Rocket

Marestail\*\*\*† Marshelder<sup>†</sup> Mayweed chamomile/Stinking chamomile/dog fennel (Ånthemis cotula L.)\*\*† Miners lettuce Narrowleaf hawksbeard\*\* \*\*\* Nightflowering catchfly Pineappleweed Poison hemlock\*\*\* Prickly lettuce\*\*† Puncturevine Purslane speedwell (@ 0.5 oz)\*\*\* Redroot pigweed<sup>†</sup> Russian thistle\*\*\* Shepherd's-purse Slimleaf lambsquarters Small-flower buttercup (@ 0.5 oz)\*\*\* Smallseed falseflax<sup>†</sup> Tansymustard Tarweed fiddleneck Tumble pigweed (@ 0.5 oz) Tumble/Jim Hill mustard\*\* White cockle (@ 0.5 oz) Wild mustard<sup>†</sup>

# WEEDS PARTIALLY CONTROLLED\*

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

Annual sowthistle Burning Nettle\*\* Common cocklebur† Common sunflower (volunteer)\*\*† Common vetch\*\* Eastern black nightshade† Hairy nightshade Hairy vetch\*\* Henbit 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/A of EXPRESS® and include a tank mix 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

**Burning Nettle:** For best results, apply 0.5 oz/A of EXPRESS® in a tank mix with "AIM" / "SHARK" (carfentrazone-ethyl) or "ET" (pyraflufen-ethyl) to small actively growing weeds less than 4" tall.

**Canada thistle**: For best results, apply 0.5 oz/A of EXPRESS<sup>®</sup> 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/A of EXPRESS® 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/A of EXPRESS® in combination with 2,4-D or MCP (refer to the Tank Mixtures section of this label).

**Kochia**: For best results, apply 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 "Bison", "Broclean", "BROX", "Mastreo", or "Moxy").

Apply EXPRESS® in the spring when kochia is less than 2" tall and is 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/A of EXPRESS®.

**Narrowleaf hawksbeard**: During the post harvest, fallow, and/or pre-plant burndown period, EXPRESS® may be used in a tank mix with 1 to 2 pt/A of DuPont<sup>TM</sup> ABUNDIT® Edge herbicide (glyphosate) (4 lb per gal formulation or equivalent) for postemergence control of narrowleaf hawksbeard.

For wheat, 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/A active ingredient (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 "Bison", "Broclean", "BROX", "Mastreo", or "Moxy").

Apply EXPRESS® 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/A of EXPRESS® 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/A of EXPRESS® 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/A EXPRESS® plus 0.25 - 0.375 lb/A active ingredient 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. Make applications in the fall 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 "Bison", "Broclean", "BROX", "Mastreo", or "Moxy").

# 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 FMC fact sheets and technical bulletins prior to using an adjuvant system. If another herbicide is tank mixed with EXPRESS<sup>®</sup>, select adjuvants authorized for use with both products. Products must contain only EPA-exempt ingredients.

#### NONIONIC SURFACTANT (NIS)

- Apply 0.06 to 0.50% v/v (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 FMC 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.

#### AMMONIUM NITROGEN FERTILIZER

- Use 2 qt/A of a high-quality urea ammonium nitrate (UAN), such as 28%N or 32%N, or 2 lb/A of a spray-grade ammonium sulfate (AMS). Use 4 qt/A UAN or 4 lb/A AMS under arid conditions.
- See TANK MIXTURES With Liquid Nitrogen Fertilizer for instructions on using fertilizer as a carrier in place of water.

#### 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 FMC product management. Consult separate FMC technical bulletins for detailed information before using adjuvant types not specified on this label.

# **CROP ROTATION**

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

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

Сгор	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.

# **MIXING INSTRUCTIONS**

# **PRODUCT MEASUREMENT**

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

## MIXING

- 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. Thoroughly mix EXPRESS® 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®.

# 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 four 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. 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, examine all cleanout procedures for each product and follow the most rigorous procedure.

3. Follow any pre-cleanout guidelines on other product labels.

# **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/A (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 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/A of EXPRESS® in combination with bromoxynil containing herbicides at 3 to 6 oz/A active ingredient (such as "Bison", "Broclean", "BROX", "Mastreo", or "Moxy"). 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, whichever 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, 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 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, apply EXPRESS® + bromoxynil containing herbicides continuously for the duration of the water application. In solid set systems, apply the tank mix 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/A for best product performance.

3. Fill the supply tank with half of the water amount desired, add the 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 required 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 cleanout 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 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 - 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 specified 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 affect spray drift.

# **TEMPERATURE AND HUMIDITY**

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

# 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.

# SENSITIVE AREAS

Making applications when there is a sustained wind moving away from adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is an effective way to minimize the effect of spray drift.

# **DRIFT CONTROL ADDITIVES**

Using product compatible drift control additives can reduce drift potential. When a drift control additive is used, read and carefully observe cautionary statements and all other information on the additive's label. If using an additive that increases viscosity, ensure that the nozzles and other application equipment will function properly with a viscous spray solution. Preferred drift control additives have been certified by the Council of Producers & Distributors of Agrotechnology (CPDA).

## 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 must 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.

Ground Application Ground Low boom High Boom		Aerial Application	
350 ft	500 ft	1,300 ft	
50 ft	50 ft	500 ft	
50 ft	50 ft	500 ft	
ormant tree and vine No buffer zone required			
-	Low boom 350 ft 50 ft	Low boom         High Boom           350 ft         500 ft           50 ft         50 ft           50 ft         50 ft	

# **GRAZING, FEEDING, AND HARVESTING**

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.

# 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 rinsate into application equipment or a mix tank or store rinsate 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 puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities

**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. Turn the container, 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 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 other procedures approved by state and local authorities.

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 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 dispose of is 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 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 FMC 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 FMC 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. 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 CHEMTREC (Transportation and Spills) at 1-800-424-9300, day or night.

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