

Express® Herbicide With TotalSol® Soluble Granules



Optimize the ExpressSun® trait system with Express® herbicide with TotalSol® soluble granules

Benefits of the ExpressSun® trait

Herbicide-tolerant sunflower hybrids can provide producers with technology to aid in the control of annual and perennial broadleaf weeds. High-yielding sunflower hybrids from DuPont Pioneer®, CROPLAN® Genetics and Nuseed® include the ExpressSun trait with built-in tolerance to the active ingredient in Express® herbicide with TotalSol® soluble granules. Express herbicide research trials have demonstrated in-season control of Canada thistle and many other annual broadleaf weeds in conventional, minimum-till or no-till sunflower production systems.

The ExpressSun trait system is designed to maximize weed control in sunflower crops, thereby enhancing production and yields. ExpressSun combines herbicide-tolerant sunflower seed with the Express trait herbicide to provide improved weed control over conventional systems.

ExpressSun trait development

Application of Express herbicide to conventional or non-Express-tolerant sunflowers will result in significant crop injury or plant death. In contrast, herbicide-tolerant sunflower hybrids with the ExpressSun trait possess genetic tolerance to Express herbicide.

Unlike other herbicide-tolerant crops, such as Roundup Ready® soybeans with the Roundup Ready gene, herbicide-tolerant sunflowers with the ExpressSun trait were derived through traditional plant-breeding methods and are non-GMO products. Resistance to Express herbicide has been bred into the select DuPont Pioneer, CROPLAN and Nuseed elite sunflower germplasm.

Express herbicide delivers:

- Control of broadleaf weeds and Canada thistle for more than 20 years in wheat and barley.
- More consistent control over a wide variety of environmental conditions by dissolving completely into ions that are readily absorbed by weeds.
- A 50 percent active water-soluble granule formulation.
- Favorable toxicological profile for mammals, birds, fish and other nonplant wildlife when used in accordance with the label.



Rate Recommendation

For use only on sunflowers with ExpressSun® trait for tolerance to Express® herbicide

Preemergence/Burndown

Express herbicide 0.25-0.5 oz./A. Zero-day interval before planting.

Postemergence

Express herbicide 0.25-0.5 oz./A + MSO 1 gal./100 gal. Do not exceed 1 oz./A postemergence per use season.

Apply 0.5 oz./A rate when weed infestation is heavy or when weeds predominantly consist of weeds partially controlled or when application timing and environmental conditions are marginal.

Application information/timing

- Apply Express herbicide using a minimum spray volume of 5 GPA using flat-fan nozzles or 2 GPA by air to provide good weed control. See label for GPA instructions for other nozzles and for specific state instructions. When tank mixing with a grass herbicide, use the higher spray volume recommended for those products, usually 10 GPA by ground.
- Apply Express herbicide from the two-leaf stage up to but not including bud formation.
- Depending on environmental conditions, a second application may be needed 14 or more days after the first application.
- Do not apply within 70 days of sunflower harvest.

Broadleaf weeds controlled or partially controlled by Express herbicide

Buckwheat, wild*	Lettuce, miner's	Puncturevine
Chamomile, mayweed chamomile, wild	Lettuce, prickly**†	Purslane, common shepherd's purse
Chickweed, common†	Marsh elder †	Smartweed, Pennsylvania*
Dandelion	Mustard: black, blue (purple mustard), wild†	Sowthistle, annual*
False flax, small seed†	Nightshade, hairy*	Tansy mustard
Flixweed†	Pineapple weed	Thistle: Canada**, Russian**†
Lambsquarters: common†, slimleaf	Pigweed: redroot†, tumble (0.5 oz.)	Vetch: common**, hairy**
		Wallflower, bushy (treacle mustard†)

* Partial control. For better results, use 0.5 oz. Express herbicide per acre.

**See the specific Weed Instructions section of this label for more information

† Naturally occurring resistant biotypes are known to occur.

Stewardship

It is well-known that domestic sunflowers can outcross readily to wild sunflowers. To preserve the efficacy of the ExpressSun trait, producers are required to follow specific management practices designed to prevent or delay herbicide resistance in wild species of sunflowers. These practices span crops to promote herbicide resistance management.

- Always grow sunflower hybrids with the ExpressSun trait as part of a multiyear rotation with other crops.
- Use non-ALS/AHAS (non-Group 2) mode of action herbicides in a tank mix with ALS/AHAS herbicides, or as sequential treatments in the rotational crop, to control wild and volunteer sunflowers.
- Control wild sunflowers in non-crop areas adjacent to ExpressSun trait sunflower fields through the use of non-ALS/AHAS herbicides and/or mowing prior to seed set.
- Use tillage to control emerged wild sunflowers prior to planting hybrids with the ExpressSun trait or by utilizing non-ALS/AHAS burndown herbicides or use ALS/AHAS burndown herbicides in a tank mix with non-ALS/AHAS herbicides to provide control of sunflowers.
- As practical, use ALS/AHAS herbicides in a tank mix with non-ALS/AHAS (non-Group 2) mode of action herbicides or use ALS/AHAS herbicides in a sequential program that employs alternate modes of action to control wild and volunteer sunflowers.

For more information, contact your local FMC retailer or representative to learn more about Express herbicide from FMC and visit us at FMCCrop.com.

Always read and follow all label directions, precautions and restrictions for use. Some products may not be registered for use in all states. As of November 1, 2017, the USEPA registration for DuPont™ Express® herbicide with TotalSol® soluble granules were sold by E.I. du Pont de Nemours and Company to FMC Corporation. FMC, Express and TotalSol are trademarks of FMC Corporation or an affiliate. ExpressSun is a trademark of DuPont. Roundup Ready is a trademark of Monsanto Technology LLC. ©2018 FMC Corporation. All rights reserved. 17-FMC-0976 05/18

