

## Xtend® Soybeans—What it means to you

Glenda Clezy, Agronomy Specialist

### Why Grow Xtend® Soybeans?

Roundup Ready 2 Xtend® soybeans offer growers a soybean that has tolerance to both dicamba and glyphosate. Previously, herbicide tolerant soybean varieties available in Western Canada were only tolerant to glyphosate.

The ability to apply both dicamba (Group 4) as well as glyphosate (Group 9) as a tank-mix to soybeans will provide an additional option for growers to manage herbicide resistance. Applying multiple modes of action on a given weed is one of the best ways to reduce the risk of herbicide weed resistance developing. Layering herbicides (applying herbicides at different times throughout the season such as pre-seed, in-crop, or fall) with different modes of action is another method of managing herbicide resistance.

Dicamba will offer some residual weed control on select weeds. The residual activity provides a longer weed free period which has the potential to increase soybean yields.

### Impact on Weeds

Dicamba is registered for activity on some of the top broadleaf weeds found in soybeans such as wild buckwheat, redroot pigweed, Canada thistle, perennial sow thistle, kochia, and lamb's-quarters.

Where kochia is found in the field, caution should be taken to manage further development of herbicide resistance as the majority of the kochia populations are now considered resistant to Group

2 herbicides. There have also been populations of kochia identified as resistant to both Group 9 (glyphosate) and Group 2. Recently, kochia resistant to Group 4 (such as dicamba) and Group 2 chemistries has been found. With multiple levels of herbicide resistance in kochia, herbicide choice will be important for the control of kochia, and for reducing risk of further herbicide resistance development. Using two modes of action that are effective on kochia is recommended to prevent additional herbicide resistance development.

### Volunteer Canola

Volunteer canola is one of the top weeds found in soybeans and is not controlled by dicamba at either the pre-seed or the in-crop rates registered in soybeans. Volunteer canola that is glyphosate tolerant will not be controlled by glyphosate alone. Tables 1 and 2 list herbicides that may be used in soybeans and that are registered for control of volunteer glyphosate resistant canola in Saskatchewan.



*Volunteer canola in a soybean field.*

*(Source: Dennis Lange, Manitoba Agriculture)*

**Table 1: Pre-Seed / Pre-Emergent Herbicides Options for Soybean with Volunteer Glyphosate Tolerant Canola Activity**

Pre-Seed / Pre-Emergent	Group
Aim <sup>®</sup> / CleanStart <sup>®</sup> (carfentrazone)	14
Authority <sup>®</sup> / Authority Charge <sup>®</sup> (sulfentrazone / +carfentrazone)	14
Blackhawk <sup>TM</sup> (carfentrazone + 2,4-D)	14+4
Express <sup>®</sup> SG (tribenuron)	2
Focus <sup>®</sup> (carfentrazone + pyroxasulfone)	14+15
Heat <sup>®</sup> (saflufenacil)	14
Valtera <sup>TM</sup> (flumioxazin)	14

**Table 2: In-Crop Herbicides Options for Soybean with Volunteer Glyphosate Tolerant Canola Activity**

In-Crop	Group
Basagran <sup>®</sup> / Basagran Forte <sup>®</sup> (Bentazon)	6
Odyssey <sup>®</sup> / Odyssey Ultra <sup>®</sup> (imazamox + imazethapyr / +sethoxydim)	2 / 2+1
Solo <sup>®</sup> ADV (imazamox)	2
Viper <sup>®</sup> ADV (imazamox + bentazon)	2+6

### Herbicide Drift Management

Many broadleaf crops such as pulse crops and soybeans without the Xtend<sup>®</sup> trait are susceptible to injury from dicamba drift. Label recommendations for registered dicamba products are to use nozzles and water volumes that would produce a coarse spray and to spray when risk of drift is reduced. Be aware of susceptibility to drift to nearby fields when spraying Roundup Ready 2 Xtend<sup>®</sup> soybeans with a dicamba product.



*Soybean cupping—a common symptom of dicamba drift onto soybean*

*(Source: Aaron Hager, University of Illinois, [www.dtnpf.com](http://www.dtnpf.com))*