AGRONOMIC Spotlight

Technology Development by MONSANTO

Controlling Volunteer Corn in Soybeans and Cotton

A plant out of place is considered a weed, and crops found from the previous year may need to be controlled. Volunteer corn can be a very challenging weed to control when found widespread in soybean or cotton fields. Volunteer corn can compete aggressively for water, nutrients, and sunlight, potentially reducing yields. The following management information will help farmers anticipating high volunteer corn pressure in soybean or cotton fields for the 2010 growing season.

Options for Controlling Volunteer in Corn in Soybeans and Cotton

Like any form of weed control, timing is everything when controlling volunteer corn. It is best to control volunteer corn early with a burndown herbicide application or tillage and then follow up with in-season herbicide control as needed. Effectively controlling volunteers early can reduce crop competition, herbicide cost and help minimize any negative impact on yield potential.

Figure 1. Volunteer corn plants emerging from a fallen cob.

Several herbicide program recommendations are available for in season control of volunteer corn in soybeans and cotton. Most grass herbicides (ACCase inhibitors) are very effective at controlling volunteer corn when applied post emergence and many can be tank mixed with Roundup® agricultural herbicide; please refer to individual product labels for specific tank mixing instructions. Grass herbicides widely used for controlling volunteer corn include Assure® II, Fusion® (soybeans), Fusilade® DX, Select®, Select Max®, Poast® and Poast Plus® herbicides.

Select Max herbicide is a widely used graminicide that provides effective control of volunteer corn in soybeans and cotton. Select Max applied at 6 oz/A can control volunteer corn up to 12 inches in height and is a proven tank mix partner with Roundup agricultural herbicides. Many graminicides have long plant back restrictions that make them impractical for use in corn burndown or corn replant situations. However, corn may be planted 6 days after an application of Select Max. This makes Select Max a favorable option for volunteer corn control even in fields planted to continuous corn.

Future Strategies to Minimize Volunteer Corn Establishment

Farmers can implement preventative measures this year to help reduce the amount of volunteer corn in next year's crop.

- Corn products with good stalk strength and ear retention characteristics should be selected.
- Corn products with in-plant trait protection against rootworms and European corn borer should be planted to help reduce insect damage and potential lodging.
- A seed treatment should be used at planting to encourage the establishment of strong roots and stalks.
- Corn should always be harvested in a timely manner to reduce ear drop and lodging.
- Harvest loss may be minimized by setting the combine correctly and maintaining the appropriate harvest speed.
- After an early corn harvest, fields should be tilled in the fall to encourage fall germination of volunteer corn. Corn that emerges in the fall should be killed by winter frost.
- If corn harvest is late, practicing no-till will leave dropped ears and kernels on the soil surface exposing the seed to freezing and thawing, wildlife foraging, and poor soil contact for germination.

Sources: Hager, A. and M. McGlamery. Postemergence Control of Volunteer Corn in Soybeans. University of Illinois. June 12, 1998, http://ipm.illinois.edu
Hartzler, B. Volunteer Corn Management. Integrated Crop Management News and Iowa State University Extension. http://www.iastate.edu

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