Managing Volunteer Corn throughout the Early Season

Volunteer corn can be a problem in soybean fields in the year following corn. Soybean fields can be infested with individual corn plants as well as clumps of corn plants, some of which may have germinated from corn cobs on the ground (Figure 1). If not controlled, volunteer corn can reduce soybean yield as well as provide a host for corn rootworm to survive and reproduce, which could potentially reduce the benefit of a cornsoybean rotation. Controlling volunteer corn early in a soybean crop is the best management practice. 1,2



Figure 1. Volunteer corn in soybeans.

In-crop Management of Volunteer Corn

There are a number of herbicide options for control of volunteer corn in soybeans. Postemergence grass herbicides, such as Select Max® and Fusilade® DX herbicides, are effective in controlling volunteer corn. These grass herbicides can also be tank-mixed with glyphosate and other herbicides for broad-spectrum weed control.

Since volunteer corn can continue to emerge in soybeans, there may be a tendency to delay herbicide applications in-crop to control the weed.^{3,4} Postemergence grass herbicide applications are often delayed until volunteer corn is visible above the soybean canopy. However, the longer and larger that volunteer corn grows with soybeans, the greater the chance of soybean yield loss and the more difficult it may be to control the weed. Higher rates of a postemergence grass herbicide may be required to control larger volunteer corn, and full control may not be achieved. In addition, the longer volunteer corn grows in soybeans, the greater the chance of corn rootworm buildup and potential insect resistance to *B.t.* corn traits. Making a herbicide application early to small volunteer corn followed by a sequential application if needed to control later emerging corn can be an effective management approach. Better and more consistent control of volunteer corn can be obtained when herbicide treatments are applied to 12-inch-tall or less corn.

Sources

Pariminder, S. and Jhala, A. 2016. Impact of glyphosate-resistant volunteer corn (Zea mays L.) density, control timing, and late-season emergence on yield of glyphosate-resistant soybean (Glycine max L.). Crop Protection 81:38-42.

Legal Statement

ALWAYS READ AND FOLLOW IRM, WHERE APPLICABLE, GRAIN MARKETING AND ALL OTHER STEWARDSHIP PRACTICES AND PESTICIDE LABEL DIRECTIONS Roundup Ready 2 Xtend® soybeans contains genes that confer tolerance to glyphosate and dicamba. Glyphosate will kill crops that are not tolerant to glyphosate. Dicamba will kill crops that are not tolerant to dicamba. Contact your seed brand dealer or refer to the Monsanto Technology Use Guide for recommended weed control programs.

Performance may vary, from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the grower's fields.

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²Marquardt, P. and Johnson, W. 2013. Influence of clethodim application timing on control of volunteer corn in soybean. Weed Technology 27:645-648.

³ Stachler, J. 2011. Time to control volunteer Roundup Ready corn. North Dakota State University Extension. https://www.ag.ndsu.edu.

⁴ Hager, A. 2010. How to manage volunteer corn in soybeans. No-Till Farmer. https://www.no-tillfarmer.com.