When Crops Become Weeds

Managing Volunteer Plants Important For Preserving Yields

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The competitive impact of volunteer corn, cotton or soybean plants from a previous year's crop or a failed initial planting has been shown to result in a six to 14 percent yield loss, according to Dr. Donnie Miller, Research Coordinator and weed scientist at the LSU AgCenter's Northeast Research Station.

"We're trying to show producers today some of the compounds they can use to control these plants because, obviously, they're Roundup Ready crops mostly, so that's an option that you don't have to control them," Miller said. "We're giving farmers an idea of the options that they do have available, a number of options out here that you can apply in the corn, soybean or cotton crop or before planing to minimize negative impacts from these volunteers."

Some of the products shown at the stations annual field day include Flexstar (16/oz/A), Ignite (22 oz/A), Classic (0.33 oz/A), Firstrate (0.3 oz/A), Valor (2 oz/A), Gramoxone Inteon (40 oz/A), Select Max (8 oz/A), Sencor (4 oz/A), Linex (16 oz/A), Resolve (1 oz/A) Cotoran (24 oz/A), Aim (2 oz/A), Staple LX (2.6 oz/A), Envoke (0.1 oz/A), Harmony GT (0.33 oz/A), Status (4.5 oz/A), Atrazine (32 oz/A), Permit (0.75 oz/A), Calisto (2 oz/A), Laudis (3 0z/A) and Accent (0.67 oz/A) applied 9 days prior to the field day. "We're just running the gamut of many of the things that they can look at and reviewing the type of activity each individual herbicide has on these volunteer crops," Miller added.

Whether they are peak performers depends on the weed.

For activity on 6 to 8 leaf corn, some of the better treatments at this time include Staple LX, Envoke, Select Max, and Ignite. Activity on 3 to 4 leaf cotton was greatest for Reflex, Ignite, Gramoxone Inteon, Aim, Harmony GT, and Status. Treatments showing greatest activity on V3 to V4 soybean plants include Ignite, Gramoxone Inteon, Resolve, Staple LX, Envoke, Status, Permit, and Laudis.

"These treatments have shown the greatest initial activity to this point," he said. "Other treatments have shown activity and may limit the competitive potential of these plants if not completely controlled.

"What we're showing today is just a demonstration, not an actual study, but we want to give producers an idea of the activity available products can bring to the table. Obviously, space and time limitations for the field day presentation did not allow us to show all available materials or possible combinations and rates," Miller added.

He also noted that these are nontraditional weeds. The simple definition of a weed is a plant growing out of place; so that rose bush that you spent a lot of time and money on in your yard to keep as a producer, if that rose bush is in your cotton crop, corn crop, your soybean crop, you'd spend just as much time, money and effort trying to minimize its impact on your row crop. It's no different with these crop plants growing out of place. So that's why we're looking at these. Obviously, in a situation where we plant them we like them, they're good crops, we want to keep them; when they're not where they're supposed to be or they're volunteering from year to year, they are technically a weed and can compete. So you definitely want to take them out as early as possible.

"In addition to the competitive potential where the plant can actually reduce yields, there's the consideration of harvest efficiency," he continued. "You don't want a soybean or corn plant going through a cotton picker and vice versa; you don't want cotton plants going through a combine. So harvest efficiency and the threat the plant can serve as hosts for insects or disease organisms, from that standpoint they are weeds, just nontraditional weeds."

Further information on this topic can be found at <LSUagcenter.com>. Δ

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Dr. Donnie Miller, Research Coordinator and Weed Scientist at the LSU AgCenter's Northeast Research Station explains the impact of volunteer corn, cotton or soybean plants from a previous year's crop.
Photo by John LaRose, Jr.

An example of volunteer corn in soybeans in this photo taken of a southeast Missouri farmer's field.
Photo by John LaRose