MU Specialists Say Fall-Planted Cover Crops Become Weeds To Farmers At Spring Planting

COLUMBIA, MO.

New weeds were found in farm fields this spring. As producers rushed to plant their corn and soybean crops, cover crops planted last fall to provide erosion control were in the way.

"I'm not a cover crop specialist," said Kevin Bradley, University of Missouri Extension weed specialist. "I help producers find the best ways to manage weeds."

Bradley and Eric Riley, MU research associate, study ways to kill cover crops before planting season. They told of their progress during the July 11 Pest Management Field Day at MU Bradford Research Center, east of Columbia.

"We must be careful what species we plant as cover crops," Bradley said. He granted that cover crops may benefit soil tilth and reduce erosion, but he stuck to the textbook definition of a weed: A plant out of place regardless of species. Even corn becomes a weed in soybean fields.

MU researchers studying nine cover crops found some were easier to control than others. Quick and complete control can speed up crop planting time.

The spring of 2012 provided challenges to researchers-and farmers. Frequent rains delayed getting into fields for pre-plant weed control.

That applied to all regular weeds, such as waterhemp, marestail, horseweed and other usual suspects. Cover crops planted last fall added more challenges.

Cover crops are difficult to control when herbicide applications are delayed and cover crops become taller. Increased biomass on the ground and added height increases difficulty in controlling any weed.

In other tour stops, a repeated message was to apply herbicides early, when weeds are about 4 inches tall. Delaying herbicides until weeds are 10-12 inches tall, or taller, leads to failure.

Bradley was emphatic. Herbicides work best when applied according to label. "You won't see any label approval for foot-tall weeds," he said.

Back at the cover crop stop on the wagon tour, Riley showed plots that had been "aerial seeded" with cereal rye last fall in no-till corn prior to harvest.

Riley reported that cereal rye and winter wheat, both grain crops, were the best cover crops-for reducing the emergence of summer annual weeds in soybean fields this season.

This was in a study where MU weed scientists compared nine cover crops: Austrian pea, cereal rye/hairy vetch, hairy vetch, crimson clover, tillage radish, oats, annual ryegrass, cereal rye and wheat. The study was replicated near Moberly, Mo.

Bradley made a strong point to warn against one particular cover crop being used by some for fall planting in crop fields. "Italian ryegrass is not the same as cereal rye."

Also known as annual ryegrass, Italian ryegrass causes much confusion, Bradley said. It is a very different species from cereal rye, which is also called annual rye.

In many countries, Italian ryegrass has become resistant to the herbicide glyphosate. "Already, we have glyphosate-resistant Italian ryegrass in several states," Bradley added. "Resistance reduces the ability to control any weed." The Weed Science Society of America lists it as among the world's worst herbicide-resistant weeds.

The field day drew 180 visitors who make crop decisions on more than 6.5 million acres.

The Bradford field day is part of the MU College of Agriculture, Food and Natural Resources. Other field days will be held at research farms across the state in coming months. For more information, go to aes.missouri.edu/events.php. Δ