Atrazine Has A Huge Impact On Missouri Economy

MU Extension is working with stakeholders to make sure it remains available.

COLUMBIA, MO.

Atrazine, presently used on more than 85 percent of the corn acres in Missouri, is considered one of the most effective and least costly herbicides in use. University of Missouri Extension is helping farmers and communities manage atrazine runoff so the herbicide remains available.

"If you can use atrazine, it is going to cost you about $12 an acre," said Bob Broz, MU Extension water quality specialist. "The next best product is going to cost you about $26 more per acre."

Missouri has more than 4 million acres of claypan soils, which are particularly susceptible to pesticide runoff. If half of those acres were planted to corn, prohibiting use of atrazine could increase annual production costs to farmers by $52 million.

Broz and colleagues are looking at different management practices to reduce pesticide runoff so that atrazine continues to be available to producers.

Current regulations allow three parts per billion of atrazine in the finished drinking water. Several years ago a number of northern Missouri communities, primarily in rural areas, started showing indications of increased atrazine levels in drinking-water reservoirs.

MU Extension and the Missouri Department of Natural Resources worked directly with people in those communities to identify ways to reduce pesticide runoff into these waters, Broz said.

"In one watershed, we recognized that many of the farmers were on the same corn-bean crop rotation," he said. "They would all have corn in at the same time and the following year all have beans, so one year would be very high with spikes for pesticides and the next year relatively low. The farmers worked among themselves to determine who would change their rotation habits. We then worked with the local Natural Resources Conservation Service and Soil and Water Conservation Districts (SWCD) to get other practices such as terraces that drained directly into grass waterways installed in critical areas."

Other partners such as the Missouri Corn Growers helped get the word out to their members on the importance of following label directions and reducing the risk of pesticide runoff.

Through the combined efforts of MU Extension and the communities, atrazine levels were reduced to manageable rates, Broz said.

MU Extension also offers watershed-planning management as a service, working with SWCDs to help establish planning teams to respond to different water quality concerns.

"Extension continues to work with agency partners to demonstrate to producers what kind of weed control you would get using a different variety of pesticides, what the costs are, how it affects your yield, your production rate and, of course, that bottom line," Broz said. "Extension is working hard on finding places where they can educate producers about their options." Δ