A new approach to watershed improvement

By Carol Brown, ISA environmental communications specialist

An Iowa Water Quality Initiative (WQI) is putting a twist on the traditional approach to a watershed project.

The North Raccoon Farm to River Partnership WQI is recruiting extra manpower to help spur adoption of farming conservation practices that reduce nitrogen and phosphorus entering waterbodies. The three-year project, launched last summer, covers five watersheds in Sac, Calhoun, Carroll and Greene counties.

Project coordinator Diane Ercse is working with Agriculture's Clean Water Alliance (ACWA) members and partners to expand outreach for watershed improvement.

"As in a traditional watershed project, I meet with as many farmers and landowners as possible, but it's hard to reach everyone," said Ercse. "Ag retailers have established relationships and are a trusted source of information for farmers. By equipping the retail agronomists with knowledge about conservation practices, we can scale up implementation faster."

The ACWA member agronomists are experts in cropping systems, nutrient management and seed selection, but they may not be as well-versed in practices that protect soil health and improve water quality, Ercse said. To ensure that the agronomists can speak confidently with their clients, Ercse is holding educational workshops on conservation practices. Agronomists earn continuing education credits upon completion of each seminar.

Through these educational workshops more people can now advocate for water quality improvement. In addition to Ercse, agronomists are encouraging farmers and landowners to implement practices that reduce nutrients entering waterways. With more conservation practices on the ground, achieving the goals of the Iowa Nutrient Reduction Strategy could be reached sooner. The strategy, in place since 2012, offers a suite of practices farmers can adopt to reduce nitrogen and phosphorus by 45 percent in waters entering the Mississippi River.

Last month, Ercse hosted a session on conservation drainage in Lake City for more than 25 farmers and agronomists. Chris Hay, Iowa Soybean Association (ISA) senior environmental scientist, explained how bioreactors, saturated buffers and wetlands remove nitrogen from tile-drained water as it leaves row-crop fields.

Hay and Ercse also shared approximate costs for these structures and ways to get them installed at little or no cost to the landowner through the project. The Farm to River Partnership project's goals include installation of 15 bioreactors, 15 saturated buffers and a wetland, as well as 11,500 new acres of cover crops.

"The conservation drainage session showed me the opportunities and options available for different landscapes," said Jeff Frank, an ISA director who farms near Auburn in Sac County. "The practices are tried and true and can fit in almost any operation." Frank's fields are outside of the Elk Run watershed, but his water drains into it. After four years of monitoring tile-drained water on his farm, Ercse used this data as a base point for nitrate levels in Elk Run, one of the watersheds in the project.

Three tile outlets along a one-mile stretch of Frank's farm were showing inconsistent monitoring results, even when he applied the same farming practices.

"This session gave me ideas of what's possible for my farm," he said. "I'm considering a bioreactor for this area as it won't interfere with the farmed land."

Next spring, Ercse plans to host a workshop on cover crops for ACWA member agronomists and farmers. Attendees can learn how cover crops can be added to any crop rotation for better water infiltration, weed suppression and improved soil organic matter. Cover crops also can be used for grazing in livestock operations.

"These free workshops are a great way for our staff to learn about conservation practices," said Gregg Schmitz with Nutrien Ag Solutions and ACWA vice president. "Our agronomists now have more knowledge to answer farmer questions. They can offer suggestions to clients on nutrient management and practices for better soil health, which will improve farmer productivity in the long run."

The North Raccoon Farm to River Partnership is managed by ACWA and supported by the Iowa Department of Agriculture and Land Stewardship (IDALS), Iowa Soybean Association (ISA), and Iowa Agriculture Water Alliance (IAWA). For more information about the project, visit the <u>AWCA website</u>.

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