

Farmers share how they are improving water quality

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DES MOINES — Jeff Pape can show the statistics that water quality has improved in Hewitt Creek Watershed, north of Dyersville, but there's something else that tells him the stream quality is better.

Eagles fish in the stream and people are catching fish. Before the watershed project started in 2005, there weren't any eagles, and no one fished there.

"If we have fish back in the stream, we have to have a little bit better water," said Pape, chairman of the Hewitt Creek Watershed Council, during a panel discussion on how farmers are implementing Iowa's Nutrient Reduction Strategy.

He spoke at the Iowa Farm Bureau Federation annual meeting earlier this month.

The Hewitt Creek Watershed, which covers 23,000 acres in western Dubuque County, started when John Rodecap, of Iowa State University Extension, approached Pape and other farmers in the watershed about working to improve water quality. Hickory Creek, which ties into Hewitt Creek, was on the impaired waters list.

Pape said the project is farmer-led. Farm Bureau provided \$90,000 to get the project started. Farmers came

up with incentives they would pay cooperators who agreed to try practices to improve water quality. The project since has received funding from the Iowa Watershed Improvement Review Board and gotten other grants. Interest has extended beyond the watershed to farmers in other areas of Dubuque County.

Watershed monitoring early in the project showed issues with high levels of phosphorus and nitrogen. There are a lot of dairy, beef and swine operations with continuous corn and corn-soybean cropping systems in the watershed. Farmers agreed to tie incentives to practices that would reduce phosphorus and nitrogen going into the stream.

"The incentives are not great, just a carrot to get farmers to try something that they hadn't done before," Pape said.

The watershed has a goal of 85 percent farmer participation, and they are at 75 percent right now.

The incentive package consists of grassed waterways, buffers, reduced and no-till, the Iowa Phosphorus Index, the Soil Conditioning Index, manure application, fall stalk nitrate test, cover crops, feedlot runoff improvements, farmstead assessments and nutrient management demonstrations.



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Jeff Pape, left, of Dyersville, and Doug Adams, of Humboldt, talked about how they are implementing Iowa's Nutrient Reduction Strategy at last week's Iowa Farm Bureau Federation Convention in Des Moines.

"If you do a practice and want to show how it works, we hold a field day at your farm," Pape said. "This has allowed nonmembers to see what's been done and improves participation."

If the whole watershed reduces numbers at the stream level, all participants get a small bonus. Watershed coordinator Chad Ingels assigns a number to each cooperator that no one else knows. Participants can see how everyone is doing on the Phosphorus Index and the Soil Conditioning Index.

"Farmers are naturally competitive, so if they're not doing as well as their neighbors, they naturally want to do better and strive to get to a better spot," Pape said.

Livestock producers have started taking credit for nutrients in their manure and have reduced commercial nitrogen.

"They are saving money because they aren't purchasing as much nitrogen," Pape said. "A byproduct of doing a better job is more money in their pocket."

Farmers have been seeding cover crops for five years with 2,000 acres aerially seeded this year, Pape said. Cover crops reduce nitrogen and phosphorus runoff, and this year, farmers saw a 10 to 15 bushel per acre yield bump from using cover crops.

Doug Adams, who strip-tills corn and no-tills soybeans near Humboldt, has used cover crops for two years.

The first year, he broadcast cereal rye with potash after soybean harvest. The rye grew until mid-December. The rye was 5 inches when he terminated it in early May and strip-tilled corn. He aerial seeded cereal rye and tillage radish on corn and soybean ground before harvest in 2013.

Adams said he's using cover crops to recycle nutrients, combat compaction, improve soil health, reduce runoff, protect the soil and reduce weed competition.

"With Iowa's Nutrient Reduction Strategy, everyone needs to make some improvement to their current farming system," Adams said.