

NATURAL RESOURCE MANAGEMENT

Terraces, tile, no-till, cover crops work together

By CHARLIE RAHM

JIM Hoene has been farming Jefferson County property along the Big River for 30 years. As he stood in his large equipment shed recently, with torrents of rain beating on the tin roof, he had to speak loudly to be heard above the roar. A few years earlier in a similar situation, he might have expressed concern about getting his crops in, and keeping those already planted from washing away. But he wasn't worried in 2011.

"These are the days that we plan for," he says calmly.

More than 1,200 acres of the 1,400 acres Hoene farms are in the floodplains of the Meramec River or Big River. Years ago he worked with the Natural Resources Conservation Service, or NRCS, to install terraces to direct runoff into the Big River. That took care of the surface water, but seep water still kept the land wet. With the assistance of David Skaer, an NRCS soil scientist, Hoene was able to determine the paths of the subsurface water. He installed 2 miles of 8-inch underground pipe that collects the water and deposits it into a

Key Points

- Conservation practices systematically improve farming operation.
- Jim Hoene is the first in his county to try cover crops.
- NRCS programs encouraged him to take the step.

wetland along the river. "That tile has been running almost constantly," Hoene says. "It solved a problem that I had on 80 acres that had a hard time drying out."

A strong proponent of no-till farming, Hoene found that his water-management and tillage practices were working together to improve the efficiency and productivity of his operation.

"Before, we didn't have oxygen in our soil; all we had was water," he says. "Now we can no-till a lot more successfully. Even as wet as last spring was, we were able to get all of our crops planted."

"In a year like last year, I don't know what I would have done without no-till. We only had an 11-day window to get a crop in."



NRCS ASSISTANCE: Rhonda Davault, Natural Resources Conservation Service district conservationist (left), and LeAnn Schmidt, an NRCS soil conservationist, provided technical assistance to Jim Hoene.

Cover crops

With surface-water management, subsurface water management and no-till working together, Hoene's farming operation was rounding into shape. But there was still one more problem.

"We were losing a lot of the benefits of no-till because the river floods and washes the residue away," he says. In an attempt to reduce that problem, Hoene signed up to participate in an NRCS program that provides incentives to establish cover crops.

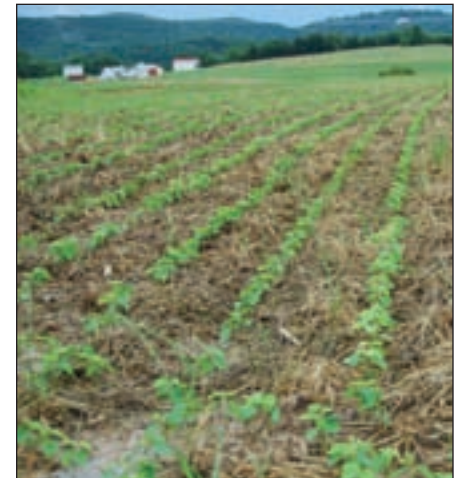
Cover crops keep residue from washing away, provide soil surface cover in winter, and help remove excess water from the soil in the spring, says Rhonda Davault, NRCS district conservationist.

In the first year of planting a ryegrass cover crop, Hoene found the benefits even greater. "The ryegrass not only held the soil and residue in place, but it also gathered

sediment during floods," he says. He adds that the thick, deep ryegrass roots could help crops by loosening the soil. "We've never given the underground climate the attention it deserves. Everybody's looking at what's going on up top."

"Jim is one of the first farmers in Jefferson County to try cover crops," notes LeAnn Schmidt, an NRCS soil conservationist who has provided technical assistance to Hoene. She says Hoene is receiving financial assistance through NRCS' Environmental Quality Incentives Program to try cover crops, and also for nutrient and pest-management efforts.

Rahm is a public affairs officer with the USDA NRCS in Missouri.



NO-TILL: Jim Hoene believes using no-till is a big advantage in a wet year.



PROBLEM SOLVED: Two miles of underground pipe solved water problems on 80 acres.



WATER TRAIL: David Skaer, an NRCS soil scientist, helped Jim Hoene determine the path of subsurface water.

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