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PROFILES IN soil health

Scott Ness
Waterville, Iowa
Crops: corn, soybeans
Planting: no-till
Covers: cereal rye, winter peas

unlock the
SECRETS
IN THE
SOIL

Early Maturity Soybeans Improve Fall Cover Crop Growth.

Allamakee County's 2016 Cover Crop Grower of the Year, Scott Ness, has used cover crops to reduce erosion and improve soil health on his cropland for seven years.

Ness keeps busy on his Waterville farm with a 185-head ewe-to-lamb operation, feeding about 8,000 nursery pigs, and growing 190 acres of crops.

Ness is a longtime no-tiller who says he will inject manure on every cropland acre in 2018, thanks to available manure from his growing hog operation. And many of those acres will be a sea of green cover crops.



Scott Ness drilled in cereal rye and Austrian winter peas after soybean harvest to provide erosion control and improve soil health.

District Conservationist LuAnn Rolling with USDA's Natural Resources Conservation Service (NRCS) in Allamakee County says one of the challenges for cover crop implementation is overcoming the mindset that cover crops cannot be used on acres with applied manure – either because manure drowns the seed or due to the timing of the manure application.

Rolling says cover crops provide water quality benefits when used in conjunction with manure. "Cover crops can scavenge nutrients and provide cover and ground surface protection during the fall and early spring when warm season crops like corn and soybeans are not growing," she said.

Allamakee Soil and Water Conservation District (SWCD) Project Coordinator Sara Berges is working with a handful of farmers, on a project funded through the Leopold Center for Sustainable Agriculture, to find what method, timing, and cover crop species work best. "We want to see as much cover crop growth in the fall as possible," said Berges, "and we want farmers to use a winter hardy cover crop like cereal rye that will survive and continue to provide benefits in the spring before planting."

Ness' Planting Method

In 2016, Ness purchased a 15-foot Case IH grain drill to improve cover crop planting efficiency. "The few times we aerial applied cover crops we didn't get a very even stand," he said. "We've tried several planting methods and cover crop mixes. We can get cereal rye to grow consistently well. We have great results when Mother Nature cooperates with us."

In 2017, Ness drilled cereal rye and Austrian winter peas into harvested soybean stubble in late October. By the end of November, the cover crops started to green up. A month later, he knifed manure into his green cover crop.

"We've actually started to grow early maturity soybeans to get them out of the ground sooner," said Ness. "We get the same yields as the late maturity. We plant the beans in late April, before corn. It works!"

Ness says growing cover crops is a challenge, but he feels the positives outweigh the negatives. "We factor in a certain amount of nitrogen from this cover crop," he said. "Our tougher ground has gotten more mellow and all of our soils are much easier to plant into now."

In Spring 2017, Ness missed an entire acre when terminating his cover crops with glyphosate. He said the rye grew to about 32 inches by the time he planted his corn. "I went ahead and planted into it," he said. "I went back in and sprayed it, riding on my ATV."

"We did a yield check on that acre, and we yielded 41 bushels better than what we yielded 90 feet away where we terminated early," said Ness.

Ness says he is going to purposely plant into green cover on a larger area in Spring 2018. "I won't let it grow to 32 inches, but I want to see if I get the same kind of yield bump," he said.

Project to Fund Additional Trials

Allamakee SWCD and a group of their conservation partners were recently awarded funding from USDA through the Innovative Conservation Agriculture Project to provide financial and planning assistance to producers in Allamakee and Clayton County to support the implementation of cover crops and no-till in conjunction with manure application. Through this Regional Conservation Partnership Project (RCPP), farmers can receive up to \$6,000 per contract for cover crops and up to \$1,500 per contract for no-till.

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