

INDIANA CSP SUCCESS STORY

Parke County, Indiana



Cover Crop Field Trials Proving Successful

Greg Mager and his two sons are corn/soybean farmers in Parke County, Indiana and are well known for their conservation philosophy. Some of the land they rent-to-farm is adjacent to the Big Raccoon Creek which drains much of Parke County, making water quality an important concern to them.

Mager is a long-time no-till farmer, but over the past few years, Mager has worked with Don Donovan, District Conservationist to incorporate a Soil Health Management System approach on the land he owns and rents. This systems approach combines conservation practices such as no-till systems, cover crops, pest management, nutrient management and precision technology in a way that leads to better soil biology, increased yields and less inputs. It is a different way of managing the land.

In 2012, Mager enrolled nearly 204 acres into the Conservation Stewardship Program (CSP) that allowed him to integrate continuous cover crops to improve his soil health and utilize split nitrogen application and precision technology to be more effective and efficient with herbicide and fertilizer application.

To determine if these conservation activities really do make a difference, Mager decided to set up his own on-the- farm trial in one of his large fields to study the impact of cover crops on nitrogen management over the life of the five year CSP contract.

Mager is working with Indiana's InField Advantage program to help with the research and learn from other growers and conservation professionals. The InField Advantage program is led by the Indiana State Department of Agriculture, Indiana Corn Growers and Indiana Soybean Association who work with local Soil and Water Conservation Districts (SWCDs) and farmers to take corn stalk samples which are then analyzed for nitrates. When results are available, farmers use the information to determine how to improve their nitrogen efficiency.

The Mager's study no till field is divided equally. Each fall, one half the field is aerially seeded with cover crops and the other is not. Everything else in the field is constant including seed, soils, herbicide, and commercial fertilizer.

One of the reasons Mager started his on-farm trials was to determine the impact cover crops have on soil health, nutrient cycling, and ultimately yield and profit and he is getting measurable results. In 2013, when the stalk samples were pulled about three weeks before harvest, Mager did a moisture sample of the corn. The corn without cover crops was nine percent dryer than the corn with cover crops, an indicator that the corn with cover crops was healthier and taking longer to mature and dry down. At harvest, the corn with cover crops was still two to three percent wetter than the corn without and the average yield (based on the combine yield monitor) was eight to nine bushels better in the area of the field with cover crops. This year, that field will have stalk nitrate tests taken from both the cover crop portion as well as the non-cover crop.

Greg Mager was recognized for his many conservation efforts with the 2015 River Friendly Farmer Award. He says he will continue to participate in programs such as CSP that will allow him to utilize innovative conservation practices that make his land more resilient while improving water quality and his bottom line.

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