

Small grains in the Corn Belt

BY NICK OHDE

FARMER Daryl DeGroot runs a 250-head dairy in northwest Iowa near Hull. When he saw an ad in his local paper that Practical Farmers of Iowa was looking for farmers to grow oats, he gave them a call. “With prices the way they are, we were hoping we could make as much with oats as with corn and beans,” he says.

DeGroot hadn’t grown oats for many years, but they fit well into dairy operations. He grew oats on 26 acres that yielded 90 bushels an acre this year, and made 1,600 small square straw bales.

“It dollared up well,” he says, after selling the oats to a local feed mill that makes calf feed, and selling some bales to local dairy producers. “For dairy farmers that have baby calves, the small oat straw bales are really easy to use,” he says. In addition to the grain and straw, he had enough oat regrowth to harvest as silage for his heifers.

This year, he and seven other farmers new to small-grain production grew oats as part of a pilot project with Practical Farmers of Iowa. The project looked to examine and eliminate the roadblocks to growing more small grains in the Corn Belt. The big takeaway on the production side is that it’s possible to grow food-grade oats in Iowa. The seven farmers averaged 92.8 bushel per acre with an average test weight of 36 pounds per bushel, high enough to meet the food-grade quality.

Small grains, large gains

DeGroot says another reason he wanted to start growing oats was to break up the weed cycle. “We’ve been having a lot of trouble with waterhemp in recent years,” he says, “we’re hoping the oats will break that cycle up and allow us to get away from using so much Roundup.” Iowa State University research has shown that extended crop rotation can allow farmers to use six times less herbicide.

In addition to reducing the amount of herbicide necessary, adding a third crop, such as oats, wheat, barley, rye or triticale, provides numerous benefits to farms. Diversified crop rotations can reduce the amount of purchased fertilizer needed, improve soil and water quality, and ultimately, make corn and soybean production more profitable due to reduced input costs.

But for many farmers, there are issues related to agronomic production and marketing that keep them from growing small grains. Though Iowa was once the nation’s leader in oat production, it’s been more than a generation since the crop was



ROTATIONALLY RAISED: Hogs eat a feed ration that includes small grains. “We need market-driven demand for soil health practices to move it to scale,” says Sarah Carlson, Midwest cover crops director at Practical Farmers of Iowa. “Including Corn Belt-raised small grains in the food and beverage supply chain, such as in livestock feed, may be a way to do it.”

grown on a significant acreage in the state. “In the past, corn and bean prices were good enough that you just didn’t have to worry about it,” DeGroot says.

Among the biggest challenges to oat production in Iowa are disease pressure and low test weight. These problems have been made worse by the lack of an oat breeding program in the state for many years. Careful variety selection, timing of planting and postharvest handling can help yields and test weights, but there’s a learning curve.

“This project was helpful,” DeGroot says. “We got tips on how to plant, whether to use a fungicide, and how to handle the grain at harvest,” he says. “Running it through a grain vac, running it through an auger, putting it in a bin, I think all those things helped increase test weight.” He did use a fungicide but isn’t sure whether or not it paid this year.

PFI will continue to coordinate efforts of farmers to share production information on small grains through videos, field days, on-farm research, conferences, workshops and webinars. Information from these events and other resources is at practicalfarmers.org/small-grains.

Developing markets, on the other hand, can be more difficult for individual farmers. DeGroot managed to sell his oats

to his local elevator, but because of limited demand for the product, that might not be an option for everyone.

PFI has been working with the Sustainable Food Lab and companies to increase the number of small grains they source from within the Corn Belt. SFL is a network of organizations, primarily food and beverage companies such as Syngenta, Mars, Unilever and more, interested in improving the sustainability of the food system.

Sarah Carlson, Midwest cover crops director for PFI, coordinates PFI’s efforts on the project. “There is publicly stated interest by food and beverage companies to improve the sustainability of their ingredient supply chains,” she says, “and for the Corn Belt, that means sourcing corn and soybeans more sustainably.” And that’s where small grains come in.

Reducing fertilizer use

According to Iowa State University research, adding a small grains crop (along with animal manure and a green manure crop such as red clover) to a corn and soybean rotation can reduce fertilizer use by up to 88%, drastically reducing greenhouse gas emissions. Increasing their purchases of products raised in rotations that reduce GHGs will allow companies to

reduce their overall environmental footprint, an important sustainability metric for many companies.

Carlson hopes Iowa farmers will get in on the ground floor of this opportunity. “The food and beverage companies could source these ‘rotationally raised’ products anywhere,” she says. “But if we’re ahead of the curve, then we can raise those small grains and get all the soil health benefits on our acres here in Iowa.”

More small grains could also help solve the state’s water quality problems. She says cover crops are a good first step for farmers to improve their soil and water quality, but having permanently accessible markets for small grains crops and therefore diversified crop rotations could be a permanent solution.

“Public funding has been great for cover crops, and Iowa farmers have really taken advantage of the opportunities out there,” she says, “but to get to the scale of the Nutrient Reduction Strategy, we’re going to need some sort of market pull.”

Feeding small grains in Iowa

To jump-start the relationships necessary to rebuild the Corn Belt small-grain market, PFI and SFL will build on their successes from 2016 and create more pilot projects that bring together many of the big players in this field.

“We want to bring together a couple food and beverage companies to see if there’s a win-win for everyone,” Carlson says. “Everyone wants to source corn and soybeans more sustainably, and Iowa farmers can do that while benefiting their soil.”

While both corn and soybeans are used extensively in thousands of products, they are most prevalent in the meat supply chain as livestock feed. Feed is one area that could have a huge influence on small grains acreage in the state. “Even if a couple big feed mills started blending Iowa-raised small grains into their feed as just 10% of the ration, that could create enough demand for hundreds of thousands more acres of small grains,” says Carlson. She notes that adding small grains to livestock feed could enable farmers to reduce antibiotic use, which is of interest to some meat brands.

Farmers interested in participating in the next phase of the project can call Carlson at 515-232-5661 or email her at sarah@practicalfarmers.org.

Partners on the project also include Cool Farm Alliance, Grain Millers, Albert Lea Seedhouse, Cargill, Applegate/Hormel, Unilever and Iowa State University.

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