Focus on basics for growing oats

BY NICK OHDE

AVID Weisberger, a graduate student at Iowa State University, has spent the last couple of years traversing the state, working with farmers who grow small grains. Most organic corn and soybean producers need to rotate a third crop into their farming system, making organic a good place to start with small-grain research.

“The problem is farmers almost always lose money on those crops in this part of the world,” Weisberger says. So a group of researchers at ISU — Mary Wiedenhoft of the Agronomy Department, Margaret Smith of Extension, and Anther Anderson, then president of the Iowa Organic Association — secured funding to answer the question: What are the constraints to the organic production of small grains in Iowa? The researchers hired Weisberger in 2014 to work on the project for his graduate work.

First, Weisberger visited 40 farms across Iowa, collecting basic agronomic data on how small grains were being raised on organic farms and talked with farmers about how long they’d been growing the crops, where they sold their products and what they thought was holding back production. One major conclusion from this survey: Oats were far and away the most commonly grown organic small grain in the state.

From the list of 40 farmers, Weisberger contacted seven who agreed to do on-farm trials on a number of topics important to small-grain production in Iowa.

Zero in on population

Weisberger worked with three farmers to conduct research on the effect of seeding rates on yield and profitability of organic oat production. “One thing stood out from the survey,” he says. “There were massive ranges in seeding rates of oats. Farmers over the two years of the study planted anywhere from 1.5 bushels per acre to 5 bushels per acre.”

All farmers he talked to thought about oat planting in bushels or pounds per acre, while they thought about corn and soybeans more precisely, in plant populations per acre. For this trial, three rates were evaluated: 22, 29 and 36 plants per square foot (this worked out to about 85, 112 and 138 pounds of seed per acre, respectively). That trial found no statistically significant differences in yield among the treatments.

Aaron Heley Lehman of Polk City was one of the participating farmers. “Based on these results, farmers can maybe achieve some savings with the amount of seed they’re using, within a certain range, and they won’t affect yield,” he says. But he says in addition to the results of the research, he learned a few things by taking part in the research project that will be perhaps even more beneficial.

“The legume does good things for soil conservation and making nitrogen for the next year’s crop, so we’re happy it doesn’t hurt the oats,” Madsen says. He’s aiming at improving yield and test weight to try to sell food-grade organic oats to Grain Millers.

Weisberger conducted small-plot research at ISU’s agronomy farm at Boone on planting date and seeding rate. He looked at three planting dates over 22 days, as well as four seeding rates: the three seeding rates from the on-farm trials, plus one lower rate.

Madsen, president of the Iowa Organic Association and Practical Farmers of Iowa this winter. Margaret Smith of ISU says ISU Extension will have out a new oat production guide for both organic and conventional producers based in part on this research by January or February, in time for oat production season. For more information on small grains, go online to practicalfarmers.org/small-grains.

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