On-farm research exploring nitrogen fertilizer rates with Kellie and A.J. Blair

Kellie and A.J. Blair farm near Dayton, Iowa, with their two children.

They started raising food-grade oats a few years ago but heard conflicting opinions on the necessity of nitrogen fertilizer for reaching test weight and maximizing the profit of food-grade oats.

They decided to conduct a PFI Cooperators’ trial to evaluate what nitrogen rate would lead to maximum profit on their farm. In both years of the trial, the Blairs drilled oats into soybean stubble and applied a blend of AMS and urea roughly two weeks after planting.

In their 2020 trial, they compared zero and 50 pounds of nitrogen fertilizer per acre. They found that the fertilizer treatment had significantly higher oat yields, and even with the added expense of fertilizer, had higher profitability.
The following year, the Blairs wanted to hone their N rate further for food-grade oats, so they conducted another trial to compare rates of 25, 50 and 75 lb N/ac, expecting that the 50 lb N/ac treatment would have the most significant yield and profitability.

They found that the 25 lb N/acre treatment yielded similarly to the other treatments, meaning the profit margin was higher with the lower cost of inputs.

For more details about their production and trial, watch their virtual field day recording on growing high-quality food-grade oats.

**PROGRAM UPDATES**

**Welcome Solveig Orngard to the PFI staff!**

Solveig Orngard joins the PFI team as a field crops education coordinator.

In this role, she works with the farmer-led education department to engage field crop farmers and coordinate educational programs, both virtual and in the field.

Growing up in Boone County, Iowa, she developed a deep-rooted connection with the land that brought her back to her home state. Read more about Solveig.

**Apply now for extended rotation cost-share**

Farmers in Illinois, Iowa, Minnesota, Nebraska and Wisconsin with conventional or transition-to-organic small-grain acres are still eligible for cost-share of $20 per acre when they follow their small-grain crop with a legume cover crop.

Plus, PFI has an additional cost-share opportunity for taking a nitrogen fertilizer credit in corn that follows a small-grain in an extended rotation at an additional $20/acre. This portion of the cost-share closes May 1.

Learn more & apply
Short film "The Future of Farming" features PFI members

Through our partnership with Unilever, we are helping to create market incentives for farmers to fund cover crops and protect and improve their soil in the process.

Stream The Climate Pledge's "The Future of Farming" to learn more about the impact on Iowa farms.

Thank you PFI members Bill Frederick, James Holz (pictured), Ruth McCabe, Doug Honeck and PFI staffer Sarah Carlson for sharing your voices in the film.

IN THE FIELD

Blog: "Fertilizers, Herbicides and Fungicides for Small Grains"

Growing small grains requires farmers to monitor many different factors throughout the season.

What's the best time to fertilize? What varieties are best for your operation? When is it too late to apply fungicides?

Revisit this 2017 shared learning call write-up in which Bruce Roskens and David Weisberger share their experiences, challenges and more.

Rotationally Raised: Fertilizing Small Grains
Small grains often benefit from supplemental nitrogen in the early stages of their growth, but applying too much at or after the V4 stage can increase height and potentially cause lodging.

"For things like rye, there aren't a lot of resources as far as fertilizer goes," says Wade Dooley.

Watch the video to learn how Wade, Tim Sieren and David Weisberger are using on-farm research to adjust their fertility programs for small grains.

Research report: "Nitrogen Fertilizer Effect on Cereal Rye Yield and Quality"

Dick Sloan raises cereal rye for cover crop seed in Rowley, Iowa. He wanted to find out how applying nitrogen fertilizer would improve yield and germination rates.

He used two different application methods – a fall-spring split application and a spring-only application – to compare.

View his results and learn how they will impact his farming decisions in this 2022 research report.

Additional economic & market resources:

- From PFI’s blog: “Small Grain Fertility Requirements and Application Strategies“
- Report from University of Nebraska-Lincoln: "Alfalfa in Rotation with Annual Crops Reduces Nitrate Leaching Potential and Increases Soil Organic Carbon Sequestration"

**UPCOMING EVENTS**

*All times listed are central daylight time*

**April 6: PFI Social** - **Whiterock Conservancy**
Hosted by: Practical Farmers of Iowa
1 - 4 p.m. | Coon Rapids, IA

**May 6: PFI Social** - **Devine-Johnson Family Farm**
Hosted by: Practical Farmers of Iowa
1 - 3 p.m. | Belle Plaine, MN

**May 10: Webinar** - **Cereal Innovators with Tom Moore**
Hosted by: Northern Crops Institute
9 - 10 a.m | Online

**May 11: Webinar** - **Creating a Modern Heirloom Variety**
Hosted by: Craft Maltsters Guild
3 - 4 p.m. | Online

**May 24: Webinar** - **Field Notes Talks: Alfalfa and Early Season Insects**
Hosted by: University of Minnesota Extension
8 - 8:30 a.m. | Online

**Coming in May: Field Day Season**
Stay tuned as we announce 40+ farmer-led field days.

Contact [solveig.orngard@practicalfarmers.org](mailto:solveig.orngard@practicalfarmers.org) to plan or promote an event.

**STRAW POLL**

**How does your oat acreage in 2023 compare to past years’ oat acreage?**

Answer the poll question below:

- More acres
  - [Select]
- Fewer acres
  - [Select]
- About the same
  - [Select]
- N/A, I don’t raise oats
  - [Select]
Previous poll results:

Which topic are you most interested in learning about at field days this year?

- **Oat production** - 32%
- Summer cover crops - 20%
- Milling and marketing food-grade small grains - 16%
- Relay cropping - 16%
- All of the above - 16%

Send us your straw poll ideas! We want to know what YOU want to know. Reply to this email with your ideas for the next poll.

Looking for more? Contact us today!

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Chat with any of us by calling the PFI office at (515)232-5661.

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