

Up corn yield 50 bushels

By LON TONNESON

LAST year, Bernie Paulson increased corn yields 50 bushels per acre on some problem soils with Greenseeker — an optical sensing and application system from NTech Industries. Greenseeker measures the color of the crop and varies the fertilizer

Key Points

- Minnesota corn growers improve nitrogen management with Greenseeker.
- Greenseeker reads crop vigor and varies N rate on-the-go.
- Technology cut costs in some areas and upped yield in others.

application rate according to the plant's vigor.

Paulson farms and is a crop consultant with McPherson Crop Management in the Janesville area, where soil types can be extremely variable. On some farms, organic matter ranges from lows of 2% to 3% to highs of 35% in peat and muck soils.



GREEN READER: Greenseeker scanners read the corn leaves' color and vary the N rate to help corn reach the yield goal. Photo: NTech Industries.

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Paulson says that no matter what he and clients did with hybrid selection, seeding rate, tiling and manure applications, they couldn't get corn to produce more than 110 to 140 bushels per acre on some of the side hills. But other areas of the fields yielded more than 200 bushels per acre with only 70 to 120 pounds of applied nitrogen.

"We knew we needed to vary N rates," Paulson says. "The question was 'how?'"

Last year, they tried Greenseeker. Paulson applied 70% of the recommended N rate for their yield goals as urea in the spring and then sidedressed using Greenseeker when the corn was in the V5 to V6 growth stage. Greenseeker read which plants needed more N and which were okay. In some areas, the Greenseeker shut off the N, while in others it applied up to 26 gallons of 28% N.

The result was more bushels on the side hills and the same high yields in the areas that were always the most productive, but without extra N.

Frank Galler, Elysian, a farmer who worked with Paulson, says he wouldn't have had the confidence to cut N rates in the most productive areas without Greenseeker.

"It gave me data," he says.

Paulson says all the clients who used Greenseeker last year on a custom basis are using it again, and some are buying their own systems.

"We have more to learn," Paulson says. "But Greenseeker looks like a good tool. Instead of applying a straight rate across the entire field, it reallocated our fertilizer investment to the areas with the highest potential yield response. Greenseeker found those areas for us."

Winter wheat, too

Fred Lukens had similar success using Greenseeker in winter wheat in the Red River Valley to boost yields and protein levels.

The Aneta, N.D., farmer applied approximately 70 pounds of 11-52-0 and 70 pounds of urea in a 6-inch band with winter wheat seed in the fall of 2007. In the spring, he used Greenseeker to topdress the crop. Greenseeker varied the rate of the liquid 28% N from 3 to 55 gallons per acre based on the color of the plants and the yield potential.

"I got both good yields and good protein levels," Lukens says. "I was pleased."

Learn more online

You can learn more about Greenseeker online. Go to www.The-Farmer.com for a link to answers from NTech Industries to frequently asked questions about Greenseeker.