

Nebraska

FARMER

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Precision watering

At a glance

- Monitoring devices save one to two irrigations a year.
- Farmer is one of 300 involved in irrigation demo network.
- Local NRD helped pay for ET gauge, soil moisture sensors.

By **DON McCABE**

FOR Jim Hild, there is a more satisfying sight than a center pivot watering his crops on a hot Nebraska day. It's seeing the pivot standing idle because he knows enough soil moisture is available for the crop.

"It's just like money in your pocket when you can eliminate two or more rotations during the season," says Hild, who farms with his father-in-law, Bob Crumbliss, near Edgar.

Hild is among 300-plus Nebraska farmer-cooperators in a rapidly growing irrigation scheduling network begun in 2005 by Suat Irmak, University of Nebraska irrigation engineer. The network consists of Extension staff, about 10 natural resources districts and the participating irrigators, who use two key monitoring devices — an evapotranspiration gauge to simulate crop ET and Watermark sensors to measure soil moisture.

In 2008, Hild and Crumbliss installed one set of sensors in each of 12 pivot circles. They read the sensors regularly with hand-held meters, and use the ET gauge, or atmometer, at the edge of one field to estimate ET for all fields. Speaking with the confidence gained in two years of using these tools to determine irrigation timing, Hild says he eliminated at least one irrigation pass on all pivots and two on several in 2008.

"That's a big deal consid-



MOISTURE MONITORING: Jim Hild of Edgar (right) and his son, Preston, use a set of Watermark soil sensors in each field that they've enrolled in a state irrigation management demonstration network.

ering diesel prices," he says.

In 2007, when he had the monitoring tools on only one pivot watering double-crop wheat and soybeans, Hild eliminated two rotations, saving enough to pay for all the additional monitoring equipment installed this past season.

Like some other districts, the Little Blue NRD in which Hild farms pays half the cost of the sensors and ET gauge for cooperators.

It's not always about cutting back. "The sensors actually told us on two circles that we needed to continue watering

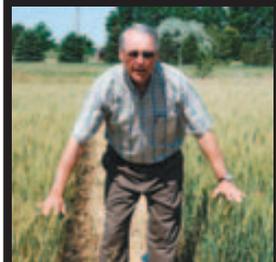
soybeans later in the season than we planned," Hild says.

"This beats irrigating just because the neighbors are," he says. "Now, a lot of neighbors are interested in this approach."

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You can never have too much performance.

