



## Extension offers advice during water-short years

Howard Neibling, UI Extension water management engineer at Twin Falls, has some advice for growers who rely on irrigation to produce southern Idaho's diverse crops: dig deeper. And do it before planting starts in April.

Neibling advises growers to use a shovel, augur or some other tool to delve into their soil profiles at least three feet deep to check moisture levels down deep. With early signs pointing toward drought, the work becomes critically important.

"I know some guys go out, dig a hole six inches or a foot deep and say, 'Looks good,'" Neibling said. "I think they would find they have the top foot wet up but it's dry below that."

A diverse team of UI Extension educators across southern Idaho, Neibling and others have worked with dozens of growers to help them fine tune irrigation scheduling for crops including potatoes, wheat, malting barley, sugarbeets, and alfalfa.

Their findings point to the critical need to fill the soil profile with moisture early in the season to assure the maximum possible production.

Alfalfa fields that run low on water early in the season produce less than fields that are well watered early in the year. The yield potential for wheat is set by the time the plants are 4 to 6 inches high, underscoring the importance of getting the crop started right.

To help growers fine-tune their irriga-

tion scheduling, growers joined extension educators and specialists to test the use of data loggers and soil moisture sensors. The results have improved both crop yields and quality, Neibling said.

During a water-short year, Neibling said, the information can be essential to help growers reallocate water to other crops. Another choice might be to allow pivot corners to dry up and shut down a pivot's end gun.

It is also better, for example, to cut off water early to wheat or feed barley and lose 20 to 30 percent of the potential yield than to skimp on watering potatoes and encounter greater production or quality losses.

"That has been the message we've been delivering consistently to all of the commodity schools this winter," Neibling said.

While irrigation scheduling is ultimately the most important factor, Neibling said growers can also make relatively minor investments to repair and maintain their irrigation systems that will pay dividends later in the season.

It's a good time to go out and fix leaks and replace gaskets. It's also a good time to replace worn sprinkler nozzles if they've been in use for three to five years. Pressure regulators in center pivots should be replaced, too, if they've been in use for three to five years.

All those pieces can come into play when the grower is trying to deliver



Photo by Howard Neibling

Fremont County Extension Educator Lance Brower and Terry Wilcox, a Rexburg potato packer, inspect the readings on a soil moisture sensor in a potato field.

water uniformly to fields. Worn nozzles or regulators and leaks can change water pressures and mean that some parts of fields get more water, others less. To help growers, Neibling oversees a website, [www.uidaho.edu/extension/drought/](http://www.uidaho.edu/extension/drought/), to deliver drought information to growers. Later this season, he plans to expand the website to address lawn and other urban watering information.

