

March 4, 2011

COST SHARE FOR IRRIGATION SENSORS

One of my main goals has been to increase the use of management practices that conserve water and improve water quality in and around Saline County. Growers have responded these past three growing seasons. In a cost share program that I helped to start, 104 farmers have ordered 730 watermark sensors, 41 ETgages, 51 hand held readers, 26 data loggers and 23 soil probes or about \$48,000 worth of irrigation management equipment through a cost share program with the Lower Big Blue Natural Resources District water quality fund. These numbers are actually higher for Saline County when you consider cooperators in the Upper Big Blue District in Saline County (generally speaking north of Highway 33).

A survey to participants two years ago indicated water savings for corn ranged from 0" to 7.5" with an average of 2.6" while soybean water savings ranged from 0" to 4.8" with an average of 2.1". The water savings of 2.6" and 2.1" that was achieved is associated with a savings of \$24.00/acre and \$19.40/acre, respectively. For every acre-inch of water not pumped, Nebraskan's benefit by saving an average of 3.3 gallons of diesel fuel and 72 pounds of reduced carbon emissions. We will be looking for new survey results conducted by Gary Zoubek in York County that will occur this March.

Growers need to remember the deadline to order irrigation management equipment this year for cost share is by March 31st. You can find a cost share form on the front page of our website at www.saline.unl.edu.

Here are seven tips to consider when ordering equipment:

1. Watermark sensors are installed 1 ft, 2 ft and 3 ft deep in the soil with a soil probe which comprises one sensing station. My recommendation is to have two stations per pivot or furrow irrigated field or a total of six sensors per field and a hand held reader.
2. Make sure and order a consultants tube and soil probe to get the best soil sensor installations. For first year cooperators, a soil probe is not required as a team helps you install the equipment. I have several that can be borrowed but take advantage of the cost-share and buy your own after your first year with the equipment.
3. A hand held reader allows you to take real time soil moisture measurements in any field. Consider a data logger to replace the hand held reader which can provide convenience while taking readings and year end readings can be graphed.
4. If you have an ET gage, make sure and ask about replacing the white membrane and canvas cover.
5. Watermark sensors can last six to eight years if you take care of them. Check your sensors in a bucket of water and make sure they read a zero or one. If there are readings much higher, the sensor has been damaged or no longer works correctly, they need to be replaced.

6. If you have ground in the Upper Big Blue NRD, make sure and place your order for cost share on all your irrigated sensor supplies and work with Dan Leininger. Call Dan at (402) 362-6601 in York for more information.

7. If you have irrigated land in the Little Blue NRD, call Daryl Andersen in Davenport (402) 364-2145 and in the Lower Big Blue NRD, located in Beatrice, talk to Dustin Wilcox at (402) 228-3402. If you do not understand what you need for equipment, let me know and I can help too.

Despite cost share ending March 31st with the Lower Big Blue NRD, equipment is available for purchase throughout the year. Contact Dustin for more information. Payback on this equipment is immediate by saving that first round with a pivot at the beginning of the irrigation season or saving on irrigation at the end of the growing season. An excellent website describing the new irrigation management tools is located at <http://water.unl.edu/cropswater/nawmdn>.

Professor Suat Irmak at the University of Nebraska has studied the effect of over irrigation at Clay Center. Over irrigation in the studies were at 125% of ET. Over irrigation lost him 15 bu/acre one year and 8 bu/acre the next, which was more yield loss compared to 75% of ET. These findings of 4% to 6% yield losses with over irrigation have agreed with other water research studies in corn.

Look at all the conversions from furrow to pivot irrigation that are occurring in Nebraska. Nebraska now has approximately 55,000 pivots. With that is a large savings of groundwater compared to furrow irrigation and an opportunity to better manage water. Irrigation management and technologies have continued to improve. Take advantage of these new cost share programs. All first year producers will get help and receive a set of materials and direct assistance in the field.

CRP MEETING MARCH 17TH

A public meeting is being held to help explain the CRP rules. You will learn how to increase your chances of qualifying, the different options available for landowners, what is required to re-enroll CRP and other options for your property besides general CRP. Please plan to attend Thursday, March 17th at the Extension office meeting room, 306 West 3rd Street, Wilber. It begins at 2:00 p.m. CRP signup is March 14 to April 15, 2011.

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