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IRRIGATION FLOW METER COST SHARE

Water is our lifeblood in agriculture and having enough water for everyone's needs now and in the future. The Upper Big Blue NRD (which affects a small portion of northern Saline County) has a requirement that water flow meters must still be installed on all irrigation wells by January 1, 2016. There are no irrigation water allocations at this time in this District even though the trigger level is close.

These types of rulings by a Natural Resource District give landowners several years of advance warning in order to implement smoothly. Could we have a similar ruling in the Lower Big Blue NRD District in the future? It certainly is being talked about in committee and the groundwater level trend is pointing that direction. For this reason I think it is a no-brainer to apply for cost share for irrigation meters if you do not have one or it is worn out. The money comes from the private and commercial Pesticide Licensing program in Nebraska.

The Lower Big Blue NRD in Beatrice offers cost share on irrigation flow meters up to 50% of the cost with a \$500 limit of two per landowner per year. Now is a good time to sign up because the cost share is a first come first served basis and we are in a new fiscal year for the funds as of July 1st. To sign up visit your NRCS office. You can bet if and when new rules are implemented, there will be no cost share available due to not enough funding and landowners will pay 100% of the cost.

Marion Calmer in Illinois, an often quoted on-farm researcher, says "If you can't measure it you can't manage it!" We need to do a better job knowing how much water is being applied and using this as a management tool.

What happens is some growers install flow meters for the first time in response to NRD regulations, but rarely look at them during the growing season. Having a flow meter on your irrigation system and not using it is like driving a car and not looking at the speedometer or odometer. Without periodically checking your irrigation meter, you don't really know how fast you are pumping water and how much you have pumped.

Using your flow meter as a management tool that will allow you to keep track of your NRD allocation (if you have one), check your irrigation efficiency, determine pumping plant efficiency, and detect any well or pump problems before they become severe. Because we are lucky to not have groundwater irrigation allocations at this time, let's talk about other uses of the meter.

You can improve your irrigation efficiency by keeping track of how much water was applied the previous week and comparing that number to the crop water use as determined by an ET gage. If you applied more water than the crop used the previous week, you may not be making enough room to store potential rainfall or water and nitrates may be leaching below the active root zone.

You also can use a flow meter to estimate pumping plant efficiency. The brochure, "Estimating the Savings from Improving Pumping Plant Performance", guides you through how to estimate the cost of pumping water and how to compare the energy your pump is using with that of a well maintained and designed pump. Simply record how much fuel you used to pump a given amount of water and compare it to the Nebraska Pumping Plant Criteria to determine if your pumping plant is operating at peak efficiency. Noted differences can reduce fuel costs. The handout is at: <http://ow.ly/Rt9rI>



Also, keeping a record of how much water you pump for a given time period can help determine if your pump is delivering the planned amount of water. Compare pumping rates from previous periods to determine if your pump is experiencing problems and you can plan to correct the problem at a less critical time.

UNL offers several irrigation water apps to help better manage irrigation water resources. These apps can be found at: <http://water.unl.edu/cropwater> The Water Meter Calculator App will help you calculate the number of inches of irrigation water applied based on your water meter readings.

Agricultural water users today have tools to optimize water use efficiency and protect the quantity and quality of water resources. It's all about more crop per drop and wasting irrigation water hurts everyone.

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