

July 5, 2019

WIRELESS USES EXPANDING IN AG

This week I assisted with a non-wireless watermark sensor installation to a data logger with a new cooperator who had ordered soil moisture sensors from the Lower Big Blue NRD. Usually in chest high corn it's really hard to install the sensors. Not this year. The sensors were easily installed one foot, two feet and three feet deep in the soil. Here we are on July 2 with essentially a full soil profile of moisture for our crops. I haven't seen that the first part of July for quite some time. That will be the ace in the hole for our dryland crops this year during tassel and silking on corn.

Soybean Management Field Day Site: There are only four locations in Nebraska for the Soybean Management Field Days this year and we have one in our backyard. Mark your calendars for Thursday, August 15 on the Ross and Judd Boeckner farm two miles west of Plymouth on Highway 4 and ¼ mile north. More information will be coming soon and the website is: <https://extension.unl.edu/statewide/enre/soydays/>

At the Soybean Field Day site I admired the watermark sensor installations with a device called the ServiTech Profiler. Remote soil moisture monitoring is a powerful management tool when using knowledge gained from the University of Nebraska. Turning raw data with time proven sensors on how many readily available inches of water remain for the crop and what the field is holding is information that can save growers money with a resource that is certainly not unlimited.

We are seeing an expanding market for wireless devices in what is being called the Internet of Things (IoT) sensors. What is the Internet of Things or IoT? Basically it is about devices that connect to the internet and share data with each other. It could be your home computer, smart phone, laptops and other objects that have been equipped with computer chips that gather and communicate data over a network.

The following information is according to Norton, a malware provider. In 2016, there were more than 4.7 billion things connected to the internet, according to IOT Analytics. It is predicted in just two more years or by 2021 the market will increase to nearly 11.6 billion IoT devices. It will be devices in your home like speakers, refrigerators, home thermostats, security systems, cameras, turning on and off devices, etc.

In agriculture the market will continue to expand into features such as fuel/fertigation tank level monitoring, real-time flow meter monitoring, accurate and affordable in-field weather conditions, automatic pivot health alerts, grain bin moisture monitoring to name a few. And oh yes, cybercriminals have already created malware for the internet of things. Can you imagine your smart thermostat in your home shut down your air conditioning because of a malware attack?

As increasing demand requires the agriculture industry to provide more food than ever before and to more people, wireless will continue to be a compelling tool for farmers now and into the future.

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