

By Willie Vogt

Moving to the networked farm

NEW TECH WILL CHANGE THE WAY YOU MOVE, PROTECT AND CAPTURE DATA FROM YOUR FARM

There's been buzz about the "networked farm" since robot harvesters were first predicted back in the 1970s.

While those operator-free drones are not moving about our farm fields yet, there is a step-change happening in 2010 that will bring new ways for farmers to manage information.

The networked farm is becoming a reality as top precision ag firms mate cellular technology, Internet-based applications and enhanced software into new uses. Some players will be farther ahead than others as planters start rolling, but look for this to expand into 2011.

Exploring the concepts

We'll deal with the concepts here, so as you start looking at these systems, you can determine what works best for you.

First, the move toward control hubs or modules that use existing cellular networks as a backbone is on the rise. This is due in part because some states have installed RTK networks that use cellular tech for position correction. This is a growing technology that's not available in all areas, but the use of cellular-based products opens the door to a two-way approach to data management that wasn't available in the past.

Second, the software to manage this data is getting better. We're talking both the software that you work with in

your office, and the tools built into the precision ag devices installed in field equipment.

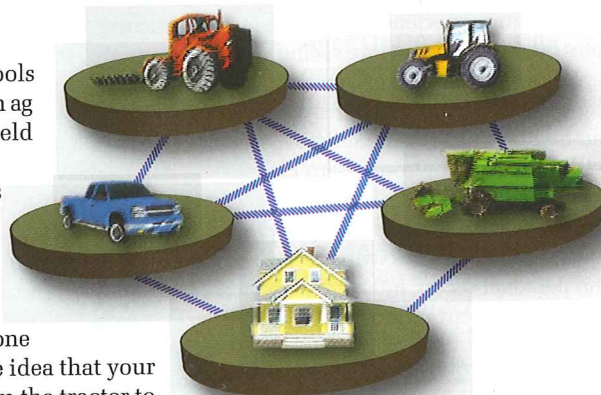
Third, companies are starting to see the value of the Web as a "backbone" for data. This is probably the newest wrinkle, and one that will expand. The idea that your data would beam from the tractor to a secure website, rather than just into a flash card for manual transfer to the office, opens new doors to control.

While Raven Industries is the first to develop such a Web-based system with Slingshot, competitors won't be far behind as more information can be passed from equipment "hub" to office "control." Other players from Trimble with EZ Link to Agco with its Ag Command system are looking at new ways to gather equipment information and move it around the farm.

One example at work

Just what will all this mean? As a first-mover, the Slingshot product paints an interesting picture of how your future could look. Sitting comfortably in your office managing records on a midmorning spring day, you could click to a website to look at the Viper monitor in a tractor cab of an operator miles away and hard at work finishing up a field. You could see what the operator sees, check on progress and monitor the equipment.

From that same office, before the day begins, you could move prescription maps to planter and sprayer tractors, without the need to take the data by card



Wireless network connections between the farm office and field equipment offer ways to enhance productivity and secure information. These are concepts gaining credibility with many precision ag technology providers.

from machine to machine. With a few simple clicks, the information moves right to the appropriate machine. And as those fields are finished, the as-planted or as-sprayed information is immediately available to you for analysis.

Finally, it will be possible to analyze equipment efficiency with this type of technology. You could determine why a sprayer was only 55% efficient by analyzing downtime during application. Knowing why a machine is "down" can help improve productivity. If it's offline because you can't tender it fast enough, it provides an opportunity to improve support needs.

We're talking about a change in how we manage the data on the farm, and in the long run, it will be a change for the better. 