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USE COMBINE YIELD MAPS

Combine yield monitors and maps drawn from yield data can be helpful in making management decisions. The maps have promoted considerable discussion from farmers, consultants and agribusiness representatives. A yield map is based on grain flow and geographic location data collected in one second intervals. Producers are getting better at knowing how to read and use this type of information to make a profitable decision.

The colors on the yield maps are usually red, green, yellow, blue and shades in-between. These colors simply show yield differences across the field.

Straight lines or patterns usually are man-made lines. They can result from fence rows, variety changes, equipment problems or places where manure was stopped being spread.

Curved lines usually are caused by Mother Nature. They can represent different soil types, how soils changed, how insects moved through the field or where weed patches were. Many producers this fall indicated the yield maps were in reverse of what they were used to seeing. In other words, dryland corn yields on clay slopes in many cases out yielded other areas of fields due to our climate in 2003.

Another aspect is to see the efficiency and uniformity of irrigation, man-made but perhaps with curved lines because of Mother Nature's interaction. Yield maps can detect worn out nozzles.

Producers shouldn't jump to conclusions when viewing the information. Areas of weeds that didn't appear much of a problem in July may show reduced yields that fall, leaving one with the idea the weeds should have been controlled. However, there also could be other problems that caused lower yields. Weeds could have filled in because the stand was too thin or something could have been wrong with the seed or planter. Increasing yields depend on what aspect of management needs to be changed. Too often producers look at what happened at harvest time and not at what could have happened earlier in the season.

A recent study at the University of Nebraska showed over half (66%) of the spatial variability in irrigated corn yields could be accounted by elevation. Why? Elevation in a field is related to soil erosion, which is related to water holding capacity and organic matter contact. Areas of fields with the highest organic matter content tended to yield more in irrigated fields.

Several sources are available to help you interpret yield maps. Some good Internet sites include an Ohio State University publication titled, "Yield Monitors and Maps: Making Decisions," at ohioline.osu.edu/aex-fact/0550.html or a publication put out by Pioneer Seeds at http://www.pioneer.com/usa/technology/precision.htm.

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