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Field Scouting for Resistance Management

In last week's column about the Crop Protection Network's *Corn Fungicide ROI Calculator*, I wrote: 'scouting is *not* a part of the crop management equation to eliminate'. It was made in reference to corn disease management, but it could just as easily apply more broadly to resistance management across all crops.

For almost 50 years we've dealt with herbicide resistance of some type in Kansas – and monitoring continues. In fact, we've screened weed populations in the District for resistance over the last two seasons (results pending...) as other states have documented resistance to products that are kind of our 'last line of defense' against some troublesome weeds.

A survey of soybean fungicide product resistance in Kansas was conducted a few years ago by K-State Extension Row Crops Pathologist Dr. Rodrigo Onofre with plant pathologists across the Midwest looking at issues with Frogeye Leaf Spot. Sure enough...they found some level of fungicide resistance in samples from every county sampled (six), including four in NEK.

While insecticide resistance is less documented than herbicide resistance, it could certainly become a problem as well. Take last season for example. Many alfalfa stands were sprayed at least once – and some twice – for alfalfa weevil in early spring then might have received at least one more application of an insecticide in late summer/early fall for fall armyworms. That's not only an application every season, but sometimes more than one (or three...) in a season, increasing the opportunity to introduce resistance and putting increased pressure on products that might be working for us.

What does that have to do with scouting? Knowing *why* you're making an application is not only an economic decision but a resistance management one as well with scouting providing affirmation of what you have in the field. It might result in spraying earlier than planned to catch a pest or weed when small and more easily controlled – reducing resistance. It might result in no application at all if no pest is present, reducing unneeded product exposures that could potentially induce resistance as well.

Scouting is equally important post application to see how products perform as well. After an appropriate time (adhering to label directions...), return to fields to see how products performed. If something didn't work, start to investigate *why*. It might be one of the best visits you make into the field because it can prevent issues for years down the road.

There's a lot on your plate through the growing season but weaving in field scouting *is* important. A little time in-season just might help you kick product resistance down the road a little farther – and that's a *good* thing.