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Row Crop Diseases and Fungicide Resistance

Row crop disease management can be a tricky business. Are we going to see disease? If we *do* see lesions on the leaf, is it really disease? Does my hybrid have disease tolerance? Is a fungicide necessary at this disease level? Which fungicide? When?

I shared information last week on a disease monitoring network and a resource to assist with disease identification. When used in combination with a good scouting program and knowledge of seed and fungicide products, they can help make the decision a little clearer. If a fungicide application is being considered, make sure to consider resistance management as well.

Like herbicide resistance, fungicide resistance is a big concern in the crop production industry, and with good reason considering the damage we can see from disease infestations. Help delay resistance with a few simple steps:

Apply a fungicide only when necessary. If genetics plus environment plus presence equals low disease pressure, applications might be avoidable. Consider economics, too.

If fungicides are deemed necessary, use labeled rates of products with multiple target sites. A sub-lethal dose of fungicide can actually increase resistance issues. A single site of action may well do the same.

Follow up. Revisit sprayed fields two weeks post application to determine efficacy.

For information on best management options for fungicide applications in row crop, drop me a line or check out the Crop Protection Network at www.cropprotectionnetwork.org.

Sweet Corn Earworm

There's nothing like pulling back the husks on the first ears of corn of the season...only to find a corn earworm. Grrr...

Corn earworm damage to sweet corn stands on an annual basis is a given. Moths lay eggs on developing silks at night. Eggs hatch and the larvae start at the tip of the ear, munching their way towards the base, ruining good sweet corn in the process.

If earworm free sweet corn is your goal, the peak moth flight occurs in early July, with larvae present shortly thereafter. Insecticide applications to silks can help, but require application every two to three days as silks continue to grow. They also have to be applied early – during the first two weeks of silking (drying silks aren't attractive to earworm larvae).

Product options (for homeowners) are numerous, but limited to just two active ingredients cyfluthrin or spinosad (organic). Commercial options are much greater.

If you don't mind spending a little time, consider a mineral or other light horticultural oil as an organic control option. Place the oil inside the silk end of the ear with a medicine dropper (half to three fourths of a dropper) when the tips of the silks begin to wilt and turn brown. This will coat earworms already present and likely suffocate them. Earworms that enter the ear after the mineral oil is applied will also be controlled. WARNING: applying oil *before* the silk has begun to brown may interfere with pollination.