Deciding To Apply A Fungicide To Corn

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ungicide application to corn has increased the last two years. What factors should one consider when deciding to apply a foliar fungicide?

Determining a corn field's risk of developing a severe foliar disease is a good starting point. Certain production practices and factors can play a major role in a field's foliar disease risk, according to Carl Bradley, University of Illinois Extension plant pathologist. He notes that disease pressure increases when many of these factors are present.

- Previous crop and tillage practices. When corn is the previous crop and substantial residue is left on the soil surface, the risk of foliar diseases increases.
- Planting date. Late-planted corn is more at risk for some foliar diseases.
- Hybrid susceptibility. Hybrids more susceptible to gray leaf spot and northern leaf blight have increased risk of diseases. Hybrids with "good to excellent" rating for gray leaf spot resistance had a 4 bushel per acre yield response to foliar fungicides compared to a 6 bushel per acre yield response by hybrids with a "fair to poor" rating.
- Weather and environment. High relative humidity and moisture are needed for development of foliar diseases. Having leaves wet longer is fa-

vorable for infection by fungal pathogens.

• Disease observations. Scouting fields prior to tassel emergence may give an indication of potential disease pressure. The earlier that some diseases are present, the greater the risk of losing yield.

Based on field scouting observations, Bradley suggests following these guidelines for fungicide application.

- For susceptible or moderately susceptible hybrids, consider a fungicide application if the disease is present on the third leaf below the ear or higher on 50 percent of the plants before tasseling.
- For intermediate hybrids, consider a fungicide application if conditions and factors are favorable for disease and if disease is present on the third leaf below the ear or higher on 50 percent of the plants before tasseling.
- For resistant hybrids, a fungicide application generally is not recommended, but field scouting is still important.

In summary, Bradley notes that when disease pressure is high enough to reduce yields, most of the fungicide products available for corn will do a good job of protecting against diseases and yield losses.

For further details, see http://ipm.illinois.edu/bulletin/article.php?id= 1180. Δ



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