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## Fungicides on Corn

You have probably asked the question numerous times, “does fungicide on my corn really pay?”. This is a question that has different answers depending on the year and growing conditions. There are indicators that make a response more probably. Below are some reasons why it is beneficial to a corn plant, and how to help determine which fields or corn varieties to consider an fungicide application.

During the growing season a corn plant is vulnerable to foliar diseases in mid-season and stalk rots toward the end of the growing season. The common foliar diseases are Anthracnose leaf blight, gray leaf spot, northern leaf blight, and eyespot. Stalk rots include Anthracnose stalk rot, Fusarium stalk rot, Gibberella stalk rot, Diplodia stalk rot, and charcoal rot.

***How would a corn plant become infected with disease?*** These diseases are caused by pathogens that survive in crop residue or in the soil. This means disease pressure will be considerably greater in fields of corn-on-corn, especially in fields where foliar diseases were a problem the previous year. Under moist conditions, the fungi produces spores that are either splashed by rain or blown by the wind onto susceptible corn leaves, and infection occurs. Additionally, leaf diseases are often lead to stalk rot, resulting in premature harvest of the plant.

***What does all this mean?*** Any stressful condition that reduces photosynthesis and the production of carbohydrates during grain fill predispose corn plants to stalk rots. Stressful conditions include drought, foliar diseases, hail damage, inadequate nutrition, or insect damage.

### ***What are my best chances for a response?***

- ◆ Corn-on-Corn
- ◆ Varieties that are susceptible to gray leaf spot, Anthracnose, etc.
- ◆ Late planted corn
- ◆ Disease activity around tasseling time
- ◆ Weather that would favor diseases (hail, moderate temperatures, high moisture)

***Is it economical?*** There are two options for application, ground or aerial. Both options are viable choices, however, the largest factor in deciding between the two is tolerance of having a ground rig in the field during tasseling. We have seen more consistency using ground application. The reason is, in most cases, the volume of water that is used. Ground application uses 15 gallons of water vs. 2 gallons of water for aerial application. So, back to if it is “economical”. We like to think of a fungicide application as the finishing touch to a good corn crop. What that means is if you have done everything needed to make that plant grow to the best of its ability a fungicide application will help it finish, minimizing yield robbing diseases.

Contact your local Central Valley Agronomist for advice on fungicide application.