# SHOULD I APPLY A FUNGICIDE TO MY SOYBEANS?

Farmer Blog

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“Should I apply a fungicide to my soybeans?” is a question that gets frequently asked about this time of year. Growers must consider many factors including 1) whether or not there are foliar diseases that will respond to a fungicide in any particular field (fungicides will not control bacterial diseases such as bacterial blight and bacterial pustule); 2) what is the 10-day weather forecast that may cause the speed of disease development to increase or decrease; 3) what is the susceptibility of the variety planted; 4) what are the potential “plant health” benefits if a QoI strobilurin fungicide is used (e.g. Aproach, Headline, Quadris); and 5) what is the expected commodity price when the soybeans will eventually be sold? It’s often enough to “make your head spin” as the old saying goes.

Soybean fungicide research tells us that a positive economic return to spraying most often occurs when soybeans are planted in 15 inch rows or less, yield potential is high (> 50 bu/a), foliar diseases are present including frogeye leaf spot, brown spot, and Cercospora leaf blight, or frequent rains are occurring during pod fill, which could lead to the development of seed diseases including pod and stem blight, purple seed stain and anthracnose, all of which lack foliar symptoms at the time spraying needs to occur.

Location can be another important factor as some diseases are more common to particular parts of the country. For instance, brown spot is more important in the northern production areas where night time temperatures are cooler and dew can occur almost every night. Cercospora leaf blight is most often favored by the warm, humid conditions of Louisiana, Arkansas, and Mississippi. Frogeye leaf spot is a disease that can be a problem almost everywhere except the far western areas of production where humidity is almost always too low.

If spraying for frogeye leaf spot, it is important not to use a QoI strobilurin-only fungicide as

the fungus develops resistance very quickly to that mode of action. Strobilurin resistant isolates of the frogeye leaf spot fungus are widely spread across the country. Frogeye should be treated with a mixed mode product that also contains either a DMI triazole, SDHI carboxamide product, or both. Fungicide efficacy ratings for most products registered on soybeans can be found in the publication *Fungicide Efficacy for Control of Soybean Foliar Diseases* available from the Crop Protection Network.

Once the decision has been made to apply a fungicide, the timing of application becomes important. Check-off supported research has consistently shown that the best time to apply a fungicide for maximum economic return is between the beginning of pod set (R3) and the beginning of seed fill (R5). If the disease is active, early in the window is better, if disease pressure is low or efficacy against the seed diseases is more important, than later in the window is better since the product will remain efficacious much farther into the seed filling period. Always be sure to check the pre-harvest interval for any products that are being considered. A general rule of thumb is that in the presence of a foliar disease, you can expect about a 10 percent increase from spraying. So for 50-bushel yield potential soybeans, spraying would increase yields by about 5 bushels.

SOYBEAN RESEARCH & INFORMATION NETWORK

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