

Specialist Notes Increased Foliar Fungicide Use On Corn And Soybeans

URBANA, ILL.

Foliar fungicide use on corn and soybean in Illinois has increased considerably in the last few years. The primary fungicide class being applied to these crops is known as “strobilurins”, notes Carl Bradley, University of Illinois Extension plant pathologist.

These fungicides are generally considered to be broad spectrum (effective against many fungal organisms) and preventative (applied prior to or at the beginning stages of disease). Examples of strobilurin fungicides are Headline and Quadris.

Bradley has coordinated corn and soybean fungicide trials across Illinois the past two growing seasons. Results were presented at the University of Illinois Corn and Soybean Classics held across the state last month.

In soybean, Quadris and Headline were evaluated and compared to untreated controls at 7 locations in 2008. Results showed a yield response range from 8 to 12 bushels per acre, with the average response to a fungicide at 2.6 bushels per acre.

In 2007, the study was conducted at 11 sites and the yield response range was 15 to 12 bushels per acre, with the average response to a fungicide at 0.5 bushel per acre.

The amount of yield increase needed to make a fungicide application profitable depends upon the cost of the fungicide, the application cost,

and the contracted price of the crop. The cost of the fungicide plus application can range from \$22 to \$28 per acre.

For soybean contracted at \$8, \$10, or \$12 per bushel, a grower would need a return of approximately 3, 2½, or 2 bushels per acre from the fungicide to “break even”.

Bradley notes that in the soybean fungicide trials, a fungicide application would have been profitable 40 percent and 55 percent of the time in 2007 and 2008, respectively, assuming that 2½ bushels per acre return is needed.

Deciding to apply a foliar fungicide to soybean requires evaluating several factors. Some of these are:

- **Previous crop.** If the same crop is planted back-to-back, then the risk of some foliar diseases increases.

- **Variety susceptibility.** Check the company rating for susceptibility to diseases such as frog-eye leaf spot. Varieties with greater susceptibility to foliar diseases tend to have larger yield response to foliar fungicides.

- **Weather and environment.** Foliar diseases tend to thrive more under wet and humid conditions.

- **Disease observations.** Crop scouting or monitoring is always important.

Bradley commented that the above-mentioned research has been supported by funding from the Illinois Soybean Association. Δ