



### Headline Applications in Corn



#### What is Headline?

Headline is a fungicide manufactured and marketed by *BASF* that is labeled for use on various crops such as corn and soybeans. This product aids in control and protection of many yield-robbing diseases caused by fungus. Headline falls into the class of strobilurin fungicides which provides some curative protection, but is primarily a preventative treatment. Other fungicides currently on the market are Quilt from *Syngenta* and Stratego from *Bayer*. Of these fungicides, Headline is currently one of the most popular ones being used. Applications are typically made at or around the VT stage, or when 50% of the field has tasseled.

#### What diseases should I be concerned about in the western Corn Belt?

There are many corn leaf diseases caused by fungus, but gray leaf spot, common rust, southern rust, northern leaf blight, and eyespot are some of the more potentially damaging ones. Gray leaf spot can be especially damaging when the months of July and August have above average rainfall, extended periods of cloudiness, and humidity.



Gray Leaf Spot



Common Rust

#### Should I be applying a fungicide such as Headline to all my corn acres?

Many factors come into a decision on whether the application of a fungicide is justified. With the current price of corn, the chances of seeing a profit from spraying are greater than the last couple years. It will take fewer added bushels to offset the cost of the chemical and application. However, growers still need to make decisions for each individual field based on several of the following factors. Continuous corn fields may often be at high risk for disease since the pathogens that cause GLS, NLB, and ES over-winter in corn debris from the prior year. Hybrids with average or below-average disease tolerance also warrant extra

attention. The microclimate of an individual field also is important. Fields in low areas protected from the wind can be at risk because the canopy in these fields tends to stay wet and humid, which are the conditions a fungus thrives in. Corn planted late may also be more at risk because these plants reach maturity later in the year. The timing leaves them exposed to disease earlier in development compared to corn that was planted earlier. Applications of Headline have proven to be very beneficial in many instances the last two years, but blanket treatment to all acres still probably can't be justified. Yield advantages ranged from 0 to 25 bushels in Nebraska in 2006 with around an 8 bushel advantage on average. In Iowa, Iowa State University found a 6.2 bushel advantage for Headline, even when there was no disease present at the time of application. At \$2.00 corn, this doesn't pay, but at the more current \$3.50 per bushel range it does.

### **Can applications of Headline prevent stalk rot?**

Foliar fungicides will have no direct effect on stalk rots. The currently available fungicides are not systemic enough to be effective against stalk rot pathogens. However, foliar disease severity is highly correlated with stalk rot prevalence. Leaf spot diseases reduce the area of photosynthetic tissue and increase susceptibility to stalk rot. Therefore, fungicide applications may indirectly reduce stalk rots by managing foliar disease and reducing plant stress.

Due to all these factors, the odds of achieving a positive profit response will vary from year to year and field to field. Unfortunately we have no control of the weather, which may be the most important factor in disease development. Think along the lines of risk management. Would you plant all your acres to one hybrid? No. Do you need to spray all your corn with a fungicide? Probably not, but spraying those higher risk fields may well be worth it.

Credits: Iowa State University  
University of Nebraska  
Ryan Spurgeon