

June 29, 2011

## Soybean Diseases

# AGRONOMY TOPIC OF THE WEEK

Soybean yields in Minnesota have been hard to increase over the last few years. One of the reasons why our yields have not gone up can be traced to disease pressure. Starting with planting your soybeans in the spring, there are certain diseases that attack the young seed, and therefore have adverse affects throughout the year. Phythophora root rot, pythium, rhizoctonia and fusarium are the most common and can have negative consequences. **Phytophthora** can attack and rot seeds prior to emergence, and can cause pre- and post -emergence damping off. **Pythium** can attack and rot seeds and seedlings prior to emergence and can cause post-emergence damping-off under wet conditions. **Rhizoctonia** can damage seeds and plants prior to or after emergence. **Fusarium** may attack the tap root and promote adventitious root growth near the soil surface and may degrade lateral roots. The best way to protect early-season soybeans is to use a quality seed treatment like CruiserMaxx or CruiserMaxx Plus, which both contain a fungicide. Next, leaf diseases can attack the plant throughout the growing season. The most common in our area are: Bacterial blight, Septoria brown spot, Cercospora leaf blight, and Frogeye leaf spot.

**Bacterial blight** is a widespread soybean disease that is most common during cool, wet weather.



**Septoria brown spot** (also called brown spot) is common leaf disease of soybean across the Midwestern U.S



**Cercospora leaf blight** most often occurs in southern areas of the U.S, but also occurs in the northern Midwest. The disease can cause severe defoliation of plants and reduce yields.



**Frogeye leaf spot** may cause severe defoliation during warm, humid weather. Frogeye leaf spot can be distinguished from other soybean foliar diseases by the reddish-brown or purple ring surrounding the round leaf spots.



Soybean fungicides at the R2 to R3 growth stage of can stop diseases from spreading and give adequate protection for the rest of the growing season. Preventative fungicides like Headline and Quadris provide protection from the time you spray them. Preventative/curative type products like Quilt Xcel and Stratego YLD cure diseases present, plus give protection for the rest of the growing season. Contact your Central Valley Agronomist for more information.