



## Disease Alert

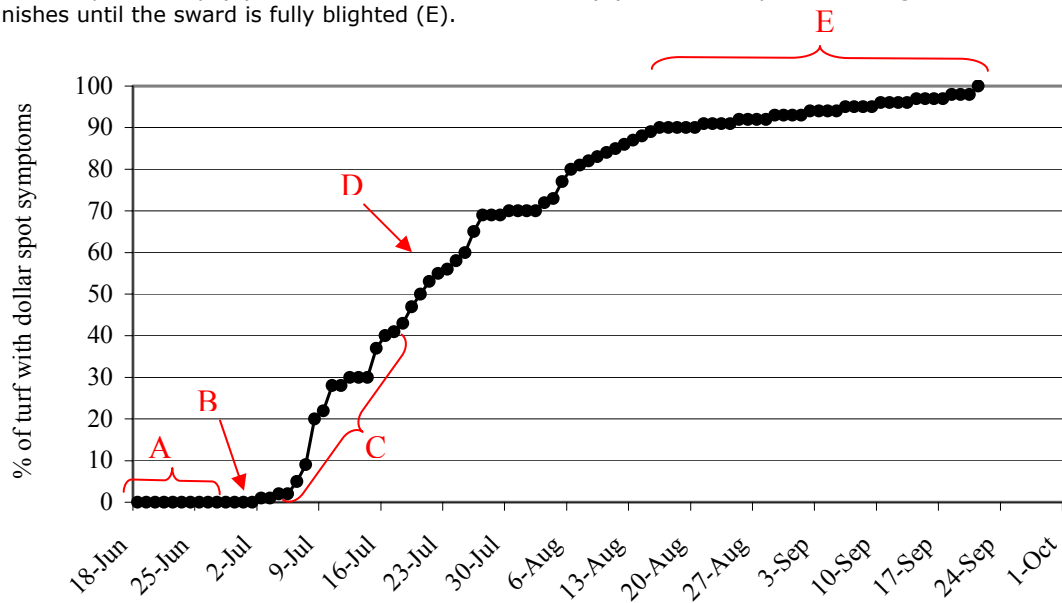
This is the first time in 8 years that I've issued a dollar spot and pythium alert at the same time.

Using the dollar spot prediction model, superintendents in Windsor, Ontario would expect to see dollar spot symptoms on Wednesday, June 4, 2008. However, the temperature was a bit on the cool side with heavy rainfall; therefore symptoms were not noticed. The weather situation is forecasted to drastically change on Friday, with temperatures into the 30s, warm nights and high humidity. These conditions have the potential to cause rapid development of dollar spot across Ontario.

The model developed by Penn State suggests that *Pythium* blight will develop and be active when the relative humidity is greater than 90% for 14 hours, and minimum temperatures are higher than 20°C and maximum temperatures higher than 30°C. These are the conditions expected on Friday, Saturday and Sunday.

From an epidemiology standpoint, this year it is even more important to treat for dollar spot now. Dollar spot epidemics progress exponentially. Therefore, the disease progress curve takes on a "hockey stick" appearance (Figure 1). The bend in the stick occurs when there is a rapid increase in the rate of new spots. This rate increase usually occurs after the epidemic is active for 2-4 weeks. However, with the late onset of disease and the hot and humid weekend, we may see the bend in the stick (B) happening now rather than later. If you can control the disease progress now, you will keep the inoculum low, thereby undermining dollar spot progress for the rest of the season.

**Figure 1:** Typical disease progress curve for dollar spot on bentgrass. The initial inoculum from the previous season is quiescent (A) until weather conditions or other factors prompt it to become pathogenic (B). The disease increases exponentially (C) and then the rate decreases (D) continuously as the turfgrass available for infection diminishes until the sward is fully blighted (E).



### Treatments Options:

#### Dollar Spot

- Apply Banner MAXX at a rate of 26 to 51 ml/100 m<sup>2</sup> for long-lasting, broad-spectrum protection.
- Apply Daconil ULTREX preventatively at a rate of 58 to 115 g/100 m<sup>2</sup> or curatively at 115 to 212 g/100 m<sup>2</sup> for contact protection and control of other diseases.
- Apply Banner MAXX (26 ml/100 m<sup>2</sup>) and Daconil ULTREX (115 g/100 m<sup>2</sup>) as a tank mix to provide long-lasting contact and systemic protection against dollar spot and other tough summer diseases like anthracnose. This tank mix is also recommended for resistance management.

#### Pythium Blight

- Apply Subdue MAXX as a preventative treatment at a rate of 16 to 32 ml/100 m<sup>2</sup>.

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