

# Reasons To Scout For Stalk Strength



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Excellent yields are expected in many corn fields this growing season. Along with that good news comes concerns over stalk strength. Plants in many fields have heavy ears, along with shallow roots because of abundant rainfall. Many of these plants could topple easily as they mature, especially if a late-season storm with high winds blows across the field. Plus, several extended periods of cloudy weather during grain fill may have increased the risk of stalk weakness in some fields. This is because, when the corn plant is filling grain, if leaves cannot provide the carbohydrate demand of the grain, the plant may “cannibalize” carbohydrates in stalks in order to fill the grain.

Similarly, Infectious diseases may play a role in increasing stalk weakness, by depriving the plant of healthy foliage necessary to maintain stalk strength through maturity. Gray leaf spot

(Figures 1-2) is prevalent this year, although levels generally appear to be low to moderate. I have also observed scattered fields with significant damage from northern leaf blight (Figure 3). Given the generally mild, wet weather this season, this isn’t surprising.

Although southern rust has been present in Kentucky for over a month, the generally cool weather experienced in recent weeks has helped suppress disease activity. This disease may still contribute to weakened stalks in some late-planted fields, but in general, it appears we have “escaped” widespread damage from this disease this year, especially if nights remain cool.

Check for stalk weakness by walking the field and pushing plants about 1 ½ feet from vertical. Those that fail to spring back exhibit lodging potential. If 10-15 percent or more of the field show lodging potential, it may be wise to schedule that field for early harvest, before it is laid down by strong winds.

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Figure 1. Lesions of gray leaf spot, viewed by holding up to the sky. Some hybrids develop an obvious yellow border around these infections.

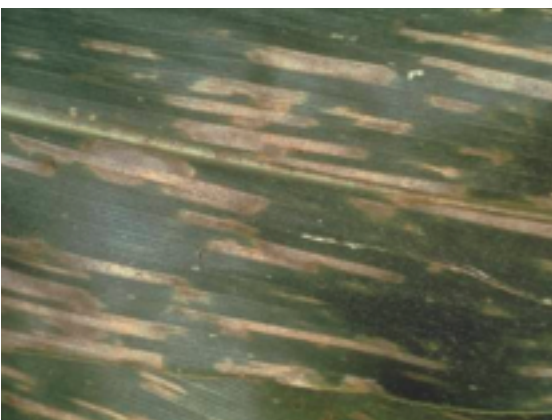


Figure 2. Lesions of gray leaf spot in a highly susceptible variety. They are often described as "match-stick" lesions.

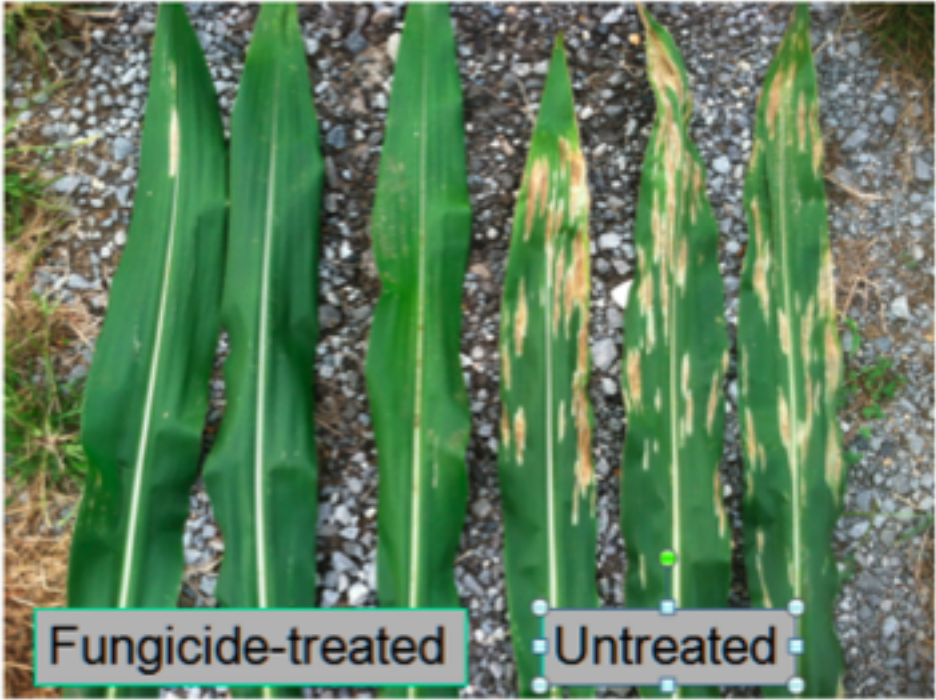


Figure 3. Lesions of northern leaf blight, with high levels of control by a strobilurin fungicide.