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Abstract
This summer has been very cool with record cool temperatures in July. This cool and wet summer has led to widespread occurrences of sudden death syndrome (SDS) in soybean fields. The SDS reports this year are unlike other years. In 2006, the disease was reported by producers and agronomists to be widespread in eastern and central Iowa. This year, wide occurrences of the disease were observed by Mark Licht, ISU Extension field agronomist, in west central Iowa with incidence as high as 75 percent. Mark Wuebker, ISU Extension field agronomist, reported that "SDS is spreading by the day in Polk and Story counties. Fields that aren't showing some are the exception."

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Sudden Death Syndrome in Soybean Widespread this Summer

By XB Yang, Department of Plant Pathology

This summer has been very cool with record cold temperatures in July. This cool and wet summer has led to widespread occurrences of sudden death syndrome (SDS) in soybean fields. The SDS reports this year are unlike other years, in 2006, the disease was reported by producers and agronomists to be widespread in eastern and central Iowa. This year, wide occurrences of the disease were observed by Mark Licht, ISU Extension field agronomist, in west central Iowa with incidence as high as 75 percent. Mark Wuebker, ISU Extension field agronomist, reported that “SDS is spreading by the day in Polk and Story counties. Fields that aren’t showing some are the exception.”

Delayed planting has been a measure to reduce SDS risk in Iowa. This year’s occurrence is a reason for consideration of future changes in recommendations for delayed planting. In recent years, we have observed that even fields where planting was delayed have had severe occurrence of this disease because some springs were cool and long. With cool temperatures occurring in Iowa several springs in a row, use of delayed planting would not be an effective management practice for SDS risk. In a paper published several years ago, ISU climatologists reported that in a warming climate, the Midwest will have a warming hole in summer, which means that summer temperature in Iowa will be cooler instead of being warmer. If this prediction is correct, we may see more SDS and other cool temperature diseases in future.

Symptoms of Sudden Death Syndrome in Soybean

SDS can cause premature defoliation of soybean plants in the later summer. Premature dying has been found in soybeans infected by the SDS pathogen. Plants with premature dying lack the typical drastic defoliation symptom of SDS, but diseased plants yellow and die gradually. By closely examining
diseased plants, you can find symptoms typical of SDS plants.

Cool temperatures also are favorable to brown stem rot (BSR), a disease that causes foliar symptoms similar to those of SDS. It is important when scouting this fall to correctly distinguish BSR from SDS because management measures for the two diseases are different. One simple way to identify the two diseases is that SDS causes root rot and the pith of the infected soybean stem remains white, while with BSR, the pith is brown and there is no root rot.

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