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Soybean disease scouting in July

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Soybean disease scouting in July

Abstract

July is an interesting month for disease scouting. This article discusses some soybean diseases you may see during scouting this month. **Rhizoctonia root rot** and **Phytophthora root rot** continue to be problems in some soybean fields. **Rhizoctonia damping-off** was more prevalent this year than in other years based on samples submitted to the ISU Plant Disease Clinic and reports from field staff. Following application of herbicides for weed control, many samples examined showed root rot resulting from fungi-herbicide interactions. Check ICM articles from spring 2001 issues for management information on these diseases.

Keywords

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Disciplines

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INTEGRATED CROP MANAGEMENT

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A foliar disease commonly seen this month is **brown spot**, caused by the fungus *Septoria glycines*. Disease symptoms occur on the leaves of the lower portion of soybean plants. The fungus spreads by splashing rain, and current weather conditions apparently arrest the development of this disease. Symptoms include many irregular, dark brown spots on both upper and lower leaf surfaces. Adjacent lesions frequently merge to form irregularly shaped blotches.

Bacterial blight is another disease to watch for during scouting. This disease is caused by the bacterium *Pseudomonas syringae*. Lesions of bacterial blight are normally first observed on top leaves. Lesions appear as small, angular, water-soaked, yellow-to-brown spots on leaves. The angular lesions enlarge in rainy weather and merge to produce large, irregular dead areas. Normally, the disease occurs in Iowa every year without causing significant yield losses. Sometimes, brown spot can be mistaken for bacterial blight but the two diseases are easy to separate. Bacterial blight occurs on upper new leaves and brown spot infects aged leaves or leaves on the lower portion of plants. To reduce the risk of these two foliar diseases, avoid the use of susceptible cultivars for the next soybean planting. Rotation with corn also reduces disease risk.



Comparison of brown spot (left) and bacterial blight (right) in soybean.

[Enlarge](#) [1]

With the cool temperatures this season during soybean flowering, there have been questions on soybean **white mold** because white mold is considered a cool-temperature disease. In addition to cool temperatures, the production of white mold mushrooms requires moist soil and a closed canopy. If surface soil moisture is low or the soybean canopy is not closed

during flowering, the fungus would not be able to produce mushrooms. When scouting for this disease, pay attention to the fields that had white mold previously and that have good soil moisture and a closed canopy.

The Iowa State University Plant Disease Clinic also has received samples and questions on possible bean pod mottle virus damage. The leaves of these plant samples showed cupping and mottling. The samples examined apparently were not damaged by viral disease. The most reliable way to determine a viral infection is to perform a viral test. Otherwise, check the field later. If the cupping and mottling are related to herbicides or other abiotic factors, the new grow should be symptom free; however, because viral disease is systemic, new leaves would have symptoms.

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<http://www.ipm.iastate.edu/ipm/icm//ipm/icm/2001/7-23-2001/soyscout.html>

Links:

[1] <http://www.ent.iastate.edu/imagegal/plantpath/soybean/1303.82bspotnbblight.html>

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