Brown spot is also known as Septoria leaf spot. Its primary effect is premature defoliation of soybeans, but some yield loss may occur during extremely wet growing seasons. The primary effect has been early defoliation of lower leaves. Recent yield losses documented to range from 2 to 4 bu/A.

**Symptoms**

Symptoms of brown spot appear first on the cotyledons and unifoliate leaves early in the growing season. Angular, red to brown spots that vary in size from tiny specks to 1/4 inch diameter can be seen on the upper and lower leaf surfaces. Leaves with numerous spots rapidly turn yellow and fall to the ground. Defoliation proceeds from the bottom of the plant toward the top of the plant. Irregular brown lesions with indefinite borders may also develop on infected pods, stems, and petioles.

**Causal Organism**

Brown spot of soybeans is caused by the fungus, *Septoria glycines*, which overwinters on infected soybean straw. During moist weather, spores are produced on crop residue and disseminated by wind and rain to nearby soybean plants where soybean leaves are infected. Fruiting bodies develop in lesions on infected cotyledons and unifoliate leaves. Spores, which develop in these fruiting bodies, provide inoculum for later infections of trifoliate leaves, stems, and pods as well as neighboring plants.

High moisture and moderate temperatures (60°–85°F) favor infection and disease development. Spread of the fungus is usually halted during hot, dry weather.

**Management**

1. **Crop rotation.** This allows time for soybean straw with fruiting bodies to degrade. This disease is more severe in continuously cropped soybean fields.
2. **Tillage.** For fields with very high levels of brown spot, plow under soybean straw to promote rapid decay.
3. **While brown spot can cause between 2 to 4 bu in yield loss, rarely is it economically feasible to manage this disease.**
Levels of Septoria Brown Spot

Septoria Brown Spot Ratings
(Percent Leaf Area Affected)

Additional Information
Your Local Extension Office
http://extension.osu.edu/locate-an-office

The Ohio State University Department of Plant Pathology
http://www.oardc.ohio-state.edu/ohiofieldcropsdisease

University of Wisconsin Soybean Plant Health
http://www.plantpath.wisc.edu/soyhealth/minordiseases/septoria.htm

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