Red leaf blotch of soybean

Phoma glycinicola de Gruyter & Boerema (2002) (syn. *Pyrenochaeta glycines* Stewart) (=*Dactuliophora glycines* Leakey)

(Deuteromycotina, Coelomycetes)

Primary hosts
Soybean (*Glycine max*), perennial soybean (*Neonotonia wightii*)

Symptoms


Advanced leaf blotching on soybean. Reproduced with permission from G.L. Hartman (1987) *Plant Disease* 71:113-118.

Fungal spots on leaves, petioles, pods and stems. Often associated with primary leaf veins, lesions begin as small dark red to brown spots on the upper and lower surfaces. These may coalesce to form larger, buff colored blotches with dark centers and margins. Older, larger blotches may be surrounded by chlorotic (yellowed) tissue and cover over 50% of the leaf surface. The dead, brown centers of blotches may disintegrate giving a shot hole appearance. Stem, petiole and pod lesions are mauve to reddish-purple, ovoid, and appear below the uppermost leaf with symptoms. Diseased plants may drop leaves early and die back 5-10 days before normal maturation.

Life cycle
It is thought that tiny over wintering fungal structures (sclerotia) in soil may be rain splashed up onto leaf surfaces where they germinate and grow producing hyphae or fruiting bodies containing asexual spores (pycnidia). Sclerotia and pycnidia develop within leaf blotches and these are released back into the soil when leaves disintegrate or drop, providing inoculum for further infection. High rainfall and high humidity promote disease development.

Current geographical distribution
Central and southern Africa.

Impact in Oregon
Negligible due to small acreage of soybeans and dry summers.

References
Hartman, G.L., L.E. Datnoff, C. Levy, J.B. Sinclair, D.L. Cole and F. Javaheri (1987) Red leaf blotch of soybeans. Plant Disease 71:113-118

Gruyter, J. de and G.H. Boerema (2002) Contributions towards a monograph of *Phoma* (Coelomycetes) VIII. Section *Paraphoma*: taxa with setose pycnidia. Persoonia 17:541-561

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