



Common Soybean Seedling Diseases

Paul Esker, Plant Pathology, University of Wisconsin-Madison

Disease	Cause (fungus)	Growth Stage	Symptoms	Control	Comments
Seed rot	<i>Pythium</i> <i>Phytophthora</i> <i>Phomopsis</i>	V0-VE	Soft decay of seed; missing seedlings in row.	Fungicide treated seed, Phytophthora-resistant variety.	Favored by cool and wet soils. <i>Phomopsis</i> comes with seed.
Seedling mortality	<i>Phytophthora</i> <i>Rhizoctonia</i>	VE-V4	Yellow, wilting leaves followed by death; leaves remain attached to stem.	Fungicide_treated seed, Phytophthora-resistant variety.	<i>Phytophthora</i> is the most common cause of early seedling mortality in Wisconsin.
Root and lower stem decay	<i>Rhizoctonia</i> <i>Fusarium</i> <i>Phytophthora</i> <i>Mycoleptodiscus</i>	VE-V6	Reddish-brown lesions on taproot and hypocotyl; usually superficial <i>Phytophthora</i> causes brown lesions on stem above soil line.	Fungicide_treated seed, Phytophthora resistant variety. Ridging soil around stems by cultivation simulates new roots.	Except for Phytophthora, above-ground plant parts may not express symptoms.
Premature decline of foliage and stems	<i>Rhizoctonia</i> <i>Mycoleptodiscus</i> <i>Fusarium</i> (Sudden death syndrome - SDS) <i>Phialophora</i> (Brown stem rot - BSR)	R1-R7 but infection occurs much earlier	Wilt, chlorosis and eventually death of leaves; tissue between the veins progress from yellow to brown, but major veins remain green (SDS & BSR); internal browning of stems (BSR).	Fungicide_treated seed; variety selection	Brown stem rot & SDS (<i>Fusarium</i>) cause unique symptom patterns on leaves General decline may be due to <i>Rhizoctonia</i> or <i>Mycoleptodiscus</i>

