Back to IPM scouting in herbaceous perennials.

Root and stem rots
Rhizoctonia

Stem lesions can develop in the canopy of closely spaced plants.

Pathogen: *Rhizoctonia solani*.

Hosts include: *Achillea, Aconitum, Aquilegia, Aster, Campanula, Chrysanthemum, Coreopsis, Delphinium, Dianthus, Digitalis, Gaillardia, Gypsophila, Helianthus, Hemerocallis, Hosta, Iberis, Lathyrus, Lilium, Limonium, Lysimachia, Nepeta, Oenothera, Papaver, Phlox, Platycodon, Potentilla, Primula, Salvia, Sedum, Veronica* and *Viola*.

Symptoms: *Rhizoctonia* causes a variety of symptoms, including damping-off, stem lesions, stem rot, root rot, crown rot and aerial web blighting. Infection causes wilting, stunting and possibly plant death. Some

Girdling lesions on plugs caused by Rhizoctonia that infected plants at the soil line.

Rhizoctonia – *continued*

vegetatively propagated plants are susceptible to rot at the base of the cutting.

Spread: This is a soil-borne pathogen. It persists in soil as mycelium and sclerotia (small, brown, long-term survival structures). The disease is spread when contaminated soil, plant material, tools and equipment are moved.

Management: Good sanitation practices are important to minimize disease introduction and spread. *Rhizoctonia* spp. tend to be more prevalent on stressed or wounded plants. Stress factors such as an excess or deficiency of water and fertilizer are important considerations in preventing *Rhizoctonia* diseases. Avoid periods of wet conditions followed by dry conditions. The fungus is favored by warm, moist conditions. Severely affected plants should be removed promptly. Research on efficacy of biological control through soil amendments is ongoing.

Discrete brown lesions on roots of Echinacea.