

Soil-Borne Diseases

Fusarium Basal Rot (*Fusarium oxysporum* f. sp. *cepae*), Pink Root (*Phoma terrestris*), White Rot (*Sclerotium cepivorum*)



FIGURE 1



FIGURE 2



FIGURE 3



FIGURE 4



FIGURE 5

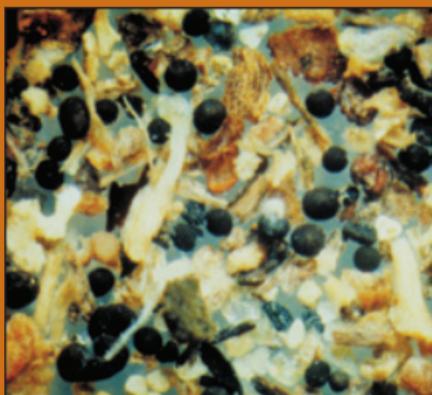


FIGURE 6

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AUTHORS: H. F. Schwartz and N. A. Tisserat (Colorado State University) **PHOTOGRAPHS:** Courtesy of H. F. Schwartz, S. K. Mohan (Univ. of Idaho) and F. J. Crowe (Oregon State University-retired) [01/2011]

COMMON HOSTS: Onion, Garlic

SYMPTOMS (ON ONION):

FIGURES 1 & 2 • Fusarium basal rot appears as yellow and tan to brown leaves, usually beginning at the leaf tips and developing downward. Plants may wilt and then die; infected bulbs appear discolored (tan to brown) and roots and basal plates are rotted.

FIGURES 3 & 4 • Pink root appears as discolored roots (yellow to brown to red to purple); infected roots may disintegrate. Leaf number and bulb size may be reduced by severe infection.

FIGURES 5 & 6 • White rot appears as yellowing and dying of older leaves, stunting of plants, and death of foliage. Infected roots will exhibit white, fluffly mycelium on the basal plate with presence of small, poppy-sized brown to black sclerotia in and on tissues.

FACTORS FAVORING:

- Temperatures greater than 28°C (82°F) during late vegetative to mid bulbing stages favor infection by Fusarium basal rot and pink root; while white rot is favored by lower temperatures.
- Moisture stress (deficiency or excess) may predispose the crop to infection by Fusarium and pink root.
- These soil-borne diseases are favored by frequent cropping to Alliums (every 3–4 years), planting of contaminated transplants and sets of susceptible varieties, and injury to roots by cultivation and insect feeding.

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ADDITIONAL RESOURCES AVAILABLE AT:

<http://onion.ipmpipe.org>

<http://wiki.bugwood.org/PIPE:Onion>

<http://www.apsnet.org/> — Compendium of Onion & Garlic Diseases and Pests, 2nd Ed.