

# Foliar Fungal Diseases

Purple Blotch (*Alternaria porri*),  
Powdery Mildew (*Leveillula taurica*),  
Downy Mildew (*Peronospora destructor*),  
Botrytis Diseases (*Botrytis species*)



FIGURE 1



FIGURE 2



FIGURE 3



FIGURE 4

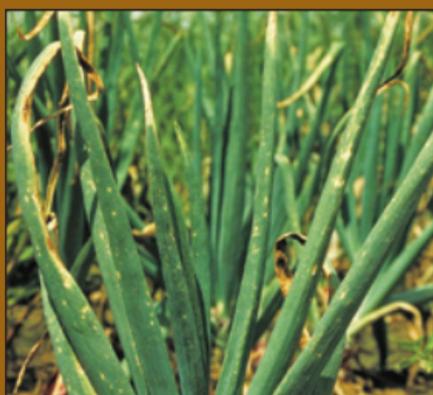


FIGURE 5



FIGURE 6

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**COMMON HOSTS:** Onion, Garlic

**SYMPTOMS (ON ONION):**

**FIGURE 1** • Purple blotch may appear on leaves or seed stalks as small, water-soaked lesions that develop white centers. The lesion margin is a shade of red or purple, surrounded by a yellow zone that may extend 1 inch [2.5 cm] or larger. Lesion centers may contain brown to dark gray spores of the fungus.

**FIGURE 2** • Powdery mildew includes circular to oblong, white to grayish white patches of fungal growth with irregular margins; often after initiation of bulbing.

**FIGURES 3 & 4** • Downy mildew commonly starts in spots in a field and spreads to surrounding areas. Initial symptoms appear as pale, elongate patches that turn light tan to brown on the foliage, affected leaf or seed stem tissues during moist periods.

**FIGURES 5 & 6** • Botrytis (blast, leaf blight) may appear as a small white, sunken, elliptical lesion (less than 1/8 inch or 2 mm) with necrotic center. Multiple lesions may develop on the leaf, and cause a tip die-back and blighting of the leaf.

**FACTORS FAVORING:**

- Most of these fungi are favored by temperatures below 27°C (80°F); but can be active up to 32°C (90°F).
- These pathogens are favored by free moisture and high humidity (greater than 75%) during production and pre-harvest.
- These foliar diseases are favored by frequent cropping to Alliums (every 3–4 years), planting of contaminated seed (Botrytis), transplants and sets of susceptible varieties; high plant density; and storms.

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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.