

Bacterial Diseases

Xanthomonas Leaf Blight (*Xanthomonas axonopodis* pv. *allii*), Slippery Skin (*Burkholderia gladioli* pv. *alliicola*), Sour Skin (*B. cepacia*), Center Rot (*Pantoea ananatis*), Enterobacter Bulb Decay (*Enterobacter cloacae*), Soft Rots (*Dickeya chrysanthemi*, *Pectobacterium carotovorum* subsp. *carotovorum*)



FIGURE 1



FIGURE 2



FIGURE 3



FIGURE 4



FIGURE 5

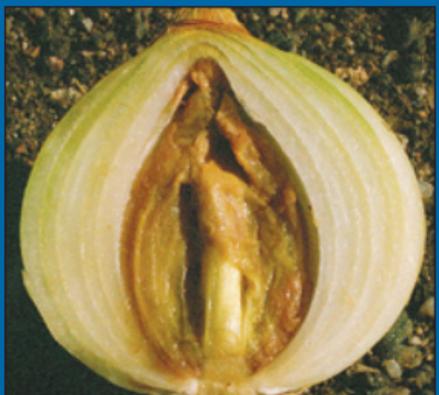


FIGURE 6

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COMMON HOSTS: Onion, Garlic

SYMPTOMS (ON ONION LEAVES AND BULBS):

FIGURE 1 • Xanthomonas leaf blight lesions appear as irregularly shaped, white flecks, pale spots, or lenticular lesions with water-soaked margins. Lesions enlarge, become tan to brown, cause extensive water-soaking, dieback and blighting of foliage, but not bulb infection.

FIGURE 2 • In the field, early stages of bacterial leaf infection will appear as watersoaking along the entire length of the leaf; **FIGURE 3** • later stages appear bleached (white to tan) and desiccated. No fungal structures will be present.

FIGURE 4 • Soft rot may appear in the field or in storage as water-soaked tissue of leaves, neck and/or bulb; usually progressing from leaves to the neck to the bulb. The interior of the bulb may break down and a watery, foul-smelling liquid may ooze from the neck if the affected bulb is squeezed.

FIGURE 5 • Bacterial bulb infection can be observed while plants are in the field or in storage. Softening of the neck may be observed and bulb tissue may appear translucent or water-soaked.

FIGURE 6 • Enterobacter bulb decay appears firm and healthy until cut to expose interior scales which are brown, soft and rotten; progressing downward from the neck.

FACTORS FAVORING:

Most bacteria are favored by:

- Harvest and storage temperatures above 30°C (86°F); some are favored by lower temperatures.
- Free moisture and high humidity (greater than 75%) during production and harvest.
- Planting of contaminated seed, transplants, sets
- Irrigation water; storm damage; excess nitrogen after bulb initiation; insects like thrips and maggots; and bruising during harvest.

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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.