Onion Disease Fact Sheet

Bacterial Diseases

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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*)

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 FAVOURING

Most bacteria are favoured 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.

Fig 1

Fig 2

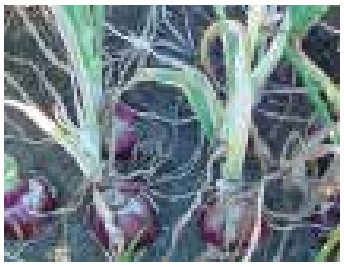

Fig 3

Fig 4

Fig 5

Fig 6