

How to Manage Pests

UC Pest Management Guidelines

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Tomato

Alternaria Stem Canker

Pathogen: *Alternaria alternata* f. sp. *lycopersici*

(Reviewed 1/07, updated 1/07)

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SYMPTOMS AND SIGNS

Symptoms of Alternaria stem canker appear on stems, leaves, and fruit. Dark brown to black cankers with concentric zonation occur on stems near the soil line or aboveground. Cankers enlarge, girdle the stem before harvest, and kill the plants. Vascular tissue about 2 inches above and below the cankers exhibit brown streaks. Dark brown to black areas of [dead tissue](#) between leaf veins are caused by a toxin produced by the fungus. Dark brown sunken lesions with characteristic [concentric rings](#) develop on green fruit either on plants or during transit.

COMMENTS ON THE DISEASE

Alternaria stem canker is primarily a problem of coastal-grown tomatoes in California although the disease occurs occasionally in other areas of the state in fields planted with infested transplants. The fungus survives on infected tomato debris. Infection occurs when airborne spores land on tomato plants or when plants come in contact with infested soil. Free water is necessary for spore germination and infection. Disease spread is favored by rains, dew, and overhead irrigation. Symptoms develop 7 to 10 days after inoculation and develop most rapidly at temperatures of around 77°F (25°C).

MANAGEMENT

Many tomato cultivars with high levels of resistance to Alternaria stem canker are available.

PUBLICATION



UC IPM Pest Management Guidelines: Tomato

UC ANR Publication 3470

Diseases

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