

How to Manage Pests

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How to Manage Pests**UC Pest Management Guidelines**

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Fig**Fig Endosepsis**

Pathogens: *Fusarium moniliforme*,
Fusarium solani,
dimerum (= *F. episphearia*)
 (Reviewed 7/06, updated 7/06)

and *Fusarium*

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SYMPTOMS

Fig endosepsis is also called internal rot, brown rot, eye-end rot, pink rot, and soft rot. When green, a cross-section of either infected caprifigs or edible figs will show internal streaks of pink or brown, discolored areas on the base of flowers, or sometimes entire flowers are brown. As figs ripen, the brown streaks become rusty colored spots affecting many flowers within the fig. Usually these colored spots are first found in the pulp near the eye of the fig but they can develop on any part of the pulp. [No external symptoms](#) are noticeable at this stage of infection.

As figs soften with maturity, a circular area of skin, usually beginning around the eye (ostiole), becomes water soaked in appearance. The water-soaked area eventually extends up the sides to the neck and turns purple in color. Occasionally a clear or amber-colored syrupy liquid exudes from the eye of the fig, especially in fruit of the Calimyrna variety. Even partial infection of the pulp causes off-flavor of the fruit.

COMMENTS ON THE DISEASE

The main causal agent of fig endosepsis is *Fusarium moniliforme*, but other species of *Fusarium* can also cause endosepsis. The fungus overwinters in the summer (mamme) crop of the caprifig or as conidia in and on mummified fruit of the summer caprifig crop. In spring, it produces spores that are transferred by the [wasp](#), *Blastophaga psenes*, when it [emerges](#) from the fruit to "pollinate" (caprify) the [spring caprifig](#) crop (profichi). The same process occurs on the summer crop of caprifigs. Wasps contaminated with spores of the fungus transmit the disease to edible Calimyrna figs when infected profichi caprifigs are transferred to the Calimyrna orchards for pollination.

[Wasps carrying pollen](#) and the fungus enter the Calimyrna figs when they are still green to lay eggs. The wasp dies inside the fruit and the fungus develops on its body. The fungus is unable to invade unripe fig tissue; infection occurs when the fruit begins to ripen. Both caprifigs and Calimyrna figs are affected by endosepsis as are other varieties that are pollinated by the wasp. The disease is also common in volunteer figs. Parthenocarpic (those that do not require pollination) cultivars occasionally develop fig endosepsis.

MANAGEMENT

Collect mamme caprifigs in early March as the wasps start emerging, split the fruit and discard any with internal discoloration. Treat the healthy looking split mammae figs by dipping or spraying with a registered fungicide. Hang treated figs in the profichi (spring) crop of caprifigs.

When selecting profichi caprifigs to transfer to Calimyrna orchards for pollination, discard any that show external discoloration. Also, avoid using too many profichi caprifigs when pollinating the Calimyrna crop. The best way to determine this is to sample 20 or so Calimyrna figs every 2 to 3 days during the pollination period. Split the figs in half and count the number of wasps. An average of one to two wasps per fig is ideal. If there are more than this, reduce the number of profichi figs being used; if there are less, increase it.

Common name

Amount to Use

(trade name)

When choosing a pesticide, consider information relating to [impact on natural enemies and honey bees](#) and environmental impact.

- A. SULFUR# Label rates
MODE OF ACTION: A multi-site contact (Group M2)¹ inorganic fungicide.

Acceptable for use on organically grown produce.

¹ Group numbers are assigned by the Fungicide Resistance Action Committee (FRAC) according to different modes of actions. Fungicides with a different group number are suitable to alternate in a resistance management program. For more information, see <http://www.frac.info/>.

PRECAUTIONS

PUBLICATION



UC IPM Pest Management Guidelines: Fig

UC ANR Publication 3447

Diseases

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