

LOUISIANA PLANT PATHOLOGY

DISEASE IDENTIFICATION AND MANAGEMENT SERIES

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Tomato Pith Necrosis

Pseudomonas corrugata Roberts & Scarlet

Tomato pith necrosis, caused by *Pseudomonas corrugata* and other soilborne species of *Pseudomonas*, has been observed sporadically throughout Louisiana since it was first observed here in 1983. The disease generally occurs on early planted tomatoes when the night temperatures are cool, the humidity is high, and plants are growing too rapidly because excessive nitrogen has been applied. Once the weather warms up, the plants tend to be able to outgrow the problem.

The disease occurs randomly within fields, and initial symptoms are usually observed at the time the first fruit clusters reach the mature green stage. These symptoms generally consist of yellowing (or chlorosis) of young leaves followed by chlorosis and wilting of infected shoots in the upper part of the plant canopy. This wilting is usually associated with internal browning (or necrosis) of the basal portion of the stem. Dry, gray to brown to black lesions are also observed on petioles and stems, which may shrink, crack or collapse. The pith of symptomatic stems is hollow or may appear to contain distinct chambers and often exhibits a dark discoloration. Additionally, adventitious shoots often develop profusely on the affected stems.

The only means of managing this disease is to avoid the use of excessive amounts of nitrogen, particularly early in the season when nights are still cool.



Fig. 1. Chlorosis and wilting of shoots associated with tomato pith necrosis.



Fig. 2. Dry necrotic lesions and adventitious root formation on tomato stems with pith necrosis.

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