



AVRDC - The World Vegetable Center

# Fact Sheet

## Pepper Diseases

# Choanephora Blight

*Choanephora cucurbitarum*

Found in tropical to temperate areas with hot-wet seasons



## Symptoms

This fungus is a weak parasite; it colonizes dead or dying tissue before it actively invades living pepper tissue. Pepper plants are susceptible from seedling to early flowering stage. Fruit infection is observed predominantly around the calyx. Most of the time, it starts in senescing flower petals. Once established, entire flowers are overgrown, resulting in a brown to black mass of soft tissue. Flower stalks, buds, and leaves may subsequently be invaded.

In the field, the diagnosis is based on the appearance of a stiff silvery mass of whisker-like or hairy strands of the fungus growing out of the affected pepper tissue, topped with a black ball made of great

numbers of spores. This is visible with a hand lens.

Infected young fruit may abort. Individual branches of a plant may be infected and die back. Individual leaves on entire plants may wilt. Stems that are infected appear wet and green and the bark peels off easily in shreds.

## Conditions for Disease Development

The disease usually attacks flowers after they have fallen and began to decompose; this does not damage crops. But under extended periods of high rainfall, high

## How to Identify Choanephora Blight



*Tip dieback of lateral branches*



*Silvery whiskers grow out of infected areas, topped with black spore masses*

humidity, and high temperatures (25–30°C), pepper flowers may remain attached to the young fruits. The fungus may invade the old flowers and advance into the fruits. Infection can occur with or without wounding of host tissue caused by insects or mechanical means. However, the disease may appear more frequently and with greater severity where such damage provides an entry point for the fungus. Fungus spores may be dispersed by insects such as bees from flower to flower. Spores of the fungus can survive in the soil and in association with susceptible debris.

### **Control**

Select production sites with well-drained soil since poor drainage contributes to higher humidity levels, which favors the disease. Avoid dense plantings since these

lead to poor air circulation and extended periods of leaf wetness. Use drip irrigation rather than overhead irrigation to decrease relative humidity and leaf wetness within a dense plant canopy.

Fungicides used to control other diseases will provide some control of this disease also. Good spray coverage where dense foliage occurs is important. Pepper cultivars where the petals of the flower fall soon after fruit set should be less susceptible to Choanephora blight.

**For more information on the production of pepper and other vegetables, go to <[www.avrdc.org](http://www.avrdc.org)>.**