

## 2006 Florida Plant Disease Management Guide: Sweet Basil<sup>1</sup>

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### **Downy Mildew (*Peronospora* sp.)**

**Symptoms:** Symptoms initially appear as yellowing of leaves and are typically concentrated around the middle vein. The discolored area may cover most of the leaf surface. On the underside of leaves, a gray fuzzy growth of the pathogen may be apparent by visual inspection. Under high humidity, the chlorotic areas turn to dark brown quickly. Sporangia, the reproductive structures of the pathogen, are easily detected under magnification.

**Cultural Controls:** Use disease-free seed as the pathogen is believed to be seed transmitted. Reducing the period of leaf wetness by avoiding overhead watering may also be helpful.

### **Leaf Spot (*Colletotrichum* sp.)**

**Symptoms:** Dark spots form on leaves and the dead tissue within leaf spots may drop out, causing a shot-hole symptom. The disease can cause defoliation, tip dieback, stem lesions, and sometimes loss of entire plants. Spores are water-splashed from diseased tissue.

**Cultural Controls:** Sow seed in sterile containers in sterilized soil or a soilless mix. Since wet conditions favor disease development, reduce periods of leaf wetness by reducing humidity and increase plant spacing to increase air movement. Avoid overhead irrigation. Remove diseased plants to reduce inoculum levels.

### **Bacterial Leaf Spot (*Pseudomonas cichorii*)**

**Symptoms:** Spots on leaves are water-soaked and dark. They may be both angular and delineated by small veins in the leaves or irregular in shape. A wet stem rot may occur. Bacterium is reported to be seed-borne. The disease is favored by wet, humid conditions and is disseminated by splashing water or by handling infected tissue and then touching other plants.

**Cultural Controls:** Decrease moisture on plants with low humidity and sufficient plant spacing for adequate movement to reduce periods of leaf wetness. Use disease-free seed and transplants. Remove diseased leaves and plants to reduce inoculum levels. Avoid overhead irrigation. Use clean, sterile

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equipment and do not move between infected and healthy plants.

### **Fusarium Wilt (*Fusarium oxysporum*)**

**Symptoms:** Initial disease symptoms are yellowing of the shoots, distorted young leaves, and internal vascular discoloration of stems. As the disease advances, plants wilt and die. The pathogen is seed-borne and survives in the soil for many years.

**Cultural Controls:** Use disease-free seed in sterilized soil or a soilless mix. Seed may be disinfested. Rotate fields to another crop besides basil. Use resistant cultivars as some resistant cultivars have been reported.