

# Common Diseases of Florist Crops

## Bacterial Blight of Geranium

Bacterial blight is caused by *Xanthomonas campestris* pv. *pelargonii*, which can cause leaf spots as well as systemic infections in geraniums. Leaf symptoms are either an overall tiny spotting (1/16 \_ 1/8 in. diameter) or a wedge-shaped yellow area often followed by leaf wilting. The disease can cause black dieback of growing points and stem cankers at the base of the petioles. In hot weather, the bacteria spread from infected leaves into the stem, becoming systemic and killing the plant.

Zonal and ivy geraniums are most likely to develop symptoms of this disease; a few cases of leaf spots on Regal geraniums have been observed. Hardy *Geranium* species may be a source of bacteria that can cause disease on greenhouse crops of *Pelargonium* species. Hybrid "seed" geraniums can become badly diseased if they are grown with an infested cutting crop. Plants in other families than the Geraniaceae are not susceptible.

*Xanthomonas*-free material for cuttings is assured through careful culture indexing. Culture indexing is performed by specialists and involves removing thin slices obtained aseptically from the base of a cutting and placing the slices in a nutrient medium. Cultures of nutrient media showing any fungus or bacterial growth are discarded along with the cuttings from which the slices were removed.

### Cultural Control

Grow culture-indexed cuttings only, and grow stock plants using individual tube watering systems. The organism is easily spread by splashing water. Subirrigation may spread the disease from root system to root system. Keep stock from different suppliers separate, and grow seedling geraniums separate from cutting crops. Do not hang ivy geraniums over a bench or floor crop of geraniums. Do not grow hardy (perennial) *Geranium* species near greenhouse crops of *Pelargoniums*. Rogue out symptomatic plants immediately.