

Aerial Phytophthora Blight on periwinkle

Prepared by
Camille Goodwin, MG 2008

Texas AgriLife Extension Service
Galveston County Office
Dickinson, TX 77539



Educational programs of the Texas AgriLife Extension Service are open to all people without regard to race, color, sex, disability, religion, age, or national origin.

The Texas A&M System, U.S. Department of Agriculture and the County Commissioners Courts of Texas cooperating.



FIG. 1

Disease Pathogen Name: *Phytophthora parasitica*

Pathogen Type: Fungus

Other Common Names: Aerial Blight on Periwinkles

Period of Primary Occurrence: late spring to early summer

Other Plants Affected

- It also causes significant problems on petunias

Description / Symptoms

- Generally presents as leaf blight and upper stem deterioration (Fig. 1)
- Root tissue typically not involved (aerial in nature, hence the name of the disease)
- Dark brown streaks or blotches appear on the stems followed by wilting of the leaves on those stems (Fig. 6-8)
- Often sections of the plant will wilt and turn gray-brown while other parts remain healthy
- An aerial sunken stem canker can also develop
- Symptoms develop rapidly in outdoor planted beds, especially during prolonged rainy weather
- Severely infected plants may succumb and die (Fig. 3)
- A severe infestation can wipe out an entire planting

Conditions Favoring Disease Development

- In the Galveston-Houston area, planting periwinkles too early (while soil and air temperatures remain cool) is especially favorable to disease development
- Crowded growing conditions which limit air flow and increase humidity



FIG. 2



FIG. 3



FIG. 4

Best Management Practices (BMP)

NON-CHEMICAL CONTROL

- Emphasis for control of aerial blight disease is placed on providing good drainage and water management
- Select a full-sun location; periwinkles need at least 6 – 8 hours of direct sun for optimum performance
- Avoid excessive soil compaction when transplanting. Soil compaction reduces needed air space and can significantly reduce drainage
- Avoid excessive drought as well as excessive irrigation. Stress from either factor can weaken plant roots and predispose them to infection
- Plant in raised, well draining bed
- Do not plant periwinkles before mid-April
- Plant so that the top of root ball is level with or slightly higher than the soil
- Do not crowd plants; good air circulation is needed
- Mulch to decrease splashing of rainfall and irrigation water
- Do not overwater
- Avoid overhead watering if possible
- Prune infected twig/branch/shoot tissue from infected plants as soon as symptoms become visible
- Do not plant periwinkles in the same location year after year or in a location affected by the disease in the past
- Plant resistant varieties

CHEMICAL CONTROL

- Use a fungicide labeled for control of aerial Phytophthora on periwinkles, and repeat treatments as directed/required



The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Texas AgriLife Extension Service is implied.

Use pesticides only according to the directions on the label. Individuals who use chemicals are responsible for ensuring that the intended use complies with current regulations and conforms to the product label. If the information does not agree with current labeling, follow the label instructions. The label is the law.

Always remember to read and heed six of the most important words on the label: "KEEP OUT OF REACH OF CHILDREN"

All images are copyrighted by the Galveston County Master Gardener Association (GCMGA). These images are for educational use only and may not be used for commercial or non-educational purpose without written permission from GCMGA.

Texas AgriLife Extension Service • Galveston County Office • 5115 Highway 3 • Dickinson, TX 77539
281-534-3413 • <http://aggie-horticulture.tamu.edu/galveston>