UNIVERSITY OF ILLINOIS EXTENSION
College of Agricultural, Consumer and Environmental Sciences

report on
PLANT
DISEASE

RPD No. 613
September 1983

DEPARTMENT OF CROP SCIENCES
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

LEAF SPOTS, ANTHRACNOSE, AND SCAB OF PANSY AND VIOLET

Pansies (*Viola tricolor, V. cornuta*, and *V. rafinesquii*) and sweet or florists' violet (*Viola odorata*) are popular garden flowers that exhibit a wide range of colors, markings, and sizes. They are grown extensively in nurseries in the winter and find a ready market for transplant use in parks, cemeteries, estates, and home gardens. Although pansies are hardy biennials, they are usually grown as annuals in northern states, producing their best flowers in the spring and early summer, and then discarded after hot weather arrives. The sweet violet is a perennial herb native to Europe and Asia, grown as an ornamental in greenhouses or out of doors in southern climates. In such intensive production areas, foliar diseases may become a problem.

Figure 1. Pansy leaf spot.

CENTROSPORA LEAF SPOTS

One of the most common leaf spot diseases of both pansies and violets is caused by the fungus *Centrospora* fungus include bachelor's button or cornflower, buttercup, Canterbury bells, Chinese forget-me-not, columbine, delphinium, lobelia, penstemon, petunia, and scabiosa. The susceptible vegetables include carrot, celery, narrow-leaf dandelion, French endive, lettuce, and parsnip. Centrospora leaf spot can become a serious disease of pansies and violets, especially when the weather is cold, wet, and windy or when seedbeds are crowded and damp. The *Centrospora* fungus attacks the leaves, petioles, and flowers. Where severe, pansy and violet plants may die within a few days after becoming infected.

The first symptoms to appear are minute, randomly distributed lesions that are blue black on the upper leaf surface and watersoaked or greasy looking on the lower surface. The lesions may soon enlarge up to 1/5 inch (5 millimeters) or larger, are elliptical or roughly circular in shape, and develop a light tan center surrounded by a blue black ring (Figure 1). On older leaves, the tissues surrounding the lesion may become chlorotic and form a light green halo.

For further information contact Nancy R. Pataky, Extension Specialist and Director of the Plant Clinic, Department of Crop Sciences, University of Illinois at Urbana-Champaign.

ALTERNARIA LEAF SPOT

This leaf spot disease, caused primarily by the fungus *Alternaria violae*, first appears as lesions that are greenish yellow to light buff and water-soaked. Later, the lesions develop a brown center. Concentric zones of light and dark brown become apparent as the spots enlarge and age (Figure 2). The lesions may merge to form large, blighted areas in the leaves. If left unchecked, Alternaria leaf spot may kill a plant within a few weeks.

Figure 2. Alternaria violae on Viola leaves.

ANTHRACNOSE

This disease, caused by the fungi *Colletotrichum violae-tricoloris* and *C. violae-rotundifoliae*, is occasionally destructive on both pansies and violets. In severe cases, entire plants may be killed.

Figure 3. Pansy Anthracnose. Colletotrichum violae tricoloris.

Circular, pale yellow spots with distinct black margins form in the leaves (Figure 3). As the disease progresses, concentric zones may develop within the spot and the enlarging lesions often merge. Small, dark brown, elongated lesions surrounded by a light halo appear on the sepals. On the petals, the centers of the lesions are dark brown with lighter shades of brown progressing out to the lesion margin. Affected flowers may not develop fully and may have malformed and unsightly blossoms. Lesions that are sunken, elongated, tan to dark brown, and water-soaked form in the stems, petioles, and flower stalks. There may be a pinching of the petioles and flower stalks at the point of origin of the primary lesions, killing the tissues above that point.

SCAB OR SPOT ANTHRACNOSE

Scab of pansies and violets, caused by the fungus *Sphaceloma violae*, is a very common disease. It affects all of the above-ground parts of the plant, including the seed capsule.

Minute, green, water-soaked dots appear on the leaf blade between the veins. These dots are often visible on only one leaf surface (usually the lower), but soon appear on both sides. The lesions enlarge into more or less scabby, elongated or roundish spots that are white, gray, or buff (Figure 4). A dark green border may surround the spots. The lesions may extend half an inch or more along a leaf vein, causing the vein or the entire leaf to become malformed. The centers of the lesions often drop out, leaving "shot-holes." When the infection is severe, the tissue between the lesions may become brown and die. The entire leaf blade may wilt from severe petiole infection. Lesions on the runners, petioles, and flower stalks are generally raised, are elongated to elliptical in shape, and eventually rupture lengthwise. Infections on the seed capsules and sepals appear as small, round to irregular lesions. When severe, scab may kill or badly deform affected plants. Since the seed capsule can also become infected, seed should not be gathered from diseased transplants.

CONTROL OF LEAF SPOTS, ANTHRACNOSE, AND SCAB

1. **Plant only plump, disease-free seed or transplants obtained from a reliable nursery**. The fungi causing Centrospora and Alternaria leaf spots, Anthracnose, and Scab are all transmitted on and within the seed and diseased transplants.

2. **Strict sanitation is essential**. Carefully collect and burn or compost all old and diseased leaves or other plant parts as they appear. Seedbeds should be constantly surveyed for diseased plants. Infected leaves, or perhaps entire plants, should be removed and destroyed when found.

3. **Where disease has been severe in the past, rotate pansies and violets with other garden flowers not susceptible to the Centrospora leaf spot fungus**. Where possible, start seed in heat-disinfested soil.

5. **Avoid overhead watering. Keep the leaves as dry as possible**. Free water on the foliage is essential for infection by these foliar disease-causing fungi. The longer the foliage is wet, the greater the chances of serious infection.