

DOWNY MILDEW OF CABBAGE

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Downy mildew, caused by the fungus Peronospora parasitica Pers. ex Fr., is one of the most destructive seedling diseases of cabbage (*Brassica oleracea* var. *capitata*) in Florida (2). This fungus also attacks other members of the genus *Brassica*, such as cauliflower, collards, Chinese cabbage, Brussels sprouts, broccoli, kale, and kohlrabi (1).

SYMPTOMS. When conditions are favorable for disease development, downy mildew first appears on the cotyledons as a white mold, usually on the lower surface. The fungus is noticeable particularly when the plants are wet with dew. As the leaf surface dries, the fungus is difficult to see. The cotyledons fade to pale green, then yellow, and finally die.

On true leaves, the disease first appears as tiny scattered, pale green spots. The spots enlarge, turn yellow, and then brown (Fig. 1). The fungus may be evident as a white mold on the underside of the leaves.

DISEASE DEVELOPMENT. The disease is most serious during cool, damp weather. Symptoms appear more rapidly when night temperatures range between 50 and 60 F for several days and plant surfaces remain wet until mid-morning (2).

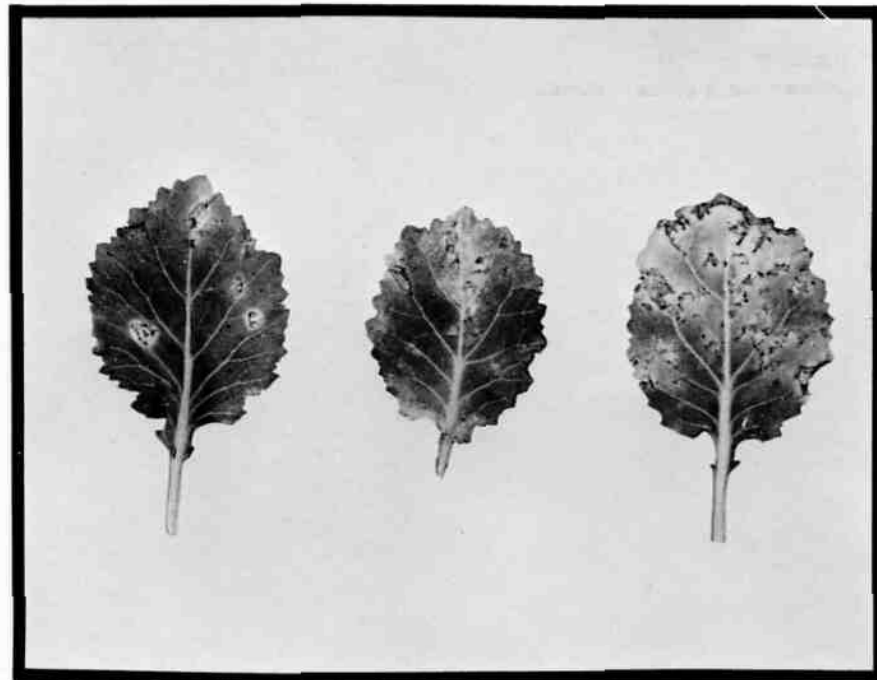


Fig. 1. Downy mildew on cabbage leaves with symptoms ranging from tiny yellow spots to enlarged brown areas.

CONTROL. Abandoned seedbeds and harvested fields should be plowed under as quickly as possible to prevent the disease from spreading to new plantings. All crucifers in the vicinity of the seedbed should be eradicated (3).

Zineb 75% at 2 lbs/100 gallons water, maneb 80% at 1 1/2 lbs, and Bravo 75% at 1 1/2 lbs are effective in controlling the disease in seedbeds when applied three times per week during conditions favorable for mildew development (3). Where seed is planted directly in the field, the same chemicals are effective at 100 to 150 gallons of spray per acre on a 6 to 7 day schedule (3). The frequency and total number of sprays will vary depending upon season and weather.

Literature Cited

1. Eddins, A. H. 1952. Diseases, deficiencies and injuries of cabbage and other crucifers in Florida. Univ. of Florida Agr. Exp. Sta. Bull. 492. 63 p.
2. Eddins, A. H. 1954. Control of downy mildew of cabbage with fungicides. Univ. of Florida Agr. Exp. Sta. Bull. 543. 23 p.
3. Univ. of Florida, Inst. of Food and Agr. Sci. 1972. Plant disease control guide, p. V-23.