SERVICE IN ACTION

COLORADO STATE UNIVERSITY EXTENSION SERVICE

Downy mildew of alfalfa

L. E. Dickens[1]

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Quick Facts

Downy mildew is a fungus disease.

It may be expected in young stands of alfalfa.

High relative humidity is conducive to disease development.

Affected crops should be cut early, before bloom.

Alfalfa leaves show patches of downy mildew mold and distortion of young leaflets.

Downy mildew, caused by the fungus *Peronospora trifoliorum*, is distributed generally throughout Colorado and is found nationwide. Like common leaf spot, it causes considerable damage to the alfalfa crop in seasons when there are frequent showers, heavy dews or high humidity around plants. Normally, this disease occurs during late spring and early summer.

During hot, dry weather downy mildew usually disappears but may reoccur again in the fall. Injury from downy mildew may be severe during the first year following seeding.

Symptoms

Downy mildew is easy to identify by the light green color of the alfalfa leaves, especially at the tips of stems, and the grayish-white mold growth on the leaflets. In instances where the disease is severe, the stems are smaller, the leaflets are rolled and twisted and may become yellowish in color. The spore-producing structures of the fungus are numerous on the mold growth on the lower surface of infected leaves.

Control

As in the case of common leaf spot, the best prospects for control of this disease are through the development of resistant varieties. Downy mildew-affected crops should be cut on the early side of bloom to save as many of the leaves as possible.

Farmers should plant varieties that are recommended for their particular areas. Since the fungus may be seed-borne, it is advisable to obtain seed from a healthy, disease-free crop.

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[1] L. E. Dickens, CSU extension professor, plant pathology (5/1/79)

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