

Plant Disease Notes

Powdery Mildew of Garden Beans

Powdery mildew, caused by the fungus *Erysiphe polygoni*, can be a serious disease of beans. It affects all aerial parts of beans and occurs throughout the world.

Symptoms. This disease forms small, round, whitish spots that are found primarily on older leaves. On careful examination, cottony fungal growth can be seen in the white spots. The leaf surface underneath these growths are darkened and mottled. Eventually the entire leaf will be covered with a talc-like powder. In severe cases the leaf will become distorted, yellow, and die prematurely resulting in extensive defoliation. Stems and pods can be infected as well. Infected pods develop purple spots and become distorted.

Persistence and Transmission. It is not known for certain how this fungus overwinters. Some workers believe it survives on weeds year round. Most of the talc-like powder seen on infected leaves is composed of spores. These spores are easily dispersed by wind or

splashing rain. Unlike other fungal diseases, powdery mildew can become severe under conditions of low rainfall and low humidity. The disease usually appears later in the growing season when it is a minimum threat to productivity.

Control. Powdery mildew needs to be controlled only during flowering and early pod set. Disease that occurs later in the growing season will have little effect on yield. Powdery mildew is best controlled by using the following strategies:

- Use a fungicide that contains sulfur.
- Maintain good plant nutrition. Plants under nutritional stress often develop powdery mildew sooner than plants grown under a good nutritional program.
- Use a resistant variety. The snap-bean variety *Contender* is resistant to powdery mildew.

Crop rotation has little effect on powdery mildew incidence.



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Use chemicals only according to the directions on the label. Follow all directions, precautions, and restrictions that are listed.

For more information, call your county Extension office. Look in your telephone directory under your county's name to find the number.

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