Downy mildew is caused by the fungus *Phytophthora phaseoli*. The disease can cause heavy losses in lima beans when weather conditions favor its development.

**Symptoms.** Downy mildew is easily recognized by the white cottony growth that forms on the pods. A reddish-brown or purple border may develop around the infected tissue. Infected pods shrivel, die and turn black, and often remain attached to the plant. The fungus may penetrate through the pod and infect the seeds.

Young shoots, flowers, and leaves are also affected. Leaf veins may become purple and distorted. The white mold commonly seen on the pods seldom develops on leaves.

The pathogen can also cause a seedling damping-off.

**Persistence and Transmission.** The downy mildew fungus overwinters in infected seed and in plant debris (vines and pods) left in the field. Both the seed and dead plant material can act as sources of the disease in the following year.

Disease development is favored by wet weather with cool nights, heavy dews, and fairly warm days. Infection is most serious on pods lying close to the soil. Susceptible plants can be destroyed in a few days under the right conditions. The disease is most commonly spread by wind and rain.

**Control.** Downy mildew is best controlled by using the following strategies:

- Use resistant varieties. The lima bean variety Eastland is resistant to the disease.
- Use disease-free seed.
- Use crop rotation. Do not plant beans in the same field for at least 2 years.
- Scout fields weekly for symptoms of the disease.
- Initiate a spray program with a fungicide containing the active ingredients chlorothalonil or maneb when the disease is first observed. Continue on a 7- to 10-day schedule. Be aware that there is a long waiting period from the last application of the fungicide until harvesting can begin.
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.