Rust, caused by the fungus *Uromyces phaseoli* var. *typica*, attacks all aboveground plant parts but is most commonly seen on the lower surface of leaves. Rust is a common problem on snap beans but rare on lima beans in Alabama. Rust can cause significant yield losses when plants are attacked early in the season.

**Symptoms.** Rust is most common on mature plants. It is usually observed on leaves but may also occur on pods. The initial symptom of rust is small, white, slightly raised spots on the lower leaf surface. These pimple-like structures may be surrounded by a yellow halo. Within 1 week these pustules break open into rust-colored lesions, about the size of a pinhead. The powdery mass of rust-colored spores will give a rust color to the fingers if rubbed across symptomatic leaves. These lesions will appear on the lower and upper leaf surface. About 1 week after the pustules appear, the entire leaf begins to turn yellow. Heavily infected leaves turn yellow, shrivel, dry up, and drop prematurely. A severely infected field looks scorched.

**Persistence and Transmission.** The rust fungus overwinters on dead infected bean plants from the previous season. Spores are spread long distances by wind. Thousands of spores can be produced from each infected leaf and a new generation of spores is produced about every 10 days. Disease development is favored by cloudy, humid weather and temperatures around 75°F.

**Control.** Rust of garden beans is best controlled using the following strategies:
- Crop rotation. Do not plant beans in the same field for at least 2 years.
- Eliminate crop debris after harvest and control volunteer bean plants during the rotation cycle.
- Weed control.
- Use resistant varieties. Resistant varieties are available, but because of the large number of races of rust (over 250 worldwide) selecting the best one for your area may be difficult. Some rust resistant varieties include Raider, Rebel, Seminole, Provider, and Resisto.
- Scout fields weekly for symptoms of the disease.
• Begin a fungicide spray program when the first symptoms of rust appear. Use a fungicide with the active ingredients maneb or chlorothalonil on a 7-day spray schedule until the disease is no longer a problem.

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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Web Only. Revised May 2004, ANR-1008

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