

# Dry Bean

## Leaf Variegation

*Howard F. Schwartz, David H. Gent, Gary D. Franc and Robert M. Harveson*

### Identification and Life Cycle

Leaf variegations are a condition determined by the genetic factors of the variety. Some varieties are more subject to the problem than others. Environmental factors such as low soil temperature (below 60° F) can increase the frequency of leaf variegations. Leaf variegations occur in very low frequencies in commercial varieties, and are of no practical significance.

### Plant Response and Damage

Only a small portion of plants show leaf variegations. Leaf variegations appear as a patchwork pattern or mosaic of varying shades of green, yellow, and white tissue on one or more leaflets of trifoliolates. The size and intensity of these color patches usually varies between leaflets, and can occur on some or all leaves of a branch or entire plant. Completely yellow or white (albino) seedlings die within a few days after emergence. Leaf variegations are sometimes confused with other problems such as mosaic viruses, but the latter produce leaf cupping and a different pattern of color mosaics in the tissue surrounding leaf veins. Other genetic factors may cause small yellow spots of unifoliolate and some trifoliolate leaves, or cause leaf crippling and curling.

### Management Approaches

#### Biological Control

No biological control strategies have been developed for leaf variegation.

#### Cultural Control

No management procedure need be applied in commercial bean fields. Plant recommended varieties, most of which are free of this problem. Inspect registered and certified seed fields routinely, especially before row closure, and rogue variegated plants since this can be a heritable trait.

## **Chemical Control**

No chemical controls are available.

Categories: Dry Bean, Disease, Leaf Variegation

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