



# **Curtovirus species**

*Genus, Curtovirus; Family, Geminiviridae*



FIGURE 1



FIGURE 2



FIGURE 3

# Curtovirus species

Genus, *Curtovirus*; Family, *Geminiviridae*

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**CURTOVIRUSES:** Beet curly top, Beet mild curly top, Beet severe curly top, Spinach curly top, Pepper yellow dwarf, and Pepper curly top virus

**COMMON HOSTS:** Broad bean *Vicia faba*, common bean *Phaseolus vulgaris*, cowpea *Vigna unguiculata*, pea *Pisum sativum*, alfalfa *Medicago sativa*, and clovers *Melilotus* and *Trifolium* spp.

**SYMPTOMS (INFECTED BEAN OR COWPEA):**

**FIGURE 1** • Yellowing (chlorosis) of leaves is the initial symptom of *Curtovirus* infection in common bean.

**FIGURE 2** • Yellowing, leaf curling, leathery leaves; severe *Curtovirus* symptoms in common bean.

**FIGURE 3** • Yellowing (chlorosis) of leaves in *Curtovirus*-infected cowpea (*Vigna unguiculata*).

**FACTORS FAVORING:**

- Presence of leafhopper vector (*Neolaliturus tenellus*) (previously *Circulifer tenellus*)
- Curtoviruses are:
  - Transmitted (internally) in a persistent manner
  - Retained when the vector molts
  - Not replicated in the vector
  - Not transmitted to the offspring of the vector
  - Not transmissible by sap or contact with infected plant parts, or through true seed
- More than 300 infected weeds from previous season and current crops can be reservoir hosts.
- Warm temperatures greater than 86°F (30°C) favor vector dispersal from overwintering hosts.
- Susceptible varieties of a crop host.

**ADDITIONAL DIAGNOSTICS AVAILABLE AT:**

<http://legume.ipmpipe.org>

<http://wiki.bugwood.org/PIPE:Legume>

<http://www.npdn.org/DesktopDefault.aspx>