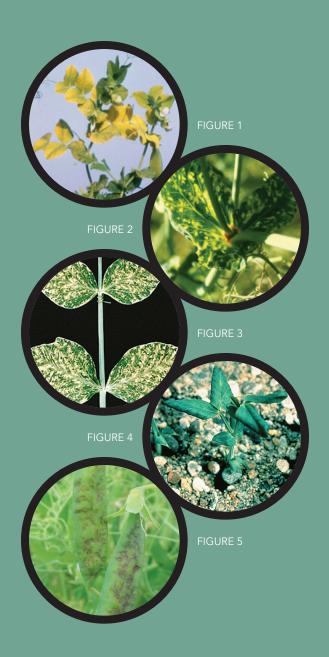


Pea Viruses





Legume ipmPIPE Diagnostic Pocket Series

Pea Viruses

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PHOTOGRAPHS: Courtesy of R.O. Hampton & R. Provvidenti (APS Pea Compendium), Kevin McPhee (North Dakota State University), and R.C. Larsen (USDA-ARS) [08/2011]

COMMON HOSTS: legumes in Cicer, Lens, Medicago, Pisum, Trifolium, and/or Vicia species may be susceptible to one or more Pea viruses transmitted by various aphid species in a persistent or nonpersistent manner.

PEA VIRUSES:

FIGURE 1 • Bean leaf roll virus (BLRV), Luteovirus. Symptoms include chlorosis and stunting of foliage, with misshapen and poorly filled pods.

FIGURE 2 • Pea enation mosaic virus (PEMV), Enamovirus. Symptoms include translucent flecks (windows), enations, veinclearing, and deformed leaves; stunted plants; deformed and twisted pods.

FIGURE 3 • Pea mosaic virus (PeMV), Potyvirus. PeMV is a strain of Bean yellow mosaic virus distinguished by its vivid yellow mosaic in pea.

FIGURE 4 • Pea seed-borne mosaic virus (PSbMV), Potyvirus, seed transmitted. Symptoms include downward leaf rolling, plant deformation, mild chlorosis, veinclearing, mosaic and general stunting, possibly with split or banded seed.

FIGURE 5 • Pea streak virus (PeSV), Carlavirus. Symptoms include purple to brown streaks on stems and petioles, and small brown streaks on leaves and pods which may abort.

FACTORS FAVORING:

- Presence of aphid vector, either colonizing or migratory
- Infected perennial legumes nearby, e.g., alfalfa, clover,
- Seed with virus infected embryos; seed transmission is variable depending on the variety (e.g., PSbMV)
- Susceptible varieties
- Infection at V1-V4 enhances symptom severity, reduced pod set, poor seed fill, and yield loss

ADDITIONAL DIAGNOSTICS AVAILABLE AT:

http://legume.ipmpipe.org

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

http://www.apsnet.org/ —Compendium of Bean Diseases, 2nd Ed.; Compendium of Chickpea and Lentil Diseases and Pests;

Compendium of Pea Diseases and Pests, 2nd Ed.