



Plant

DIAGNOSTIC CENTER

Solving your plant health problems

Plant Viruses

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Plant Viruses

- Obligate parasites and plant pathogens
- Intracellular and very small and can only be seen with an electron microscope
- Change the genetic system of the host
- Once the host is infected there is no cure
- Weeds are important reservoir of plant viruses

Plant Viruses Transmission

- Through plant sap
- Via grafting infected scion to healthy root stock and vice-versa
- Insects as vectors of plant viruses
- Mites as vectors of plant viruses (Rose rosette)
- Some viruses are transmitted through contact

Plant Viruses Symptoms

- Mosaic (light green/dark green)
- Mottling (dark green/yellowing)
- Ring spots
- Tissue distortion and leaf crinkling
- Stunting and shortening of internodes
- Vein clearing, yellowing, etc.

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Plant Viruses Symptoms

- Visual diagnosis of plant viruses is not accurate
- Symptoms resemble herbicide injury
- Nutritional deficiencies
- Symptoms caused by other plant pathogens
- Enzyme linked immunosorbent assay may be used for preliminary detection

Mosaic Symptoms



Courtesy H. D. Shew: from K. B.G. Scholthof 2000 (www.apsnet.org)

Yellow Vein Symptoms



Courtesy: Vaikundaperumal Jaiganesh (www.apsnet.org)

Ring Spot Symptoms



Courtesy: *Tobacco rattle virus* on peony **G. Chastagner and H. R. Pappu** (www.apsnet.org)

Tissue Distortion Symptoms



Stunted Plant Symptom



Courtesy: Don Ferrin, LSU AgCenter

Yellow Leaf Curl Symptoms





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