

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 these is no cure
- Weeds are important reservoir of plant viruses



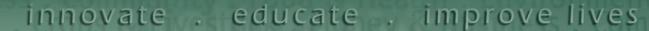
Plant Viruses Transmission

- 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.





Plant Viruses Symptoms

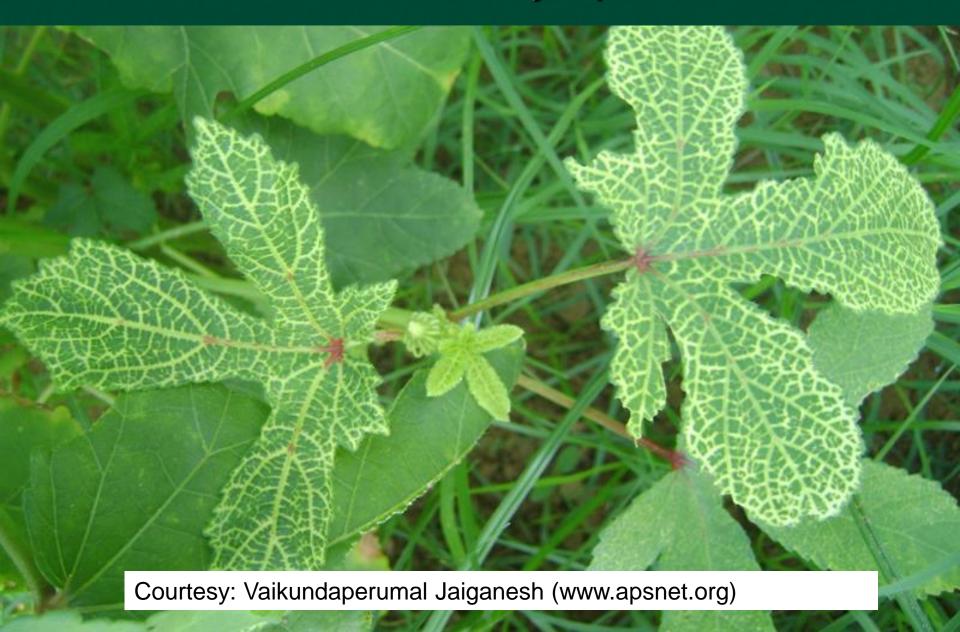
- Visual diagnosis of plant viruses is not accurate
- Symptoms resemble herbicide injury
- Nutritional deficiencies
- Symptoms caused by other plant pathogens
- Enzyme linked immunosorbent assay may be used for preliminary detection



Mosaic Symptoms



Yellow Vein Symptoms



Ring Spot Symptoms



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

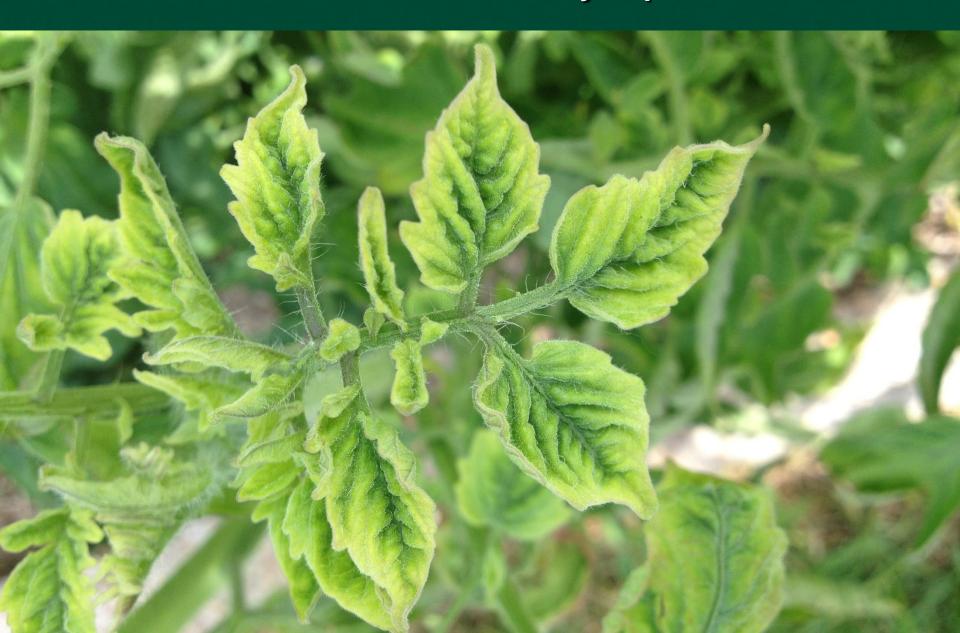
Tissue Distortion Symptoms



Stunted Plant Symptom



Yellow Leaf Curl Symptoms



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