



FACULTY OF AGRICULTURAL SCIENCES AND ALLIED INDUSTRIES

**DISEASES OF FIELD&HORTICULTURAL CROPS&
Management 1 PPA - 312**

LECTURE 08

1. NAME OF DISEASE – YELLOW VEIN MOSAIC

Pathogen-Bhendi Yellow vein mosaic virus or Bhendi vein clearing virus

- Very serious constraint in bhendi production through out the country
- Geminivirus having spherical bipartite particles with ssDNA as genome

Symptoms

- Yellowing of the entire network of veins in the leaf blade (vein clearing) is the characteristic symptom. In severe infections the younger leaves turn yellow, become reduced in size and the plant is highly stunted
- In a field, most of the plants may be diseased and the infection may start at any stage of plant growth
- Infection restricts flowering and fruits are not formed, if formed, turn smaller, harder and rough. Loss in fruit yield ranges from 50-100% based on disease incidence



Survival and spread

- **Primary:** Virus particles in infected plants and collateral hosts like Hibiscus tetraphyllus, Croton sparsiflora and Ageratum spp
- **Secondary:** Virus particles transmitted by whitefly Bemisia tabaci

Management

- Tolerant varieties: Parbhani Kranti, Pusa savani, Janardhan, Haritha, Arka Anamika and Arka Abhay
- Removal and destruction of infected volunteer plants and collateral hosts in the vicinity of the field
- Erection of yellow sticky traps in the field to trap the whiteflies
- Vector management for restricting spread by spraying systemic insecticides like Monocrotophos, 1.5 ml/l, Dimethoate or Methyl S Demetan 2 ml/l