



# Symptoms on SP induced by virus infection

Segundo Fuentes







Leaf curl / Roll up







Roll down

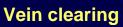






Vein clearing Chlorotic spots Chlorotic rings







**Chlorotic spots** 



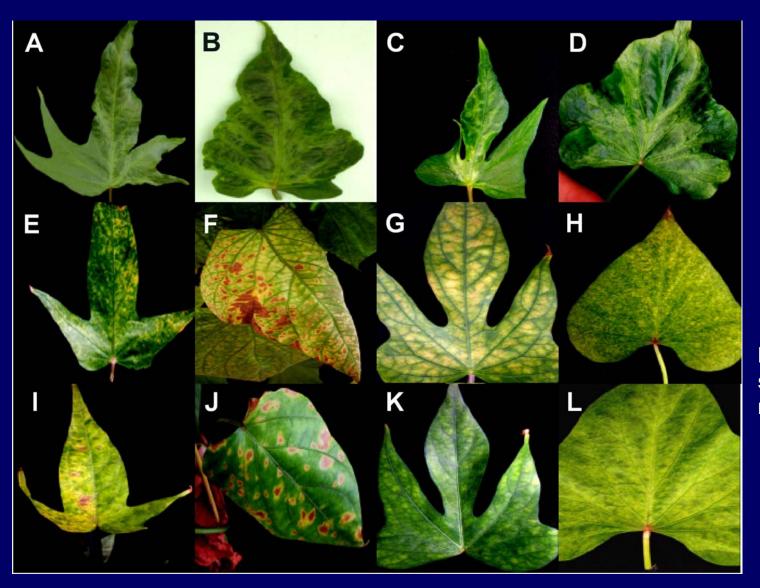
**Purple rings** 



Mosaic



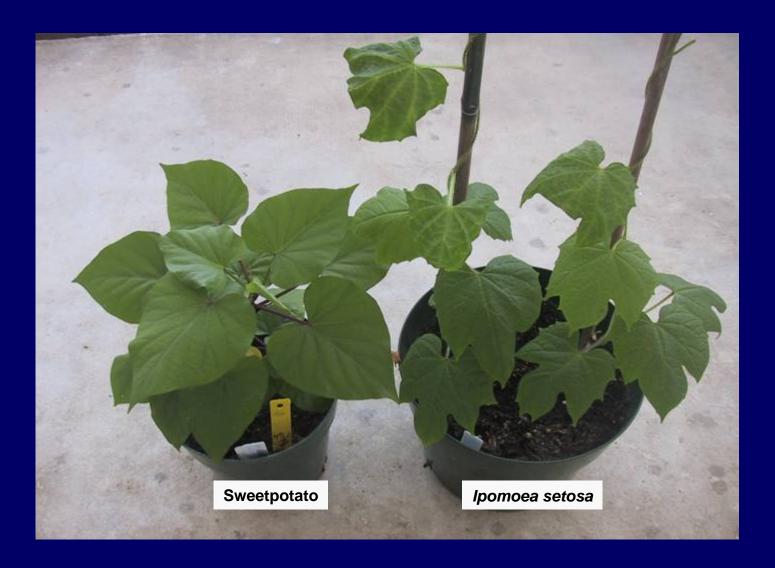
Mosaic, leaf reduction, leaf deformation, stunting



Mosaic, Rugosity

Necrotic spot, leaf necrosis

### **Symptomless infection**



• Low virus concentration in sweetpotato tissues (virus is not detected by serology from the SP plant)

## **Recording symptoms**

C = Chlorosis Pr = Purple rings

Cs = Chlorotic spots R = Rugosity

Cp = Chlorotic point RD = Roll down

IVC = Interveinal chlorosis RU = Roll up

Ld = Leaf deformation St = Stunting

Ln = Leaf necrosis Vb =Vein banding

Lr = Leaf reduction Vc = Vein clearing

M = Mosaic Vn = Vein necrosis

**Np** = **Necrotic** points







M, Ld



M, Ld, Lr, St

#### Aiyura (SP germplasm, Feb. 23, 2007)



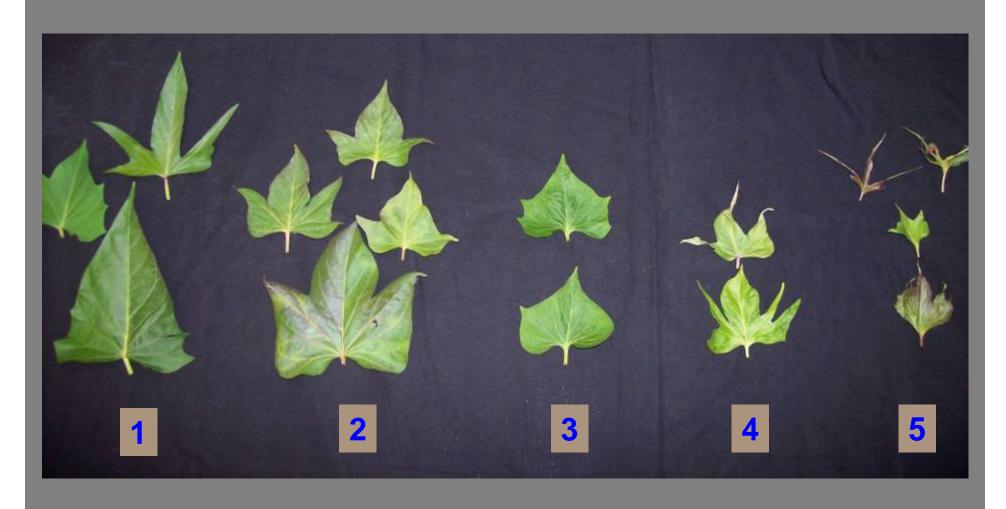


#### Aiyura (SP germplasm, Feb. 23, 2007)

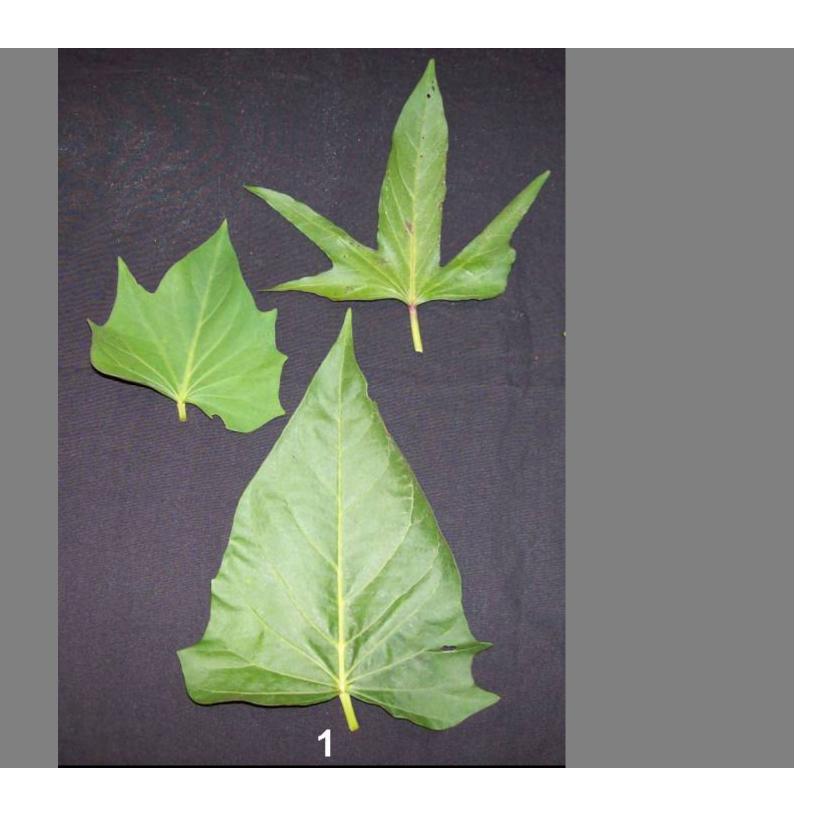




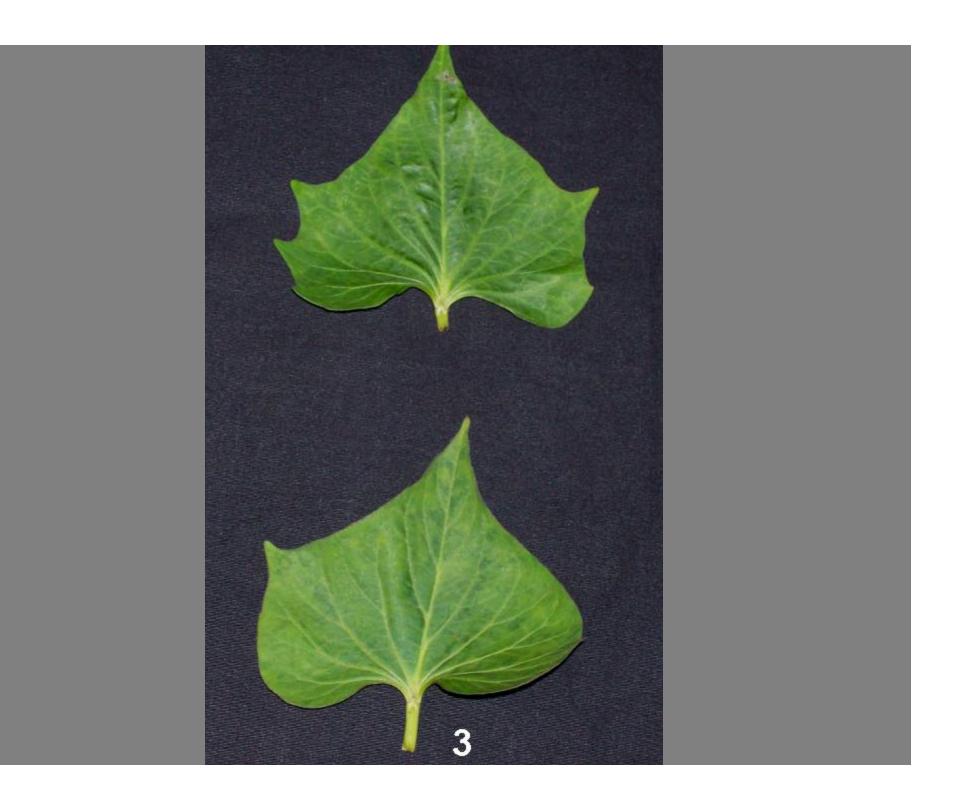
# Sweetpotato virus disease (SPVD)

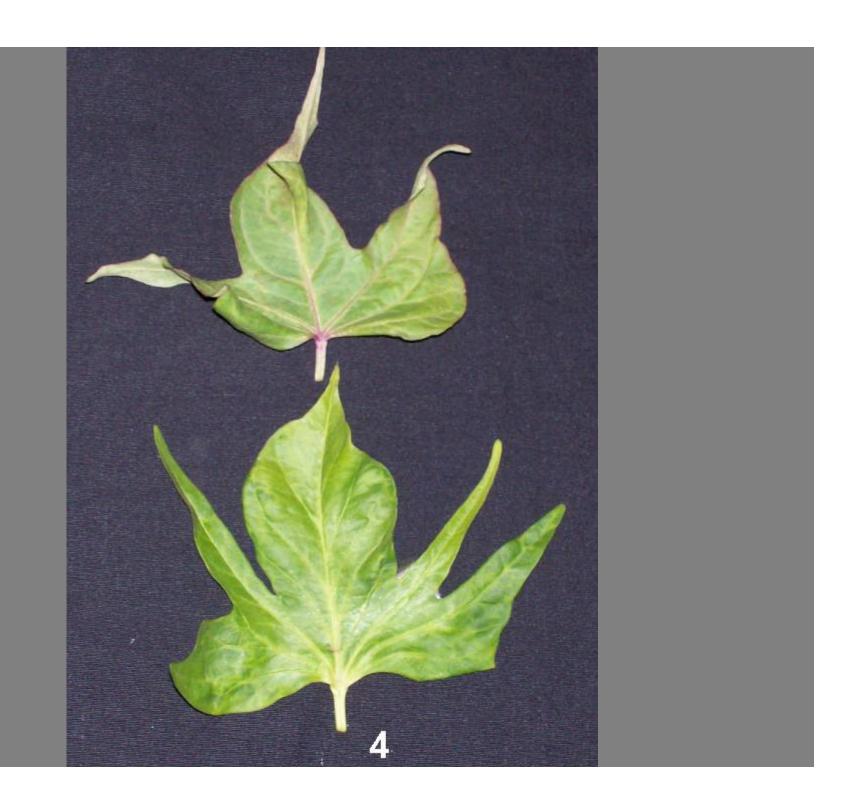


Disease scale





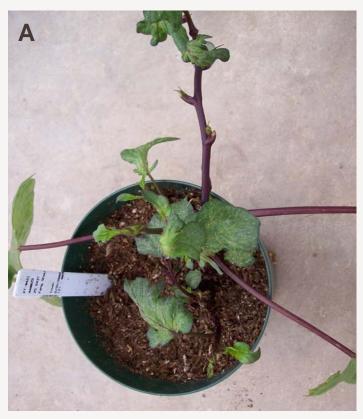








#### **Somatic mutation**





Clone CIP 440029 (Feng Shou Bai) showing somatic mutation (symptom of genetic distortion of leaves).

Indicator plant *I. seotsa* grafted with tissue scion from clone CIP 440029. No symptom is observed.

#### **Somatic mutation**



Clone CIP 401430 (Morada) showing somatic mutation (symptom of genetic distortion of leaves).



Indicator plant *I. seotsa* grafted with tissue scion from clone CIP 401430. No symptom is observed.