

SUGARCANE MOSAIC DISEASE

The disease caused by sugarcane mosaic virus (SCMV) is commonly referred to "mosaic." It has, at one time or another, occurred in virtually every important sugarcane growing country. Estimated yield losses due to the disease vary greatly depending on the time period and sugarcane growing area involved

SYMPTOMS

1. Mosaic is identified primarily by its leaf symptoms. As with most sugarcane diseases, the symptoms may vary in intensity with the cane variety, growing conditions, and the strain of the virus involved.
2. The most distinctive symptom is a pattern of contrasting shades of green, often islands of normal green on a background of paler green or yellowish chlorotic areas on the leaf blade.
3. The chlorotic areas are diffuse, but they may be sharply defined in some clones infected with certain strains of the virus. The infection may be accompanied by varying degrees of leaf reddening or necrosis.
4. Chlorotic areas are most evident at the base of the leaf. Chlorotic areas may also be present on the leaf sheath, but rarely on the stalk. Young, rapidly growing plants are more susceptible to infection than more mature, slower growing plants.



Sugarcane mosaic virus symptoms on sugarcane.
Courtesy Tom Isakeit, TAEX, Weslaco, 1996.



CAUSAL AGENT

Mosaic is caused by a virus.

SPREAD OF THE DISEASE

There are three principal modes of spread of SCMV: (1) by aphid vectors, (2) by infected seed cane and (3) by mechanical inoculation. Only aphid vectors and infected seed cane are important in the field. Mechanical transmission.

PREVENTION AND CONTROL

1. The use of resistant varieties is the most effective method of mosaic control.
2. Management practices targeting insect vectors and control methods aimed at eradication have not been very effective.

3. It has been noted that some sugarcane plants recover from mosaic.
4. A sugarcane plant which has recovered is not only symptomless, but the virus can no longer be detected in the plant. The recovered plant remains susceptible to reinfection by the same strain or from other strains.