

Mosaic Disease of *Calotropis Gigantea* R. Br.

During February, 1965, a mosaic disease was observed on *Calotropis gigantea* plants growing in the Agricultural College campus at Vellayani. Since the disease was suspected to be of virus origin, studies were undertaken on the symptomatology and mode of transmission of the same.

Symptomatology

The symptoms first appear on the young leaves in the form of scattered, yellow, irregular spots that stand out conspicuously against the green colour of the normal leaf tissues presenting a typical mosaic appearance (Fig. 1). The spots gradually increase in size and often coalesce to form large irregular, yellow patches. Slight reduction in the size of the affected leaves is commonly noticed. At times some of the diseased leaves become lanceolate in shape. Occasionally a downward curling of the leaves is also observed (Fig. 2).

Transmission tests

Sap inoculation—Young leaves from diseased plants were crushed well by means of a pestle and mortar. Sterile, distilled water was added at the rate of one ml for

every gram of the leaf material. The sap was squeezed through muslin cloth and the bulky green precipitate of the plant material was removed by centrifugation. The supernatant solution was used as inoculum. Young healthy *Calotropis* plants were inoculated by the leaf rubbing method, using 600-mesh carborundum powder as an abrasive. The plants were kept under insect-proof conditions. All the inoculated plants developed disease symptoms within 30-35 days.

Grafting—Inarch grafting was done between diseased and healthy *Calotropis* plants. Typical mosaic symptoms were manifested on the leaves of the new sprouts arising from the healthy plants within 15 to 22 days.

There is no record of such a virus disease on *Calotropis gigantea*.

Acknowledgement

The authors wish to record their sincere gratitude to Dr. J. Sam Raj, Professor of Plant Pathology and Dr. C. K. N. Nair, Principal and Additional Director of Agriculture (Research) for encouragement.

Division of Plant Pathology,
Agricultural College, and
Research Institute, Vellayani,
2-9-1966.

K. I. Wilson,
P. C. Jose.

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Fig. 1. Affected leaf.

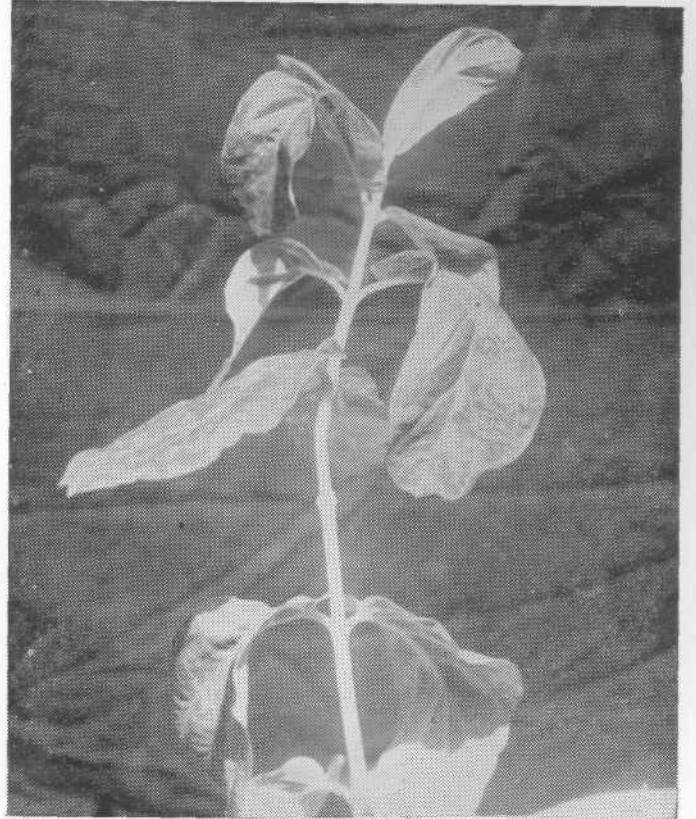


Fig. 2. Affected plant.