in the month of June, the hottest month of the season, yielded colonies of *Fusarium oxysporum* f. *lathyri* in sufficiently high frequency. Its survival is further facilitated by very mild or no antagonism exhibited by any of the fungal, bacterial or actinomycete isolates present in the soil.

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## Mosaic—A transmissible disorder of sweet oranges

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During the survey of citrus orchards in Andhra Pradesh for virus diseases, some sweet orange [*Citrus sinensis* (L.) Osb.] trees budded on Jamberi (*Citrus jambhiri* Lush.) in Anantapur district exhibited characteristic mosaic patterns distinctly different from greening, zinc deficiency or any other known chlorotic pattern. This was designated as "*Mosaic*" pending more detailed studies[1]. The field symptoms are a mosaic pattern with irregular yellow or light green patches alternating with normal green leaf area and irregularly distributed all over the leaf without any reference to the mid-rib or lateral veins.

The disease is exhibited all over the tree unlike in greening which shows up in some branches or sectors of tree. The green islands on yellowed leaves which commonly occur in greening affected sweet orange trees are not noted in mosaic affected Sathgudi trees. The affected trees do not show any pronounced stunting.

Symptoms similar to those recorded on the parent plant were noted in the new flush of indicator plants in 3 months 15 days after bud-inoculation (Fig. 1.). The disease could not be transmitted by the psyllid, *Diaphorina citri* (Kuway.).

In the host range studies, mosaic symptoms similar to those on the source plant of Sathgudi appeared on adajamir [(*Citrus assamensis*) (Datta and Bhatia)] after 82 days of incubation, on mosambi (*Citrus sinensis* Osb.) after 80 days of incubation. No symptoms were noted on acidlime or West Indian lime (*Citrus aurantifolia* Swing.) indicators even after 5 months of incubation.

Chromatographic tests[2] using the bark piece of mosaic affected Sathgudi stems for detection of greening indicated no fluorescence. Six weekly sprays of ledermycin [(dimethy) chlorotetra cycline hydrochloride] at 500 ppm on mosaic affected Sathgudi plants did not indicate any recovery as the plants continued to produce leaves which developed mosaic symptoms.

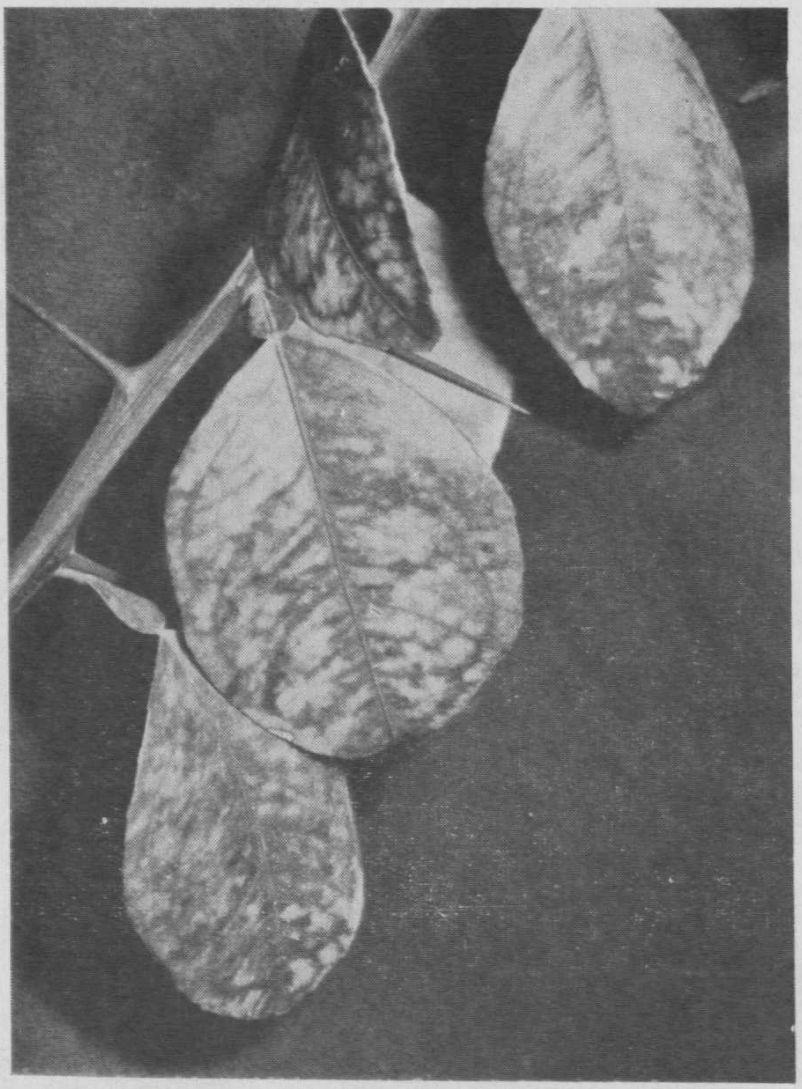

Fig. 1. Sathgudi leaf showing mosaic disease

Thus, the disease appears to be different from any known transmissible disorder of citrus and specifically greening, and is considered a new one and is tentatively designated as "*Mosaic*"

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