STUDIES ON SOYBEAN YELLOW MOSAIC VIRUS IN SRI LANKA

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A virus of soybean (SBYMV) showing symptoms of chlortic yellow mosaic and nectotic yellow mosaic on different cultivars of soybeans was isolated from diseased soybean plants in the Plant Pathology field at the Agricultural Research Station, Maha Illuppallama.

The virus could not be transmitted by sap or by aphids *Myzus persicae* or *Aphis gossypii*. Successful transmission was obtained by graft inoculation and by whitefly (*Bemisia tabaci*) (Shivanathan 1977). The whitefly (*Bemisia tabaci*) given an access feeding of 90 minutes transmitted the virus after an incubation period of 6 hours. The efficiency of transmission was increased by longer periods than 8 hours for acquisition and inoculation feeding respectively. In serial transfer tests no male whiteflies retained infectivity beyond 3 days, while female whiteflies retained infectivity beyond 9 days but not for the duration of the life time of the vector.

The virus (SBYMV) was transmitted to the following plant species using viruliferous whiteflies *Phaseolus lathyroides* L (a host in nature) *Alysicarpus vaginalis* L. (a host in nature) *Phaseolus aureus* Roxb, *Phaseolus atropurpurea* L, (a host in nature) *Cajanus cajan Milsp.*, *Phaseolus vulgaris* L. This virus could not be inoculated to *Phaseolus mungo* L. or *Vigna sinensis* Savi. A comparison of the properties of SBYMV with that of the naturally occurring Mung bean Yellow mosaic virus (MBYMV) on *Phaseolus aureus* showed remarkable similarities in symptomatology and transmission times. If the SBYMV and the MBYMV are similar, then the Sri Lanka strain of the virus differs from those reported elsewhere in its inability to infect *Phaseolus mungo* (Nene 1972) and *Vigna sinensis* Savi (Nariani 1960)

Reference:

1. Nariani, T. K. (1960) Indian Phytopathology, 13: 24-29.
2. Nene, Y. L. (1972) (Final Technical Report) A survey of viral diseases of Pulse crops in Uttar Pradesh, University Press, Pantnagar.
3. Shivanathan, P. (1977) Tropical Agricultural Research Series. Pub. Tropical Agricultural Research Center, Ministry of Agriculture and Forestry, Japan. 10:64-68.