B-95: A virus from 'little leaf disease' affected black pepper (*Piper nigrum* L.)

D P Padmini de Silva, S N de S Seneviratne, Y M D B Yapa
(*Research Station, Dept of Export Agriculture, Matale*)

Black pepper (*Piper nigrum* L.) is affected by a disease designated as 'little leaf disease' characterized by virus like symptoms. They are: a reduction of leaf size accompanied by growth retardation and abnormal leaf colouration with yellowing and mottling.

For virus isolation, leaf extracts were prepared by grinding symptomatic leaves with 0.1% thioglycolic acid (Sigma, T-3758) in 0.067M phosphate buffer, pH 7.0 and inoculated to carborundum (400 mesh) dusted, predarkened herbaceous indicators: *Nicotiana glutinosa* reacted with conspicuous yellow mottling and distortion of leaves, *N. rustica* with systemic mottling and cultivars of *N. tabacum* with systemic mottling and chlorosis. *Vigna radiata* (mung bean) reacted with minute brown local lesions on inoculated cotyledons, characteristic of cucumber mosaic virus (CMV). Later the isolate virus was identified as a strain of CMV (28 - 30 nm. diameter), with the collaboration of Rothamsted Experimental Station, U.K.

The virus isolated from black pepper plantations in Wattegama, Dankanda, Kundasale and Kengalle had high thermal inactivation point of 60 - 65°C and dilution end point of 10^{-3}.

This appears to be the first instance of the isolation of CMV from diseased pepper in any of the pepper growing countries of South East Asia.