CHARACTERIZATION OF YELLOW VEIN MOSAIC VIRAL DISEASE IN OKRA (Abelmoschus esculentus)

P.K.G.A. Deepal¹, S.K. Wasala², M.C.M. Zakeel¹ and L.K.W. Wijayaratne¹

¹Department of Plant Sciences, Faculty of Agriculture, Rajarata University of Sri Lanka, Puliyankulama, Anuradhapura, Sri Lanka ²Plant Genetic Resources Center (PGRC), Gannoruwa, Peradeniya, Sri Lanka

Okra is a major vegetable crop commonly grown in all agro-ecological zones of Sri Lanka. Yellow Vein Mosaic Virus (YVMV) is a major constraint against okra cultivation in Sri Lanka. The degree of disease induced crop loss depends on the stage of viral infection. However, such information is lacking under Sri Lankan context. Morphological characteristics of YVMV, its influence on okra and crop loss against stage of infection were evaluated for three okra varieties; MI-5, MI-7 and Haritha. Each variety had four replicates in a Randomized Complete Block Design. The experiments were carried out at the Plant Genetic Resources Center, Gannoruwa and the Field Crop Research and Development Institute, Mahailluppallama during Yala 2014. At both locations, MI-5 and MI-7 showed severe virus symptoms while Haritha did not show any virus symptom. Disease symptoms were vein clearing, puckering of leaves, yellowing of pods and pod deformation at both locations. However, two types of vein clearing (vein clearing with and without mosaic symptoms) were observed at Gannoruwa. Okra infected with YVMV at a very early stage had significantly higher yield loss at Mahailluppallama. However, the plants at Gannoruwa showed the disease symptoms when plants were 75 days old and possibly due to this late disease incidence, the yield loss was insignificant.

Keywords: Disease symptoms, Okra, Yellow vein mosaic virus

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