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Cotton leaf curl virus disease progression in relation to weather under two growing environments

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ABSTRACT : Cotton Leaf Curl Disease is among the most devastating natural calamity that inflicted huge losses to cotton crop productivity. Cotton leaf curl virus disease is caused by a single stranded circular Gemini virus and transmitted by white fly (*Bemisia tabaci*). The initiation of disease is characterized by small vein thickening type symptoms on young upper leaves of plants. The materials for the present investigation comprised of 3 cotton cultivars viz.HS-6, RASI-134 and MRC-6304 including two dates of sowing i.e. 30th April and 30th May and two conditions i.e. sprayed and unsprayed. Cotton crop sown on 30th April under protected (sprayed) conditions showed minimum of leaf curl virus disease incidence (33.33%) and intensity (38.83%). The intensity and incidence of leaf curl virus (CLCuV) disease was found high (59.38 and 82.50%) in HS 6 as compared to MRC 6304 and RASI 134, due to succulent broad leaves and none of the genotypes was resistant to CLCuV. Vapour pressure deficit retarded the leaf curl virus disease incidence and intensity.

Key Words : *Bemisia tabaci*, CLCuV, Cotton cultivars, Disease intensity and Gemini virus.