B-94 : EVALUATION OF TOMATO FOR DISEASE RESISTANCE

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Tomato varieties cultivated in the Eastern region of Sri Lanka are prone to bacterial wilt and virus disease. Therefore, a screening trial was conducted to identify tomato lines that could resist bacterial wilt and virus disease, at the University farm, Chenkalady for two seasons, Maha 89 Yala 90.

Fifteen tomato lines from the Asian Vegetable Research and Development Centre (AVRDC) along with a standard variety, Marglobe were screened in a replicated trial. A highly susceptible cultivar, L 390 was grown in the area and the leaves of these plants were cut. The bacterial wilt innoculum was applied to the cut leaves to create a uniform innoculum distribution prior to the planting of test materials. Disease ratings were based on the symptoms indicated by the plants and survival of plants, using the guidelines adopted by AVRDC. An index from 1 - 5 in the increasing order of severity was used to assess the disease. Plant and fruit characteristics and the yield potential were measured.

All the tomato lines from the AVRDC were able to withstand bacterial wilt and virus disease compared to the standard variety. Four of these tomato lines produced significantly (P) higher yields than the control.

Hence, these four tomato lines from the AVRDC may be used as potential candidates in the Eastern region of Sri Lanka to obtain high yields along with disease resistance.