

**B 046**

**HTI-16-38, a new tomato variety with high yield potential and bacterial wilt resistance**

Tomato is one of the most popular and widely grown vegetables in Sri Lanka. Recently, the demand and cultivable extent of this crop has tremendously increased. Major constraint for tomato production is the bacterial wilt disease. Therefore, there is an urgent need for varieties with high yield potential and bacterial wilt resistance. To

achieve this objective, the present study was carried out at Horticultural Crop Research and Development Institute.

Hybridization, selection in segregating populations by modified bulk method and yield evaluation studies were carried out during 1995 - 2000. The elite line, HTI-16-38 is a derivative of the cross between T245 / Caribe. The yield evaluations were done in two seasons of Yala and Maha in National Co-ordinated trials and in farmer fields for adaptability. The check variety used in these trials was T245 and Randomized Complete Block Design was followed with three replications. The cultural practices and fertilizer applications were done according to departmental recommendations.

Thee statistical analysis on marketable yield data clearly revealed that the variety HTI-16-38 was superior to the check variety T24 (25.8 t/ha). The laboratory and field screening studies showed resistance to bacterial wilt disease and good fruit quality characteristics such as medium firmness and big fruit size (95 g/fruit).