

## **Evaluation of Tomato (*Lycopersicon esculentum*) varieties in Sandy regosols during yala season**

The experiment was conducted to evaluate the growth performance of six tomato varieties namely, KC1, T146, Caribo inra, Marglobe, Roma, and T245 on sandy regosols (One type of soil), during the yala season at the University farm, Vantharumoolai, located in the agro ecological zone of the low country dry zone (DL2) during the period of May 2001 to September 2001. The experiment was conducted in a Randomized Complete Block Design with four replicates for each treatment, managed according to recommended practices of the Department of Agriculture.

Measurements were made on plant height, days to 50% flowering, days to emergence of first fruit, average fruit weight, days to first harvest, number of fruits per plot, fruits per kg, yield per ha, colour and shape of the fruit. Data were statistically analyzed ("SAS" Release 6.12), and treatment effects were compared by DMRT.

The results revealed that there were significant differences in number of days to 50% flowering, days to 100% flowering, days to emergence of first fruit, average fruit weight, days to first harvest, number of fruits per plot, final plant height and yield among the tested varieties.

Number of fruits per plant, final plant height, days to 50% flowering and average fruit weight were positively correlated with yield, while days to 100% flowering, days to emergence of first fruit and days to first harvest were negatively correlated with yield.

The variety, T146 produced the highest yield (18.75 t/ha) and differed significantly from other varieties. Next to the T146, KC1 produced the yield of 12.60 t/ha. These two varieties showed significantly better performance in total yield, and number of fruits per plot than the rest of the varieties.

Thus the varieties T146 and KC1 appear to be suitable for cultivation during yala season in the eastern region of Sri Lanka. However, further evaluation is needed under the farmer's field conditions before any recommendations are made.