EVALUATION OF TOMATOES FOR HEAT TOLERANCE

V. Arulnandhy
Regional Agric. Research Centre, Mahailluppallama.

Production of tomatoes (Lycopersioum esculentum) during dry season (Yala) in the dry zone of Sri Lanka is less profitable, as a result of low yields. Such low yields are attributed to high degree of flower abortion caused by high ambient temperatures (approximately 35^{o}C), prevailing during the season.

A study was undertaken to evaluate thermo-insensitive tomato lines, developed at the Asian Vegetable Research Development Centre (AVRDC) in Taiwan, under Sri Lankan conditions. Twenty lines were grown at the Regional Agricultural Research Centre in Mahailluppallama (7^{0}N and 80^{o}E) during Yala 1988 (dry season) along with the standard tomato cultivar T-146, in a replicated trial. Plant and fruit characteristics as well as the yield potential were measured.

Three of these tomato lines showed a recorded fruit yield of 45-50 tons per hectare while the standard cultivar T-146 produced only 20 tons of fruits per hectare under the same conditions. The fruit quality of these high yielding lines was good and acceptable, with respect to colour, shape and firmness.

The AVRDC tomato lines, thus identified, have great potential as dry season varieties to be grown in the dry zone of Sri Lanka.