

Evaluation of Fruit Quality Traits of Different Varieties of Tomato (*Solanum lycopersicon* L.) Under New Alluvial Zone of West Bengal

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Abstract—The present investigation entitled “Evaluation of fruit quality traits of different varieties of tomato (*Solanum lycopersicon* L.) under new alluvial zone of West Bengal” was carried out at Horticultural Research Station, Mondouri, Faculty of Horticulture, Bidhan Chandra Krishi Viswavidyalaya during rabi season of 2013-14 and 2014-15. The experiment consisted of four tomato varieties namely Pusa 120, Pant T 3, Arka Vikash and Pathar kuchi and their five flower flushes. The experiment was laid out in two factor Randomized Block Design with three replications. Analysis of data was done by using appropriate statistical methods over pooled data of both the years. The quality parameters like pericarp thickness, number of locules per fruit, TSS content (^o Brix), sugar content (%), ascorbic acid content (mg/100g), lycopene content (mg/100g) and β -carotene content (mg/100g) were studied. Most of the characters were found to be statistically significant with respect to variety, flower flush and their interaction. The highest number of locules per fruit was recorded in third flush of Arka Vikash. The variety Patharkuchi had shown highest TSS (4.525^o Brix) and sugar content (1.150 %) of fruit. The highest TSS and sugar content of fruit was recorded in third flush of Patharkuchi. The highest ascorbic acid, lycopene and β -carotene were recorded by the variety Pant T 3. The highest lycopene as well as β -carotene content of fruits had shown by first flush followed by second flush while fifth flush had shown lowest lycopene and β -carotene content of fruit.
