ACCEPTABILITY OF TOMATO FRUITS STORED IN AMBIENT TEMPERATURE

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Among vegetable crops grown all over the world tomato (Lycopersicon esculentum L) ranks first as a processing crop. Total soluble solids (TSS) and acidity are important parameters both for table as well as processing purpose. It is observed that when fruits are picked up at pink stage possessing good quality in terms of high TSS and low acidity. But when they are kept in storage at room temperature. There is enzymatic reaction, which affects on TSS, acidity and weight. Keeping view of this present investigation was carried out to see the changes in TSS, TSS acidity and weight as well deside acceptability of tomatoes while stored in ambient temperature.

Two hundred tomato fruits of varietry S-1 (EC-160193 x HS -101 were harvested at pink stage and kept in room temperature (22 ± 20 C) and RH 75-80 % in CRD design having five replication consisting 40 fruits in each replication. Changes during storage periods were observed at three days intervals in respect ofTSS, acidity and percentage weight loss (Ranganna, 1986). Observation on changes of these parameters was continued upto fully decay of the fruits.

Figure 1 shows that total soluble solid (TSS) increase upto 15 days after storage. Fifteen days after storage there was continued decrease in TSS. December in TSS at this might be due to breakdown pf sugar during fermentation. The acidity during storage was decreased up to 12 days of storage while after that it increased (fig. 2). Erratic trends of acidity during storage in present finding may be due to fermentation in ripen fruits, therby increase in acidity. Figure 3 shows a gradual weight loss up to 12 days of storage in present estimating 15 per cent. After that there was rapid and continuous weight loss. Rapid weight loss during storage in present finding may due to high rate transpiration, respiration, enzymatic readction and decay (Joshi et.al., 1998) also reported tht 29 pe cent weight losses during storage at 300C and 55-66 per cent RH for 14 days which was inconsonance with present finding. As regards quality, tomato fruits may be acceptable for consumption up to 12 days period of storage because of increase in TSS low acidity and weight loss Kagan and Mazrah (1993) had also observed, acidity and TSS in tomato fruits were acceptable for consumption up to 10-12 daus of storage at ambient condition.

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