

Teerapong Junprim 2011: Effects of Harvesting Time and Fruit Cluster Position on Yield and Quality of Tomato Seed (*Lycopersicon esculentum* Mill.). Master of Science (Agriculture), Major Field: Horticulture, Department of Horticulture.

Thesis Advisor: Miss Pariyanuj Chulaka, Ph.D. 55 pages.

The study on effects of harvesting time and fruit cluster position of 2 tomato accessions ('TM 01' and 'TM 02') was conducted at Udonthani Province during November 2009 to March 2010. The seeds of the 'TM 01' and 'TM 02' reached their physiological maturity at 45 and 50 days after pollination, respectively. The highest germination percentage of tomato seed 'TM 01' was obtained at 50 days after pollination (99%) and of 'TM 02' had the highest germination percentage at 45 or 50 days after pollination (98 %). The vivipary in both cultivars was found at 55 days after pollination. The fruit age of both cultivars did not relate the pH value. Total soluble solid (TSS) of the 'TM 01' was higher when the harvesting time increased, while that of the 'TM 02' did not change. In addition, highest TSS (5.9 °Brix) of tomato 'TM 01' was obtained at 55 days after pollination. The 2 tomato cultivar harvested from different fruit cluster position of the 1<sup>st</sup> 2<sup>nd</sup> 3<sup>rd</sup> 4<sup>th</sup> 5<sup>th</sup> 6<sup>th</sup> and 7<sup>th</sup> showed the decreasing number of fruit per cluster, number of seed per fruit, 1000 seed weight, seed weight per fruit cluster and seed germination when harvested at the higher position of cluster. Fruits from the 1<sup>st</sup> cluster position of both cultivars gave the highest germination (100 %). However, the harvesting of different position did not effect the mean germination time of seed.

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