

Preeyaporn Torwong 2007: Effects of Water Stress on Morphology and Floral Buds Formation of Honey Murcott Tangor and Minneola Tangelo. Master of Science (Botany), Major Field: Botany, Department of Botany. Thesis Advisor: Associate Professor Sawanee Sathornviriyapong, Ph.D. 121 pages.

Studies on morphological and floral buds formation of Honey murcott tangor and Minneola tangelo affected by water stress were studied at citrus orchard, Tambon Kaojod, Aumphur Srisawat, Kanchanaburi Province since October until December 2004. The water withholding period were divided into 0 (control) 7 14 21 28 and 35 days. Then re-watering to field capacity and each treatment was received 120 lits/3 days. The leaves blades of two citrus after withholding period of 21-35 days were curled and the color changed from Spinach Green (No. LCC 960) to Yellowish Orange (No. LCC 763). The percentage of relative water contents measured as % RWC ($\% \text{RWC} = [(W_f - W_d) / (W_t - W_d)] \times 100$, W_f = fresh weight, W_d = dry weight, W_t = turgid weight), % RWC in leaves were decreased when comparing to control treatments. The suitable period for withholding water was 21 days for Honey murcott tangor (% RWC = 70.67 %) and 28 days for Minneola tangelo (% RWC = 68.21 %). The high quality of new shoot which produced flower buds were increased 7 – 14 days after re-watering. The flowering percentage of Honey murcott tangor and Minneola tangelo after the suitable period for withholding water were 65.00 % and 86.25% respectively. Anatomical studied of apical meristematic tissue of flower bud were conical shape and flatten at the apex. The sepal primordials appeared 21 – 28 days after re-watering.

Student's signature

Thesis Advisor's signature