

Studies on the maturity indices of Siao-Yu water melon¹

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summary

This experiment was conducted for the purpose to survey the growth habits of Siao-yu water melon, including its flowering and fruition phenomena, as well as the changes in physical and chemical properties of the fruit at different development stages. The relationship between fruit quality and maturity obtained from this experiment will be used as a reference criterion for the farmers to grow and harvest of the melon fruit.

Siao-yu Water melon was transplanted on April 8 1989. Soft pinching was conducted at 10 days after planting. Flower buds were emerged at 26 days after planting. Days from transplanting to flowering was 30 days, and flower was usually shedded at the date next to flowering day. Fruits were set at nodes on both primary and secondary branches. The changes of fruit weight during fruit development were 50.18g at 5days after flowering (DAF), 414.95g at 10 DAF, and 3,775g at 50 DAF. The highest value of fruit hardness tested without peeling was above 12kg at 30-40 DAF, and it was 8kg at 25-35 DAF when tested with 2mm deep peeling. The values of fruit brix were 4.11% at 5 DAF, below 7% at date before 20 DAF, and significant increment was found at date excess 25 DAF. The brix value was steadily maintained at 11.50-11.63% at 35-50 DAF. Therefore the optimum date for harvesting was around 30-40 DAF according to the experiment.

(Key words: Water melon, Maturity index)

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