

## Effects of Cumulative Temperature After Pollination on the Changes of Fruit Development of Muskmelon

S. Y. Shen and H. Y. Chen<sup>1</sup>

### ABSTRACT

Temperature has played an important roles in muskmelon development. For understanding the effects of cumulative temperature after pollination on the fruit development of muskmelon for the purposes of predicting suitable harvesting time, the Aluze muskmelon were used for trial. Changes of cumulative temperature, fruit weight, fruit sweetness, and yellowing of leaves near fruit were recorded and analyzed to study the relationship among these characteristics.

Results showed that cumulative temperature (CT), fruit weight (FW), fruit sweetness (FS), and leaf yellowing near fruit (LY) were increased with the increasing of days after pollination (DAP). Maximum increasing rates of FW and FS from 7 to 21 DAP were found. Slower rate increases were found at later stages. Higher increase rate of FW than FS at later (42 DAP) stage was also evidenced. Significant positive correlation ( $r=0.948$  to  $0.999$ ) among CT, FW, FS, and LY was indicated. The increasing rates for FW and FS were also calculated based on regression analysis.

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1. Assistant and Assistant Horticulturist, Kaohsiung District Agricultural Improvement Station, Pingtung, Taiwan 90002, Republic of China.