

Studies on the Macronutrient Concentrations and Flesh Breakdown of ‘Chiin Hwang’ Mango

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Abstract

The fruit growth curve of ‘Chiin Hwang’ mango as represented by fruit length, fresh weight and fruit volume are sigmoid. The period of rapid fruit growth was from 40 days to 82 days after anthesis, and 82-152 days were mature stage. The specific gravity of fruits increased during maturation. The soluble solids was closely related to fruit maturity. Those fruits picked on day 93 had a soluble solids of 11.2% and reached 15.2% 152 days after bloom. Flesh breakdown worsen at later stage of ripening, was 60% 135 day after bloom, as compared with 15% on day 121. Macronutrient concentrations of pulp were reduced during the period of rapid fruit growth, especially Ca, the rate of decline reached 89% 152 days after full bloom. Nitrogen, P, and K concentrations of six sections of the pulp increased from outer toward inner mesocarp with the highest concentration at the distal end of mesocarp. On the contrary, Ca concentration had a reversed tendency with lowest level at the distal portion.

Key words: ‘Chiin Hwang’, Specific gravity, Total soluble solids, Flesh breakdown, Macronutrient.

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