

**EFFECTS OF POTASSIUM FERTILIZER DOSAGE ON
CALCIUM UPTAKE AND FRUIT CRACKING PHENOMENON
OF 'RONGRIEN' RAMBUTAN (*NEPHELIUM LAPPACEUM*
LINN) IN PHONG DIEN DISTRICT - CAN THO CITY**

Tran Thi Bich Van and Le Bao Long

Summary

The study was conducted in order to evaluate the effects of potassium fertilizer dosage on calcium uptake and fruit cracking phenomenon of Rongrien rambutan (*Nephelium lappaceum* Linn). The experiment was carried out in Phong Dien district - Can Tho city on the six-year-old trees, in 2016 season. The experiment design was randomized complete block including four treatments, with ten replications for each treatment and tree. Treatments were K₂O fertilizer dosages: (1) applying 0.12 K₂O.tree⁻¹ (control), (2) 0.24 kg K₂O.tree⁻¹; (3) 0.48 kg K₂O.tree⁻¹ and (4) 0.96 kg K₂O.tree⁻¹. Results showed that Ca content in the fruit peel decreased as the amount of K₂O fertilizer into the soil increased; applying 0.24 kg K₂O.tree⁻¹ did not reduce Ca content but 0.48 and 0.96 kg K₂O.tree⁻¹ reduced Ca content in fruit peel in comparison to the control from 0.11 and 0.18 times (respective). Results also showed that the addition of 0.24 kg K₂O.tree⁻¹ did not affect fruit cracking ratio but 0.48 and 0.96 kg K₂O.tree⁻¹ had the proportion of fruit cracking higher than in contrast with the control from 0.38 and 0.42 times (respective), there was a positive correlation between supplemental potassium and fruit cracking ratio ($r = 0.79^{**}$). ⁰Brix increased together with the amount of K₂O added to the soil.

Key word: *Calcium, fruit cracking, potassium, quality, 'Rongrien' rambutan (Nephelium lappaceum Linn), Can Tho city.*