

<b>Thesis Title</b>	Influence of Packaging Materials, Temperatures Levels and Times of Deep Precooling on Carbondioxide and Oxygen Performance During Storage and Quality After Storage of Gros Michel (Kluai Hom Thong)
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### ABSTRACT

Study on Influence of packaging materials, temperatures levels and times of deep precooling on CO<sub>2</sub> and O<sub>2</sub> performance during storage and quality after storage of Gros Michel (Kluai Hom Thong). This study was divided into 2 experiments and the results showed as following.

First experiment study on packaging materials on changing pattern of CO<sub>2</sub> and O<sub>2</sub> during storage of Gros Michel. The statistical model was completely randomized design composed of 4 treatments as 4 packaging material as followed polyethylene (PE), polypropylene (PP), laminate (vacuum) and polyvinyl chloride (PVC). The results showed that packaging material pronounce effected on CO<sub>2</sub> and O<sub>2</sub> changing, fresh weight loss, total soluble solid (TSS), tritratable acidity (TA), peel color, pulp color, firmness and taste. The longest storage life of 64.00 days received from Gros Michel those stored in polyethylene (PE) and showed significantly difference among laminate (vacuum) and polyvinyl chloride (PVC).

Second experiment study on effect of temperatures levels and times of deep precooling on quality of Gros Michel. The statistical model was 4x4 factorial in completely randomized design comprised of 2 factors; 4 levels of precooling temperature 5, 0, -5 and -20 °C and 5 levels of precooling times 15, 20, 25, 30 and 35 minutes. The result showed that the temperature levels and times effected on inside temperature changing weight loss and storage time but non impact on CO<sub>2</sub> and O<sub>2</sub> changing, total soluble solid (TSS), tritratable acidity (TA), peel color, pulp color, firmness and taste. Gros Michel precooled at 5 °C for 30 minutes gave the longest storage life of 65.00 days and showed significantly difference among other treatments.