Jarinya Monkong 2010: Effects of Bagging Materials on Fruit Growth and Quality of *Annona* Hybrid 'Phetch Pakchong'. Master of Science (Agriculture), Major Field: Horticulture, Department of Horticulture, Thesis Advisor: Associate Professor Kawit Wanichkul, Dr.agr. 124 pages.

A study on growth and quality of nonbagged and bagged with 9 bagging materials of *Annona* hybrid 'Phetch Pakchong' was conducted at Pakchong research station, Nakhon Ratchasima province from May to December 2007. The purpose of this study was to determine fruit growth and quality of bagged *Annona* hybrid 'Phetch Pakchong'. The bagging materials were Remay®, kraft paper, blue net, newsprint, telephone book paper (yellow), Zunfong (yellow and white color), polyethylene (white and blue color). Determination of 9 bagging materials properties revealed that absorbance value (380 – 780 nm) were different among materials. The highest absorbance value (100%) was found in kraft paper, newsprint, telephone book paper (yellow) and Zunfong (yellow and white color) followed by polyethylene (blue color), Remay® and blue net whereas polyethylene (white color) bag resulted in the lowest. Blue net had the highest thickness whereas telephone book paper (yellow) and polyethylene (white and blue color) resulted in the lowest. Light intensity was reduced and humidity and temperature were increased inside the bags compared with nonbagged. Heat unit accumulation was highest in polyethylene (white) bagged, while nonbagged resulted in the lowest. Bagged fruits showed significant differences in fruit width and length when compared with nonbagged. Fruit bagging decreased defects significantly. All bagging treatments showed significant difference in fruit weight when compared with nonbagged. The highest fruit weight was occurred on bagging with newsprint. Fruit skin color was significantly increased when bagged with telephone book paper (yellow). However, no significant differences were found on soluble solids (SS), titratable acidity (TA), SS/TA, among all treatments. It could be concluded from the results of this experiment that polyethylene (white) was the most suitable material for bagging fruit of *Annona* hybrid 'Phetch Pakchong' when compared with other 8 materials.

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