

**EFFECTS OF CYTOKININS AND MECHANICAL METHODS ON
PROPAGATION OF MUSA (ABB) CV. 'NAM WA' IN
CHIANG MAI PROVINCE, THAILAND**

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Bananas are an important commodity in Northern Thailand. In upland areas, bananas are primarily produced for the local market, but used for a wide range of applications, one of the most important being for feeding pigs, an important source of income. However, due to inadequate supply of affordable planting material, farmers are likely to take suckers from their own stock, which typically does not supply adequate numbers. Farmers would benefit from obtaining affordable planting stock through vegetative propagation.

Propagation methods of *Musa* (ABB) cv. ‘Kluai Nam Wa’ were conducted in greenhouse and field experiments in both lowland and upland areas of Chiang Mai Province, Thailand. In greenhouse experiments, six treatments were conducted in both the dry and rainy seasons, while in field experiments, five treatments were conducted only in the rainy season. The treatments used different methods of mechanical injury or application of benzylaminopurine (BA). Measurements were

taken for the number of plantlets produced in each treatment, plantlet emergence and final plantlet circumference.

Results for the greenhouse trial indicated, during the rainy season, BA seemed to produce more plantlets than other treatments, whereas, there was no significant difference as a result of other factors influencing treatments in the dry season. Only split-corm was significantly smaller in circumference than other treatments. New plantlets emerged earlier in the rainy season, particularly in the upland experiments. Seasons influenced the number of plantlets, days to emergence and growing degree days to emergence.

Results for the field trial indicated treatment only produced significant difference with respect to circumference with mother plant staking significantly greater than other treatments. Neither run nor site made a significant difference in the number of plantlets, days to emergence, growing degree days to emergence, or circumference.

Keywords: ‘Kluai Nam Wa’, Propagation, Cytokinins, Coconut water, Benzylaminopurine