



Improving Plant Growth and Yield of *Jatropha (Jatropha curcas L.)* Through Apical Bud Pinching

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Abstract

A field experiment was conducted to study the effect of the time of apical pinching and genotype on plant growth, flowering time, and yield of *Jatropha curcas* L. at the Universiti Kebangsaan Malaysia during 2008-2009. Three pinching treatments were used: no pinching or control (P₀), pinching during transplanting (P₁), and pinching at 30 days after transplanting (P₂). Highly significant effect of time of pinching and genotype on plant growth and seed yield was observed. The plant height was significantly reduced by pinching the plant at 30 days after transplanting (72.4 cm) compared to pinching during transplanting (80.0 cm) and no pinching (95.5 cm). The maximum number of primary branches per plant (3.1) with more leaves per plant (113.2) and less plant height (72.2 cm) at first flowering was recorded with pinching at 30 days after transplanting. Among the treatments, unpinched plants produced flowers earlier than the pinched one. The highest number of fruits and seeds per plant along with higher seed yield was recorded in plants pinching at 30 days after transplanting. The maximum number of flowering branches was produced by genotype JC-14 followed by JC-18. The genotypes JC-13, JC-14, JC-17, JC-18, and JC-20 were found to be suitable in respect of reduced plant height; larger number of primary branches per plant; early flowering; and number of fruits, seeds, and seed yield per plant upon pinching.