

Floral biology of *Jatropha curcas* L.

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ABSTRACT

This study was conducted at the existing plantation of *Jatropha curcas* within the campus of Visayas State University, Baybay, Leyte from April 2006 to June 2006 with the following objectives: 1) to study the floral morphology and flowering behavior of *J. curcas*; 2) to determine the time and duration of flower opening, anther dehiscence, and stigmatic receptivity of *J. curcas*; and 3) to test for pollen viability.

Male and female flowers of *J. curcas* were borne on the same plant with an average numbers per inflorescence of 55.03 and 1.926, respectively. Male flowers were more numerous than the females without definite relationship on number per inflorescence. It took an average of 9.56 days for all florets to full bloom. Anther dehiscence was observed to start at the time of opening of male flowers at around 0500 to 0600 hours and remained so for 24 to 72 hours. Stigmatic receptivity started about 1-2 hours after full bloom and lasted for about 24 hours. Based on observations, opening of floret buds, anther dehiscence, and stigmatic receptivity were all greatly influenced by the environment. Early sunrise, longer sunshine duration, and less amount of rainfall enhanced flowering of *J. curcas*. Pollen viability was relatively high, ranging from 88.12% to 98.55%.

Keywords: *Jatropha curcas*, anther dehiscence, stigmatic receptivity, pollen viability, flower opening

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