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**Genetic diversity and mating system in a seed stand
of Mindi (*Melia azedarach* Linn.), Wanayasa,
Purwakarta**

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ABSTRACT

Mindi is a fast growing species belonging to family Meliaceae which is potential to be developed in community forest. Efforts to increase productivity of mindi seed stand require basic knowledge on genetic diversity and mating system. The sexual flower character of mindi is of hermaphrodite type raising a question about the mating system of Mindi. Genetic diversity and mating system characteristics of mindi can be analyzed by microsatellite. This study was aimed to i) cross-amplify microsatellite primers of Mahogany (*Swietenia* spp) and Neem (*Azadirachta indica*) in Mindi, ii) estimate genetic variation of mother trees and their offspring and iii) characterize the parameters of mating system of a mindi seed stand. The samples for DNA analysis were 10 mother trees and their respective offspring (n=5). Specific primers Ai-05 and Ai-34 from Neem and SM45 from Mahogany was successfully amplified in Mindi. Data analysis using POPgene version 1.31 showed the average values of genetic diversity of $H_e=0.565$ in the seed stand population. Mating system analysis analyzed by multilocus mating system program showed outcrossing values of $t_m = t_s = 1.00$ based on the method of expected maximum (EM). These findings indicated that Mindi in the seed stand Wanayasa is predominantly outcrosser. Basic information on the mating system characteristics of Mindi may be used for effective management for increasing the productivity of seed stands.

Keywords : Mindi, Microsatellite, Mating system, Seed Stand, Genetic diversity