

NOTES

A NOTE ON THE SEX RATIO OF *CALAMUS MANAN* PLANTED IN A SECONDARY FOREST

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Rattan has been documented to be dioecious (see Dransfield 1979, Uhl & Dransfield, 1987) and the sex can only be determined after the first flowering on the plant. Depending on the rattan species, the first flowering and fruiting often occur as early as 4 y (Manokaran 1985). In the case of *Calamus manan*, the first flowering after planting has been recorded at 5.5 y (Manokaran 1985) and as early as 5 y (Darus & Ab. Rasip 1989). There has been extensive study on the silvicultural aspects of *Calamus manan* (Nur Supardi & Wan Razali 1989, Aminuddin 1990) but very few reports are available on its reproductive biology (flowering and fruiting habits). The sex ratio of *Calamus manan* that was planted (40 rows/line) in a secondary forest with a spacing of 6 × 3 m was studied. This rattan was planted in 1978 at Field 41 of the Forest Research Institute Malaysia.

In a 100 % survey conducted (March to June 1989) after 12 y of planting, plants that bore inflorescences (either dried or fresh) were recorded.

After 12 y, the survival for the whole planting was 57%. The cause of the mortality was mainly due to suppression and possibly due to fallen dead branches over the years (Nur Supardi & Wan Razali 1989).

The survey indicated that from the flowering in the plantation, there were more male than female plants. Out of a total of 3,330 plants, only 42 male and 27 female plants were observed giving a ratio of 1.55:1. Only 4% of the available plants were flowering and fruiting. The absence of flowers in the rest was no indication that they had not flowered or fruited before the survey. The sex ratio is small compared to *Salacca* species where the ratio is 9:1 (Nur Mahadi 1989). In *C. filipendulus*, four out of four plants observed were male (Manokaran 1985).

This study showed that the sex ratio is small compared with other palm species although the percentage in fruiting/flowering is low.

References

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