Mangifera odorata (Anacardiaceae) is a Hybrid

R. KIEW

Singapore Botanic Gardens, Singapore 259569

Abstract

Mangifera xodorata Griff, (pro sp.) is confirmed as a hybrid between M. foetida Lour, x M. indica L.

Mangifera odorata

Ding Hou (1978) first suggested that the polymorphous Mangifera odorata Griff., a well-known Malesian fruit tree locally known as kuwini in Peninsular Malaysia, was a hybrid possibly between M. foetida Lour, and M. indica L. Corner (1988) also considered this possible because kuwini is difficult to separate from M. foetida in the sterile state. They had both noted that kuwini is only known from villages, whereas M. foetida is not only grown in villages but has also been collected wild from the forest. M. indica is the commercial cultivated mango. However, Kostermans and Bompard (1993) disputed its hybrid status and considered M. odorata a 'good species' that could be distinguished from M. foetida on leaf venation. Molecular analysis by Teo et al. (2002) using AFLP (amplified fragment length polymorphism) produced 28 monomorphic bands specific to M. foetida of which 20 occurred in kuwini; while M. indica had 22 monomorphic species-specific bands of which 16 occurred in kuwini. Kuwini, in contrast, had no species-specific bands but had additively inherited bands from M. foetida and M. indica. This provides evidence for the hybrid status of kuwini and that its parents are indeed M. foetida and M. indica.

Further, UPGMA (unweighted pair group method with arithmetic mean) analysis showed that kuwini has closer genetic similarity to *M. foetida* (76% similarity) than to *M. indica* (66 % similarity).

Kuwini therefore cannot be maintained as a distinct species and is here given taxonomic status as a hybrid.

Mangifera xodorata Griff, (pro sp.)

= M. foetida Lour, \mathbf{x} M. indica L.

Griffith, Notul. 4 (1854) 417; Ding Hou, Fl. Mai. 1,8 (1978) 437; Kostermans & Bompard, The Mangoes. (1993) 167.

Type: Griffith 1098 Malacca, (holo K, iso P).

Acknowledgements

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References

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