The Local Names and Uses of Genus Mangifera in Java

- Especially on Keweni, a Local Name for Two Species -

\*Yumi UEDA, Hirokazu HIGUCHI, Eiji NAWATA Graduate School of Agriculture, Kyoto University

### Introduction

Mango (Mangifera indica L.) is the tropical fruit of major importance worldwide. Still unrecorded variability also exists among more than 60 species of genus Mangifera. There are some non-indica species which are locally cultivated in Southeast Asia. M. odorata Griff. and M. foetida Lour. in Java are commonly cultivated in villages, and are sometimes sold in local markets. These fruits are as big as common mango and have a strong turpentine aroma. Some variation with sweeter and less fibrous flesh has also been reported (Bompard, 1992). In the present study mangoes of non-indica species in Java were explored to make more understanding about the interspecific variation and about how local people recognize and utilize them mainly through interviews.

#### Materials and Methods

Field survey was conducted from 31th July to 5th August, 2012 in Bandung in West Java, and in Pekalongan, Yogjakarta, Borbudur and Purwokerto in Central Java (Fig. 1). We explored the *Mangifera* trees and then collect information through direct observation for species identification, and interviews from the people of neighboring villagers for the local names of mangoes, uses, and their impressions of fruit taste.

## Results and Discussion

[Use] Ripen fruit was eaten fresh, or conserved in syrup (manisan). Ripen and unripen fruit was processed into vegetable salads (rujak) with such as cucumber, pineapple or chili pepper. Fruit was also eaten with ice (es buah) as well as other fruits. M. foetida trees were found to be planted or left along river banks to prevent erosion. [Species Identification] Totally 28 trees were explored. They were identified from the morphological observation such as tree shape and flower (Plate 1) to be 22 of M. foetida, 3 of M. odorata, and single of M. laurina, remaining 2 trees unidentified. [Local Name] The total number of the local names amounted to 10 (including two Javanese names and one Sundanese name) from the interview of 17 trees (Table 1). 'Kuwini' (keweni) was found most frequently. Furthermore, 'Kuwini' was identified to be both M. foetida and M. odorata (4 from M. foetida and 3 from M. odorata), even though 'Kuwini' has been said to be the representative name of M. odorata so far (Bompard, 1992). [Local Impressions of Fruit Taste] The taste of 'Kuwini' tended to have good impressions among the local people owing to its soft, less fibrous flesh, and good aroma, while 'Pakel' and 'Karikel' (kerikel) were not appreciated as table fruit because of the very sour taste, so they were made into juice.

# Conclusion

'Kuwini' has been believed to be classified into *M. odorata*. However, the present study showed that not only *M. odorata* but also some of *M. foetida* were 'Kuwini'. Besides, 'Kuwini' tended to be more palatable than others. These results may lead to a hypothesis that 'Kuwini' represents not *M. odorata* but "delicious mango" between the two non-indica species, although this folk taxonomy doesn't correspond to the botanical taxonomy. Similar suggestions also pointed out that M. odorata should be a hybrid between *M. indica* and *M. foetida* from molecular biological analysis (Teo *et al.*, 2002) and from morphological observation (Ding, 1978). The folk taxonomy also suggested that *M. odorata* showed gradational variation with *M. foetida*, lacking a clear boundary of species.

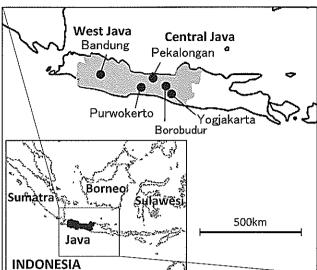


Fig.1 Location of Bandung in West Java, and Purwokerto, Pekalongan, Yogjakarta and Borobudur in Central Java.

Table 1. The species and the Indonesian local names for *Mangifera* trees in West and Central Java. (The local names of Javanese and Sundanese are excepted.)

Species	Local Name <sup>z</sup>	The No. of Answers
M. foetida <sup>y</sup>	limus	4
	(limus piit)	(2)
	(limus)	(1)
	(limus ageng)	(1)
	keweni	4
	pakel	2
	kerikel	1
M. odorata	keweni	3
M. laurina	poh	1.

<sup>&</sup>lt;sup>2</sup>Limus, keweni, pakel, kerikel, poh are vernacular name for mangoes. *Piit* means a kind of small bird, and *ageng* means big in Indonesian.

#### References

Bompard, J. M. 1992. *Mangifera odorata* Griffith. In: Plant Resources of South-East Asia, 2. Edible fruits and nuts. (Verheij, E. W. M. and R. E. Coronel eds.). Prosea Foundation (Bogor). pp. 218-220.

Teo, L. L., R. Kiew, O. Set, S. K. Lee and Y. Y. Gan. 2002. Mol. Ecol. 11: 1465–1469.

Ding, H. 1978. Mangifera. In: Flora Malesiana Series I, vol 8. (vanSteenis, C. G. J. ed.). Noordhoff-Kolff (Djakarta). pp. 423–440.

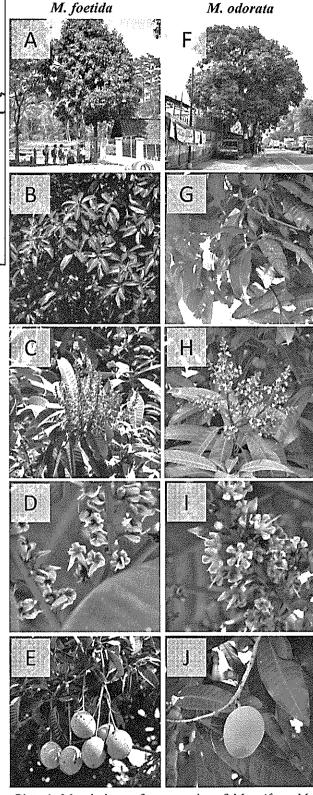


Plate 1. Morphology of two species of *Mangifera*, *M. foetida* (A-E) and *M. odorata* (F-J) in Java. *M. foetida* had straight pole (A), stiffy leaves (B), upright panicles of red (C), long petals (D), and almost globose fruit of 10cm long (E). *M. odorata* had similar morphology to common mango except for the color of pancles: dense globose crown (F), thin leaves (G), reddish panicles (H), pale pinkish petal (I), and oblong fruit of 10cm long (J).

<sup>&</sup>lt;sup>y</sup>M. foetida was also called *mbawang* in Javanese, and *bembem* in Sundanese.