

## MORINGACEAE

辣木科 la mu ke

Lu Lianli (陆莲立 Lou Lian-li)<sup>1</sup>; Mark Olson<sup>2</sup>

Trees, shrubs, or herbs, deciduous, massive to slender, tuberous when young and sometimes as adults; bark and pith with gum canals. Leaves alternate, 1–3(or 4)-imparipinnate, glabrous to puberulent; leaflets opposite, entire, sometimes caducous; stipules absent but stalked glands present at base of petiole and leaflets. Flowers borne in axillary panicles, bisexual, white to yellow or red, actinomorphic to zygomorphic, with or without hypanthium. Sepals 5, often reflexed at anthesis. Petals 5, equal or unequal, often reflexed. Stamens in 2 series, 5 perfect and 5 reduced to staminodes; filaments free. Pistil 1; ovary superior, borne on short gynophore, 1-loculed; placentas 3, parietal; ovules numerous; style 1; stigma minute. Fruit a capsule, 3–12-ribbed, sometimes with elongated beak; valves 3, dehiscent. Seeds numerous, 3-winged or wingless, without endosperm.

One genus and ca. 13 species: NE and SW Africa, SW Asia, India, Madagascar: one species (introduced) in China. Chen Wei-qiu. 1984. Moringaceae. *In*: Fu Shu-hsia & Fu Kun-tsun, eds., *Fl. Reipubl. Popularis Sin.* 34(1): 6–8.

### 1. MORINGA Adanson, *Fam. Pl.* 2: 318. 1763.

辣木属 la mu shu

Morphological characters and geographical distribution are the same as those for the family.

1. *Moringa oleifera* Lamarck, *Encycl.* 1: 398. 1785.

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*Moringa pterygosperma* Gaertner.

Trees to 12 m tall; bark pale smooth to rugose but not fissured. Leaves petiolate, 3-pinnate, 25–60 cm, with stalked glands often exuding clear or amber liquid at base of petiole and leaflets; leaflets in 4–6 pairs, ovate, elliptic, or oblong, 1–2 × 0.5–1.2 cm, puberulous when young but glabrous at maturity, base rounded to cuneate, apex rounded to emarginate; petiolules slender, 1–2 mm. Inflorescence a widely spreading panicle, bracteate, 10–30 cm; bracts linear, ca. 1 mm. Flowers white to cream, fragrant, somewhat resembling an inverted Fabaceae flower with 2 dorsal sepals and 1 dorsal petal usually remaining unreflexed and forming a projecting “keel” while the rest of the perianth reflexes down to form a “banner” at right angles to the “keel”, each flower borne on a false pedicel 7–15 mm; true pedicel 1–2 mm. Sepals lanceolate to linear-lanceolate, 0.7–1.4 mm, usually puberulent. Petals spatulate, 1–2 cm, glabrous or puberulent at base. Stamens hairy at base. Ovary hairy. Capsule 3-valved, 20–50 × 1–3 cm, dehiscent. Seeds subglobose, 3-angled, 8–15 mm in diam. excluding wings; wings 0.5–1 cm wide, rarely absent. Fl. year round, fr. Jun–Dec.

Cultivated for ornament, sometimes escaping. Guangdong, Taiwan, Yunnan [native to India].

A variant with wingless seeds has been collected in S Yunnan (Xishuangbanna Dai Zu Zizhizhou): *K. S. Chow & P. P. Wan 80197* (MO).

The roots have a pungent taste and, like the leaves and young fruits, are used for food; an oil is extracted from the seeds, which also contain a powerful flocculant of use in clarifying turbid water.

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