

17. DATURA Linnaeus, Sp. Pl. 1: 179. 1753.

曼陀罗属 man tuo luo shu

Shrubs or annual or perennial herbs; pubescence of simple sometimes glandular hairs. Leaves petiolate; leaf blade simple, entire or sinuate-dentate. Inflorescences solitary flowers in leaf axils or in branch forks; peduncle, bracts, and bracteoles absent. Flowers actinomorphic, large. Pedicel often stout. Calyx long tubular or cylindric, often circumscissile near base. Corolla elongated, funnelform; lobes sometimes cuspidate. Anthers mostly elongated, dehiscing longitudinally, included. Ovary 2–4-locular. Fruit a dry capsule, 4-valved or irregularly dehiscent, prickly or unarmed, often subtended by remnants of persistent calyx. Seeds numerous, laterally compressed; embryo curved.

About 11 species: North and South America, three species in China.

- 1a. Fruit erect, regularly 4-valved; calyx tube 5-angular; corolla less than 11 cm; seeds black; anthers less than 5 mm 1. *D. stramonium*
- 1b. Fruit horizontal or pendulous, irregularly 4-valved; calyx tube cylindric; corolla more than 11 cm; seeds brown; anthers more than 7 mm.
 - 2a. Plants glandular pubescent; capsules densely gray-white pubescent with slender prickles 2. *D. inoxia*
 - 2b. Plants glabrescent; capsules tuberculate or with stout-based prickles 3. *D. metel*

1. *Datura stramonium* Linnaeus, Sp. Pl. 1: 179. 1753.

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Datura stramonium var. *tatula* (Linnaeus) Torrey; *D. tatula* Linnaeus.

Herbs or subshrubs, sometimes robust, 0.5–1.5 m tall, glabrescent. Petiole 3–5.5 cm; leaf blade broadly ovate, 8–17×4–14 cm, membranous, glabrescent, base asymmetric, cuneate, irregularly sinuous or dentate-lobed, apex acuminate, veins 3–5 pairs. Flowers erect. Pedicel 5–12 mm. Calyx tubular, 5-angular, 3–5 cm. Corolla white or pale purple, greenish at base, sometimes purple distally, funnelform; limb 3–5 cm in diam.; lobes 6–10 cm, mucronate at apex. Filaments ca. 3 cm; anthers 3–4 mm. Capsules erect, globose or ovoid, 3–4.5×2–4 cm, with copious prickles, rarely smooth, dehiscent by 4 equal valves, subtended by remnants of persistent calyx. Seeds black, ovate or discoid, ca. 4 mm in diam. Fl. Jun–Oct, fr. Jul–Nov.

Near houses, roadsides, grasslands; 600–1600 m. Throughout China [native of Mexico, now worldwide].

Cultivated in gardens as a medicinal and decorative plant.

The whole plant is toxic and is used medicinally as anaesthetic and for sedating and relieving muscular spasm. Seed oil can be used for soap making.

2. *Datura inoxia* Miller, Gard. Dict. ed. 8, no. 5. 1768.

毛曼陀罗 mao man tuo luo

Herbs erect, 1–2 m tall, densely pubescent and glandular. Petiole 3–5 cm; leaf blade broadly ovate, 10–18×4–15 cm, membranous or felty, minutely tomentose, base rounded or obtuse, asymmetric, margin subentire, sinuate, or irregularly dentate, apex acute; veins 7–10 pairs. Flowers erect. Pedicel 1–5 cm. Calyx cylindric, 8–10×2–3 cm; lobes narrowly deltate, 1–2 cm, sometimes unequal. Corolla greenish proximally, white at apex, 15–18 cm; limb 7–10 cm in diam.; lobes mucronate at apex. Filaments ca. 5.5 cm; anthers 1–1.7 cm. Capsules deflexed, globose or ovoid, 3–4 cm in diam., densely armed with slender, subequal prickles, pubescent with white hairs, irregularly dehiscent at apex, subtended by remnants of persistent calyx. Seeds numerous, brown, discoid-reniform, 3–5 mm in diam. Fl. and fr. Jun–Sep.

Near villages, roadsides, also cultivated; 300–600 m. Hebei, Henan, Hubei, Jiangsu, Shandong, Xinjiang [native to Americas].

The leaves and flowers are used medicinally as in *Datura stramonium*.

3. *Datura metel* Linnaeus, Sp. Pl. 1: 179. 1753.

洋金花 yang jin hua

Datura alba Nees; *D. fastuosa* Linnaeus; *D. fastuosa* var. *alba* (Nees) C. B. Clarke.

Herbs annual, 0.5–1.5 m tall, glabrescent. Stems often dark violet. Petiole 2–6 cm; leaf blade ovate or broadly ovate, 5–20×4–15 cm, membranous, glabrescent, base truncate or cuneate, asymmetrical, margin irregularly sinuate-dentate, lobed, or entire, apex acuminate; veins 4–6 pairs. Flowers erect. Pedicel ca. 1 cm. Calyx tubular, 4–9 cm. Corolla white, yellowish, or pale purple, funnelform, sometimes doubled or tripled, 14–20 cm; limb 6–10 cm in diam.; lobes elongate. Anthers 1–1.2 cm. Capsules deflexed, subglobose, ca. 3 cm in diam., tuberculate, irregularly 4-valved, subtended by remnants of persistent calyx. Seeds pale brown, reniform-discoid, ca. 3 mm in diam. Fl. and fr. Mar–Dec.

Grassy and sunny slopes, near houses, also commonly cultivated in many cities; 1200–2100 m. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Taiwan, Yunnan [native of the Americas, long introduced and naturalized in Asia].

Whole plant, especially seeds, toxic. The flowers are used as an anaesthetic.

