
姜黄属 jiang huang shu

Rhizomes branched, fleshy, aromatic, often with tuber-bearing roots. Leaves basal; leaf blade broadly lanceolate or oblong, rarely narrowly linear. Inflorescence a terminal spike on pseudostems or on separate shoots arising from rhizomes, sometimes appearing before leaves; peduncle erect; bracts connate for ca. 1/2 their length and forming pouches, spreading at free ends, each subtending a cincinnus of 2–7 flowers, apical bracts often differently colored, large, sterile, forming a coma; bracteoles free to base. Calyx usually shortly tubular, split on 1 side, apex 2- or 3-lobed or -toothed. Corolla funnelform; lobes ovate or oblong, subequal or central lobe longer, apex mucronate. Lateral staminodes petaloid, basally adnate to filament and labellum. Labellum with a thickened, central portion and thinner, lateral lobes overlapping with lateral staminodes. Filament short, broad; anther versatile, base usually spurred; connective appendage absent. Ovary 3-loculed. Capsule ellipsoid, 3-valved, dehiscent.

1a. Inflorescences terminal on pseudostems; plants flowering in autumn.

2a. Leaf blade pubescent on both surfaces ................................................................. 11. C. kwangsiensis

2b. Leaf blade glabrous on both surfaces.

3a. Leaf blade with a purple band along center.

4a. Rhizomes yellow inside; leaf blade 13–15 cm wide, midvein green; coma bracts deep purple except for white base ................................................................. 1. C. yunnanensis

4b. Rhizomes green inside; leaf blade 5–7 cm wide, midvein red; coma bracts white with purple apex ........................................ 2. C. exigua

3b. Leaf blade without a purple band along center.

5a. Rhizomes and coma bracts white; labellum white with central, yellow band ......................... 3. C. sichuanensis

5b. Rhizomes orange or yellow; coma bracts white and green, sometimes tinged reddish purple; labellum yellow or yellowish.

6a. Rhizomes orange and bright yellow; coma bracts white and green, sometimes tinged reddish purple; labellum yellow with central yellow band .................................................. 4. C. longa

6b. Rhizomes pale yellow; coma bracts white, partly with green stripe; labellum yellow with small, brown stripe on central band ................................................ 5. C. viridiflora

1b. Inflorescences on separate shoots arising from rhizomes; plants flowering in summer.

7a. Leaf blade glabrous on both surfaces.

8a. Leaf blade with purple midvein ................................................................. 6. C. zanthorrhiza

8b. Leaf blade without purple midvein.

9a. Rhizomes yellow inside, bluish green outside; coma bracts whitish, apex red and pink; corolla red ................................................................. 7. C. amarissima

9b. Rhizomes yellowish inside, whitish outside; coma bracts rose; corolla white ................................................................. 8. C. wenyujin

7b. Leaf blade pubescent on both surfaces or abaxially only.

10a. Leaf blade with purple cloud at center; rhizomes pale blue, pale green, yellowish green, or yellow .... 9. C. phaeocalulis

10b. Leaf blade without purple cloud at center; rhizomes white to yellow.

11a. Coma bracts absent ................................................................. 10. C. flaviflora

11b. Coma bracts pale red, or white tinged with red.

12a. Leaf blade pubescent on both surfaces; rhizomes white or creamy white ......................... 11. C. kwangsiensis

12b. Leaf blade pubescent abaxially only; rhizomes yellow ................................................... 12. C. aromatica


顶花莪术 ding hua e zhu

Rhizomes green inside; roots tuberous at tip. Leaf sheath rusty; petiole 4.5–15 cm; leaf blade with ca. 2 cm purple cloud at center, oblong or broadly lanceolate, 45–50 × 13–15 cm, glabrous, midvein green, base attenuate, apex cuneate. Inflorescences terminal on pseudostems; peduncle ca. 3.2 cm; spike cylindric, 13–16 × 7–8.5 cm; fertile bracts green, pale purple at margin and apex, ovate-elliptic, ca. 5 × 2.3 cm; coma bracts deep purple except for white base, oblong, ca. 6 × 1.8 cm. Calyx white with pink apex, ca. 1.9 cm. Corolla tube pink, ca. 3.8 cm, villous at throat; lobes purple, suborbicular, ca. 1.1 × 1 cm. Lateral staminodes yellow, subovate. Labellum yellow, obovate, ca. 1.5 × 1.7 cm, apex emarginate. Filament flattened; anther white, ca. 5 mm. Ovary villous. Fl. Jul. 2n = 63*.

• Shrubby or grassy areas. W Yunnan (Wanding Zhen).


细莪术 xi e zhu

Plants 40–80 cm tall. Rhizomes many branched, yellow inside, fleshy; roots bearing tubers. Leaf sheath pale green; petiole 5–8 cm; leaf blade green with purple, narrow band along red midvein, lanceolate to broadly so, ca. 20 × 5–7 cm, glabrous, base cuneate, apex cuneate. Inflorescences terminal on pseudostems; peduncle ca. 3.6 cm; spike cylindric, ca. 9 × 2.5 cm; fertile bracts ovate-elliptic; coma bracts white with purple
Curcuma viridiflora

Plants 50–70 cm tall. Rhizomes many branched, pale yellow inside, fragrant; roots tuberous at tip. Petiole 12–30 cm; leaf blade elliptic or elliptic-oblong, 35–85 × 13–21 cm, glabrous, base attenuate, oblique, apex acute. Inflorescences terminal on pseudostems; peduncle 15–22 cm; spike cylindric, 14–20 × 5–8 cm; fertile bracts ovate, 3.5–4.5 × 2–3.2 cm, apex obtuse; coma bracts white, sometimes slightly purple-red apically, ovate or elliptic oblong, apex acute. Calyx clavate, ca. 1 cm, apex irregularly 3-toothed. Corolla tube pale yellow, funnelform, 2.5–3.2 cm; lobes yellowish, oblong, central one ca. 2 × 1.3 cm, apex mucronate. Lateral staminodes yellow, obovate, ca. 2 × 1.1 cm, apex 2-cleft. Labellum white with a yellow band at center, ovate, ca. 2 × 1.6 cm, apex convex, emarginate. Ovary villous. Capsule globose. Seeds small. Fl. Jul.

- SW Taiwan (Gaoxiong Shi) [Indonesia, Malaysia, Thailand].

Specimens from Taiwan have not been seen by the present authors.

Curcuma zanthorrhiza

Plants to 2 m tall. Rhizomes few, few branched, orange or orange-red inside, paler on younger parts, short; roots with large tubers. Ligule small; petiole ca. 10 cm; leaf blade green with purple midvein, oblong, 40–80 × 15–20 cm, glabrous. Inflorescences on separate shoots arising from rhizomes; peduncle 15–25 cm; spike 16–25 × 8–10 cm; fertile bracts pale green, ca. 3 × 3.5 cm; coma bracts purple, ca. 7 × 3 cm, apical ones much narrower; bracteoles ca. 2.5 cm. Calyx white-green, ca. 1.4 cm, pubescent, apex 3-toothed. Corolla tube ca. 3.5 cm; lobes pale purple, ovate, ca. 1.7 × 1.5 cm. Lateral staminodes yellowish tinged with purple, oblong, ca. 1.7 × 1 cm. Labellum yellowish with deeply colored, median band, square, ca. 2 × 2 cm. Anther ca. 4 mm, base with spurs ca. 3 mm. Fl. Apr. 2n = 63*.

Riversides; ca. 800 m. S Yunnan [Indonesia, Malaysia, Thailand].

Curcuma amarissima

Plants ca. 1 m tall. Rhizomes yellow inside, bluish green outside, large, bitter; root tubers white inside. Petiole reddish brown, long; leaf blade green, oblong, ca. 45 × 14 cm, glabrous. Inflorescences on separate shoots arising from rhizomes; spike cylindric, ca. 14 × 9 cm; fertile bracts ovate, ca. 5 cm; coma bracts whitish, apex red and pink. Calyx ca. 1 cm, apex 3-lobed. Corolla red; tube ca. 2 cm; lobes oblong, ca. 1 cm, apex acute. Lateral staminodes and labellum yellow. Labellum semi-elliptic, 3-lobed; central lobe with central, deep yellow band, apex emarginate. Ovary puberulent. Fl. May.

Forest floors; ca. 800 m S Yunnan [Mengla Xian] [Bangladesh].

Curcuma wenyujin

Plants 0.7–1.5 m tall. Rhizomes white or yellowish inside, fragrant; roots tuberous at tip. Petiole 15–22 cm; spike cylindric, 14–20 × 5–8 cm; fertile bracts ovate, 3.5–4.5 × 2–3.2 cm, apex obtuse; coma bracts white, sometimes slightly purple-red apically, ovate or elliptic oblong, apex acute. Calyx clavate, ca. 1 cm, apex irregularly 3-toothed. Corolla tube pale yellow, funnelform, 2.5–3.2 cm; lobes yellowish, oblong, central one ca. 2 × 1.3 cm, apex mucronate. Lateral staminodes yellow, obovate, ca. 2 × 1.1 cm, apex 2-cleft. Labellum white with a yellow band at center, ovate, ca. 2 × 1.6 cm, apex convex, emarginate. Ovary villous. Capsule globose. Seeds small. Fl. Jul.

- SW Sichuan (Miyi Xian).

3. Curcuma sichuanensis

Plants ca. 1 m tall. Rhizomes many branched, orange or orange-red inside, paler on younger parts, short; roots with large tubers. Ligule small; petiole ca. 10 cm; leaf blade green with purple midvein, oblong, 40–80 × 15–20 cm, glabrous. Inflorescences on separate shoots arising from rhizomes; peduncle 15–25 cm; spike 16–25 × 8–10 cm; fertile bracts pale green, ca. 3 × 3.5 cm; coma bracts purple, ca. 7 × 3 cm, apical ones much narrower; bracteoles ca. 2.5 cm. Calyx white-green, ca. 1.4 cm, pubescent, apex 3-toothed. Corolla tube ca. 3.5 cm; lobes pale purple, ovate, ca. 1.7 × 1.5 cm. Lateral staminodes yellowish tinged with purple, oblong, ca. 1.7 × 1 cm. Labellum yellowish with deeply colored, median band, square, ca. 2 × 2 cm. Anther ca. 4 mm, base with spurs ca. 3 mm. Fl. Apr. 2n = 63*.

Riversides; ca. 800 m S Yunnan [Indonesia, Malaysia, Thailand].

8. Curcuma wenyujin

Plants 0.7–1.5 m tall. Rhizomes white or yellowish inside, fragrant; roots tuberous at tip. Petiole 15–22 cm; spike cylindric, 14–20 × 5–8 cm; fertile bracts ovate, 3.5–4.5 × 2–3.2 cm, apex obtuse; coma bracts white, sometimes slightly purple-red apically, ovate or elliptic oblong, apex acute. Calyx clavate, ca. 1 cm, apex irregularly 3-toothed. Corolla tube pale yellow, funnelform, 2.5–3.2 cm; lobes yellowish, oblong, central one ca. 2 × 1.3 cm, apex mucronate. Lateral staminodes yellow, obovate, ca. 2 × 1.1 cm, apex 2-cleft. Labellum white with a yellow band at center, ovate, ca. 2 × 1.6 cm, apex convex, emarginate. Ovary villous. Capsule globose. Seeds small. Fl. Jul.

- SW Sichuan (Miyi Xian).

3. Curcuma sichuanensis

Plants ca. 1 m tall. Rhizomes many branched, orange or orange-red inside, paler on younger parts, short; roots with large tubers. Ligule small; petiole ca. 10 cm; leaf blade green with purple midvein, oblong, 40–80 × 15–20 cm, glabrous. Inflorescences on separate shoots arising from rhizomes; peduncle 15–25 cm; spike 16–25 × 8–10 cm; fertile bracts pale green, ca. 3 × 3.5 cm; coma bracts purple, ca. 7 × 3 cm, apical ones much narrower; bracteoles ca. 2.5 cm. Calyx white-green, ca. 1.4 cm, pubescent, apex 3-toothed. Corolla tube ca. 3.5 cm; lobes pale purple, ovate, ca. 1.7 × 1.5 cm. Lateral staminodes yellowish tinged with purple, oblong, ca. 1.7 × 1 cm. Labellum yellowish with deeply colored, median band, square, ca. 2 × 2 cm. Anther ca. 4 mm, base with spurs ca. 3 mm. Fl. Apr. 2n = 63*.

Riversides; ca. 800 m S Yunnan [Indonesia, Malaysia, Thailand].

Rhizomes white or pale creamy inside, ovate-globose, 4–5 × 2.5–3.5 cm; roots bearing tubers. Ligule ca. 1.5 mm; petiole 2–11 cm; leaf blade elliptic-lanceolate, 14–40 × 4.5–9.5 cm, pubescent, base attenuate, apex acuminate. Inflorescences terminal on pseudostems or on separate shoots arising from rhizomes; peduncle 7–14 cm; spike ca. 15 × 7 cm; fertile bracts pale red, oblong. Calyx white, ca. 1 cm. Corolla tube ca. 2 cm, villous at throat; lobes red, ovate, ca. 1 cm. Lateral staminodes oblong. Labellum yellowish, suborbicular; central lobe 2-cleft at apex. Filament broad; anther ca. 4 mm, base spurred. Ovary villous. Fl. May–Jun. 2n = 63*.

• Guangdong, Guangxi, Zhejiang.

This species was described in FRPS as **Curcuma aromatica**, ‘Wenyujin’ (i.e., a cultivar).

Cultivated for medicine.


莪术 e zhu

Plants ca. 1 m tall. Rhizomes pale blue, pale green, yellowish green, or yellow; roots tuberous at tip. Leaf sheaths dark brown; petiole longer than leaf blade; leaf blade with purple cloud at center and green midvein, oblong-lanceolate, 25–60 × 10–15 cm, adaxially glabrous, abaxially sparsely pubescent. Inflorescences on separate shoots arising from rhizomes; spike 10–18 × 5–8 cm; fertile bracts white-green, pink at apex, broadly lanceolate, apex acuminate or acute; coma bracts white, apex deep red. Calyx ca. 1.5 cm. Corolla tube white, ca. 3 cm; lobes red, ca. 1.5 cm. Lateral staminodes petaloid. Labellum suborbovate, ca. 2 × 1.2–1.5 cm, yellowish with deep yellow center; central lobe emarginate at apex. Ovary hairy. 2n = 63.

Yunnan; cultivated in Fujian, Guangdong, Guangxi, and Sichuan [Indonesia, Vietnam].

**Curcuma phaeocaulis** has been misidentified as **C. aeruginosa** Roxburgh, **C. caesia** Roxburgh, and **C. zedoaria** (Christmann) Roscoe in the Chinese literature.


黄花姜黄 huang hua jiang huang

Plants 30–40 cm tall. Rhizomes small, aromatic; roots fusiform tuberous at tip. Petiole 4–7 cm; leaf blade 20–24 × 7–8 cm, adaxially glabrous, abaxially densely pubescent, base cuneate, apex acuminate. Inflorescences on separate shoots arising from rhizomes; peduncle 5–9 cm, scalelike sheaths purplish red; spike 4.5–6 × 2.5–3 cm; fertile bracts pale purplish red, ovate-orbicular to ovate, 4–4.5 × 2.6–3 cm, densely pubescent, apex acuminate; coma bracts absent. Calyx ca. 2 cm, apex 3-toothed, ciliate. Corolla tube white, ca. 4 cm, densely white pubescent, throat glabrous; lobes pale yellow, narrowly lanceolate, 1.8–2.4 cm × 7–9 mm. Lateral staminodes pale yellow with deep yellow center, elliptic, ca. 2.2 × 1.2 cm. Labellum pale yellow with deep yellow center, obovate, 2.5–2 cm, glabrous, base with 2 longitudinal red stripes, apex 2-cleft. Ovary white pubescent. Fl. Jun.

• Forests; ca. 1400 m. SW Yunnan (Menghai Xian).


广西莪术 guang xi e zhu

**Curcuma kwangsiensis** has been misidentified as **C. aromatica** Salisb., **C. flaviflora** Tong, **C. aromatica** Salisb., **C. kwangsiensis** S. G. Lee & C. F. Liang in the Chinese literature.