
Meistera Giseke, nom. rej.; Paludana Giseke, nom. rej.; Paramomum S. Q. Tong; Wurfbainia Giseke, nom. rej.

Rhizomes widely creeping. Pseudostems elongate. Leaf sheath long; ligule entire or 2-lobed; leaf blade usually oblong-lanceolate, oblong, or linear. Inflorescence arising from rhizomes, a densely flowered spike or spike-like raceme or panicle; peduncle short or rather long, clothed with imbricate, scalelike sheaths; involucre absent; bracts imbricate, persistent, sometimes soon disintegrating; bracteoles usually tubular. Calyx usually tubular, apex 3-toothed. Corolla tube cylindric; lobes oblong or linear-oblong, central one erect, usually wider and more convex than lateral ones. Lateral staminodes subulate, small, or absent. Labellum conspicuous, usually yellow or orange at center, with some red veins or marks, often white at margin, usually obovate, broadly concave. Filament well developed; anther locules parallel or diverging; connective appendage extending beyond apex of anther, entire or 3-lobed. Ovary 3-loculed; ovules many per locule, superposed. Style filiform; stigma usually funnelform, small, ciliate. Capsule irregularly dehiscent or indehiscent, smooth, prickly, or winged. Seeds oblong or many angled; aril fleshy or membranous, apex laciniate.

About 150 species: tropical Asia and Australia; 39 species (29 endemic, one introduced) in China.

Amomum krervanh Gagnepain (in FRPS, as “A. kravanh”) is locally cultivated in China and is also imported for medicinal use; however, it is not known to be naturalized. It may be conspecific with A. testaceum Ridley, in which case the latter name would have priority.

1a. Capsule smooth, neither prickly nor winged.
2a. Leaf blade abaxially pubescent.
3a. Leaves subsessile, leaf blade pubescent only along sides of midvein abaxially, ligule 2–4 mm ...................... 1. A. kwangsiense
3b. Leaves sessile or petiolate (petiole to 12 cm), leaf blade uniformly pubescent abaxially, ligule 5–20 mm.
4a. Ligule ca. 2 cm; petiole 2.5–12 cm; anther connective appendage 3-lobed ..................................................... 2. A. longipetiolatum
4b. Ligule 0.5–1.5 cm; petiole absent to 11 cm; anther connective appendage entire.
5a. Leaf blade abaxially silvery pubescent; petiole 4–8(–11) cm ............................................................................. 3. A. sericeum
5b. Leaf blade abaxially brownish pubescent; petiole absent to 2.5 cm ..................................................... 4. A. yingxiangense
2b. Leaf blade glabrous on both surfaces.
6a. Anther connective appendage 3-lobed.
7a. Ligule 2-cleft.
8a. Corolla lobes white, oblong, ca. 0.8 cm; labellum yellowish with orange midvein and purple margin, 1.5–1.8 × 1–1.5 cm ......................................................................................................................... 5. A. compactum
8b. Corolla lobes rose, elliptic, ca. 3 cm; labellum with yellow midvein and purple stripes on each side, ca. 3.2 × 1.6 cm ......................................................................................................................... 6. A. scarlatinum
7b. Ligule entire.
9a. Labellum 3.5–4 cm.
10a. Plants 1–1.7 m tall, with odor of coriander (Coriandrum sativum); petiole absent; ligule 0.4–1 cm .......................................................... 7. A. coriandriodorum
10b. Plants 0.5–1 m tall, without odor of coriander; petiole 2.5–12 cm; ligule ca. 2 cm ..................... 8. A. dolichanthum
9b. Labellum 1.5–3.2 cm.
11a. Ligule 8–12 mm; corolla orange-red .............................................................................................................. 9. A. tsao
11b. Ligule 2–5 mm; corolla yellow with purple or white markings.
12a. Petiole to 3 cm; corolla lobes oblong, ca. 3 cm; labellum obovate, 2.8–3.2 × 1.5–1.7 cm, base adnate to filament forming a tube ca. 3 mm ............................................................. 10. A. tuberculatum
12b. Petiole absent; corolla lobes narrowly elliptic, ca. 1.4 cm; labellum suborbicular, ca. 1.5 × 1.8 cm, base not adnate to filament ............................................................................. 11. A. quadratolaminare
6b. Anther connective appendage entire.
13a. Ligule 1–3 cm.
14a. Ligule 1–1.5 cm; labellum yellow, with 2 red stripes from center to base, obovate, distal margin fimbriate ............................................................................................................................................ 12. A. thysanochililum
14b. Ligule 2.5–3 cm; labellum white, densely red dotted at center, with radiate, red veins at margin, narrowly elliptic ......................................................................................................................... 13. A. paratsaoko
13b. Ligule 2–6 mm.
15a. Petiole absent.
16a. Ligule entire; leaf blade with lateral veins prominent adaxially ......................................................... 14. A. capsiciforme
16b. Ligule emarginate at apex; leaf blade with lateral veins not prominent adaxially ...................... 15. A. menglaense
15b. Petiole 0.5–5 cm.
17a. Ligule entire, 2–4 mm; labellum ca. 3.2 × 1.5 cm, base adnate to filament forming a tube ca. 3 mm, margin crisped ............................................................................................................................................. 16. A. jingxiense
17b. Ligule 2-cleft, 3–6 mm; labellum 1–1.3 × 0.6–0.9 cm, base not adnate to filament, apex 2-cleft.
17a. Plants ca. 0.5 m tall; leaves 1–3; peduncle 4–16 cm; bracts 1.2–1.5 cm ................................. 17. *A. austrosinense*
18b. Plants 1–3 m tall; leaves more than 3; peduncle 30–35 cm; bracts 2–2.7 cm .......................... 18. *A. koenigii*

1b. Capsule prickly or winged.
1a. Capsule prickly.
20a. Leaf blade hairy at least abaxially.
21a. Leaf blade abaxially hairy ................................................................. 19. *A. verrucosum*
21b. Leaf blade hairy on both surfaces.

22a. Ligule entire, rarely emarginate at apex, 4–10 mm; bracts brown, ovate to lanceolate, ca. 3 cm; lateral staminodes 5–6 mm, apex entire ................................................................. 20. *A. microcarpum*
22b. Ligule 2-cleft, 6–7 mm; bracts purple, oblong, ca. 1.2 cm; lateral staminodes ca. 1 cm, apex emarginate ................................................................. 21. *A. neoaurantiacum*

20b. Leaf blade glabrous.
23a. Anther connective appendage 3-lobed.
24a. Ligule lanceolate, 2–2.2 cm ................................................................. 22. *A. longiligulare*
24b. Ligule semiobovate, 0.3–0.5 cm ............................................................ 23. *A. villosum*

23b. Anther connective appendage entire.
25a. Petiole 4–5 mm; petuncle 13–32 cm.

26a. Flowers white; calyx 1.5–2 cm; labellum broadly orbicular; lateral staminodes absent .............. 24. *A. yuananense*
26b. Flowers yellow; calyx ca. 1 cm; labellum fan-shaped-spatulate; lateral staminodes toothlike, ca. 1 mm ................................................................................................. 25. *A. gagnepainii*
25b. Petiole 5–10 mm; peduncle 0.5–1 cm

27a. Corolla white, lobes ca. 1.5 cm; labellum deltoid-ovate, ca. 1.5 cm; ligule ca. 3 mm .............. 26. *A. chinense*
27b. Corolla yellow, lobes 2–3 cm; labellum obovate, 2.5–3 cm; ligule 7–9 mm .............................. 27. *A. muricarpum*

19b. Capsule winged.
28a. Leaf blade abaxially hairy.
29a. Petiole absent to 8 cm.

30a. Leaf blade abaxially white pubescent; capsule ovoid, pedicel 0.7–1 cm ................................. 28. *A. maximum*
30b. Leaf blade abaxially brownish villous; capsule ellipsoid, pedicel 1–2 cm ............................... 29. *A. dealbatum*
29b. Petiole 12–35 cm.

31a. Inflorescences paniculate; fruiting peduncle 3–4 cm ............................................................ 30. *A. mengtense*
31b. Inflorescences subcapitate; fruiting peduncle 5–12 cm .......................................................... 31. *A. subcapitatum*

28b. Leaf blade glabrous.
32a. Filament broad, anther attached to middle of filament; lateral staminodes absent ................... 32. *A. petaloideum*
32b. Filament slender, anther attached to apex of filament; lateral staminodes present.

33a. Ligule entire, 3–5 cm.
34a. Spikes narrowly ellipsoid, 7–8 × 2.8–3.2 cm; peduncle 2.5–10 cm; bracts elliptic; corolla lobes
and labellum entire at apex ................................................................................................. 33. *A. fragile*
34b. Spikes capitulate, 5.5–7 × 6–8 cm; peduncle 2–3 cm; bracts ovate-orbicular or broadly ovate;
central lobe of corolla mucronate at apex; labellum 2-cleft at apex ................................. 34. *A. purpureorubrum*
33b. Ligule entire or 2-cleft, 0.3–3 cm.
35a. Ligule 3–4 mm; central lobe of corolla apiculate at apex.
36a. Bract with horny cusp at apex; anther connective appendage entire ........................................ 35. *A. subulatum*
36b. Bract without horny cusp at apex; anther connective appendage 3-lobed .............................. 36. *A. glabrum*
35b. Ligule 0.7–3 cm; central lobe of corolla not apiculate at apex.
37a. Petiole absent; ligule 1.5–3 cm; bracteoles absent ............................................................ 37. *A. odontocarpum*
37b. Petiole 5–26 cm; ligule 0.7–1.5 cm; bracteoles present.

38a. Flowers yellow; labellum cuneate; peduncle 12–32 cm .......................................................... 38. *A. putrescens*
38b. Flowers white; labellum slightly 3-lobed; peduncle ca. 7 cm .................................................. 39. *A. repoeense*


广西豆蔻 guang xi dou kou

Plants ca. 1 m tall. Leaves subsessile; ligule 2–4 mm; leaf blade lanceolate, 11–75 × 1.5–8.5 cm, abaxially densely appressed pubescent along sides of midvein, base usually cuneate, margin bristly, apex long acuminate. Spikes with peduncle embedded in ground, 1.5–33 cm; bracts white, lanceolate, 3.5–6 × 0.5–1.5 cm; bracteoles deltoid-lanceolate, not tubular, 0.5–3.5 cm. Calyx 3.3–4.5 cm, apex 3-toothed; teeth ca. 8 mm. Corolla white, 3–4.5 cm, adaxially hairy; lobes lanceolate, hoodlike, 3.5–4 × 0.8–1.2 cm, central one apiculate at apex. Lateral staminodes subulate, ca. 4 mm. Labellum purple at claw, yellowish at apex, fan-shaped or spatulate, 3.5–4 × 2.5–3 cm, base adnate to filament forming a tube 0.7–1.3 cm. Filament ca. 7 mm; anther 1.1–1.4 cm; connective appendage entire, ca. 5 mm. Ovary pubescent. Capsule pale purple, subglobose, 1–2 cm, with 12 sometimes obscure lines. Fl. May–Jun, fr. Aug–Sep. 2n = 48*.

- Forests; 600–700 m. Guangxi, Guizhou.

Elettariopsis longipetiola (Merrill) D. Fang.

Plants 50–100 cm tall. Ligule orbicular, ca. 2 cm; petiole 2.5–12 cm; leaf blade adaxially green when fresh, becoming blue gray, abaxially pale green, oblong-lanceolate, 35–75 × 7–11 cm, adaxially glabrous, abaxially yellowish sericeous, base acute, apex acuminate. Spikes ellipsoid; peduncle short or absent; bracts 2–3 cm, submembranous. Flowers ca. 9 cm. Calyx ca. 3.5 cm, pubescent, apex 3-toothed; teeth oblong, ca. 3 mm. Corolla tube ca. 5.5 cm; lobes linear, ca. 2.5 cm × 4 mm, punctate. Lateral staminodes linear, 4–6 mm. Labellum white with yellowish middle and purple base, obovate, ca. 3.5 cm. Anther linear, 1.2–1.5 cm; connective appendage 3-lobed, lobes 3–4 × 1 cm, central one erect, lateral ones falcate, expanding. Ovary oblong-ellipsoid, 3–4 mm, densely appressed pubescent. Capsule subglobose, ca. 2 cm in diam., brown pubescent; pedicel 1.5–2 cm. Fl. Apr–May. 2n = 48*.

- Forests, 400–600 m. Guangxi, Hainan.

3. **Amomum sericeum** Roxburgh, Fl. Ind. 1: 45. 1820.

**Amomum dealbatum** Roxburgh var. sericeum (Roxburgh) Baker.

Plants 1–3 m tall. Ligule entire or slightly 2-cleft, 0.5–1.5 cm; membranous, pubescent, apex acute; petiole 4–8(–11) cm; leaf blade lanceolate, 50–65 × 7–15 cm, abaxially silvery pubescent, base cuneate, apex acuminate. Spikes subglobose, 3.5–5 cm in diam.; peduncle to 8 cm; bracts yellow, ovate-oblong, 2–2.5 cm × 7–10 mm, longitudinally striate, persistent, margin ciliate. Ovary yellowish with orange midvein and purple margin, elliptic, 1.5–1.8 × 1–1.5 cm, slightly concave, pubescent. Filament hairy at base; anther elliptic, ca. 2 mm; connective appendage 3-lobed, ca. 4 mm. Ovary pilose. Capsule yellowish, oblate, 1–1.5 cm in diam., slightly 9-grooved when dry, pilose. Seeds irregularly polyhedral, ca. 4 mm in diam. Fl. Feb–May. Fr. Jun–Aug. 2n = 48*.

- Cultivated. Hainan, S Yunnan [native to Indonesia (Java)].


**Amomum kepulaga** Sprague & Burkill.

Plants 1–1.5 m tall. Leaves sessile; ligule orbicular, 2-cleft, 5–7 mm, initially pubescent, later ciliate at margin; leaf blade lanceolate, 25–50 × 4–9 cm, glabrous except ciliate at margin, apex caudate, with tip 2.5–3 cm. Spikes cylindric, ca. 5 × 2.5 cm, elongate after anthesis; peduncle to 8 cm; bracts yellow, ovate-oblong, 2–2.5 cm × 7–10 mm, longitudinally striate, persistent, margin ciliate; bracteoles tubular. Calyx 1–1.2 cm, pubescent, apex 3-toothed. Corolla white or yellowish; tube 1–1.2 cm; lobes oblong, ca. 8 mm. Lateral staminodes absent. Labellum yellowish with orange midvein and purple margin, elliptic, 1.5–1.8 × 1–1.5 cm, slightly concave, pubescent. Filament hairy at base; anther elliptic, ca. 2 mm; connective appendage 3-lobed, ca. 4 mm. Ovary pilose. Capsule yellowish, oblate, 1–1.5 cm in diam., slightly 9-grooved when dry, pilose. Seeds irregularly polyhedral, ca. 4 mm in diam. Fl. Feb–May. Fr. Jun–Aug. 2n = 48*.

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**Amomum kepulaga** Sprague & Burkill.

Plants 1–1.5 m tall. Leaves sessile; ligule orbicular, 2-cleft, 5–7 mm, initially pubescent, later ciliate at margin; leaf blade lanceolate, 25–50 × 4–9 cm, glabrous except ciliate at margin, apex caudate, with tip 2.5–3 cm. Spikes cylindric, ca. 5 × 2.5 cm, elongate after anthesis; peduncle to 8 cm; bracts yellow, ovate-oblong, 2–2.5 cm × 7–10 mm, longitudinally striate, persistent, margin ciliate; bracteoles tubular. Calyx 1–1.2 cm, pubescent, apex 3-toothed. Corolla white or yellowish; tube 1–1.2 cm; lobes oblong, ca. 8 mm. Lateral staminodes absent. Labellum yellowish with orange midvein and purple margin, elliptic, 1.5–1.8 × 1–1.5 cm, slightly concave, pubescent. Filament hairy at base; anther elliptic, ca. 2 mm; connective appendage 3-lobed, ca. 4 mm. Ovary pilose. Capsule yellowish, oblate, 1–1.5 cm in diam., slightly 9-grooved when dry, pilose. Seeds irregularly polyhedral, ca. 4 mm in diam. Fl. Feb–May. Fr. Jun–Aug. 2n = 48*.

- Cultivated. Hainan, S Yunnan [native to Indonesia (Java)].


**Rhizomes strongly aromatic. Plants 1.5–3 m tall. Leaves sessile or subsessile; ligule 2-cleft, 5–8 mm, membranous, glabrous, lobes obtuse at apex; leaf blade narrowly elliptic, 35–40 × 4–11 cm, glabrous, base cuneate, apex acuminate. Spikes ellipsoid, ca. 4 cm in diam.; peduncle ca. 2.5 cm, scalelike sheaths dense, leathery; bracts purple, lanceolate, mostly acuminate, lacerate when dry; bracteoles rose with pale brown apex, tubular, ca. 4 cm × 8 mm, split nearly to base on 1 side. Calyx rose with pale brown apex, 2.7–3.2 cm × ca. 5 mm, pubescent, apex truncate or obscurely 3-lobed. Corolla tube white, equaling or slightly longer than calyx; lobes rose, narrowly elliptic, ca. 3 cm × 6–9 mm. Labellum with yellow midvein and purple stripes on each side, pale at apex, elliptic, ca. 3.2 × 1.6 cm, base white villous, margin crisped, apex toothed. Anther 1–1.5 cm; connective appendage pale brown, 3-lobed, lateral lobes linear, 5–7 mm. Ovary white pubescent. Fr. May.

- Cultivated. Hainan, S Yunnan [native to Indonesia (Java)].


Plants 1–1.7 m tall. Rhizomes, leaves, and capsules with
odor of coriander (*Coriandrum sativum* Linnaeus). Leaves sessile; ligule brownish, entire, 4–10 mm, glabrous; leaf blade elliptic or narrowly so, 20–40 × 5–12 cm, glabrous, base cuneate or attenuate, apex acuminate or caudate. Spikes subobovoid, ca. 7 × 4.5 cm, subcapitate and 5.5–5 × 7.5–8 cm in fruit; peduncle 2–3 cm; bracts red, ca. 4 × 1 cm; bracteoles red, tubular, ca. 2.8 cm. Calyx red, ca. 2 cm, apex obtusely 3-toothed. Corolla tube pale yellowish green, ca. 2 cm; lobes red, central one ca. 2.4 cm × 8 mm, lateral ones narrower. Lateral staminodes absent. Labellum ca. 4 × 2.5 cm, margin crisped; central lobe pale orange, broadly ovate; lateral lobes yellowish, auriculate, small. Filament ca. 7 mm; anther ca. 1 cm; connective appendage 3-lobed, ca. 3 × 11 mm, margin yellowish brown. Ovary sub-ellipsoid, ca. 7 × 4 mm. Capsule purplish red, ellipsoid, 3.8–4.2 × 2.3–2.5 cm. Seeds brown, ca. 6 × 4 mm, 3-angled. Fl. May, fr. Jul.

- Forests; 1300–1500 m. S Yunnan.


**长花豆蔻** chang hua dou kou

Plants 50–100 cm tall. Leaf sheath pubescent distally; ligule orbicular, ca. 2 cm, pubescent; petiole absent or rarely to 1.5 cm; leaf blade obovate or elliptic, 20–50 × 7–15 cm, glabrous, base acute, apex acuminate. Spikes elliptoid; peduncle short or absent; bracts submembranous, 2–3 cm. Flowers ca. 9 cm. Corolla tube ca. 5.5 cm; lobes linear, ca. 2.5 cm × 4 mm, punctate. Lateral staminodes linear, 4–6 mm. Labellum white, yellowish at middle, purple at base, obovate, ca. 3.5 cm. Anther linear, 1.2–1.5 cm; connective appendage 3-lobed, lobes 3–4 × ca. 1 mm, central one erect, lateral ones falcate, expanded. Ovary obovate; peduncle 3–4 mm, densely appressed pubescent. Capsule subglobose, ca. 2 cm in diam., brown pubescent, 1.5–2 cm. Fl. Apr–May.

- Forests; SW Guangxi (Longzhou Xian).

Medicinal.


**草果** cao guo

*Amomum hongtsaooko* C. F. Liang & D. Fang.

Plants to 3 m tall, aromatic. Rhizomes gingerlike. Ligule entire, 0.8–1.2 cm, apex obtuse; petiole absent or short; leaf blade narrowly elliptic or oblong, 40–70 × 10–20 cm, glabrous, base attenuate, margin drying membranaceous, apex acuminate. Spikes 13–18 × ca. 5 cm, 5–30-flowered; peduncle at least 10 cm, scalllelike sheaths dense, brown when dry, oblong or narrowly elliptic, 5.5–7 × 2.3–3.5 cm, leathery, apex rounded; bracts lanceolate, ca. 4 cm × 6 mm, apex acuminate; bracteoles tubular, ca. 3 cm, apex 2- or 3-toothed. Calyx equaling bracteoles, apex obtusely 3-toothed. Corolla orange-red; tube ca. 2.5 cm; lobes oblong, ca. 2 cm × 4 mm. Labellum elliptic, ca. 2.7 × 1.4 cm, apex slightly toothed. Anther ca. 1.3 cm; connective appendage 3-lobed, ca. 4 × 11 mm, central lobe quadrilateral, lateral ones narrower. Capsule red, drying brown and longitudinally striate, oblong or elliptic, 2.5–4.5 × ca. 2 cm, glabrous. Seeds 4–6 mm in diam., many angled, strongly aromatic. Fl. Apr–Jun, fr. Sep–Dec. 2n = 48*.

- Sparse forests; 1100–1800 m. Yunnan.

Both wild and cultivated plants are used for medicine.


**德保豆蔻** de bao dou kou

Plants 70–80 cm tall. Ligule entire, 2–5 mm; petiole to 3 cm; leaf blade ovate or lanceolate, 5–45 × 2.5–8 cm, glabrous, base rounded or cuneate, apex caudate. Spikes obovoid, ca. 30-flowered; peduncle embedded in ground, 1.5–7.5 cm; bracts red, lanceolate, 3.3–3.9 × 0.8–1.2 cm; bracteoles red with yellowish apex, tubular, ca. 2 cm. Calyx red with yellowish apex, 2.7–3 cm, split on 1 side, apex 2- or 3-toothed. Corolla tube 2.3–2.5 cm; lobes oblong, ca. 3 cm × 6–7 mm, central one yellow with purple markings, 1–1.2 cm wide. Lateral staminodes absent. Labellum red veined each side of midvein, obovate, 2.8–3.2 × 1.5–1.7 cm, densely tuberculate toward throat, base adnate to filament forming a tube ca. 3 mm, distal margin crisped, apex entire. Filament ca. 1.1 cm; connective appendage yellowish, 3-lobed, central lobe 6–7 × 5–7 mm. Capsule subglobose, 1.2–1.7 cm in diam., obscurely 3-angled. Fl. May, fr. Sep.

- Forests; 1500–1600 m. Guangxi.


**方片砂仁** fang pian sha ren

Plants 0.8–1.5 m tall. Leaves sessile; leaf sheath green, conspicuously longitudinally striate; ligule entire, 2–3 mm, densely pubescent; leaf blade narrowly lanceolate or narrowly elliptic, 14–35 × 4–4.5 cm, glabrous, base narrowly cuneate, apex caudate-accuminate. Spikes 1–3, capitulate or oblong, 1.2–3 cm in diam.; peduncle 0.8–4 cm, scalelike sheaths red, subleathery, margin ciliate; bracts red, ovate or oblong, 1.5–3.1 × 0.8–1.5 cm, subleathery, margin ciliate; bracteoles red pal, ca. 8 mm. Calyx pale red with white base, equaling bracteoles, apex 2-cleft. Corolla tube white, spotted red at apex, equaling calyx, pale white pubescent; lobes narrowly elliptic, ca. 1.4 cm × 4 mm. Lateral staminodes laminar, square, ca. 2 mm. Labellum white with yellow band at center and red spots at base, suborbicular, ca. 1.5 × 1.8 cm, glabrous, margin crisped. Filament white, ca. 5 mm; anther elliptic, ca. 6 mm; connective appendage 3-lobed, ca. 4 × 8 mm, central lobe emarginate at apex. Ovary densely brown pubescent. Style white; stigma ciliate. Fl. Mar.

- Forests; ca. 800 m. S Yunnan.


**梳唇砂仁** shu chun sha ren

Plants 1.5–3 m tall. Leaves sessile; leaf sheath conspicuously striate, red on basal leaf; ligule brownish, entire, 1–1.5 cm, membranous, glabrous; leaf blade oblong-lanceolate, 50–60 × 7–10 cm, glabrous, base cuneate, apex long caudate. Spikes subcapitate, 4.5–5 × 5–6 cm; peduncle 2–7 cm, scalelike sheaths
narrowly so, apex acuminate. Spikes subcapitate, ca. 5 × 3.5 cm; bracteoles purplish red with brownish apex, tubular, ca. 3 cm. Calyx pale purplish red, ca. 3.2 cm, slightly hairy, apex 3-toothed. Corolla tube yellowish, ca. 2.5 cm, glabrous; lobes pale purplish red, linear, 2.5–3 cm. Lateral staminodes absent. Labellum yellow with 2 red stripes from center to base, pubescent, 3.8–4.2 × 2–2.1 cm, base attenuate, distal margin fimbriate. Filament ca. 8 mm; anther white, linear, ca. 1.4 cm; connective appendage white, entire. Ovary slightly hairy. Fl. Apr.

• Forests; ca. 800 m. S Yunnan.


拟草果 ni cao guo

Plants 1.5–3 m tall. Leaves sessile; leaf sheath green, conspicuously longitudinally striate; ligule brownish, entire, 2.5–3 cm, membranous, glabrous; leaf blade adaxially green, abaxially pale green, narrowly oblong-lanceolate or narrowly elliptic-lanceolate, 40–85 × 13–18 cm, glabrous, base cuneate or attenuate, apex acuminate. Spikes 1 or 2, capitate or ovoid-globose, 4.5–6.5(–10) × 5–6 cm; peduncle 2–4 cm, scalelike sheaths leathery, glabrous; bracts ovate or elliptic, 4.5–6 × 5–5.5 cm, apex rounded; bracteoles white, tubular, 3–3.2 cm, membranous, glabrous, apex 2-toothed. Calyx white, clavate, 4–4.5 cm, membranous, glabrous, apex 3-toothed. Corolla white, glabrous; tube 3–3.5 cm; lobes lanceolate, subequal, central one 2.5–3.3 × 0.9–1.1 cm, apex not mucronate. Lateral staminodes absent. Labellum white, densely red dotted at center, with radiate, red veins at margin, narrowly elliptic, 3.2–4 × 2–2.3 cm, margin crisped. Stamen white; filament ca. 1 cm; anther linear, ca. 1.4 cm; connective appendage entire. Ovary white, glabrous. Style white, linear, pubescent; stigma pale green, ciliate. Capsule subglobose. Fl. May.

• Forests; ca. 1600 m. Guangxi, Guizhou, Yunnan.


辣椒砂仁 la jiao sha ren

Plants 1–1.5 m tall. Leaves sessile; leaf sheath green, conspicuously longitudinally striate; ligule entire, 3–6 mm, subleathery, glabrous; leaf blade elliptic or oblong, 18–35 × 5.5–10 cm, glabrous, lateral veins prominent, base cuneate, apex caudate-acuminate. Flowers unknown. Fruiting spikes 1–2 cm; peduncle 3–5 cm, scalelike sheaths broadly ovate, subleathery. Capsule red, 4.8–5.2 × 1.8–2.2 cm, apex obtuse, with persistent calyx. Seeds subcapitate, ca. 5 × 3 mm, warty, wholly enclosed by white aril. Fl. Aug.

• Forests; ca. 1400 m. W Yunnan (Yingjiang Xian).


勐腊砂仁 meng la sha ren

Plants 1–1.5 m tall. Leaves sessile; ligule ca. 5 mm, membranous, glabrous, apex emarginate; leaf blade elliptic or oblong-lanceolate, 35–40 × 7.5–9.5 cm, glabrous, base cuneate or narrowly so, apex acuminate. Spikes subcapitatate, ca. 5 × 3.5 cm; peduncle 3–12 cm; bracts brown or greenish brown, ovate or narrowly so, 2–3 × 1.2–1.5 cm; bracteoles reddish, tubular, ca. 3.5 cm. Calyx ca. 3 cm, apex 3-toothed, teeth reddish at apex. Corolla tube white, ca. 3.2 cm; central lobe suboblong, ca. 3 × 1.3 cm, apex mucronate; lateral lobes subelliptic, ca. 1.1 cm. Lateral staminodes red, subulate, ca. 4 mm. Labellum at center, with radiate lines and yellow apex, suboblong, ca. 3.5 × 1.8 cm, margin crisped, apex entire. Stamens white; filament ca. 5 mm; anther linear, ca. 1.5 cm; connective appendage entire, ca. 4 × 8 mm. Ovary yellowish green, ca. 6 mm, glabrous. Fl. May.

• Forests; ca. 1800 m. S Yunnan (Mengla Xian).


狭叶豆蔻 xia ye dou kou

Plants ca. 1.3 m tall. Ligule entire, 2–4 mm; petiole absent on proximal leaves, 5–10 mm on distal ones; leaf blade linear-lanceolate, 13–50 × 1.5–3(–3.5) cm, glabrous, base cuneate, apex long acuminate. Spikes 5–6 × 2.5–4 cm, 10–20-flowered; peduncle 1.5–4.5 cm; bracts elliptic, 2.3–3.5 × 1.5 cm, apex obtuse; bracteoles purple, tubular, ca. 2.5 cm, split on side, apex 2-lobed. Flowers yellow. Calyx purplish red, ca. 3 cm, apex 3-toothed. Corolla tube ca. 1.7 cm; lobes oblong, ca. 3 cm × 8 mm, central one hoodlike, wider than lateral ones. Lateral staminodes ca. 1.1 mm. Labellum purple lined, ovate, ca. 3.2 × 1.5 cm, papillose toward throat, base adnate to filament forming a tube ca. 3 mm, margin crisped. Filament ca. 5 mm; anther ca. 1.3 cm; connective appendage ca. 5 × 8 mm, margin crenulate. Ovary glabrous. Capsule ellipsoid, 1.7–1.9 × 1.1–1.2 cm, striate. Fl. Apr, fr. Sep–Oct.

• Forests; ca. 1300 m. W Guangxi (Jingsi Xian).


三叶豆蔻 san ye dou kou

Plants ca. 50 cm tall. Leaves 1–3, usually 2; leaf sheath striate; ligule 2-lobed, 3–6 mm, puberulent; petiole 0.5–5 cm, puberulent; leaf blade narrowly elliptic or oblong, rarely ovate to oblong-lanceolate, 10–40 × 3.5–11 cm, glabrous except puberulent along midvein, base cuneate to broadly so, sometimes oblique, margin densely ciliate, apex acuminate. Flowers unknown. Fruiting spikes 3–6 cm; peduncle 4–6 cm; bracts oblong-obovate or oblong, 1.2–1.5 cm × 5–8 mm, 1- or 2-flowered; bracteoles absent. Calyx white basally, purple distally, ca. 1.6 cm, puberulent, apex 3- or 4-toothed. Corolla tube ca. 1.8 cm, puberulent; lobes white tinged reddish, oblong, ca. 1.5 cm × 5.5 cm. Lateral staminodes red, linear, 5–6 cm. Labellum white with red lines, ovate, ca. 1.3 cm × 9 mm, margin coarsely serrate, apex 2-lobed. Anther red, 8–9 mm; connective appendage 2-lobed, small. Ovary densely pubescent. Capsule globose, 0.8–1.4 cm in diam., red pubescent, apex with persistent calyx. Fl. Jun. 2n = 48*.

• Forests; 700–1000 m. Guangdong, Guangxi.

Medicinal.


野草果 ye cao guo
Plants 1–3 m tall. Ligule 2-cleft, ca. 6 mm, papery, lobes rounded at apex; petiole 5–10 mm; leaf blade lanceolate or linear-lanceolate, 30–45 × 4–11 cm, glabrous, base cuneate, apex caudate. Spikes narrowly ellipsoid, 4–5 cm; peduncle 30–35 cm in fruit; bracts oblong, 2–2.7 cm × 6–8 mm; bracteoles tubular, 1.1–1.3 cm, pubescent, apex 2-cleft. Calyx ca. 1.4 cm, base white villous, apex 2- or 3-lobed. Corolla tube equaling calyx, base white pilose; lobes oblong-lanceolate, 1–1.3 cm. Labellum subhombic, ca. 1 cm × 6–8 mm, apex 2-cleft; claw white pubescent. Anther linear-oblong, ca. 3 cm; connective appendage semiorbicular. Ovary densely brownish pubescent. Capsule ovoid, rarely oblong-ellipsoid, 2–2.5 × 1–1.5 cm, longitudinally striate when dry. Fl. May–Jul, fr. Sep–Nov.

Forests; 200–1500 m. Guangxi, Yunnan [India, Thailand].


疣子砂仁 you zi sha ren

Plants 3–3.5 m tall. Leaf sheath striate; ligule 1–1.5 cm, densely brown villous, apex truncate; petiole 1–1.5 cm; leaf blade narrowly elliptic or narrowly lanceolate, 40–50 × 9–12 cm, abaxially sparsely hairy except densely white pubescent along midvein, base cuneate, margin densely ciliate, apex acuminate or caudate-acuminate. Spikes capitulate or ovoid, ca. 9.5 × 8.5 cm; peduncle densely brown villous, elongate after anthesis; bracts subelliptic, 3.5–4 × 2.3–2.5 cm; bracteoles tubular, 1.7–2.5 cm, pubescent. Calyx whitish, 2.5–3 cm, pubescent, apex 3-toothed. Corolla tube 2–2.2 cm, apex orange with red veins; lobes yellowish, central one red veined, suborbicular, 2.5–2.8 × 2.2–2.5 cm, lateral ones not red veined, narrower than central one. Lateral staminodes yellowish, subulate, ca. 6 mm. Labellum yellow with red spots and veins, semiorbicular, 3.5–5 × 3.5–4 cm. Stamens ca. 2.5 cm; anther linear, ca. 1.5 cm; connective appendage yellow, slightly 3-lobed. Capsule purple-black, globose, ca. 3.5 cm in diam., with branched, soft spines 3–5 mm. Seeds brown-black, broadly ellipsoid, ca. 4 × 3 mm; aril white. Fl. Jun.

- Forests; ca. 800 m. S Yunnan.


细砂仁 xi sha ren

Plants ca. 2.5 m tall. Leaves sessile; ligule entire, 4–10 mm, hairy, apex rounded, rarely emarginate; leaf blade oblong-lanceolate, 20–60 × 2.5–9 cm, sparsely pilose, base cuneate, apex with caudate tip 1.5–3 cm. Spikes with densely appressed hairy peduncle and rachis; bracts brown, lanceolate to ovate, ca. 3 cm, subglabrous except hairy at base; bracteoles reddish with brownish apex, ca. 1.7 cm, apex 2- or 3-toothed. Calyx reddish with whitish apex, ca. 1.7 cm, glabrous, apex slightly 3-toothed. Corolla reddish; corolla tube nearly as long as calyx; central lobe oblong-ovate, ca. 1.1 cm × 8 mm, apex cuculate; lateral lobes narrower than central one. Lateral staminodes linear, 5–6 mm, apex entire. Labellum white with yellow midvein and red-dotted base, orbicular, ca. 1.8 × 1.5 cm, base attenuate, pubescent, apex 2-cleft. Anther ca. 5 mm; connective appendage slightly 3-lobed, 2–3 mm, central lobe wider than lateral ones. Ovary appressed villous. Capsule purplish, ovoid, 1–1.5 × 0.8–1.2 cm, sparsely appressed villous, with soft spines. Seeds black. Fl. Apr–May, fr. Aug–Sep.

- Dense forests; 300–500 m. S Guangxi (Dongxing Xian).

Medicinal.


红壳砂仁 hong ke sha ren


Plants 2–2.5 m tall. Pseudostems brown pubescent. Ligule 2-cleft, 6–7 mm, densely yellow villous; petiole very short; leaf blade abaxially light green, narrowly lanceolate, ca. 30 × 5–6.5 cm, adaxially sparsely and shortly appressed brown hairy, abaxially densely villous, base cuneate, apex caudate. Spikes oblong; peduncle ca. 3 cm, villous, scalelike sheaths purple, deltoid, villous; bracts purple, oblong, ca. 1.2 cm × 5 mm. Calyx ca. 1.5 cm, apex 3-toothed. Corolla tube yellow-red, ca. 1 cm. Lateral staminodes linear, ca. 1 cm, apex emarginate. Labellum white, yellow with purple spots at center, orbicular, ca. 1.8 cm in diam., apex acute, 2-cleft. Filament ca. 1 cm; anther oblong, ca. 8 mm; connective appendage 3-lobed, central lobe semi-orbicular, lateral ones linear. Capsule orange, subglobe or ovoid, 1.3–1.8 × 0.7–1.1 cm, pressed rusty hairy, with sparse, fleshy spines. Seeds red-brown, 4–to many angled. Fl. May–Jun, fr. Aug–Sep.

- Forests; ca. 600 m. Yunnan.

Medicinal.


海南砂仁 hai nan sha ren

Plants 1–1.5 m tall. Ligule lanceolate, 2–4.5 cm, membranous, glabrous; petiole ca. 5 mm; leaf blade linear-lanceolate or linear, 20–30 × 2.5–3 cm, glabrous, base attenuate, apex caudate-apatculate. Spikes with 1–3 cm long peduncle; bracts brown, lanceolate, 2–2.5 cm; bracteoles tubular, ca. 2 cm. Calyx white, 2–2.2 cm, apex 3-toothed. Corolla slightly longer than calyx; lobes oblong, ca. 1.5 cm. Labellum white with purple midvein and yellow apex, orbicular-spatulate, ca. 2 × 2 cm, midvein convex, apex with 2-lobed point. Stamens ca. 1 cm; connective appendage 3-lobed, central lobe orbicular, lateral ones suborbicular. Capsule ovoid, 1.5–2 × 0.8–1.2 cm, obtusely 3-angled, with branched, soft, flaky spines to 1 mm. Seeds purple-brown, enclosed in a brown, membranous aril. Fl. Apr–May, fr. Jun–Sep.

- Forests. Hainan.

Cultivated for medicine.


砂仁 sha ren

Plants (1–)1.5–3 m tall. Rhizomes procumbent above
ground, clothed with brown, scalelike sheaths. Leaves sessile or sub sessile; leaf sheath with netlike, depressed squares; ligule semi orbicular, 3–5 mm; leaf blade lanceolate to linear, 25–35 × 3–7 cm, glabrous, base sub rounded, apex caudate. Spikes ellipsoidal, peduncle 4–8 cm, scalelike sheaths brown or green, elliptic; bracts lanceolate, ca. 1.8 cm × 5 mm; bracteoles tubular, ca. 1 cm. Calyx white, ca. 1.7 cm, slightly pubescent, apex 3-toothed. Corolla tube ca. 1.8 cm; lobes white, obovate-oblong, 1.6–2 cm × 5–7 mm. Labellum white with yellow, purple-tinted midvein, 2 purple spots at base, and yellow apex, orbital-spatulate, 1.6–2 cm wide, midvein convex, base contracted into claw, apex reflexed. 2-cleft. Filament 5–6 mm; anther ca. 6 mm; connective appendage 3-lobed, central lobe semi orbicular, ca. 3 × 4 mm, lateral ones auriculate. Ovary white pubescent. Capsule purple, green, or brownish when mature and fresh, brown when dry, ellipsoid, 1.5–2 × 1.2–2 cm, with branched or simple, soft spines. Seeds many angled, strongly aromatic. Fl. May–Jun, fr. Aug–Sep.

Forests, cultivated in wet and shady places in sparse forests; 100–800 m. Fujian, Guangdong, Guangxi, Yunnan [Cambodia, India, Laos, Myanmar, Thailand, Vietnam].

1a. Capsule purple when mature and fresh ............................................ 23a. var. villosum

1b. Capsule green or brownish when mature and fresh .................................. 23b. var. xanthioides

23a. Amomum villosum var. villosum

砂仁 (原变种)  sha ren (yuan bian zhong)


- Cultivated in wet and shady places in sparse forests; 100–600 m. Fujian, Guangdong, Guangxi, Yunnan.


缩砂仁 suo sha ren


Capsule green or brownish when mature and fresh. Fl. May–Jun. 2n = 48*.

- Forests; 600–800 m. Guangxi, Yunnan [Cambodia, India, Laos, Myanmar, Thailand, Vietnam].


云南砂仁 yun nan sha ren

Plants 1–1.5 m tall. Leaf sheath conspicuously concave veined; ligule purple, 2-cleft, ca. 3 mm; petiole ca. 5 mm; leaf blade oblong-or elliptic, 16–30 × 4–8 cm, glabrous, base acute, apex caudate-acute. Spikes tubinate, ca. 3 cm in diam., ca. 20-flowered; peduncle 5–10 cm; bracts purple, ovate, 1–2 cm; bracteoles tubular, ca. 2 cm. Calyx tinged red at base, ca. 1.7 cm, base villous, apex 3-toothed. Corolla tube slightly longer than calyx; lobes obovate, ca. 1.5 mm, apex concave. Labellum white with purple midvein and veins, deltoid-ovate, ca. 1.5 × 1 cm; claw 5–6 mm. Anther ca. 6 mm; connective appendage semi orbicular, ca. 8 × 4 mm, margin shallowly crenate. Ovary yellow villous. Capsule ellipsoid, with branched, soft spines 2–3 mm. Fl. Apr–May, fr. Jun–Aug. 2n = 48*.

- Forests. Hainan.


疣果豆蔻 you guo dou kou

Plants 2–3 m tall. Rhizomes robust. Ligule 7–9 mm; petiole 5–10 mm; leaf blade lanceolate or oblong-lanceolate, 25–
35 × 6–8 cm, glabrous, base cuneate, apex caudate-acuminate. Spikes ovoid, 6–8 cm; peduncle 5–7 cm, scalelike sheaths imbricate, proximal ones smaller than distal ones; rachis yellow tomentose; bracteoles brown, tubular, 2–2.5 cm, split nearly to base on 1 side. Calyx red, ca. 2.5 cm, apex 2-cleft. Corolla tube equaling calyx; lobes apricot yellow, conspicuously red veined, 2–3 cm. Lateral staminodes subulate. Labellum apricot yellow with purple veins and spots, obovate, 2.5–3 cm, margin cristate, apex 2-cleft. Connective appendage semiorbiculare, spreading laterally, ca. 5 mm × 1 cm. Capsule red, globose or ellipsoid, ca. 2.5 cm in diam., yellow tomentose, with branched, fleshy spines 3–6 mm. Fl. May–Jun, fr. Jun–Sep.

Dense forests; 300–1000 m. Guangdong, Guangxi [Philippines].

Medicinal.


九翅豆蔻 jiu chi dou kou

Plants 2–3 m tall. Ligule pale yellow-green, oblong, 2-cleft, 1.2–2 cm, sparsely white pubescent; pediole absent to 8 cm; leaf blade oblong or long elliptic, 30–90 × 10–20 cm, adaxially glabrous, abaxially white villous, base attenuate, decurrent, apex caudate. Spikes subglobose, ca. 5 cm in diam.; bracts brownish, 2.5–2.5 cm, pubescent, deciduous. Calyx pale purple spotted adaxially, ca. 2.3 cm, apex 3-toothed; teeth lanceolate, ca. 5 mm. Corolla tube slightly longer than calyx; lobes white, oblong. Labellum white, yellow on each side of midvein, red striate at base, ovate, ca. 3.5 cm, apex slightly revolute, entire. Filament short; anther linear, 1–1.2 cm; connective appendage yellowish, crescent-shaped, apex slightly revolute. Capsule purple-green, ovoid, 2.5–3 × 1.8–2.4 cm, 9-winged, white pubescent; pedicel 7–10 mm. Fl. May–Jun, fr. Jun–Aug.

Forests; 400–800 m. Guangdong, Guangxi, S Xizang, Yunnan [Indonesia].

Medicinal.

29. Amomum dealbatum Roxburgh, Fl. Ind. 1: 42. 1820.

长果砂仁 chang guo sha ren

Plants 1–3.5 m tall. Ligule orbicular, 2-cleft, 0.4–1.6 cm, rusty villous; pediole 0.5–3 cm; leaf blade adaxially bright green, abaxially whitish, oblong-lanceolate, 50–70 × 5.5–14 cm, adaxially glabrous, abaxially brownish pubescent, base cuneate, apex acuminate. Spikes subglobose, 3–5 cm in diam.; peduncle 2–8 cm; bracts reddish, ovate, ca. 2.5 cm. Calyx 3-lobed at apex; lobes 2-lobed. Corolla tube white, ca. 2.5 cm; lobes white, lanceolate, equaling tube. Lateral staminodes subulate, ca. 2 mm. Labellum white with yellow line along center and radiate, red veins, elliptic, ca. 2.5 cm, apex emarginate. Filament ca. 5 mm; anther ca. 2 mm; connective appendage elliptic, ca. 3 mm. Capsule purple-green, ellipsoid, 2.5–3 × 1–1.2 cm, with 9 crenulate-winged ribs, indehiscent; pedicel 1–2 cm. Fl. May–Jun, fr. Jun–Sep.

Shady forests, hill slopes; 600–800 m. Yunnan [Bangladesh, India, Nepal, Sikkim, Thailand].


蒙自砂仁 meng zi sha ren

Ligule 2-cleft, ca. 1.1 cm, membranous, glabrous, lobes rounded at apex; pediole ca. 16 cm; leaf blade adaxially green, abaxially pale green, oblong, 70–100 × 12–15 cm, adaxially glabrous, abaxially densely pubescent, lateral veins white when dry, base cuneate, apex acuminate. Flowers unknown. Inflorescence paniculate; peduncle 30–40 cm, scalelike sheaths oblong, ca. 2.7 × 1 cm, apex mucronate. Capsule ellipsoid, 2.5–3.2 × 1.5–1.7 cm, 9-winged, sparsely villous, apex with persistent calyx; pedicel ca. 5 mm. Fr. May.

• S Yunnan.


头花砂仁 tou hua sha ren

Plants 1.5–2 m tall. Leaf sheath green, glabrous; ligule 2-lobed, 1–1.4 cm, leathery, pubescent; pediole 12–35 cm, glabrous; leaf blade lanceolate, 60–100 × 16–18 cm, adaxially glabrous, abaxially densely silvery sericeous, base attenuate, apex shortly acuminate. Spikes 1 or 2, subcapitate, 5.5–7 × 4–6 cm; peduncle 5–12 cm, scalelike sheaths glabrous; bracts 2- or 3-flowered, early deciduous together with bracteoles. Calyx red, ca. 2.4 cm × 5 mm, pubescent, apex 3-toothed. Corolla tube red, ca. 2.2 cm × 3–4 mm, glabrous; lobes striped with purple-red, lanceolate, central one ca. 3.2 cm × 7 mm, apex cornicate, lateral ones obtuse at apex. Lateral staminodes yellow, linear, 4–6 mm. Labellum yellow with purple-red stripes at center, elliptic, 4–4.4 × 2.2–2.5 cm, margin crisped. Filament yellow, ca. 1.5 cm; anther light red, ca. 1.2 cm; connective appendage light red, 2.0 cm, × 7 mm. Ovary ca. 6 mm, densely pubescent. Capsule purple-red, ellipsoid, 2.5–2.8 × 1.5–1.8 cm, 9-winged, apex with persistent calyx; wings crisped. Fr. Oct.

• Forests; ca. 900 m. W Yunnan (Yingjiang Xian).


宽丝豆蔻 kuan si dou kou


Plants 1–1.5 m tall, base with red sheaths. Leaf sheath longitudinally striate; ligule oblong, ca. 1 cm, apex emarginate; pediole 2–9 cm; leaf blade abaxially green, adaxially purple-red or light green, elliptic or lanceolate, 40–60 × 9–14 cm, glabrous, base cuneate or narrowly so, apex acuminate or shortly so. Spikes with 5–6 cm long peduncle, scalelike sheaths red with yellow-green margin; bracts ovate-elliptic, 3.4–3.6 × 3–3.2 cm; bracteoles red, tubular, ca. 2.2 cm, apex 3-toothed. Corolla tube equaling calyx, densely white pubescent; lobes narrowly elliptic, 1.4–1.5 cm × 4–5 mm. Lateral staminodes absent. Labellum yellow at apex, ovoblate, margin crisped. Filament red at base, bright red at middle, orange distally, broad, apex acuminate; anther attached to middle of filament. Ovary pale red, 3-loculed. Style white, linear. Styletides clavate. Capsule red, hemispheric, 1.9–2 cm in diam., apex prolonged into wings, with persistent calyx. Seeds black, arillate. Fl. May–Jun.

• Forests; 500–600 m. S Yunnan (Mengla Xian).

33. 


腐花豆蔻  fu hua dou kou

Plants 70–120 cm tall. Leaves 5 or 6; ligule entire, 0.7–1.5 cm; petiole 5–23 cm, adaxially grooved; leaf blade ovate on proximal leaves, oblong to lanceolate on distal ones, 25–100 × 10–20 cm, glabrous, base obliquely cuneate, apex acute. Spikes ovoid, 50–60-flowered; peduncle 12–32 cm, scalelike sheaths ovate-deltoid or ovate-oblong, 0.5–8 cm; bracts ovate-deltoid, ca. 5 × 3.5 cm, 3- or 4-flowered, soon decaying, apex mucronate; bracteoles 2.5–3 cm, split to base, soon decaying. Flowers yellow. Calyx ca. 2 cm, slightly split on 1 side, apex 3-toothed. Corolla tube ca. 1.6 cm; lobes oblong, 1.7–2 cm. Lateral staminodes red, toothlike, ca. 3 mm. Labellum cuneate, ca. 2.8 × 2.2 cm, apex emarginate, mucronate. Anther ca. 1.7 cm; connective appendage slightly 3-lobed, 4–5 mm × ca. 1.5 cm, apex toothed. Ovary glabrous. Capsule oblong-ovoid, ca. 2.9 × 2.5 cm, glabrous, 9-winged, apex with persistent calyx. Seeds ca. 3 mm, enclosed by white aril. $2n = 48^*$.  

• Forests; ca. 300 m. S Guangxi (Dongxing Xian).

云南豆蔻  yun nan dou kou

Plants ca. 1 m tall. Leaves 2 or 3; leaf sheath glabrous, roughly striate and reticulate; ligule 2-lobed, ca. 1.2 cm, fragile; petiole 7–25 cm; leaf blade oblong or lanceolate, 20–40 × 7–15 cm, glabrous, base attenuate, apex acuminate. Spikes ca. 3 cm in diam.; peduncle ca. 7 cm, scalelike sheaths imbricate, ca. 1.2 cm; bracts lanceolate, ca. 1.4 cm × 5–7 mm, whitish pubescent, 2-flowered; bracteoles enclosing calyx, tubular, pubescent. Flowers white. Calyx 3-toothed at apex. Corolla tube glabrous; lobes lanceolate. Lateral staminodes conical, very small. Labellum slightly 3-lobed, 2.5–3 × 1.7–2.5 cm, base contracted into claw, middle lobe emarginate at apex. Anther 7–8 mm; connective appendage entire or equally 3-lobed. Ovary cylindric, villous, 9-ribbed. Capsule globose, ca. 1.3 mm in diam., 9-ribbed. Fr. May. $2n = 48^*$.  

S Yunnan [Cambodia, Thailand].