

Chapter 2

Medicinal Angiosperms of Flacourtiaceae, Tamaricaceae, Passifloraceae, and Cucurbitaceae



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This chapter introduces 31 species of medicinal plants in four families, mainly including *Flacourtia rukam*, *Xylosma controversa* of Flacourtiaceae, *Tamarix*

chinensis of Tamaricaceae, *Adenia chevalieri*, *Passiflora foetida*, *Passiflora kwangtungensis* of Passifloraceae, *Actinostemma tenerum*, *Benincasa hispida*, *Luffa aegyptiaca*, *Thladiantha longifolia*, *Trichosanthes kirilowii*, and *Zehneria indica* of Cucurbitaceae.

This chapter introduces the scientific names, medicinal names, morphologies, habitats, distributions, acquisition and processing methods of these medicinal plants, the content of medicinal properties, therapeutic effects, and usage and dosage of these medicinal plants and attaches unedited colored pictures and pictures of partial herbal medicines of each species.

2.1 Family: Flacourtiaceae

2.1.1 *Flacourtia rukam*

Chinese Name(s): da ye ci li mu, shan zhuang, niu ya guo, luo geng mei

Source: This medicine is made of the fruitlets and leaves of *Flacourtia rukam* (*Flacourtia rukam* Zoll. et Mor.).

Morphology: The tree is up to 20 m. The leaves are subleathery, ovate-oblong or oval-oblong, 8–15 cm long, 4–7 cm wide, apically acuminate to acute, basally round to wide cuneate, dark green adaxially, and light green abaxially, with margins being obtuse dentate. The midvein raises abaxially and sinks adaxially. The lateral veins are five to seven in pairs and oblique, with veinlets being parallel to each other. The petioles are 6–8 mm long, glabrous, or rusty puberulous. The flowers are small and yellowish green. The inflorescences are axillary, racemose, 0.5–1 cm, ovoid or terminal panicles consisting of racemes, and puberulous. The pedicels are 3–4 mm long. There are four to five sepals, which are ovate, slightly connate at base, and sparsely pubescent on both sides. The petals are absent. Staminate flowers: stamens are numerous, filaments are 3–4 mm long, and anthers are small and yellow. The disks are fleshy, orange to yellowish, and eight-lobed. Pistillate flowers: disks are discoid. The ovaries are ovary bottle-shaped. There are four to six lateral membranous placentas, with two ovules in each placenta. There are four to six styles. The stigmas are two-lobed. The staminodes occasionally present. The berries are spherical to oblate or ovoid, 2–2.5 cm in diameter, and four- to six-grooved or four- to six-ridged after drying. The pedicels are 5–8 mm long, bright green to pink or purple green to deep red, and pulp white, with persistent style on apex. There are about 12 seeds. The flowering period is from April to May and fruiting from June to October.

Habitat: It grows in the valley forests.

Distribution: It's distributed in provinces of Hong Kong, Guangdong, Hainan, and Guangxi, as well as in Central South Peninsula and Malaysia to Philippines.

Acquisition and Processing: It's harvested in summer. The fruitlets are dried in the sun, and the leaves are used freshly.

Natural Taste and Meridian Tropism: It's slightly astringent and bitter in taste and neutral in property.

Functions: The fruitlets function in arresting diarrhea and are often used in treatment of chronic diarrhea. The leaves are often used in ophthalmitis.

Use and Dosage: 9–12 g per dose, decocted in water for oral use.





2.2 Family: Flacourtiaceae

2.2.1 *Hydnocarpus hainanensis*

Chinese Name(s): hai nan da feng zi, long jiao, gao gen, wu ke zi

Source: This medicine is made of the seeds of *Hydnocarpus hainanensis* (*Hydnocarpus hainanensis* (Merr.) Sleum.).

Morphology: The tree is evergreen and 6–9 m tall. The barks are grayish brown. The branchlets are cylindrical and glabrous. The leaves are thin leathery, oblong, 9–13 cm long, 3–5 cm wide, apically short acuminate, obtuse, and basally cuneate, with margins being irregular shallow serrulate and both surfaces being glabrous and subidentical in color. The lateral veins are seven to eight in pairs, with reticulate veins being obvious. The petioles are about 1.5 cm long and glabrous. The inflorescences are axillary or subterminal and 1.5–2.5 cm long. The flowers are unisexual, 15–20 in much condensed shortly pedunculate cymes. The pedicels are short, 8–15 mm long, and glabrous. There are four sepals, which are elliptic, 4 mm in diameter, and glabrous, and four petals, which are reniform-ovate, 2–2.5 mm long, and 3–3.5 mm wide, with margins being ciliate, inner base being thickly scaled, and scales being irregularly four to six dentate and villous. Staminate flowers: there are about 12 stamens. The filaments are thick at base and sparsely pubescent. The anthers are sagittate and 1.5–2 mm. Pistillate flowers: there are about 15 staminodes. The ovaries are oval-shaped and densely yellow-brown villous, with one locule and five lateral membranous placentae. The ovules are numerous. The styles are absent. The stigmas are three-lobed, with lobes being triangular, and apically two-lobed. The berries are spherical, 4–5 cm in diameter, densely brown pubescent, and leathery, with stout pedicels of 6–7 mm. There are about 20 seeds, which are ca.

1.5 cm in length. The flowering period is from late spring to summer. The fruiting is from summer to autumn.

Habitat: It grows in low-altitude forests.

Distribution: It is distributed in provinces of Hainan and Guangxi, as well as in Vietnam.

Acquisition and Processing: It's harvested in summer. The seeds are collected and dried in the sun.

Natural Taste and Meridian Tropism: It's slightly pungent in taste, hot in property, and toxic.

Functions: Dispelling pathogenic wind and dampness, killing parasites, and stopping itching; it's often used in treatment of leprosy, syphilis, sores, scabies, and cracks on the back of the hand.

Use and Dosage: For external use, proper amounts of seeds are ground into powder and applied to the affected areas. It's improper for patients of Yin deficiency to use this medicine.





2.3 Family: Flacourtiaceae

2.3.1 *Idesia polycarpa*

Chinese Name(s): shan tong zi, shui dong gua

Source: This medicine is made of the fruits of *Idesia polycarpa* (*Idesia polycarpa* Maxim.).

Morphology: The tree is deciduous and up to 21 m tall. The leaves are thin leathery or thick papery, oval, oval cordate or broadly cordate, 13–18 cm long, and 12–15 cm wide, with apex being acuminate or caudate, base being usually cordate, and margins being serrate, glandular on apex, adaxially dark green, smooth and glabrous, abaxially white pruinose, and pubescent along the veins and in its axillary, especially at the base. It's usually five-veined from the base. The petioles are 6–12 cm long, with two to four purple flat glands at the lower part, and slightly

dilated at the base. The flowers are unisexual, dioecious or heterozygous, yellowish green, fragrant, without petals, and arranged in terminal drooping panicles. The pedicels are sparsely pubescent and 10–20 cm long or longer. The staminate flowers are slightly larger than pistillate flowers and about 1.2 cm in diameter. There are three to six sepals, which are long ovate, about 6 mm in length, 3 mm in width, and densely hairy. The anthers are elliptic, with degenerated ovaries. The pistillate flowers are about 9 mm in diameter. There are three to six sepals, usually six, which are ovate, about 4 mm in length, 2.5 mm in width, densely hairy outside, and sparsely hairy inside. The ovaries are superior, globose, and glabrous. There are five or six styles. The stigmas are obovate. The berries are purple red, oblate-round, 3–5 mm high, and 5–7 mm in diameter, with width exceeding length. The pedicels are small and 0.6–2 cm long, and the seeds are red brown and round. The flowering period is from April to May, and fruiting is from October to November.

Habitat: It grows in sparsely forested valleys and roadsides.

Distribution: It is distributed in provinces of Guangxi, Hunan, Jiangxi, Sichuan, Yunnan, Shaanxi, Gansu, Henan, East China, and Taiwan, as well as in Japan and North Korea.

Acquisition and Processing: It's harvested in summer. The fruits are collected and dried in the sun.

Natural Taste and Meridian Tropism: It's bitter and astringent in taste and cool in property.

Functions: Clearing heat and dampness, scattering blood stasis, and stopping bleeding; it's often used in treatment of leprosy, neurodermatitis, rheumatism, enteritis, and tinea manus.

Use and Dosage: For external use, proper amounts of fruits are ground into powder and applied to the affected areas.





2.4 Family: Flacourtiaceae

2.4.1 *Xylosma controversa*

Chinese Name(s): nan ling zuo mu, da ye zuo mu, mi duo ji, niu huang ci

Source: This medicine is made of the roots and leaves of *Xylosma controversa* (*Xylosma controversum* Clos).

Morphology: The plant is an evergreen shrub or a small tree and 4–10 m in height. The barks are grayish brown and indehiscent. The branchlets are cylindrical and brown villous. The leaves are thin leathery, oval to oblong, 5–15 cm long, 3–6 cm wide, glabrous or sparsely pubescent along the main vein. The upper surfaces are dark green, brown after drying, glossy, and the lower surfaces are dense or sparsely pubescent, pale green. The apex of leaves are acuminate or acute, base are cuneate, and margins are serrated. The midvein raises abaxially and is impressed or

flat adaxially. The lateral veins are five to nine in pairs, arched-ascending, and conspicuous on both sides. The petioles are short, 0.7–1 cm long, glossy, and brown pubescent. The inflorescences are axillary, paniculate or racemelike, and many flowered. The pedicels are 1.5–3 cm long and brown pubescent. The pedicels are 2–3 mm long. The bracts are lanceolate and pubescent outside. The flowers are 4–5 mm in diameter. There are four sepals, which are ovate, 2.5 mm long, pubescent outside, and glabrous inside, with margins being ciliate and petals being absent. Staminate flowers: stamens are numerous, about 2 mm long, and inserted on the inner surface of the disk. The disks are eight-lobed. Pistillate flowers: ovaries are ovoid-globose, about 2 mm long, and glabrous, with one locule, two lateral membranous placentas, and two to three ovules on each placenta. The styles are slender and about 1.5 mm long. The stigmas are two-lobed. The berries are round and 3–5 mm in diameter, with styles being persistent. The flowering is from April to May, and fruiting is from August to September.

Habitat: It grows in mountain forests.

Distribution: It is distributed in provinces and regions in southeastern and southwestern China, as well as in China and India Peninsula and India.

Acquisition and Processing: It's harvested in autumn and winter; the roots and leaves are collected and dried in the sun.

Natural Taste and Meridian Tropism: It's pungent and sweet in taste and cold in property.

Functions: Clearing heat and cooling blood, scattering blood stasis, and diminishing swelling; it's often used in treatment of fractures, burns, scalds, traumatic bleeding, and hematemesis.

Use and Dosage: 9–12 g per dose, decocted in water for oral use. For external use, proper amounts of fresh roots and leaves are mashed and applied to the affected areas.





2.5 Family: Flacourtiaceae

2.5.1 *Xylosma longifolia*

Chinese Name(s): chang ye zuo mu, zuo shu, zuo mu pi

Source: This medicine is made of the root barks, stem barks, and leaves of *Xylosma longifolia* (*Xylosma longifolium* Clos).

Morphology: The plant is an evergreen small tree or a shrub and 4–7 m tall. The barks are grayish brown. The branchlets are spiny and glabrous. The leaves are leathery, long-round lanceolate or lanceolate, 5–12 cm long, 1.5–4 cm wide, glabrous on both sides, dark green and lustrous adaxially, pale green abaxially, and gray brown after drying, with apex being acuminate, base being broad cuneate, and margins being serrated. The lateral veins are six to seven in pairs, raised on both surfaces. The petioles are 5–8 cm long. The flowers are small and light green. The inflorescence of short racemes or reduced panicles is borne singly or in condensed clusters in leaf axils and 1–2 cm long. The pedicels and pedicels are glabrous or subglabrous. The bracts are small and ovate. The flowers are 2.5–3.5 mm in diameter. There are four to five sepals, which are ovate or lanceolate, 2–4 mm long, puberulous outside, and glabrous inside, with petals being absent. Staminate flowers: stamens are mostly in the inner surface of the disk, filamentous, and about 4.5 mm long, with anthers being round and flower disks being eight-cleft. Pistillate flowers: ovaries are ovoid and 3.5–4 mm long, with one locule, two lateral membranous placentas, and two to three ovules on each placenta. The styles are very short. The stigmas are two-lobed. The berries are globular, black, 4–6 mm in diameter, and glabrous. There are two to five seeds. The flowering period is from April to May, and fruiting is from June to October.

Habitat: It grows in roadsides, valleys, or dry shrubs.

Distribution: It is distributed in provinces of Fujian, Guangdong, Hainan, Guangxi, and Yunnan.

Acquisition and Processing: It's harvested in summer and autumn. The velamina, leaves, and stem barks are collected and dried in the sun.

Natural Taste and Meridian Tropism: It's bitter and astringent in taste and cold in property.

Functions: Clearing heat and dampness, scattering blood stasis and stopping bleeding, diminishing swelling, and killing pain; the velamina and stem barks are often used in treatment of jaundice, edema, and missed abortion. The roots and leaves are often used in treatment of bruise and swellings, fractures, dislocations, and traumatic bleeding.

Use and Dosage: 9–12 g per dose, decocted in water for oral use. For external use, proper amounts of medicine are mashed and applied to the affected areas. Or the leaves are added with 35% ethanol, made into 30% liniment for external liniment or wet application.



2.6 Family: Flacourtiaceae

2.6.1 *Xylosma racemosum*

Chinese Name(s): zuo mu, zao zi shu, meng zi shu

Source: This medicine is made of the velamina, stem barks, and leaves of *Xylosma racemosum* (*Xylosma racemosum* (Sieb. et Zucc.) Miq. [*X. japonica* (Walp.) A .Gray]).

Morphology: The plant is an evergreen shrub or a small tree and 4–15 m in height. Its barks are brown gray and irregularly rolled upward from the bottom into small pieces, and lobes are rolled upward. The branches are spiny when young and unarmed when old. The leaves are thin leathery, with females being slightly different from males. The leaves of female plants vary from rhombic ellipse to oval ellipse, 4–8 cm long, and 2.5–3.5 cm wide, with apex being acuminate, base being cuneate or round, margins being serrated, and both surfaces being glabrous or scarcely pubescent along midveins near the base. The petioles are short, about 2 mm long, and shortly pubescent. The flowers are small. The inflorescences are axillary, racemose, short, and 0.5–2 cm. The pedicels are very short and about 3 mm long. There are four to six sepals, which are oval, 2.5–3.5 mm long, and pubescent outside. The petals are absent. Staminate flowers: stamen filaments are long and about 4.5 mm in length. The anthers are elliptic and innate. The disks are composed of many glands, surrounding stamens. Pistillate flowers: sepals of pistillate flowers are similar to staminate flowers. The ovaries are elliptic, glabrous, and about 4.5 mm long, with one locule. There are two lateral membranous placentas. The styles are short. The stigmas are two-cleft. The disks are round, with margins being slightly undulate. The berries are black, globular, with persistent styles at the apex, and 4–5 mm in diameter. There are two to three seeds, which are oval, 2–3 mm in length, green when fresh, and brown when dry, with black stripes. The flowering period is in spring. The fruiting period is in winter.

Habitat: It grows in wastelands or hilly shrubs near villages.

Distribution: It is distributed in provinces of Guangxi, Hunan, Fujian, Jiangxi, Anhui, Hubei, and Sichuan, as well as in Japan and North Korea.

Acquisition and Processing: It's harvested in summer and autumn. The root barks, leaves, and stem barks are collected and dried in the sun.

Natural Taste and Meridian Tropism: It's bitter and astringent in taste and cold in property.

Functions: Clearing heat and dampness, scattering blood stasis and stopping bleeding, diminishing swelling, and killing pain; the velamina and stem barks are often used in treatment of jaundice, edema, and missed abortion. The roots and leaves are often used in treatment of bruise and swellings, fractures, dislocations, and traumatic bleeding.

Use and Dosage: 9–12 g per dose, decocted in water for oral use. For external use, proper amounts of medicine are mashed and applied to the affected areas. Or the leaves are added with 35% ethanol, made into 30% liniment for external liniment or wet application.



2.7 Family: Tamaricaceae

2.7.1 *Tamarix chinensis*

Chinese Name(s): guai liu, xi he liu, xi hu liu

Source: This medicine is made of the branchlets and leaves of *Tamarix chinensis* (*Tamarix chinensis* Lour.).

Morphology: The plant is a shrub or small tree. The branchlets are slender, dense, and pendulous. The leaves are brightly green. Those on the vegetative branches growing on the old branches are oblong-lanceolate or narrowly ovate, 1.5–1.8 mm long, slightly spreading, acute at apex, abaxially carinate at the base, and membranous. The leaves on the upper green vegetative branches are subulate or ovate-lanceolate, semi-adnate, acuminate at the apex as well as introflexed, attenuate at the base, 1–3 mm long, and abaxially carinate. The flowers bloom two or three times per year, in spring. The inflorescences are racemose, borne laterally on the ligneous branchlets of the previous year, 3–6 cm long, and 5–7 mm wide. The flowers are few, big, and lax. The flowers and branchlets are both pendulous. The peduncles are slender, and the calyxes are short. The flowers are five-merous. There are five calyx lobes and five petals which are pink, usually ovate-elliptic or elliptic-obovate, rarely ovate, 2 mm long, slightly longer than the calyxes, and persistent in the fruiting period. The disks are five-lobed, and the lobes are rounded or slightly retuse apically, purple red, and fleshy. There are five stamens, which are equal to the pedals in length or slightly longer than them. The filaments are borne between the lobes of the disks, from lower parts close to margins. The ovaries are conic, and there are three styles which are clavate and about half long as the ovaries. The capsules are conic. The flowering period is between March and September.

Habitat: It grows in saline-alkali soils in coastal regions.

Distribution: It is cultivated in provinces in northern China and in the middle and lower reaches of the Yangtze River. It also grows in the wild or is cultivated in southern China provinces like Guangxi and Yunnan.

Acquisition and Processing: It is collected in summer and autumn. The branchlets and leaves are dried after collecting.

Natural Taste and Meridian Tropism: It is sweet in taste and neutral in nature.

Functions: Inducing perspiration, promoting eruption, detoxicating, and promoting diuresis; it is used to treat cold, measles without eruption, rheumatoid arthritis, and difficulty in micturition. When used externally, it treats rubella pruritus.

Use and Dosage: 3–9 g per dose, decocted in water to drink. For external use, wash the affected areas with the decoctum.

Prescription:

1. Clinical diagnosis and symptoms: Cold – *Tamarix chinensis* 9 g, mint 6 g, *Schizonepeta* 6 g, and ginger 3 g, decocted in water to drink.
2. Clinical diagnosis and symptoms: Measles without adequate eruption – *Tamarix chinensis*, coriander, *Lemna minor*, and cherry kernel (6 g each), decocted in water to drink.







2.8 Family: Passifloraceae

2.8.1 *Adenia chevalieri*

Chinese Name(s): shuo lian, yun long dang, guo shan shen

Source: This medicine is made of the roots of *Adenia chevalieri* (*Adenia chevalieri* Gagnep.).

Morphology: The plant is a liana. The leaves are papery, broadly ovate or ovate-oblong, 7–15 cm long, 8–12 cm wide, shortly acuminate at the apex, and rounded or shortly cuneate at the base. The margins are entire, three-lobed, and glabrous. The veins are pinnate. There are four to five pairs of the lateral veins, and the reticulate veins are horizontal and conspicuous. Of the three lobes, the middle one is ovate, and the side ones are narrower. The petioles are 4–7 cm long and glabrous, and there are two discoid glands between the apex and the base. The inflorescences are cymose and one- to two-flowered, and the peduncles are 6 cm. The bracts are scaly and tiny. The flowers are simple. The pedicels of the staminate flowers are 8–10 mm long, and the calyxes are tubular, 9–12 mm long, and five-lobed apically. The lobes are small, broadly triangular, and 0.5 mm long. There are five petals which are lanceolate and 0.6 mm long, with three veins which grow from the base of the calyx tubes and five appendages. There are five stamens, and the filaments are very short. The anthers are acuminate apically, and the ovaries are reduced, without ovules and with short stems. The pistillate flowers are bigger than the staminate ones. Their calyx tubes are 8–9 mm long, and the lobes are triangular and 1–1.5 mm long and wide. There are five petals which are lanceolate or elliptic, 5 mm long, borne from the base of the calyxes, and equally tall as or slightly taller than the calyx lobes. There are five membranous appendages at the base of the calyx lobes which are oblong. The ovaries are elliptic-globose, with stems and three stout stigmas. The capsules are clavate, 8–12 cm long, and red when mature. The flowering period is between January and July, and the fruiting period is between August and October.

Habitat: It grows in open forests in valleys or near forests, usually climbing on trees or in thickets.

Distribution: It is found in Guangdong, Hong Kong, Hainan, and southern Guangxi.

Acquisition and Processing: It is collected in summer and autumn. The roots are dried after collecting.

Natural Taste and Meridian Tropism: It is sweet and slightly bitter in taste and cold in nature.

Functions: This medicine functions in nourishing and strengthening the body, relieving rheumatic pains, and smoothing meridians and collateral channels.

Use and Dosage: 15–30 g per dose, decocted in water to drink.





2.9 Family: Passifloraceae

2.9.1 *Passiflora caerulea*

Chinese Name(s): xi fan lian, zhuan xin lian, zhuan zi lian

Source: This medicine is made of the roots, vines, and fruits of *Passiflora caerulea* (*Passiflora caerulea* Linn.).

Morphology: The vine is cylindrical and slightly angulate. The leaf blades are papery, 5–7 cm long, 6–8 cm wide, and cordate at the base, with five deep palmate lobes. The petioles are 2–3 cm long, with two to four small glands in the middle. The stipules are big, reniform, amplexicaul, and 1.2 cm long, with serrated margins. The cymose inflorescences are reduced to only one flower which is opposite to the tendrils. The flowers are big, greenish, and 6–8 cm in diameter. The pedicels are

3–4 cm long, and the bracts are broadly ovate and 3 cm long, with entire margins. There are five sepals which are 3–4.5 cm long, greenish on the outside, and white on the inside, with an angular appendage at the apex on the outside. There are five petals which are greenish and nearly as long as the sepals. The outer corona lobes are in three series and filamentous. The outer and middle series are 1–1.5 mm long, the apex of which is brightly blue, while the middle part is white and basal part purplish red. The inner series are filiform and 1–2 mm long, with a purple-red head, and the lower part is greenish. The inner corona lobes are fimbriate, with purple lobes which have dense glandular circles at the base. The disks are 1–2 mm tall. The androgynophores are 8–10 mm long. There are five stamens, and the filaments are free, 1 cm long, and oblate. The anthers are oblong and 1.3 cm long, and the ovaries are ovoid-globose. There are three styles which are free, purple red, and 1.6 cm long. The stipules are reniform. The berries are ovoid-globose to subglobose, 6 cm long, and orange yellow or yellow when ripe. The flowering period is between May and October.

Habitat: It is cultivated.

Distribution: Originally from South America, it is now commonly cultivated in subtropical areas in China.

Acquisition and Processing: It is collected in summer and autumn. The roots, vines, and fruits are dried after collecting.

Natural Taste and Meridian Tropism: It is bitter in taste and warm in nature.

Functions: Dispelling pathogenic wind and dampness, activating blood circulation, and relieving pains; it is used to treat rheumatic pains, colic, and dysmenorrhea. When used externally, it treats bone fractures.

Use and Dosage: 15–24 g per dose, decocted in water to drink. For external use, mash up appropriate amounts of fresh plant mixed up with alcohol and apply to the affected areas.





2.10 Family: Passifloraceae

2.10.1 *Passiflora cupiformis*

Chinese Name(s): bei ye xi fan lian, ban jie ye, yan wei cao, yang ti an xiao, hu die an xiao, ma ti an xiao

Source: This medicine is made of the roots or whole plant of *Passiflora cupiformis* (*Passiflora cupiformis* Mast.).

Morphology: The plants are lianas which are 6 cm long. The stems are gradually glabrous. The leaf blades are stiffly papery, 6–12 cm long, 4–10 cm wide, obtuse at the apex to two-lobed, and rounded to cordate at the base. The adaxial surface is

glabrous, and the abaxial surface is sparsely appressed setose, with 6–25 glands. The lobes are 3–8 cm long, rounded, or sub-obtuse apically. The petioles are 3–7 cm long and sparsely puberulent, with two discoid glands on basal one-eighth to one-fourth. The inflorescences are nearly sessile, with five or more flowers, and brown puberulent. The peduncles are 2–3 cm long, and the flowers are white and 1.5–2 cm in diameter. There are five sepals which are 8–10 mm long, usually with one apical gland or a 1-mm-long angulate appendage, and puberulent. The petals are 7–8.5 mm long. The outer corona lobes are in two series and filiform, with the outer series being 8–9 mm long and the inner one 2–3 mm long. The inner corona is pleated and 1.5 mm tall, with disks which are 1/4 mm tall. The androgynophores are 3–5 mm long. There are five stamens, with free filaments, which are 4.5–6 mm long, and the anthers are rounded and 2.5 mm long. The ovaries are subovate-globose, sessile, 2 mm long, and glabrous. There are three styles which are free and 4 mm long. The berries are globose, 1–1.6 cm in diameter, purple when mature, and glabrous. There are numerous seeds, which are triangular elliptic, 5 mm long, oblate, and dark brown. The flowering period is in April, and the fruiting period is in September.

Habitat: It grows among grass on the roadsides and in thickets of the gullies.

Distribution: It is found in Guangdong, Guangxi, Guizhou, and Sichuan provinces. It is also seen in Vietnam.

Acquisition and Processing: It is collected in summer and autumn. The plants are dried as a whole, or the roots are dried.

Natural Taste and Meridian Tropism: It is sweet and slightly astringent in taste and neutral in nature.

Functions: Activating blood circulation, removing blood stasis, and detoxicating; it is used to treat pneumonopathy, bruises, and snake bites. The leaves are used to treat measles and scabies.

Use and Dosage: 10–15 g per dose, decocted in water to drink.





2.11 Family: Passifloraceae

2.11.1 *Passiflora foetida*

Chinese Name(s): long zhu guo, long xu guo

Source: This medicine is made of the whole plant of *Passiflora foetida* (*Passiflora foetida* Linn.).

Morphology: The plants are herbaceous vines. The leaves are membranous, broadly ovate to oblong-ovate, 4.5–13 cm long, 4–12 cm wide, three-lobed at the apex, cordate at the base, with irregularly serrated margins, strigose, and with glandular trichomes. The abaxial surface of the leaf is puberulent, with many small glands, and the veins are pinnate. There are four to five pairs of the lateral veins, and the reticulate veins are horizontal. The petioles are 2–6 cm long and densely pilose, with glandular trichomes and without glands. The stipules are half-amplexicaul and deeply lobed, with glandular trichomes at the apex of the lobes. The inflorescences are reduced to only one flower which is opposite to the tendrils. The flowers are white or purplish, with white spots, and 2–3 cm in diameter. There are three bracts, which are one- or three-pinnatifid. The lobes are filiform and glandularly ciliated apically. There are five sepals which are 1.5 cm long, with a subapical angular appendage. There are five petals which are as long as the sepals. The outer corona lobes are in three to five series and filiform. The outer two series have lobes that are 4–5 mm long, and the inner three series have lobes that are 2.5 mm long. The inner coronas are not pleated, membranous, and 1–1.5 mm tall. There are disks which are cupular and 1–2 mm tall. The androgynophores are 5–7 mm long. There are five stamens, and the filaments are coherent at base and oblate. The anthers are oblong and 4 mm long ca. The ovaries are elliptic-globose, 6 mm long, with short stems, with sparse glandular trichomes, or glabrous. The berries are ovate-globose, 2–3 cm in diameter, and glabrous. The flowering period is from July to August, and the fruiting period is in April and May of the following year.

Habitat: It grows on wild grassy mountain slopes and thickets at altitudes ranging between 20 and 500 m.

Distribution: Originally from West Indies, it is now found in Hong Kong, Guangdong, Hainan, Yunnan, Guangxi, Fujian, and Taiwan in China.

Acquisition and Processing: It is collected in summer and autumn. The plants are dried as a whole after collecting.

Natural Taste and Meridian Tropism: It is sweet and sour in taste and neutral in nature and fragrant.

Functions: Clearing heat and cooling blood, moisturizing dryness syndrome, and removing phlegm; it is used to treat traumatic keratitis or conjunctivitis and lymphnoditis.

Use and Dosage: 9–21 g per dose, decocted in water to drink. For external use, mash up fresh plants to apply to the affected areas.





2.12 Family: Passifloraceae

2.12.1 *Passiflora kwangtungensis*

Chinese Name(s): guang dong xi fan lian

Source: This medicine is made of the whole plant of *Passiflora kwangtungensis* (*Passiflora kwangtungensis* Merr.).

Morphology: The plant is a herbaceous vine. The leaves are membranous, alternate, lanceolate to oblong-lanceolate, 6–13 cm long, 2–5 cm wide, narrowly acuminate at the apex, and cordate at the base. The margins are entire. The abaxial surface is inconspicuously pilose, without glands, with three basal veins, introflexed

secondary veins, and sparse inconspicuous reticulate veins. The petioles are 1–2 cm long, with two discoid glands in the upper and sub-middle parts. The inflorescences are without peduncles, grow in symmetric pairs from the sides of the slender tendrils, and are one- to two-flowered. The flowers are small, white, and 1.5–2 cm in diameter. There are five sepals which are membranous, narrowly oblong, 8–9 mm long, and 2.5 mm wide, with outer apex being with no angulate appendage. There are five petals which are similar to the sepals in size. The outer corona lobes are in one series which is filiform, 2–3 mm long, and subacute apically, and the inner coronas are pleated and 1.5 mm tall. The disks are 0.3 mm tall, and the androgynophores are 4.5 mm long and glabrous. There are five stamens, and the filaments are oblate and 3.5 mm long. The anthers are oblong and 2.5 mm long, and the ovaries are sessile, elliptic-globose, 2.5 mm long, sparsely pilose, and with scattered white glands. There are three styles, which are 3–4 mm long and retroflex. The stigmas are capitate. The berries are globose, 1–1.5 cm in diameter, and glabrous. There are many seeds which are ellipsoid, brownish yellow, 3 mm long ca., and oblate, with a pointed head at the apex. The flowering period is from March to May, and the fruiting period from June to July.

Habitat: It grows in open forests and thickets on mountains of altitudes ranging from 350 m to 880 m.

Distribution: It is found in Guangdong, Guangxi, Hunan, and Jiangxi provinces in China.

Acquisition and Processing: It is collected in summer and autumn. The plants are dried as a whole after collecting.

Natural Taste and Meridian Tropism: It is bitter in taste and cold in nature.

Functions: Clearing heat and detoxicating, removing dampness, and reducing swellings; it is used to treat furuncles, pyogenic infections, and eczema.

Use and Dosage: Mash up fresh plants or grind dry plants into powder to apply to the affected areas.





2.13 Family: Passifloraceae

2.13.1 *Passiflora moluccana* var. *teysmanniana*

Chinese Name(s): she wang teng, shuang mu ling, zhi she ling

Source: This medicine is made of the whole plant of *Passiflora moluccana* var. *teysmanniana* (*Passiflora moluccana* Reiw. ex Bl. var. *teysmanniana* (Miq.) de Willd.).

Morphology: The plant is a herbaceous vine, which is up to 6 m long. The leaves are leathery, linear, linear-oblong or elliptic, 4–14 cm long, 1–6 cm wide, rounded at the apex, and subcordate at the base. The adaxial surface is glabrous, and the

abaxial surface is densely puberulent, with four to six glands. The veins are pinnate, with five to six pairs of lateral veins, which are distinct, and the reticulations are not conspicuous. The petioles are 7–15 mm long, with two glands at the base of the leaves. The inflorescences are cymose, nearly sessile, solitarily borne between the tendrils and the petioles, and one- to two-flowered. The bracts are linear, and the pedicels are 2.5–4.5 cm long. The flowers are white and 3.5–5 cm in diameter. There are five sepals, which are 1.5–2 cm long, puberulent, and without angulate appendage at the apex on the outside. There are five petals which are 1.6 cm long. The outer corona lobes are in two series and filiform, and the outer series are 1–1.5 cm long, while the inner ones are 1–3 mm long. The inner coronas are pleated and 1.5–2 cm tall. The disks are 0.5 mm tall. There are five stamens, and the filaments are 6–10 mm long, oblate, and free. The anthers are oblong and 5 mm long, and the ovaries are densely puberulent and globose. There are three styles which are retroflexed. The berries are subglobose, 1.5–2.5 cm in diameter, and nearly glabrous. The seeds are numerous, triangular-elliptic, and dark yellow.

Habitat: It grows in valley forests or mountain thickets, typically climbing on other trees.

Distribution: It is found in Guangxi, Guangdong, and Hainan provinces in China.

Acquisition and Processing: It is collected in summer and autumn. The plants are dried as a whole after collecting.

Natural Taste and Meridian Tropism: It is pungent and bitter in taste and cold in property.

Functions: This medicine functions to clear heat, detoxify, reduce swelling, and relieve pain. It is used to treat snake bite and gastric and duodenal ulcers. When used externally, it treats panaris and furuncles.

Use and Dosage: 9–30 g per dose, decocted in water to drink. For external use, mash up fresh leaves to apply to the affected areas. For treating snake bites, take in the medicine and apply it to areas around the bite.





2.14 Family: Cucurbitaceae

2.14.1 *Actinostemma tenerum*

Chinese Name(s): he zi cao, huang si teng, hu lou ke zi, tian qiu cao

Source: This medicine is made of the whole plant of *Actinostemma tenerum* (*Actinostemma tenerum* Griff.).

Morphology: The plant is a tender herbaceous vine. The petioles are slender, 2–6 cm long, and puberulent. The leaf blades are various, cordate-sagittate, cordate narrowly ovate, lobeless or three- to five-lobed, with minutely denticulate or coarsely serrated margins, semicircular, and with oblong or deeply cordate sinuses at base. The lobes are narrowly triangular at the apex, slightly obtuse or acuminate at the base, with a pointed head, scatteredly verruculose on both surfaces, 3–12 cm long, and 2–8 cm wide. The tendrils are slender and bifurcate. The staminate inflorescences are racemose and sometimes paniculate. The small inflorescences have 6-mm-long leaflike three-lobed bracts and sometimes one to three flowers grown from the reduced peduncles. The rachises are thin and fragile, 1–13 cm long, and puberulent. The bracts are linear, 3 mm long, densely puberulent, and 3–12 mm long. The calyx lobes are linear or lanceolate, with sparsely dentated margins, 2–3 mm long, and 0.5–1 mm wide. The corolla lobes are lanceolate. There are five stamens, and the filaments are puberulent or glabrous, 0.5 mm long, and 0.5–1 mm wide. The connectives extend beyond the anthers and are mammilliform. The pistillate flowers are solitary, gemel, or monoecious. The pistillate flowers have nodes and are 4–8 cm long, with the same calyxes and corollas as the staminate flowers. The ovaries are ovate and verruculose. The fruits are green, ovate, broadly ovate, oblong-elliptic, 1.6–2.5 cm long, 1–2 cm in diameter, and with two to four seeds. The flowering period is from July to September, and the fruiting period is from September to November.

Habitat: It grows near water, among thick grass, or on roadsides.

Distribution: It is found in most parts of China and also in south, southeast, and east Asia.

Acquisition and Processing: It is collected in summer and autumn. The plants are dried as a whole after collecting.

Natural Taste and Meridian Tropism: It is bitter in taste, cold in nature, and slightly poisonous.

Functions: Clearing heat and detoxicating, reducing swelling, and inducing diuresis; it is used to treat venomous snake bites, ascitic fluid, pustular sores, pemphigus, and malnutritional stagnation of children.

Use and Dosage: 9–15 g per dose, decocted in water to drink. For external use, decoct fresh plant in water to wash the affected areas with or mash it up to apply to the affected areas.





2.15 Family: Cucurbitaceae

2.15.1 *Benincasa hispida* [1]

Chinese Name(s): dong gua

Source: This medicine is made of the seeds and pericarps of *Benincasa hispida* (*Benincasa hispida* (Thunb.) Cogn.).

Morphology: The plant is a herbaceous vine. The leaves are reniform or suborbicular, 15–30 cm wide, shallowly five- to seven-lobed, or sometimes moderately lobed. The lobes are broadly triangular or ovate, acute at the apex, with dentate margins, and deeply cordate at the base. The adaxial surface of the leaf is dark green, slightly scabrous, and sparsely pilose, and the abaxial surface is scabrous, grayish white, and setose with densely puberulent veins. The petioles are stout and 5–2 cm long, with yellowish brown setae and long soft trichomes. The tendrils are bifurcate or trifurcate and setose or pilose. The flowers are monoecious. The flowers are solitary. The pedicels of the staminate flowers are 5–15 cm long, with a basal

bract which is ovate or broadly oblong, 6–10 mm long, acute apically, and pilose. The calyx tubes are campanulate, 12–15 mm wide, densely setose, or pilose. The lobes are lanceolate, 8–12 mm long, serrated, and retroflexed. The corollas are yellow and radial. The lobes are broadly obovate, 3–6 cm long, 2.5–3.5 cm wide, sparsely puberulent on both surfaces, obtuse apically, and five-veined. There are three stamens which are free, and the filaments are 2–3 mm long, inflated at the base, and puberulent. The anthers are 5 mm long and 7–10 cm wide. The anther cells are three-curved. The pedicels of the staminate flowers are less than 5 cm long, densely yellow-brown hispid, and villous. The ovaries are ovate or cylindrical, densely yellow-brown hispid, and 2–4 cm long. The fruits are narrowly cylindrical or subglobose, big, hispid and with white powder on the outside, 25–60 cm long, and 10–25 cm in diameter.

Habitat: It is cultivated.

Distribution: It is cultivated all around China. It is also found in tropical and subtropical Asia, Australia, and the Madagascar.

Acquisition and Processing: It is collected in autumn and winter. The seeds and pericarps are dried after collecting.

Natural Taste and Meridian Tropism: It is sweet in taste and slightly cold in nature.

Functions: The seeds function in clearing heat and reducing phlegm, relieving furuncles, and dissipating pus. The pericarps function in clearing heat and detoxicating, reducing swelling, and inducing diuresis. The seeds can be used to treat lung heat, cough, lung abscess, and appendicitis. The pericarps are used to treat edema, difficulty in micturition, and edema caused by acute nephritis.

Use and Dosage: 15–30 g per dose, decocted in water to drink.

Prescription: Clinical diagnosis and symptoms: Lung abscess – decoct *Benincasa hispida* seeds, rhizoma phragmitis, semen coicis (each 30 g), 15 g of honeysuckle, and 9 g of *Platycodon grandiflorus* in water to drink.





2.16 Family: Cucurbitaceae

2.16.1 *Gynostemma pentaphyllum*

Chinese Name(s): jiao gu lan, wu ye shen, qi ye dan, gan cha wan

Source: This medicine is made of the whole plant of *Gynostemma pentaphyllum* (*Gynostemma pentaphyllum* (Thunb.) Makino).

Morphology: This plant is a herbaceous vine. The stems are tender and puberulent, with spiral, bifurcate, or unifurcate tendrils. The leaves are alternate and pedate, with petioles which are 2–4 cm long. The leaves are five to seven foliolate, and the leaflets are ovate-oblong or oblong-lanceolate, 4–14 cm long, 1.5–4 cm wide, shortly acute at the apex, cuneate at the base, and with serrated margins. The flowers bloom in summer and autumn, and the flowers are small, yellow green, and simple. The flowers are dioecious, and the inflorescences are 10–30 cm long and axillary paniced. There are five calyx lobes which are triangular. The corollas are radial and deeply five-lobed, and the lobes are lanceolate. There are five stamens, growing from the base of the calyxes. The filaments are short and coherent basally. There are three styles, which are bifid apically. The capsules are globose, 5–8 mm in diameter, and black when mature. There are one to three seeds which are broadly ovate and verruculose on two sides.

Habitat: It grows near gullies, in valley forests, or in thickets.

Distribution: It is found in provinces along the Yangtze River and south of it. It is also seen in Japan, Vietnam, India, and Indonesia.

Acquisition and Processing: It is collected twice a year, in summer and early winter. The onground parts of the plants are cut off and dried.

Natural Taste and Meridian Tropism: It is sweet and bitter in taste and cold in nature. It belongs to the lungs and liver meridians.

Functions: Relieving cough and asthma, clearing heat and detoxicating, reducing blood fat levels, and slowing down aging; it is used to treat chronic bronchitis, lung heat, cough, hyperlipidemia, infectious hepatitis, pyelitis, and gastroenteritis.

Use and Dosage: 9–12 g per dose, decocted in water to drink.

Annotations: *Gynostemma pentaphyllum* contains various types of saponin, saccharides, pigments, etc. Some of the substances contained are similar to or the same as those of ginseng saponin. As such, it is often used in making tonic drinks and cosmetics.





2.17 Family: Cucurbitaceae

2.17.1 *Lagenaria siceraria*

Chinese Name(s): hu lu, chou hu lu, pu lu

Source: This medicine is made of the pericarp of the ripe fruits of *Lagenaria siceraria* (*Lagenaria siceraria* (Molina) Standl.).

Morphology: It is an annual climbing herb. The stems, branches, petioles, pedicels, and young fruits are pilose. There are bifurcated axillary tendrils. The leaves are large, cordate-ovate or reniform-ovate, 10–40 cm long and wide, slightly lobed or lobeless on the margins, acute at the apex, and with serrated margins and cordate at the base. The petioles are 5–30 cm long, with two apical glands. The flowers are simple and dioecious, one to two of which are axillary, with long pedicels. The calyx tubes are funnel-shaped and five-lobed. There are five petals which are white, broadly ovate or obovate, 3–4 cm long, and with wrinkled margins. The staminate flowers have three stamens, and the anther cells are curved. The pistillate flowers have oblong inferior ovaries, short styles, and three stigmas in each flower and are two-lobed, with lateral placentas. The pepos are big, pendulous, and shrinking in the middle when mature. The fruit shell is woody and stiff, with many white seeds inside. The flowering period is in summer, and the fruiting period in autumn.

Habitat: It is cultivated.

Distribution: It is cultivated all around China and also in temperate and tropical zones in other parts of the world.

Acquisition and Processing: It is collected in autumn. Pick the ripe fruits, remove the flesh and seeds, and dry the shells.

Medicinal Properties: It is gourd ladle-shaped, sometimes broken into pieces, 0.5–1.5 cm thick, yellowish brown on the outside, smooth and yellowish white or greyish white, and soft on the inside. It is light in weight, stiff, and yellowish white on the fracture surface. There is a faint smell with it, and it tastes bland. The yellowish brown and thick ones are of better quality.

Natural Taste and Meridian Tropism: It is sweet in taste and neutral in nature. It belongs to the spleen meridian.

Functions: Inducing diuresis and reducing swelling; it is used to treat edema, ascitic fluid, and cervical lymph node tuberculosis.

Use and Dosage: 15–30 g per dose, decocted in water to drink.

Prescription: For treating acute nephritis edema: (a) Old shells of *Lagenaria siceraria* fruit 15–30 g are decocted in water to drink, one dose a day. (b) *Lagenaria siceraria* are baked until it turns slightly brown and then ground into powder and mixed with boiled water to drink, 9 g per dose, two to three times a day.







2.18 Family: Cucurbitaceae

2.18.1 *Luffa acutangula* [2]

Chinese Name(s): guang dong si gua, leng jiao si gua

Source: This medicine is made of the vegetable sponges, vines, roots, and seeds of *Luffa acutangula* (*Luffa acutangula* (Linn.) Roxb.).

Morphology: It is an annual herbaceous vine. The tendrils are stout, often trifurcated, and puberulent. The petioles are thick, puberulent on the ridges, and 8–12 cm long. The leaf blades are suborbicular, membranous, 15–20 cm long and wide, and usually five- to seven-lobed, with the middle lobe being broadly triangular and the margins denticulate. The basal sinuses are subrounded, 2–2.5 cm deep, and 1–2 cm wide. The adaxial surfaces are dark green and scabrous, and the abaxial surfaces are greyish green. The flowers are monoecious. There are 17–20 flowers that grow on the apices of the peduncles which are 10–15 cm long. The inflorescences are racemose. The pedicels are 1–4 cm long, and the calyx tubes are campanulate, 0.5–0.8 cm long, 1 cm in diameter, and pilose. The corollas are yellow and spikelike, and the lobes are obcordate, 1.5–2.5 cm long, 1–2 cm wide, emarginated apically, subglabrous on both surfaces, and with three raised adaxial veins which are puberulent. The anther cells are two-curved. The pistillate flowers are solitary, growing from the same axils as the staminate flowers. The ovaries are clavate, with ten longitudinally ribbed. The fruits are cylindrical or clavate, with eight to ten longitudinal ribs and grooves, 15–30 cm long, and 6–10 cm in diameter. The flowering and fruiting periods are both in summer and autumn.

Habitat: It is cultivated.

Distribution: It is widely cultivated all around China. It is also cultivated in tropical areas in other parts of the world.

Acquisition and Processing: It is collected in autumn and winter. The sponges, vines, roots, and seeds are dried after collecting.

Natural Taste and Meridian Tropism: The sponges are sweet in taste and neutral in nature. The leaves are bitter and sour in taste and slightly cold in nature. The seeds are slightly sweet in taste and neutral in nature. The roots are sweet in taste and neutral in nature.

Functions: The sponge functions to clear heat, detoxify, promote blood circulation to remove meridian obstruction, reduce swelling, and act as a diuretic. The leaves function to stop bleeding, clear heat, detoxify, reduce phlegm, and stop coughing. The seeds are slightly sweet and neutral in nature and function to clear heat, reduce phlegm, moisturize, and expel parasites. The vines function to remove meridian obstruction, stop coughing, and reduce phlegm. The roots function to clear heat and detoxify. The sponges are used to treat muscle aches, chest pain, dysmenorrhea, lactation, mastitis, and edema. The leaves are used to treat pertussis, cough, and thirst due to summer heat. Used externally, the leaves treat traumatic bleeding, scabies, and pemphigus. The seeds are used to treat cough, excessive phlegm, ascariasis, and constipation. The vines are used to treat waist ache, coughing, rhinitis, and bronchitis. The roots are used to treat rhinitis and paranasal sinusitis.

Use and Dosage: Vegetable sponges and leaves (9–15 g per dose), seeds (6–9 g per dose), vines (30–60 g per dose), and roots (15–30 g per dose), decocted in water to drink.

Prescription:

1. Clinical diagnosis and symptoms: Ascariasis – prepare 40–50 grains of black raw *Luffa acutangula* seeds, and remove the shells. Chew up the kernels and wash them down to empty stomach with lukewarm water (or put the crushed kernels in capsules to take in), once per day, 2 days in a row. Children should take in 30 grains of *Luffa acutangula* kernels instead.
2. Clinical diagnosis and symptoms: Chronic bronchitis – decoct 150–240 g of *Luffa acutangula* vines which have been frosted in water to drink. Take it one time per day, 10 days as a course of treatment. Keep taking the medicine for two courses.
3. Clinical diagnosis and symptoms: Bronchitis – mince up 90–150 g of *Luffa acutangula* vines and decoct them in water twice. Filter the fluid out and boil it down to 100–150 ml. Drink it up in three times in a day, 10 days as a course of treatment.
4. Clinical diagnosis and symptoms: Chronic nasosinusitis – (a) mince up *Luffa acutangula* vines, bake them until they are half-burned, grind them into powder, and inhale the powder into the nostrils, two to three times per day, 2–4 days as a course of treatment. (b) After the fruits of *Luffa acutangula* is harvested, take 100 cm of *Luffa acutangula* vine (the bottom part, near the roots), mince it up, and dry it. Then bake it and keep stirring until it is slightly burned. Grind it into powder and make the powder into a 10 g pill. Take a pill per dose, three times per day. It can be taken for a long period.

5. Clinical diagnosis and symptoms: Rhinitis – grind 500 g of *Luffa acutangula* roots and 250 g of *Gardenia sootepensis* into mixed powder. Take 9 g per dose, three times per day.
6. Clinical diagnosis and symptoms: Edema and abdominal dropsy – decoct 60 g of *retinervus luffae fructus* in water to drink.
7. Clinical diagnosis and symptoms: Neurodermatitis – clean up fresh leaves of *Luffa acutangula*, grind them, and rub them to the affected areas until the skin looks red, even with a bit of blood oozing out. Do it once every 7 days, two times as a course of treatment.







2.19 Family: Cucurbitaceae

2.19.1 *Luffa aegyptiaca* [3]

Chinese Name(s): si gua luo, shui gua, si gua

Source: This medicine is made of the reticulate fiber inside the ripe fruits of *Luffa aegyptiaca* (*Luffa aegyptiaca* Mill. [*Luffa cylindrica* (Linn.) Roem.]).

Morphology: The plants are annual climbing herbs. The stems are slender, fragile, and scabrous. The tendrils are puberulent and two- to four-forked. The petioles are stout and scabrous. The leaf blades are triangular or suborbicular, palmate, five-lobed, and with serrated margins. The flowers are simple and monoecious. Staminate flowers form racemose inflorescences, and the pistillate flowers are solitary and axillary. The calyx lobes are ovate-lanceolate and 1 cm long, and the corollas are yellow and 5–9 cm in diameter with oblong lobes. There are five stamens, and the anther cells are multi-curved. The ovaries are narrowly cylindrical, with three

stigmas which are dilated. The fruits are cylindrical, 15–50 cm long, and with shallow longitudinal grooves or stripes. Before ripening, it is fleshy, and after ripening it becomes dry, with reticulate fibers inside. When the fruits are completely mature, they crack up from the apex. The seeds are black, oblate, and narrowly winged on the margins. The flowering and fruiting periods are both in summer and autumn.

Habitat: It is cultivated.

Distribution: It is cultivated all over China. It is also found in tropical areas in other parts of the world.

Acquisition and Processing: It is collected in summer and autumn when the fruits are ripe and begin to become hollow and pericarps turn yellow. After removing the pericarps, flesh, and seeds, the sponge is cleaned and dried.

Medicinal Properties: It is a reticulation of entangled fibers, usually long fusiform or cylindrical, slightly curved, oblate, 30–70 cm long, 7–10 cm in diameter, and yellowish white. It is very light, elastic, and hard to break up. There are three cells on the transverse section. It has a faint smell and bland taste. The ones that are elastic, yellowish white, and with clear reticulations are of better quality.

Natural Taste and Meridian Tropism: It is sweet in taste and neutral in nature. It belongs to the liver and stomach meridians.

Functions: Clearing heat and detoxicating, activating blood circulation, removing meridian obstruction, inducing diuresis, and reducing swellings; it is used to treat muscle and bone aches, chest pain, body aches, amenorrhea, lactation, mastitis, and edema.

Use and Dosage: 9–15 g per dose, decocted in water to drink.

Prescription:

1. Clinical diagnosis and symptoms: Ascariasis – prepare 40–50 grains of black raw *Luffa acutangula* seeds, and remove the shells. Chew up the kernels and wash them down to empty stomach with lukewarm water (or put the crushed kernels in capsules to take in), once per day, 2 days in a row. Children should take in 30 grains of *Luffa acutangula* kernels instead.
2. Clinical diagnosis and symptoms: Chronic bronchitis – decoct 150–240 g of *Luffa acutangula* vines which have been frosted in water to drink. Take it one time per day, 10 days as a course of treatment. Keep taking the medicine for two courses.
3. Clinical diagnosis and symptoms: Bronchitis – mince up 90–150 g of *Luffa acutangula* vines and decoct them in water twice. Filter the fluid out and boil it down to 100–150 ml. Drink it up three times in a day, 10 days as a course of treatment.
4. Clinical diagnosis and symptoms: Chronic nasosinusitis – (a) mince up *Luffa acutangula* vines, bake them until they are half-burned, grind them into powder, and inhale the powder into the nostrils, two to three times per day, 2–4 days as a course of treatment. (b) After the fruits of *Luffa acutangula* are harvested, take 100 cm of *Luffa acutangula* vine (the bottom part, near the roots), mince it up, and dry it. Then bake it and keep stirring until it is slightly burned. Grind it into

powder and make the powder into a 10 g pill. Take a pill per dose, three times per day. It can be taken for a long period.

5. Clinical diagnosis and symptoms: Nasitis – grind 500 g of *Luffa acutangula* roots and 250 g of *Gardenia sootepensis* into mixed powder. Take 9 g per dose, three times per day.
6. Clinical diagnosis and symptoms: Edema and abdominal dropsy – decoct 60 g of *retinervus luffae fructus* in water to drink.
7. Clinical diagnosis and symptoms: Neurodermatitis – clean up fresh leaves of *Luffa acutangula*, grind them, and rub them to the affected areas until the skin looks red, even with a bit of blood oozing out. Do it once every 7 days, two times as a course of treatment.





2.20 Family: Cucurbitaceae

2.20.1 *Momordica charantia*

Chinese Name(s): ku gua gan, ku gua, liang gua, lai gua

Source: This medicine is made of the fruits of *Momordica charantia* (*Momordica charantia* Linn.).

Morphology: It is an annual climbing herb. The stems, branches, petioles, and pedicels are puberulent. The tendrils are axillary and unifurcated. The leaf blades are suborbicular or reniform, 3–12 cm in diameter, with five to seven palmate deep lobes which are elliptic, and deeply or shallowly denticulate. The flowers bloom in

the late spring and early summer and are monoecious. Solitary flowers are axillary, and many flowers form cymose inflorescences. The pedicels or peduncles are long, with a reniform or round bract in the middle. The calyx tubes are campanulate, with five calyx lobes at the apex. The corollas are radial and yellow, and the lobes are obovate. The staminate flowers have three stamens, and the anther cells are curved and wrinkled. The ovaries of the pistillate flowers are inferior, fusiform, and densely verrucose. The pepos are narrowly elliptic, fleshy when mature, and irregularly verrucous on the surface. The seeds are oblong and red when mature. The flowering and fruiting periods are from May to November.

Habitat: It is cultivated.

Distribution: It is cultivated all over China, in both the south and the north.

Acquisition and Processing: The fresh green *Momordica charantia* are picked in summer and autumn and sliced into 1-cm-thick pieces and dried.

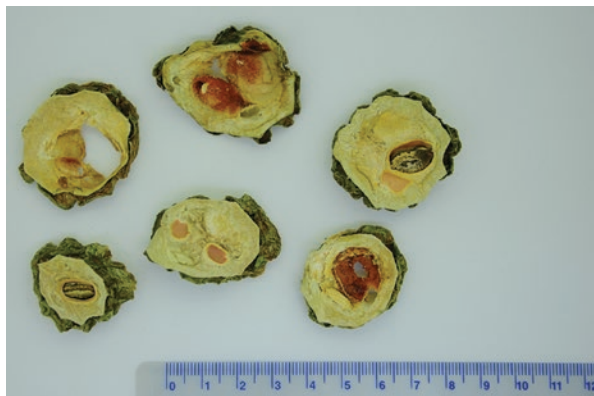
Medicinal Properties: This medicine is in elliptic or oblong slices or chunks, 0.2–0.3 cm thick, 3–15 cm long, and 2–4 cm wide. The pericarps near the incision kerf are green and wrinkled. The pulps are white or yellowish white, occasionally red, soft, and slightly elastic, with five to ten oblong and oblate seeds embedded. When the seeds fall off, they leave holes on the pulp. The medicine is pliable but strong, not easily broken. It has a faint smell and is bitter in taste. The ones with green rims, white pulp, and fewer seeds and the ones that are thinly sliced are of better quality.

Natural Taste and Meridian Tropism: It is bitter in taste and cold in nature. It belongs to the heart, lungs, spleen, and stomach meridians.

Functions: Dissipating heat, improving eyesight, detoxifying, and strengthening stomach; it is used to treat measles, fever, febrile disease, heatstroke, dysentery, conjunctivitis, diabetes, carbuncle swelling, and malignant sores.

Use and Dosage: 5–15 g per dose, decocted in water to drink.





2.21 Family: Cucurbitaceae

2.21.1 *Momordica cochinchinensis*

Chinese Name(s): mu bie zi, lou ling zi

Source: This medicine is made of the roots, leaves, and seeds of *Momordica cochinchinensis* (*Momordica cochinchinensis* (Lour.) Spreng.).

Morphology: The plant is a strong liana. The petioles are stout and 5–10 cm long, with two to four glands in the middle or at the base. The leaf blades are ovate-cordate or broadly ovate-orbicular, 10–20 cm long and wide, and three- to five-lobed (medium deep or deep) or lobeless. The middle lobe is the biggest which is 6–10 cm long and 3–8 cm wide. The leaves are acute or acuminate at the apex and mucronate and denticulate on margins. The tendrils are thick, glabrous, and unifurcated. The flowers are dioecious. The staminate flowers are solitary, axillary, and sometimes in three to four. The pedicels are strong, subglabrous, and 3–5 cm long. When solitary, the flowers have pedicels which are 6–12 cm long, with a large bract at the apex which is sessile, orbicular-reniform, 3–5 cm long, and 5–8 cm wide. The calyx tubes are funnellform, 5–6 cm long, 2–3 cm wide, acute or acuminate on the apex, and with denticulate gland at the base. There are three stamens, two of which are two-celled and the other is one-celled. The anther cells are reflexed. The pistillate flowers are solitary and axillary. The pedicels are 5–10 cm long, with a bract in the middle which is orbicular and 2 mm long and wide. The corollas and calyxes are the same as those of the staminate flowers. The ovaries are ovate-oblong, 1 cm long, and densely setose. The fruits are ovoid, with a short beak at the apex, suborbicular at the base, 12–15 cm long, red when mature, fleshy, and densely tuberculate with setiform trichomes that are 3–4 mm long.

Habitat: It grows in thickets at low altitudes.

Distribution: It is found in provinces in south and east China.

Acquisition and Processing: The roots and leaves are collected in summer and autumn. The seeds are collected in autumn and winter, before dried.

Natural Taste and Meridian Tropism: It is bitter, slightly sweet in taste, and cold in nature and poisonous.

Functions: This medicine functions to detoxify, reduce swelling, and relieve pain. It is used to treat suppurative inflammation, adenolymphitis, tinea capitis, and hemorrhoids.

Use and Dosage: 1–1.5 g per dose, decocted in water to drink. For external use, grind it into powder and mix it with vinegar to apply to the affected areas. It is mainly used externally. Be careful to take it in.

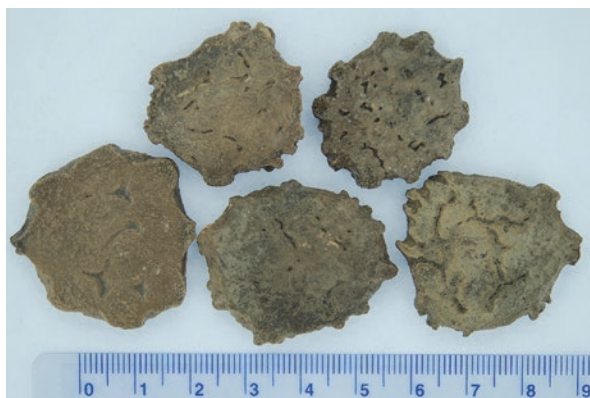
Prescription:

1. For treating tinea capitis: Grind proper amount of *Momordica cochinchinensis* kernels into powder and mix it with vinegar to apply to the affected areas.
2. For treating acute mastitis: Prepare one to two *Momordica cochinchinensis*, remove the shells, and grind them into powder. Drill a hole on an egg, pour the

powder inside, and seal it up with paper. Steam the egg and eat it, three times a day, an egg per time.

3. For treating strawberry nose, stubborn dermatitis, and eczema: Prepare *Momordica cochinchinensis*, *Hydnocarpus anthelmintica*, walnut kernel, camphor, mercury, and *Cnidii Fructus*, 9 g each. Remove the shells of *Momordica cochinchinensis* and *Hydnocarpus anthelmintica* and take the kernels. Mash all the medicines up, until the mercury is fully blended in. Decoct 15 g of peppertree prickly ash and 50 g of *folium Artemisia argyi* and wash the affected areas with the decoctum. When the affected areas dry up, apply a thin layer of medicine on them, one to two times per day.
4. For treating furunculosis, pyogenic infection for unknown reasons, adenolymphitis, acne, and freckles: Mash up fresh leaves or roots of *Momordica cochinchinensis* with a pinch of salt to apply to the affected areas, or grind the seeds, add vinegar, and apply to the affected areas.





2.22 Family: Cucurbitaceae

2.22.1 *Neosalsomitra integrifoliola*

Chinese Name(s): bang chui gua, bang gua

Source: This medicine is made of the roots and stems of *Neosalsomitra integrifoliola* (*Neosalsomitra integrifoliola* (Cogn.) Hutch.).

Morphology: The plant is a herbal liana. The tendrils are slender and long, puberulent, and bifurcated apically. The leaf blades are membranous or thinly papery and pedate, with five leaflets. The petioles are 1.5–2 cm long, and the leaflets are oblong. The central leaflet is 14 cm long and 3–5.5 cm wide, and the lateral leaflets are smaller, acuminate at the apex, and obtuse at the base, sometimes with two glands and entire margins. The adaxial surface of the leaf is green, and the abaxial surface is paler. Both surfaces are puberulent along the veins. There are four to five pairs of secondary veins. The petiolules are thin, 0.5–1 cm long, and densely puberulent. The flowers are dioecious. The staminate flowers are arrayed into axial paniculate inflorescences which are 20 cm long, with thin peduncles and lateral stems, longitudinally striped, and puberulent. There are five pedate leaflets at the

base of the lateral stems. The pedicels are filiform and 5–8 mm long, with sparse red puberulent glands. The calyx tubes are very short and deeply five-lobed. The lobes are ovate lanceolate, 2 mm long, 1 mm wide, and sparsely hispid. The corollas are radial, white, and five-lobed, and the lobes are ovate, 4 mm long, 3 mm wide, apically acute, and puberulent on the outside. There are five stamens, which are free, and the filaments are 8 mm long and outwardly curved. The anthers are ovate and 0.5 mm in diameter. The pistillate flowers form smaller panicles. The calyxes and corollas are the same as those of the staminate flowers. The ovaries are subcylindrical, 10 mm long, and puberulent. There are three stigmas, which are two-lobed. The capsules are cylindrical, 4–6.5 cm long, and 1.5–2 cm in diameter.

Habitat: It grows in rainforests in gullies and valleys.

Distribution: It is found in Hainan, Guangxi, Guizhou, and Taiwan in China. It is also seen in Burma, Thailand, Cambodia, Laos, Vietnam, Malaysia, and the Philippines.

Acquisition and Processing: It is collected in summer and autumn. The roots and stems are dried after collecting.

Natural Taste and Meridian Tropism: It is bitter in taste, cold in nature, and poisonous.

Functions: Clearing heat and detoxifying, strengthening stomach, and relieving pain; it is used to treat malaria, cold, headache, pharyngitis, jaundice hepatitis, stomach pain, and venomous snake bite.

Use and Dosage: 10–15 g per dose, decocted in water to drink.





2.23 Family: Cucurbitaceae

2.23.1 *Siraitia grosvenorii*

Chinese Name(s): luo han guo, guang guo mu bie

Source: This medicine is made of the mature fruits of *Siraitia grosvenorii* (*Siraitia grosvenorii* (Swingle) C. Jeffrey ex A. M. Lu et Z. Y. Zhang [*Momordica grosvenorii* Swingle]).

Morphology: The plant is a herbal climbing liana which is 2–5 m tall. It is densely puberulent with yellowish brown trichomes and black verruculose scales and is ribbed. The tendrils are bifurcate and upwardly and downwardly flexed on the forking points. The leaves are simple, alternate, membranous, ovate-cordate or triangular-ovate, 12–23 cm long, 5–17 cm wide, acuminate at the apex, and deeply cordate at the base. The margins are entire or bluntly denticulate and ciliate. The adaxial surface of the leaf is sparsely puberulent and with black glandular scales. The petioles are 7 cm long. The flowers are dioecious. The staminate inflorescences are racemose, with six to ten flowers. The calyxes are campanulate, 8 mm in diameter at the top, and five-lobed. The corollas are yellow and 2–3 cm in diameter, with black glandular scales. There are five stamens, and the anther cells are two-curved. The pistillate flowers are solitary or in two to five aggregations, often with five staminodes. The fruits are globose or elliptic and 4–8 cm in diameter, with thin pericarps which are easily broken when dry. There are many seeds which are oblate-rounded, grooved, and 10–12 mm in diameter. The flowering period is from May to July, and the fruiting period is from July to September.

Habitat: It grows in shaped and damp places in valley forests.

Distribution: It is found in Hainan, Guangdong, Guangxi, Guizhou, Hunan, and Jiangxi provinces.

Acquisition and Processing: After the autumn equinox, the fruits turn from light green to dark green, and that is when they are picked. The fruit stems are removed, and the fruits are dried and baked on slow charcoal fire.

Medicinal Properties: This medicine is globose, narrowly ovate or elliptic, 4–8.5 cm long, and 3–7 cm in diameter. The pericarps are yellowish brown, grayish brown or greenish brown, with dark spots or residual sparse trichomes, slightly glossy, and with 6–11 longitudinal stripes. It is rounded at the apex, with marks of the style bases in the center and marks of the fruit stems at the base. It is light, with thin pericarps, fragile, and easily broken. The inner surface of the pericarp is yellow white, and the flesh is loose and spongelike, with regular rows of seeds inside which are oblate and elliptic or suborbicular and a few being triangular. The seeds are brownish red, with thick margins, slightly sank in the middle on both surfaces, and with radial marks everywhere and grooves on the margins. It has a slightly fragrant smell and very sweet taste, especially the seeds. The bigger, complete, unbroken ones and the ones without rattling sound when shaken and without dark marks are of better quality.

Natural Taste and Meridian Tropism: It is sweet in taste and cold in nature. It belongs to the lungs and intestine meridians.

Functions: This medicine functions to remove heat from the lungs to relieve cough and relax bowel. It is used to treat lung dryness and heat, sore throat and

aphonia, acute and chronic bronchitis, acute and chronic tonsillitis, pharyngitis, acute gastritis, and constipation.

Use and Dosage: 10–15 g per dose; soak it in water or decoct in water to drink.

Prescription:

1. For treating sore throat and aphonia: Slice a *Siraitia grosvenorii* fruit and decoct it in water to drink. Take it often.
2. For treating dry cough and excessive phlegm: Prepare half a *Siraitia grosvenorii* fruit, 6 g of dried tangerine or orange peel, and 100 g of lean pork. Soak dried tangerine or orange peel in water until it turns soft, remove the white pulp, stew it with *Siraitia grosvenorii* fruit and pork, and eat all the ingredients.

Annotations: People with insufficient spleen-Yang and deficient spleen functions should not take it. When taking the medicine, stay away from cigarettes, alcohols, and hot, pungent, raw, cold, greasy, fried, and grilled food. Do not take tonic Chinese medicine along with the medicine.







2.24 Family: Cucurbitaceae

2.24.1 *Solena amplexicaulis*

Chinese Name(s): mao gua, lao shu la dong gua

Source: This medicine is made of the roots of *Solena amplexicaulis* (*Solena amplexicaulis* (Lam.) Gandhi [*Melothria heterophylla* (Lour.) Cogn]).

Morphology: The plant is a climbing herb. The petioles are slender, short, and only 0.5–1 cm long. The leaf blades are thinly leathery, in various types, extremely multiforme, ovate, oblong, ovate-triangular or sagittate, lobeless, and shallowly or deeply three- to five-lobed. The lobes are oblong-lanceolate, 8–12 cm long, 1–5 cm wide, and obtuse or acuminate at the apex. The adaxial surface is dark green, slightly scabrous, and puberulent on the veins, and the abaxial surface is grayish green, with raised veins, subglabrous, and cordate at the base. The margins are entire or sparsely denticulate. The tendrils are slender and unifurcate. The flowers are dioecious. Approximately 10–20 staminate flowers grow on the apex of the peduncles which are 2–5 mm long. The inflorescences are corymbose, and the flowers are very small, with slender pedicels which are 2–8 mm long and glabrous. The calyx tubes are campanulate, rounded at the base, 5 mm long, 3 mm in diameter, and glabrous on the outside. The lobes are sub-subulate and 0.2–0.3 mm long. The corollas are yellow and puberulent on the outside, and the lobes are spreading, triangular, 1.5 mm long, and acute apically. There are three stamens. The pistillate flowers are solitary and axillary. The pedicels are 5–10 mm long and puberulent. The ovaries are ovate, 2–3.5 mm long, 2–3 mm in diameter, and glabrous or sparsely pilose with yellowish brown trichomes. There are three stigmas. The fruits are red brown, oblong or sub-globose, 2–6 cm long, 2–5 cm in diameter, and smooth on the surface.

Habitat: It grows on slopes, roadsides, or in open forests and thickets.

Distribution: It is found in Taiwan, Fujian, Guangdong, Hainan, Jiangxi, Guangxi, Yunnan, Guizhou, Sichuan, and Tibet in China. It is also seen in Vietnam, India, and Indonesia.

Acquisition and Processing: It is collected in summer and autumn. The roots are dried after collecting.

Natural Taste and Meridian Tropism: It is sweet, bitter, and slightly astringent in taste and cold in nature.

Functions: Clearing heat and dampness, reducing swelling, reducing phlegm, and removing stasis; it is used to treat conjunctivitis, furuncle, pharyngitis, mumps, lymphoid tuberculosis, gonorrhea, stomachache, diarrhea, and red-white dysentery.

Use and Dosage: 15–30 g per dose, decocted in water to drink. For external use, mash up fresh plants to apply to the affected areas.





2.25 Family: Cucurbitaceae

2.25.1 *Thladiantha longifolia*

Chinese Name(s): chang ye chi bo

Source: This medicine is made of the roots of *Thladiantha longifolia* (*Thladiantha longifolia* Cogn. ex Oliv.).

Morphology: The plant is a herbaceous vine. The petioles are slender and 2–7 cm long. The leaves are membranous, ovate-lanceolate or narrowly ovate-triangular, 8–18 cm long, and 4–8 cm wide at the bottom. The leaf blades are acute or shortly acuminate at the apex, with denticulate margins, and deeply cordate at the base. The sinuses are open, semi-orbulate, 1.5–2 cm deep, and 1.5–2.5 cm wide. The basal veins do not grow along the rim of the sinuses. The adaxial surfaces of the leaves are setose and very scabrous, and the abaxial surfaces are relatively smooth and glabrous. The tendrils are slender and unifurcate. The flowers are dioecious. Three to nine (~12) staminate flowers grow on the top of the peduncles to form a raceme. The peduncles are thin and 2–2.5 cm long, and the pedicels are slender and 1–2 cm long. The calyx tubes are shallowly cupular and 0.6 cm wide apically. The veins are puberulent, and the lobes are triangular-lanceolate and 7–8 mm long, with one vein. The corollas are yellow, with the lobes being 1.5–2 cm long, 1 cm wide, slightly obtuse at the apex, and five-veined. There are five stamens which are in pairs, with one left free. The anthers are oblong and 2.5–3 mm long. The pistillate flowers are solitary, or two to three flowers grow on a short peduncle. The pedicels are 2–4 cm long, and the calyxes as well as the corollas are the same as those of the staminate flowers. The ovaries are narrowly ovate, acuminate at the apex and base, with the base being retuse and with lobelets, and wrinkled on the surface. The styles are cylindrical and trifurcated apically, and the stigma is dilated and orbicular

reniform. The fruits are broadly ovate and up to 4 cm long, and the pericarps are verrucose and retuse at the base.

Habitat: It grows in valley forests.

Distribution: It is found in Hubei, Sichuan, Guizhou, Guangdong, Hunan, and Guangxi provinces.

Acquisition and Processing: It is collected in summer and autumn. The roots are dried after collecting.

Natural Taste and Meridian Tropism: It is bitter in taste and cold in nature.

Functions: This medicine functions to clear heat and detoxify and acts as galactagogue. It is used to treat abdominal pain caused by stomach cold, furuncle, and lack of milk in lactation.

Use and Dosage: 15–20 g per dose, decocted in water to drink.





2.26 Family: Cucurbitaceae

2.26.1 *Thladiantha nudiflora*

Chinese Name(s): nan chi bo, ye si gua, si gua nan

Source: This medicine is made of the roots and leaves of *Thladiantha nudiflora* (*Thladiantha nudiflora* Hemsl. ex Forbes et Hemsl.).

Morphology: The plant is a herbaceous vine. The petioles are stout and 3–10 cm long. The leaf blades are stiff, ovate-cordate or broadly ovate-cordate, 5–15 cm long, 4–12 cm wide, and acuminate or acute at the apex, with serrated margins and open or closed sinus at the base. The sinuses are 2–2.5 cm deep and 1–2 cm wide. The adaxial surfaces of the leaves are dark green, scabrous, and densely setose, and

the abaxial surfaces are paler, with dense yellowish trichomes. The tendrils are thick and densely hispid. The flowers are dioecious. The staminate flowers are in racemose inflorescences. The peduncles are slender and 4–8 cm long. The pedicels are slender and 1–1.5 cm long. The calyx tubes are campanulate, with the upper part 5–6 mm wide. The corollas are yellow, and the lobes are ovate-oblong, 1.2–1.6 cm long, 0.6–0.7 cm wide, acute or slightly obtuse apically, and five-veined. There are five stamens, adherent to the calyx tubes, and the filaments are villous and 4 mm long. The anthers are ovate-oblong and 2.5 cm long. The pistillate flowers are solitary, and the pedicels are slender, 1–2 cm long, and pilose. The calyxes and corollas are the same as those of the staminate flowers and slightly bitter. The ovaries are oblong, 1.2–1.5 cm long, and 0.4–0.5 cm in diameter. The fruit stems are stout and 2.5–5.5 cm long. The fruits are oblong, red or reddish brown when dry, 4–5 cm long, and 3–3.5 cm in diameter.

Habitat: It grows in valley forests.

Distribution: It is found in Taiwan, Guangdong, Jiangxi, Hunan, Hubei, Jiangsu, Anhui, Zhejiang, Henan, Shaanxi, Gansu, Guangxi, Yunnan, Sichuan Guizhou, and Tibet in China. It is also seen in Vietnam.

Acquisition and Processing: It is collected in summer and autumn. The leaves and roots are dried after collecting.

Natural Taste and Meridian Tropism: It is bitter in taste and cold in nature.

Functions: Clearing heat and detoxicating and reducing food stagnation; it is used to treat dysentery, enteritis, indigestion, abdominal distension and stuffiness, and venomous snake bites.

Use and Dosage: 9–15 g per dose, decocted in water to drink. For external use, mash up fresh plants to apply to the affected areas.





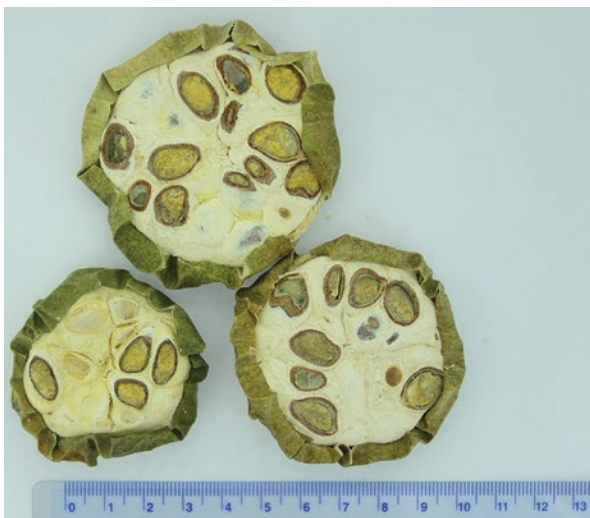
2.27 Family: Cucurbitaceae

2.27.1 *Trichosanthes kirilowii*, *Trichosanthes rosthornii*

Chinese Name(s): gua lou, gua lou, yao gua

Source: This medicine is made of the ripe fruits of *Trichosanthes kirilowii* (*Trichosanthes kirilowii* Maxim.) or *Trichosanthes rosthornii* (*Trichosanthes rosthornii* Harms).

Morphology: *A. Trichosanthes kirilowii*: The plant is a perennial herbaceous vine. The tuberous roots are cylindrical and very starchy. The stalks are erectly ridged or sulcate, puberulent, many-branched, and up to 10 m long. The tendrils are bifurcate or trifurcate and coiled above the forking points. The leaves are simple and alternate. The leaf blades are suborbicular or cordate and 8–20 cm long and wide. There are five to seven palmate deep lobes, and the margins are sinuate or coarsely denticulate. The leaves are cordate basally and scabrous on both surfaces and hispid, with white dots on the adaxial surface. The flowers are white and unisexually dioecious. The staminate flowers are solitary or in three to eight racemes, and the pistillate flowers are solitary. The calyx tubes are cylindrical and 2.5 cm long ca. The lobes are lanceolate. The corollas are 3.5 cm in diameter, five-lobed, and obovate, with filiform fringes on the margins. There are three stamens and the anthers cohere. The anther cells are folded from the middle. The ovaries are inferior, and the styles are 2 cm long ca. The pepos are fleshy, elliptic or globose, 6–10 cm in diameter, and yellowish brown when ripe. The seeds are ovate-elliptic and oblate. The flowering period is from May to August, and fruiting period is from August to October.



Habitat: It grows in forests on mountain slopes at altitudes of under 1800 m, in thickets, in the thickness of grass, or by the side of village fields.

Distribution: It is found in Liao Ning, north and central China, and South Central China and also in Shaanxi, Gansu, Sichuan, Yunnan, and Guizhou provinces.







Morphology: *B. Trichosanthes rosthornii*: The plant is a climbing liana. The tuberous roots are striate, thick, grayish yellow, and latitudinally verruculose. The leaves are papery, broadly ovate to suborbicular, 8–12 cm long, 7–11 cm wide, and three- to seven-lobed. The leaf blades are cordate at the base, with sinuses (1–2 cm deep). The petioles are 2.5–4 cm long, and the tendrils are bifurcate or trifurcate. The flowers are dioecious. The staminate flowers are solitary or in racemose inflorescence. The peduncles are 8–10 cm long, with five to ten apical flowers. The small pedicels are 5–8 mm long, and the calyx tubes are narrowly trumpet-shaped, 2.5–3 cm long, and puberulent. The corollas are white, and the lobes are obovate, 15 mm long, 10 mm wide, and puberulent, with filiform fringes at the apex. The anthers are oblong, 5 mm long, and 3 mm in diameter. The filaments are 2 mm long and puberulent. The pistillate flowers are solitary, and the ovaries are ellipsoid, 1–2 cm long, 5–10 mm in diameter, and puberulent. The fruits are globose or elliptic, 8–11 cm long, 7–10 cm in diameter, and glabrous. When ripe, the pericarps and flesh of the fruits are both orange yellow. The fruit stems are 4.5–8 cm long. The seeds are ovate-elliptic, oblate, 15–18 mm long, 8–9 mm wide, 2–3 mm thick, and brown. The flowering period is from June to August, and the fruiting period is from August to October.

Habitat: It grows in valley forests or thickets.

Distribution: It is found in Guangdong, Jiangxi, Hubei, Yunnan, Sichuan, Guizhou, Shaanxi, and Gansu provinces in China. It is also seen in Japan.





Acquisition and Processing: The fruit-bearing branches are cut off from the tree in autumn when the fruits ripe. It is placed in a well-ventilated area so that the fruits are wilted.

Medicinal Properties: The medicine is broadly elliptic-globose or globose and 6–10 cm long. The outer surface is orange red or yellow, wrinkled or smooth, the dried globose styles left at the apex and fruit stem at the base. It is crispy and easily broken. The inner surface is yellow white, with orange veins, and the flesh is orange yellow, sticky, and adherent to the seeds to form a whole. It smells like caramel and is slightly sweet and sour. The evenly shaped, intact, and brightly orange ones are of better quality.

Natural Taste and Meridian Tropism: It is sweet and slightly bitter in taste and cold in nature. It belongs to the lungs, stomach, and large intestine meridians.

Functions: Clearing heat and reducing phlegm, relieving chest stuffiness and removing stasis, moisturizing pathogenic dryness, and lubricating intestines; it is used to treat lung heat, cough, presence of yellow sputum, chest arthralgia,

heartache, accumulation of pathogens in the chest, mastalgia, lung carbuncle, intestinal carbuncle, intestinal pain, constipation, angina pectoris, and mastitis.

Use and Dosage: 9–24 g per dose, decocted in water to drink.

Prescription:

1. Clinical diagnosis and symptoms: Cough and asthma due to excessive phlegm – decoct 15 g of *Trichosanthes kirilowii*, *Pinellia ternata*, *Pericarpium citri reticulatae*, and almonds (9 g each) in water to drink.
2. Clinical diagnosis and symptoms: Chest stuffiness and pains – decoct 15 g of *Trichosanthes kirilowii*, 9 g of *Allii macrostemi bulbis*, and 9 g of *Pinellia ternata* in water. Mix the decoctum with white spirits to drink.
3. Clinical diagnosis and symptoms: Angina pectoris – (a) decoct 30 g of *Trichosanthes kirilowii*, 6–9 g of *Allii macrostemi bulbis*, 6–9 g of *Carthamus tinctorius*, and 9–15 g of peach kernel in water to drink (for patients suffering from a choking sensation on the chest, add 0.6 g of ligaloes and 0.9 g of *Radix curcumae* powder and take in two to three times per day. For patients suffering from chest pain, add 0.75 g of *Rhizoma sparganii* and 0.75 g of *Zedoary turmeric*, and take in two to three times per day). (B) Decoct *Trichosanthes kirilowii*, *Allii macrostemi bulbis*, *Rhizoma cyperi*, *Excrementum pteropi* (9 g each), the root of red-rooted salvia (30 g), *Sophora japonica* flower (15 g), peach kernel (12 g), and *Polygala tenuifolia* (4.5 g) in water to drink.
4. Clinical diagnosis and symptoms: Acute mastitis – decoct 15 g of *Trichosanthes kirilowii* and 100 g of dandelion in water to drink.

Annotations: The dry fleshy tuberous roots are called *radix trichosanthis* which functions to promote the secretion of saliva, quench thirst, reduce swelling, and drain pus. The dry ripe seeds of the plant are called *semen trichosanthis* which functions in moistening lungs, removing phlegm, and relaxing bowel. The dry pericarps of the fruits are called *pericarpium trichosanthis* which functions to clear heat, reduce phlegm, and relieve chest stuffiness.

2.28 Family: Cucurbitaceae

2.28.1 *Trichosanthes laceribractea*

Chinese Name(s): chang er gua lou, lie bao gua lou, qi ye gua lou, guang hua fen, yuan zi gua lou

Source: This medicine is made of the fruits of *Trichosanthes laceribractea* (*Trichosanthes laceribractea* Hayata [T. *schizostroma* Hayata]).

Morphology: The plant is a herbaceous vine. The leaves are alternate, papery, and multi-shaped. The leaf blades are subrounded or broadly ovate, 5–16 cm long, 4–15 cm wide, and usually three- to seven-lobed (shallow or deep). The adaxial surface of the leaves is dark green and densely setose, and the abaxial surface is pale green, with five to seven palmate veins. The petioles are 1.5–9 cm long. The tendrils

are bifurcate or trifurcate. The flowers are dioecious. The inflorescences of the staminate flowers are racemose, axillary with stout peduncles, and 10–23 cm long. The bracteoles are broadly ovate, retuse inside, 2.5–4 cm long and equally wide, and narrowly acuminate apically, with slender marginal lobes. The pedicels are 5–6 mm long, and the calyx tubes are narrowly linear, 5 cm long, inflated apically, 12–15 mm in diameter, and 2 mm wide in the middle and basal parts. The lobes are ovate, 10–13 mm long, 7 mm wide, erect, and acuminate apically, with serrated margins. The corollas are white, with obovate lobes, 2–2.5 cm long, 12–15 mm wide, obtuse apically, and cuneate basally, with lacinate margins. The anther filaments are 12 mm long. The pistillate flowers are solitary, with 1.5–2-cm-long pedicels, and puberulous. The calyx tubes are cylindrical, 4 cm long, and 5 mm in diameter. The calyx lobes are linear, 1–1.3 cm long, and entire. The corollas are similar to those of the staminate flowers. The ovaries are ovate, 1 cm long, 7 mm in diameter, and glabrous. The fruits are globose to ovate-globose and 5–8 cm in diameter.

Habitat: It grows in valley forests.

Distribution: It is found in Taiwan, Guangdong, Jiangxi, Hunan, Hubei, Guangxi, Guizhou, and Sichuan provinces in China.

Acquisition and Processing: It is collected in autumn when the fruits ripen and dried after collecting.

Natural Taste and Meridian Tropism: It is sweet and bitter in taste and cold in nature.

Functions: Moisturizing the lungs, dissipating phlegm, removing stasis, and lubricating intestines; it is used to treat phlegm-heat cough and accumulation of pathogens in the chest, quench thirst, and treat coprostasis.

Use and Dosage: 9–20 per dose, decocted in water to drink.





2.29 Family: Cucurbitaceae

2.29.1 *Zehneria indica*

Chinese Name(s): ma die er, lao shu la dong gua

Source: This medicine is made of the roots and leaves of *Zehneria indica* (*Zehneria indica* (Lour.) Keraudren [*Melothria indica* Lour.]).

Morphology: The plant is a herbaceous vine. The leaves are membranous, multi-lobed, triangular-ovate, lobeless or three- to five-lobed, 3–5 cm long, and 2–4 cm wide. The central lobes are longer than others and triangular or lanceolate-oblong, and the side lobes are smaller and triangular or lanceolate-triangular. The adaxial surface of the leaf is dark green and scabrous, and the abaxial surface is pale green and glabrous. The leaf is acute or sometimes shortly acuminate at the apex and with

semicircular sinuses at the base. The margins are shallowly serrulate or denticulate, and the veins are palmate. The petioles are slender and 2.5–3.5 cm long. The flowers are monoecious. The staminate flowers are solitary or occasionally in two to three aggregations. The pedicels are filiform, 3–5 mm long, and glabrous. The calyxes are broadly campanulate, acute or slightly obtuse basally, and 1.5 mm long. There are three stamens, two of which are two-celled and one is one-celled. The anthers are 1 mm long, and the anther cells are slightly reflexed, glabrous, and 1–2 cm long. The corollas are broadly campanulate and 2.5 mm in diameter, and the lobes are lanceolate, slightly obtuse apically, 2.5–3 mm long, and 1–1.5 mm wide. The ovaries are narrowly ovate, with verrucose humps, 3.5–4 mm long, and 1–2 mm in diameter. The styles are short, 1.5 mm long, and three-lobed apically. The fruits are oblong or narrowly ovate, obtuse on both ends, glabrous on the outside, and 1–1.5 cm long.

Habitat: It grows on the wildness, near forests and streams, usually entangling with bushes and hedges.

Distribution: It is found in southern Henan and provinces to the south of the Yangtze River. It is also seen in Japan, North Korea, Vietnam, the Indian Peninsula, Indonesia (Java), and the Philippines.

Acquisition and Processing: It is collected in summer and autumn. The roots and leaves are dried after collecting.

Natural Taste and Meridian Tropism: It is sweet and bitter in taste and cold in nature. It clears heat, detoxifies, and reduces stasis and swelling.

Functions: This medicine is often used to treat swelling as well as pain in the throat and conjunctivitis. Used externally, it treats furuncle, pyogenic infections, lymphoid tuberculosis, orchitis, and skin eczema.

Use and Dosage: 9–15 per dose, decocted in water to drink. For external use, mash up fresh roots and leaves to apply to the affected areas.

Prescription: For treating lupus erythematosus – cook 15–18 g of *Zehneria indica* roots with a bowl of water until the decoctum boils for a while. Take it one to two times a day.





2.30 Family: Cucurbitaceae

2.30.1 *Zehneria maysorensis*

Chinese Name(s): niu zi gua

Source: This medicine is made of the whole plant of *Zehneria maysorensis* (*Zehneria maysorensis* (Wight et Arn.) Arn.).

Morphology: The plant is a herbaceous vine. The leaves are membranous, broadly ovate or sometimes triangular-ovate, and 3–10 cm long and wide. The adaxial surface of the leaves is dark green, scabrous, and setose, and the abaxial surface is pale green, nearly glabrous, and acute or shortly acuminate at the apex, with semicircular sinuses at the base which is 0.5–1 cm deep, 1–1.5 cm wide, and nearly subtruncate, with denticulate margins and palmate veins. The petioles are slender, 2–5 cm long, and glabrous. The tendrils are filiform, simple, and glabrous. The flowers are monoecious. Typically, three to nine staminate flowers grow on the top of the peduncle, in subcapitate or cymose inflorescence. The pedicels are slender, 1–4 cm long, and glabrous. The pedicels of staminate flowers are very short (1–2 mm long). The calyx tubes are campanulate, 2 mm long, 1–2 mm wide, glabrous, or puberulent, and the lobes are long-triangular and 0.5 mm long. The corollas are white, and the lobes are ovate or ovate-oblong, 2–2.5 mm long, and acute apically, with the upper part puberulent. There are three stamens, two of which are two-celled and one is one-celled (all two-celled occasionally). The pistillate flowers are solitary. The ovaries are ovate. The fruits are globose or ovate and 1–1.4 cm in diameter. The flowering period is from April to August, and the fruiting period is from August to November.

Habitat: It grows in damp places in mountain forests at altitudes ranging 500–1000 meters.

Distribution: It is found in Sichuan, Guizhou, Yunnan, Guangxi, Guangdong, Hunan, Fujian, Jiangxi, and Hainan. It is also seen in the Indian Peninsula, the Indochina Peninsula, the Sumatra, the Philippines, and Japan.

Acquisition and Processing: It is collected in summer and autumn. The plants are dried as a whole after collecting.

Natural Taste and Meridian Tropism: It is sweet in taste and neutral in nature.

Functions: Clearing heat, relieving spasm, and detoxicating; it is used to treat fever, headache, sore throat, furuncle, pyogenic infections, *Neisseria gonorrhoeae* syndrome, and high fever cramp in children.

Use and Dosage: 9–15 g per dose, decocted in water to drink. Mash up fresh plants to apply to the affected areas.



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