

Chapter 2

Medicinal Angiosperms of Sabiaceae, Staphyleaceae, Anacardiaceae, Connaraceae, Juglandaceae, and Cornaceae



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This chapter introduces 29 species of medicinal plants in five families, mainly including *Meliosma rigida*, *Sabia discolor*, and *Sabia japonica* of Sabiaceae; *Euscaphis japonica*, *Turpinia affinis*, and *Turpinia arguta* of Staphyleaceae; *Choerospondias axillaris*, *Dracontomelon duperreanum*, *Rhus chinensis*, and *Toxicodendron vernicifluum* of Anacardiaceae; *Rourea microphylla* of Connaraceae; *Cyclocarya paliurus*, *Engelhardia roxburghiana*, *Juglans cathayensis*, and *Platycarya longipes* of Juglandaceae; and *Bothrocaryum controversum*, *Cornus chinensis*, *Dendrobenthamia angustata*, *Helwingia himalaica*, and *Swida macrophylla* of Cornaceae.

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 color pictures and pictures of part herbal medicines of each species.

2.1 Family: Sabiaceae

2.1.1 *Meliosma rigida*

Chinese Name(s): bi luo zi, ye pi pa, hua mu xiang

Source: This medicine is made of the roots of *Meliosma rigida* (*Meliosma rigida* Sieb. et Zucc.).

Morphology: The plant is a tree, up to 7 m in height. The buds, young branches, abaxial midveins, and inflorescences are ferruginous lanuginous and pubescence persistent after 2 or 3 years on branches. The leaves are simple, leathery, oblanceolate or narrowly obovate, 8–25 cm long, 2.5–4.5 cm wide, apically acuminate or caudate-acuminate, basally attenuate from 1/3 or 1/2 downward to base, entire at margins or coarsely serrate above the center, adaxially glabrous except pubescent on midvein and lateral veins, abaxially ferruginous pubescent, with impressed midveins. There are 9–18 lateral veins on each side, and the petioles are 1.5–4 cm long. The inflorescences are panicles, axis erect, triangular, branched three times. The flowers are dense on tertiary branches, 3–4 mm in diameter. There are four to five sepals, ovate or suborbicular, 1–1.5 mm long, pubescent at abaxial base, ciliate. The three outer petals are white, suborbicular, 2–2.5 mm in diameter. The two inner petals are about half of the filament in length, bifid to half, lobes acute, slightly divaricate from the base, apically ciliate. The fertile stamens are 1.2–1.5 mm long. The ovary is glabrous, and styles are about twice as long as ovary. The fruits are drupes, globose, 5–8 mm in diameter. The stones are globose, slightly oblique, being raised finely reticulate, and the middle ribs are slightly raised, ventral slightly protruding. The flowering period is in summer. The fruiting period is from September to October.

Habitat: It grows in mountain forests below 1500 m above sea level.

Distribution: It is distributed in provinces of Hong Kong, Hainan, Guangdong, Taiwan, Fujian, Jiangxi, Hunan, Hubei, Zhejiang, Guangxi, Yunnan, and Guizhou. It is also distributed in Japan.

Acquisition and Processing: The roots are dug up all year round and dried in the sun.

Natural Taste and Meridian Tropism: It is sour in taste, neutral in property.

Functions: Promoting diuresis and relieving swelling, it is often used for treatment of edema, abdominal distention, nameless toxin and swelling, and snake bite.

Use and Dosage: 6–9 g per dose, decocted in water for oral use.

Prescription Example(s):

1. Clinical diagnoses and symptoms: abdominal distention and qi stagnation: *Meliosma rigida* root 15 g, *Diphylleia sinensis* 3 g, *Notholirion bulbiferum* 3 g, *Akebia* 3 g, and *Thamnia vermicularis* 3 g, decocted in water for oral use.
2. Clinical diagnoses and symptoms: nameless toxin and swelling: fresh root barks of *Meliosma rigida* and fresh *Pleione bulbocodioides* in equal amounts, mashed and applied to the affected areas.





2.2 Family: Sabiaceae

2.2.1 *Sabia discolor*

Chinese Name(s): bai bei qing feng teng

Source: This medicine is made of the roots and stems of *Sabia discolor* (*Sabia discolor* Dunn.).

Morphology: The plant is an evergreen climbing shrub, grooved at young branches, and the old branches are dark brown and waxy. The bud scales are broadly ovate, without hairs at margins. The leaves are papery, ovate, elliptic-ovate, or elliptic, 4–9 cm long, 2–4 cm wide, apically acute or obtuse, basally broadly cuneate or rounded obtuse, decurrent, glabrous, and margins slightly rolled. The leaf blade is adaxially green, becoming black when dried, abaxially pale green, with three to five lateral veins on each side. The petioles are 0.7–1.5 cm long. The inflorescences are cymes, axillary, four to five flowered, glabrous. The peduncles are slender, and the pedicels are 4–7 mm long. There are five sepals, equal in size, triangular-ovate, 0.5–1 mm long, ciliate. There are five petals, ovate or elliptic-ovate, 2–3 mm long, apically rounded blunt. There are five stamens, nearly equal in size, and the filaments are about 2 mm long, anthers being oblong and extrorse. The disk is cup-shaped, irregularly lobed. The ovary is oval, and the styles are 2–3 mm long, stigma being globose. The fruits are drupes, and the schizocarps are obovate rounded or obovate, 5 mm in diameter, oblique inside of base, with faveolate cavities on the stones, midribs being distinct. The flowering period is from March to April. The fruiting period is from May to August.

Habitat: It grows in mountain bush forests at altitudes of 300–1000 m.

Distribution: It is distributed in provinces of Zhejiang, Fujian, Guangxi, Hunan, and Guangdong.

Acquisition and Processing: The roots and stems are dug up in summer and autumn, sliced and dried in the sun.

Natural Taste and Meridian Tropism: It is sweet and bitter in taste, neutral in property.

Functions: Expelling wind and dampness, promoting blood circulation and unblocking collaterals, and relieving pain, it is often used for treatment of rheumatism and arthralgia, injury caused by knocks and falls, and hepatitis.

Use and Dosage: 6–9 g per dose, decocted in water for oral use. For external treatment, the fresh products are mashed for application or decocted for washing with.





2.3 Family: Sabiaceae

2.3.1 *Sabia fasciculata*

Chinese Name(s): cu hua qing feng teng

Source: This medicine is made of the whole plants of *Sabia fasciculata* (*Sabia fasciculata* Lec.).

Morphology: The plant is an evergreen climbing woody vein, up to 7 m in height. The young branches are brown or black brown, waxy, and the bud scales are broadly triangular or broadly ovate. The leaves are leathery, oblong, elliptic, obovate-oblong or narrowly elliptic, 5–12 cm long, 1.5–3.5 cm wide, apically acute or long acuminate, basally cuneate or rounded, adaxially dark green and abaxially light green at leaf blade. There are five to eight lateral veins on each side, and the petioles are 0.8–1.5 cm long. The inflorescences are cymes, with three to four flowers, and then arranged in corymbose inflorescence. The peduncles are very short, 1–2 mm long. The pedicels are 3–6 mm long. The corymbose inflorescences are 10–20-flowered, glomerulate-clustered at early flowering. There are five sepals, ovate or oblong-ovate, 1–2 mm in length, apically acute or obtuse, with red subtle glands, margins being white. There are five petals, pale green, oblong-ovate or ovate, about 5 mm long, with seven veins, with red spots at middle. There are five stamens, anthers being extrorse. The disk is cup-shaped, with five obtuse teeth. The schizocarps are red, obovate or broadly obovate, 0.8–1 cm long. The midribs of the stone are prominently convex, narrowly winged, with one to two rows faveolate cavities on each side, flattened, adaxially protruding triangle. The flowering period is from February to May. The fruiting period is from May to October.

Habitat: It grows in mountain forests.

Distribution: It is distributed in provinces of Guangdong, Fujian, Guangxi, and Yunnan, as well as in Vietnam and Myanmar.

Acquisition and Processing: The whole plants are harvested in summer and autumn, sliced and dried in the sun.

Natural Taste and Meridian Tropism: It is sweet and astringent in taste, warm in property.

Functions: Expelling wind and dampness and removing blood stasis and swelling, it is often used for treatment of injury caused by knocks and falls and rheumatic arthralgia.

Use and Dosage: 15–30 g per dose, decocted or soaked in wine for oral use or smearing to the affected areas.





2.4 Family: Sabiaceae

2.4.1 *Sabia japonica*

Chinese Name(s): qing feng teng

Source: This medicine is made of the stems and leaves of *Sabia japonica* (*Sabia japonica* Maxim.).

Morphology: The plant is a climbing woody vine, deciduous. The young branches are green, pubescent. The old branches are purple brown, waxy, armed with single spines or bifurcate spines at bases. The bud scales are broadly ovate, ciliolate. The leaves are nearly papery, ovate-elliptic, ovate, or broadly ovate, 3.5–9 cm long, 2–4.5 cm wide, abaxially dark green at leaf blade, sparsely pubescent on mid-vein, adaxially pale, pilose on veins. The petioles are 2–5 mm long, pilose. The flowers appeared before leaves, solitary on axil, with four bracts at the base, obovate, 2–4 mm long. The pedicels are 2–4 mm in length and 2–2.5 cm at fruiting. There are five sepals, suborbicular or broadly ovate, about 0.5 mm long, ciliolate. There are five petals, light yellowish green, obovate or oblong-ovate, 3–4 mm long. There are five stamens, and anthers are narrowly elliptic, extrorse. The disk is cup-shaped, with five obtuse teeth. The ovary is ovate, pubescent. The schizocarps are suborbicular or sub-reniform, about 5 mm in diameter. The stones have prominent mid-ribs, with faveolate cavities, flattened. The flowering period is from February to March. The fruiting period is from April to July.

Habitat: It grows in sparse valleys or forests.

Distribution: It is distributed in provinces of Jiangsu, Anhui, Zhejiang, Fujian, Jiangxi, Guangdong, Hunan, and Guangxi. It is also distributed in Japan.

Acquisition and Processing: The stems and leaves are harvested in summer and autumn and dried in the sun.

Natural Taste and Meridian Tropism: It is slightly pungent in tastes, warm in property.

Functions: Dispelling wind and unblocking collaterals, reducing swelling, and relieving pain, it is often used for treatment of rheumatism arthralgia, pruritus, bruise, swelling and pain, fracture, furuncle, and swelling.

Use and Dosage: 10–15 g per dose, decocted in water for oral use.



2.5 Family: Staphyleaceae

2.5.1 *Euscaphis japonica*

Chinese Name(s): ye ya chun, ji shen guo, ji yan jing, ji zhun zi

Source: This medicine is made of the roots and fruits of *Euscaphis japonica* (*Euscaphis japonica* (Thunb.) Kanitz).

Morphology: The plant is a small deciduous tree, up to 5 m in height. The bark is grayish brown, with vertical striae, and the twigs and buds are red purple, with

unpleasant odor when the branches and leaves crushed. The leaves are odd-pinnate compound leaves, opposite, 12–32 cm long, with pale green rachis. There are five to nine leaflets, rarely 3–11, thin papery, oblong-ovate or elliptic, rarely rounded, 4–7 cm long, 2–4 cm wide, apically acuminate, basally obtuse rounded, sparsely serrulate with glandular teeth at margins, glabrous on both surfaces but adaxially pilose along veins, main vein impressed adaxially and prominent abaxially. There are 8–11 lateral veins, conspicuous on both surfaces. The petioles are 1–2 mm long, and the petiolules are linear, basally wide, apically acute, and villous. The inflorescences are panicles, terminal, and the pedicels are up to 21 cm long, with many flowers which are yellowish white, 4–5 mm in diameter. There are five sepals and petals, elliptic, sepals being persistent. The disk is plate-shaped, with three carpels, free. The fruits are capsules, 1–2 cm in length. Each flower develops into one to three capsules. The pericarp is softly leathery, purplish red, with longitudinal veins. The seeds are subglobose, about 5 mm in diameter, with fleshy aril, black, and shiny. The flowering period is from May to June. The fruiting period is from August to September.

Habitat: It grows in hillsides and valley thickets.

Distribution: It is distributed throughout China, except for provinces north of Shaanxi, as well as in Japan and North Korea.

Acquisition and Processing: The roots and fruits are harvested in autumn and winter, and dried in the sun.

Natural Taste and Meridian Tropism: The roots are slightly bitter in tastes, neutral in property. The fruits are pungent in taste, warm in property.

Functions: The roots function in relieving exterior symptoms, clearing heat, and promoting diuresis and are often used for treatment of cold, headache, dysentery, and enteritis. The fruits function in dispelling wind and cold, promoting the circulation of Qi, and relieving the pain and are often used for treatment of irregular menstruation, colic, and stomachache.

Use and Dosage: 15–30 g per dose for roots, 9–15 g per dose for fruits, decocted in water for oral use.





2.6 Family: Staphyleaceae

2.6.1 *Turpinia affinis*

Chinese Name(s): ying mao shan xiang yuan, da guo shan xiang yuan

Source: This medicine is made of the leaves of *Turpinia affinis* (*Turpinia affinis* Merr.).

Morphology: The plant is a tree, glabrous throughout except the inflorescences, and the bark is dark brown. The leaves are pinnate compound leaves, and the rachis is 6–14 cm long. There are two to four leaflets, rarely five, leathery, elliptic-oblong, 7–18 cm long, 2.5–6 cm wide, basally cuneate to obtuse, apically acuminate, with 1–1.25 cm long cusp, densely crenate at margins. There are seven to ten lateral veins, and the reticulate veins are inconspicuous. The stipules are caducous, and the small stipules are small. The petiolules are 1–1.5 cm long. The inflorescences are

panicles, 30 cm long, branched and spreading, pubescent. The flowers arranged in pseudoracemes, or umbels, on the rachis, large, and small pedicels are about 1.5 mm long. There are four petals mm long, obovate-elliptic, ciliate at margins, interior tomentose. The filaments are about 3 mm long, and the base enlarged to 1 mm wide, gradually narrowing upward, pubescent. The anthers are ovate-oblong, 1 (~ 1.2) mm long. The disk is dentate, 1/2 as long as the ovary. The ovary is about 1 mm long and the style is 2 mm long, both being hirsute, with six to eight ovules. The fruits are berry, subglobose, 1–1.5 cm in diameter, scarred, style persistent with stiff hairs, and the exocarp is 0.5–1 mm thick. The flowering period is from March to April. The fruiting period is from August to November.

Habitat: It grows in ditch edges or forests at altitudes of (500 ~) 1000–2000 m.

Distribution: It is distributed in provinces of Guangxi, Sichuan, Yunnan, and Guizhou.

Acquisition and Processing: The leaves are harvested in summer and autumn when luxuriant and dried in the sun.

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

Functions: Clearing heat and detoxicating, reducing swelling, promoting blood circulation, and relieving pain, it is often used for treatment of acute tonsillitis, pharyngitis, swelling and toxin of the sores and boils, and injury from knocks and falls.

Use and Dosage: 9–15 g per dose, decocted in water for oral use.





2.7 Family: Staphyleaceae

2.7.1 *Turpinia arguta*

Chinese Name(s): rui jian shan xiang yuan, liang zhi jian, qian da chui, shan xiang yuan, qi cun ding

Source: This medicine is made of the roots and leaves of *Turpinia arguta* (*Turpinia arguta* (Lindl.) Seem.).

Morphology: The plant is a deciduous shrub, 1–3 m tall, and the old branches are gray brown, speckled at young branches. The leaves are simple, opposite, thick papery, elliptic or oblong-elliptic, 7–22 cm long, 2–6 cm wide, apically acuminate,

with cusp which is 1.5–2 mm in length, basally obtuse or broadly cuneate, sparsely serrated at margins, with hard glands at tooth apex. There are 10–13 pairs of lateral veins, parallel, connected at leaf margins, prominent adaxially with reticulate veins and conspicuous abaxially, glabrous. The petioles are 1.2–1.8 cm long, and the stipules are borne on interior side of petioles. The inflorescences are terminal panicles, shorter than the leaves, 5–8 cm long, dense or sparse. The flowers are 8–10 mm long, white, with two bracteoles on the middle of pedicels. There are five sepals, triangular, green, with lashes at margins, or glabrous. The petals are white, glabrous, and the filaments are about 6 mm long, sparsely pubescent. The ovary and styles are pilose. The fruits are subglobose, green when young, turning black when dry, about 10 mm in diameter, coarse, apically cuspidate, the disk being persistent. There are two to three seeds.

Habitat: It grows in sparse forests of valleys or thickets of forest margins by streams.

Distribution: It is distributed in provinces of Fujian, Jiangxi, Hunan, Guangdong, Guangxi, Guizhou, and Sichuan.

Acquisition and Processing: The roots and leaves are harvested in summer and autumn and dried in the sun.

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

Functions: Promoting blood circulation and removing blood stasis, reducing swelling, and relieving pain, it is often used for treatment of splenomegaly and injury caused by knocks and falls.

Use and Dosage: For treatment of splenomegaly, 30–60 g of dry roots are stewed with porcine pancreas and taken orally. For treatment of injury, the leaves are mashed for external application to the affected areas.





2.8 Family: Staphyleaceae

2.8.1 *Turpinia montana*

Chinese Name(s): shan xiang yuan, yang shi hao

Source: This medicine is made of the leaves of *Turpinia montana* (*Turpinia montana* (Bl.) Kurz.).

Morphology: The plant is a small tree, and the branches and twigs are cylindrical, grayish green. The leaves are pinnate compound leaves, opposite, and the rachis is about 15 cm long, slender, green. There are five leaflets, opposite, papery, oblong to oblong-elliptic, (4~) 5–6 cm long, 2–4 cm wide, apically cuspidate with cusp 5–7 mm, basally broadly cuneate, sparsely crenate or serrate at margins, glabrous, adaxially green, abaxially greenish. There are many veins, which are conspicuous abaxially and faint adaxially, reticulate veins being invisible. The lateral petioles are

2–3 mm long, and the middle petioles are up to 15 mm long, slender, and green. The inflorescences are panicles, terminal, and rachis is up to 17 cm long, sparsely. There are many flowers, small, sparsely, about 3 mm in diameter. There are five sepals, glabrous, broadly elliptic, about 1.3 mm long. There are five petals, elliptic to rounded, tomentose or glabrous, about 2 mm long, filaments being glabrous. The fruits are globose purplish red, 4–7 mm in diameter. The exocarp is thin, about 0.2 mm thick, with two to three locules, one seed per locule.

Habitat: It grows in dense forest or valley sparse forest at an altitude of 500–1400 m.

Distribution: It is distributed in southwestern and southern China, as well as in Indochina Peninsula and Indonesia.

Acquisition and Processing: The leaves are harvested all year round and dried in the sun.

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

Functions: Clearing heat and detoxicating, reducing swelling, promoting blood circulation, and relieving pain, it is often used for treatment of acute tonsillitis, pharyngitis, swelling and toxin of the sores and boils, and injury from knocks and falls.

Use and Dosage: 15–30 g per dose, decocted in water for oral use.





2.9 Family: Anacardiaceae

2.9.1 *Choerospondias axillaris*

Chinese Name(s): guang zao, wu yan guo, shan zao

Source: This medicine is made of the mature fruits of *Choerospondias axillaris* (*Choerospondias axillaris* (Roxb.) Burt et Hill.).

Morphology: The plant is a deciduous tree, 7–15 m in height. The bark is gray brown, exfoliating, and the branches are purplish black, with reddish brown lenticellates. The leaves are odd-pinnate compound leaves, alternate, 20–30 cm long, pubescent at the rachis. There are 7–15 leaflets, which are opposite, papery or membranous papery, oblong lanceolate or oblong, 6–10 cm long, 2–4.5 cm wide, apically acuminate, basally cuneate to rounded, slightly oblique, adaxially black when dry, puberulent along middle veins, abaxially brown, with tufts of hair in vein axils. There are 10–15 lateral veins on each side, slender, prominent adaxially. The petioles are 5–12 mm long. The flowers are usually purple, 4–6 mm in diameter when blooming, polygamous, dioecious, with male flowers, and pseudo-bisexual flowers (sterile flowers) are arranged in axillary panicles, and female flowers are solitary in axils of distal leaves. The calyx is cup-shaped, five-lobed, with obtuse lobes. There are five petals, often slightly reflexed or explanate. There are ten stamens, which alternate with the lobes of disk, protrude out of the male flower and shorter than the petals in the pseudo-bisexual flowers. The ovary is five-loculed, with five styles, separated. The fruits are drupes, ellipsoidal or nearly ovate, 2–2.5 cm long, 1.4–2 cm in diameter, obtuse at both ends, yellow when

mature. The stones are hard and boney, with five holes at the apex, which covered with a membrane. The flowering period is in spring. The fruiting period is in summer and autumn.

Habitat: It grows in sparse forests in low to medium altitude valleys.

Distribution: It is distributed in provinces from southwest to south central China. It is also distributed in Japan, the Indochina Peninsula, and northeastern India.

Acquisition and Processing: The fruits are harvested in autumn when mature and dried in the sun.

Medicinal Properties: The product is ovate elliptic, 1.5–2.5 cm long and 1–2 cm in diameter, dark brown on surfaces, slightly glossy, with fine wrinkles, and mark of carpopodium at the base. The pulp is thin and brown. The nucleus is nearly ovate, yellowish brown, and there are usually five elliptic holes near the top. It is hard, difficult to break, with five oblong seeds, slight in odor and sour in taste. The products big, dark brown, sour, and astringent are better in quality.

Natural Taste and Meridian Tropism: It is sweet, sour, and astringent in taste, cold in property, belonging to the meridians of the spleen and liver.

Functions: Promoting circulation of Qi and blood, nourishing heart and tranquilizing the mind, promoting digestion, and detoxicating, it is often used for treatment of Qi stagnation and blood stasis, palpitation, shortness of breath, abdominal pain due to food stagnation, and alcoholism, as well as for external treatment of psoriasis, scald, and bleeding. It is often calcined carbon, ground to powder, and mixed with sesame oil and applied to the affected area.

Use and Dosage: 10–25 g per dose, decocted in water for oral use.

Prescription Example(s):

1. Clinical diagnoses and symptoms: chronic bronchitis: *Choerospondias axillaris* 250 g, stewed with pork. Take the meat with soup.
2. Clinical diagnoses and symptoms: hernia: appropriate amount of *Choerospondias axillaris*, ground with water for take.
3. Clinical diagnoses and symptoms: food stagnation and abdominal pain: two to three fresh *Choerospondias axillaris*, chewed and taken.

Annotations: 1. The core of *Choerospondias axillaris* functions in stopping vomiting, the root and leaf function in curing dyspepsia, and the root barks and bark function in treating scald, sore, and fester.

2. Although the product is produced in Guangdong, it is not often used in Guangdong but in the north, northeast, and northwest China, especially in Inner Mongolia. It is used not only for the treatment of human but also for horses. Because it is produced in Guangdong Province and looks like jujube, it is called Guangzao.





2.10 Family: Anacardiaceae

2.10.1 *Dracontomelon duperreanum*

Chinese Name(s): ren mian zi, ren mian guo, yin ren, ren mian

Source: This medicine is made of the fruits of *Dracontomelon duperreanum* (*Dracontomelon duperreanum* Pierre [*D. dao* (Blanco) Merr. et Rolfe]).

Morphology: The plant is a large evergreen tree. The leaves are odd-pinnate compound leaves, 30–45 cm in length, with five to seven pairs of leaflets, striated at rachis and petioles, sparsely pubescent. The leaflets are alternate, nearly leathery, oblong, increasing in size from bottom to top, 5–14.5 cm long, 2.5–4.5 cm wide, apically acuminate, basally broadly cuneate or rounded, entire at margins, sparsely pubescent along midrib on both surfaces, abaxially with white tufts of hair in vein axils, with eight to nine pairs of lateral veins. The petiolules are short, 2–5 mm long. The inflorescences are panicles, terminal or axillary, shorter than leaves, 10–23 cm long, sparsely gray pubescent. The flowers are white, with pedicels being 2–3 mm long, pubescent. The sepals are broadly ovate or elliptic-ovate, 3.5–4 mm long and about 2 mm wide, obtuse at the apex, with grayish yellow pubescence on both surfaces. The petals are lanceolate or narrowly oblong, about 6 mm long and 1.7 mm wide, glabrous, with three to five dark brown longitudinal veins. The filaments are linear, glabrous, about 3.5 mm long. The anthers are oblong, about 1.5 mm long. The disk is glabrous, undulate at margins. The ovary is glabrous, 2.5–3 mm long, and the styles are short, about 2 mm long. The fruits are drupes, oblate, about 2 cm long and 2.5 cm in diameter, yellow when mature. The stones are compressed, 1.7–1.9 cm in diameter, with five locules, usually one to two locules being sterile. There are three to four seeds.

Habitat: It grows near villages, roads, and poolside.

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

Acquisition and Processing: The fruits are harvested in summer and autumn and dried in the sun.

Natural Taste and Meridian Tropism: It is sour in taste, cool in taste.

Functions: Promoting digestion and increasing secretion of saliva to relieve thirst, it is often used for treatment of dyspepsia, anorexia, fever, and thirst.

Use and Dosage: Three to five fruits, decocted in water for oral use.



2.11 Family: Anacardiaceae

2.11.1 *Rhus chinensis* [1]

Chinese Name(s): wu bei zi, wen ge, bai chong cang, jiao bei

Source: This medicine is made of the gallnuts of aphid on leaves of *Rhus chinensis* (*Rhus chinensis* Mill.).

Morphology: The plant is a deciduous shrub or a small tree, 2–10 m in height, with pale yellow to ferruginous pubescent at whole plant. The leaves are odd-pinnate compound leaves, alternate, up to 45 cm long, often with three to six pairs of leaflets, and the leaf rachis is obviously winged. The leaflets are sessile, ovate to oblong, 6–12 cm long, apically acuminate or acute, basally rounded or cuneate, coarsely serrated at margins, adaxially pilose, abaxially glaucous, or ferruginous pubescent. The flowers are monoecious, arranged in terminal panicles. The male inflorescences are 30–40 cm long. The male flower: The calyx has five lobes, ovate-oblong, about 1 mm long, pubescent. The petals are white, obovate-oblong, about 2 mm long. There are five stamens, and the anthers are protruding, the ovary being sterile. The female inflorescences are slightly shorter than male inflorescences, with lanceolate bracts. Female flowers: The calyx lobes are about 0.6 mm long. There are five petals, white, ovate, about 1.5 mm long. The ovary is sessile, puberulous, with three styles, stigma being capitate. The fruits are drupes, oblate, 3–4 mm long, mixed pilose and glandular-pubescent, glaucous when mature. The flowering period is from August to September. The fruiting period is in October.

Habitat: It grows on hillsides, sparse forests on the edge of forests, or bushes on deserted slopes and open areas.

Distribution: It is distributed in central, southern, and southwestern provinces of China. It is distributed in southern to eastern Asia.

Acquisition and Processing: The uncracked galls are collected in autumn and can be dried directly, but usually steamed or boiled in boiling water until they turned gray and translucent and then taken out for drying.

Medicinal Properties: This product is rhombic, often with tuberculiform protuberances and angular branches, 2.5–9 cm long grayish brown on surfaces, smooth, densely covered with grayish white pubescence, and the shell is often less than 2 mm. It is hard and brittle, easy to be broken, and the cross sections are keratinous and glossy. The inner wall is smooth and adhered with aphid body and aphid excreta. It is special in odor and astringent in taste. The products large, complete, grayish brown, and unbranched are better in quality.

Natural Taste and Meridian Tropism: It is sour, astringent, and cold in taste, belonging to the meridians of the lungs, kidneys, and large intestine.

Functions: Arresting persistent cough, astringing the intestines, controlling nocturnal emission, and stopping sweating and bleeding, it is often used for deficiency of the lungs, coughing, diarrhea, dysentery, night sweating, spermatorrhea, and

enuresis, as well as external treatment for dermatitis, ringworm, mouth ulcer, backache, burn, and traumatic bleeding.

Use and Dosage: 3–7 g per dose, decocted in water for oral use. For external treatment, proper amounts of medicine are used for application.

Annotations: *Rhus potaninii* Maxim. and *Rhus punjabensis* Stew. var. *sinica* (Diels) Rehd. et Wils. are also host plants of gallnuts. The galls on the leaves of the two plants are called “du bei” and those on the leaves of *Rhus chinensis* are called “jiao bei.” Although the medicinal efficacy of the two medicines is similar, but that of “jiao bei” is stronger.





2.12 Family: Anacardiaceae

2.12.1 *Toxicodendron succedaneum*

Chinese Name(s): mu la shu, qi mu, yang qi shu, ye qi shu

Source: This medicine is made of the roots, leaves, barks, and fruits of *Toxicodendron succedaneum* (*Toxicodendron succedaneum* (Linn.) Kuntze [*Rhus succedanea* Linn.]).

Morphology: The plant is a deciduous tree, up to 10 m in height, and the bark is dark brown. The branchlets are thick and glabrous. The buds are large, purple brown, sparsely tomentose. The leaves are odd-pinnate compound leaves, alternate, often congregated at the terminal branches, 15–25 cm long, and the petioles are 6–9 cm long. There are 7–15 leaflets, opposite or near opposite, thinly leathery, oblong-elliptic, broadly lanceolate, or ovate-lanceolate, 5–16 cm long, 2–5.5 cm wide, apically acuminate or long acuminate, basally slightly oblique, rounded or broadly cuneate, entire at margins, glabrous on both surfaces, usually glaucous abaxially. The petiolules are 2–5 mm long. The inflorescences are panicles, 7–15 cm long, about 1/2 the length of leaves, many branched, glabrous. The flowers are small, polygamous, yellowish green, about 2 mm in diameter. The pedicels are about 2 mm long. The calyx is glabrous, lobes being broadly ovate, about 1 mm long. The petals are oblong, about 2 mm long, with inconspicuous pinnately veins or nearly veinless in the middle. The stamens exerted, and the filaments are linear, about 2 mm long, anthers being ovate, about 1 mm long. The disk is five-lobed. The ovary is globose, about 0.8 mm in diameter, glabrous, with one style, short, and stigma three-lobed, brown. The fruits are drupes, large, oblique, 7–10 mm in diameter, compressed, pale yellow, glabrous. The mesocarp is waxy and white, and the stone is hard and compressed.

Habitat: It grows mostly in hillsides and ditch bushes below 1000 m above sea level.

Distribution: It is distributed in South China, East China, Southwest China, and Hebei. It is also distributed from southeast to east Asia.

Acquisition and Processing: The roots, leaves, and barks are collected in summer and autumn and the fruits are collected in winter and dried in the sun.

Natural Taste and Meridian Tropism: It is bitter and astringent in taste, neutral in property, and a little toxic.

Functions: Relieving asthma, detoxicating, dissipating blood stasis and reducing swelling, killing pain, and stopping bleeding, it is often used for treatment of asthma, acute and chronic hepatitis, stomachache, bruise and injury, as well as external treatment of fracture and traumatic bleeding.

Use and Dosage: 6–9 g per dose, decocted in water for oral use. For external treatment, proper amounts of medicine are used for application.

Prescription Example(s):

1. Clinical diagnoses and symptoms: hemoptysis of pulmonary tuberculosis and bleeding of ulcer: fresh leaves of *Toxicodendron succedaneum* 6–9 g, decocted in water for oral use.
2. Clinical diagnoses and symptoms: hookworm disease: *Toxicodendron succedaneum* leaves 9–15 g, decocted in water for oral use.
3. Clinical diagnoses and symptoms: sore and furuncles: wood wax leaves are ground to powder and applied to the affected area.
4. Clinical diagnoses and symptoms: bleeding: fresh *Toxicodendron succedaneum* leaf, tender leaves of Masson pine, and fresh leaves of pseudo-ginseng or *Grangea maderaspatana* in proper amounts, mashed and applied to the affected areas.





2.13 Family: Anacardiaceae

2.13.1 *Toxicodendron sylvestri*

Chinese Name(s): ye qi shu, mu la shu, shan qi shu, ye mao qi

Source: This medicine is made of the root barks, leaves and fruits of *Toxicodendron sylvestri* (*Toxicodendron sylvestri* (Sieb. et Zucc.) Kuntze [*Rhus sylvestris*]).

Morphology: The plant is a deciduous tree, up to 10 m in height, and the young branches and buds are yellowish brown tomentose. The leaves are odd-pinnate compound leaves, alternate, with three to six pairs of leaflets, rarely seven pairs. The leaf rachis and petioles are cylindrical, densely yellow tomentose. The petioles are 4–8 cm long. The leaflets are opposite, papery, ovate to ovate-elliptic or oblong, 4–10 cm long, 2–4 cm wide, apically acuminate or acute, basally oblique, rounded or broadly cuneate, entire at margins, adaxially densely curled pubescent along midrib, the rest being slightly flattened pilose, abaxially densely pubescent or only densely along the veins. There are 15–25 pairs of lateral veins, prominent on both surfaces, veinlets being prominent abaxially. The leaflet petiolules are sessile or short. The inflorescences are panicles, 8–15 cm long, densely ferruginous tomentose, and the peduncles are 1.5–3 cm long. The flowers are yellow, and the pedicels are 1.5 mm long, curled pubescent. The calyx is glabrous, and lobes are ovate, about 0.8 mm long, apically obtuse. The petals are oblong, about 1.6 mm long, with brown featherlike venation pattern, glabrous. The stamens exserted, and the filaments are linear, about 1.5 mm long, and the anthers being ovate, about 0.5 mm long. The disk is glabrous. The ovary is globose, about 1 mm in diameter, glabrous. The fruits are drupes, which are extremely oblique and compressed, apically eccentric, about 8 mm long, 6–7 mm wide. The exocarp is thin, shiny, glabrous, not separating when mature, mesocarp being waxy, endocarp being hard.

Habitat: It grows mostly in sparse forests or shrubs on mountain slopes below 1000 m above sea level.

Distribution: It is distributed in provinces of Hainan, Guangdong, Guangxi, Jiangxi, Fujian, Zhejiang, Hunan, Hubei, Jiangsu, Anhui, and Guizhou, as well as in North Korea and Japan.

Acquisition and Processing: The root barks and leaves are harvested in summer and autumn, and the fruits are harvested in winter and dried in the sun.

Natural Taste and Meridian Tropism: It is pungent in taste, warm in property, and a little toxic.

Functions: Removing blood stasis and reducing swelling, stopping bleeding, and promoting granulation, it is often used for treatment of asthma, acute and chronic hepatitis, stomachache, bruise and injury, as well as external treatment for fracture, trauma, and bleeding.

Use and Dosage: 6–9 g per dose, decocted in water for oral use. For external treatment, proper amounts of medicine are used for application.





2.14 Family: Anacardiaceae

2.14.1 *Toxicodendron vernicifluum*

Chinese Name(s): gan qi, da mu qi

Source: This medicine is made of the processed dry resin of *Toxicodendron vernicifluum* (*Toxicodendron vernicifluum* (Stokes) F. A. Barkl.).

Morphology: The plant is a deciduous tree, up to 20 m in height. The bark is grayish white, rough, with irregular longitudinal cracks, and branchlets are thick, brownish yellow pilose. The leaves are odd-pinnate compound leaves, alternate, often spirally arranged, with four to six pairs of leaflets, and the rachis is pubescent. The petioles are 7–14 cm long, pubescent. The leaflets are membranous, ovate or ovate-elliptic, 6–13 cm long, 3–6 cm wide, apically acute or acuminate, basally oblique. The inflorescences are panicles, 15–30 cm long, covered with grayish yellow pubescence, with slender branches and rachis, sparsely flowered. The flowers are yellowish green, with slender pedicels in male flowers, 1–3 mm long, and the female flower pedicels are short and thick. The calyx is glabrous, with ovate lobes, about 0.8 mm long, apically obtuse. The petals are oblong, about 2.5 mm long, 1.2 mm wide, with brown featherlike venation pattern, apically obtuse, reflexed when flowering. The stamens are about 2.5 mm long, and the filaments are linear, equal or nearly equal to anthers in length, shorter in female flower, anthers being oblong. The disk is five-lobed, glabrous. The ovary is globose, 1.5 mm in diameter, with three styles. The infructescences are pendulous, drupes are sub-reniform or elliptic, slightly compressed, 5–6 mm long, 7–8 mm wide, with yellow epicarp and brown endocarp. The endocarp is about 3 mm long, 5 mm wide, hard. The flowering period is from May to June. The fruiting period is from July to October.

Habitat: It grows in hillside forests on the sunny side of 800–2800 m above sea level and is also cultivated.

Distribution: It is distributed in many provinces in China, except Heilongjiang, Jilin, Inner Mongolia, and Xinjiang, as well as in India, North Korea, and Japan.

Acquisition and Processing: Collect the residue left at the bottom of the paint container and dry it.

Medicinal Properties: The products are irregular bulks, dark brown or blackish brown, and rough on surface, with honeycomb-like small holes or granules. It is hard and uneasy to break, and the sections are not flat. It has a special smell.

Natural Taste and Meridian Tropism: It is pungent in taste, warm in property, and toxic.

Functions: Removing the blood stasis and unblocking meridians, dissipating accumulation, and killing insects, it is often used for treatment of women's amenorrhea, abdominal mass due to blood stasis, and abdominal pain due to enterosistosis.

Use and Dosage: 4–8 g per dose, made into pills or powder. For external treatment, the medicine is burnt for smoking the affected areas.





2.15 Family: Connaraceae

2.15.1 *Rourea microphylla*

Chinese Name(s): xiao ye hong ye teng, niu shuan teng, niu jian chou, li zhi teng, ba wang teng

Source: This medicine is made of the roots and leaves of *Rourea microphylla* (*Rourea microphylla* (Hook. et Arn.) Planch. [*Connarus microphylla* Hook. et Arn.]).

Morphology: The plant is a climbing shrub. The leaves are oddly pinnately compound, with 7–17 leaflets, sometimes as many as 27, with 5–12 cm long leaf rachis, glabrous. The leaflets are hard papery to subleathery, ovate, lanceolate, or oblong-lanceolate, 1.5–4 cm long, 0.5–2 cm wide, apically acuminate and obtuse, basally cuneate to rounded, often oblique, entire at margins, glabrous at both surfaces, adaxially shiny, abaxially pinkish green, adaxially prominent on the middle veins. There are four to seven pairs of lateral veins, slender. The inflorescences are panicles, clustered in the leaf axils, usually 2.5–5 cm long. The peduncle and pedicels are slender, and the bracts and bracteoles are indistinct. The flowers are fragrant, 4–5 mm in diameter. The sepals are oval, 2.5 mm long and 2 mm wide, apically acute, glabrous on both surfaces, pubescent along margin. The petals are white, yellowish or pink, elliptic, 5 mm long, 1.5 mm wide, apically acute, glabrous, longitudinally striate. There are ten stamens, with longitudinally lobed anthers, and the longer filaments are 6 mm long, shorter ones about 4 mm. The pistil is free, 3–5 mm long, and the ovary is oblong. The fruits are capsules, elliptic or oblique ovate, 1.2–1.5 cm long, 0.5 cm wide, red when mature, curved or straight, apically acute, longitudinally striate, dehiscent along adaxial suture, base with persistent sepals. The seeds are elliptic, about 1 cm long, orange yellow, covered by membranous aril.

Habitat: It grows in hills, sparse forests, or thickets.

Distribution: It is distributed in Guangdong, Hainan, Taiwan, Fujian, Guangxi, Yunnan, Sichuan, and other provinces.

Acquisition and Processing: The roots and leaves are harvested in summer and autumn and dried in the sun.

Natural Taste and Meridian Tropism: It is sweet and pungent in taste, warm in property.

Functions: Promoting blood circulation and unblocking meridians, stopping bleeding, and relieving pain, it is often used for treat amenorrhea, as well as external treatment for bruise, swelling and pain, and traumatic bleeding.

Use and Dosage: 9–15 g per dose, decocted in water for oral use. For external treatment, the fresh leaves are mashed and applied to the affected areas.





2.16 Family: Juglandaceae

2.16.1 *Cyclocarya paliurus*

Chinese Name(s): qing qian liu, qing qian li, shan ma liu, shan hua shu

Source: This medicine is made of the leaves of *Cyclocarya paliurus* (*Cyclocarya paliurus* (Batalin) Iljinsk.).

Morphology: The plant is a tree, up to 30 m in height. The leaves are odd-pinnate compound leaves, about 20 cm long, with seven to nine leaflets. The petioles are about 3–5 cm long, densely pubescent or gradually glabrescent. The leaflets are papery, oblong-ovate to broadly lanceolate, 5–14 cm long, 2–6 cm wide, basally oblique, cuneate to subrounded, apically obtuse or acute, rarely acuminate. The petioles of the terminal leaflets are about 1 cm long, sharply serrated at margins, and there are 10–16 pairs of lateral veins, with glands on it. The inflorescences are catkins. The male inflorescences are 7–18 cm in length, three or rarely two to four inflorescences clustered in the peduncles, 3–5 mm in length. The peduncles are densely pubescent and peltately glandular. The pedicels of male flowers are about 1 mm long. The female inflorescences are solitary, often densely pubescent on peduncles and gradually glabrescent, with a brown scale below the female inflorescences. The fruiting spike is 20–30 cm long, glabrous, or pilose. The fruits are oblate, about 7 mm in diameter, and the fruit pedicels are about 1–3 mm long, densely pubescent. The central part of fruits is disk wing leathery, 2.5–6 cm in diameter in the horizontal direction, with four persistent perianth and styles on apex. The fruits and fruit wings are all covered with glands.

Habitat: It is mostly found in sparse forests above 500 m above sea level.

Distribution: It is distributed in provinces of Anhui, Jiangsu, Zhejiang, Jiangxi, Guangdong, Fujian, Taiwan, Hubei, Hunan, Sichuan, Guizhou, Guangxi, and Yunnan.

Acquisition and Processing: The leaves are harvested in summer and autumn and dried in the sun.

Natural Taste and Meridian Tropism: It is pungent and slightly bitter in taste, neutral in property.

Functions: Dispelling wind and relieving itching, clearing heat, and detoxicating, it is often used for treatment of diabetes, hyperlipidemia, and dermatophytosis.

Use and Dosage: 10–15 g per dose, decocted in water for oral use. For external treatment, the fresh leaves are mashed and applied to the affected areas.





2.17 Family: Juglandaceae

2.17.1 *Engelhardia roxburghiana*

Chinese Name(s): huang qi, huang ju, ren qi, tu hou pu

Source: This medicine is made of the leaves and barks of *Engelhardia roxburghiana* (*Engelhardia roxburghiana* Wall. [*Engelhardia chrysolepis* Hance]).

Morphology: The plant is a semi-evergreen tree. The leaves are even-pinnate compound leaves, 12–25 cm long, and the petioles are 3–8 cm long, with three to five pairs of leaflets, few two pairs on the same branch, nearly opposite. The petiolules are 0.6–1.5 cm in length. The leaves are leathery, 6–14 cm long, 2–5 cm wide, long elliptic-lanceolate to long-elliptic, entire at margins, apically acuminate or shortly acuminate, basally oblique, shiny on both surfaces, with 10–13 pairs of lateral veins. The flowers are monoecious, rarely dioecious, with one female inflorescence and several male inflorescences, long and pendulous, sparsely flowered, often arranged in a terminal paniculiform inflorescences, with female inflorescences at the terminal and male inflorescences below, or female inflorescences are terminal when dioecious. The male flowers are sessile or subsessile, with four perianths, cucullate. There are 10–12 stamens, almost without filaments. The female flowers are about 1 mm long, with three bracts and not attached to the ovary. There are four perianths attached to the ovary. The ovary is subglobose, without styles, and the stigma four-lobed. The infructescences are 15–25 cm long, and the fruits are nut-shaped, globose, about 4 mm in diameter, with membranous epicarp and bony endocarp. There are three-lobed bracts on the base of the fruits, and the middle lobes are about twice as long as the lateral lobes. The middle lobes are 3–5 cm long, 0.7–1.2 cm wide, long oblong, obtuse at the apex.

Habitat: It grows in dry, sparse, or secondary forests in mountains, valleys, hills, or hillsides.

Distribution: It is distributed in southern and southwestern provinces of China, as well as in India, Myanmar, Thailand, and Vietnam.

Acquisition and Processing: The leaves and barks are harvested in summer and autumn and dried in the sun.

Natural Taste and Meridian Tropism: The bark is slightly bitter and pungent in taste, neutral in property, and the leaf is slightly bitter in taste, cool in property.

Functions: Promoting Qi flow and dispelling dampness, dissipating stagnation, clearing heat, and relieving pain, the barks function in relieving dampness of the spleen and stomach, distention of the chest and abdomen, and diarrhea due to damp heat. The leaves function in treating hernia, abdominal pain, cold, and fever.

Use and Dosage: 6–9 g per dose for barks, 12–15 g per dose for leaves, decocted in water for oral use.





2.18 Family: Juglandaceae

2.18.1 *Juglans cathayensis*

Chinese Name(s): ye he tao, shan he tao

Source: This medicine is made of the kernels of *Juglans cathayensis* (*Juglans cathayensis* Dode).

Morphology: The plant is a tree, 12–25 m in height, 1–1.5 m in DBH. The young branches are grayish green, glandular-pubescent. The apical buds are exposed, cone-shaped, about 1.5 cm long, yellowish brown, with densely hairs. The leaves are odd-pinnate compound leaves, 40–50 cm long, with hairs on the petioles and rachis, with 9–17 pairs of leaflets. The leaflets are hard papery, ovate-oblong or long ovate, 8–15 cm long, 3–7.5 cm wide, apically acuminate, basally obliquely rounded, with stellate hairs on both surfaces. The male catkins grow at the terminal leaf axils of the last year's branches, 18–25 cm long, with sparsely hairs on the rachis. The male flowers are covered with glandular hairs, with 13 stamens, anthers

being yellow, about 1 mm long, hairy, connective slightly protruding. The female inflorescences are grown at the terminal of the current year's branches, 2.5 cm long, and enlarged to 8–15 cm later. The female flowers are arranged in spikes. The female flowers are covered with densely tan glandular hairs, and the ovary is ovate, about 2 mm long, styles being short, stigma being two deeply lobed. The infructescences often have six to ten fruits, which are ovate or oval, 3–4.5 cm long, and the epicarp is densely covered with glandular hairs. The stone is ovate or broadly ovate, endocarp being hard, with six to eight longitudinal ribs. The flowering period is from April to May. The fruiting period is from August to October.

Habitat: It grows in mixed woods at an altitude of 800–2800 m.

Distribution: It is distributed in provinces of Gansu, Shaanxi, Shanxi, Henan, Hubei, Hunan, Sichuan, Chongqing, Guizhou, Yunnan, and Guangxi.

Acquisition and Processing: The fruits are harvested in October when mature and stored for 6–7 days. After the peel is mildewed, the peel will be rubbed off, washed, and dried to 50%, then the core will be broken, and the seed kernel will be picked and dried.

Natural Taste and Meridian Tropism: It is sweet in taste, warm in property.

Functions: Nourishing Qi and blood, moistening dryness and dispelling phlegm, warming the lungs and moistening the intestines, warming the kidneys and activating Yang, and relieving constipation, it is often used for treatment of cough without phlegm, asthma due to deficiency of the lungs, sore of the waist and knees, constipation due to dryness of the intestine, dry skin, cough of cold and deficient type, and aching of lower limbs.

Use and Dosage: 30–50 g per dose, decocted in water for oral use, or 10–30 g per dose, mashed and chewed. For external treatment, the products are mashed for smearing.





2.19 Family: Juglandaceae

2.19.1 *Juglans regia* [2]

Chinese Name(s): he tao ren, he tao

Source: This medicine is made of the kernels of *Juglans regia* (*Juglans regia* L.).

Morphology: The plant is a deciduous tree, 20–25 m in height, and the pith is thin. The leaves are alternate, with odd-pinnate compound leaves, 25–30 cm long, 5–9 leaflets, rarely 3–11. The leaflets are elliptic-ovate to long elliptic, 6–15 cm long, 3–6 cm wide, adaxially glabrous, abaxially glabrous except for tufts of hairs

in vein axils, with short petiolule or nearly absent. The flowers are unisexual, monoecious. The male flowers arranged in catkins, pendulous, 5–10 cm long, with 6–22 stamens or more. There are two to several female flowers clustered at the terminal. The ovary is inferior, with two styles, featherlike. The infructescences are short, pendulous, with one to three fruits. The fruits are subglobose, with fleshy, irregularly dehiscent husk. The shell is thick, uneven, or wrinkled on the surface, with two longitudinal ribs, apically mucronate, septum being thin. The flowering period is in May. The fruiting period is in October.

Habitat: It is cultivated.

Distribution: It is widely cultivated throughout China and native to southeastern Europe and western Asia.

Acquisition and Processing: The mature fruits are harvested in autumn, the fleshy peel removed dried in the sun, and then the core shell removed.

Medicinal Properties: The product is often broken into irregular pieces and flakes, with different sizes. The intact ones are nearly round, 2–3 cm in diameter. The outer skin is light yellow or yellowish brown, membranous, with dark brown veins visible. The cotyledons are white, brittle, and fragile, rich in oil. It is odorless and sweet in taste. The testa is astringent and slightly bitter. The products large, plump, and white on sections are better in quality.

Natural Taste and Meridian Tropism: It is sweet in taste and warm in property, belonging to the meridians of the kidneys, lungs, and large intestine.

Functions: Clearing away the lungs' heat, relieving asthma, tonifying the kidneys, and controlling nocturnal emission, it is often used for treatment of dyspnea and coughing due to deficiency of cold, weakness of the waist and knee, spermatorrhea, and impotentia.

Use and Dosage: 6–9 g per dose, decocted in water or taken directly.

Annotations:

1. The dried fleshy pericarp of *Juglans regia* is also used as medicine, which is called “qing long yi.” It is bitter and astringent in taste, neutral in property. It functions in relieving pain, detoxicating, and reducing swelling and is often used for treatment of abdominal pain, dysentery, sores, and tinea. The dosage is 10–15 g each time.
2. The woody septum of *Juglans regia* kernel is also used as medicine, which is called “fen xin mu.” It is bitter and astringent in taste, neutral in property. It functions in tonifying the kidneys and controlling nocturnal emission and is often used for treatment of spermatorrhea and enuresis due to kidney deficiency, hematuria, leukorrhea, and diarrhea. The dosage is 10–15 g each time.





2.20 Family: Juglandaceae

2.20.1 *Platycarya longipes*

Chinese Name(s): yuan guo hua xiang shu

Source: This medicine is made of the leaves of *Platycarya longipes* (*Platycarya longipes* Wu).

Morphology: The plant is a deciduous tree. The leaves are odd-pinnate compound leaves, 8–15 cm long. The total petiole is slightly longer or nearly equal to

the leaf rachis. There are three to five leaflets, rarely up to seven, 3–8 cm long, 2–3.5 cm wide, adaxially green, abaxially light green, glabrous except for dense cluster of hairs at base and along midvein. There are 10–13 pairs of lateral veins, which raised abaxially and serrated at margins. The lateral leaflets are sessile, oblong-lanceolate, slightly sickle-curved, basally oblique, cuneate or broadly cuneate, apically acuminate. The terminal leaflets are elliptic-lanceolate, basally symmetric, obtuse, with 1–2.5 cm long stalks. The inflorescences are bunched at the branch apex, the bisexual inflorescences are located in the center of the apex, and the male inflorescences are located below. The bisexual inflorescences are about 3–4 cm long, and the female inflorescences below are about 7 mm long. There are usually two to six male inflorescences, 3–5 cm long. Male flowers: The bracts are ovate-lanceolate, pubescent on outer base, inner apex and margins, about 3 mm long. There are eight stamens, and the filaments are extremely short, anthers being broadly ovate, with conspicuous septum. The bracts of female flowers are ovate-lanceolate, hard, apically acuminate. The infructescences are cone-shaped, globose, about 1.2–2 cm in diameter, bracts arranged valvate, elliptic. The fruits are small nut-shaped, narrow winged on both sides, dorsal abdomen being flattened, nearly rounded, and both length and width are about 3 mm.

Habitat: It often grows in forests at 450–800 m above sea level.

Distribution: It is distributed in provinces of Guangxi, Guangdong, Guizhou, Yunnan, and Hunan.

Acquisition and Processing: The leaves are collected in summer and autumn and used when fresh.

Natural Taste and Meridian Tropism: It is sweet in taste and warm in property, poisonous.

Functions: Detoxicating and curing sores, killing insects, and relieving itching, it is often used for treatment of ulcers, carbuncle, abscess, ringworm, and eczema of scrotum.

Use and Dosage: The fresh products are mashed and applied to the affected areas or decocted for washing with.





2.21 Family: Cornaceae

2.21.1 *Bothrocaryum controversum*

Chinese Name(s): deng tai shu, liu jiao shu, rui mu

Source: This medicine is made of the root barks and leaves of *Bothrocaryum controversum* (*Bothrocaryum controversum* (Hemsl.) Pojark. [*Cornus controversa* Hemsl.]).

Morphology: The plant is a deciduous tree. The leaves are alternate, papery, broadly ovate, lanceolate elliptic, 6–13 cm long, 3.5–9 cm wide, apically acute, basally rounded or acute, entire, adaxially yellowish green, glabrous, abaxially grayish green, densely pubescent with appressed trichomes, six to seven pairs of lateral veins. The petioles are purplish red green, 2–6.5 cm long. The inflorescences

are corymbose cymes, terminal, 7–13 cm wide. The peduncles are pale yellowish green, 1.5–3 cm long. The flowers are small, white, 8 mm in diameter. The calyx has four lobes, triangular, about 0.5 mm long, longer than disk, pubescent outside. There are four petals, oblong-lanceolate, 4–4.5 mm long, 1–1.6 mm wide, apically obtuse, and sparsely pubescent with appressed trichomes. There are four stamens, inserted on the outside of the disk, and alternate with the petals, 4–5 mm long, slightly protruding from the flower. The filaments are linear, white, glabrous, 3–4 mm long, and the anthers are elliptic, about 1.8 mm long, two-locular. The disk is cushion-shaped, glabrous, about 0.3 mm thick. The styles are cylindrical, 2–3 mm long, glabrous, and stigma is small, head-shaped, yellowish green. The ovary is inferior, 1.5 mm long, 1 mm in diameter, pale green, densely pubescent with grayish white appressed trichomes. The pedicels are pale green, 3–6 mm long, sparsely pubescent with appressed trichomes. The fruits are drupes, globose, 6–7 mm in diameter, purplish red to blue black when mature.

Habitat: It grows in evergreen broad-leaved forests or mixed broad-leaved and coniferous forests above 250 m above sea level.

Distribution: It is distributed in provinces of Liaoning, Hebei, Shaanxi, Gansu, Shandong, Anhui, Taiwan, Henan, Guangxi, and provinces south of the Yangtze River, as well as in North Korea, Japan, India, Nepal, and Bhutan.

Acquisition and Processing: The root barks and leaves are collected in summer and autumn and dried in the sun.

Natural Taste and Meridian Tropism: It is slightly bitter in taste, cool in property.

Functions: Clearing heat and soothing the liver, relieving pain, promoting blood circulation, and reducing swelling, it is often used for treatment of headache, vertigo, sore throat, aching muscles and bones, and injury caused by falls and knocks.

Use and Dosage: 9–15 g per dose, decocted in water for oral use.





2.22 Family: Cornaceae

2.22.1 *Cornus chinensis*

Chinese Name(s): chuan e shan zhu yu

Source: This medicine is made of the sarcocarps with peels of *Cornus chinensis* (*Cornus chinensis* Wanger.).

Morphology: The plant is a deciduous tree, 4–10 m in height, and the bark is dark brown. The branches are opposite, purplish red when young, densely pubescent with gray appressed trichomes. The leaves are opposite, ovate-lanceolate to oblong-elliptic, 6–11 cm long, 2.8–5.5 cm wide, abaxially slightly pubescent with

grayish white appressed trichomes. The inflorescences are umbellate inflorescences, lateral. The bracts are broadly ovate or elliptic, 6.5–7 mm long, 4–6.5 mm wide, deciduous after anthesis. The flowers are bisexual, opening earlier than leaves, scented. The calyx has four lobes, triangular-lanceolate, about 0.7 mm long. There are four petals, lanceolate, yellow, about 4 mm long. The disk is cushion-shaped, and the ovary is inferior, with cylindrical styles, 1–1.4 mm long, the stigma being truncate. The fruits are drupes, oblong, 6–8 mm long, 3.4–4 mm in diameter, purplish brown to black. The stones are bony, oblong, about 7.5 mm long. The flowering period is from April to May. The fruiting period is from September to October.

Habitat: It grows in the forest edge or forest at an altitude of 750–2500 m.

Distribution: It is distributed in provinces of Shaanxi, Gansu, Henan, Hubei, Guangdong, Sichuan, Chongqing, Guizhou, Yunnan, and other places.

Acquisition and Processing: The fruits are picked in autumn when ripe, boiled for 10–15 minutes, seeds squeezed out, pulp taken out, and dried or dried directly.

Natural Taste and Meridian Tropism: It is sour and astringent in taste, slightly warm in property.

Functions: Tonifying the liver and kidneys, astringing, and rescuing syncope, it is often used for treatment of the liver and kidneys deficiency, dizziness, deafness and tinnitus, sore of waist and knee, spermatorrhea, frequent urination, and sweating due to body deficiency.

Use and Dosage: 3–15 g per dose, decocted in water for oral use.





2.23 Family: Cornaceae

2.23.1 *Cornus officinalis* [3]

Chinese Name(s): shan zhu yu, yu rou, zao pi

Source: This medicine is made of the mature fruits (removed the core) of *Cornus officinalis* (*Cornus officinalis* Sieb. et Zucc.).

Morphology: The plant is a deciduous shrub or a small tree, usually 2–7 m in height. The branches are nearly cylindrical, slightly stout, dark brown. The leaves are opposite, stipitate. The leaves are thickly papery, ovate to elliptic, rarely ovate-lanceolate, 5–12 cm long, 2.5–5.5 cm wide, acuminate at the apex, cuneate at the base, pubescent with short appressed trichomes on both surfaces, densely abaxially, and axils of lateral veins with aggregated yellowish brown raised soft trichomes. There are six to eight lateral veins on each side, curved. The inflorescences are umbellate inflorescences, axillary, with four small bracts inserted below. The calyx is four-lobed, lobes being broadly triangular. There are four petals, yellow, ovate, with a fleshy and annular disk. The fruits are drupes, ellipsoid, reddish when mature. The flowering period is from March to April. The fruiting period is from September to October.

Habitat: It grows in valleys and forest margins.

Distribution: It is distributed in provinces of Shanxi, Shaanxi, Gansu, Shandong, Jiangsu, Zhejiang, Anhui, Jiangxi, Henan, and Hunan, as well as in North Korea and Japan.

Acquisition and Processing: The fruits are picked when turning red at the end of autumn and the beginning of winter, baked over gentle fire until it expands, taken out the core or scalded in boiling water, and core removed in time, and dried in the sun or over fire.

Medicinal Properties: The product is irregular, flaky, or oblate cystic, often wrinkled or cracked, 1–1.5×0.5–1 cm, glossy on the outer surface, purplish red or purplish black, with persistent calyx marks and residual fruit stalks. It is soft and hard to break. It is slightly sour in odor or odorless and sour, astringent, and slightly bitter in taste. The products thick, soft, purplish red, and oily are better in quality.

Natural Taste and Meridian Tropism: It is sour and astringent in taste, slightly warm in property, belonging to the meridians of the liver and kidneys.

Functions: Tonifying the liver and kidneys, astringing, and rescuing syncope, it is often used for treatment of dizziness, deafness and tinnitus, sore of the waist and knees, spermatorrhea, frequent urination, excessive sweating, internal heat and thirst, and metrorrhagia.

Use and Dosage: 5–10 g per dose, decocted in water for oral use.

Prescription Example(s):

1. Clinical diagnoses and symptoms: kidney deficiency and lumbago, impotence, and spermatorrhea: *Cornus officinalis*, *Psoralea corylifolia*, Semen Cuscutae, and Cherokee rosehip, 12 g each, and *Angelica sinensis* 9 g, decocted in water for oral use.
2. Clinical diagnoses and symptoms: self-perspiration: *Cornus officinalis* and *Codonopsis pilosula* 15 g each and *Schisandra chinensis* 9 g, decocted in water for oral use.
3. Clinical diagnoses and symptoms: sweating profusely: *Cornus officinalis* and Bighead atractylodes rhizome 15 g each, fossil fragments, and Concha Ostreae (be decocted first) 30 g each, decocted in water for oral use.
4. Clinical diagnoses and symptoms: enuresis: *Cornus officinalis* 9 g; Cortex Moutan, *Poria cocos*, Chinese raspberry (stir-fried with wine), *Cinnamomum cassia*, and Radix aconiti carmichaeli (stir-fried with salt), 9 g each; Radix Rehmanniae Praeparata 12 g; and Rhizoma Dioscoreae 12 g semen coicis (stir-fried with salt); and licorice 3 g, decocted in water for oral use.
5. Clinical diagnoses and symptoms: incontinence of old people: *Cornus officinalis* 9 g, *Schisandra* 4.5 g, and bitter cardamom 6 g, decocted in water for oral use.







2.24 Family: Cornaceae

2.24.1 *Dendrobenthamia angustata*

Chinese Name(s): jian ye si zhao hua

Source: This medicine is made of the leaves and flowers of *Dendrobenthamia angustata* (*Dendrobenthamia angustata* (Chun) Fang [*D. hupehensis* Fang]).

Morphology: The plant is an evergreen tree. The branches are pubescent with white appressed trichomes, and the winter buds are densely white hairy. The leaves are opposite, leathery, oblong-elliptic, rarely broadly ovate or lanceolate, 7–9 cm long, 2.5–4.2 cm wide, and apically long acuminate, caudate, abaxially

densely pubescent with white appressed trichomes. There are three to four pairs of lateral veins and axils of veins sometimes with aggregated white raised soft trichomes. The petioles are 8–12 mm long. The inflorescences are head inflorescence, globose, composed of about 55–80 flowers, and 8 mm in diameter. There are four bracts, long ovate to obovate, 2.5–5 cm long, 9–22 mm wide, white. The peduncles are 5.5–8 cm long, densely pubescent with white appressed trichomes. The calyx is tubular, upper four-lobed, upper medial part densely white pubescent. There are four petals, oval, 2.8 mm long, 1.5 mm wide, underneath pubescent with white appressed trichomes. There are four stamens, shorter than petals, and the anthers are elliptic, about 1 mm long. The disk is annular, and the styles are densely covered with white filamentous hairs. The infructescences are globose, 2.5 cm in diameter, reddish when mature, pubescent with white thinly trichomes.

Habitat: It grows in dense mountain or mixed forests.

Distribution: It is distributed in provinces of Shaanxi, Gansu, Zhejiang, Anhui, Jiangxi, Fujian, Hubei, Hunan, Guangdong, Guangxi, Sichuan, Guizhou, and Yunnan.

Acquisition and Processing: The flowers are collected in spring and the leaves are collected in summer and autumn and dried in the sun.

Natural Taste and Meridian Tropism: It is astringent and bitter in taste, neutral in property.

Functions: Clearing heat and detoxicating, astringing and stopping bleeding, reducing swelling, and relieving pain, it is often used for treatment of dysentery due to heat and toxin, traumatic bleeding, fracture and pain, burn, and scald.

Use and Dosage: 9–15 g per dose, decocted in water for oral use. For external treatment, fresh products are applied to the affected areas.





2.25 Family: Cornaceae

2.25.1 *Dendrobenthamia japonica*

Chinese Name(s): si zhao hua, shi zao, yang mei, shan li zhi

Source: This medicine is made of the leaves and flowers of *Dendrobenthamia japonica* var. *chinensis* (*Dendrobenthamia japonica* (DC.) Fang var. *chinensis* (Osborn) Fang).

Morphology: The plant is a deciduous tree. The branchlets are slender, pale green when young, slightly pubescent with soft white trichomes, dark brown when old. The leaves are opposite, papery, ovate or ovate elliptic, 5.5–12 cm long, 3.5–7 cm wide, apically acuminate, with a cusp, basally broadly cuneate or rounded, entire or conspicuous denticulated at margins, adaxially green, sparsely pubescent with white appressed soft trichomes, abaxially pink green, pubescent with white

appressed short soft trichomes. The middle veins are obvious adaxially and abaxially protruding. There are four to five pairs of lateral veins, which are slightly prominent or concave adaxially and slightly raised abaxially. The petioles are thin and cylindrical, 5–10 mm long, pubescent with white appressed short trichomes, with shallow grooves adaxially and rounded abaxially. The inflorescences are head inflorescences, which are globose and composed of about 40–50 flowers. There are four bracts, white, ovate or ovate-lanceolate, apically acuminate, nearly glabrous on both surfaces. The pedicels are slender, pubescent with soft white trichomes. The flowers are small, and the calyx is tubular, four-lobed upper part, lobes being obtuse rounded or obtuse acute, outer with white thinly hairs, and brown pubescence inner. The disk is cushion-shaped. The ovary is inferior, with cylindrical styles, densely pubescent with thick white trichomes. The infructescences are globose, reddish when mature, slightly pubescent with thin white trichomes. The fruit stalks are slender, 5.5–6.5 cm long, and nearly glabrous.

Habitat: It grows in mountain forests.

Distribution: It is distributed in provinces of Inner Mongolia, Shaanxi, Shanxi, Gansu, Jiangsu, Zhejiang, Anhui, Jiangxi, Hunan, Taiwan, Fujian, Sichuan, Guizhou, and Yunnan.

Acquisition and Processing: The leaves are collected in summer and autumn and the flowers are collected in spring and dried in the sun.

Natural Taste and Meridian Tropism: It is astringent and bitter in taste, neutral in property.

Functions: Clearing heat and detoxicating, astringing, and stopping bleeding, it is often used for treatment of dysentery, hepatitis, burn, scald, and bleeding.

Use and Dosage: 9–15 g per dose, decocted in water for oral use. For external treatment, fresh products are applied to the affected areas.





2.26 Family: Cornaceae

2.26.1 *Helwingia himalaica*

Chinese Name(s): xi yu qing jia ye

Source: This medicine is made of the leaves and fruits of *Helwingia himalaica* (*Helwingia himalaica* Hook. f. et Thoms. ex C. B. Clarke).

Morphology: The plant is an evergreen shrub, 2–3 m in height. The young branches are slender, yellow brown. The leaves are thickly papery, oblong-lanceolate, oblong, rarely oblanceolate, 5–11 (~18) cm long, 2.5–4 (~5) cm wide, apically caudate-acuminate, basally broadly cuneate, glandular serrated at margins. There are five to nine pairs of lateral veins, adaxially slightly impressed, abaxially slightly protruding. The petioles are 3.5–7 cm long, and the stipules are about 2 mm long, often two- to three-lobed, rarely not lobed. The male flowers are green purple, often 14 flowered dense umbel inflorescences, four-merous, rarely three-merous, and the stalks are slender, 5–8 mm long. There are three to four female flowers, and the stigma is three- to four-lobed, reflexed. There are often one to three fruits, which are born on the midvein of the leaves. The fruits are subglobose, 6–9 mm long, 6–8 mm in diameter. The fruit stalks are 1–2 mm long. The flowering period is from April to May. The fruiting period is from August to October.

Habitat: It grows in valley forests.

Distribution: It is distributed in provinces of Guangdong, Hunan, Hubei, Sichuan, Yunnan, Guizhou, and Tibet.

Acquisition and Processing: The leaves and fruits are harvested in summer and autumn and dried in the sun.

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

Functions: Activating blood circulation and dissipating stasis, drying dampness and promoting diuresis, healing fracture, and relieving pain, it is often used for treatment of rheumatism, injury caused by knocks and falls, and carbuncle.

Use and Dosage: 9–18 g per dose, decocted in water for oral use. For external treatment, fresh products are applied to the affected areas.





2.27 Family: Cornaceae

2.27.1 *Helwingia japonica*

Chinese Name(s): qing jia ye, da ye tong cao, ye shang zhu

Source: This medicine is made of the leaves and fruits of *Helwingia japonica* (*Helwingia japonica* (Thunb.) Dietr.).

Morphology: The plant is a deciduous shrub, 1–2 m in height. The young branches are green, glabrous, with conspicuous leaf scars. The leaves are papery, ovate or ovate-rounded, rarely elliptic, 3.5–9 (~18) cm long, 2–6 (~8.5) cm wide, apically acuminate, rarely caudate-acuminate, broadly cuneate or nearly rounded, spiculate serrated at margins, adaxially bright green, abaxially light green. The midveins and lateral veins are slightly impressed adaxially and raised abaxially. The petioles are 1–5 (~6) cm long, and the stipules are linearly divided. The flowers are pale green, three- to five-merous, and the calyx is small, with petals 1–2 mm long, arranged valvate. There are 4–12 male flowers, which arranged in umbels or umbelliform, between middle and lower 1/3 of midvein, rarely on upper part of young branches. The pedicels are 1–2.5 mm long. There are three to five stamens, inserted in the inner disk. There are one to three female flowers, 1/2 to 1/3 of midvein of leaf blade. The pedicels are 1–5 mm long. The ovary is ovoid or globose, and the stigma is three- to five-lobed. The fruits are berries, green when young, black when mature, with three to five mericarps. The flowering period is from April to May. The fruiting period is from August to September.

Habitat: It prefers to grow in damp places.

Distribution: It is widely distributed in provinces south of the Yellow River Basin in China, as well as in Japan, Myanmar, and India.

Acquisition and Processing: The leaves and fruits are harvested in summer and autumn and dried in the sun.

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

Functions: Dispelling wind and dampness, activating blood, and detoxicating, it is often used for the treatment of cold, cough, rheumatism, stomachache, dysentery, hematochezia, irregular menstruation, bruise, fracture, carbuncle, furuncle, and venomous snake bite.

Use and Dosage: 9–15 g per dose, decocted in water for oral use. For external treatment, fresh products are applied to the affected areas.





2.28 Family: Cornaceae

2.28.1 *Swida macrophylla*

Chinese Name(s): lai mu, liang zi mu, liang zi, dong qing guo, mao geng lai mu

Source: This medicine is made of the heartwoods of *Swida macrophylla* (*Swida macrophylla* (Wall.) Sojak).

Morphology: The plant is a tree. The leaves are opposite, papery, broadly ovate or ovate-oblong, 9–16 cm long, 3.5–8.8 cm wide, apically acute or shortly acuminate, basally rounded, rarely broadly cuneate, slightly wavy at margins, adaxially dark green, with appressed white short trichomes when young, abaxially grayish green, densely or sometimes sparsely pubescent with appressed white short trichomes, with five to eight pairs of lateral veins. The petioles are 1.5–3 cm long, yellowish green. The inflorescences are corymbose cymes, terminal, 8–12 cm wide, sparsely pubescent. The peduncles are reddish, 2.4–4 cm long. The flowers are white, 8–10 mm in diameter. There are four calyx lobes, broadly triangular, 0.4–0.5 mm long. There are four petals, slightly thick, ligulate-oblong to ovate-oblong, 3–5 mm long, 0.9–1.8 mm wide, apically obtuse acute or shortly acuminate, adaxially glabrous, abaxially pilose with appressed short trichomes. There are four stamens, and the filaments are slightly thick, linear, 2.5–5 mm long, anthers being obovate-oblong, with two cells, 1.3–2 mm long, versatile. The disk is cushion-shaped, glabrous, wavy at margins, 0.3–0.4 mm thick. The styles are cylindrical, 2–4 mm long, ovary being inferior. The pedicels are cylindrical, 0.3–4 mm long, sparsely gray brown pilose. The fruits are drupes, subglobose, 4.5–6 mm in diameter, black when mature, and nearly glabrous.

Habitat: It grows in valley forests.

Distribution: It is distributed in provinces of Shanxi, Shaanxi, Gansu, Shandong, Taiwan, Tibet, and provinces south of the Yangtze River, as well as in Myanmar, Pakistan, India, Bhutan, Nepal, and Afghanistan.

Acquisition and Processing: The heartwoods are collected all year round, sliced, and dried in the sun.

Natural Taste and Meridian Tropism: It is sweet and salty in taste, neutral in property.

Functions: Promoting blood circulation, relieving pain, nourishing blood, and preventing miscarriage, it is often used for treatment of fracture, swelling and pain due to blood stasis, blood deficiency and atrophy, and restless fetal movement.

Use and Dosage: 3–10 g per dose, decocted in water for oral use.



2.29 Family: Cornaceae

2.29.1 *Swida paucinervis*

Chinese Name(s): xiao lai mu

Source: This medicine is made of the roots, branches and leaves of *Swida paucinervis*

(*Swida paucinervis* (Hance) Sojak [*Cornus paucinervis* Hance]).

Morphology: The plant is a deciduous shrub. The leaves are opposite, paper, elliptic-lanceolate or lanceolate, rarely oblong-ovate, 4–9 cm long, 1–3 cm wide, apically obtuse acute or acuminate, basally cuneate, entire, adaxially dark green, with appressed short trichomes, abaxially pale green. There are usually three pairs of lateral veins, rarely two or four pairs. The petioles are 5–15 mm long, yellowish green, pubescent with grayish white appressed short trichomes. The inflorescences are corymbose cymes, terminal, pubescent with grayish white appressed short trichomes, 3.5–8 cm wide. The peduncles are cylindrical, 1.5–4 cm long, slightly angled, densely covered with grayish white appressed short trichomes. The flowers are small, white to pale yellowish white, 9–10 mm in diameter. The calyx has four lobes, lanceolate~triangular to acutely triangular, 1 mm long. There are four petals, narrowly ovate to lanceolate, 6 mm long, 1.8 mm wide, apically acute, slightly thick. There are four stamens, 5 mm long, and the filaments are pale white, 4 mm long, glabrous. The anthers are oblong-ovate, with two cells, pale yellowish white, 2.4 mm long, versatile. The disk is cushion-shaped, slightly lobed, about 0.2 mm thick. The ovary is inferior, and the receptacles are obovate, 2 mm long, 1.6 mm in diameter, densely pubescent with grayish white appressed short trichomes. The styles are clavate, 3.5 mm long, yellowish white, nearly glabrous, with small stigma. The fruits are drupes, globose, 5 mm in diameter, black when mature.

Habitat: It grows in thickets near rivers or streams above 50 m above sea level.

Distribution: It is distributed in provinces of Shaanxi, Gansu, Jiangsu, Fujian, Hubei, Hunan, Guangdong, Hong Kong, Guangxi, Sichuan, Guizhou, and Yunnan.

Acquisition and Processing: The roots, branches, and leaves are harvested in summer and autumn and dried in the sun.

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

Functions: Clearing heat and relieving exterior syndromes, promoting blood circulation, relieving pain, and detoxicating, it is often used for treatment of cold and headache, rheumatism and arthralgia, diarrhea, bruise, traumatic bleeding, sore caused by heat and toxin, and burn.

Use and Dosage: 6–15 g per dose, decocted in water for oral use. For external treatment, the fresh products are mashed and applied to the affected areas.





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