



Thick-fruited pagoda tree

Product Images

Short Description

Thick-fruited pagoda tree. Thick-fruited pagoda tree herb

Description

Specification & Spread

Thick-fruited pagoda tree herb — herba sophorae pachycarpae

Thick-fruited pagoda tree— sophora pachycarpa c. A. Mey. (= vexibia pachycarpa (c. A. Mey.) Yakovl.)

Bean family — fabaceae.

It is a perennial, greyish-green herb 30-60 cm tall with a strong root system.

The roots are branching, cord-shaped, have many accessory buds, from which new above-ground shoots develop.

The stems are among several, branched almost from the base.

The leaves are alternate, unpaired, with 6-12 pairs of oblong-elliptic leaflets 15-20 mm long. The leaflets, like the stems, are pubescent with white adpressed hairs.

The flowers are moth, white with a yellowish tinge, gathered in thick elongated apex brushes. The calyx is broadly depolar, densely pubescent, with 5 short triangular teeth. The petals are twice as long as the calyx. There are 10 stamens, at the base it grows together into a short ring.

The fruit is club-shaped, slightly constricted, unopened, protruding upward bean 4.5–6 cm long and 7–9 mm wide, with 3–6 seeds.

It blooms in April - June, the fruits ripen in June - August.

Spreading. Thick-fruited pagoda tree is mainly confined to semi-desert plains, foothills and lowlands of Central Asia and Kazakhstan. Currently, the need for the raw materials is satisfied by harvesting in the wild-growing thickets in Kazakhstan, mainly in the Chimkent region. In addition, the harvested herb can be organized in a number of other areas of South Kazakhstan and Central Asia.

Habitat. It grows in wormwood, ephemeral associations, on cliffs, on deposits, in deserts, rises in the mountains to a height of 1600 m above sea level. It is a quarantine weed.

Composition

The aerial part of thick-fruited pagoda tree contains:

- the amount of alkaloids (2-6,4%),
- quinolizidine derivatives — pahikarpin, sofofarpin, matrin, soporamin and so on,
- as well as flavonoids, iridoids.

Harvesting and storage of raw materials

Harvesting. Thick-fruited pagoda tree herb is harvested in the phase of budding and flowering. The harvesting of herbs with fruits with a different composition of alkaloids and other pharmacological action is not allowed. When harvesting, thick-fruited pagoda tree herb is cut with sickles or mowed with a scythe (stem length up to 60 cm).

Drying. The harvested herb is dried in the sun, spreading it in a thin layer.

Impurities. Thick-fruited pagoda tree must be distinguished from foxtail sophora foxtail (*Sophora alopecuroides* L.) which is also grown in Central Asia. These species differ in inflorescences and fruits. In foxtail sophora inflorescence more dense, the fruits are longer (up to 10 cm), narrow with numerous constriction between the seeds and the highly elongated apex. The ripening of ripening fruits begins from the top, in this stage the brush with fruits resembles a fox tail.

External signs of raw materials

Whole raw materials

The raw materials consist of the leafy stems with buds and flowers.

The stems are up to 60 cm.

The leaves are unpaired, pinnately-compound up to 18 cm long with 6-12 pairs of leaflets. The leaflets are up to 25 mm long and 10 mm wide, with short petioles, on both sides grey-green, pubescent with adpressed hairs.

The flowers are moth type.

The colour of the herb is light green, greyish.

The smell is peculiar, the taste is not determined. The raw materials are poisonous (!).

Milled raw materials

The pieces of various shapes, passing through a sieve with holes of 7 mm diameter.

The colour is greenish-grey. The smell is peculiar. The taste is not defined(!).

Properties and application

The pharmacological properties of sophora

The main alkaloid of thick-fruited pagoda tree - pachycarpine that has ganglioplegic property.

Pachycarpine:

- reduces the excitability of the autonomic ganglia of the nervous system and
- inhibits the conduction of nerve impulses through it,
- lowers blood pressure,
- dilates arterioles.

In addition, pachycarpine:

- raises the tone and
- strengthens the contraction of the smooth muscles of the uterus,

- improves the functional activity of the muscular system in myopathy.

Application:

- in obstetric and gynecological practice to enhance labor activity, does not cause an increase in blood pressure, therefore, women who have hypertension may be prescribed.
- **Contraindications**

It is contraindicated in pregnancy, lactation, in violation of the function of the liver and kidneys, with angina.

Additional Information

Influence	Venotonic, Vitaminic, Vessel-strenghtening, Wound-healing
Apparatus	Cardiovascular, Integumentary
Organ	Skin, Vessels

