***Trichosanthes kirilowii* Maxim.**

Cucurbitaceae
Source of: guā lóu shí 瓜蒌实
Chinese cucumber fruit (also peel, seeds, root)

Summary Description

This dioecious, herbaceous perennial vine is an understory plant that needs to climb. It loves heat and moisture but does best in part shade. Both males and females bear delicate, fragrant white flowers, with males sporting a pale green calyx underneath the flower. The softball-sized green fruit ripens to yellow-orange in late October. Practitioners use the sliced and dried whole fruit (either slightly unripe or fully ripe), seed, and peel separately, and also the dried, powdered root ("heavenly flower powder").

Propagation

Females rarely come from seed and are usually vegetatively propagated with stem cuttings. For germination of seeds, use 70-80F bottom heat for 15-21 days. Plant seedlings in deep pots (7 inches). Wait until the soil is thoroughly warmed before planting outside. Planting radius 12-18 inches.

Cultivation

The plant is hardy to Zone 5 and needs warmth, moisture, and a well-drained soil, but not full sun. Hoop house production can be employed in cooler climates. Site the plantings for morning shade to enhance pollination of the delicate, short-lived flowers. For example, plant on the west side of a tree line or hedgerow. Or use shade cloth on the east side of a hoop house planting. At maturity, in late spring when the soil warms, the plant sends out from its crown half a dozen or more 15-foot, fast-growing vines. Emergence may be delayed in a cool spring. The vines need strong support or trellising in order for the plant to flower and produce fruit. The emergent vines should be tied to the supports to ensure that they climb. Do not let the vines ramble across the ground. Mulch the base of the plantings with straw or leaves. The roots may be expansive in warmer climates.

Harvest & Processing

Mark the base of male plants and dig them after three years for their roots, which should be large (1.5 inch diameter) and white. Wash, slice, and spread them out in a single layer to dry. (Let two or three males remain in the planting!) Fruits may be taken either slightly unripe or fully ripe (orange) for guā lóu shí. Cut into 3/8th-inch slices, spread out in a single layer to dry. For either the peel or seed, use fully ripened fruit. Scoop out the pulp; separate and wash the seeds. The freshly washed seeds are dark brown and turn lighter brown when dry. Cut the rind into decoction pieces, spread out to dry. See photos below.

References

Flora of China: http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200022774
Bensky *Materia Medica* p. 108 tiān huā fěn 天花粉, p. 383 guā lóu 瓜蒌 (guā lóu shí 瓜蒌实), p. 386 guā lóu pí 瓜蒌皮, p. 388 guā lóu rén 瓜蒌仁

Alternate species

T. rosthornii

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