

Angelica sinensis (Oliv.) Diels

Standardized Common Name: Dong Quai

Other Common Names: Chinese Angelica, Danggui, Tang Kuei

Family: Apiaceae (Umbelliferae)

Taxonomy: *Angelica* includes about 100 species, mostly native to temperate regions of the Northern Hemisphere, several of which have culinary and medicinal uses. *Angelica sinensis* is one of over 40 species native to China. The basionym is *A. polymorpha* Maxim. var. *sinensis* Oliv.; it was originally described as a variety of *A. polymorpha*, but is now treated as a separate species.

Description: Perennial herb, 0.5–1.5 m high, with a branching taproot; stems branching, purplish. Leaves basal and alternate, 10–30 cm long, 2–3-ternate-pinnately compound or the uppermost 1-pinnate, petiolate with swollen sheathing petioles; ultimate leaflets ovate to narrowly ovate, 2–4(–6) cm long; bases tapering; margins irregularly serrate to dentate with broad teeth, frequently incised or deeply lobed; apices of teeth obtuse and minutely apiculate or mucronulate. Inflorescences terminal and lateral compound umbels, sometimes subtended by 1 or 2 linear bracts; main rays 10–40, 2–10 cm long, unequal in length within a single umbel; each umbellet with (12–)20 or more flowers, subtended by 2 to several linear bracteoles. Flowers small, white, 5-petaled. Fruit of 2 mericarps; mericarps 4–6 mm long, elliptical to suborbicular, dorsally compressed, with prominent ribs; lateral ribs form wings often wider than body of fruit.

Parts in Commerce: Root with rhizome

Identification:

- Tapering taproot, 15–25 cm long, producing 3 to several branches below
- Rootstock 1.5–4 cm in diameter; main root thick and lumpy; root branches to 1 cm in diameter, tapering, the lower portions thin and twisted with a few rootlet scars
- Apex of rootstock bearing circular scars and purple or pale green remains of stems and petioles
- Bark yellowish-brown to brown, longitudinally wrinkled, with transversely elongated lenticels
- Texture soft and flexible (woody roots are not used)
- Fracture yellowish-white to yellowish-brown (roots with a greenish brown interior are not used)

- Root in cross-section has several-layered cork; narrow cortex and broad ring of phloem with small brown secretory cavities; yellowish-brown cambial line; cylinder of multiradiate xylem, paler than outer tissues (rootstock will also have a pith)
- Odor strong, aromatic
- Taste pungent, sweet and slightly bitter

***Levisticum officinale* W.D.J. Koch** (Lovage), a culinary and medicinal European umbel which resembles certain *Angelica* species, is very similar to *A. sinensis* in chemical content and might be substituted for it. The outer cork is grayish brown to dark reddish brown, and the fractured surface yellow to nearly white. The inner bark is somewhat porous, containing irregular circles of orangish secretory cavities, whitish to the outside but ranging from yellow to reddish brown near the cambium, sometimes giving the appearance of a diffuse red-brown band surrounding the irregular yellow xylem. It has a characteristic odor, similar to celery, and a sweetish taste with an unpleasant burning aftertaste. The texture is very soft, described as wax-like or spongy.

References:

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