

## *Salvia miltiorrhiza* Bunge

### Chinese Salvia Root

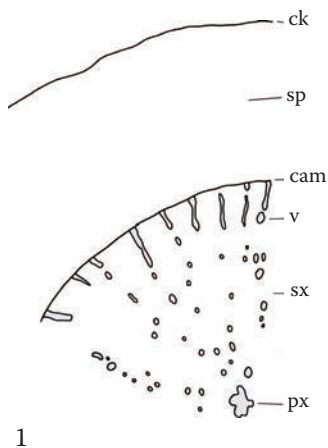
#### *Salviae miltiorrhizae Radix*

#### Pinyin: Dan shen

#### Lamiaceae

Chinese salvia is one of the primary botanicals used in traditional Chinese medicine for invigorating circulation and dissolving blood clots. It is commonly applied in the treatment of gynecological conditions and cardiovascular disease. A variety of processing techniques are applied to *Salvia* that can result in minor to significant changes in the microscopic structure of the material. These include dry-fried salvia (chao dan shen), mix fried with wine (jiu zhi dan shen), and charred salvia (dan shen tan). Chinese salvia is not readily subject to adulteration.

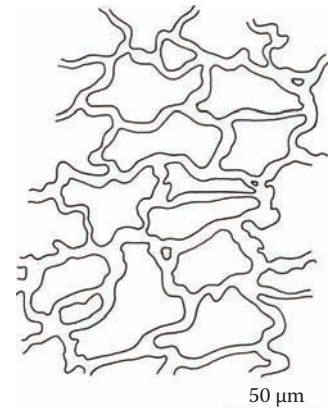
**Transverse section:** Narrow cork; secondary phloem of red-brown parenchyma with irregularly shaped and thickened cells; distinct vascular cambium; secondary xylem is predominantly of red-brown parenchyma; vessels are up to 60  $\mu\text{m}$  diameter, scattered, mostly in small groups, some with attached fibers; occasional prismatic crystals or crystal aggregates of unknown composition; central primary xylem is apparent.



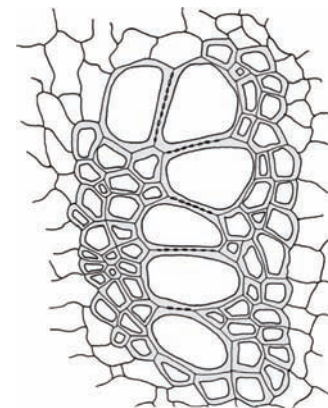
**Longitudinal section:** Bordered-pitted, scalariform, or reticulate vessels.

**Starch:** Rare; granules are mostly simple, more or less spherical or slightly angular, up to 8  $\mu\text{m}$  diameter.

**Powder:** Fragments of red-brown parenchyma predominate; bordered-pitted, scalariform, or reticulate vessels; occasional pitted fibers; starch is rare. Occasional fragments of cork.



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