



**Identification of
Tiny Seed and Fruit
Types of Chinese
Materia Medica**

Fructus Cnidii*



Source

The dried ripe fruit of *Cnidium monnieri* (L.) Cuss. in the family Umbelliferae

Property and flavour

Warm; pungent and bitter; slightly toxic

Meridian affinity

Kidney meridian

Actions

To dry dampness and remove wind; to kill parasitic worms and relieve itch; to warm the kidney and strengthen yang

Note:

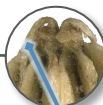
* Its name in Chinese Pharmacopoeia (2020 Edition) is “Cnidii Fructus”.

Micro-morphological features

Shape

Sub-ellipsoidal or ovoid for cremocarp; semispherical for mericarp

Pericarp is brittle, easily falls off when rubbed



Sometimes with 2 outcurved persistent styles at the apex

Fruit stalk at the base easily falls off

Cremocarp

Commissure is flat



With 5 protruding longitudinal ridges



Lateral view

Commissural view

Dorsal view

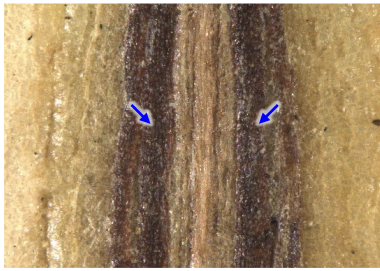
Top view

Mericarp

1 mm

Surface

Yellowish-brown or greyish-yellow, usually has 2 longitudinal lines (→) with darker colour on the commissure of mericarp



0.2 mm

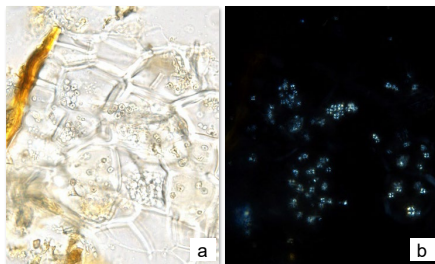
Odour

Slight, with characteristic aroma after broken by rubbing

Powder microscopic features

Crystal

Cluster of calcium oxalate



Small, usually present in endosperm cell; bright white under polarized light microscope

Secretory tissue

Vitta



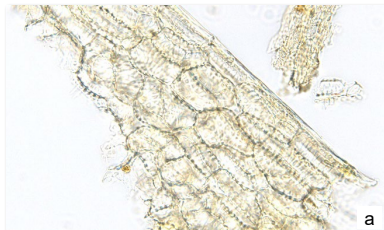
Usually broken, yellowish-brown, with traces of cells (1) visible on the surface, some have septa (2)

a. features under bright field; b. features under polarized light

50 μ m

Pericarp

Reticulated cell



Colourless or light yellow, appears sub-square, sub-rectangular or sub-polygonal in surface view, with reticulate striations and slightly thick wall

Endocarp cell



Light yellowish-brown or yellowish-brown, appears sub-rectangular or polygonal in surface view, with beaded-thickened wall

Key identification features

Micro-morphology

- ⊙ Sub-ellipsoidal or ovoid for cremocarp; semispherical for mericarp
- ⊙ For cremocarp, sometimes with 2 outcurved persistent styles at the apex; for mericarp, there are 5 protruding longitudinal ridges on the dorsal side
- ⊙ Commissure of mericarp is flat, usually has 2 longitudinal lines with darker colour

Powder microscopy

- ⊙ Cluster of calcium oxalate: small, usually present in endosperm cell
- ⊙ Vitta: mostly broken, with traces of cells visible on the surface
- ⊙ Endocarp cell: with beaded-thickened wall

For more information, please refer to [website of the Hong Kong Chinese Materia Medica Standards](#):

Cnidii Fructus — HKCMMS (Vol 4)

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