衞生署
Department of Health

Identification of Tiny Seed and Fruit Types of Chinese Materia Medica

Fructus Cnidii*

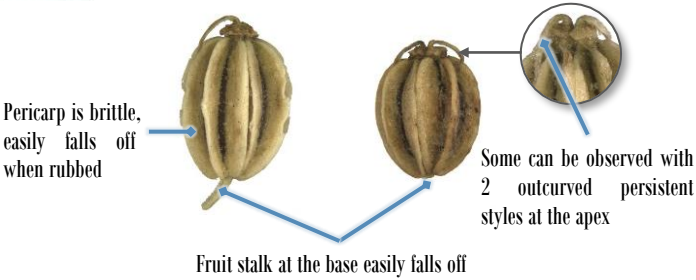
Source	The dried ripe fruit of *Cnidium monnieri* (L.) Cuss. in the family Umbelliferae
Property and flavour	Warm; pungent and bitter; slightly toxic
Meridian affinity	Kidney meridian
Actions	To dry dampness and remove wind; to kill parasitic worms and relieve itch; to warm the kidney and strengthen yang

Note:

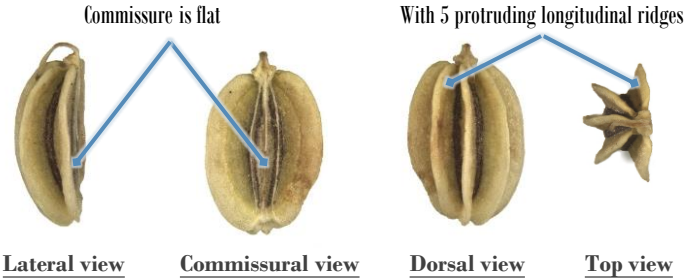
* Its name in Chinese Pharmacopoeia (2020 Edition) is "Cnidii Fructus".

Micro-morphological features

Shape Sub-ellipsoidal or ovoid for cremocarp; semispherical for mericarp



Cremocarp

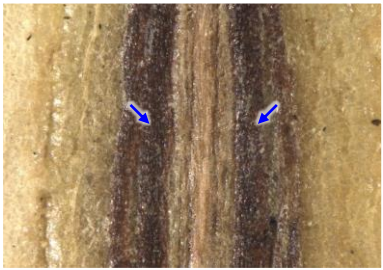


Mericarp

1 mm

Surface

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



0.2 mm

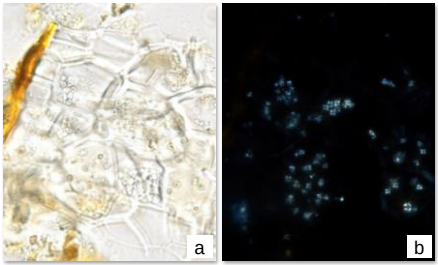
Odour

Slight, with characteristic aroma after broken by rubbing

Powder microscopic features

Crystal

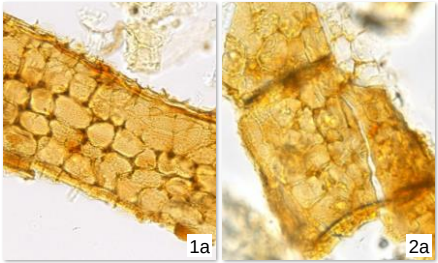
Cluster of calcium oxalate



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

Secretory tissue

Vitta



Mostly broken, yellowish-brown, with traces of cells (1) observable on the surface, some can be observed with septa (2)

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

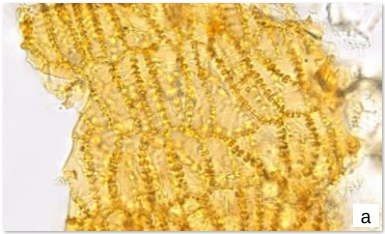
50 μm

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

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

50 μm

Key identification features

Micro-morphology

- Sub-ellipsoidal or ovoid for cremocarp; semispherical for mericarp
- For cremocarp, some can be observed 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, 2 longitudinal lines with darker colour are frequently observable

Powder microscopy

- Cluster of calcium oxalate: fine, usually present in endosperm cell
- Vitta: mostly broken, with traces of cells observable 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)

Government Chinese Medicines Testing Institute
Department of Health
Enquiry hotline: 3188 8079
Website: www.cmro.gov.hk

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