



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

Semen Celosiae*



1 cm

Source

The dried ripe seed of *Celosia argentea* L. in the family Amaranthaceae

Property and flavour

Mild cold; bitter

Meridian affinity

Liver meridian

Actions

To clear the liver and reduce fire; to brighten the eyes and remove nebula

Note:

* Its name in Chinese Pharmacopoeia (2020 Edition) is “Celosiae Semen”.

Micro-morphological features

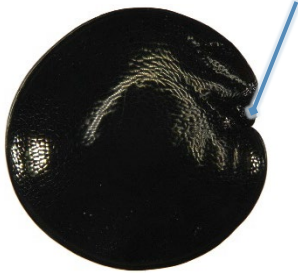
Shape

Usually flattened sub-spherical, occasionally flattened sub-reniform



0.5 mm

Hilum is located at the slightly dented area on one side, "W" shaped



Surface view

Usually with slightly protruding centre visible in lateral view



Lateral view

0.5 mm



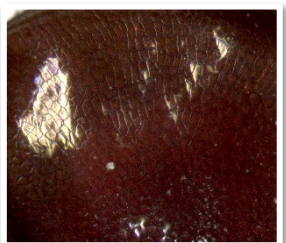
Occasionally appears flat and shriveled, dark red

Surface view

0.5 mm

Surface

Usually black and occasionally dark red, lustrous and with sub-polygonal striations

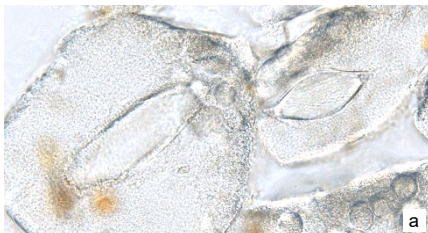


0.2 mm

Powder microscopic features

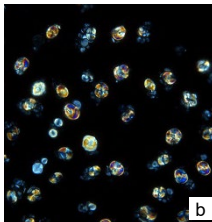
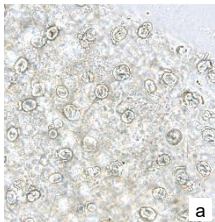
Crystal

Prism of calcium oxalate



Rhombic or sub-rectangular, present in endosperm cell

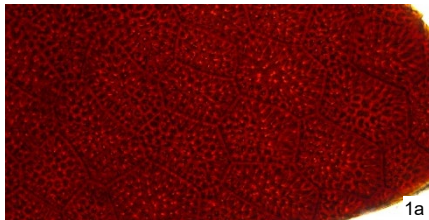
Small round crystal



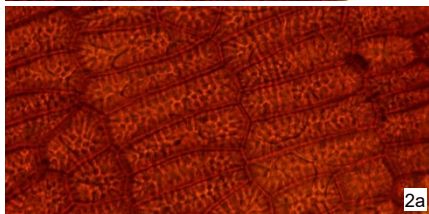
Sub-rounded, present in groups between endosperm and cotyledon cells, usually adheres to endosperm cell; polychromatic under polarized light microscope

Testa

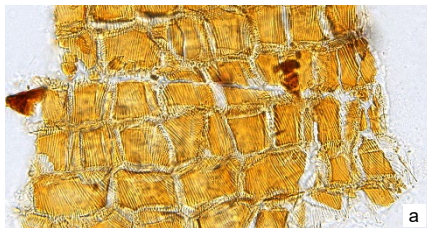
Outer epidermal cell of testa



Dark reddish-brown or reddish-brown, appears sub-polygonal (1) in surface view, some cells are relatively long and orderly arranged (2), with sub-polygonal reticulate thickening



Inner epidermal cell of testa



Yellowish-brown, light yellowish-brown or colourless, appears sub-polygonal in surface view, densely covered with fine and straight striations, with thickened anticlinal wall

Key identification features

Micro-morphology

- ⊙ Usually flattened sub-spherical, occasionally flattened sub-reniform
- ⊙ Hilum is located at the slightly dented area on one side, “W” shaped
- ⊙ Lustrous and with sub-polygonal striations

Powder microscopy

- ⊙ Prism of calcium oxalate: rhombic or sub-rectangular, present in endosperm cell
- ⊙ Outer epidermal cell of testa: with sub-polygonal reticulate thickening
- ⊙ Inner epidermal cell of testa: densely covered with fine and straight striations, with thickened anticlinal wall

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

Celosiae Semen — HKCMMS (Vol 8)

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