

Flos Albiziae versus Fructus Celastris Orbiculati



Source

***Flos Albiziae**
is the dried inflorescence of
Albizia julibrissin Durazz
in the family Leguminosae

Fructus Celastris Orbiculati
is the dried fruit of
Celastrus orbiculatus Thunb.
in the family Celastraceae

Overview

Flos Albiziae is listed in Schedule 2 of the Chinese Medicine Ordinance and the Chinese Pharmacopoeia (2020). Fructus Celastris Orbiculati on the other hand is not included in either references. According to the *Flora of China*, Fructus Celastris Orbiculati is used as “*He huan hua*” in Northeast and Northern regions of China and Shandong province. Based on literature search, it was also found that some Chinese Materia Medica Standards or Rules for Preparation of Chinese Medicines Decoction Pieces in Northeast and Northern regions of China use “*Teng he huan*” or “*Bei he huan*” as the name of the Chinese Materia Medica (CMM) or decoction pieces of Fructus Celastris Orbiculati. According to the Chinese Pharmacopoeia, Flos Albiziae can relieve depression and tranquilize, while *Zhong hua ben cao* indicated that Fructus Celastris Orbiculati can nourish the heart to tranquilize, and harmonise the blood to relieve pain. Due to differences in efficacy and sources of these two CMM, they should be used accordingly.

Note:

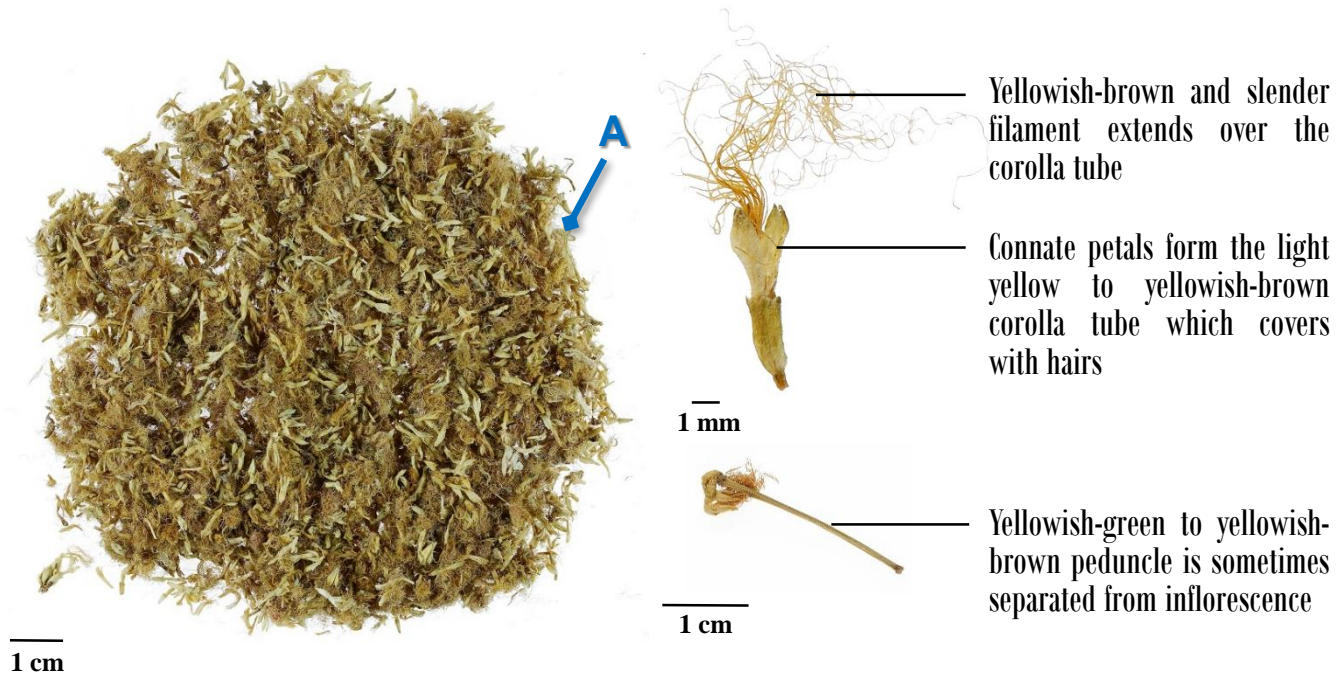
*Its name in the Chinese Pharmacopoeia (2020) is “Albiziae Flos”.

Key identification features

Macroscopic features of Flos Albiziae



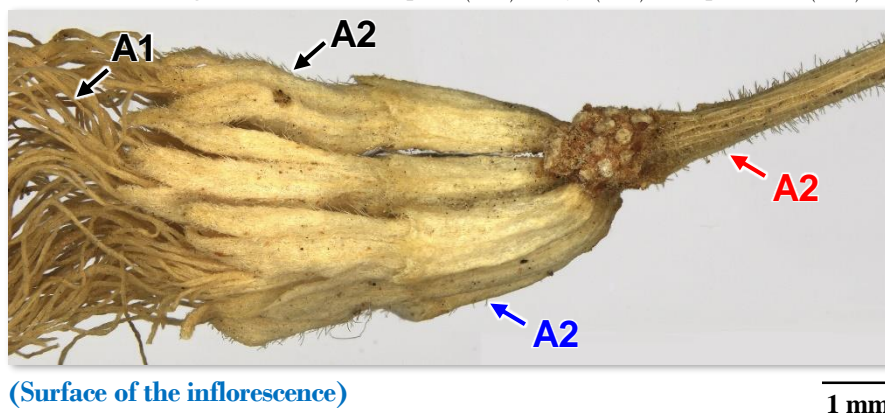
- ◆ Capitulum
- ◆ Shriveled to masses, individual flower slender and curved



Micro-morphological features

A1: Glabrous filament(→)

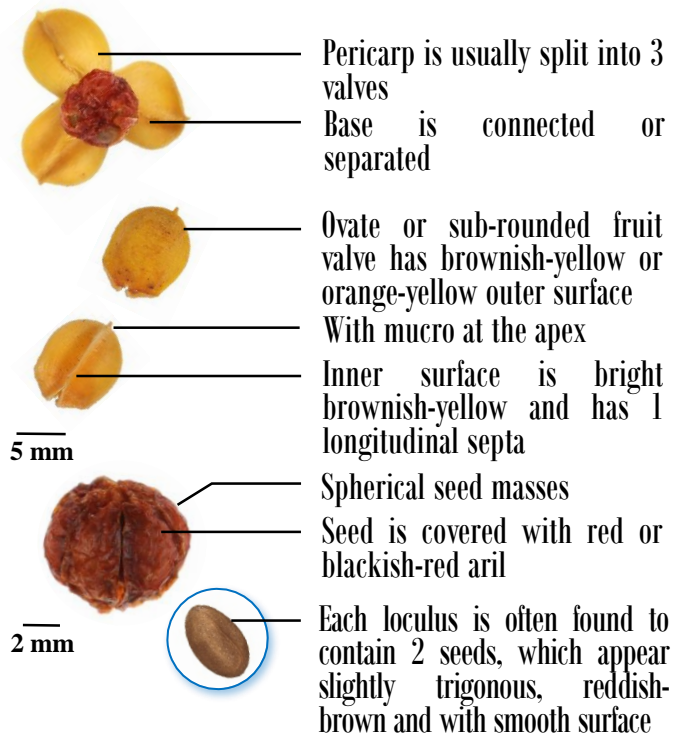
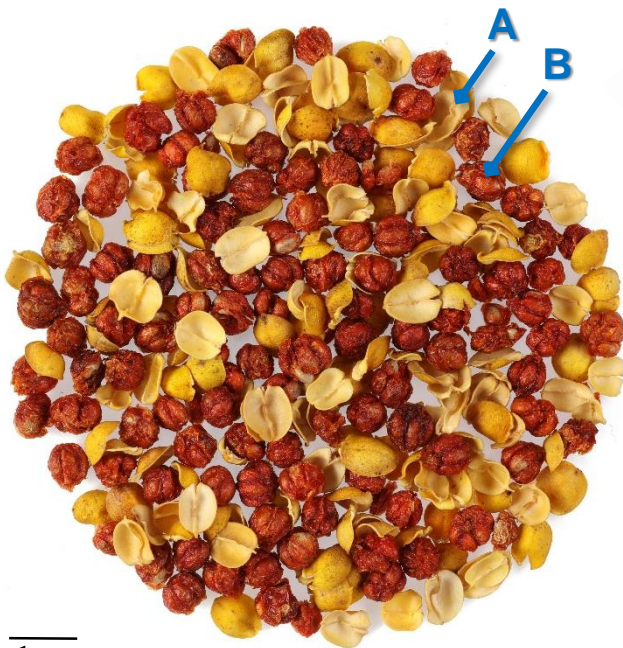
A2: With non-glandular hairs on petal(→), calyx(→) and peduncle(→)



Macroscopic features of Fructus Celastris Orbiculati



◆ Capsule, pericarp is usually separated from the seed

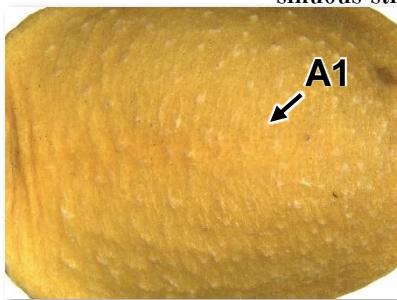


Micro-morphological features

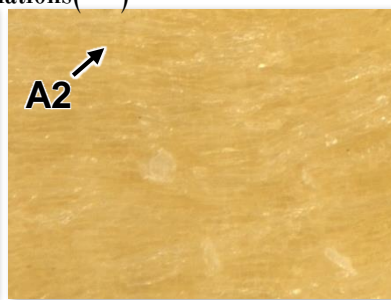
A1: Outer surface is rough and has dotted protuberances(→)

A2: Inner surface is smooth and has faintly observable transverse sinuous striations(→)

B: Shriveled and lustrous



(Outer surface of the pericarp)





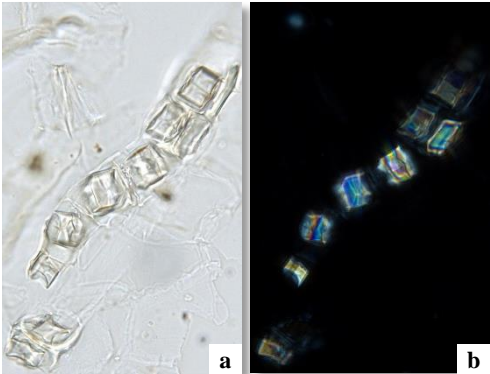
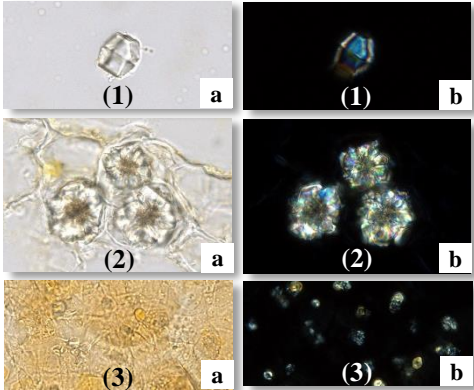

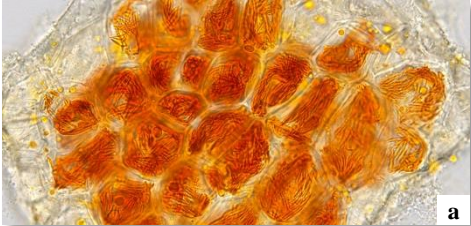
(Inner surface of the pericarp)



(Surface of the aril)

Microscopic feature comparison of Flos Albiziae and Fructus Celastris Orbiculati powder



	Flos Albiziae	Fructus Celastris Orbiculati
Non-glandular hair	 <p>Frequently found, unicellular, with slightly warty protuberances on the surface, some with thin transverse septa visible</p>	 <p>Absent</p>
Crystal of calcium oxalate	 <p>Prism of calcium oxalate, usually arranged in rows in the parenchymatous cell, appears rectangular, double-conical or sub-square; bright white or polychromatic under the polarized light microscope</p>	 <p>With prism of calcium oxalate, cluster of calcium oxalate and other fine crystals. Prism of calcium oxalate(1) scattered or present in groups, appears square, rectangular or sub-double conical; polychromatic under the polarized light microscope. Cluster of calcium oxalate(2) numerous, scattered or present in parenchymatous cell; polychromatic under the polarized light microscope. Other fine crystals(3) usually found in groups, vary in shape; bright white, bright yellowish-white or polychromatic under the polarized light microscope</p>
Aril cell	 <p>Absent</p>	 <p>Sub-rectangular or sub-polygonal, contains orange-red oily substance</p>

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

50 μm

Summary

Major differences in the features between Flos Albiziae and Fructus Celastris Orbiculati:

		Flos Albiziae	Fructus Celastris Orbiculati
Macroscopic and micro-morphological features	Appearance	Capitulum shriveled to masses	Capsule, pericarp is usually separated from the seed
	Surface	Glabrous filament; petal, calyx and peduncle have non-glandular hairs	Outer surface of pericarp has dotted protuberances, while inner surface has faintly observable transverse sinuous striations; surface of aril shriveled
Microscopic features	Non-glandular hair	Present	Absent
	Crystal of calcium oxalate	Only prism of calcium oxalate	With prism of calcium oxalate, cluster of calcium oxalate and other fine crystals
	Aril cell	Absent	Present

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



Albiziae Flos - Hong Kong Chinese Materia Medica Standards (Volume 7)



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