

Flos Buddlejae versus Flos Edgeworthiae Chrysanthae



Source

***Flos Buddlejae**
is the dried flower bud or inflorescence of
Buddleja officinalis Maxim
in the family Loganiaceae

Flos Edgeworthiae Chrysanthae
is the dried flower bud and inflorescence of
Edgeworthia chrysantha Lindl.
in the family Thymelaeaceae

Overview

Flos Buddlejae is a Chinese Materia Medica (CMM) listed in both Schedule 2 of the Chinese Medicine Ordinance and Chinese Pharmacopoeia (2020). On the other hand, Flos Edgeworthiae Chrysanthae has not yet been listed in either reference. According to *Modern Chinese Materia Medica*, Flos Buddlejae is named due to the fact that its flowers are dense and beautifully clustered, and the flowers are covered with fine hairs; while the inflorescences of Flos Edgeworthiae Chrysanthae are also tightly packed and densely covered with hairs, and thus, called “Xin meng hua” or “Meng hua zhu”, which sometimes are used in Zhejiang, Jiangsu, and Guangdong as “Mi meng hua”. According to the Chinese Pharmacopoeia, Flos Buddlejae can clear heat and purge fire, emolliate the liver to improve vision and remove nebula; while Flos Edgeworthiae Chrysanthae, named as “Meng hua” by *Zhong hua ben cao*, possesses the function of nourishing the liver and kidney, and improving vision and removing nebula. Due to differences in functions, these two CMM should be used accordingly.

Note:

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

Key identification features

Macroscopic features of Flos Buddlejae



1 cm

◆ Soft



Irregular-conic inflorescence

Flower bud is club-shaped or cylindrical, greyish-yellow or brownish-yellow and densely covered with hairs

Peduncle is greyish-yellow or yellowish-brown and densely covered with hairs

Tubular corolla

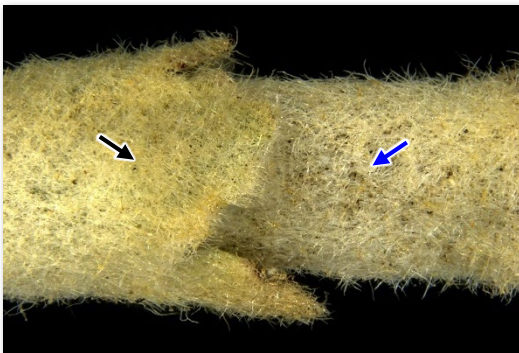
Campanulate calyx is 4-lobed at the apex

5 mm

1 mm

Micro-morphological features

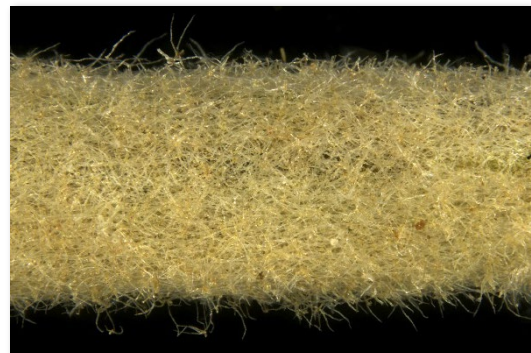
A: Calyx(→) and corolla(→) are densely covered with soft and matted hairs



(Surface of the flower bud)

0.5 mm

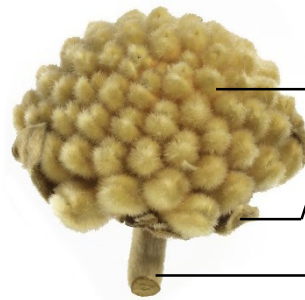
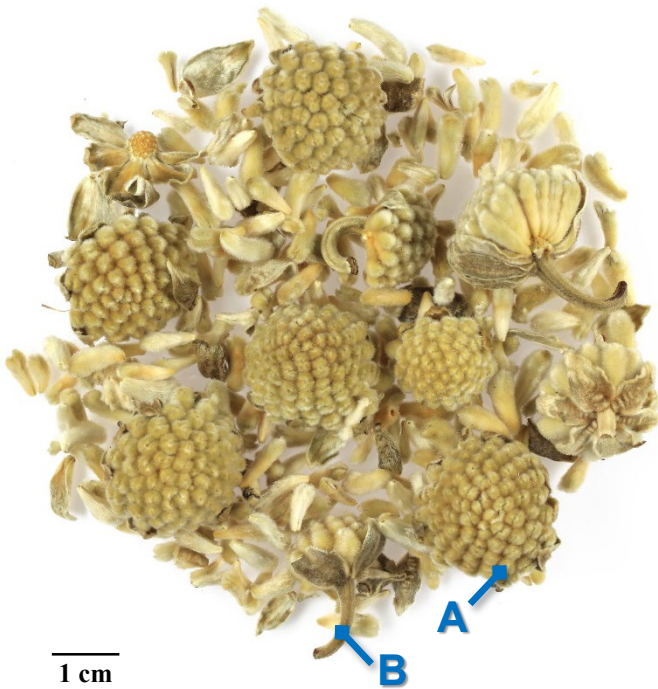
B: Densely covered with soft and matted hairs



(Surface of the peduncle)

0.5 mm

Macroscopic features of Flos Edgeworthiae Chrysanthae



Semi-spherical inflorescence
Involucral bract that is densely covered with hairs located underneath the inflorescence

5 mm



Peduncle is light yellowish-green or light yellowish-brown and densely covered with hairs
Flower bud is club-shaped and slightly curved. Some with retuse apex. Light yellowish-green or light yellowish-brown
Perianth is tubular and densely covered with hairs

2 mm

1 cm

◆ Fragile, easily broken

Micro-morphological features

A: Perianth is densely covered with straight, soft and silky hairs



(Surface of the flower bud)

1 mm

B: Densely covered with straight, soft and silky hairs

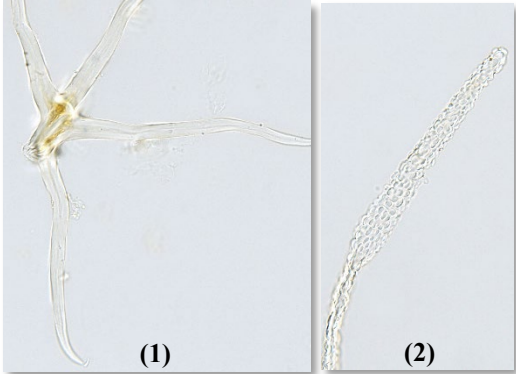







(Surface of the peduncle)

1 mm

Microscopic feature comparison of Flos Buddlejae and Flos Edgeworthiae Chrysanthae powder



	Flos Buddlejae	Flos Edgeworthiae Chrysanthae
Non-glandular hair	 <p>(1) (2)</p> <p>Two types can be found. Numerous stellate non-glandular hair(1), with 2 uniseriate cells at the base if intact. With 2 collateral cells at the upper part, each cell bifurcated, with thick wall and smooth surface. Unicellular non-glandular hair(2) is barely found, with thin wall and dense warty protuberances on the surface</p>	 <p>Only one type can be found. Numerous unicellular non-glandular hair, with thick or slightly thick wall, sparse warty protuberances are frequently found on the surface</p>
Glandular hair	 <p>Head mostly consists of 2 collateral cells, dumbbell-shaped or butterfly-shaped, short stalk</p>	 <p>Absent</p>
Pollen grain	 <p>Spherical, smooth surface</p>	 <p>Spherical, surface with reticulate striations</p>

50 μm

Summary

Major differences in the features between Flos Buddlejae and Flos Edgeworthiae Chrysanthae:

	Flos Buddlejae	Flos Edgeworthiae Chrysanthae	
Macroscopic and micro-morphological features	Shape of inflorescence	Irregular-conic	Semi-spherical
	Flower bud	Surface is densely covered with soft and matted hairs	Surface is densely covered with straight, soft and silky hairs
Microscopic features	Non-glandular hair	With two types – stellate non-glandular hair and unicellular non-glandular hair	With only one type – unicellular non-glandular hair
	Glandular hair	Present	Absent
	Pollen grain	Smooth surface	Surface with reticulate striations

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



Buddlejae Flos - Hong Kong Chinese Materia Medica Standards (Volume 6)



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