Identification of Easily Confused Species of Chinese Materia Medica in Hong Kong by Macroscopic and Microscopic Characteristics Project

Herba Artemisiae Anomalae versus Artemisia Lactiflora Herba





1 cm

1 cm

Source

Herba Artemisiae Anomalae

is the dried aerial part of Artemisia anomala S. Moore in the family Compositae

Artemisia Lactiflora Herba

is the dried aerial part of Artemisia lactiflora Wall.ex DC. in the family Compositae

Overview

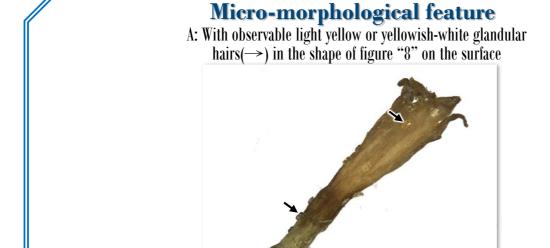
The Chinese Materia Medica (CMM) Herba Artemisiae Anomalae, but not Artemisia Lactiflora Herba, is listed in Schedule 2 of the Chinese Medicine Ordinance. Neither of these two CMM had been included in the Chinese Pharmacopoeia (2020). According to Species Systematization and Quality Evaluation of Commonly Used Chinese Traditional Drugs, the species of Herba Artemisiae Anomalae is complicated, research studies believed that Artemisia anomala in the family Compositae is the authentic species. The Chinese Materia Medica Standards in Guangdong Province also stated that CMM of different family and genus has also been customarily used as "Liu ji nu", and Artemisia Lactiflora Herba is one of the species customarily used in Guangdong and Guangxi regions, which is also called "Guang dong liu ji nu". According to Zhong hua ben cao, Herba Artemisiae Anomalae can break blood and expel stasis, and unblock the meridian, stop bleeding and disperse swelling, promote digestion and resolve accumulation; while Artemisia Lactiflora Herba can activate blood and dissipate stasis, regulate qi and resolve dampness. As the efficacy of these two CMM differs, they should be used accordingly.

Key identification features

Macroscopic features of Herba Artemisiae Anomalae decoction pieces







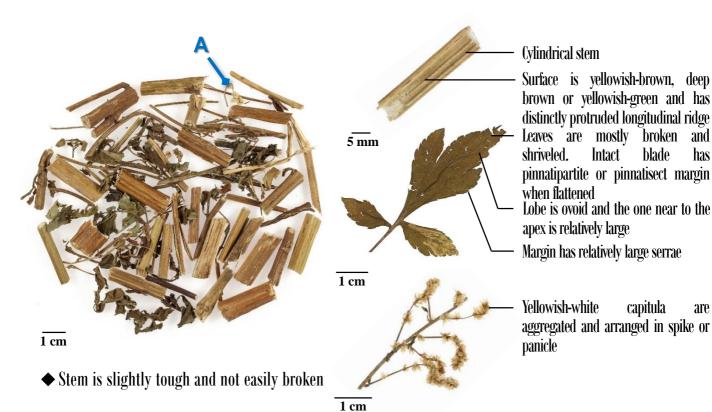
(Corolla)

200 µm

Macroscopic features of Artemisia Lactiflora Herba

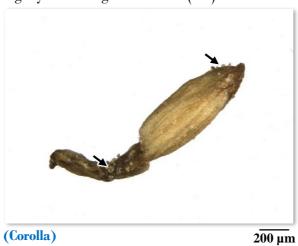


has



Micro-morphological featureA: With observable sub-rounded or sub-elliptical light yellow and

slightly shriveled glandular hairs(->) on the surface



Microscopic feature comparison of Herba Artemisiae Anomalae decoction pieces and Artemisia Lactiflora Herba powder

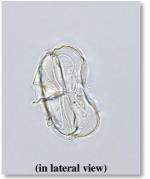


Herba Artemisiae Anomalae decoction pieces

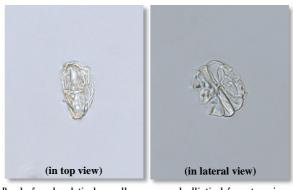
Artemisia Lactiflora Herba

Glandular hair





Observable, relatively large, appears sub-elliptical from top view, cells seriated in pairs and surrounded by cuticle on the exterior; with several layers of cell in lateral view, without stalk



Barely found, relatively small, appears sub-elliptical from top view, cells seriated in pairs and surrounded by cuticle on the exterior, some shriveled to masses; with several layers of cell in lateral view, without stalk

 $50 \, \mu m$

Summary

Major differences in the features between Herba Artemisiae Anomalae decoction pieces and Artemisia Lactiflora Herba:

·		Herba Artemisiae Anomalae decoction pieces	Artemisia Lactiflora Herba
Macroscopic and micro-morphological features	Appearance of leaf	With relatively small serrae at margin	Intact blade has pinnatipartite or pinnatisect margin when flattened. Margin has relatively large serrae
	Surface of stem	With slightly protruded longitudinal ridges	With distinctly protruded longitudinal ridges
	Corolla	With observable light yellow or yellowish-white glandular hairs in the shape of figure "8" on the surface	With observable sub- rounded or sub-elliptical light yellow and slightly shriveled glandular hairs on the surface
Microscopic feature	Glandular hair	Relatively large	Relatively small

For more information, please refer to the <u>Hong Kong Chinese Materia Medica</u> Standards website:



Artemisiae Anomalae Herba - Hong Kong Chinese Materia Medica Standards (Volume 10)

Additional information

Photo of crude Herba Artemisiae Anomalae





Government Chinese Medicines Testing Institute Department of Health Enquiry Hotline: 3188 8079

Department of Health Website: www.cmro.gov.hk

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