

Rhizoma Cimicifugae versus Serratulae Chinensis Radix



Source

***Rhizoma Cimicifugae**
is the dried rhizome of
Cimicifuga heracleifolia Kom.,
C. dahurica (Turcz.) Maxim. or
C. foetida L.
in the family Ranunculaceae

Serratulae Chinensis Radix
is the dried root of
Serratula chinensis S. Moore
in the family Compositae

Overview

The Chinese Materia Medica (CMM) Rhizoma Cimicifugae is listed in both the Schedule 2 of the Chinese Medicine Ordinance and the Chinese Pharmacopoeia (2020), while Serratulae Chinensis Radix is only endorsed in *Chinese Materia Medica Standards in Guangdong Province*. According to the *Zhong hua ben cao*, there are 3 sources of Rhizoma Cimicifugae and are sold nationwide or in the southwest and northwest regions under the customary names of “Guan sheng ma”, “Bei sheng ma” and “Chuan sheng ma” correspondingly. Serratulae Chinensis Radix is produced in Guangdong and Fujian areas and is often used by the locals. According to the *Guang dong zhong yao zhi*, Serratulae Chinensis Radix is customarily used as Rhizoma Cimicifugae as medicines in Guangdong. As the source of family and genus, chemical compositions and pharmacological actions of the two CMM are different. Hence, Serratulae Chinensis Radix could not be used as a substitute for Rhizoma Cimicifugae.

Note:

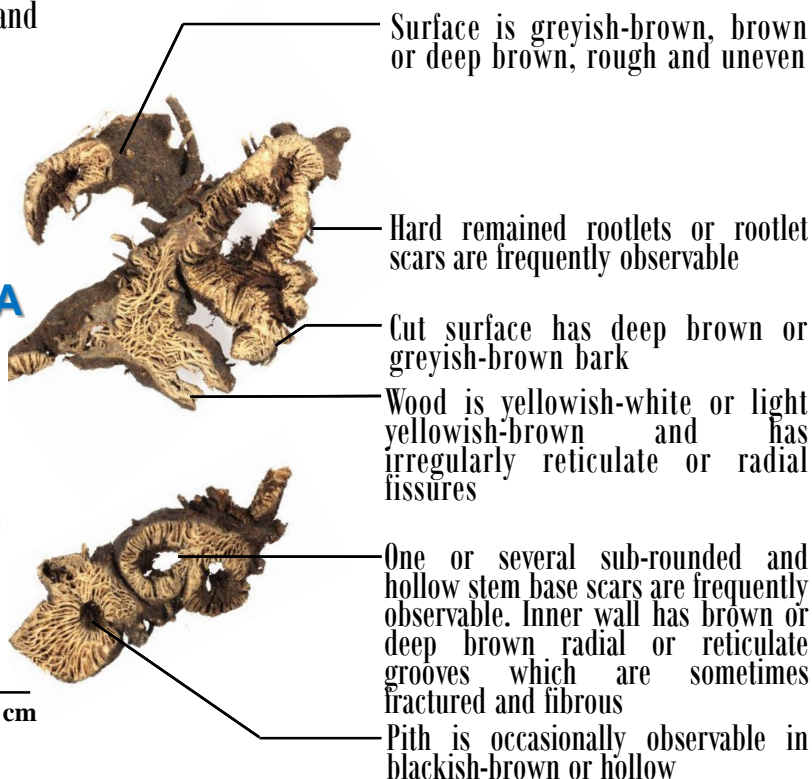
*Its name in the Chinese Pharmacopoeia (2020) is “Cimicifugae Rhizoma”.

Key identification features

Macroscopic features of Rhizoma Cimicifugae decoction pieces



- ◆ Irregular thick slices, appear in lump form and mostly branched



- ◆ Light, hard and not easily broken

Micro-morphological feature

A: Remained rootlets(→) and rootlet scars(→) are frequently observable. Rootlets are relatively thick



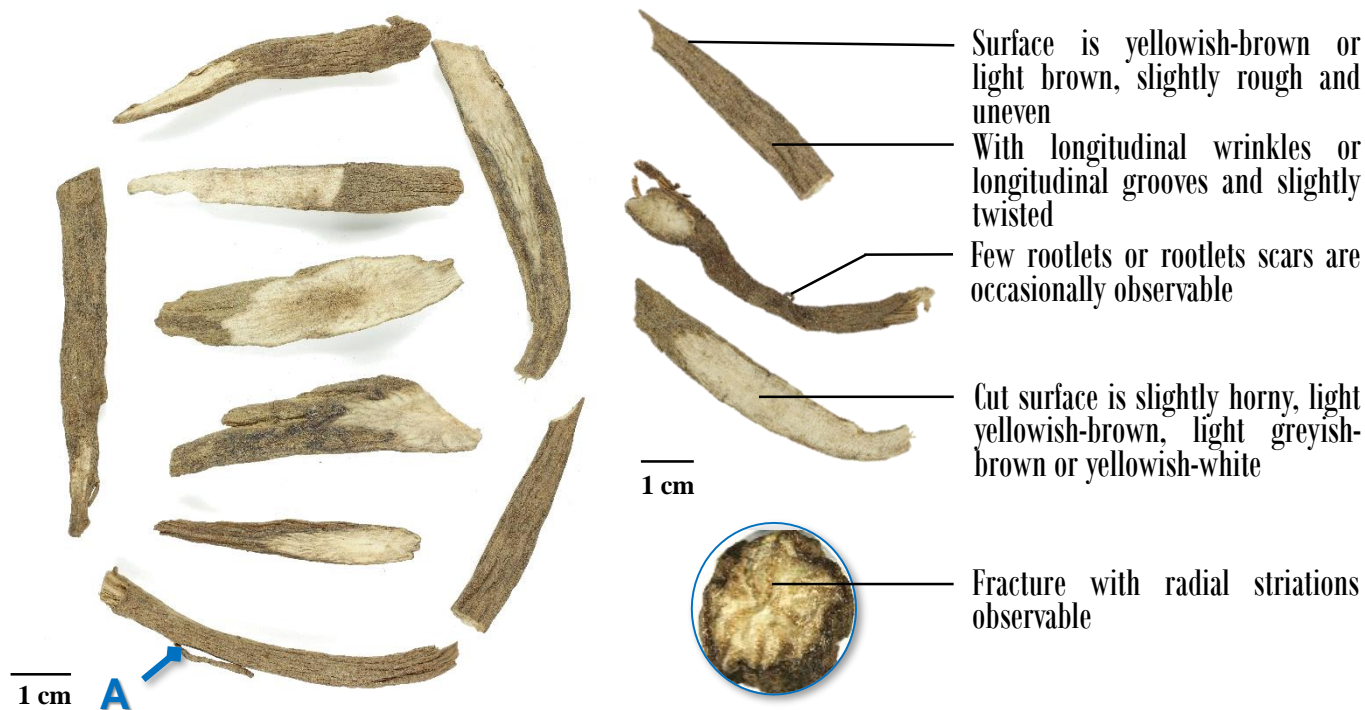
(Surface of the rhizome)

2 mm

Macroscopic features of Serratulae Chinensis Radix decoction pieces



- ◆ Irregular slices, appear in strip-shaped or fusiform, slightly flat and curved



- ◆ Hard and fragile, easily broken

Micro-morphological feature

A: Remained rootlets(→) and rootlet scars(→) are occasionally observable. Rootlets are relatively thin

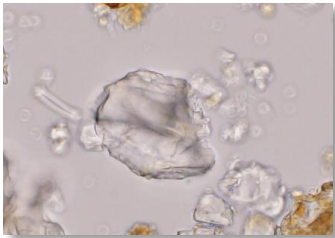

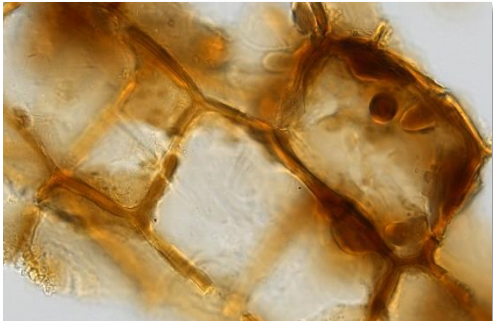



(Surface of the root)

2 mm

Microscopic feature comparison of
Rhizoma Cimicifugae decoction pieces and
Serratulae Chinensis Radix decoction pieces powder



	Rhizoma Cimicifugae decoction pieces	Serratulae Chinensis Radix decoction pieces
Inulin#	<div></div> <p>Absent</p>	 <p>Frequently found, irregular or slightly fan-shaped, some with radial striations observable on the surface</p>
Resin canal	<div></div> <p>Absent</p>	 <p>Mostly broken, contains yellowish-brown secretion</p>
Protective tissue	 <p>Metaderm cell yellowish-brown, appears rectangular or sub-polygonal in surface view, some wall papillary protruded inward</p>	 <p>Cork cell yellowish-brown or brown, appears sub-square or sub-polygonal in surface view</p>

Note:

#Prepare the slide by adding chloral hydrate test solution without heating and observe.

50 μm

Summary

Major differences in the features between Rhizoma Cimicifugae decoction pieces and Serratulae Chinensis Radix decoction pieces:

		Rhizoma Cimicifugae decoction pieces	Serratulae Chinensis Radix decoction pieces
Macroscopic and micro-morphological features	Shape	Irregular thick slices, appear in lump form and mostly branched	Irregular slices, appear in strip-shaped or fusiform, slightly flat and curved
	Cut surface	Wood with irregularly reticulate or radial fissures; hollow stem base scars are frequently observable	Slightly horny; without stem base scars
	Surface	Remained rootlets and rootlets scars are frequently observable. Rootlets are relatively thick	Remained rootlets and rootlets scars are occasionally observable. Rootlets are relatively thin
Microscopic features	Inulin	Absent	Present
	Resin canal	Absent	Present
	Protective tissue	Metaderm cell	Cork cell

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



Rhizoma Cimicifugae - Hong Kong Chinese Materia Medica Standards (Volume 2)

Additional information

Photo of crude Rhizoma Cimicifugae

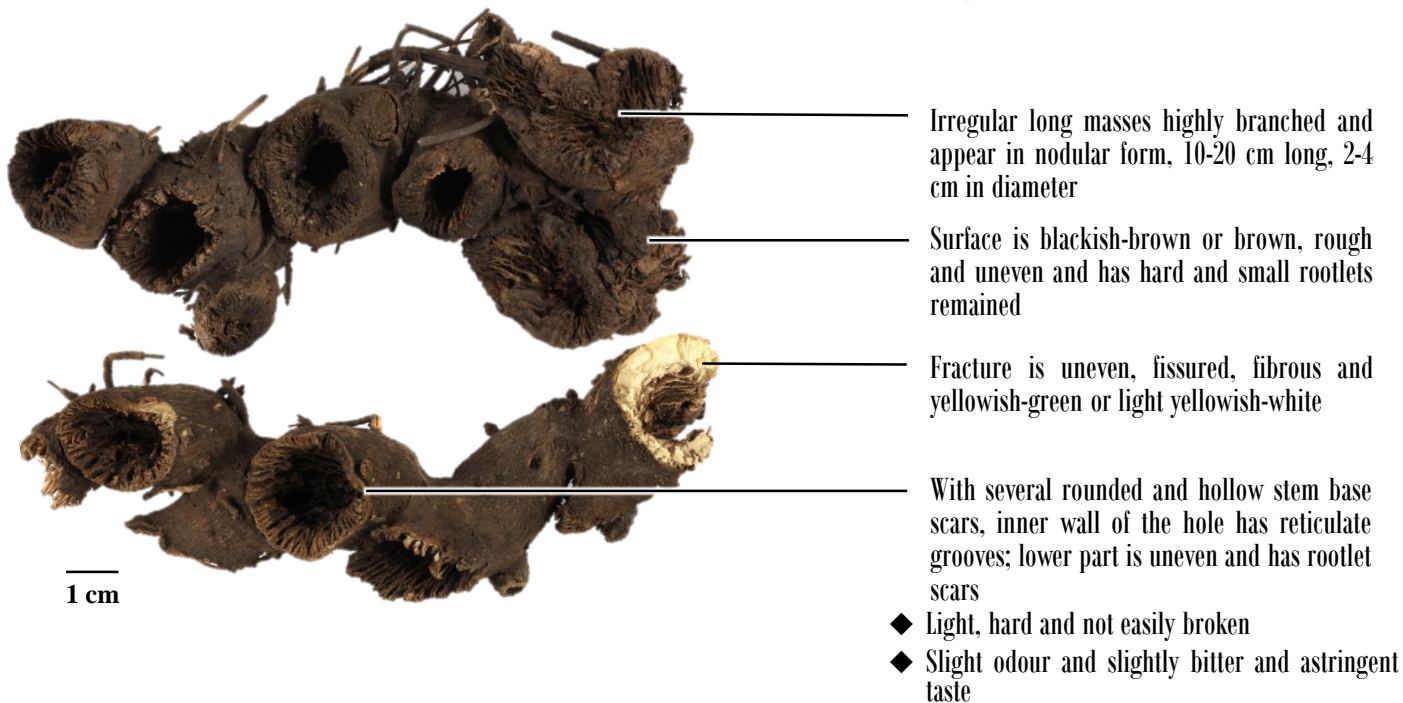
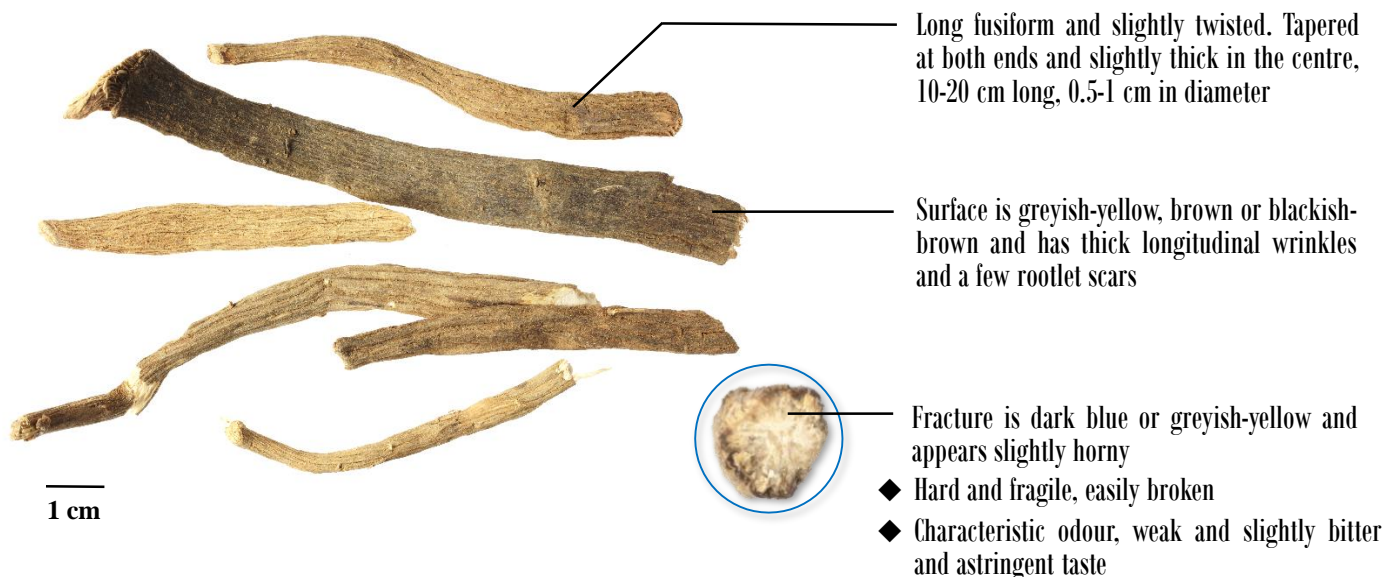


Photo of crude Serratulae Chinensis Radix



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