

# Cortex Lycii versus Lycii Radix



## Source

**\*Cortex Lycii**  
is the dried root bark of  
*Lycium chinense* Mill. or  
*L. barbarum* L.  
in the family Solanaceae

**Lycii Radix**  
is the dried root of  
*Lycium chinense* Mill.  
in the family Solanaceae

## Overview

Cortex Lycii is a Chinese Materia Medica (CMM) listed in Schedule 2 of the Chinese Medicine Ordinance and the Chinese Pharmacopoeia (2020), while Lycii Radix has not been recorded in either references. According to the *Modern Chinese Materia Medica*, Cortex Lycii is mainly produced in Shanxi and Henan provinces and sold all over China. Lycii Radix is recorded in *Guang dong zhong yao zhi*, *Chinese Materia Medica Standards in Guangdong Province and Rules for Preparation of Chinese Medicines Decoction Pieces in Shang hai*. It can dispel dampness-fire, dispel deficiency heat, and clear lung fire. According to the Chinese Pharmacopoeia, Cortex Lycii can cool the blood and eliminate steam, clear the lung and downbear fire. As the medicinal parts and efficacy of the two CMM differ, they should be used accordingly.

Note:

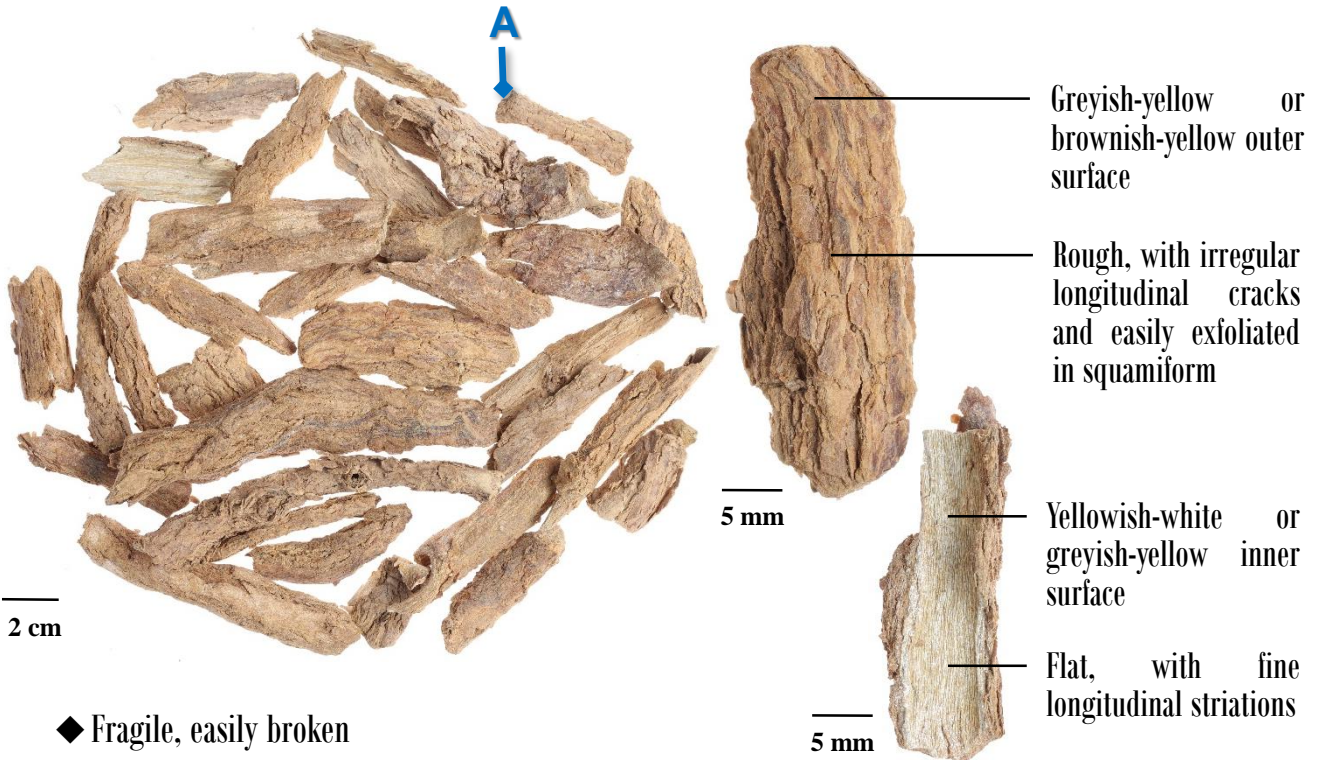
\*Its name in the Chinese Pharmacopoeia (2020) is "Lycii Cortex".

## Key identification features

### Macroscopic features of Cortex Lycii



- ◆ Tubular or trough-shape



- ◆ Fragile, easily broken

### Micro-morphological feature

A: Outer layer of the bark is yellowish-brown and loose, while the inner layer is greyish-yellow and has brown striations(→)



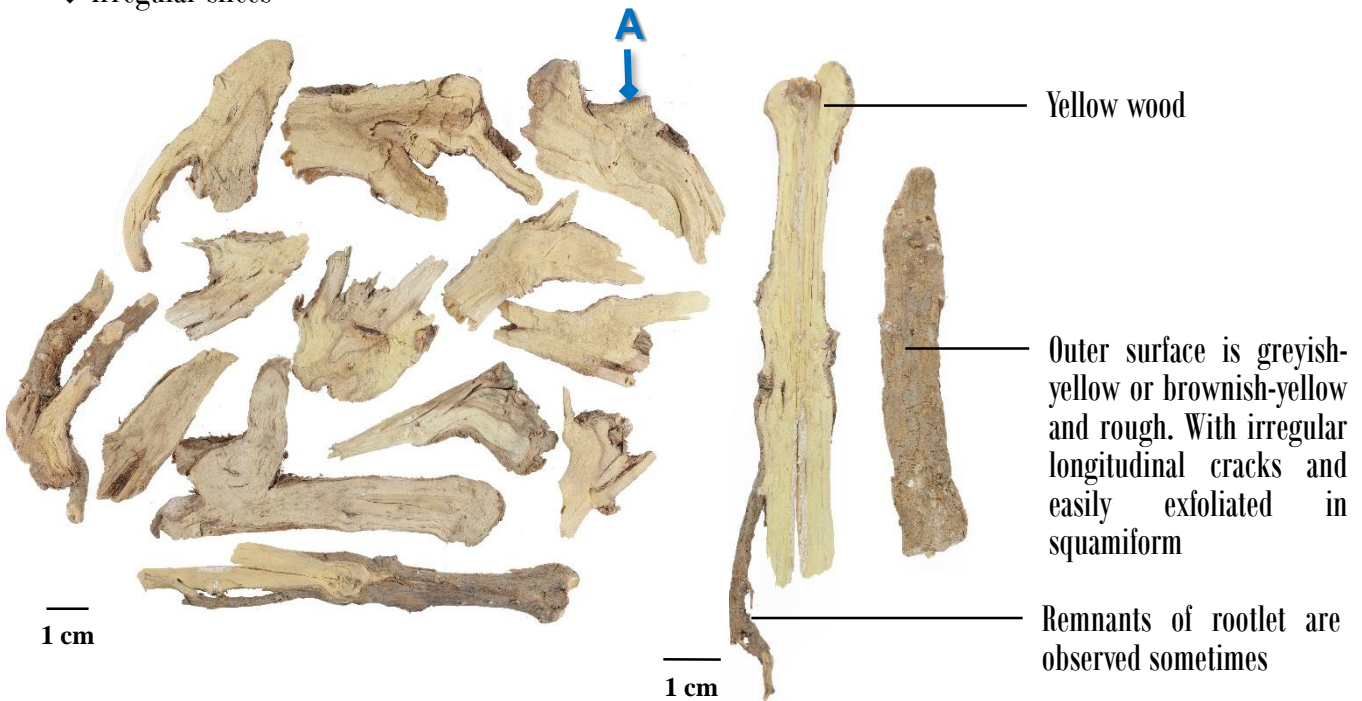
(Transverse section)

500 μm

## Macroscopic features of Lycii Radix decoction pieces



### ◆ Irregular slices

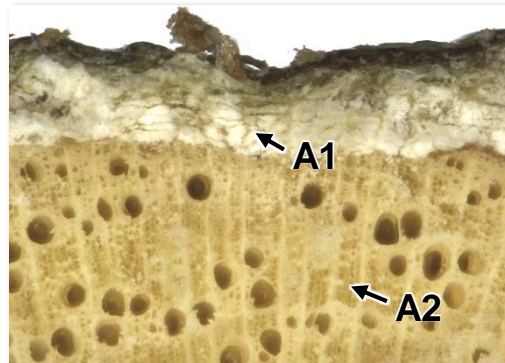


### ◆ Hard

### Micro-morphological features

A1: Outer layer of the bark is greyish-brown and loose, while the inner layer is yellowish-white and has yellow striations(→)

A2: Wood is yellow and has radial striations(→)

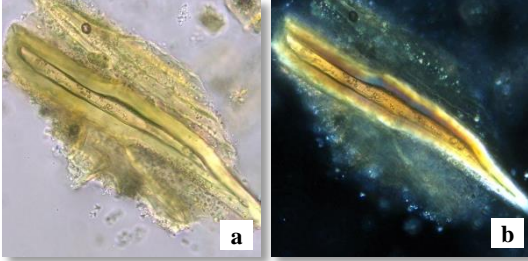
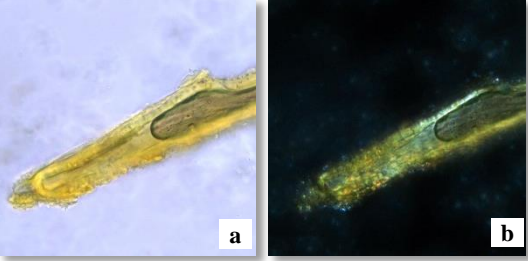
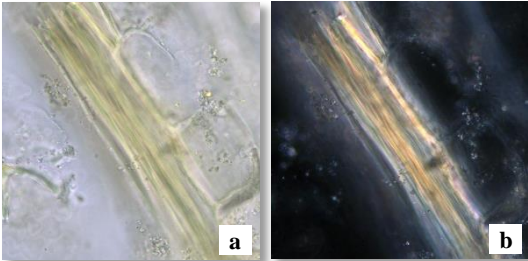
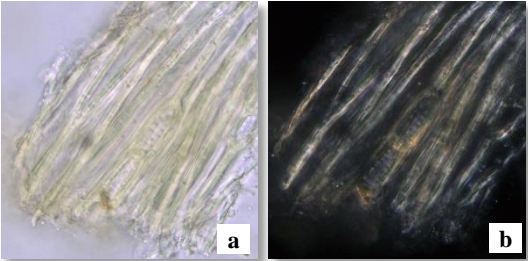




(Transverse section)

500 μm

## Microscopic feature comparison of Cortex Lycii and Lycii Radix decoction pieces powder



	Cortex Lycii	Lycii Radix decoction pieces
Phloem fibre	 <p>Frequently found. Thick wall, fusiform, mostly solitary or connect with phloem ray; mostly in bright yellow under the polarized light microscope</p>	 <p>Occasionally found. Thick wall, fusiform, mostly solitary or connect with phloem ray; mostly in bright yellow under the polarized light microscope</p>
Xylem fibre	 <p>Occasionally found, mostly in bundles, with pits and pit canals; yellowish-white under the polarized light microscope</p>	 <p>Frequently found, mostly in bundles, with pits and pit canals; yellowish-white under the polarized light microscope</p>
Vessel	 <p>Absent</p>	 <p>Spiral vessel or reticulate vessel</p>

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

50 µm

## Summary

Major differences in the features between Cortex Lycii and Lycii Radix decoction pieces:

		Cortex Lycii	Lycii Radix decoction pieces
Macroscopic and micro-morphological features	<b>Shape</b>	Tubular or trough-shape	Irregular slices
	<b>Wood</b>	Absent	Yellow, with radial striations
Microscopic features	<b>Phloem fibre</b>	Frequently found	Occasionally found
	<b>Xylem fibre</b>	Occasionally found	Frequently found
	<b>Vessel</b>	Absent	Present

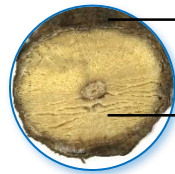
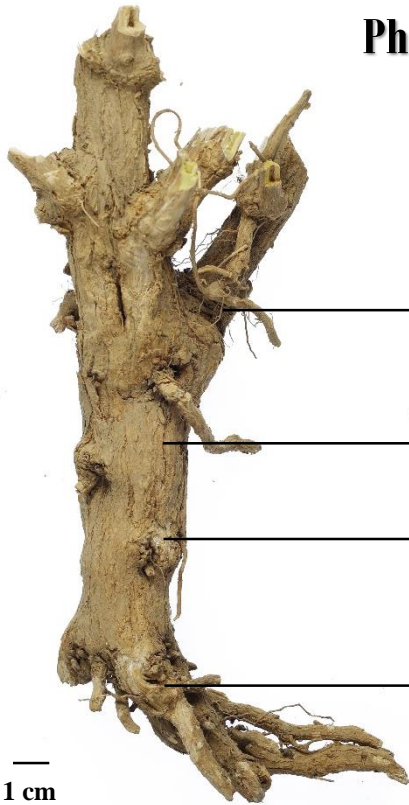
For more information, please refer to the [Hong Kong Chinese Materia Medica Standards website](#):



Cortex Lycii - Hong Kong Chinese Materia Medica Standards (Volume 6)

## Additional information

### Photo of crude Lycii Radix



Cut surface of the bark is brown and the inner side is whitish

Yellow wood

Apex of the main root usually has remnants of hollow and short aerial stem

Main root is cylindrical, curved and varies in length at 1-3 cm in diameter

Outer surface is greyish-yellow to greyish-brown, rough and loose. With irregular, longitudinal and wavy striations and rootlet scars

With branches at 0.1-1 cm in diameter

◆ Slight aroma and taste slightly sweet



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