

# Ramulus Euonymi versus Buchnerae Cruciatæ Herba



## Source

### Ramulus Euonymi

### Buchnerae Cruciatæ Herba

is the dried corky wing or young branch with corky wing of  
*Euonymus alatus* (Thunb.) Sieb.  
in the family Celastraceae

is the dried whole part of  
*Buchnera cruciata* Buch. -Ham. ex D. Don  
in the family Scrophulariaceae

## Overview

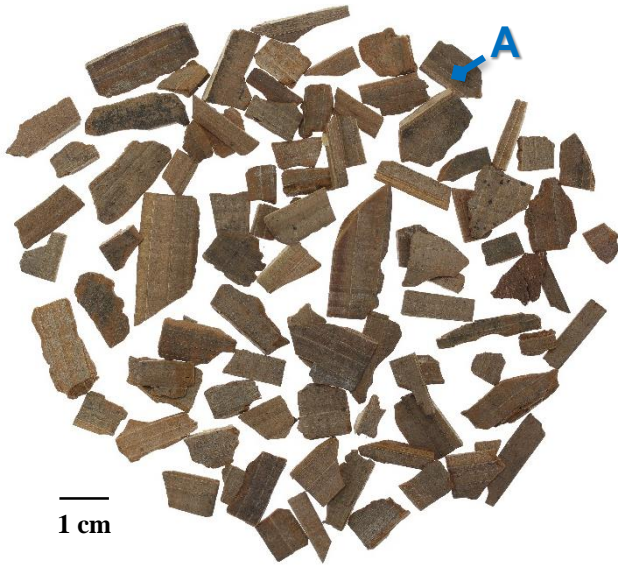
Ramulus Euonymi is a Chinese Materia Medica (CMM) listed in Schedule 2 of the Chinese Medicine Ordinance, while Buchnerae Cruciatæ Herba has been recorded in the *Chinese Materia Medica Standards in Guangdong Province*, but not the Chinese Medicine Ordinance. As the young branch of the Ramulus Euonymi has corky wing, it is named as “Gui jian” in the *Ben cao gang mu*, and named as “Gui jian yu” in the *Ben cao shu gou yuan*. According to *Zhong hua ben cao*, functions of Ramulus Euonymi include breaking blood to unblock the meridian, detoxification and dispersing swelling, and killing worms; while Buchnerae Cruciatæ Herba can clear heat and detoxify, and cool the blood to stop bleeding. Despite similar names, these two CMM possess different functions and should be used accordingly.

## Key identification features

### Macroscopic features *Ramulus Euonymi*



- ◆ Thin lamellar
- ◆ Brown or reddish-brown



- ◆ Light and fragile, easily broken



With fine and dense longitudinally straight or slightly sinuous stripes on both sides



(Fracture)

Uneven thickness on both sides, relatively thick on the side growing near to the branch and becomes thinner outwards  
Light brown or brown, flat and even in fracture

### Micro-morphological feature

A: Glabrous



(Surface)

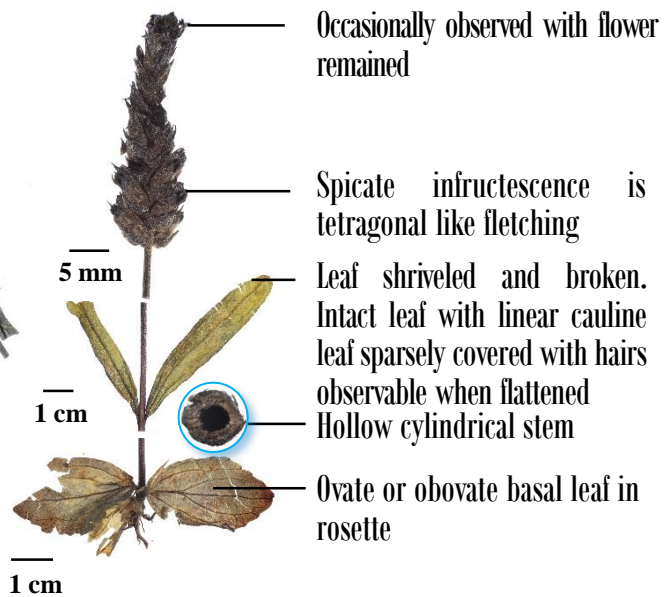
200 µm



## Macroscopic features of Buchnerae Cruciatæ Herba decoction pieces



- ◆ Irregular sections
- ◆ Black or dark green



- ◆ Light, easily broken

### Micro-morphological features

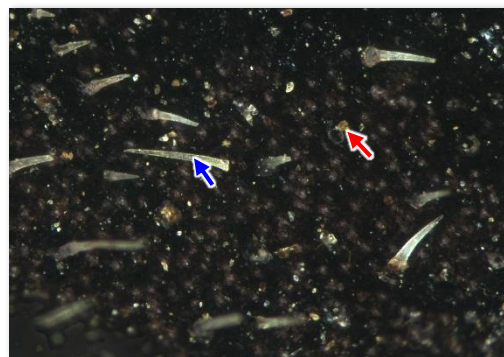
A: Stem covered with non-glandular hairs(→) and glandular hairs(→)



(Surface of the stem)

200 µm

B: Leaf covered with non-glandular hairs(→) and glandular hairs(→)

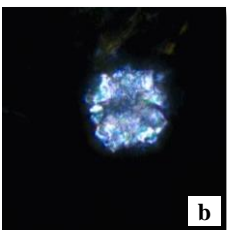
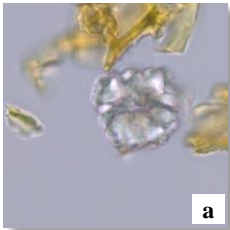







(Surface of the leaf)

200 µm

Microscopic feature comparison of Ramulus Euonymi and Buchnerae Cruciatæ Herba decoction pieces powder



	Ramulus Euonymi	Buchnerae Cruciatæ Herba decoction pieces
Cluster of calcium oxalate	<div></div> <p>Visible, scattered or present in suberized cell; polychromatic under the polarized light microscope</p>	<div></div> <p>Absent</p>
Non-glandular hair	<div></div> <p>Absent</p>	<div></div> <p>Frequently found, colourless or light yellow. Straight or curved, with warty protuberances on the wall, contains colourless, yellow or purple ergastic substance</p>
Glandular hair	<div></div> <p>Absent</p>	<div></div> <p>Bicellular head, short stalk, mostly broken</p>

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

50 µm

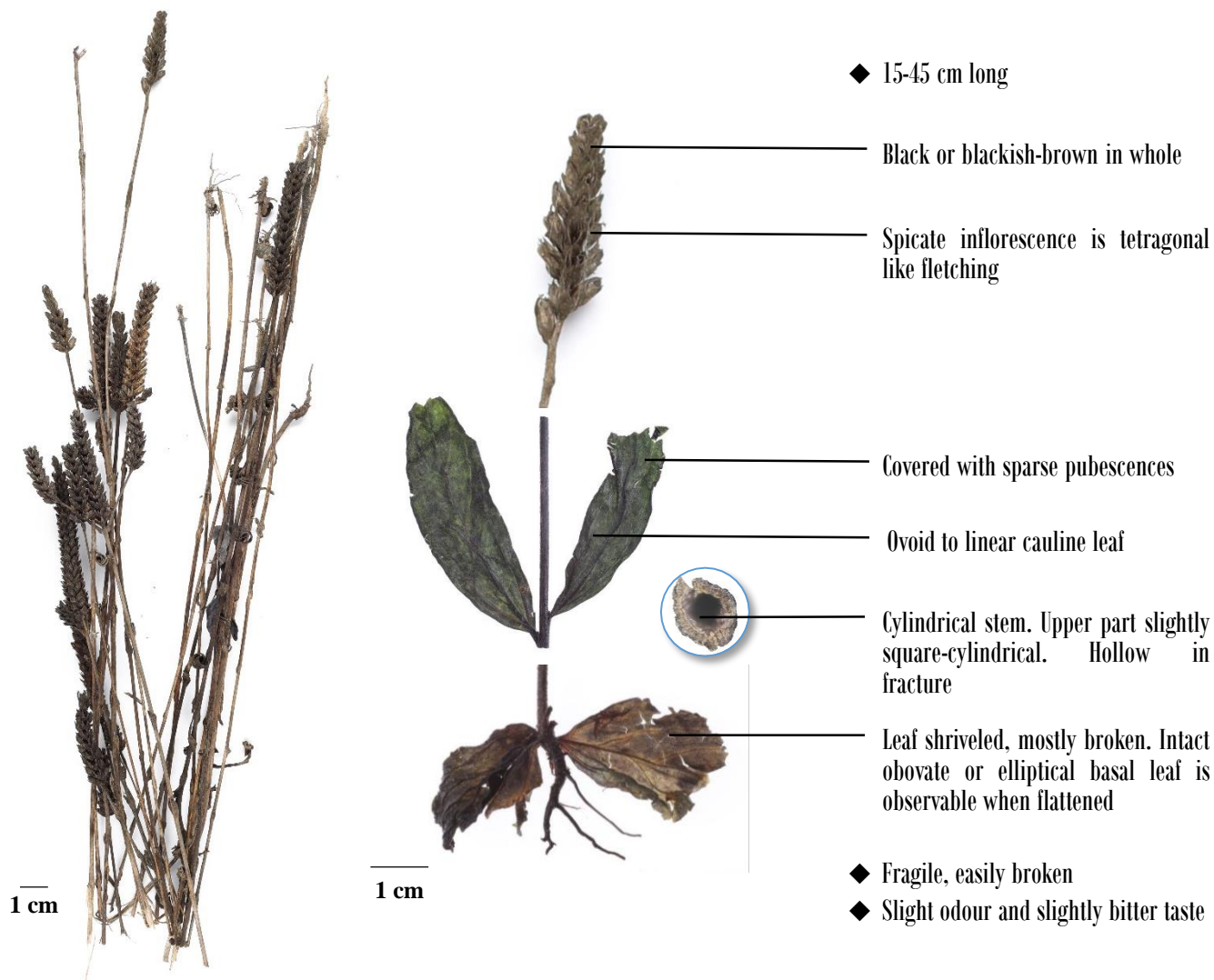
## Summary

Major differences in the features between Ramulus Euonymi and Buchnerae Cruciatæ Herba decoction pieces :

		Ramulus Euonymi	Buchnerae Cruciatæ Herba decoction pieces
Macroscopic and micro-morphological features	Appearance	Thin lamellar	Irregular sections
	Colour	Brown or reddish-brown	Black or dark green
	Surface	Glabrous	Stem and leaf covered with non-glandular hairs and glandular hairs
Microscopic features	Cluster of calcium oxalate	Visible	Absent
	Non-glandular hair	Absent	Frequently found
	Glandular hair	Absent	Bicellular head, short stalk, mostly broken

## Additional information

### Photo of crude Buchnerae Cruciatæ Herba



Government Chinese Medicines Testing Institute  
Department of Health  
Enquiry Hotline: 3188 8079  
Website: [www.cmro.gov.hk](http://www.cmro.gov.hk)

*The information in this pamphlet may be re-disseminated or reproduced, provided that the Government Chinese Medicines Testing Institute (GCMTI), as the source of information, is acknowledged and that the re-dissemination or reproduction is for non-commercial use. Any other reproduction, adaptation, distribution, dissemination or making available of the information in this pamphlet for commercial use is strictly prohibited unless prior written authorization is obtained from the GCMTI.*