

Herba Schizonepetae versus Schizonepetae Spica



Source

***Herba Schizonepetae**
is the dried aerial part of
Schizonepeta tenuifolia Briq.
in the family Labiatae

Schizonepetae Spica
is the dried fruit-spike of
Schizonepeta tenuifolia Briq.
in the family Labiatae

Overview

Herba Schizonepetae has been listed in Schedule 2 of the Chinese Medicine Ordinance and Chinese Pharmacopoeia (2020), while Schizonepetae Spica has only been listed in the Chinese Pharmacopoeia. Both Chinese Materia Medica (CMM) are originated from the same plant, however, their medicinal parts differ, thus, their Chinese names only differ by one character. Herba Schizonepetae are the parts above ground, including the stems, leaves and spike; while Schizonepetae Spica is the spike. According to the *Modern Chinese Materia Medica*, both CMM have the function of releasing exterior and wind dispersing, and outthrust rashes, however, the dispersing properties of Schizonepetae Spica is relatively strong. Research have shown that the volatile oil content varies between different parts of the plant, and the content at the spike is significantly higher than that of the stem. As the function and chemical compositions vary between these two CMM, they should be used accordingly.

Note:

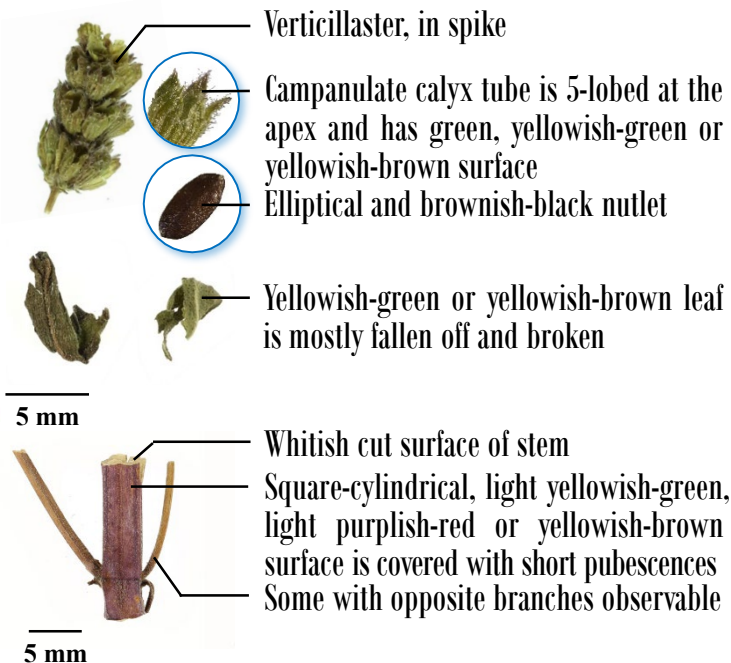
*Its name in the Chinese Pharmacopoeia (2020) is “Schizonepetae Herba”.

Key identification features

Macroscopic features of Herba Schizonepetae decoction pieces



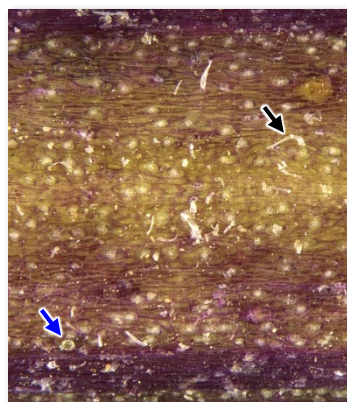
◆ Irregular sections



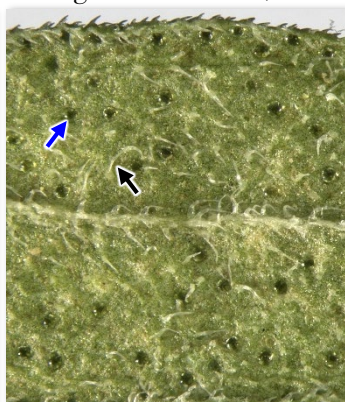
◆ Aromatic

Micro-morphological feature

A: All covered with non-glandular hairs(→) and glandular scales(→). Glandular scale is denser on inflorescence and fragment of the leaf, while occasionally observable on the stem



(Surface of the stem)



(Lower surface of the leaf)



(Surface of the inflorescence)

200 μm

Macroscopic features of Schizonepetae Spica 🔍

- ◆ Cylindrical inflorescence with slender peduncle



Verticillaster, in spike



Campanulate calyx tube is 5-lobed at the apex and has green, yellowish-green or yellowish-brown surface

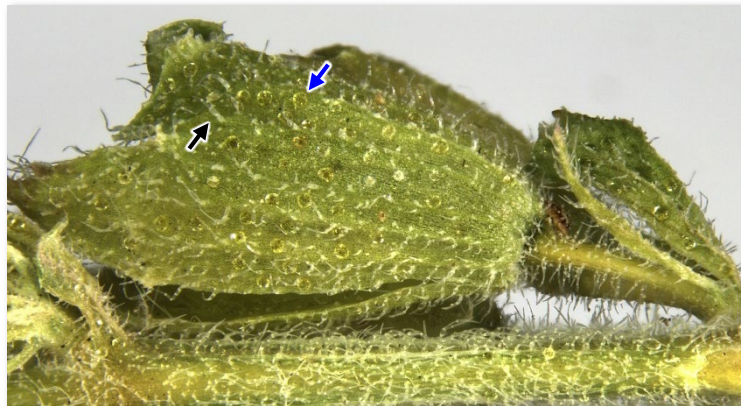


Elliptical and brownish-black nutlet

- ◆ Aromatic, relatively strong

Micro-morphological feature

A: Covered with non-glandular hairs(→) and glandular scales(↗)

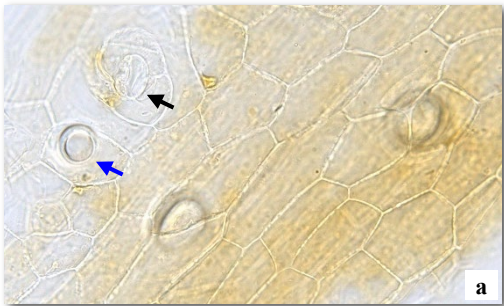

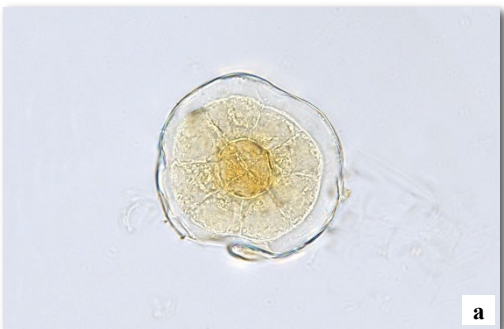



(Surface of the inflorescence)

200 μm

Microscopic feature comparison of Herba Schizonepetae decoction pieces and Schizonepetae Spica powder



	Herba Schizonepetae decoction pieces	Schizonepetae Spica
Epidermal cell of stem	<div><p>a</p><p>Sub-rectangular or sub-polygonal in surface view, some with slightly beaded-thickened anticlinal wall, some with diacytic stomata (→) and sub-rounded non-glandular hair scars (→) observable</p></div>	<div><p>Absent</p></div>
Fibre	<div><div><p>a</p><p>b</p></div><p>Numerous, in bundles or singly scattered, slightly thick or thick wall, some with sparse pits; bright white or orange-yellow under the polarized light microscope</p></div>	<div><div><p>a</p><p>b</p></div><p>Barely found, mostly in bundles, slightly thick wall, some with sparse pits; bright white or orange-yellow under the polarized light microscope</p></div>
Glandular scale	<div><p>a</p><p>Barely found, sub-rounded in top view, head mostly consists of 8 cells, covered with cuticle, usually shriveled; stalk extremely short, unicellular</p></div>	<div><p>a</p><p>Frequently found, sub-rounded in top view, head mostly consists of 8 cells, covered with cuticle, usually shriveled; stalk extremely short, unicellular</p></div>

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

50 μm

Summary

Major differences in the features between Herba Schizonepetae decoction pieces and Schizonepetae Spica:

		Herba Schizonepetae decoction pieces	Schizonepetae Spica
Macroscopic and micro-morphological features	Appearance	Irregular sections	Cylindrical inflorescence
	Stem	Square-cylindrical	Absent
	Surface	All covered with non-glandular hairs and glandular scales. Glandular scale is occasionally observable on the stem	Covered with non-glandular hairs and glandular scales
Microscopic features	Epidermal cell of stem	Present	Absent
	Fibre	Numerous	Barely found
	Glandular scale	Barely found	Frequently found

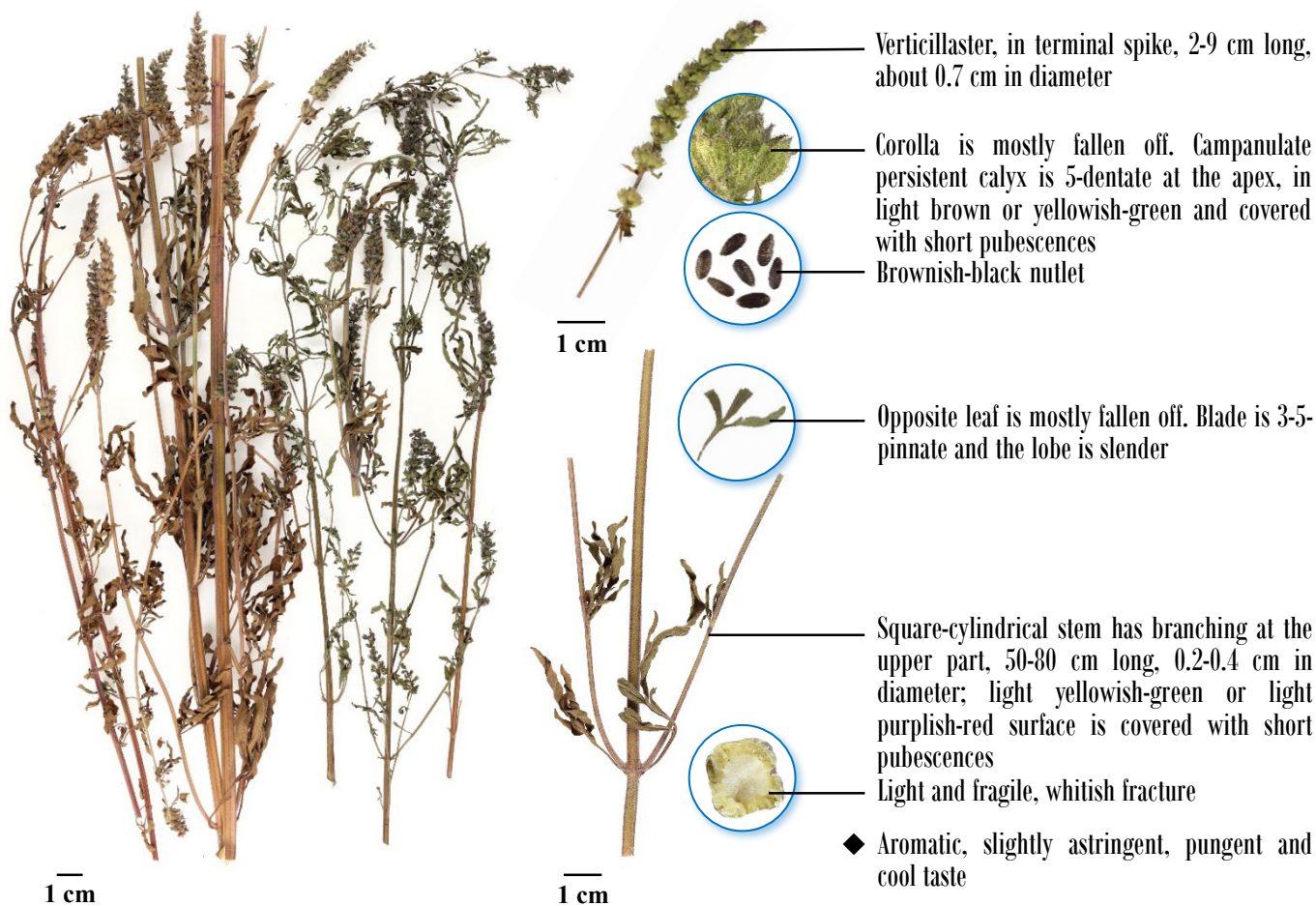
For more information, please refer to the [Hong Kong Chinese Materia Medica Standards website](#):



Schizonepetae Spica - Hong Kong Chinese Materia Medica Standards (Volume 4)

Additional information

Photo of crude Herba Schizonepetae



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