

Herba Violae versus Herba Gentianae Loureirii



Source

#Herba Violae
is the dried whole part of
Viola yedoensis Makino
in the family Violaceae

Herba Gentianae Loureirii
is the dried whole part of
Gentiana loureirii (G. Don) Griseb.
in the family Gentianaceae

Overview

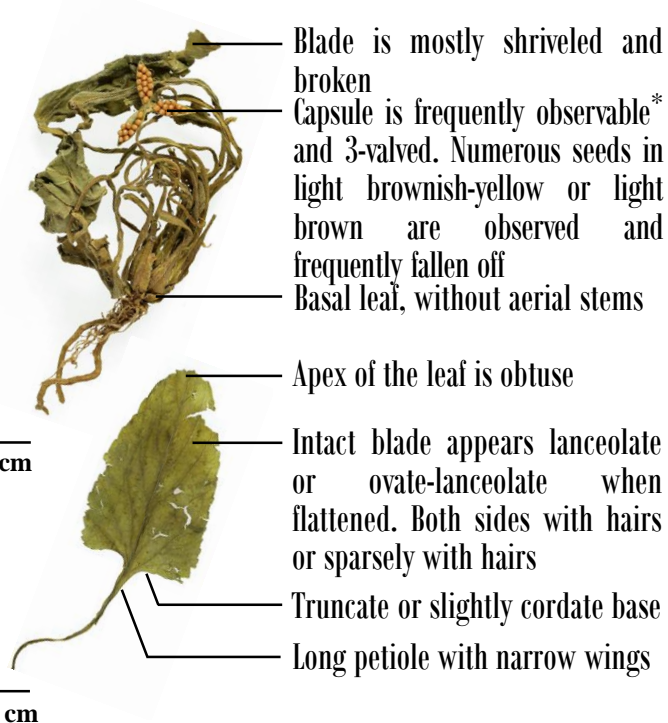
Herba Violae is a Chinese Materia Medica (CMM) listed under Schedule 2 of the Chinese Medicine Ordinance and the Chinese Pharmacopoeia (2020), while Herba Gentianae Loureirii is not listed in either. According to the *Species Systematization and Quality Evaluation of Commonly Used Chinese Traditional Drugs*, the name of “Zi hua di ding” refers to more than one CMM and have created confusion for a long history. Other than using the authentic *Viola yedoensis* in the family Violaceae as listed in the Chinese Pharmacopoeia, Guangdong and Guangxi also use *Gentiana loureirii* in the family Gentianaceae. The latter is Herba Gentianae Loureirii, which is alleged to be “Long dan di ding” by *Zhong hua ben cao*. According to the Chinese Pharmacopoeia and *Rules for Preparation of Chinese Medicines Decoction Pieces in Guangxi Zhuang Autonomous Region*, both CMM can clear heat to detoxify while Herba Violae can further cool the blood to disperse swelling. The functions of these two CMM are different and thus should be used distinctly.

Note:

#Its name in the Chinese Pharmacopoeia (2020) is “Violae Herba”.

Key identification features

Macroscopic features of Herba Violae



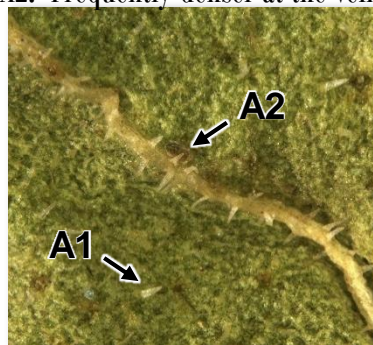
Micro-morphological features

A1: With non-glandular hairs on both sides of the leaf

A2: Frequently denser at the vein

B: Obtuse serrate and glabrous

C: Surface is relatively smooth with 1 yellowish-white ridged raphe on one side



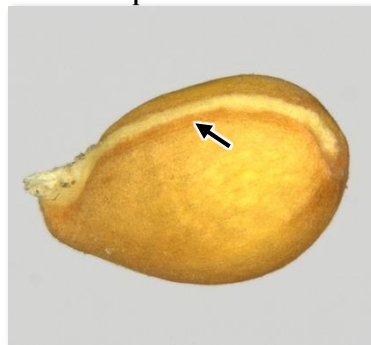
(Surface of the leaf)

500 µm



(Leaf margin)

1 mm



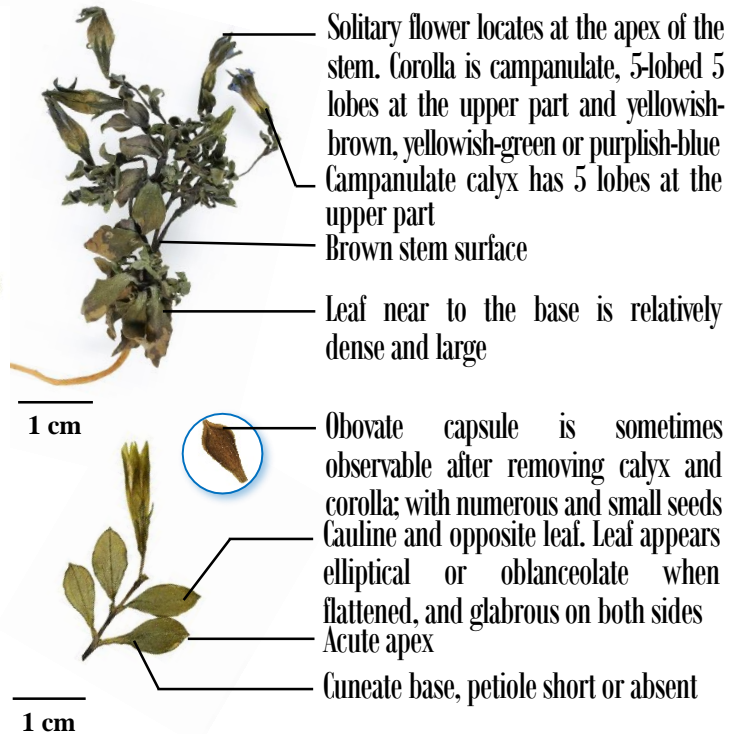
(Seed)

200 µm

Note:

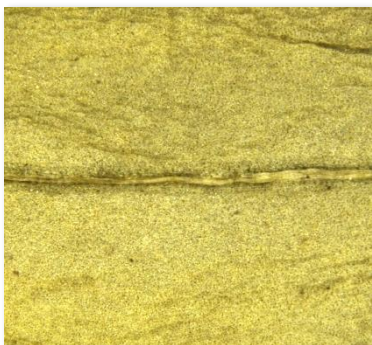
*Herba Violae is harvested either in spring or autumn. Therefore, flower and capsule are not regular features.

Macroscopic features of Herba Gentianae Loureirii



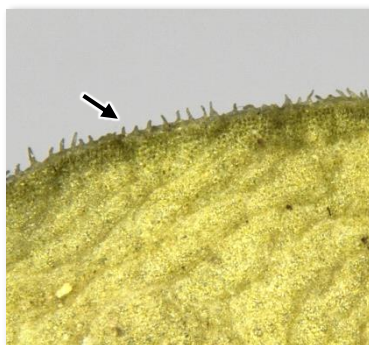
Micro-morphological features

A: Without non-glandular hairs on either sides



(Surface of the leaf)

B: Entire and with small cilia



(Leaf margin)

C: Relatively rough surface

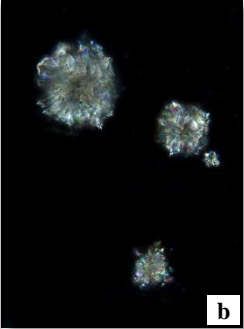
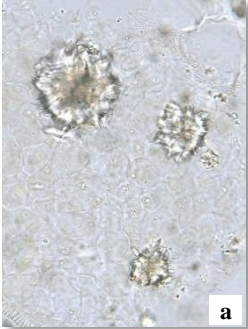

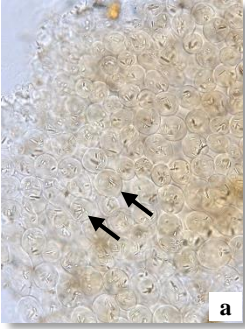



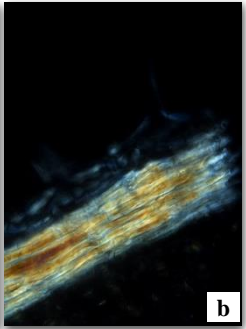



(Seed)

100 µm

Microscopic feature comparison of
Herba Violae and Herba Gentianae Loureirii powder



	Herba Violae	Herba Gentianae Loureirii
Crystal of calcium oxalate	<div></div> <p>Cluster of calcium oxalate numerous, varying in size, scattered or present in parenchymatous cell; polychromatic under the polarized light microscope</p>	<div></div> <p>Raphide of calcium oxalate (→) numerous, fine, mostly present in parenchymatous cell; bright white or polychromatic under the polarized light microscope</p>
Non-glandular hair	<div></div> <p>Unicellular, slightly pointed apex, with cuticular striations on surface</p>	<div></div> <p>Absent</p>
Sclerenchymatous cell of leaf margin	<div></div> <p>Absent</p>	<div></div> <p>Arranged in several columns, bright white or polychromatic under the polarized light microscope; outer wall of outer epidermal cell frequently papillary- or non-glandular hair-like protruded outwards, obtuse apex, with cuticular striations on surface</p>

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

50 μm

Summary

Major differences in the features between Herba Violae and Herba Gentianae Loureirii:

		Herba Violae	Herba Gentianae Loureirii
Macroscopic and micro-morphological features	Insert method of leaf	Basal	Cauline
	Petiole	Long	Short or absent
	Leaf margin	Obtuse serrate and glabrous	Entire and with small cilia
Microscopic features	Crystal of calcium oxalate	Cluster of calcium oxalate	Raphide of calcium oxalate
	Non-glandular hair	Present	Absent
	Sclerenchymatous cell of leaf margin	Absent	Present

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



Violae Herba - Hong Kong Chinese Materia Medica Standards (Volume 5)



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