

Folium Apocyni Veneti versus Apocyni Picti Folium



Source

***Folium Apocyni Veneti**
is the dried leaf of
Apocynum venetum L.
in the family Apocynaceae

Apocyni Picti Folium
is the dried leaf of
Apocynum pictum Schrenk
in the family Apocynaceae

Overview

Folium Apocyni Veneti is a Chinese Materia Medica (CMM) listed in the Chinese Pharmacopoeia (2020) and Schedule 2 of the Chinese Medicine Ordinance. Apocyni Picti Folium on the other hand, is not listed in either. According to the *Modern Chinese Materia Medica*, Folium Apocyni Veneti is mainly produced in Liaoning, Jilin and Inner Mongolia; while *Poacynum hendersonni* and *Poacynum pictum*, under the same family as *Apocynum venetum*, are distributed in Gansu and Xinjiang areas and are often used by the locals as “Luo bu ma ye”. The *Flora of China* has grouped these two plants as *Apocynum pictum* into a single item under the *Apocynum* genus. There is a lack of literatures on the properties and functions of Apocyni Picti Folium, researchers found that the total phenols and total flavonoids contents of Apocyni Picti Folium were far lower than those in Folium Apocyni Veneti. This suggests that there is a certain degree of difference in the chemical composition between the two CMM, thus, should be used accordingly.

Note:

*Its name in the Chinese Pharmacopoeia (2020) is “Apocyni Veneti Folium”.

Key identification features

Macroscopic features of Folium Apocyni Veneti



◆ Light green or greyish-green

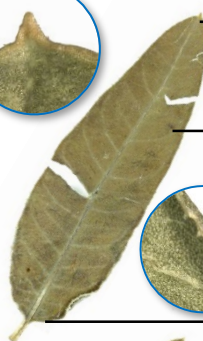


1 cm

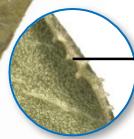
◆ Papyraceous, fragile



Obtuse apex with small mucro



Blade appears ovate-lanceolate or elliptical when flattened



Denticulate margin, and usually revolute

Rounded or cuneate base

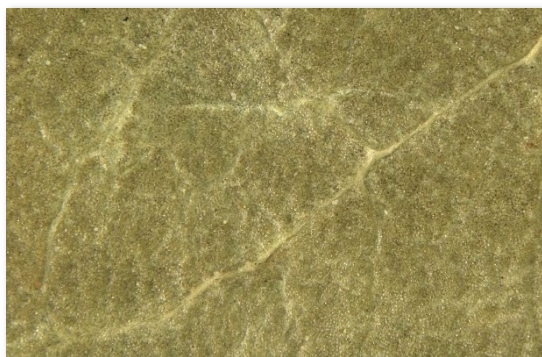


Vein protrudes on the lower surface

5 mm

Micro-morphological feature

A: Flat, with short and fine non-glandular-hairs(→) occasionally observable at the vein of the lower surface



(Upper surface)

500 μm



(Lower surface)

500 μm

Macroscopic features of Apocyni Picti Folium



◆ Greyish-green or light yellowish-green



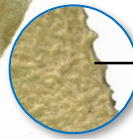
1 cm



Obtuse apex with small mucro



Blade appears ovate-lanceolate or elliptical when flattened



Denticulate margin



Rounded or cuneate base



Vein protrudes on the lower surface

5 mm

◆ Thick papyraceous, fragile

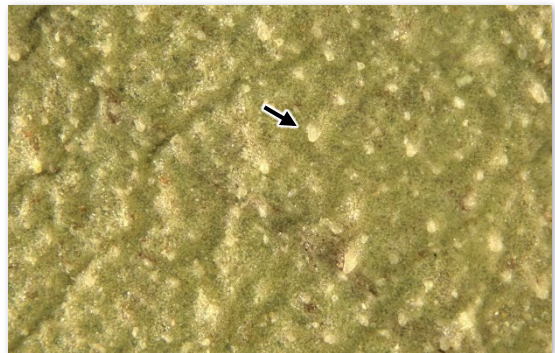
Micro-morphological feature

A: Usually with wrinkles and small papillary protuberances(→), particularly significant on the lower surface



(Upper surface)

500 μ m

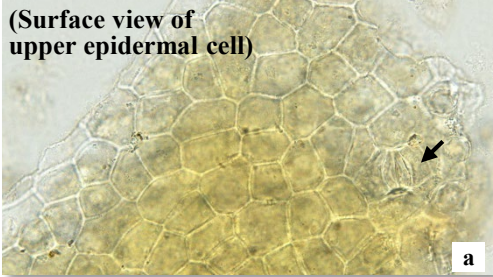
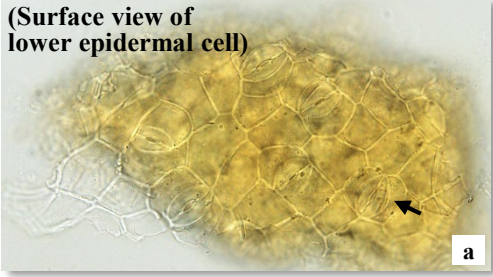
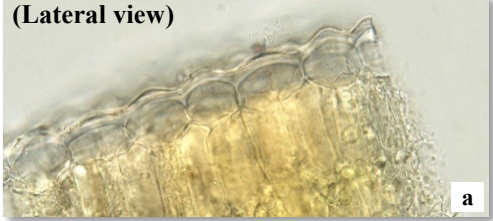
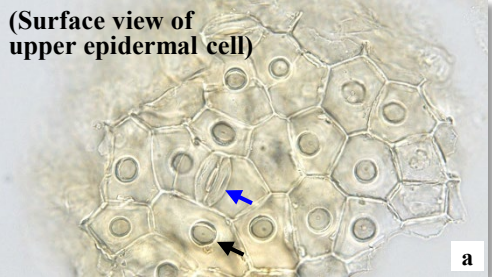
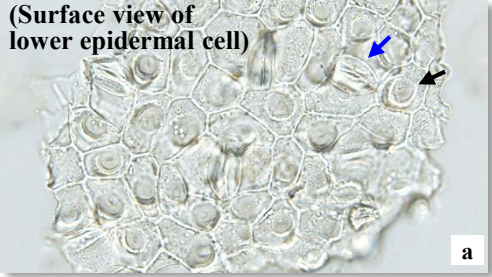
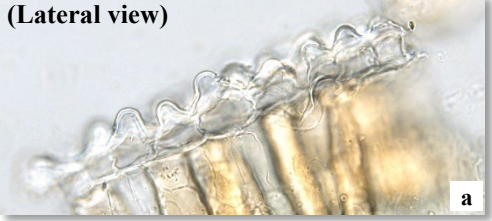
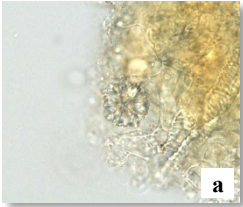
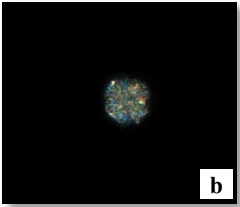



(Lower surface)

500 μ m

Microscopic feature comparison of Folium Apocyni Veneti
and Apocyni Picti Folium powder



	Folium Apocyni Veneti	Apocyni Picti Folium
Epidermal cell	<p>(Surface view of upper epidermal cell)</p>  <p>a</p> <p>(Surface view of lower epidermal cell)</p>  <p>a</p> <p>(Lateral view)</p>  <p>a</p> <p>Appear polygonal in surface view, straight anticlinal wall; paracytic stomata (→), barely found at the upper epidermis, frequently found at the lower epidermis; outer wall usually appears slightly protruded in lateral view</p>	<p>(Surface view of upper epidermal cell)</p>  <p>a</p> <p>(Surface view of lower epidermal cell)</p>  <p>a</p> <p>(Lateral view)</p>  <p>a</p> <p>Appear polygonal in surface view, straight anticlinal wall, usually with 1 protuberance (→) on each cell, usually more significant at the upper epidermis; paracytic stomata (→), visible at the upper epidermis, frequently found at the lower epidermis; outer wall usually appears papillarily-protruded in lateral view</p>
Cluster of calcium oxalate	 <p>a</p>  <p>b</p> <p>Mostly present in parenchymatous cell; polychromatic under the polarized light microscope</p>	 <p>Absent</p>

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

50 μm

Summary

Major differences in the features between Folium Apocyni Veneti and Apocyni Picti Folium:

		Folium Apocyni Veneti	Apocyni Picti Folium
Macroscopic and micro-morphological features	Texture	Thinner	Thicker
	Leaf margin	Usually revolute	Revolute not common
	Surface	Flat	Usually with wrinkles and papillary protuberances
Microscopic features	Epidermal cell	Outer wall without papillary protuberances	Outer wall with papillary protuberances
	Cluster of calcium oxalate	Present	Absent

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



Apocyni Veneti Folium - Hong Kong Chinese Materia Medica Standards (Volume 5)



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