Identification of Easily Confused Species of Chinese Materia Medica in Hong Kong by Macroscopic and Microscopic Characteristics Project

Pollen Typhae versus Pollen Pini





Source

*Pollen Typhae

is the dried pollen of
Typha angustifolia L.,
T. orientalis Presl or
plants of the same genus
in the family Typhaceae

Pollen Pini#

is the dried pollen of Pinus massoniana Lamb., P. tabulaeformis Carr. or plants of the same genus in the family Pinaceae

Overview

Pollen Typhae and Pollen Pini are listed in both Schedule 2 of the Chinese Medicine Ordinance and Chinese Pharmacopoeia (2020). According to *Zhong hua ben cao*, Pollen Typhae had been recorded since *Shen nong ben cao jing* as the yellow pollen on flowers of *Typha* genus; while Pollen Pini had been record since *Xin xiu ben cao*. "Pollen Pini is called 'Song huang', similar to Pollen Typhae when swept with fingers". This shows that the ancients have long believed that there are similarities between the appearances of the two Chinese Materia Medica. According to the Chinese Pharmacopoeia, Pollen Typhae can stop bleeding, resolve stasis and relieve strangury; while Pollen Pini has astringent hemostatic properties and dry dampness and heal wound. Despite both are yellow pollens, there are variations in the source and efficacy and thus should be used accordingly.

Note

^{*}Its name in Chinese Pharmacopoeia (2020) is "Typhae Pollen".

^{*}Its name in the Chinese Pharmacopoeia (2020) is "Pini Pollen".

Key identification features

Macroscopic features of Pollen Typhae





◆ Light, satiny when rubbed and easily adsorbed on fingers

Micro-morphological feature

A: Mainly yellow spherical pollen grains, relatively small



(Overall)

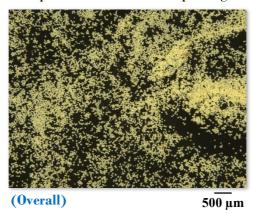
500 μm



◆ Light, extremely easily wafted, satiny when rubbed and easily adsorbed on fingers

Micro-morphological feature

A: Mainly light yellow spherical or sub-reniform pollen grains, relatively large



Microscopic feature comparison of Pollen Typhae and Pollen Pini powder



	Pollen Typhae	Pollen Pini
Pollen grain	Sub-rounded or elliptical, with reticulate striations on the exine, single pore, indistinct	Consists of corpus and 2 sacci. Elliptical or sub-rounded corpus with fine and dense granular striations on the exine; saccus occasionally broken, intact saccus appears sub-reniform and with distinct reticulate striations on the exine

50 µm

Summary

Major differences in the features between Pollen Typhae and Pollen Pini:

		Pollen Typhae	Pollen Pini
Macroscopic and micro-morphological features	Texture	Light	Light, extremely easily wafted
	Overall	Mainly yellow spherical pollen grain, relatively small	Mainly light yellow spherical or sub-reniform pollen grain, relatively large
Microscopic feature	Pollen grain	Without sacci	With sacci



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