

Spora Lygodii versus Pollen Pini



Source

***Spora Lygodii**
is the dried ripe spore of
Lygodium japonicum (Thunb.) Sw.
in the family Lygodiaceae

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

Overview

Both Spora Lygodii and Pollen Pini are listed in the Schedule 2 of the Chinese Medicine Ordinance and the Chinese Pharmacopoeia (2020). Both of them appears powdery. According to recent research literatures, Pollen Pini has been mixed into Spora Lygodii as counterfeit in the market, suggesting that the two Chinese Materia Medica possess similarities. According to the Chinese Pharmacopoeia, the functions of Spora Lygodii are clearing heat and draining dampness, and relieving strangury and pain; while Pollen Pini has astringent hemostatic properties and dry dampness and heal wound. As they differ in sources and efficacy, hence, they should be used accordingly.

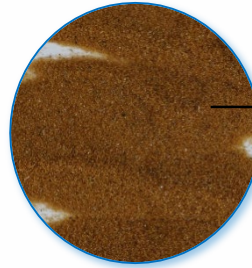
Note:

*Its name in the Chinese Pharmacopoeia (2020) is “Lygodii Spora”.

[#]Its name in the Chinese Pharmacopoeia (2020) is “Pini Pollen”.

Key identification features

Macroscopic features of Spora Lygodii



Brown or light brown powder

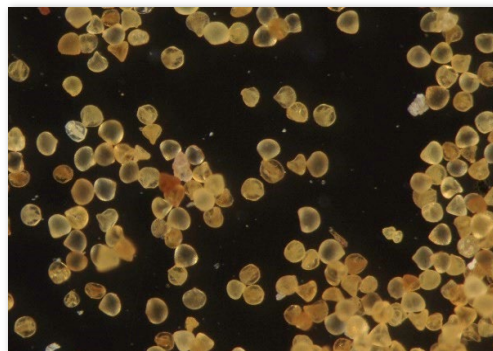


Explosion sound and bright flame are emitted without distinct smoke when spread onto the fire

- ◆ Light, smooth to the touch when rubbed. Easily slipped through the fingers and with small amount adsorbed on the fingers when put on the hand

Micro-morphological feature

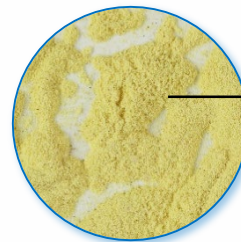
A: Mainly brown translucent spherical or sub-triangular spores



(Overall)

200 μm

Macroscopic features of Pollen Pini



Light yellow powder

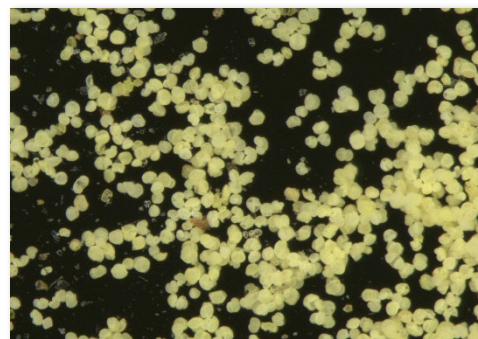


Bright flame and smoke are emitted without distinct explosion sound when spread onto the fire

- ◆ Light, extremely easily wafted, smooth when rubbed. Large amount of powder easily adsorbed on the fingers when put on the hand

Micro-morphological feature

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

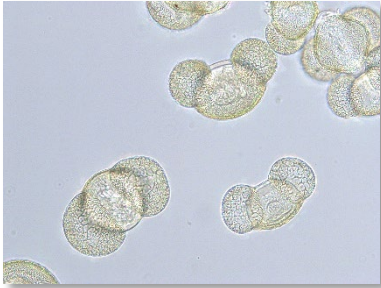


(Overall)

200 μ m

Microscopic feature comparison of
Spora Lygodii and Pollen Pini powder



	Spora Lygodii	Pollen Pini
Spore	 Triangular-conic, sub-rounded in top and bottom views, with trifurcate fissure observable from the top view; sub-triangular or sub-semi-circular and with granular striations on outer wall in lateral view	 Absent
Pollen grain	 Absent	 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 Spora Lygodii and Pollen Pini:

		Spora Lygodii	Pollen Pini
Macroscopic and micro-morphological features	Texture	Small amount adsorbed on when put on the hand	Easily wafted, large amount adsorbed on when put on the hand
	Overall	Mainly brown translucent spherical or sub-triangular spores	Mainly light yellow spherical or sub-reniform pollen grains
	Testing with fire	No smoke is emitted, but explosion sound is distinct	Smoke is emitted with no distinct explosion sound
Microscopic features	Spore	Present	Absent
	Pollen grain	Absent	Present



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