Semen Allii Tuberosi
versus
Semen Allii Fistulosi

Source

***Semen Allii Tuberosi**
is the dried ripe seed of
Allium tuberosum Rottl.
in the family Liliaceae

Semen Allii Fistulosi
is the dried ripe seed of
Allium fistulosum L.
in the family Liliaceae

Overview

Semen Allii Tuberosi is a Chinese Materia Medica (CMM) listed under Schedule 2 of the Chinese Medicine Ordinance and the Chinese Pharmacopoeia (2020). On the other hand, Semen Allii Fistulosi is listed in the *Drug Standard of the Ministry of Health of the People's Republic of China* published in 1992. Both CMM are seeds of the *Allium* genus in the family Liliaceae. Although they share similar appearances, they exert different functions. According to the Chinese Pharmacopoeia, the functions of Semen Allii Tuberosi include warm tonifying the liver and kidney, as well as invigorating yang and securing essence. According to the *Drug Standard of the Ministry of Health of the People's Republic of China*, the functions of Semen Allii Fistulosi include tonifying the middle energizer and securing essence, as well as improving vision and dispersing wind. Therefore, caution should be taken during clinical application.

Note:
*Its name in Chinese Pharmacopoeia (2020) is "Allii Tuberosi Semen".

Key identification features

Macroscopic features of Semen Allii Tuberosi

◆ Semi-rounded or semi-ovoid in top view

◆ Characteristic odour. Slightly pungent taste, with the taste of Chinese chive upon chewing

Micro-morphological feature

A: Lustrous, rectangular or polygonal striations

Macroscopic features of Semen Allii Fistulosi

◆ Semi-ovoid or semi-rounded in top view

Surface is black and has wrinkles occasionally observed

With "Y"-shaped ridge on the protruding side

2 protuberances at the base. The shorter protuberance is the hilum

The longer protuberance is the micropyle

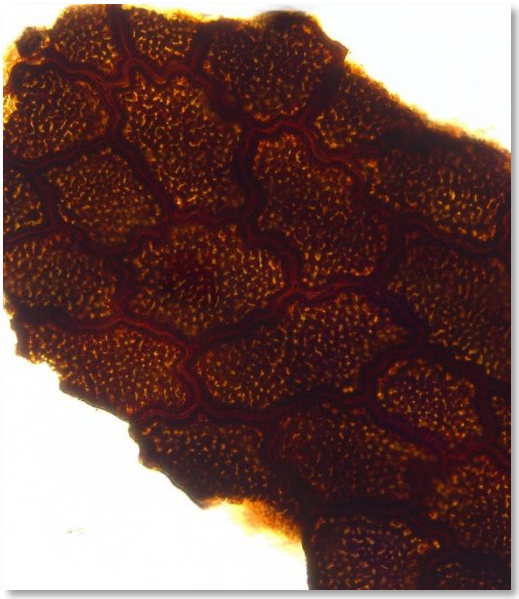
◆ Characteristic odour. Slightly pungent taste, with the taste of spring onion upon chewing

Micro-morphological feature

A: Lustrous, densely distributed with sub-rounded dots

(Surface)

Microscopic feature comparison of Semen Allii Tuberosi and Semen Allii Fistulosi powder

	Semen Allii Tuberosi	Semen Allii Fistulosi
Epidermal cell of testa[#]	 Brownish-black to black, irregular, sub-rectangular or sub-square in surface view, relatively large in size, with thin anticlinal wall, surface with reticulate striation which have relatively large meshes	 Dark reddish-brown to black, polygonal or sub-polygonal in surface view, relatively small in size, with slightly thick anticlinal wall, surface with reticulate striation which have relatively small meshes

50 μm

Note:

[#]In order to reveal clearly the shape of the cells, the light source intensity will need to be increased during observation or photography as this feature possesses a very dark colour.

Summary

Major differences in the features between Semen Allii Tuberosi and Semen Allii Fistulosi:

		Semen Allii Tuberosi	Semen Allii Fistulosi
Macroscopic and micro-morphological features	**Surface**	With wrinkles frequently observed	With wrinkles occasionally observed, and "Y"-shaped ridge on the protruding side
	Base	1 protuberance	2 protuberances
	Striation	Rectangular or polygonal	Densely distributed with sub-rounded dots
Microscopic feature	**Epidermal cell of testa**	Irregular, sub-rectangular or sub-square in surface view	Polygonal or sub-polygonal in surface view

For more information , please refer to the Hong Kong Chinese Materia Medica Standards website:

Allii Tuberosi Semen - Hong Kong Chinese Materia Medica Standards (Volume 6)

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