Outlines and interpretations of monographs

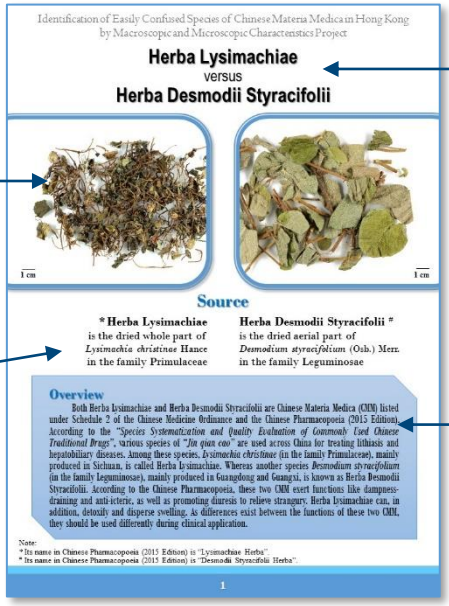
The research focuses on comparing between pairs of Chinese Materia Medica (CMM) decoction pieces through their macroscopic and microscopic features. The research results are organised into monographs, covering these six areas: name, source, overview, identification features, summary and additional information of the CMM.

Comparison Photos of CMM

Positioned in the same proportion.

Sources of CMM

This section includes the family names, scientific names and medicinal parts of the crude medicinal herbs/animals. The decoction pieces selected in this collection are the major ones available in the Hong Kong market.



Names of CMM

In principle, reference is made to Schedules 1 and 2 of the Chinese Medicine Ordinance (Cap. 549) and the Pharmacopoeia of the People's Republic of China (2020 Edition) (referred to as the Chinese Pharmacopoeia). For CMM not included in the above two, other statutory standards or reference materials, such as *Zhong hua ben cao* are used.

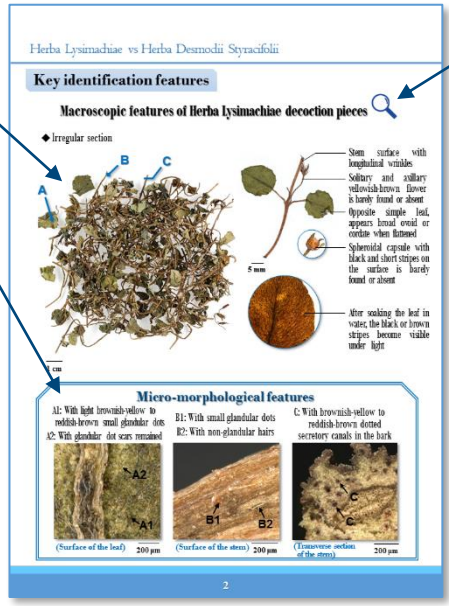
Overview

This section lists out the collection status of the concerned CMM in statutory standards. It provides a general background on the causes of confusion.

The current research focuses on commercially-available decoction pieces and specifications of selected decoction pieces which are commonly found in the Hong Kong market.

Key Features of Micro-morphological Identification

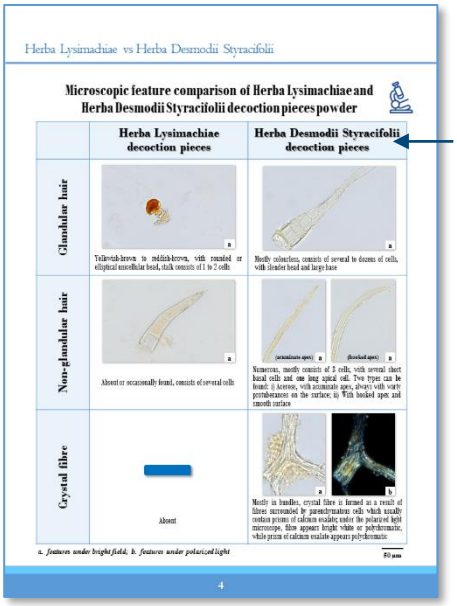
As an extension to macroscopic identification, scientific instruments are used to magnify features which are not easily noticeable to the naked eyes. Positions where micro-morphological features can be observed are enlarged and marked on the photos in macroscopic identification session with English letters. The directly observable features are indicated by arrows " ↘", while features to be observed post-incision are indicated by "◟".



Key Features of Macroscopic Identification

Macroscopic features of a CMM refer to its appearance and organoleptic characteristics, including the form, size, colour, texture, fracture, gross internal structures, odour/smell, taste and other relevant information. The features are listed in the form of photos and texts, whereas features without any significant distinguishing value are excluded. For decoction pieces of multiple sources, a single general description is provided if no significant differences are observed; otherwise, there will be a primary description on one source, followed by its differences among other sources.

For more information, please refer to Appendix II General Quality Control Method of the Hong Kong Chinese Materia Medica Standards (HKCMMS).
https://www.cmro.gov.hk/html/eng/useful_information/hkcmms/volumes.html



Key Features of Microscopic Identification

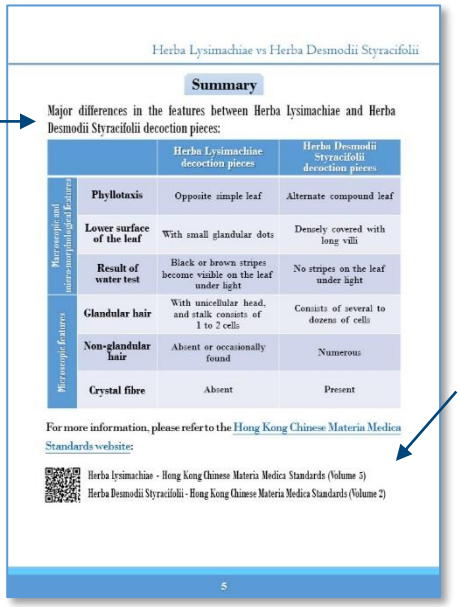
Microscopic features refer to the tissues, cells, ergastic substance, etc. that can be observed under microscope. Unless otherwise specified, powder which can pass through the Chinese national standard R40/3 series number 4 or number 5 sieve is used. For the purpose of distinguishing the two CMM, not more than three significant features are selected. Photos and simple text descriptions are listed in tabular format.

For details, please refer to Appendix III Microscopic Identification of the HKCMMS.

https://www.cmro.gov.hk/html/eng/useful_information/hkcmms/volumes.html

Summary

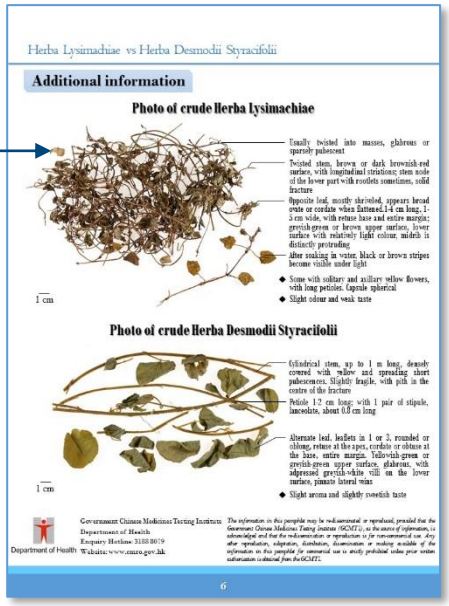
Not more than three most obvious and key features are selected each for the macroscopic and microscopic sections. The findings are summarised in tabular form for comparison.



For CMM which are included in the HKCMMS, their volume number will be included for reference.

Additional Information

If the macroscopic feature of a crude CMM differs from that of its decoction pieces, there will be a photo of the crude CMM along with a description of its macroscopic features in reference to the Chinese Pharmacopoeia, *Zhong hua ben cao* or other reference materials. This section will be omitted if no variations exist.


Herba Lysimachiae vs Herba Desmodii Styracifolii

Additional information

Photo of crude Herba Lysimachiae

Usually twisted into masses, glabrous or sparsely pubescent

Twisted stem, brown or dark brownish-red surface, with longitudinal striations; stem node of the lower part with rootlets sometimes, solid fracture

Opposite leaf, mostly shriveled, appears broad ovate or cordate when flattened, 1-4 cm long, 1-3 cm wide, with retuse base and entire margin; greyish-green or brown upper surface, lower surface with relatively light colour, midrib is distinctly protruding

After soaking in water, black or brown stripes become visible under light

◆ Some with solitary and axillary yellow flowers, with long petioles. Capsule spherical

◆ Slight odour and weak taste

1 cm

Photo of crude Herba Desmodii Styracifolii

Cylindrical stem, up to 1 m long, densely covered with yellow and spreading short pubescences. Slightly fragile, with pith in the centre of the fracture

Petiole 1.2 cm long; with 1 pair of stipule, lanceolate, about 0.8 cm long

Alternate leaf, leaflets in 1 or 3, rounded or oblong, retuse at the apex, cordate or obtuse at the base, entire margin. Yellowish-green or greyish-green upper surface, glabrous, with adpressed greyish-white villi on the lower surface, pinnate lateral vein

◆ Slight aroma and slightly sweetish taste

1 cm

Department of Health

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Specification

Sieve

The sieves adopted in the monographs are as follows:

Sieve Number	Average internal diameter of aperture (μm)	Aperture Number
4	250 ± 9.9	65
5	180 ± 7.6	80

Sieve sizes of the Chinese national standard R40/3 series

Measures

The metric system is employed in the monographs. The involved units are as follows:

Quantity	Unit	
	Name	Symbol
Length	meter	m
	centimeter	cm
	millimeter	mm
	micrometer	μm

International System of Units

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