Cortex Acanthopanacis, Chinese Materia Medica (CMM), is listed in both Schedule 2 of the Chinese Medicine Ordinance and the Chinese Pharmacopoeia (2015 Edition), while Caulis Hedyotidis has not yet been included in either reference. According to “Species Systematization and Quality Evaluation of Commonly Used Chinese Traditional Drugs”, Cortex Acanthopanacis is commonly used since it possesses the function of dispelling wind to eliminate dampness and strengthening sinew and bone. On the other hand, Caulis Hedyotidis is a herbal medicine used in the Guangdong and Guangxi region. According to “Chinese Materia Medica Standards in Guangdong Province”, Caulis Hedyotidis is also called “Tu jia pi”, which possesses the function of clearing heat to release summerheat, dispelling wind to activate collaterals and dispersing swelling to relieve pain. As these two CMM possess different functions, they should be used accordingly.

### Source

* Cortex Acanthopanacis
  - is the dried root bark of *Acanthopanax gracilistylus* W. W. Smith
  - in the family Araliaceae

* Caulis Hedyotidis
  - is the dried lianoid stem of *Hedyotis hedyotidea* (DC.) Merr.
  - in the family Rubiaceae

### Overview

Cortex Acanthopanacis, Chinese Materia Medica (CMM), is listed in both Schedule 2 of the Chinese Medicine Ordinance and the Chinese Pharmacopoeia (2015 Edition), while Caulis Hedyotidis has not yet been included in either reference. According to “Species Systematization and Quality Evaluation of Commonly Used Chinese Traditional Drugs”, Cortex Acanthopanacis is commonly used since it possesses the function of dispelling wind to eliminate dampness and strengthening sinew and bone. On the other hand, Caulis Hedyotidis is a herbal medicine used in the Guangdong and Guangxi region. According to “Chinese Materia Medica Standards in Guangdong Province”, Caulis Hedyotidis is also called “Tu jia pi”, which possesses the function of clearing heat to release summerheat, dispelling wind to activate collaterals and dispersing swelling to relieve pain. As these two CMM possess different functions, they should be used accordingly.

Note:
* Its name in the Chinese Pharmacopoeia (2015 Edition) is “Acanthopanacis Cortex”.

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* Regional custom*
Cortex Acanthopanacis vs Caulis Hedyotidis

Key identification features

Macrosopic features of Cortex Acanthopanacis

◆ Irregular-quilled, some in flat slices

Greyish-brown outer surface, with slightly twisted longitudinal wrinkles and irregular cracks

Some with long horizontal lenticels visible

Light yellow or greyish-yellow inner surface, with fine longitudinal striations

◆ Fragile, easily broken

Micro-morphological features

A: Bark with yellowish-brown or brown dotted secretory canals scattered, some secretory canals are hollow

(Cut surface) 500 µm
Macropscopic features of Caulis Hedyotidis decoction pieces

- Mostly sub-rounded or sub-elliptical oblique slice, some appears tetragonal

Greyish-white or greyish-yellow surface, some appear brown, with slightly twisted longitudinal grooves, lenticel is barely found

Narrow bark, appears greyish-white, greyish-yellow or light brown in the cut surface

Broad wood, yellowish-white or yellow, with sparse radial striations

Old stem with irregular striations due to the presence of anomalous vascular bundles

Small pith, some is hollow

- Hard, not easily broken

Micro-morphological features

A1: Narrow bark, and is darker in colour near the wood

A2: Wood densely distributed with duct holes (→), and rays which are darker in colour (→)
# Microscopic feature comparison of Cortex Acanthopanacis and Caulis Hedyotidis decoction pieces powder

<table>
<thead>
<tr>
<th></th>
<th>Cortex Acanthopanacis</th>
<th>Caulis Hedyotidis decoction pieces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystal of calcium oxalate</td>
<td><img src="image1" alt="Image" /> a. Only with clusters of calcium oxalate, scattered or present in the parenchymatous cell, relatively large; polychromatic under the polarized light microscope.</td>
<td><img src="image2" alt="Image" /> b. With raphides of calcium oxalate and clusters of calcium oxalate. Numerous raphides of calcium oxalate (1), clusters of calcium oxalate (2) relatively small, scattered or present in the parenchymatous cell; polychromatic under the polarized light microscope.</td>
</tr>
<tr>
<td>Fragment of secretory canal</td>
<td><img src="image3" alt="Image" /> a. Containing light yellow or yellowish-brown secretions.</td>
<td>Absent</td>
</tr>
<tr>
<td>Fibre</td>
<td><img src="image4" alt="Image" /> a. Phloem fibre Visible, singly scattered or several in bundles, with sparse pits and pit canals; bright white, orange-yellow or polychromatic under the polarized light microscope.</td>
<td><img src="image5" alt="Image" /> b. Fibre tracheid Numerous, mostly in bundles, with dense pits and pit canals; bright white or orange-yellow under the polarized light microscope.</td>
</tr>
</tbody>
</table>

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

Major differences in the features between Cortex Acanthopanacis and Caulis Hedyotidis decoction pieces:

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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Shape</strong></td>
<td>Mostly irregular-quilled</td>
<td>Mostly sub-rounded or sub-elliptical oblique slice</td>
</tr>
<tr>
<td><strong>Texture</strong></td>
<td>Fragile, easily broken</td>
<td>Hard, not easily broken</td>
</tr>
<tr>
<td><strong>Cut surface</strong></td>
<td>Bark with dotted secretory canals scattered</td>
<td>Narrow bark, wood densely distributed with duct holes</td>
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For more information, please refer to the [Hong Kong Chinese Materia Medica Standards website](#):
Cortex Acanthopanacis vs Caulis Hedyotidis

Additional information

Photo of crude Caulis Hedyotidis

- Sub-rounded piece or tetragonal section, 1-6 cm long, 0.2-1.2 cm in diameter
- Rough surface, greyish-white or greyish-yellow, relatively straight, with fine protruding longitudinal vein striations. Appears greyish-green after the surface layer of periderm has been scraped
- Old stem shows chrysanthemum-like striation (anomalous vascular bundles), fibrous. Small pith.
- The fracture with light greyish-brown bark, yellowish-white or light yellow wood accounted for the majority, and mostly hollowed pith
- Greyish-white long longitudinal lenticel spots, which are protruding and interconnected, are visible on the old stem
- Hard and tough, not easily broken
- Odourless, slightly sweetish

1 cm