**Hedyotidis Diffusae Herba versus Herba Hedyotidis Corymbosae**

**Source**

*Hedyotidis Diffusae Herba* is the dried whole part of *Hedyotis diffusa* Willd. in the family Rubiaceae

*Herba Hedyotidis Corymbosae* is the dried whole part of *Hedyotis corymbosa* (L.) Lam. in the family Rubiaceae

**Overview**

*Herba Hedyotidis Corymbosae* is listed under Schedule 2 of the Chinese Medicine Ordinance. Neither *Hedyotidis Diffusae Herba* nor *Herba Hedyotidis Corymbosae* is listed in the Chinese Pharmacopoeia (2015 Edition). According to the “Species Systematization and Quality Evaluation of Commonly Used Chinese Traditional Drugs”, *Hedyotidis Diffusae Herba* is named “Bai hua she she cao” as its leaves look similar to a snake’s tongue. *Herba Hedyotidis Corymbosae*, belonging to the same genus as *Hedyotidis Diffusae Herba*, also has a similar appearance. *Hedyotidis Diffusae Herba* is mainly produced in the southeast coast of China and is widely used throughout China. On the other hand, *Herba Hedyotidis Corymbosae* is mainly produced in Guangdong, Guangxi, and Fujian, and is mainly used in the Guangdong and Guangxi. According to the “Chinese Materia Medica Standards in Guangdong Province”, both Chinese Materia Medica (CMM) can clear heat and detoxify, while *Hedyotidis Diffusae Herba* can further disperse abscesses and nodules, as well as being water-draining and swelling-dispersing. Since the functions of these two CMM slightly differ, they should be used distinctly.
Key identification features

Macroscopic features of Hedyotidis Diffusae Herba decoction pieces

- Single or paired capsules inserted in leaf axil
- With persistent calyx at the apex
- Tenuous, cylindrical and highly branched stem. Young branch frequently appears flattened
- Opposite leaf without petiole mostly appears curled or shriveled
- Leaf appears linear or linear-lanceolate when flattened

Micro-morphological feature

A: With fine longitudinal ridges

(Surface of the stem) 0.5 mm (Transverse section of the stem) 200 μm
Macroscopic features of *Herba Hedyotidis Corymbosae* decoction pieces

Capsules with tenuous fruit stalks are arranged in corymbiform shape in groups of 2-5 and are inserted in leaf axil.

- With persistent calyx at the apex
- Tenuous, slightly tetragonal and highly branched stem. Young branch frequently appears flattened
- Opposite leaves without petiole, mostly appear curled or shriveled
- Leaf appears linear or lanceolate when flattened

Micro-morphological features

A1: With fine longitudinal ridges
A2: With 1 significant longitudinal ridge each at the 4 angles

(Surface of the stem) 0.5 mm (Transverse section of the stem) 200 μm
## Microscopic feature comparison of Hedyotidis Diffusae Herba and Herba Hedyotidis Corymbosae decoction pieces powder

<table>
<thead>
<tr>
<th></th>
<th><strong>Hedyotidis Diffusae Herba decoction pieces</strong></th>
<th><strong>Herba Hedyotidis Corymbosae decoction pieces</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Epidermal cell of testa</strong></td>
<td><img src="image1.png" alt="Image" /> Yellowish-brown to reddish brown, polygonal or sub-polygonal in surface view, anticlinal wall mostly straight, with fine and dense pits on the surface</td>
<td><img src="image2.png" alt="Image" /> Yellowish-brown to light brown, irregular or sub-polygonal in surface view, anticlinal wall mostly sinuous, without pits on the surface</td>
</tr>
<tr>
<td><strong>Septal cell of fruit</strong></td>
<td><img src="image3.png" alt="Image" /> Light yellow to light brown, sub-polygonal or polygonal in surface view, cell near to the margin slightly papillary protruded</td>
<td><img src="image4.png" alt="Image" /> Colourless to light yellow, stripe-shaped in surface view, cell near to the margin slightly papillary protruded</td>
</tr>
</tbody>
</table>

50 µm
## Summary

Major differences in the features between Hedyotidis Diffusae Herba and Herba Hedyotidis Corymbosae decoction pieces:

<table>
<thead>
<tr>
<th>Macroscopic and micro-morphological features</th>
<th>Hedyotidis Diffusae Herba decoction pieces</th>
<th>Herba Hedyotidis Corymbosae decoction pieces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capsule</td>
<td>Single or paired</td>
<td>Arranged in corymbiform shape in groups of 2-5</td>
</tr>
<tr>
<td>Stem</td>
<td>Only with fine longitudinal ridges</td>
<td>With fine longitudinal ridges and 4 significant longitudinal ridges</td>
</tr>
<tr>
<td>Epidermal cell of testa</td>
<td>With fine and dense pits on the surface</td>
<td>Without pits on the surface</td>
</tr>
<tr>
<td>Septal cell of fruit</td>
<td>Sub-polygonal or polygonal</td>
<td>Stripe-shaped</td>
</tr>
</tbody>
</table>

For more information, please refer to the [Hong Kong Chinese Materia Medica Standards website](#):
Hedyotidis Diffusae Herba vs Herba Hedyotidis Corymbosae

Additional information

**Photo of crude Hedyotidis Diffusae Herba**

- All twisted into greyish-green to greyish-brown masses
- Slender main root, about 2 mm in diameter. Tenuous and light greyish-brown rootlet
- Fine stem, curled, fragile, easily broken, with pith in the center
- Leaf mostly shriveled, broken and easily fallen off; stipule 1-2 mm long
- Single or paired axillary flower and fruit, flower frequently with short and slightly thick pedicel. Oblate capsule, 2-2.5 mm in diameter, loculicidal. Persistent calyx 4-lobed at the upper part, with short and sharp hairs at the margin
- Slight odour and weak taste

**Photo of crude Herba Hedyotidis Corymbosae**

- Mostly shriveled to masses
- Spherical capsule, smooth apex, with persistent sepals, small and numerous seeds
- Opposite leaf, mostly shriveled, intact leaf appears linear-lanceolate or linear when flattened, 1.5-3 cm long, 1.5-3.5 mm wide, rough margin, frequently curled towards the back side, dark greyish-green surface. Small stipule, connate, membranous, without stalk or with short stalk
- Tetragonal stem, mostly branched, 15-50 cm long, fragile and easily broken
- Axillary inflorescence, mostly arranged in corymb with 2-5 flowers, occasionally solitary
- Slight odour and slightly bitter taste

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