

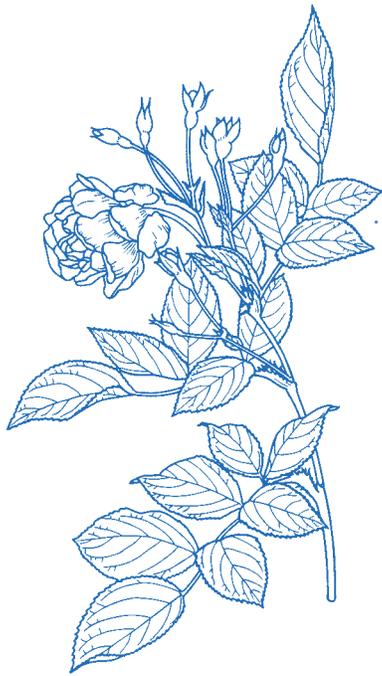
# PDF Contents

---

## Chinese Herbal Medicine: MATERIA MEDICA

---

- 2 Title page
- 3 Table of Contents
- 4-6 Preface to 3rd edition
- 7-21 Sample herb entries
- 22-23 Sample from summary tables
- 24 Sample from color photo section on adulterants



CHINESE  
HERBAL  
MEDICINE

---

# Materia Medica

3<sup>rd</sup> EDITION

COMPILED AND TRANSLATED BY

**Dan Bensky, Steven Clavey, and Erich Stöger**  
with Andrew Gamble

ILLUSTRATIONS ADAPTED BY

**Lilian Lai Bensky**

# Table of Contents

PREFACE TO THIRD EDITION ....	<i>ix</i>
INTRODUCTION ....	1
CHAPTER 1	
Herbs that Release the Exterior ....	1
CHAPTER 2	
Herbs that Clear Heat ....	85
CHAPTER 3	
Downward-Draining Herbs ....	233
CHAPTER 4	
Herbs that Drain Dampness ....	265
CHAPTER 5	
Herbs that Dispel Wind-Dampness ....	321
CHAPTER 6	
Herbs that Transform Phlegm and Stop Coughing ....	371
CHAPTER 7	
Aromatic Herbs that Transform Dampness ....	465
CHAPTER 8	
Herbs that Relieve Food Stagnation ....	491
CHAPTER 9	
Herbs that Regulate the Qi ....	507
CHAPTER 10	
Herbs that Regulate the Blood ....	555
CHAPTER 11	
Herbs that Warm the Interior and Expel Cold ....	671
CHAPTER 12	
Tonifying Herbs ....	705
CHAPTER 13	
Herbs that Stabilize and Bind ....	853
CHAPTER 14	
Substances that Calm the Spirit ....	905
CHAPTER 15	
Aromatic Substances that Open the Orifices ....	943
CHAPTER 16	
Substances that Extinguish Wind and Stop Tremors ....	963
CHAPTER 17	
Herbs that Expel Parasites ....	993
CHAPTER 18	
Substances for Topical Application ....	1017
CHAPTER 19	
Obsolete Substances ....	1041
TABLE 1	
Herbs Associated with Pathologies of the Five Yin Organs ....	1075
TABLE 2	
Summary Table of Herb Actions and Indications ....	1079
APPENDIX 1	
Guide to <i>Pinyin</i> Pronunciation ....	1133
APPENDIX 2	
Table of Chinese Dynasties ....	1135
APPENDIX 3	
Glossary ....	1137
APPENDIX 4	
Sample Photographs: Adulterants & Quality Issues ....	1143
APPENDIX 5	
Table of Authors ....	1159
APPENDIX 6	
Historical and Source Text Bibliography ....	1161
APPENDIX 7	
Translator's Bibliography ....	1171
APPENDIX 8	
Cross Reference of Pharmaceutical Names with Previous Edition ....	1175
HERB AND FORMULA INDEX ....	1187
PINYIN-PHARMACEUTICAL CROSS REFERENCE ....	1217
ENGLISH-PHARMACEUTICAL CROSS REFERENCE ....	1241
JAPANESE-PHARMACEUTICAL CROSS REFERENCE ....	1251
KOREAN-PHARMACEUTICAL CROSS REFERENCE ....	1257
BOTANICAL, ZOOLOGICAL, AND MINERAL INDEX ....	1263
GENERAL INDEX ....	1279
ABOUT THE AUTHORS ....	1305

---

## Preface to 3rd Edition

---

**T**HE FIRST EDITION OF *Chinese Herbal Medicine: Materia Medica* was published in 1986, and the revised edition in 1993. During the ensuing years there has been a huge increase in the use of Chinese herbal medicine in those Western countries where this book has served as a basic reference text. About six years ago we realized that some important changes had to be made if the book was to remain useful, and we have been working hard ever since to bring this new book to fruition.

To assist with this edition, two new co-authors were invited to contribute their special expertise. Steven Clavey, an author and practitioner from Melbourne, Australia, applied his clinical and scholarly expertise to expand the traditional background and usage of each herb. He was primarily responsible for in-depth discussions of the herbs in the COMMENTARY, MECHANISMS OF SELECTED COMBINATIONS, COMPARISONS, TRADITIONAL CONTRAINDICATIONS, and NOMENCLATURE & PREPARATION sections. Our other new co-author is Erich Stöger, from Austria, trained in both traditional Chinese and modern pharmacology. He has done extensive work in herb identification, which is reflected in this book, as well as his work translating and editing monographs on Chinese materia medica in German. He was primarily responsible for the identification section as well as QUALITY CRITERIA, MAJOR KNOWN CHEMICAL CONSTITUENTS, ALTERNATE SPECIES & LOCAL VARIANTS, ADULTERATIONS, ALTERNATE NAMES, and ADDITIONAL PRODUCT INFORMATION.

The principal changes in this edition can be divided into four categories:

- First, our guiding principle has been to provide the type of information that enables the reader to practice Chinese herbal medicine more effectively. To this end,

in each entry we added new types of information: commentaries, discussions of key combinations, comparisons of related herbs. This new material provides the reader with a more well-rounded picture of the herbs and how they are used from both contemporary and pre-modern perspectives. In addition, because one of the keys to successful practice is proper preparation of the herbs, we also added a section that describes the different methods of preparing individual herbs, and the advantages of each.

- Second, we address the issue of safety more directly. This has two aspects. The first concerns toxicology research. Much work has been done in this area since the previous editions of this work were published, and we now include a section on toxicity in each entry where it is warranted. The literature on this subject is in its infancy, and often raises more questions than it answers. This information should therefore only be used for cautionary purposes, and not as an excuse to ban herbs or limit their availability.

The second aspect of safety is proper herb identification. We can't be sure that the herbs we give our patients are safe if we don't even know what they are. This is a major issue in contemporary Chinese herbal medicine and is discussed at length in the INTRODUCTION. In this edition we have added new sections to each entry dealing with quality criteria, alternate species and local variants, and adulterants. We have also updated the information on the major known chemical constituents of each herb. In doing so, we have tried to balance the competing pulls of tradition, convenience, utility, and scientific taxonomy. It is our belief that a consensus is building around these impor-

tant issues, primarily because of their impact on safety. On the other hand, we have chosen not to directly address the thorny issue of herb-drug interactions, as the information available at this time on the subject is often too unclear to be useful.

- Third, we separated out those materia medica that we consider to be obsolete and put them in their own chapter (19). Some are derived from endangered species, as identified in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Appendix 1. Others have a level of toxicity that far outweighs their usefulness, rendering them unsuitable for use.
- Finally, there are many substances that are new to this edition. These either appear in textbooks from the People's Republic of China or are in relatively common use outside of China. This now brings the total number of substances discussed in our book to approximately 532, of which 478 are discussed at some length.

One aspect of prior editions that we elected to remove from this one is pharmacological and clinical research. This is a field that has exploded in recent years and deserves a multi-volume work of its own. Given our own disposition — that the practice of Chinese herbal medicine must be grounded on traditional approaches — and our limited expertise, we felt that we simply could not do justice here to the vast amount of new research that has been published. Fortunately, however, there are a number of other books on this topic in English to which we can happily refer the reader, among them *The Pharmacology of Chinese Herbs*, 2d ed. (Huang Kee-Chang and W. Michael Williams, 1998), *Pharmacology and Applications of Chinese Materia Medica* (Chang Hson-Mou et al., 2000), and *Chinese Materia Medica: Chemistry, Pharmacology and Applications* (Zhu You-Ping, 1998).

In preparing this book we consulted a wide range of sources. Except where otherwise indicated, all of the information is drawn from the Chinese sources listed in the TRANSLATORS' BIBLIOGRAPHY. With respect to the ACTIONS & INDICATIONS section, we relied primarily on three recent textbooks: *Chinese Herbal Medicine* (Yan Zheng-Hua, 1991), *Clinical Traditional Chinese Herbal Medicine* (Lei Dai-Quan and Zhang Ting-Mo, 1998), and *Chinese Herbal Medicine* (Gao Xue-Min, 2000). There is a high level of agreement on the basic actions of the herbs in modern materia medica texts, and these books were consulted for their relatively comprehensive treatment of the subject.

Our translation methodology remains largely unchanged from the previous edition. As always, our goal has been to translate Chinese medicine into English as clearly

and transparently as we can. Yet, as our understanding of the medicine has improved, and the experience of our profession in transmitting information about Chinese herbal medicine into English has grown, we have made certain changes in our terminology, the most important of which are discussed in the GLOSSARY.

Another change is the manner in which we refer to the herbs themselves. We have adopted the new standard in international pharmacognosy that places the genus and species (when relevant) in front of the part of the plant used. For example, what used to be rendered as *Herba Ephedrae* is now *Ephedrae Herba*. This change will allow readers to more easily cross reference our work with those of other authors. We continue to combine the *pinyin* transliteration of the standard name of an herb with its pharmaceutical name, as this is the clearest method of identification. A cross reference to the names used in the previous edition of our work is provided in APPENDIX 8.

While we use the standard *pinyin* transliteration system from the People's Republic of China, we have modified it to better fit the needs of our audience. The standard transliteration system separates each word, while we separate each syllable (character). For example, we write *jīn yīn huā* instead of *jīnyīn huā*. We do this because much of our audience is untutored in Chinese, and separation by syllables is easier to read. We also modified the rendering of Chinese given names. In the standard method of transliteration, the two syllables (characters) of a given name are combined and placed after the surname, as in Zhang Zhongjing. In part to make things less confusing, and in part to emphasize to a Western audience that both parts of a two-syllable given name are important, we separate the two syllables with a hyphen, as in Zhang Zhong-Jing. We believe that this is clearer to our readers than the standard approach, and hope that Sinologists will forgive us this trespass.

Many people generously shared their knowledge and expertise on various aspects of this project. Among them are our colleagues Mazin al-Khafaji, Peter Deadman, Subhuti Dharmananda, Andy Ellis, Johann P. Gruber, Amy Hanks, Andreas Höll, Volker Scheid, and Nigel Wiseman.

Christine Tani provided the bulk of the Japanese transliterations, with some contributions from Atsue Morinaga, Gretchen de Soriano, and Jacqueline Young. Jinwoong Kim, professor of pharmacognosy at Seoul National University, not only brought our transliteration of the Korean names for the herbs up to date, but also participated in our deliberations regarding herb identification. We would like to particularly thank our mentor and friend Yao Da-Mu in Beijing for all his encouragement and assistance with issues of herb identification. Michael Ellis in Australia did much of the basic work on the herb comparison tables.

We wish to express our appreciation to the many Chinese authors whose works form the basis of our text. Given the focus of this book on herb identification, we especially pay tribute to some of the early pioneers of modern pharmacognosy in China who laid the foundations of this field, while laboring under extremely difficult circumstances. In particular, we honor the names of Lou Zhi-Cen (樓之岑), Cheng Jing-Rong (誠靜容), Xu Guo-Jun (徐國鈞), Chen Jun-Hua (陳俊華), Zhao Da-Wen (趙達文),

Yao Da-Mu (姚達木), and Xiao Pei-Gen (肖培根).

We also thank John O'Connor for his perspicacious editing, Hans Bleicher for his help with the photos, and Gary Niemeier for his artful book design. All errors are ours alone.

We hope that this new edition will prove useful not only to you, our readers, but more importantly, to your patients.

— DAN BENSKY, STEVEN CLAVEY, ERICH STÖGER

## Herbs that Release the Exterior

# 1

**E**XTERIOR-RELEASING HERBS are those that release disorders lodged in the very superficial levels of the body. When external pathogenic factors (including wind-heat, wind-cold, wind-dampness, and summerheat) invade the body, they first attack its superficial, exterior aspects. Symptoms associated with the exterior then appear: chills, fever, headache, stiff neck, and general muscle aches. Sometimes sweating will appear, which resolves the condition, in which case no treatment is necessary. At other times, however, there will be an absence of sweating; or, even though there is sweating, it is not accompanied by any change in the condition. At this juncture, herbs that release the exterior are used.

Most exterior-releasing herbs are diaphoretics, that is, they release or expel the external pathogenic influences through sweating. There is a saying in Chinese medicine, “When [the disease] is in the skin, sweating will bring it out.”

When a disease progresses slightly further into the body it is said to lodge in the muscle layer. The clinical presentation then includes fever, general body aches, and profuse sweating. At this stage, especially when the patient has sweated without any beneficial change in their condition, it is appropriate to use the subset of herbs that release the muscle layer. The most prominent member of this group is Cinnamomi Ramulus (*guì zhī*).

Some of the herbs that release the exterior have additional functions: stopping coughs and wheezing, controlling pain or spasms, and venting rashes such as measles. In Chinese medicine, the treatment of rashes such as measles consists of bringing the rash (which is a sign of heat) to the surface and venting it, thereby dispersing the disease. This is similar to releasing an exterior disorder through sweating. Herbs that vent the rash of measles and similar

diseases are especially useful in cases of relatively long duration, when it is believed that the rash is “trapped” in the body.

### Section 1

#### WARM, ACRID HERBS THAT RELEASE THE EXTERIOR

Herbs that release the exterior can be further divided by character and function into warm, acrid and cool, acrid classes. The warm, acrid herbs dispel wind-cold and are used for exterior disorders when the fever is mild, the chills severe, and there are other signs and symptoms of wind-cold including headache, body and neck pains, and absence of thirst.

## 麻黄

### *má huáng*

**PHARMACEUTICAL NAME** Ephedrae Herba

**FAMILY** Ephedraceae

**STANDARD SPECIES**

*Ephedra sinica* STAPF (草麻黄 *cǎo má huáng*)

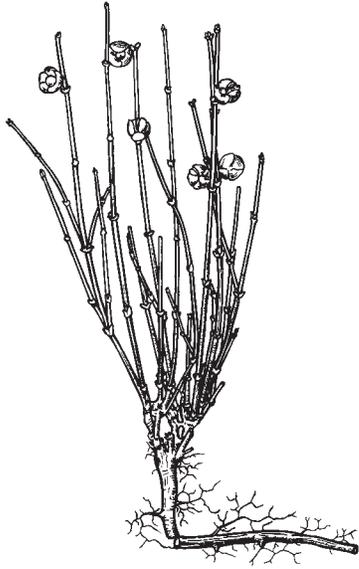
*Ephedra intermedia* SCHRENK & C.A. MEY.

(中麻黄 *zhōng má huáng*)

*Ephedra equisetina* BGE. (木贼麻黄 *mù zéi má huáng*)

**ENGLISH** ephedra stem, ma-huang

**JAPANESE** *maō*



**KOREAN** mahwang

**TEXT IN WHICH FIRST APPEARED**

*Divine Husbandman's Classic of the Materia Medica*

**PROPERTIES** acrid, slightly bitter, warm

**CHANNELS ENTERED** Lung, Bladder

**KEY CHARACTERISTICS** induces sweating, calms wheezing, promotes urination

**DOSAGE** 2-9g

**CAUTIONS & CONTRAINDICATIONS** Because this herb has a rather strong effect of inducing sweating and opening up the Lungs, the dosage should not be too large. Nor should it be prescribed, without some adjustment in the prescription, for those who are debilitated, those with spontaneous sweating from exterior deficiency, those with night sweats from yin deficiency, or those with wheezing associated with the failure of the Kidneys to accept qi. See **TOXICITY** below.

### Actions & Indications

- Induces sweating and releases the exterior: for patterns of wind-cold exterior excess (greater yang cold damage) with chills, fever, headache, absence of sweating, and a tight, floating pulse. This herb is very effective in opening the pores and interstices to release the exterior.
  - With Cinnamomi Ramulus (*guì zhī*) for patterns of wind-cold exterior excess presenting with fever and chills but no sweating, as in Ephedra Decoction (*má huáng tāng*). Also for wind-cold-damp painful obstruction.
- Disseminates and facilitates the Lung qi, calms wheezing, and stops coughing: for cough and wheezing due to wind-cold obstructing the Lungs. The herb both encourages the Lung qi to flow more easily, and directs it downward. It is important for treating either externally-contracted or internally-generated wheezing.

- With Armeniacae Semen amarum (*xìng rén*) for wind-cold cough and wheezing, as in Minor Bluegreen Dragon Decoction (*xiǎo qīng lóng tāng*) or Three-Unbinding Decoction (*sān ǎo tāng*).

- With Gypsum fibrosum (*shí gāo*) for cough from heat obstructing the Lungs with wheezing and nasal flaring, as in Ephedra, Apricot Kernel, Gypsum, and Licorice Decoction (*má xìng shí gān tāng*). Often more effective when used with Scutellariae Radix (*huáng qín*) and Mori Cortex (*sāng bái pí*).

- With Ginseng Radix (*rén shēn*) for wind-cold where there is underlying primal qi deficiency.

- Promotes urination and reduces edema: especially for edema that accompanies an exterior condition.

- With Atractylodis macrocephalae Rhizoma (*bái zhú*) for acute onset edema, often together with Poriae Cutis (*fú líng pí*) and Mori Cortex (*sāng bái pí*), as in Mailservant from Yue Decoction plus Atractylodes (*yùè bì jiā zhú tāng*).

- Warms and disperses cold pathogens: useful for wind-damp painful obstruction and deep-rooted toxic sores without a head.

- With Aconiti Radix lateralis preparata (*zhì fū zǐ*) for wind-cold painful obstruction, or exterior cold conditions and edema associated with yang deficiency.

- With Rehmanniae Radix preparata (*shú dì huáng*) for deep-rooted toxic sores without a head caused by cold-dampness obstructing the channels. This combination is also used for cough and wheezing associated with Kidney yin deficiency, as in Yang-Heartening Decoction (*yáng hé tāng*).

*Note:* If heat is generated from the use of Ephedrae Herba (*má huáng*), Gypsum fibrosum (*shí gāo*) and Scutellariae Radix (*huáng qín*) may be added for their cooling effect.

### Commentary

Ephedrae Herba (*má huáng*) is strongly acrid, dispersing and warm, and enters the channels of the Lungs and Bladder, both of which relate to the exterior of the body. The dispersing action of the herb is thus expressed in the exterior, by opening up the interstices and pores to induce sweating and drive out pathogenic influences. The acrid, dispersing action of Ephedrae Herba (*má huáng*) opens up the Lungs to disseminate and facilitate the Lung qi, and thus alleviate coughs and calm wheezing. It also enters the greater yang, both the channel and the Organ (Bladder). This is why the herb is able to release the exterior while also promoting urination. As Zhang Xi-Chun observed, “Ephedrae Herba (*má huáng*) treats the pathogen in the

greater yang channel by inducing sweating, and the pathogen in the greater yang Organ by releasing it through urination.”

The acrid, dispersing character of Ephedrae Herba (*má huáng*) is also utilized in other ways. Because it is warm as well as strongly dispersing, it can be used to drive out cold pathogens in cases of wind-damp painful obstruction, and combined with other herbs to expel wind-dampness.

It is also used for deep-rooted toxic sores without a head caused by localized accumulation of dampness (or phlegm) and cold, which prevents nourishment from reaching the area, and thereby causing a breakdown in the tissues. Combined with herbs that restore nourishment, the warm, dispersing nature of Ephedrae Herba (*má huáng*) can be instrumental in breaking up the congealing of the gathered yin pathogens, thus allowing nourishment to reach the area and repair the tissues. Finally, it can be added to external medications for the specific purpose of opening the pores to allow the medication to be absorbed more quickly.

When used properly, the warming dispersal of Ephedrae Herba (*má huáng*) can be a powerful and versatile agent, but its use requires familiarity with the qualities of the local environment and population. A dosage appropriate in one place may be excessive in another. Chinese physicians have been debating the relationship between locality and dosage of this herb for a long time, as reflected in the following passage from Lu Jiu-Zhi, quoted by Zhang Xi-Chun in *Essays on Medicine Esteeming the Chinese and Respecting the Western*:

[For] Ephedrae Herba (*má huáng*) to promote sweating at several tenths of a gram is perhaps possible in southerners, but difficult to achieve in the north. The weather is warm in the south, the people’s skin thin: they sweat easily. Thus, a southern proverb warns, ‘Ephedrae Herba (*má huáng*), no more than one gram.’ In the north, outside the [Great] Wall, the climate is freezing, the people’s skin tough and thick, especially in those who work outside exposed to the wind and frost. When it is also in the middle of winter, then a sweat could only be produced if repeated doses of 20 grams or more are used. Thus, the Way of Herbs values adapting the approach in accordance with the time, place, and people, adroitly changing with the circumstances, and not hobbled by set views [about dosage].

Li Shi-Zhen also provided some advice regarding the management of common, mild reactions to this herb:

If ingestion of Ephedrae Herba (*má huáng*) causes continuous spontaneous sweating, use cold water to soak the scalp, then pat Ephedrae Radix (*má huáng gēn*) powder over the area of sweating and it will stop. After using any medicine containing Ephedrae Herba (*má huáng*), drafts must be avoided for one day, otherwise the illness will recur. The problem of red eyes can be avoided by always using Scutellariae Radix (*huáng qín*) as an accompaniment to Ephedrae Herba (*má huáng*).

## Mechanisms of Selected Combinations

### ➤ WITH CINNAMOMI RAMULUS (*guì zhī*)

Both of these herbs are acrid and warm, and both enter the greater yang channel. The combination is used when pathogenic cold has attacked and lodged in the exterior, especially in winter. Ephedrae Herba (*má huáng*) travels best at the protective level; it strongly disperses cold by promoting sweating. Cinnamomi Ramulus (*guì zhī*) moves best at the nutritive level, where it warms the channels and releases the muscle layer, but its sweat-inducing action is much less than that of Ephedrae Herba (*má huáng*). The diaphoretic effect of Ephedrae Herba (*má huáng*) is enhanced by the addition of Cinnamomi Ramulus (*guì zhī*), and the latter can lead a pathogen lodged at the nutritive level out to the exterior, where it is dispersed.

When using this combination, caution must be exercised to prevent excessive sweating, which could injure the qi and fluids. However, one must be equally careful not to induce less sweating than needed, since this will have no effect. Generally, pathogenic cold lodged in the exterior requires only a mild sweat to release it, but the intensity of the sweating required depends upon an evaluation of the strength of the patient and the strength of the pathogen.

A strong patient with a strong wind-cold pathogen requires Ephedrae Herba (*má huáng*) at twice the dose of Cinnamomi Ramulus (*guì zhī*), as in Major Bluegreen Dragon Decoction (*dà qīng lóng tāng*). If the dose is equal, or there is only slightly more Ephedrae Herba (*má huáng*), there will be a moderate sweating effect. More Cinnamomi Ramulus (*guì zhī*) than Ephedrae Herba (*má huáng*) induces only a slight sweat, which is often useful in treating older or weaker patients, who may also benefit from combining these herbs in lower dosages, as in Two-parts Cinnamon Twig Decoction and One-part Ephedra Decoction (*guì zhī èr má huáng tāng*).

### ➤ WITH ARMENIACAE SEMEN (*xìng rén*)

Both herbs enter the Lung channel and excel at alleviating cough and calming wheezing. However, their mechanisms of action differ. Ephedrae Herba (*má huáng*) disseminates and facilitates the flow of Lung qi, while Armeniacae Semen (*xìng rén*) primarily drains and directs the Lung qi downward. Because these various actions exactly match the Lung’s own movements in disseminating and moving downward, this pair can restore normal Lung function and so is frequently found in ancient formulas. For example, in *Records of Thoughtful Differentiation of Materia Medica*, Zhou Yan offers this explanation:

Armeniacae Semen (*xìng rén*) is known as the ‘right hand’ of Ephedrae Herba (*má huáng*). Ephedrae Herba (*má*

*huáng*) unbinds the muscle layer, while *Armeniacae Semen (xìng rén)* opens the collaterals of the Lungs. *Ephedrae Herba (má huáng)* is hard by nature, while *Armeniacae Semen (xìng rén)* is soft. *Ephedrae Herba (má huáng)* spreads externally, while *Armeniacae Semen (xìng rén)* directs downward internally. When the two are combined, the pathogen is completely eliminated.

As this passage suggests, regardless of whether a pattern is hot or cold, this combination is still useful, with the appropriate additions. What is more, because *Ephedrae Herba (má huáng)* and *Armeniacae Semen (xìng rén)* also release the exterior, the pair is strong enough to use as a two-herb formula when a wind-cold exterior pattern is causing cough, sensations of fullness in the chest, and wheezing.

➤ WITH *REHMANNIAE RADIX PREPARATA (shú dì huáng)*

This combination benefits the Kidneys while calming wheezing. It is most suitable when the Kidney qi is not secure and cannot accept qi, which manifests as chronic wheezing characterized by difficult inhalation with prolonged exhalation. The patient is often emaciated and fatigued. The Lungs control the qi, while the Kidneys are its root. Thus, if the Kidneys are weak and have difficulty accepting inhaled qi, the qi will not remain stable at the deeper levels (below the navel) but instead will rebel upward with wheezing. *Rehmanniae Radix preparata (shú dì huáng)* nourishes the true yin, generates essence, blood, and primal qi, thus enhancing the Kidney's ability to accept the inhaled qi. *Ephedrae Herba (má huáng)* helps the Lungs redirect the qi downward instead of accumulating in the upper body, and so settles the wheezing.

Together these herbs also warm and unblock the channels and collaterals. *Rehmanniae Radix preparata (shú dì huáng)* is tranquil and nourishing, while *Ephedrae Herba (má huáng)* is mobilizing: it can enter deeply into accumulated phlegm and blood stagnation. This is an illustration of the adage “tranquility requires movement for motivation.” This combination can be used in the treatment of cold from deficiency in the nutritive level blood, where cold, congealed phlegm has stagnated and caused deep-rooted toxic sores without a head, as in Yang-Heartening Decoction (*yáng hé tāng*).

➤ WITH *GINSENG RADIX (rén shēn)*

*Ephedrae Herba (má huáng)* has a strong dispersing action, possibly too strong for those with externally-contracted wind-cold who also have weak primal qi or temporary qi deficiency due to overwork. *Ginseng Radix (rén shēn)* restores the primal qi so that the dispersing action of *Ephedrae Herba (má huáng)* will be able to dispel the pathogen without inducing profuse or continuous sweat-

ing. *Ginseng Radix (rén shēn)* is the most fitting of the qi-supplementing herbs to prescribe with *Ephedrae Herba (má huáng)*. *Astragali Radix (huáng qí)* is less suitable, for although it also tonifies the primal qi, it tends to secure the exterior and work against the action of *Ephedrae Herba (má huáng)*. *Codonopsis Radix (dǎng shēn)* tonifies the Spleen qi rather than the primal qi, and would therefore also not be the best choice.

One occasionally hears the statement that “tonifying herbs should not be used with exterior patterns” for fear of strengthening the pathogen. In *Precepts for Physicians*, Yu Chang discusses this at length. He concludes that this is a problem only if there is no existing deficiency, as there is then nowhere for the tonification to be received other than by the pathogen. However, if there is significant deficiency, tonification is indicated and there is no impediment to its use:

There are situations of cold damage where *Ginseng Radix (rén shēn)* should be included in the prescription: the primal qi will then flourish and the external pathogen will be carried outward by its power. If the person's primal qi is weak, even though the [force of the] herbs themselves move toward the exterior, the qi remains passively in the middle. In mild cases, a pathogen will be half expelled, leaving half to remain and cause difficulties; a severe pathogen will follow the primal qi as it withdraws inward, causing endless fevers. Thus, weak deficient people must have *Ginseng Radix (rén shēn)* in with their exterior [releasing] herbs: it makes the herbs powerful so that, with a single gush, the pathogen is thrust out. This is definitely not a matter of ‘tonification’.

➤ WITH *GYPSUM FIBROSUM (shí gāo)*

Both are acrid, dispersing and enter the Lungs, but *Ephedrae Herba (má huáng)* is warm and works on the exterior while *Gypsum fibrosum (shí gāo)* is very cold and works more deeply at the muscle layer and interior. Together they act strongly to disseminate the Lung qi, cool the heat, and calm the wheezing, and are particularly appropriate for exterior pathogens which have moved internally, transformed into heat, and clogged the Lungs. This pattern presents with such symptoms as prolonged fever, cough, and wheezing. This pair of herbs is the basis for the formula *Ephedra, Apricot Kernel, Gypsum, and Licorice Decoction (má xìng shí gān tāng)*.

Beyond this, *Gypsum fibrosum (shí gāo)* can lead *Ephedrae Herba (má huáng)* to the interior while moderating its sweat-inducing effect; the *Gypsum fibrosum (shí gāo)* itself clears heat which is trapped within pathogenic water and dampness. The pair is thus highly effective in treating wind-edema. However, the dosage of *Ephedrae Herba (má huáng)* must be greater than normal in this case, between 10 to 15g, in order to move fluids, while the dosage

of Gypsum fibrosum (*shí gāo*) is somewhat smaller than normal, 20-30g being sufficient.

➤ WITH GINKGO SEMEN (*bái guǒ*); see page 892

### Traditional Contraindications

Its nature is light, lifting, and very dispersing, and is most rapid at releasing the exterior ... excessive sweating devastates yang and can endanger a person's life—be on guard! From the end of spring through summer until the beginning of autumn, the standard approach is to forbid it; only in the winter when symptoms appear, showing that a truly cold pathogen has injured the nutritive [level], is it of benefit. If not during the winter months, or the symptoms are not those of a cold pathogen, or are those of a cold pathogen in the interior, or those of pathogenic wind injuring the protective [level], then Ephedrae Herba (*má huáng*) is not suitable, even though there may be fever and chills: there will not be aching and stiffness of the head and body, and no floating and tightness in the six pulse positions.

When the condition is right for sweating, it must not be excessive. Sweat is the fluid of the Heart, excessive sweating will agitate the Heart blood, or cause great loss of yang, or cause bleeding—and this then becomes a major affliction. (*Harm and Benefit in the Materia Medica*)

### Toxicity

This herb contains central nervous system stimulants and may cause high blood pressure, restlessness, and insomnia. It should be used with caution in treating patients with high blood pressure. Do not use in conjunction with cardiac glycosides, as cardiac arrhythmias may occur. Allergic reactions in the form of cutaneous eruptions combined with slightly elevated temperature and measles-like erythema have been reported. Because ephedrine stimulates the sphincter muscle of the bladder, long-term administration may cause oliguria or anuresis.

The toxic dose is approximately 30-45g. Symptoms of acute toxic reaction include palpitations, insomnia, restlessness, diaphoresis, chest pain, elevated temperature, and tremor. Extreme overdoses can lead to blurred vision, dilated pupils, coma, dyspnea, dysuria, convulsions, respiratory arrest, cardiac failure, bradycardia, and ventricular fibrillation.

### Nomenclature & Preparation

Literal English translation: “hemp yellow”

➤ CLEANED EPHEDRA (淨麻黃 *jìng má huáng*)

This has the nodes on the stalks removed, as well as the roots, as both are generally considered to reduce the herb's diaphoretic effect. The nodes can be left if the herb is not to be used to induce sweating. For example, the formula Three-Unbinding Decoction (*sān ǎo tāng*) specifically

calls for Ephedrae Herba (*má huáng*) without the nodes removed, since the desired effect is to disseminate the Lung qi and calm wheezing, rather than sweating.

➤ EPHEDRA COTTON (麻黃絨 *má huáng róng*)

Cleaned ephedra is brought to a boil until it ‘rolls over’ in the water ten times, or simply infused in boiling water until froth rises; it is then removed and dried. Once dried, it is ground until the fibers become soft. It is then called ephedra cotton.

Usually, when cleaned ephedra is used to promote sweating, the patient first boils it, then removes the froth, as it can cause agitation. Ephedra cotton saves this trouble. The diaphoretic effect, however, is slightly less than cleaned ephedra, while stronger than prepared ephedra.

➤ PREPARED EPHEDRA (炙麻黃 *zhì má huáng*)

Cleaned ephedra is stir-fried with water. This method of preparation reduces the herb's diaphoretic action, but strengthens its effect in calming the Lungs. *Discussion of Cold Damage* says to remove the froth after boiling. According to *Materia Medica of Combinations*, this is because the froth “makes one irritable”; however, “frying with honey before use will also work.”

➤ HONEY-PREPARED EPHEDRA (蜜炙麻黃 *mì zhì má huáng*)

Honey is first brought to a boil slowly, and the froth and any residual wax or extraneous material scraped from the surface. The honey is then poured through a filter. It is returned to the wok, and again brought to a boil, which is maintained at 116-118°C until the whole wok bubbles and the honey no longer stretches between the fingers.

Boiling water is then added to thin the honey, which is then poured slowly over cleaned ephedra and left covered briefly. The amount of cooked honey should be approximately one-fifth the amount of herb, while the amount of water should be approximately one-third the quantity of honey; too much water and the herb will become overly damp and difficult to dry after preparation. The herb is then dry-fried at a low temperature until deep yellow and no longer sticky to the touch.

When ephedra is prepared with honey, the diaphoresis is modified by the sweetness of the honey. Not only is the intensity of its acrid, dispersing qualities moderated, but the duration of its action is lengthened in a kind of ‘time-release’ manner. Sweetness pertains to the earth phase and thus brings harmony. Honey preparation also moistens the Lungs and protects this tender Organ from the drying effects of the acrid, warm qualities of the unprepared herb.

JAPANESE *hokubanranyō*

KOREAN *bukpanramgyeop*

TEXT IN WHICH FIRST APPEARED

*Sichuan Chinese Materia Medica*

PROPERTIES bitter, salty, cold

CHANNELS ENTERED Lung, Stomach, Heart, Liver

KEY CHARACTERISTICS clears heat, resolves fire toxicity, cools the blood

DOSAGE 9-15g

CAUTIONS & CONTRAINDICATIONS Contraindicated in cases of cold from deficiency of the Spleen and Stomach.

### Actions & Indications

- Clears heat, resolves toxicity, cools the blood, and stops bleeding: particularly useful for damp-heat diseases, warm pathogen diseases that have entered the blood, or cases with toxicity.

— With *Lonicerae Flos* (*jīn yín huā*) and *Forsythiae Fructus* (*lián qiào*) for damp-heat diseases with high fever, headache, and maculae.

— With *Mori Cortex* (*sāng bái pí*) and *Armeniacae Semen* (*xìng rén*) for coughs from Lung heat.

— With *Arnebiae Radix/Lithospermi Radix* (*zǐ cǎo*), *Paeoniae Radix rubra* (*chì sháo*), and *Lonicerae Flos* (*jīn yín huā*) for erysipelas, rheumatic fever, and measles.

— With *Coptidis Rhizoma* (*huáng lián*), *Fraxini Cortex* (*qín pí*), and *Phellodendri Cortex* (*huáng bǎi*) for damp-heat dysenteric disorders.

— With *Artemisiae scopariae Herba* (*yīn chén*), *Polygoni cuspidati Rhizoma* (*hú zhàng*), and *Lysimachiae Herba* (*jīn qián cǎo*) for damp-heat jaundice.

— With *Prunellae Spica* (*xià kǔ cǎo*), *Forsythiae Fructus* (*lián qiào*), and *Scrophulariae Radix* (*xuán shēn*) for mumps or lymphadenitis.

— With *Rehmanniae Radix* (*shēng dì huáng*), *Imperatae Rhizoma* (*bái máo gēn*), and *Platycladi Cacumen* (*cè bǎi yè*) for vomiting of blood, nosebleeds, or bleeding from the gums.

### Commentary

When used for serious diseases such as erysipelas, the dosages must be large, in the range of 30g. In southern China this is used fresh in dosages of 30-60g to treat snake bite.

### Quality Criteria

Good quality consists of large, unfragmented, blackish green leaves.

### Major known chemical constituents

Alkaloids: indirubin, indigo, isoindigo, tryptanthrine

### Alternate species & local variants

*Strobilanthes pentstemonoides* (球花馬藍 *qiú huā mǎ lán*)

*Strobilanthes guangxiensis* (廣西馬藍 *guǎng xī mǎ lán*)

*Strobilanthes divaricatus* (疏花馬藍 *shū huā mǎ lán*)

### Alternate names

大葉冬藍 *dà yè dōng lán*

廣東大青葉 *guǎng dōng dà qīng yè*

馬藍葉 *mǎ lán yè*



## 板藍根 (板蓝根)

### *bǎn lán gēn*

PHARMACEUTICAL NAME *Isatidis/Baphicacanthis Radix*

JAPANESE *banrankon*

KOREAN *panramgeun*

NOTE There are many plants called 板藍根 *bǎn lán gēn*

in China with complex issues of identification and use.

At this point, the standard plant is *Isatis indigotica*, which follows as the main entry. The other most common herb

comes from *Baphicacanthus cusia* and is known as south-

ern *bǎn lán gēn* (南板藍根 *nán bǎn lán gēn*); see the

APPENDUM to the following entry. When the precise

identification of the herb is unclear, we use the term

*Isatidis/Baphicacanthis Radix* (*bǎn lán gēn*).

## 北板藍根 (北板蓝根)

### *běi bǎn lán gēn*

PHARMACEUTICAL NAME *Isatidis Radix*

FAMILY *Apiaceae*

STANDARD SPECIES

*Isatis indigotica* FORT. (菘藍 *sōng lán*)

ENGLISH *isatis root, woad root*

JAPANESE *banrankon*

KOREAN *panramgeun*

TEXT IN WHICH FIRST APPEARED

*Grand Materia Medica*

PROPERTIES bitter, cold

CHANNELS ENTERED Heart, Lung, Stomach

KEY CHARACTERISTICS drains heat, resolves fire toxicity, cools the blood, benefits the throat

DOSAGE 9-15g

CAUTIONS & CONTRAINDICATIONS Contraindicated in cases with cold from deficiency of the Spleen and Stomach. See Toxicity below.

### Actions & Indications

- Drains heat, resolves fire toxicity, cools the blood, and benefits the throat: for warm-heat pathogen diseases, warm epidemic disorders, mumps, and painful, swollen throat conditions. Also for damp-heat jaundice.

— With *Lonicerae Flos* (*jīn yín huā*), *Forsythiae Fructus* (*lián qiào*), and *Schizonepetae Herba* (*jīng jiè*) for the early stages of externally-contracted wind-heat.

— With *Scrophulariae Radix* (*xuán shēn*) and *Anemarrhenae Rhizoma* (*zhī mù*) for pain and swelling of the throat, acute tonsillitis, and diphtheria.

... Add *Lonicerae Flos* (*jīn yín huā*), *Forsythiae Fructus* (*lián qiào*), and *Gypsum fibrosum* (*shí gāo*) for fever, irritability, dry throat, and thirst due to heat.

— With *Sophorae tonkinensis Radix* (*shān dòu gēn*) for severe swelling and redness of the throat from internal accumulation of intense heat.

— With *Arctii Fructus* (*niú bàng zǐ*) and *Patriniae Herba* (*bài jiàng cǎo*) for mumps with pain and swelling in the throat.

— With *Notopterygii Rhizoma seu Radix* (*qiāng huó*) for heat toxin affecting the head and neck, as in *Notopterygium* and *Isatis Root Decoction* (*qiāng lán tāng*).

— With *Lasiosphaera/Calvatia* (*mǎ bó*), *Platycodi Radix* (*jié gēng*), and *Scrophulariae Radix* (*xuán shēn*) for throat pain as part of a massive head febrile disorder with strong fever and chills, along with redness, swelling, and burning pain of the face. See *Universal Benefit Decoction to Eliminate Toxin* (*pǔ jì xiāo dú yǐn*).

— With *Artemisiae scopariae Herba* (*yīn chén*) for damp-heat jaundice or symptoms of damp-heat in the Liver and Gallbladder.

### Commentary

Bitter and cold, *Isatidis Radix* (*běi bǎn lán gēn*) enters the Heart, Lung, and Stomach channels, and is quite similar

in effect to *Isatidis Folium* (*dà qīng yè*), for which it can be substituted. It clears heat, cools the blood, and resolves toxicity, and is often used for symptoms due to externally-contracted wind-heat, epidemic toxins, and seasonal toxic pathogens such as swollen, sore, and ulcerated throat, high fever, redness with burning pain of the face and headache, and mumps.

In *Convenient Reader of Materia Medica*, Zhang Bing-Cheng says of *Isatidis Radix* (*[běi] bǎn lán gēn*):

Like *Isatidis Folium* (*dà qīng yè*), it enters the blood level of the Liver and Stomach; its four actions are clearing heat, resolving toxins, avoiding contagion, and killing parasites. The only difference is that the leaves primarily disperse while the root primarily directs downward.

### Mechanisms of Selected Combinations

- WITH *SOPHORAE TONKINENSIS RADIX* (*shān dòu gēn*); see page 208

### Comparisons

- VS. *ISATIDIS FOLIUM* (*dà qīng yè*) and *INDIGO NATURALIS* (*qīng dài*)

All three herbs originate from the same plants and are effective in cooling heat in the blood and reducing skin blotches. The first two herbs both cool heat toxin in the Heart and Stomach, but *Isatidis Folium* (*dà qīng yè*) is generally used for rashes associated with warm toxin, and swollen sore throat, while *Isatidis Radix* (*běi bǎn lán gēn*) is used for massive head febrile disorder and throat obstruction due to mumps. *Indigo naturalis* (*qīng dài*) also cools the Liver and drains fire and is thus best for toxic sores due to fire and heat, rashes from warm toxin, coughing or spitting up blood, and childhood convulsions.

### Toxicity

There is one case report of this substance being implicated in bleeding from the upper gastrointestinal tract.

### Nomenclature & Preparation

The situation regarding identification of this herb is quite complex, as can be seen in the *ALTERNATE SPECIES & LOCAL VARIANTS* and *ADULTERANTS* sections below. While there are many plants called 板藍根 *bǎn lán gēn* in China, the one described here is the standard plant according to the *Chinese Pharmacopoeia* and is known as northern *bǎn lán gēn* (北板藍根 *běi bǎn lán gēn*). The other most common herb comes from *Baphicacanthus cusia* and is known as southern *bǎn lán gēn* (南板藍根 *nán bǎn lán gēn*); see the *ADDENDUM* which follows this entry and photo on page 1145. When the precise identification is unclear, we use the term *Isatidis/Baphicacanthus Radix* (*bǎn lán gēn*).

## Quality Criteria

Good quality consists of thick and long, yellowish white roots with a powdery cross section.

### Major known chemical constituents

Alkaloids: indigotin (indigo), indirubin

Amino acids: arginin, glutamic acid, tyrosine, proline, valine,  $\gamma$ -aminobutyric acid

Glycosides: sinigrin, indoxyl- $\beta$ -glucoside

Other constituents: epigoitrin, tryptanthrine, thiocyno-2-hydroxy-3-butene, adenosine, palmitic acid, sucrose, proteins

### Alternate species & local variants

*Baphicacanthus (Strobilathes) cusia* (馬藍根 *mǎ lán gēn*): See 'Addendum' below.

### Adulterants

*Clerodendron cyrtostemum* (大青 *dà qīng*, 路邊青 *lù biān qīng*): This is an indistinct rhizome with cylindrical, twisted, and nodous roots, a yellowish brown cross section, yellowish white and narrow cortex, and large xylem.

*Strobilanthes pentstemonoides* (球花馬藍 *qiú huā mǎ lán*), *Strobilanthes divaricatus* (疏花馬藍 *shū huā mǎ lán*), *Strobilanthes guangxiensis* (廣西馬藍 *guǎng xī mǎ lán*): These are cylindrical, greyish brown, and nodous rhizomes, with a yellowish or greyish white cross section, and white pith in the center.

A more precise differentiation of these adulterants is only possible by thin layer chromatography.

### Alternate names

板藍根 *bǎn lán gēn*

## Addendum

# 南板藍根 (南板蓝根)

## *nán bǎn lán gēn*

PHARMACEUTICAL NAME *Baphicacanthus cusiae* Rhizoma et Radix

FAMILY Acanthaceae

STANDARD SPECIES

*Baphicacanthus cusia* (NEES.) BREMEK (馬藍 *mǎ lán*)

ENGLISH *baphicacanthus* root

JAPANESE *hokubanrankon*

KOREAN *bukpanramgeun*

TEXT IN WHICH FIRST APPEARED

*Chinese Materia Medica*

PROPERTIES bitter, cold

CHANNELS ENTERED Heart, Liver, Stomach

KEY CHARACTERISTICS cools heat and resolves toxicity, primarily in the treatment of epidemic disorders

DOSEAGE 15-30g; 60-120g when a large dosage is required

CAUTIONS & CONTRAINDICATIONS Use with caution in those with deficiency of the Spleen and Stomach, or those lacking heat toxicity.

### Actions & Indications

- Clears heat, resolves toxicity, cools the blood and reduces swellings: for macular diseases from warm toxin, high

fevers with headaches, massive-head febrile disorder, erysipelas, mumps, and a variety of significant viral diseases.

— With *Isatidis Folium* (*dà qīng yè*), *Gypsum fibrosum* (*shí gāo*), and *Scutellariae Radix* (*huáng qín*) for macular diseases from warm toxin.

— With *Coptidis Rhizoma* (*huáng lián*), *Scrophulariae Radix* (*xuán shēn*), and *Bombyx batryticatus* (*bái jiāng cán*) for acute warm-toxin disorders such as massive head febrile disorder, erysipelas, and mumps.

— With *Gentianae Radix* (*lóng dǎn cǎo*), *Arnebiae Radix/Lithospermi Radix* (*zǐ cǎo*), and *Gardeniae Fructus* (*zhī zǐ*) for herpes zoster.

— With *Artemisiae scopariae Herba* (*yīn chén*), *Gardeniae Fructus* (*zhī zǐ*), and *Rhei Radix et Rhizoma* (*dà huáng*) for acute hepatitis.

— With *Lonicerae Flos* (*jīn yín huā*), *Schizonepetae Herba* (*jīng jiè*), and *Bupleuri Radix* (*chái hú*) for influenza.

## Commentary

This bitter, cold herb is used very similarly to *Isatidis Radix* (*běi bǎn lán gēn*), but is considered to be of inferior quality.

## Quality Criteria

Good quality consists of rhizomes with many roots and few stems. Its color is slightly bluish brown.

### Major known chemical constituents

anthraquinones,  $\beta$ -sitosterol

### Alternate names

馬藍根 *mǎ lán gēn*

# 青黛

## *qīng dài*

PHARMACEUTICAL NAME *Indigo naturalis*

FAMILY *Apiaceae*

STANDARD SPECIES

*Baphicacanthus cusia* (NEES) BREMEK (馬藍 *mǎ lán*)

*Polygonum tinctorium* AIT. (蓼藍 *liǎo lán*)

*Isatis indigotica* FORT. (菘藍 *sōng lán*)

*Indigofera tinctoria* L. (木藍 *mù lán*)

ENGLISH indigo

JAPANESE *seitai*

KOREAN *cheongdae*

TEXT IN WHICH FIRST APPEARED

*Discussion of Medicinal Properties*

PROPERTIES salty, cold

## Toxicity

Despite many references in the historical literature to *Houttuyniae Herba* (*yú xīng cǎo*) as a toxic herb, today there is no evidence of toxic side effects when ingested. The fresh plant is even used as an edible vegetable. However, some reports have indicated that injections of preparations of the herb led to allergic reactions, anaphylactic shock and death, atrophic epidermolysis bullosa, and peripheral neuritis. These reports suggest that the herb should be used with great caution when injected.

## Nomenclature & Preparation

Literal English translation: “fishy-smelling herb”

The name of this herb refers to the smell of the fresh stalk when harvested, which is quite putrid. However, this odor disappears completely when the herb is dried, and its taste when decocted is not at all unpleasant, but rather like weak black tea.

## Quality Criteria

Good quality consists of the aerial parts without roots. The stems are soft, and the stems and leaves are neat and unfragmented, with a light reddish brown color and intense fragrance.

## Major known chemical constituents

Volatile oil: decanoylacetaldehyde, lauric aldehyde, myrcene,  $\alpha$ -pinene, linalool, 2-methylheptenone, methyl-n-nonylketone, dodecanaldehyde, capraldehyde, camphene, linalool, caryophyllene, cineol, borneol, bornyl acetate, thymol, p-cymene, humulene, geraniol

Flavonoids: quercetin, quercitrin, isoquercitrin, afzelin, hyperin, rutin

Organic acids: chlorogenic acid, palmitic acid, linoleic acid, linoleic acid, stearic acid, capric acid, decanoic acid, aspartic acid, aristolochic acid

Amino acids: glutamic acid, isoleucine, valine, proline

Phytosterols: stigmasterol, brassicasterol,  $\beta$ -sitosterol, spinasterol

Other constituents: cordarine, cis-N-(4-hydroxystyryl)benzamide, trans-N-(4-hydroxystyryl)benzamide

## Alternate names

側耳根 *cè ěr gēn*

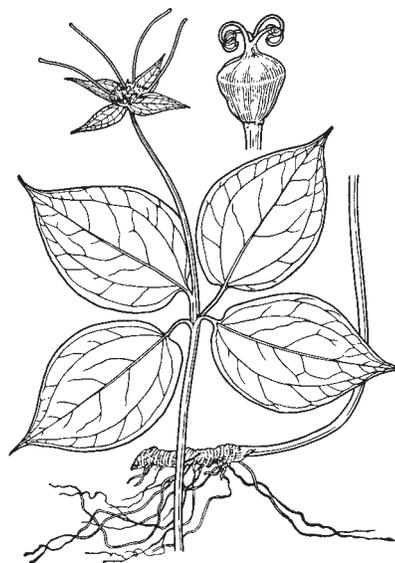
臭菜 *chòu cài*

臭根草 *chòu gēn cǎo* - Zhejiang

臭靈丹 *chòu líng dān* - Guangdong

豬鼻孔 *zhū bí kǒng*

豬母耳 *zhū mǔ ěr* - Fujian



PHARMACEUTICAL NAME *Paris* Rhizoma

FAMILY Liliaceae

STANDARD SPECIES

*Paris polyphylla* SMITH var. *yunnanensis* (FRANCH.)

HAND.-MAZZ. (雲南重樓 *yún nán chóng lóu*)

*Paris polyphylla* SMITH var. *chinensis* (FRANCH.)

HARA (華重樓 *huá chóng lóu*)

ENGLISH *paris* rhizome

JAPANESE *jyurō, sōkyu*

KOREAN *jungru, johyu*

TEXT IN WHICH FIRST APPEARED

*Divine Husbandman's Classic of the Materia Medica*

PROPERTIES bitter, slightly cold, slightly toxic

CHANNEL ENTERED Liver

KEY CHARACTERISTICS rather strongly clears heat and resolves toxicity, while reducing swellings and stopping pain; extinguishes wind and settles tremors

DOSAGE 3-9g

CAUTIONS & CONTRAINDICATIONS Use with caution in deficient or pregnant patients. See Toxicity below.

## Actions & Indications

- Clears heat, resolves toxicity, reduces swellings, and stops pain: for toxic abscesses and sores, snakebite, bleeding due to trauma, and pain from stasis and swelling. Can be used externally for these problems by itself, or made into a paste with vinegar.

— With *Lonicerae Flos* (*jīn yín huā*) and *Coptidis Rhizoma* (*huáng lián*) for toxic swellings such as breast abscesses or throat painful obstruction.

— With *Hedyotis diffusae Herba* (*bái huā shé shé cǎo*) and *Scutellariae barbatae Herba* (*bàn zhī lián*) for snakebite.

- Extinguishes wind and settles tremors: for wind due to

# 重樓 (重楼)

*chóng lóu*

Liver heat such as childhood convulsions and seizures.

— With *Uncariae Ramulus cum Uncis* (*gōu téng*) and *Cicadae Periostracum* (*chán tuì*) for problems due to wind generated by Liver heat such as childhood convulsions, tremors, or seizures.

### Commentary

Bitter and cold, *Paridis Rhizoma* (*chóng lóu*) enters the blood level of the Liver channel, strongly cools heat and resolves toxicity, resolves heat from constraint, and directs qi downward. It is best at treating sores and reducing boils. It is also good for swollen sore throat, snakebite, and high fever with childhood convulsions, and many kinds of cancers.

*Rectification of the Meaning of Materia Medica* notes that it is

bitter-draining and can resolve toxicity; Li Shi-Zhen says that it is an herb of the leg terminal yin channel, which therefore can cool and resolve heat from constraint in the Liver and Gallbladder, extinguish wind, and direct rebellious qi downward. It can also reduce swellings, dissolve phlegm, promote water metabolism, and expel dampness. When the *Divine Husbandman* says that it treats fright seizures, wagging of the head, and moving of the tongue, all of these are Liver yang wreaking havoc, and symptoms of wood fire generating wind.

Zhang Shan-Lei, the book's author, proceeds to explain that the effects of this herb on seizures and convulsions is a result of its ability to drain heat, and that the seizures must be due to heat:

The ability of *Paridis Rhizoma* (*chóng lóu*) to treat these symptoms is based directly on its bitter, cold, draining, and downward-directing [actions], so that it can extinguish wind yang and clear fire qi. Thereafter, the qi and blood no longer gush upward, the channels of the brain are not disturbed, and all withdrawal disorders, seizures, head wagging, and tongue moving cease.

*Encountering the Sources of the Classic of Materia Medica* confirms this view:

The primary indications in the *Divine Husbandman* are fright seizures, wagging the head and moving the tongue, and hot qi within the abdomen. To clarify, *Paridis Rhizoma* (*chóng lóu*) is a leg terminal yin medicinal which can treat fright seizures, malarial disorders, scrofula, and swollen sores. Detailing the *Divine Husbandman* indications, all involve opening clumps and guiding out heat, so that the heat pathogen which causes each indication is naturally expelled. It should not be used for yang qi deficiency, but is effective for swollen sores and snake venom when mixed with vinegar and applied externally.

An interesting note from Jiao Shu-De, a modern physician skilled in its application, informs several aspects of its use:

The ability of this herb to resolve toxicity and expel toxicity is greater than that of such herbs as *Taraxaci Herba* (*pú gōng yīng*), *Violae Herba* (*zǐ huā dì dīng*), or *Lonicerae Flos* (*jīn yīn huā*), and therefore whenever there is a highly toxic disease, I often use it to resolve toxicity and protect the Heart [i.e., prevent the toxic qi from invading the interior]. Its dose is usually 6-9g; when greater than this patients may have such side effects as nausea or vomiting, but in general these are not signs of danger. According to ancient experience, patients with internal toxicity easily become nauseous and vomit, but after vomiting the internal toxicity has been resolved. Of course, the individual situation of each patient must be determined.

Recently, the ability of this herb to stop bleeding has been used in treating such problems as functional uterine bleeding.

### Comparisons

➤ Vs. *TARAXACI HERBA* (*pú gōng yīng*)

Both herbs cool heat, resolve toxicity, reduce swelling, and alleviate pain. Separately, *Taraxaci Herba* (*pú gōng yīng*) also promotes urination, unblocks painful urinary dribbling, and treats jaundice. *Paridis Rhizoma* (*chóng lóu*), by contrast, settles fright while cooling the Liver, and can thus also be used in treating childhood convulsions. It is also ideal for resolving snakebite toxin.

### Traditional Contraindications

Cold and cooling medicinals such as this are only appropriate for yang-natured painful, red, swollen sores; it is strictly forbidden for the stubborn hard lumps characteristic of yin-natured sores. So it cannot be said that it treats all external disorders without exception! (*Rectification of the Meaning of Materia Medica*)

### Toxicity

Slightly toxic, within the normal dosage range no severe side effects are to be expected. In high doses (60-90g) the following toxic reactions have been reported 1-3 hours after application: nausea, vomiting, diarrhea, dizziness, headache, facial pallor, blurred vision; in severe cases, spasms, dyspnea, heart arrhythmia, and cynosis.

Allergic reactions, following contact with the powdered herb, have also been reported: irritation of the nose and conjunctiva, numbness, and facial edema.

### Nomenclature & Preparation

Literal English translation: "layered stories"

This is the rhizome of two medicinally equivalent species: *Paris yunnanensis*, which is called layered-stories (重樓 *chóng lóu*), and *Paris chinensis*, which is called seven leaves one flower (七葉一枝花 *qī yè yī zhī huā*).

The original name given this herb in the *Divine Husbandman's Classic of the Materia* was flea relief (蚤休 *zǎo xiū*), or gold filigree layered-stories (金線重樓 *jīn xiàn chóng lóu*). It is also known as grass purple river vehicle (草紫河車 *cǎo zǐ hé chē*).

### Quality Criteria

Good quality consists of thick, solid, and heavy roots with a white, powdery cross section.

### Major known chemical constituents

• *Paris polyphylla* var. *chinensis*:

Steroid saponins: diosgenin-3-O- $\alpha$ -L-arabinofuranosyl (1->4)-[ $\alpha$ -L-rhamnopyranosyl(1->2)]- $\beta$ -D-glucopyranoside, diosgenin-3-O- $\alpha$ -L-arabinofuranosyl (1->2)- $\beta$ -D-glucopyranoside, diosgenin-3-O- $\alpha$ -L-rhamnopyranosyl(1->4)- $\alpha$ -L-rhamnopyranosyl(1->4)-[ $\alpha$ -L-rhamnopyranosyl(1->2)]- $\beta$ -D-glucopyranoside, pariphyllin A, B, C, dioscin, pennogenin-3-O- $\alpha$ -L-rhamnopyranosyl(1->4)-[ $\alpha$ -L-rhamnopyranosyl(1->2)]- $\beta$ -D-glucopyranoside

• *Paris polyphylla* var. *yunnanensis*:

Steroid saponins: diosgenin-3-O- $\alpha$ -L-rhamnopyranosyl(1->2)-[ $\alpha$ -L-arabinofuranosyl (1->4)]- $\beta$ -D-glucopyranoside, diosgenin-3-O- $\alpha$ -L-rhamnopyranosyl(1->4)- $\alpha$ -L-rhamnopyranosyl(1->4)-[ $\alpha$ -L-rhamnopyranosyl(1->2)]- $\beta$ -D-glucopyranoside, dioscin, pennogenin-3-O- $\alpha$ -L-rhamnopyranosyl(1->4)-[ $\alpha$ -L-rhamnopyranosyl(1->2)]- $\beta$ -D-glucopyranoside, pennogenin-3-O- $\alpha$ -L-rhamnopyranosyl(1->2)]- $\beta$ -D-glucopyranoside.

Other constituents: ecdysone,  $\beta$ -sitosterol, daucosterol

### Alternate species & local variants

*Paris polyphylla* (七葉一枝花 *qī yè yī zhī huā*) - Sichuan, Yunnan, Guizhou

*Paris polyphylla* var. *stenophylla* (狹葉重樓 *xiá yè chóng lóu*) - Shaanxi, Gansu, Jiangsu, Anhui, Zhejiang, Hubei, Hunan, Fujian

*Paris polyphylla* var. *pseudothibetica* (長藥隔重樓 *cháng yào gé chóng lóu*), *Paris delavayi* (金線重樓 *jīn xiàn chóng lóu*) - Hubei, Guizhou, Sichuan, Yunnan

*Paris conguistii* (凌雲重樓 *líng yún chóng lóu*) - Yunnan, Sichuan, Guangxi, Guizhou

*Paris dunniana* (海南重樓 *hǎi nán chóng lóu*) - Hainan

*Paris vietnamensis* (南重樓 *nán chóng lóu*) - S China

### Adulterants

*Rohdea japonica* (萬年青 *wàn nián qīng*): This has long, cylindrical, and slightly curved roots, 5-15cm long, and 1-2cm in diameter. It has a yellowish white surface, with small, yellow dots on cross section, and a bitter and acrid taste. By contrast, the standard herb consists of conical roots, 1.3-3cm in diameter, 3-10cm long, with a yellow or yellowish brown surface, white or horny on cross section, and a bitter, astringent taste.

*Polygonum bistorta* (拳參 *quán shēn*), Polygonaceae: These are cylindrical or depressed cylindrical roots, frequently bent and curved in shape, with a purplish brown or purplish black surface. They are reddish brown on cross section, with 30-50 white spots arranged in a circle, and have a bitter, astringent taste. See next entry and photo on page 1146.

### Alternate names

白河車 *bái hé chē* - Zhejiang  
草河車 *cǎo hé chē*  
重樓 *chóng lóu*

燈台七 *dēng tái qī* - Shaanxi, Gansu  
獨腳蓮 *dú jiǎo lián* - Guangdong, Guangxi  
海螺 *hǎi luó* - Shaanxi  
金盤托荔枝 *jīn pán tuō lì zhī*  
九道箍 *jiǔ dào gū* - Sichuan.  
兩把傘 *liǎng bǎ sǎn* - Yunnan  
七葉蓮 *qī yè lián* - Guangdong, Guangxi, Fujian  
七葉一枝花 *qī yè yī zhī huā*  
鐵燈台 *tiě dēng tái* - Guangdong  
枝花頭 *zhī huā tóu*  
枝頭花 *zhī tóu huā* - Guangxi

### Additional product information

*Paris polyphylla* var. *chinensis* (華重樓 *huá chóng lóu*) is said to be of better quality than *Paris polyphylla* var. *yunnanensis* (雲南重樓 *yún nán chóng lóu*, 滇重樓 *diān chóng lóu*).



## 拳參 (拳參)

### quán shēn

PHARMACEUTICAL NAME Bistortae Rhizoma

FAMILY Polygonaceae

### STANDARD SPECIES

*Polygonum bistorta* L. (拳參 *quán shēn*)

ENGLISH bistort rhizome

JAPANESE *kenjin*

KOREAN *kwonsam*

### TEXT IN WHICH FIRST APPEARED

*Divine Husbandman's Classic of the Materia Medica*

PROPERTIES bitter, astringent, cool

CHANNELS ENTERED Liver, Stomach, Large Intestine

KEY CHARACTERISTICS clears heat, removes dampness, stops bleeding

DOSAGE 4.5-12g

CAUTIONS & CONTRAINDICATIONS Contraindicated in

those lacking fire from excess or with yin-type sores. See Toxicity below.

## Actions & Indications

- Clears heat, resolves toxicity, reduces abscesses, and disperses clumps: for swellings, abscesses, scrofula, and hemorrhoids as well as febrile seizures. Also used for snakebite. Often used topically either as a wash or as a paste.

— With *Chrysanthemi indici Flos* (yě jú huā) and *Lonicerae Flos* (jīn yín huā) for abscesses and sores.

— With *Uncariae Ramulus cum Uncis* (gōu téng), *Scorpio* (quán xiē), and *Bombyx batryticatus* (bái jiāng cán) for febrile seizures.

- Cools the blood and stops bleeding: for heat leading to vomiting of blood, nosebleeds, bleeding hemorrhoids, or red dysenteric disorder.

— With *Coptidis Rhizoma* (huáng lián), *Fraxini Cortex* (qín pí), and *Pulsatillae Radix* (bái tóu wēng) for red dysenteric disorder.

## Commentary

Bitter, cooling, and slightly toxic, *Bistortae Rhizoma* (quán shēn) enters the Liver, Stomach, and Large Intestine channels to clear internal heat, restrain fright, facilitate the removal of dampness, reduce swelling, and stop bleeding. It is used in the treatment of febrile convulsions, muscular tetany, damp-heat dysenteric disorders with or without bleeding, sores and rashes, and can be applied externally for toxic swellings, scrofula, hemorrhoids, snakebite, and other sores.

## Comparisons

➤ Vs. *PARIDIS RHIZOMA* (chóng lóu)

The modern physician and author Zhu Liang-Chun says of these two herbs:

Although of similar nature and flavor, and despite the fact that both of them clear heat and resolve toxicity, they are different: *Bistortae Rhizoma* (quán shēn) more specifically treats dysenteric disorder and enteritis due to internal heat, while *Paridis Rhizoma* (chóng lóu) [called here by its alternate name of seven leaves one flower' (七葉一隻花 qī yè yī zhī huā)] is better at clearing the Lungs and draining heat to treat sores, boils, and furuncles. Hence, because of this difference, it is to be hoped that they are understood and used properly.

## Toxicity

Mild side effects have been reported, including abdominal pain and diarrhea, probably due to irritation of the intestinal mucosa.

## Nomenclature & Preparation

Literal English translation: "fist root"

There is some confusion in the marketplace between this herb and *Paridis Rhizoma* (chóng lóu). Both are also known as herbal river vehicle (草河車 cǎo hé chē), and while *Paridis Rhizoma* is frequently called flea relief (蚤休 zǎo xiū), *Bistortae Rhizoma* (quán shēn) is also known as red flea relief (紅蚤休 hóng zǎo xiū). To avoid confusion, the name 蚤休 zǎo xiū is no longer recommended when prescribing *Paridis Rhizoma* (chóng lóu).

## Quality Criteria

Good quality consists of large and thick, solid, and hard rhizomes with a purplish black surface and a reddish brown surface on cross section. The fine lateral roots should be removed.

## Major known chemical constituents

Phenolic compounds, tannins: gallic acid, ellagic acid, caffeic acid, protocatechuic acid, chlorogenic acid, catechol, epicatechol, 6-galloyl glucose, 3,6-digalloyl glucose

Flavonoids: hyperin

## Alternate species & local variants

*Polygonum viviparum* L. (珠芽蓼 zhū yá liǎo) - NE, NW China

*Polygonum manshuriense* (石生蓼 shí shēng liǎo) - NE China

*Polygonum paleaceum* (草血竭 cǎo xuè jié) - Yunnan, Guizhou

## Adulterants

Due to the use of the alternate name 重樓 chóng lóu in Jiangsu, this herb is often used as an adulterant of *Paridis Rhizoma* (see previous entry).

## Alternate names

草河車 cǎo hé chē

重樓 chóng lóu - Jiangsu

山蝦 shān xiā

紫參 zǐ shēn

## 穿心蓮 (穿心莲)

### chuān xīn lián

PHARMACEUTICAL NAME Andrographis Herba

FAMILY Acanthaceae

### STANDARD SPECIES

*Andrographis paniculata* (BURM. F.) NEES  
(穿心蓮 chuān xīn lián)

ENGLISH andrographis, green chiretta, kariyat

JAPANESE senshinren

KOREAN cheonsimyeon

### TEXT IN WHICH FIRST APPEARED

*Records of Picking Herbs in Guangdong*

PROPERTIES bitter, cold

CHANNELS ENTERED Large Intestine,

Lung, Small Intestine, Stomach



## 薏苡仁

yì yǐ rén

PHARMACEUTICAL NAME Coicis Semen

FAMILY Gramineae

STANDARD SPECIES

*Coix lacryma-jobi* L. var. *ma-yuen* (ROMAN.) STAFF

(薏苡 yì yǐ)

ENGLISH coix seeds, Job's tears

JAPANESE *yokuinin*

KOREAN *uiiin*

TEXT IN WHICH FIRST APPEARED

*Divine Husbandman's Classic of the Materia Medica*

PROPERTIES sweet, bland, slightly cold

CHANNELS ENTERED Lungs, Spleen, Stomach, Kidney

KEY CHARACTERISTICS tonifies the Spleen and augments the Lungs; leaches out dampness from the bones, sinews, and muscles to treat painful obstruction disorder; cools heat and expels pus to treat sores and abscesses

DOSAGE 9-30g

CAUTIONS AND CONTRAINDICATIONS none noted

### Actions & Indications

- Facilitates the resolution of dampness and strengthens the Spleen: for edema, diarrhea, leg qi, painful urinary dribbling, and damp-warmth. It treats both the root and manifestations of these disorders.

— With *Chaenomelis Fructus* (*mù guā*) for painful heavy legs, and for summerheat-dampness.

— With *Benincasae Exocarpium* (*dōng guā pí*) for scanty urine and edema due to obstruction by dampness.

... Add *Phaseoli Semen* (*chì xiǎo dòu*), *Talcum* (*huá shí*), and *Akebiae Caulis* (*mù tōng*) for fever with scanty, dark urine due to dampness obstructing the channels.

— With *Poria* (*fú líng*) and *Atractylodis macrocephalae Rhizoma* (*bái zhú*) for diarrhea due to Spleen deficiency, as in Ginseng, Poria, and White Atractylodes Powder (*shēn líng bái zhú sǎn*).

- Facilitates the resolution of dampness and eliminates painful obstruction: for wind-damp painful obstruction. Especially effective for increasing joint mobility and reducing spasms in chronic cases.

— Powdered and cooked with rice congee as a daily food for those with damp-predominant painful obstruction marked by swelling and hypertonicity.

— With *Ephedrae Herba* (*má huáng*), *Armeniacae Semen* (*xìng rén*), and *Glycyrrhizae Radix* (*gān cǎo*) for wind-dampness induced generalized body aches.

- Clears heat and expels pus: for soft, pustulated carbuncles as well as Lung or Intestinal abscess.

— With *Phragmitis Rhizoma* (*lú gēn*), *Benincasae Semen* (*dōng guā zǐ*), and *Persicae Semen* (*táo rén*) for Lung abscess, as in Reed Decoction (*wéi jīng tāng*).

— With *Patriniae Herba* (*bài jiàng cǎo*) and *Moutan Cortex* (*mǔ dān pí*) for Intestinal abscess.

— With *Trichosanthis Semen* (*guā lóu rén*) and *Persicae Semen* (*táo rén*) for early-stage Intestinal abscess due to dampness and blood stasis.

- Clears damp-heat: for any damp-heat disorder at any level characterized by a greasy tongue coating and digestive problems.

— With *Armeniacae Semen* (*xìng rén*) and *Amomi Fructus rotundus* (*bái dòu kòu*) for early stage damp-warmth when dampness predominates, as in Three-Nut Decoction (*sān rén tāng*).

— With *Atractylodis Rhizoma* (*cāng zhú*), *Phellodendri Cortex* (*huáng bǎi*), and *Achyranthis bidentatae Radix* (*niú xī*) for downward pouring of damp-heat leading to atrophy and weakness of the lower extremities, as in Four-Marvel Pill (*sì miào wán*).

### Commentary

Sweet, bland, and slightly cold, with a nature that drains and directs downward, Coicis Semen (*yì yǐ rén*) enters the Lung, Spleen, Stomach, and Kidney channels. The Spleen is averse to dampness and prefers dryness; excessive dampness encumbers the Spleen and impairs its transportive and transformative functions. The bland flavor of Coicis Semen (*yì yǐ rén*) leaches out dampness, and its sweetness augments the Spleen; thus, it both eliminates dampness and strengthens the Spleen. It is primarily used for symptoms

associated with an overabundance of dampness coupled with a weak Spleen. This would include diarrhea, loss of appetite, edema, abdominal distention, leg qi edema, vaginal discharge, and urinary difficulty.

The Spleen governs the flesh and Coicis Semen (*yì yǐ rén*) is especially valued for its ability to eliminate pathogenic dampness from the flesh, muscles, sinews, and bones. It is commonly used to treat wind-damp painful obstruction and spasms of the sinews, especially if associated with heat. Because the Spleen is the source of generative transformation, if the Spleen and Stomach are strong, the Lung qi will be sufficient. Coicis Semen (*yì yǐ rén*) enters the Lung channel where it augments the Lungs, clears heat, and expels pus. It is thus useful in the treatment of Lung abscess, Lung atrophy, and Intestinal abscess.

The *Grand Materia Medica* observes that this is

a yang brightness herb, strengthening the Spleen and augmenting the Stomach. For deficiency, tonify the mother, so it is used for Lung atrophy and Lung abscess. Disorders of the sinews and bones are addressed at the root by treating yang brightness, and thus it is used for cramps, spasms, and wind painful obstruction. Earth generates water and eliminates dampness, thus it is used for diarrhea, dysenteric disorders, and edema.

*Description of the Materia Medica* notes that it

expels dampness, but is not as drying as either type of atractylodes; it clears heat, but does not injure the yin like Scutellariae Radix (*huáng qín*) or Coptidis Rhizoma (*huáng lián*); it augments the qi, but does not increase damp-heat like Ginseng Radix (*rén shēn*) or Atractylodis macrocephalae Rhizoma (*bái zhú*)—it is truly a notable herb for augmenting the middle qi!

Taken together, its harmonious nature allows it to tonify without being cloying, and to leach out dampness without harming the yin. It can be used whenever dampness results from Spleen deficiency, or when the fluid pathways are not flowing smoothly. However, in *Convenient Reader of Materia Medica*, Zhang Bing-Cheng notes that

while it strengthens the Spleen and augments the Stomach, its tonification is not as powerful as that of Dioscoreae Rhizoma (*shān yào*); cooling heat and facilitating the removal of pathogenic dampness—these are its strong points.

### Mechanisms of Selected Combinations

#### ➤ WITH CHAENOMELIS FRUCTUS (*mù guā*)

Sweet, bland, and slightly cold, Coicis Semen (*yì yǐ rén*) strengthens the Spleen, facilitates the removal of pathogenic dampness, soothes the sinews, and expels painful obstruction. Chaenomelis Fructus (*mù guā*) is sour and warm, facilitates the removal of pathogenic dampness, regulates the Spleen, soothes the sinews, and invigorates

the collaterals. It is primarily used to treat the vomiting and diarrhea of sudden turmoil disorder, cramping, and leg qi due to pathogenic dampness.

Because one herb is warm and the other is slightly cold, when combined they can be used in treating either hot or cold disorders. This combination is often used for summerheat-dampness leading to vomiting, diarrhea, abdominal pain and cramping, or for leg pain with heavy, numb sensations and softened sinews due to pathogenic dampness blocking the channels and collaterals, as well as leg qi edema and damp painful obstruction.

#### ➤ WITH BENINCASAE SEMEN (*dōng guā zǐ*); see page 296

### Comparisons

#### ➤ Vs. PORIA (*fú líng*)

Both herbs are of a similar nature, strengthening the Spleen and facilitating the removal of dampness. They are often used together in the treatment of Spleen deficiency with overabundant dampness or edema. However, Coicis Semen (*yì yǐ rén*) is cold and can clear heat, so that it is often used for abscess of the Lung or Intestines, and Lung atrophy; it also removes dampness at the level of the bones, muscles, and sinews. By contrast, Poria (*fú líng*) is neutral; it augments the Heart and Spleen, and calms the spirit.

#### ➤ Vs. BENINCASAE SEMEN (*dōng guā zǐ*); see page 296

### Traditional Contraindications

“Its nature is that of descending autumn, so it is inappropriate for deficiency with sinking tendencies. Long-term consumption during pregnancy can lead to miscarriage.” (*Detailed Materia Medica*)

### Nomenclature & Preparation

In its unprepared form, it is better for promoting urination to eliminate dampness, clear heat, and expel pus. It is thus most effective for edema, dampness, wind-damp painful obstruction, or abscesses.

#### ➤ DRY-FRIED COIX (炒薏苡仁 *chǎo yì yǐ rén*)

Cleaned Coicis Semen (*yì yǐ rén*) are dry-fried or baked at a moderate temperature, sometimes with bran, until they are slightly yellow, then they are cooled. If dry-fried until brown burned spots appear, it is called scorched coix (焦薏苡仁 *jiāo yì yǐ rén*). Dry-frying reduces its cold nature, improving its ability to strengthen the Spleen and harmonize the middle. When bran is added in the processing, it enhances the tonification of the middle burner; this allows it to stop diarrhea while still facilitating the removal of dampness. Scorched coix reduces food stagnation and harmonizes the Stomach.

## ➤ RAW AND COOKED COIX

(生熟薏苡仁 *shēng shú yì yǐ rén*)

This is a term used in prescriptions to indicate that both unprepared and prepared coix are to be dispensed. This is often prescribed for diarrhea due to Spleen deficiency with overabundant dampness. It ensures that, while the Spleen is sufficiently augmented, pathogenic dampness will also be adequately leached out.

➤ COIX ROOT (薏苡根 *yì yǐ gēn*) –

PHARMACEUTICAL NAME: COICIS RADIX

The root is bitter, sweet, and cold. It clears heat and facilitates the resolution of dampness and is used for damp-heat painful urinary dribbling, painful bloody urinary dribbling, edema, and Lung abscess. It also expels parasites. The customary dosage is 10-15g. As noted in *Omissions from the [Classic of the] Materia Medica*, it should not be used during pregnancy: “Boiled and consumed, it aborts the fetus.”

**Quality Criteria**

Good quality consists of big, full, white grains.

**Major known chemical constituents**

Fatty acids and esters: palmitic acid, ethylpalmitate, stearic acid, cis-8-octadecenoic acid, myristic acid, oleic acid, linoleic acid, methyl linoleate

Volatile oil: hexanal, hexanoic acid, 2-ethyl-3-hydroxyhexylbutyrate,  $\gamma$ -nonalactone, nonanoic acid, octanoic acid

Polysaccharides: coixan A, B, C, polysaccharides CA-1, CA-2

Triterpenes: cis-feroylstigmasterol, trans-feroylstigmasterol, cis-feroylcampestenol, trans-feroylcampestenol,  $\beta$ -sitosterol

Other constituents: coixol, coixenolide, 4-ketopinonesinol, amino acids, proteins,  $\alpha$ -monoolein, erythro-/ threo-C-syringylglycerol, alkaloids

**Alternate species & local variants**

*Coix lachryma-jobi* (草珠子 *cǎo zhū zǐ*)

**Adulterants**

*Sorghum vulgare* (高粱 *gāo liáng*): Almost globular in shape, these are 4mm in diameter, with no deep longitudinal channel, but with a hollow, ventral, yellowish brown scar, about 2mm in length.

*Hordeum vulgare* (大麥 *dà mài*): These have an elongated, elliptical shape. They are 3-6mm long, and 3mm wide, with a narrow, pale brown, longitudinal channel.

**Alternate names**

草珠子 *cǎo zhū zǐ*

川谷 *chuān gǔ*

六谷 *liù gǔ*

米仁 *mǐ rén*

尿當珠 *niào dāng zhū* - Sichuan

菩提子 *pú tí zǐ*

水玉米 *shuǐ yù mǐ*

苡米 *yǐ mǐ*

**Additional product information**

The best quality comes from Fujian and Hebei provinces.

**車前子 (车前子)***chē qián zǐ*

PHARMACEUTICAL NAME Plantaginis Semen

FAMILY Plantaginaceae

STANDARD SPECIES

*Plantago asiatica* L. (車前 *chē qián*)*Plantago depressa* WILLD. (平車前 *píng chē qián*)

ENGLISH plantago seeds

JAPANESE *shazenshi*KOREAN *chajeonja*

TEXT IN WHICH FIRST APPEARED

*Divine Husbandman's Classic of the Materia Medica*

PROPERTIES sweet, cold

CHANNELS ENTERED Bladder, Kidney, Liver, Lung

KEY CHARACTERISTICS facilitates urination, separates the clear and turbid fluids, guides damp-heat downward and out of the body through the urine

DOSAGE 9-15g. Because these seeds are very small, to prevent them from making the decoction overly gelatinous, or leaking into the strained decoction, they should be kept separate in a cloth bag, which is then decocted with the other herbs.

CAUTIONS AND CONTRAINDICATIONS Use with caution during pregnancy or in those with loss of essence due to Kidney deficiency, unless combined with complementary herbs that secure the Kidneys. See TOXICITY below.

**Actions & Indications**

- Promotes urination and clears damp-heat: for any type of edema or painful urinary dribbling due to damp-heat. Generally used for damp-heat pouring into the lower burner.

## ACTIONS

## INDICATIONS

**3 HERBS THAT TONIFY THE YANG****Cervi Cornu pantotrichum (lù róng) ... 764**

Tonifies the Kidneys, fortifies the yang	Kidney yang deficiency with fatigue, impotence, cold extremities, tinnitus, sore lumbar and knees, frequent and copious urination
Tonifies the Governing vessel, augments the essence and blood, strengthens the sinews and bones	Physical or mental development disorders with deficient essence and blood
Regulates the Penetrating and Conception vessels, stabilizes the Girdle vessel	Cold from deficiency in the uterus leading to infertility, watery vaginal discharge, or uterine bleeding
Nourishes the qi and blood	Chronic ulcers or yin-type boils

**Gecko (gé jiè) ... 768**

Fortifies the Kidney yang, tonifies the Lungs	Kidneys unable to grasp qi; consumptive cough or cough with blood-streaked sputum
Assists the Kidney yang, augments the essence and blood	Impotence, daybreak diarrhea, or urinary frequency from Kidney yang deficiency

**Cordyceps (dōng chóng xià cǎo) ... 770**

Gently tonifies the Kidney yang, augments the essence	Impotence, sore and weak lower back and legs due to Kidney yang deficiency
Tonifies the Lung yin, settles coughs and wheezing, stops sweating and bleeding	Chronic cough, or consumptive cough with blood-streaked sputum; wheezing from deficiency

**Cistanches Herba (ròu cōng róng) ... 773**

Tonifies the Kidney yang, enriches the essence and blood, warms the Womb	Impotence, urinary incontinence, post-urinary dripping, cold pain in the lower back and knees; infertility
Moistens the Intestines	Constipation due to fluid deficiency

**Cynomorii Herba (suǒ yǎng) ... 775**

Warms the Kidney yang, nourishes the Liver blood and Kidney essence, strengthens the sinews to treat atrophy	Impotence, urinary frequency and spermatorrhea; weak sinews, motor impairment, or paralysis resulting from deficient essence and blood
Moistens the Intestines	Constipation from qi or blood deficiency

**Epimedii Herba (yín yǎng huò) ... 776**

Tonifies the gate of vitality fire and Kidney yang	Kidney yang deficiency causing impotence, infertility, urinary frequency, forgetfulness, and painful, cold lower back and knees
Disperses wind-cold-dampness	Wind-cold-damp painful obstruction with spasms or cramps in hands and feet, joint pain, or numbness in extremities

**Morindae officinalis Radix (bā jǐ tiān) ... 778**

Tonifies the Kidney yang without overly drying, augments the essence	Lumbar pain and weakness, impotence, infertility, premature ejaculation, and urinary frequency due to yang deficiency
Disperses wind-dampness, strengthens the sinews and bones	Cold-damp painful obstruction and leg qi pain; atrophy of sinews and bones

**Trigonellae Semen (hú lú bā) ... 781**

Fortifies the Kidney yang, drives out lower burner cold qi	Kidney yang deficiency patterns with accumulation of cold or stagnant qi; cold-damp leg qi; pain due to cold-type bulging disorder
--	--

## ACTIONS

## INDICATIONS

**Juglandis Semen** (*hé táo rén*) ... 782

Tonifies the Kidneys, strengthen the lower back	Kidney yang deficiency pattern with cold and painful back and knees, and urinary frequency
Warms the Lungs, aids the Kidneys to grasp qi	Chronic cough and wheezing from Lung deficiency
Moistens the Intestines, unblocks the bowels	Constipation due to injured fluids following a febrile disease, or in the elderly

**Psoraleae Fructus** (*bǔ gǔ zhī*) ... 784

Warmly tonifies the Kidney and Spleen yang	Kidney yang deficiency; diarrhea due to cold from deficiency of the Spleen
Stabilizes the essence and secures the urine	Enuresis, incontinence of urine, urinary frequency, or premature ejaculation
Aids the Kidneys to grasp qi	Wheezing when the Kidneys fail to grasp the Lung qi

**Alpiniae oxyphyllae Fructus** (*yì zhì rén*) ... 787

Warms the Kidney yang, retains the essence, secures the urine	Frequent, copious urination, spermatorrhea and urinary dribbling, or incontinence due to Kidney yang deficiency
Warms the Spleen yang, stops diarrhea, holds in saliva	Cold from deficiency of the Spleen or Stomach with diarrhea, abdominal pain, or excess salivation

**Curculiginis Rhizoma** (*xiān máo*) ... 788

Harshly warms the fire at the gate of vitality and the Kidney yang	Kidney yang deficiency; infertility due to cold Womb or cold essence
Expels cold-dampness	Stubborn cold-damp painful obstruction

**Eucommiae Cortex** (*dù zhòng*) ... 790

Tonifies the Liver and Kidneys, strengthens the sinews and bones	Liver and Kidney deficiency with weak, sore lower back and knees, fatigue, urinary frequency
Quiets the fetus	Kidney yang deficiency patterns with bleeding during pregnancy; threatened miscarriage with significant back pain or underlying deficiency
Calms rising Liver yang	Dizziness due to rising Liver yang

**Cibotii Rhizoma** (*gǒu jǐ*) ... 793

Tonifies the Kidneys and Liver, strengthens the bones and sinews	Stiffness, soreness, or weakness of lower back, spine, and legs
Expels wind and dampness	Wind-damp painful obstruction; swelling of legs following illness
Warms and stabilizes the Kidneys	Urinary incontinence; vaginal discharge

**Dipsaci Radix** (*xù duàn*) ... 795

Tonifies the Kidneys and Liver, strengthens the bones and sinews	Sore lower back and knees, stiff joints, weakness of legs
Stops uterine bleeding, calms the fetus	Restless fetus or bleeding during pregnancy; threatened miscarriage
Promotes the movement of blood, eases pain, reconnects sinews and bones	Trauma, esp. to back and limbs; painful obstruction

**Drynariae Rhizoma** (*gǔ suì bǔ*) ... 798

Tonifies the Kidneys, directs floating yang downward	Weak lower back and knees, tinnitus, diminished hearing, toothache, and bleeding gums from Kidney deficiency
Strengthens and repairs bones	Injuries such as falls, fractures, sprains, esp. with ligament or bone damage



牛膝 *niú xī*

LEFT: *Achyranthis bidentatae* Radix (牛膝 *niú xī* or 淮牛膝 *huái niú xī*) – standard herb

MIDDLE: *Cyathulae* Radix (川牛膝 *chuān niú xī*) – standard herb

RIGHT: *Strobilanthis nemorosi* Radix et Rhizoma (牛膝馬藍 *niú xī mǎ lán*) – adulterant for *Cyathulae* Radix

confusion of herbs called *shān cí gū*

LEFT: *Cremastrae* seu *Pleiones Pseudobulbus* (山慈姑 *shān cí gū*) – standard herb

RIGHT: *Asari sagittaroidis* Herba (山茨菇 *shān cí gū*, 土細辛 *tǔ xì xīn*) – erroneous usage because of Chinese character confusion

