

Introduction to Herbology

History and Properties

History of Herbology

- The ***Huang Di Nei Jing*** (~200 BCE) sets up the philosophical foundations for Chinese medicine. While it does discuss the use of tastes and properties, it does not include much information about herbs. Only 12 prescriptions and 28 substances are mentioned.
- The ***Shen Nong Ben Cao Jing*** (~100 CE) is the first text to focus on individual herbs. It contains 365 entries, including plants, minerals, and animal parts.
- In the sixth century, Daoist **Tao Hong-Jing** reconstructed the Shen Nong Ben Cao Jing. This text described 730 herbs, with additional information such as methods of preparation. He divided the herbs into three categories (upper, middle, lower).

History of Herbology

- In 1596, Li Shi-Zhen published the ***Ben Cao Gong Mu*** (*Grand Materia Medica*). It took him 27 years to compile and included 1,892 medicinal substances and 11,000 herbal formulas.
- In 1977, the Jiangsu College of New Medicine published the ***Zhong Yao Da Ci Dian*** (*Encyclopedia of Traditional Chinese Medicinal Substances*). It includes 5,767 entries.
- The ten-volume ***Zhong Hua Ben Cao*** (*Chinese Materia Medica*), published in 2002, contains almost 9,000 entries.
- Our textbook, *Chinese Herbal Medicine, Materia Medica* by Dan Bensky contains 480 principal entries.

Versus Western Herbology

- Chinese herbology emphasizes the combination of herbs into prescriptions or formulas.
- Rather than treating symptoms or diseases, Chinese herbs are prescribed to treat **patterns of disharmony**.
- Properties such as **taste, temperature, and entering channels** give us an idea of what types of patterns each herb can treat.

Temperature (the Four Qi)

“Hot diseases must be cooled; cold diseases must be warmed.”

- Huang Di Nei Jing, Chapter 74

热	rè	Hot
温	wēn	Warm
平	píng	Neutral
凉	liáng	Cool
寒	hán	Cold

Slightly Cold → same as *cool*, or slightly less cold than *cool*

Slightly Warm → less hot than *warm*

These designations are subjective, and may vary from text to text.

The Five Tastes/Flavors

Each herb is assigned one or more tastes (味 wèi). The taste of an herb partly determines its therapeutic action.

- **Sour** herbs induce astringency and prevent leakage.
- **Bitter** herbs clear heat and drain fire, and dry dampness.
- **Sweet** herbs tonify and moisten.
- **Acrid/Pungent** herbs disperse and move.
- **Salty** substances soften and purge.

The Five Flavors

Sour (酸 *saūn*) herbs induce astringency to prevent or stop the abnormal leakage of qi and fluids.

- induce astringency
 - stabilize and bind
 - stop leakage
- these all mean the same thing

Examples of leakage:

- cough
- sweating
- incontinence, frequent urination, bedwetting
- chronic diarrhea
- seminal emission, vaginal discharge

Example: Suan Zao Ren (*sour date seed*) is sour in flavor. It induces astringency to stop sweating, treating spontaneous sweating and night sweats.

⚠ Caution: Sour herbs are used in longstanding cases due to deficiency. If used in excess cases, they may trap the pathogen inside the body.

The Five Flavors

Bitter (苦 *kǔ*) herbs have two functions:

1. Clear heat and drain fire
2. Dry dampness

- Bitter herbs tend to have a downward direction - that is, they clear heat and drain fire downwards.
- Bitter and cold herbs treat conditions of damp-heat.
- Bitter and warm herbs treat conditions due to cold-damp.

Example: Ku Shen (*sohpora root*) is bitter in flavor. It treats thick, yellow, foul-smelling vaginal discharge due to damp-heat in the lower jiao.

⚠ Caution: Since bitter herbs are drying in nature, they should be used with caution in cases of yin deficiency.

The Five Flavors

Sweet (甘 *gān*) herbs tonify and moisten.

Example: Gan Cao (*licorice root*) is sweet in flavor. It tonifies Spleen qi to treat fatigue, shortness of breath, and loose stools.

⚠ Caution: Sweet herbs are often rich and cloying, so they may cause digestion problems or middle-jiao stagnation.

The Five Flavors

Acrid (辛 *xīn*) herbs move and disperse.

- Acrid herbs are used in cases of stagnation, such as qi stagnation, blood stagnation, or cold stagnation.
- Acrid herbs also disperse outwards to dispel pathogenic factors from the superficial levels of the body. So we can also say that acrid herbs also **promote sweating to release the exterior.**

Example: Xi Xin (*wild ginger*) is acrid in flavor. It releases the exterior and disperses cold from the channels to alleviate pain.

⚠ Caution: Acrid herbs are dispersing and drying. Therefore they should be used cautiously in cases of deficiency.

The Five Flavors

Salty (咸 xián) herbs soften hardness and purge accumulations.

- By tradition, substances that come from animals or insects are marked as being salty in flavor.

Example: Hai Zao (*seaweed*) is salty in flavor. It softens hard nodules and lumps such as goiter and scrofula.

Five Phase Correspondences

Each of the five flavor corresponds to one of the five phases:

Sour	Wood	Liver
Bitter	Fire	Heart
Sweet	Earth	Spleen
Acrid	Metal	Lung
Salty	Water	Kidney

Using these five-phase correspondences, we can say that each taste has an affinity for a certain organ or channel.

For example, herbs that are salty or have been processed with salt enter the Kidney and treat Kidney-related disorders.

Five Phase Correspondences

“

Qi Bo:

...

Now,
the five flavors enter the stomach, [whence]
each of them turns to its preferred [depot].

Hence
sour [flavor] first enters the liver;
bitter [flavor] first enters the heart;
sweet [flavor] first enters the spleen;
acid [flavor] first enters the lung;
salty [flavor] first enters the kidneys.

”

- Ling Shu, Chapter 74

Additional Properties

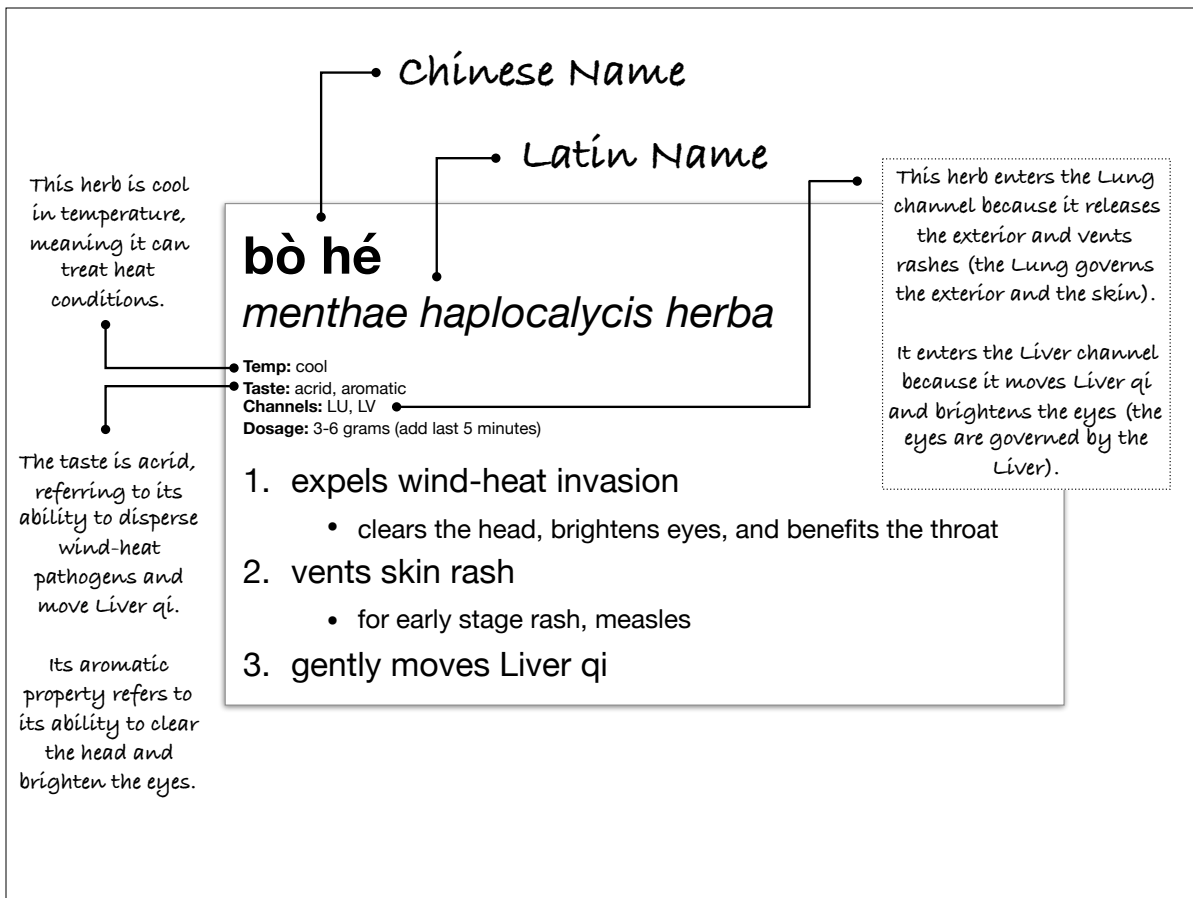
- **Bland** herbs promote urination to drain dampness.
- **Aromatic** herbs open the orifices, awaken the Spleen, and transform dampness.
- **Astringent** herbs stop leakage. They are similar to sour herbs, but they may not have a sour taste.

The Five Flavors

Wood (木 <i>mù</i>)	Sour (酸 <i>saūn</i>)	Astringes Prevents leakage of fluids or qi	Enters the Liver
Fire (火 <i>huǒ</i>)	Bitter (苦 <i>kǔ</i>)	Clears heat Dries dampness	Enters the Heart
Earth (土 <i>tǔ</i>)	Sweet (甘 <i>gān</i>)	Tonifies Moistens	Enters the Spleen
Metal (金 <i>jīn</i>)	Acrid (辛 <i>xīn</i>)	Disperses and moves	Enters the Lung
Water (水 <i>shuǐ</i>)	Salty (咸 <i>xián</i>)	Softens hardness Purges accumulation Animal parts	Enters the Kidney
	Bland (淡 <i>dàn</i>)	Promotes urination Leaches out dampness	
	Astringent (涩 <i>sè</i>)	Stops leakage	
	Aromatic (香 <i>xiāng</i>)	Revives Spleen Opens orifices	

Entering Channels

- Describes the main characteristics or actions of an herb in relation to the channels and organs.
- This concept was not present in the *Shen Nong Ben Cao Jing*. It was first presented by Zhang Yuan-Su during the Jin-Yuan dynasty.
- There is much disagreement between sources regarding herbs' entering channels.
- Some herbs are considered "Guiding Herbs" and can direct the action of a formula to a particular part of the body.
- For example, Jie Geng is a guiding herb to the Lung.



Direction

Some herbs have a directional quality - they may move **upward**, **downward**, **inward**, **outward**, or guide other herbs to a certain part of the body.

FOR EXAMPLE:

- Flowers have a light, ascending nature. They can treat symptoms in the head and face, such as headache and eye problems.
- Roots and minerals have a heavy, down-bearing energy. They can anchor ascendant yang.
- Disorders that move upwards (cough, nausea, vomiting) can be countered by herbs that move downwards.
- Disorders that move downward (diarrhea, rectal prolapse) can be countered by herbs that move upwards.
- An inward invasion (common cold) can be countered with herbs that disperse outward.

Cautions/Contraindications

- With hot syndromes, hot herbs should not be used.
- With cold syndromes, cold herbs should not be used.
- With exterior conditions, sour and astringent herbs should not be used.
- Cold herbs may damage the Spleen; they should not be used in cases of Spleen deficiency.
- Bitter or acrid herbs may be drying; they should not be used in cases of yin or blood deficiency.
- Certain herbs are contraindicated during pregnancy and/or breastfeeding. These herbs may be toxic, or they may have a strong downward action that could promote labor.

Toxicology

- Some herbs are marked “toxic” or “slightly toxic”
- This may mean the herb can cause certain uncomfortable side effects, or it may mean the herb is deadly in larger dosages
- The toxicity of an herb can be mitigated in several ways:
 - reduce the dosage
 - combine with other herbs to reduce the side effects
 - prepare the herb (e.g. stir-fry with ginger juice)
 - cook the herb longer than the rest of the decoction

Dosages

- 钱 *qián* - unit of measurement roughly equal to 3 grams
- normal dosage is 3-9 grams (or 1-3 qian)
 - heavier herbs → larger dosage
e.g. minerals such as Long Gu
 - lighter herbs → smaller dosage
e.g. Bo He (mint leaf)
 - toxic herbs → smaller dosage
e.g. Quan Xie (scorpion)

Doctrine of Signatures

皮 pí skin, peel, bark Enter the skin or the superficial layers of the body.

枝 zhī twig Enter the limbs.

藤 tèng vine Enter the channels and collaterals.

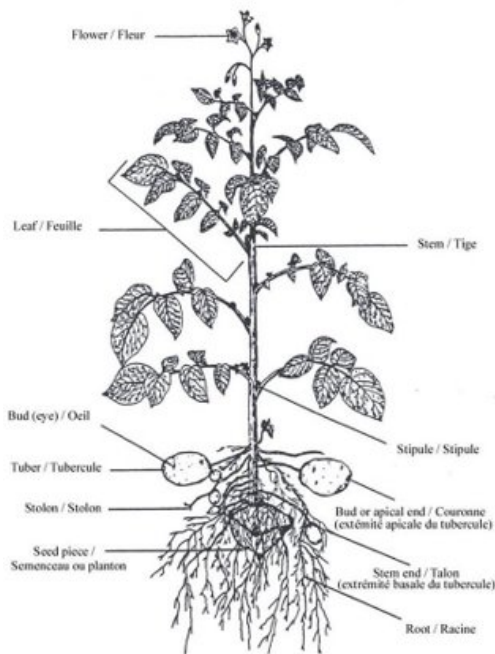
花 huā flower Are light and ascending.
Can guide other herbs to the upper body.

子 zǐ seed Heavy and descending.
May contain oils that are moistening and lubricating.

仁 rén seed, kernel Heavy and descending.
May contain oils that are moistening and lubricating.

石 shí stone Minerals tend to be heavy, sedating, and anchoring.

Botany and Latin Terms



- Radix - root
- Rhizome - horizontal underground stem with lateral offshoots
- Herba - leaf
- Folium - leaf
- Flos - flower
- Fructus - fruit
- Pericarpium - peel
- Semen - seed
- Cornu - horn
- Caulis - main part of stem or body of tree

Drug/Herb Interactions

- Use caution when the therapeutic effect of an herb matches the effect of a drug to avoid a synergistic or additive effect
 - Sympathomimetics
 - Anti-coagulants
 - Diuretics
- Use caution with prescription drugs with a narrow therapeutic index
 - Warfarin (coumadin)
 - Lithium
 - Tricyclic antidepressants

Common Chinese - Plant Parts

根	gēn	root	gé gēn (<i>peurariae radix</i>)
叶	yè	leaf	sāng yè (<i>mori folium</i>)
枝	zhī	twig	ghì zhī (<i>cinnamomi ramulus</i>)
子	zǐ	seed	juē míng zǐ (<i>cassiae semen</i>)
仁	rén	seed, kernel	suān zǎo rén (<i>zizyphi spinosae semen</i>)
花	huā	flower	jú huā (<i>chrysanthemi flos</i>)
皮	pí	skin, peel, bark	chén pí (<i>citri reticulatae pericarpium</i>)
草	cǎo	herb, grass	gān cǎo (<i>glycyrrhizae radix</i>)
藤	tèng	vine	gōu tèng (<i>uncariae ramulus cum uncis</i>)
石	shí	stone	shí gāo (<i>gypsum fibrosum</i>)
豆	dòu	bean	lù dòu (<i>phaseoli semen radiati</i>)

Common Chinese - Colors

青	qīng	green or blue	dà qīng yè (<i>isatidis folium</i>)
绿	lǜ	green	lù dòu (<i>phaseoli semen radiati</i>)
红	hóng	red	hóng huā (<i>carthami flos</i>)
赤	chì	bright red	chì shāo (<i>paeoniae radix rubra</i>)
黄	huáng	yellow	huáng qín (<i>scutellaria radix</i>)
白	bái	white	bái zhú (<i>atractylodis macrocephalae rhizoma</i>)
黑	hēi	black	hēi zhī má (<i>sesame semen nigrum</i>)
金	jīn	gold	yù jīn (<i>curcumae radix</i>)
紫	zǐ	purple	zǐ cǎo (<i>lithospermi radix</i>)