LESSON 6: Herbs that Transform Phlegm

The term 'phlegm' in TCM is much more than the pathological accumulation of thick fluid in the respiratory and digestive tract. Phlegm can also be found in the muscle, integument or other body tissue. The Lung and its meridian are considered the receptacle of phlegm and thus most herbs that transform phlegm act on this organ system. The Spleen is considered the organ that produces phlegm, thus some useful herbs can leech dampness out of and strengthen the Spleen. The Kidney and liver also play a role in the production of phlegm. When the kidneys are deficient it is unable to control the fluids, these fluids overflow and then cause phlegm. When the liver, which governs the smooth flow of qi in the body, is stagnant or constrained so is its ability to circulate the fluids around the body, giving rise to phlegm.

“Phlegm is the mother of 100 diseases” physician Wang Gui (of the Yuan dynasty). Phlegm in TCM is also considered the culprit in other diverse disorders such as: scrofula, goiter, seizure and convulsions, back pain, and skin problems. In the classics a disease to which there can be no explanation for is attributed to “phlegm”.

Phlegm may cause the following symptoms:

1. **Pulmonary phlegmatic symptoms**: with primary symptoms of shortness of breath, wheezing, intercostal pain in the chest (costalgia), frequent acute or chronic bronchitis, emphysema, pneumonia, hiccoughs, and pulmonary TB. The goal here is to unblock the lungs by reducing phlegm. These herbs should expel abnormal secretions, reduce inflammatory stimuli and have antitussive properties. Some famous herbs that do this are Bei mu, Xing ren, and Zi wan.

2. **Gastrointestinal Phlegm**: with primary symptoms of nausea, vomiting, loss of appetite, epigastric discomfort, sometimes with an accompanying cough. This can be: influenza's that have both digestive and respiratory symptoms, gastrointestinal neurosis, acute dyspepsia and chronic gastritis. Here we need to harmonize the Stomach and resolve phlegm using stomachics and anti-emetics. Common herbs used here are Ban xia and Xuan fu hua.

3. **Intradermomuscular phlegm**, often referred to as 'phlegmatic fire', is a combination of fire and phlegm. Examples are: goiter, cervical lymphatic edema, or inflammation. Softening the tissue and resolving phlegm resolve these issues. Here often iodine containing herbs are used such as
laminara and seaweed (both not in this lesson). Bei mu (*Fritillaria*) is also useful.

4. **Phlegmatic turbidity covering the heart cavity**: including symptoms of impaired consciousness, profuse drooling, tight locked teeth and firm gripping hands. These could be diseases such as epilepsy, other seizures, and apoplexy (stroke, or copious effusion of blood into an organ). This is caused by ‘wind phlegm’. Here we use sedative, expectorant, antispasmodics like *arisaema* (jack-in-the-pulpit) and Korean aconite (both not in this lesson).

Some botanicals that transform phlegm are expectorants that intensely stimulate the lungs. These herbs would be contraindicated with patients that have hemoptysis (blood in sputum). For coughs that accompany the first stage of measles, herbs that spread the Lung qi are of primary importance. If you try to stop a cough, especially those that are warming with binding properties, you can make the problem worse.

**Herbs that Cool and Transform Phlegm-heat**

These cold herbs are used to treat phlegm-heat and dry-phlegm. They will work on coughs; treat scrofula (TB in cervical lymph nodes), goiters, and convulsions due to phlegm-heat. We can consider these herbs expectorant, antitussive, anti-inflammatory and sedative in properties. We will be looking at the following botanical in this category:

- **Bei mu** - *Fritillaria cirrhosa*
- **Gua lou** - *Trichosanthus spp.*
- **Zhu li/ Zhu ru** - *Bambusa spp.*

**Warm Herbs that Transform Phlegm-Cold**

These botanicals are mostly warming in nature and are used to treat phlegm-cold or phlegm-dampness. Their action can be very drastic and can be toxic, thus close attention needs to be paid to patients during this process. Care is needed to properly prepare the formula and should not be given for fever phlegm or dry phlegm.

- **Ban xia** - *Pinellia ternata*
- **Xuan fu hua** - *Inula japonica*
Herbs that Relieve Coughing and Wheezing

These botanicals relieve coughing and wheezing. They usually only deal with surface symptoms and are therefore always combined with other herbs that deal with the root of the problem. If the condition is an exterior cough, then they are combined with herbs that release exterior. If the cough is of an interior nature, then they are combined with botanicals that are toning. If a hot cough is present, then herbs that clear heat are used. For cold coughs, they are combined with warming herbs.

We can consider these herbs as antitussive, expectorant, antibiotic, diuretic and laxative in properties. The herbs we will be looking at in this category are:

• Xing ren - Prunus armeniaca
• Zi wan - Aster tataricus

Herbs that Expel Phlegm by vomiting

In TCM, as with the Eclectics, vomiting was an important method of treatment. It is not as popular these days as it was in more ancient times. These herbs are employed when there is problematic phlegm or food clogging the upper body (throat, thorax, or epigastrium).

These herbs are quite strong and thus are only used on robust patients. They are contraindicated for children, pregnancy, the weak or people that have recently lost blood.

The herb we are using as an example here is:

• Gua di - Cucumis melo
Bei Mu *Fritillaria cirrhosa*  

**Other names:** Bulbus *Fritillatiae Cirrhosae*, *F. unibracteata*, *F. delavayi*, tendrilled fritillaria bulbs, pei-mu, chuan bei, jian bei ma, senbaimo (Japana), *ch’onp’aemo* (Korean)

**Plant description:** Fritillaria refers to the bulb (corm) of *Fritillaria cirrhosa* or *Fritillaria thunbergii*. The name, bei mu, refers to the appearance of the bulb being similar to that of the cowry shell (bei) of which the plant is the source (mu = mother). *Fritillaria cirrhosa*, known as chuan bei mu (chuan = from Sichuan Province) has a very small corm, which is considered medicinally superior to the corm from *Fritillaria thunbergii* (zhe bei mu; mainly from Zhejiang Province), which is larger. Due to the difficulty and high cost of collecting a large number of plants to get an adequate quantity of small bulbs from *Fritillaria cirrhosa*, *Fritillaria thunbergii* has become extensively utilized as a substitute, though it is said to have slightly different applications.

**Part used:** bulb processes

**Habitat, ecology and distribution:** Today, virtually all supplies of fritillaria are cultivated, although some limited collection of wild chuan bei mu still takes place in Tibet and Yunnan province. Fritillaria is the processed bulb of *Fritillaria cirrhosa*, a flowering plant in the Liliaceae family. A perennial temperate herb, it grows on mountain slopes and sub-alpine meadows, usually on open, stony, and moist hillsides. It is traditionally valued as an herbal remedy in Nepal and China, where it grows in the Gansu, Qinghai, Sichuan, Xizang, and Yunnan provinces.

**History:** Found in the Divine Husbandman’s Classic of the Materia Medica, and classed as a medium grade herb.

** Constituents:** fritilline, fritillarine, verticine (peinine), verticilline, apoverticine and fritimine.1,2,3

**Energetics Properties and Channels entered:** bitter, sweet, and slight cold; entering the Heart and Lung meridians.4

**Actions and Indications:** antitussive, analgesic, expectorant, bronchodilator.

**Medical Research:** The alkaloid groups have atropine like activity, producing antitussive and expectorant action. Bei mu has a bronchodilation ability, while decreasing secretions. The alkaloids will also dilate the pupils.5
Toxicity, Contraindications and cautions: This herb is not effective in treating coughs from phlegm secondary to damp-cold. It is also incompatible with wu tou and qin jiao. Bei mu should always be processed, as the unprocessed herb is quite toxic. This herb can cause uterine contractions and stimulate intestinal contractions.

Medicinal uses: This herb is one of the most widely used botanicals, traditional used for relieving cough and wheezing in cases of chronic bronchitis or upper respiratory infections. It has been used for TB, and whooping cough. It has also been employed to treat gastric and duodenal ulcers due to its antacid and analgesic effects.

- Clears heat and transforms phlegm. Used for coughs, especially chronic coughs, with signs of yin deficiency, coughs with slight sputum that is difficult to expectorate or cough with blood in the sputum. It is specific for treating coughs accompanied by constrained qi, manifested by reduced appetite and stifling sensation in chest and upper abdomen.

- Clears heat and dissipates nodules in conditions of phlegm-fire such as sores, swelling, scrofula and Lung or breast abscesses.

Pharmacy and dosage: Dosage: 3 - 15 grams of processed herbs

Major Combinations:
- With zhi mu for cough with minimal or difficult-to-expectorate sputum due to fire from yin deficiency burning the Lungs.
- With xing ren (Prunus armeniaca) for cough and wheezing with copious sputum.
- With yuan zhi, fu ling (Poria cocos) and gua lou for painful obstruction of chest with palpitations and insomnia.

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Image www.bluepoppy.com
Gua Lou *Trichosanthes spp.*

**Other names:** Fructus Trichosanthis, Semen Trichosanthis, Radix Trichosanthis Kirilowii, tian hua fen (root), hua fen, gua lou gen, kua-lou-ken, tenkafun (Japanese), ch’onhwabun (Korean) gua lou (fruit), kua-lou, quan gua lou, karo (Japanese), kwalwi (Korean) gua lou ren (seed), gua lou pi (skin), lou ren, gua lou zi, kua-lou-jen, karonin (Japanese), kwalwiin (Korean)

**Plant description:** Gourd spherical or oblong, 6-9 cm long. Surface yellowish brown, irregularly shrunken; apex with remnant style base, and its base with fruit stalk scars remaining. Peel thin and brittle, containing the pulp and many ovate seeds inside. Burnt sugar in odour. Exocarp appearing the same as the outer surface of gourd; endocarp yellowish white, with vascular bundles.

**Part used:** fruits, seeds, root

**Habitat, ecology and distribution:** grows throughout China especially Shandong, Hebei, Shanxi and Shaaxi provinces. Usually harvested in the fall when the fruit has ripened. The root can also be harvested in the winter.

**History:** Found in the Divine Husbandman's Classic of Materia Medica. Usually considered a medium herb

**Constituents:**
- **Fruit:** trichosanidine
- **Seed:** saponins organic acids, resins, trichosanthes acid and saturated fatty acid (30%)
- **Root:** stigmasterol, beta-sitosterol, saponins, trichosanthin

**Energetics Properties and Channels entered:**
- **Fruit:** sweet and cold entering the Large intestine, Lung and Stomach meridians.
- **Seed:** sweet and cold entering the Large intestine, Lung and Stomach meridians.
- **Root:** bitter, slightly sweet, cold entering the Lung and Stomach meridians.

**Actions and Indications:** expectorant, laxative, diuretic, analgesic

**Medical Research:**
There has been a fair amount of research done on this plant lately with its activity on cancer, HIV and diabetes all being part of the trend. 1, 2, 3, 4
Fruit: has antibiotic effect against *E. coli, Shigella sonnei* and *Pseudomonas*, as well as others. A twenty percent decoction has been used to treat cancer, especially hepatic cancer with ascites. The husk of the fruit is considered stronger. Has shown significant results in treating coronary artery disease. Gua lou can dilate the coronary vessels, while increasing myocardial tolerance to oxygen deprivation. It has a 78.9% effective rate for treating angina pectoris.

Seed: Similar to fruit. The seed can absorb large amount of fluid, while stimulating peristaltic action in the intestines, producing a medium stimulus laxative effect. The decoction of the seed can lower blood pressure, acting as a diuretic with an analgesic effect.

Root: The root, especially trichosanthin, among others has been used as injection (2 - 10 ml of raw herb) to induce abortions. This is one of the most common methods used in China. The root is known to have blood sugar lowering effect, used as a decoction. The extract has been found to inhibit cancer growths.

**Toxicity, Contraindications and cautions:**
**Fruit:** contraindicated in cases of cold from deficiency of Spleen and Stomach, phlegm-cold or phlegm dampness. Not to be combined with wu tou, gan jiang (*Zingiber*) or niu xi
**Seed:** similar to fruit and not to be used in cases of diarrhea
**Root:** contraindicated during pregnancy and as others.

**Medicinal uses:**
**Fruit:**
- Clears heat and transforms phlegm heat. Used for heat induced colds with thick sputum that is hard to expectorate.
- Expands the chest and dissipates nodules. Used for condition in which qi accumulates in the chest creating a stifling or distended sensation, constriction, pain or diaphragmatic pressure.

**Seed:**
- Clears heat and transforms phlegm similar to fruit; while also expanding chest.
- Moistens the intestines. Used for dry constipation, especially when there is Lung heat present with dry mouth, thirst and irritability.
- Promotes healing sores as an adjunctive therapy for breast abscesses and swelling of sores that have not yet formed pus (suppurated)

**Root:**
- Clears and drains Lung heat while transforming phlegm and moistening dry lungs.
• Drains heat and creates fluids. Used when heat injures fluid. Makes a person thirsty and irritable; deficient yin thirst and wasting thirst disorders. Can be used for thick sputum and blood streaked sputum

• Relieves toxicity and expels pus, used for hot carbuncles and sores. Especially used for breast abscess, both internally and topically.

**Pharmacy and dosage:**
Dosage: 9 - 15 grams

**Major Combinations:**

**Fruit:**
• With zhe bei mu (*Fritillaria*) and jie geng (*Platycodi grandiflora*) and chen pi (*Citri reticulatae*) for wind-heat induced dry cough with thick hard to expectorate sputum.
• With xie bai and ban xia for painful obstruction in the chest.
• With pu gong yin and ru xiang for early stage breast abscess.

**Seed:**
• With ban xia and huang lain (*Coptis*) for cough with chest pain and difficult to expectorate sputum. Add chai hu (*Buplerium*) and huang qin (*Scutellaria baicalensis*) if there is extreme heat.
• With ban xia and xie bai for painful obstruction of the chest or Heart.
• With huo ma ren, tao ren and bai zi ren for constipation especially if due to internal phlegm-heat obstruction, with symptoms of dry mouth and thirst.

**Root:**
• With bei mu (*Fritillaria*), sang bai pi and jie geng for cough due to phlegm-heat in the lungs with thick, viscous sputum or blood-streaked sputum
• With zhi mu, ge gen and wu wei zi for wasting thirst disorder, usually after high fever.
• With chuan shan jia, zao jiao and jin yin hua for yang-type breast or intestinal abscess.

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Image itmonline.org
Zhu Li, ru *Bambusa* spp.

**Other names:**
*Zhu li*: dried bamboo sap, Succus Bambusae, zhu you, Chu li, chikureki (Japanese), chikujo (Korean)
*Zhu ru*: bamboo shavings, Caulis Bambusae in Taeniis, chu ru, zhu er qing, dan zhu ru, chikujo (Japanese), chukchu (Korean)
*Tian zhu huang*: siliceous secretion of bamboo, Concercreti silicea Bambusae, tien chu huang, zhi huang, zhi huangjing, tenyikuo (Japanese), ch'onhwabun (Korean).

**Part used:** siliceous secretions, sap, shavings

**Habitat, ecology and distribution:** Grows throughout Yangtze river valley and southern China.

**History:** Bamboo was first found in the Grand Materia Medica and Collection of Commentaries on the Classic of the Materia Medica.

** Constituents:**
- *Zhu ru*: pentosan, lignin, cellulose, triterpenes.
- *Tian zhu huang*: silicone, potassium hydroxide, ferric oxide and calcium.

**Energetics Properties and Channels entered:**
- *Zhu li*: sweet, very cold; entering Heart, Lung and Stomach meridians
- *Zhu ru*: sweet and slightly cold; entering Gallbladder, Lung and Stomach meridians.
- *Tian zhu huang*: sweet and cold; entering Gallbladder, Heart and Liver meridians.

**Actions and Indications:** antipyretic, expectorant, antitussive, clears heat, hemostatic

**Medical Research:**
Zhu ru has been shown to have antimicrobial action (*in vitro*) on *Staph aureus, E. coli* and *Salmonella typhi*. Although this ingredient effectively treats a number of somatic complaints, such as nausea and vomiting, it also has a pronounced psychotropic effect. When correctly prescribed on the basis of the patient's pattern of discrimination, formulas containing this medicinal are especially effective for the treatment of psychiatric disorders. This ingredient is effectiveness for mental-emotional complaints associated with fear and fright, phlegm and heat.
**Toxicity, Contraindications and cautions**: Zhu li is contraindicated in cases of cough due to cold, and loose stools due to Spleen deficiency. Zhu ru is contraindicated in case of nausea and vomiting due to Stomach cold or cold food stagnation.

**Medicinal uses**:
- **Zhu li**: Clears heat, transforms phlegm while penetrating the channels, specific for phlegm obstruction of the Heart (sensory) orifices. The paralysis of hand or feet, or hemiplegia (paralysis of one side of the body, often due to a stroke). Zhu li is often used in conjunction with other herbs to transform phlegm-heat and stop coughing.

- **Zhu ru**: clears and transforms phlegm-heat, when there is thick hot sputum in the Lungs, often accompanied with stifling sensation in the chest or coughs up blood. Zhu ru stops vomiting while clearing heat. The signs are bitter or sour material due to heat in the Stomach with bad breath, aversion to heat and a yellow, greasy tongue. Zhu ru is very good for stopping vomiting. It has also been used to cool blood in cases of nosebleeds and vomiting blood.

- **Tian zhu huang**: clears and transforms phlegm-heat especially when it is difficult to expectorate sputum from the Lung. Tain zhu huang will also clear the Heart and arrest convulsion due to phlegm-heat, wind-stroke with phlegm obstructions, with a gurgling in the throat. It works on spasm and convulsions especially in children.

**Pharmacy and dosage**:
- **Zhu li**: 30 - 60 grams or 9 - 15 grams for coughing, taken directly or often mixed with ginger juice
- **Zhu ru**: 4.5 - 9 grams. Often fried in ginger juice for colds
- **Tian zhu huang**: 3- 9 grams if mixed with the bamboo; or 0.6 1.2 gram ifpure

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Image tcm.health-info.org
**Ban Xia** *Pinellia ternata*

半夏

**Other names**: Rhizoma Pinelliae Ternatae, Green dragon, pan hsia, fa ban xia, jiang ban xia, hange (Japanese), panha (Korean)

**Plant description**: The plant grows to about 0.2 m by 0.15 m. It is in flower from July to August. The flowers are hermaphrodite (have both male and female organs). The plant can grow in semi-shade (light woodland) or no shade. It requires moist soil. The leaves are tripartite (3 parted) and resembles a Jack-in-the-pulpit. Beginning in late spring and continuing all summer, the clumps are topped with arisaema like (spathe and spadix) flowers of medium green. It has up to a 10 inch tongue coming out of the flower.

**Part used**: rhizomes (processed)

**Habitat, ecology and distribution**: Sichuan, Hubei, Henan, Guizho provinces of China. It is considered an invasive weed in California, several eastern states and part of Ontario. Native to eastern Asia, it is grown in cultivated fields, roadsides, shady and damp grass thickets on mountain sides and stream edges in China, Japan and Korea. Ban xia is collected in late summer and early autumn, with outer bark and fibrous roots removed; it is then processed with ginger or alum or a combination of the two by soaking together then draining; the resulting dried material is translucent.

**History**: Found first in the Divine Husbandman's Classic of the Materia Medica.

**Constituents**: phenol (homogentisic acid, homogentisic acid glucoside, 3,4-dihydroxybenzaldehyde); alkaloids (ephedrine); amino acids (argine, aspartic acide, glutamic acid, serine, glycine, ornithine); sugar; sitasterol, choline, calcium oxalate.

**Energetics Properties and Channels entered**: acrid, warm, toxic; entering the Lung, Spleen and Stomach meridians.

**Medical Research**: Has a distinct antiemetic action, usually mixed or decocted with ginger to enhance this action. It is always mixed with alum to reduce its toxic effect. The unprocessed herb is quite emetic. Heating the herb will reduce the emetic effect, while preserving antiemetic effect. The boiled herb has a sedative action on the lungs. The decoction has been shown to be effective in slightly reducing pressure in the eyes. The decoction has a significant antitussive effect in several animal models. Ban xia is known to be an antidote for strychnine and acetylcholine toxicity. It has been shown to have a 95% success rate in reducing pain from toothaches.
Toxicity, Contraindications and cautions: Due to toxic effect this herb is almost always mixed with alum and ginger.

Medicinal uses:
- Dries dampness, transforms phlegm and causes rebellious qi to descend, thus reducing coughs with copious sputum. Specific for conditions of phlegm-cold in the Lungs. Especially useful in transforming phlegm due to dampness of the Spleen.
- Harmonizes the Stomach and stops vomiting when accompanied with nausea due to lingering phlegm-cold in the Stomach that rebels upwards.
- Dissipates nodules and reduces distention for nodules, pressure, distention or pain due to phlegm lingering in chest or neck (such as goiters and scrofula). It will work on obstruction caused by phlegm anywhere in the body. Especially good for distention in chest and epigastrium.

Pharmacy and dosage:
Dosage 4.5 - 12 grams.

Raw ban xia is toxic and only used externally to reduce sores and ulcers.

The prepared herb is deep fried with ginger, vinegar and/or alum (usually in a 5:1 pinellia to alum ratio) and is the one found in Chinese dispensaries

Major Combinations:
- With chen pi for epigastric and abdominal distention, nausea and vomiting due to disharmony of the Stomach qi. Can also be used for productive coughs, with a stifling sensation in the chest due to obstruction of phlegm-dampness or Spleen qi deficiency.
- With huang lian (Coptis) for epigastric distention and indigestion due invasion pathogens in the Stomach
- With huang qin (Scutellaria root) for phlegm-heat induced by rebellious qi with cough, nausea and vomiting.
- With gua lou (Trichosanthis fruit) for distention in chest, coughs and vomiting due to phlegm-heat obstructing the interior.
- With hou po (Magnolia cortex) for phlegm-induced cough, vomiting and epigastric and abdominal distention. "This is a peculiar neurological symptom which I have witnessed in a number of patients of something being lodged at the base of the throat. Its cause is reported to be rooted in anxiety, fear or shock. The herbs in the formula (Ban xia hou pu tang), 6 to 9 grams each of pinellia ternata (ban xia), magnolia bark (ho pou), perilla seeds (zi su ye), 9-12 grams poria mushroom (fu ling) and 10-15 grams fresh ginger (sheng jiang) are primarily individually indicated for respiratory and digestive disorders with an accumulation of dampness or phlegm. Pinellia resolves respiratory and gastrointestinal dampness by promoting the energetic downward flow of qi and food, which makes it useful for nausea and vomiting. Other indications for this formula further imply
underlying neurological and psychospiritual imbalances. They are "hysteria, gastrointestinal neurosis, esophagospasm, chronic laryngitis and trachitis". The sense is that this formula is particularly useful for individuals who are blocked in their expression."

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Image plumdragonherbs.com
Xuan Fu Hua *Inula japonica*  
旋覆花

**Other names:** Inula flowers, *Flos Inulae*, Elecampane, fu hua, hsuan fu hua, chin fei tsao, senpukuka (Japanese), sonbokhwa (Korean)

**Plant description:** Inula is a large herbaceous perennial, indigenous to southeastern Europe and western Asia but naturalized in Britain, Ireland and the north mid-west US. It has a thick, cylindrical, branched rhizome and an erect, sparsely branched, tough, furrowed stem, hairy in the lower part and downy above. The oval basal leaves narrow into a winged petiole, pointed at the tip and blunt-toothed at the edges. The alternate stem leaves are irregularly toothed at the margin, large, tapering-oval in shape with a heart-shaped base, sessile and short-tapered. The single flower heads grow at the ends of the branches from the axils of the leaves or bracts, and are sometimes arranged in sparse umbels. The outer, inwardly turned bracts are oval and felty on the outside with a large heart-shaped green appendix, which bends backwards. The inner bracts are lineate, dry membranous, and widened towards the ends. The bright yellow strap-shaped ray florets are numerous and about twice the length of the bracts. Both these and the inner disc florets are tubular. The plant flowers between June and October and grows wild in hedgerows and damp meadows. It is also cultivated.

**Part used:** Flowers

**Habitat, ecology and distribution:** This plant grows around the world. It is in flower from August to October, and the seeds ripen from August to October. The flowers are hermaphrodite (have both male and female organs) and are pollinated by bees and flies. The plant is self-fertile, but cannot grow in the shade. It requires moist or wet soil.

In China, inula flower is mainly produced in the provinces Guangdong, Henan, Hebei, Jiangsu, Anhui, and Inner Mongolia. Reaped when the plant comes into bloom in summer and autumn, the impurities are removed from the flowers, and then the flowers are dried in the air or sun for use when raw or after being fried with honey.

**History:** First found in the Divine Husbandman's Classic of the Materia Medica.

**Constituents:** Inusterol A (taraxasterol), inusterol Band C, britannin, alantolactone inulicin, inulin quercetin, isoquercetin, caffeic acid, cholorogenic acid.1,2,3

**Energetics Properties and Channels entered:** acrid, slightly warm; entering the Liver, Lung, Stomach and Spleen meridians.
**Actions and Indications:** expectorant, antiemetic, anti-nausea, stomachic

**Medical Research:** Chologenic acid stimulates the central nervous system to increase secretion of acids by the stomach in a manner similar to caffeine. It will also increase rate and force of peristalsis and increase tone of smooth muscles. It has a negative chronotrophic (decrease rate) of the heart muscle. Alantolactone has antifungal properties. 4,5

The flavonoid glycoside can remit bronchial spasms caused by histamine and it has a weak diuretic effect. The flowers have an antibacterial action, but this can be destroyed by proteins in the body, as reported in 'Handbook of Chinese Herbs and Formulas', (Institute of Chinese Medicine, Los Angeles 1985). The plant has been mentioned in 'Medicinal Plants of China,' (Reference Publications, Inc. 1985) as a possible treatment for cancer of the esophagus.6

**Toxicity, Contraindications and cautions:** Xuan fu hua should be used sparingly in cases of deficiency. The flowers should be avoided by those with tuberculosis or cough due to wind heat.

**Medicinal uses:**
- Redirects the qi downward and expels phlegm, used when qi repels upwards, with accumulation of phlegm. This can be seen with copious sputum, congested fluid disorders with wheezing.
- Stops vomiting and calms rebellion due to cold from Stomach and Spleen deficiency or dampness, also good for stopping hiccups.

**Pharmacy and dosage:**
Dosage 3 - 12 grams usually decocted in cheesecloth bag. It is fried in honey for use in cases of Lung deficiencies, to warm and prevent it from harming qi or yin.

**Major Combinations:**
- With ban xia (pinellia root) and xi xin (Asarum sieboldi) for coughing and wheezing due to cold and phlegm attacking the Lung.
- With jie geng (Platycodon grandiflorum) and sang bai pi and da huang (Rheum officinale) for cough and wheezing due to phlegm-heat
- With ren shen (Ginseng) and dai zhe shi (hematite) for vomiting and hiccoughs due to cold from Spleen and Stomach deficiency.
- With ban xia (pinellia root) for vomiting, cough, wheezing and epigastric distention due to congested fluids.
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Xing Ren *Prunus armeniaca*

**Other names:** Apricot seed, *Semen Pruni Armeniacae*, hsingjen, ku xing ren, bei xing, kyonin (Japanese), sian (Korean)

**Plant description:** A deciduous, large and spreading tree with dark-brown to black bark; height, around 10 metres, may grow up to 15 metres; girth, 82 cm; wood, hard and durable. Leaves, broad, cordate, dark green, petiolate (petiole, 24 cm long), alternate, having reticulate pinnate venation; length, 6.2 cm; breadth, 6.1 cm; margin, serrate. Flowers, simple, sessile, pentamorous, perigynous, actinomorphic, complete, hermaphrodite, light pink; 2 to 5 flowers per cluster; calyx, gamosepalous, companulate, with five sepals, light red, having 3 to 5 mm long lobes of sepals; corolla, polypetalous with 5 petals, rosaceous, valvate, actinomorphic, angular, imbricate, 1.5 to 2.0 cm long, white to light pink; androecium, polyandrous, with 35 stamens, dorsi fixed; anther-lobes, yellow, episepalous, bithecus; gynoecium, monocarpellary, perigynous; ovary, unilocular, having basal placentaion. Fruit, a drupe, velvety when young, but nearly smooth at maturity, round to oblong; diameter, 2.5 to 2.6 cm; weight, 12.6 g; volume, 11.20 ml; fruit, externally yellow; pulp, deep yellow, less juicy than that of the cultivated apricots; endocarp, flat, smooth, stony and hard. Stone, 1.7 to 2 cm long, 1.6 to 1.7 cm broad, 2.5 g in weight, 1.3 ml in volume; 2 kernels, per seed; kernels, 1.5 cm long, 1.2 cm broad; weight, 879 mg; volume, 757 microlitres.

The bitter kernels (ku xing ren or bei xing ren) are grown in Northern China and are often consider the best. The southern ones are sweeter and are called tian xing ren or nan xing ren. They are more often used for dry or deficient coughs.

**Part used:** seed, kernel, pit

**Habitat, ecology and distribution:** Lianoning, Hebei, Inner Mongoloa, Shandong and throughout Northern China. It can be found around the world.

**History:** Found first in the Collection of Commentaries on the Classic of the Materia Medica.

** Constituents:** amygdalin (laetrile), amygdalase, prunase; oils (mostly oleic), estron, estradiol, desmosterol.1,2
**Energetics Properties and Channels entered:** bitter, slightly warm, slightly toxic; entering the Large Intestine, Lung meridians

**Actions and Indications:** antitussive, anti-asthmatic, mild cathartic, mild analgesic

**Medical Research:**
Amydalin and amygdalase combine in the digestive tract to produce prunasin and madelonitrile. These are responsible for the antitussive action. These chemicals can further break down into benzaldehyde and hydrocyanic acid (which is quite toxic). In bronchitis it has about a 50% improvement or cure rate. Used externally as a paste for vaginitis or *Trichimonas* it has about a 90% effective rate.

The drug laetrile is derived from extracts of apricot seeds. As a controversial therapy for cancer, there are a few reports of tumor regression and pain reduction. The National Cancer Institute in the USA claimed laetrile was an ineffective cancer treatment in 1980. It is still legal in Mexico, and some will cross the border to seek laetrile therapy when other cancer treatments fail. The theory behind laetrile is this: the apricot pit extract breaks down to release CN-, but only when in contact with B-glucuronidase, an enzyme common to tumor cells. The CN- is released preferentially at tumor sites, killing the cells.

**Toxicity, Contraindications and cautions:** Use with caution for treating infants with diarrhea. It is consider to antagonize huang qi (*Astragulus*), huang qin (*Scutellaria baicalensis*) and ge gen (*Pueraria* root). Over dosing causes dizziness, nausea, vomiting and headaches. It can also progress to dyspnea, spasm, dilated pupils arrhythmias and even coma. Lethal dose for adults is about 50 - 60 kernels and in children as little as 10. Cooking and removing the outer coating reduces the toxicity

**Medicinal uses:**
- Stops coughing and calms wheezing and can be used quite broadly for either hot or cold patterns depending on the combination. Due to it moist nature it is best for dry coughs.
- Moistens the Intestines and unblocks the bowels. This secondary effect is due to the oils.

**Pharmacy and dosage:**
Dosage 3 - 9 grams. This is chopped and decocted, often added in near the end.

**Major Combinations:**
- With zi su ye (*Perihla frutescens*) for dry coughs due to externally contracted wind-cold
- With mai men dong (*Ophiopogon uaponicus*) for dry coughs due to dry and heat injured Lungs
- With sang ye for nonproductive, dry cough due to externally-contracted wind-heat
• With ma huang (Ephedra) for cough and wheezing due to excess. Add shi gao (Gypsum) for symptom of the Lung with significant heat
• With huo ma ren (Cannabis sativa) and dang gui (Angelica sinensis) for constipation due to deficient qi and dry Intestine.

REFERENCES
2 Bensky D, Gamble A; Chinese Herbal Medicine Materia Medica;Eastland Press Seattle Wa; 1993. p198-99
Images tcm.health-info.org, bikudo.com
**Zi Wan** *Aster tataricus*

**Family:** Compositea

**Other names:** purple aster root, *Radix Asteris Tatatici*, tzu wan, ci wan, sion (Japanese), chawan (Korean).

"Zi" means purple, referring to the colour of the flowers, "wan" is a garden. This plant makes a beautiful garden of colourful, daisy-like flowers.

**Plant description:** Large leaves (to 2’) emerge in the spring and provide a bold backdrop for earlier blooming perennials. In the fall, numerous flower stalks rise to 4 or 5 feet and each is covered with 1" pink daisy-like flowers. Flowering is later than many other asters and this species often provides brilliant color until frost. Tatarian aster (sometimes misspelled as tartarian aster) is a large, rangy aster that gets 6-8 ft (1.8-2.4 m) tall and forms colonies from stout underground rhizomes. This big, rather weedy looking aster spends much of the year as a basal rosette of large paddle shaped, sandpapery leaves that grow up to 24 in (61 cm) long and 6 in (15 cm) wide with long petioles and toothed margins. In this stage, tatarian aster looks like a mound of tobacco or Swiss chard leaves, 2-3 ft (0.6-0.9 m) across. In early autumn it sends up flowering stalks with leaves that get progressively smaller and lose the marginal teeth and petioles. By mid to late autumn the flower stalks branch near the top and bear large and abundant flat-topped clusters of flower heads which are lavender with yellow centers and about 1 in (2.5 cm) across. 'Jin-Dai' is a smaller, more compact selection, only 3-4 ft (0.9-1.2 m) tall, with light blue ray flowers.

Rhizomes in irregular masses, varying in size, apex with remains of stems and leaves. Texture slightly hard. Rhizomes bearing numerous, fascicular rootlets, 3-15 cm long, 0.1-0.3 cm in diameter, frequently braided. Externally purplish-red or greyish-red, with longitudinal wrinkles. Texture flexible. Odour, slightly aromatic; taste, sweet and slightly bitter.

**Part used:** root

**Habitat, ecology and distribution:** Hebei, Anhui, Henan, Heilongjiang, Shanxi in China. It is native to southern Siberia, northern China, Mongolia, Korea and Japan, where it grows in meadows and wetlands. It has escaped cultivation and established self-sustaining populations in parts of eastern North America.

**History:** First found in the Divine Husbandman's Classic of the Materia Medica.
Constituents: astersaponin, eprifriedelinol, succinic acid, friedelin, shionone, quercetin, lachnophyllol, lachnophyllol acetate, anethole, and oleic acid. 1,2

Energetics Properties and Channels entered: bitter slightly warm; entering the Lung meridian.

Actions and Indications: expectorant, mildly antitussive

Medical Research: 
Zi wan has been shown to have significant expectorant effect on animal models. Astersaponin has shown to increase secretions in the respiratory tract, thus diluting the phlegm and aiding in expectoration of the sputum. This herb has shown a strong antibiotic effect against *Shigella sonnei, E.coli, Vibrio proeaeus, Pseudomonas aeruginosa, TB, Bacillus dysenteriae* and others. It has a proven antiviral effect on several influenza strains. Astersaponin on its own has a marked diuretic effect, but when taken with quercetin there is a milder effect. 3,4

Toxicity, Contraindications and cautions: Use with coughs due to yin deficiency with heat signs, or those associated with excess heat patterns. Large doses over a long time are not recommended. Not the be used with yin chen hao (*Artemisia yinchenhao* herb).

Medicinal uses:
• This herb is used to moisten the lung, bring down adverse rising of Qi, resolve phlegm and relieve cough. Since this herb is moist rather than dry in nature, it is a main herb for resolving phlegm and relieving cough, whether the cough is due to lung-heat or lung-cold.

• In treating pulmonary tuberculosis with consumptive fever due to deficiency of yin and cough with blood, the herb can be used in combination with Zhi mu (*Rhizoma anemarrhenae*), Bei mu (*Bulbus fritillaria*), E jiao (*Colla Corii Asinii*), etc.

• In treating long lasting cough, the herb can be used in combination with Kuan dong hua/ coltsfoot (*Flos Far Farae*), Bai bu (*Radix Stemonae*), etc.

• In treating cough and asthma without fever due to deficiency of lung-Qi, the herb can be used in combination with Dang shen (*Radix Codonopsis pilosulae*), Huang qi (*Radix Astragali seu Hedysari*), Sheng jiang (*Rhizoma Zingiberis*), etc.

• In treating cough with profuse sputum due to exogenous wind-cold, the herb can be used in combination with Jing jie (*Herba Schizonepetae*), Bai qian (*Rhizoma Cynanchi Stauntonii*), Chen pi (*Pericarpium Cirti Reticulatae*), etc.
Relieves cough and expels phlegm, used for stopping chronic cough especially cold induced, with copious sputum that is difficult to expectorate, or with blood streaked sputum.

**Pharmacy and dosage:**
Dosage 3 - 9 grams
Frying the herb with honey will increase the action of moistening the Lung and relieve coughing

**Major Combinations:**
- With kuan dong hua for cough and wheezing with copious sputum and rebellious qi. This is a common formula.
- With bai bu for acute or chronic cough with blood in sputum.
- With wu wei zi for productive cough, wheezing and spontaneous sweat.

REFERENCES
2 Bensky D, Gamble A; Chinese Herbal Medicine Materia Medica; Eastland Press Seattle Wa; 1993. p199-200
4 Bensky D, Gamble A; Chinese Herbal Medicine Materia Medica; Eastland Press Seattle Wa; 1993, p199-200
Images tcmtreatment.com, greenhealthlive.com
Gua Di  *Melo pedicellus*  

**Other names:** melon stalks or prickles, *Pedicellus Cucumeris*, kua ti, tian gua di, xiang gua di, ku ding xiang, katei (Japanese), kuach’e (Korean)  
*Melon, Muskmelon, Cantaloupe, Honeydew, Sugar melon*

**Plant description:** Fruit stalk slender, twisted, yellow-green, enlarged at one end, with longitudinal ridges and outward curved margin.

**Part used:** unripe (young) stalks

**Habitat, ecology and distribution:** Grows throughout China, but mainly in the coastal regions. Harvested in the summer, from not completely ripe stalks. Grows in much of North America, especially warmer areas.

**History:** First found in the Divine Husbandman’s Classic of the Materia Medica.

**Constituents:** cucurbitacin B, E and D; isocucurbitiacine B, cucurbitacin beta-2-0-beta-Dpyranoglucoside; melotoxin (elaterin). 1, 2, 3

**Energetics Properties and Channels entered:** bitter, cold, slightly toxic; entering the stomach meridian

**Actions and Indications:** emetic

**Medical Research:**
In both animal and human studies, oral use of gua di has produced a very strong emetic effect. Intravenous injection does not have the same effect, therefore it is felt that it works by stimulating (irritating) the gastric mucosa, thus stimulating vomiting centers in the brain. The cucurbitacins have shown to produce a liver protective effect against chemical toxins. Cucurbinacin B markedly increases liver glycogen levels, stopping fatty changes of liver cells, thus reducing cirrhosis. Often given by injection for hepatitis. Both oral and nasal administration of gua di increased white blood cells and reducing hepatitis.4

**Toxicity, Contraindications and cautions:** Not to be used with debilitated patients, patients that have recently lost blood, or in the absence of excess. If the vomiting is too persistent, use she xiang (*Secretio Moschus*; 0.1 - 0.15 grams) as an antidote. The nasal powder is quite severe and should not be used in weak patients. Overdose can cause severe vomiting and in a few cases, has led to respiratory paralysis and death.
Medicinal uses:
• Induce vomiting to relieve phlegm-heat or retained food. This considered the preferred treatment for accumulations above the diaphragm. This type of phlegm in the chest is known to manifest as seizure, mania, painful obstruction of the throat, wheezing, irritability and/or insomnia. This herb can also be used for retained food in the stomach, both distention and pain of the chest and epigastrium.

• Dispel damp-heat and relieve jaundice when dampness predominates. Often given by nasal ingestion to effect jaundice of face and eyes, when accompanied by headaches and nasal congestion.

Pharmacy and dosage:
Dosage: 2.5 - 5 g in decoction
0.3 - 1.0g in pills and powder

Major Combinations:
• With huang lian (Coptis) and bing pian (Borneol); used as a powder for chronic rhinitis.
• Following administer by a piece of rock brown sugar, will usually strengthen the vomiting effect.

REFERENCES
1 Benskey D, Gamble A; Chinese Herbal Medicine Materia Medica;Eastland Press Seattle Wa; 1993. p 206-08
3 Huang CK, The Pharmacology of Chinese Herbs 2nd Ed. ; CRC Press; 1999, p 245-46
4 Bensky D, Gamble A; Chinese Herbal Medicine Materia Medica;Eastland Press Seattle Wa; 1993. p 206-08
Image agroatlus.org