

Gentian (*Gentiana lutea*, *Gentiana scabra*.)

Common Names: *Gentiana longdancao*, gentiana, Chinese gentian root, wild gentian, and yellow gentian.

Location: This herb is located in China and Korea.

Description: The root of this herb is used medicinally.

Properties: This herb is known for being able to aid in the process of treating infections of the gall bladder, stimulate the appetite and to aid in digestive processes.

Uses: Gentian can be used to treat cataracts, diabetic retinopathy, hiccups, gallstones and indigestion.

Doses: This herb can be found in stores labeled as “bitters” or in capsule form.

Warnings: Do not take this herb if you are under two years old or if you have a history of poor digestion. If you suffer from high blood pressure or if you are pregnant, consult a doctor about the use of this herb.

Gentian Root and Powder Profile

Also known as

Gentiana lutea, wild gentian or yellow gentian, and as gentiana in English-language commentaries on Traditional Chinese Medicine.

Introduction

Gentian is an herb of the high pastures of the Alps and the Himalayas. The roots take 7 to 10 growing seasons to mature. The botanical name *Gentiana* is derived from *Gentius*, king of ancient Illyria (modern day Bosnia) (180-167 B.C.E.), who discovered its therapeutic values, according to a history written by Pliny the Elder (ca. 23-79 C.E.) The herb has been used in European herbal medicine throughout the 2200 years since its discovery. Gentian is also mentioned in the Ayurvedic Pharmacopoeia, recommending it for anorexia and sluggish digestion. Traditional Chinese Medicine recommends it for sore throat, headaches, and inflammations. Gentian is one of the world's strongest bitters, and is used in the production of alcoholic bitters and vermouth. It is traditionally used to stimulate the appetite and improve digestion. Both the Chinese and Korean word for gentian translates as "dragon's gallbladder herb" due to its ability to treat inflammations of the gallbladder. In the mid 1800's, gentian was mixed with licorice as a remedy to quite smoking.

Constituents

Bitter principles (amarogentin, gentiopicroside) and the bitter-tasting gentiobiose, which is so bitter that it can be tasted even if it is diluted with 58,000,000 times its volume of water.

Parts Used

Dried, mature root.

Typical Preparations

Bitters, teas, tonics, and tinctures.

Summary

Gentian has an ancient reputation as a poison cure. Nicholas Culpepper wrote in the mid 18th century in regards to its effectiveness for treating the plague that a "more sure remedy cannot be found to prevent the pestilence". The validity of this opinion has not been scientifically verified however. The bitters in gentian activate a reflex action that releases acids into the stomach and bile into the gallbladder. This accelerates digestion and helps the intestines absorb fat, preventing bloating and flatulence. Gentian is typically taken before a fatty meal. The German E Commission monograph indicates its effectiveness at increasing digestive juices by its incredibly bitter nature.

Precautions

Don't take gentian if you have peptic or duodenal ulcers. May seldom cause gastro-intestinal upset. Not recommended for long term use.

GENTIAN, YELLOW

Botanical: *Gentiana lutea* (LINN.)

---Part Used---Root.

---Habitat---The Yellow Gentian is a native of the Alpine and sub-alpine pastures of central and southern Europe, frequent in the mountains of Spain and Portugal, the Pyrenees, Sardinia and Corsica, the Apennines, the Mountains of Auvergne, the Jura, the lower slopes of the Vosges, the Black Forest and throughout the chain of the Alps as far as Bosnia and the Balkan States. It does not reach the northern countries of the Continent, nor the British Isles. At an elevation of from 3,000 to 4,500 feet, it is a characteristic species of many parts of France and Switzerland, where, even when not in flower, the numerous barren shoots form conspicuous objects: the leaves are at first sight very similar to *Veratrum album*, the White Hellebore, which is its frequent companion. Out of Europe, the plant occurs in the mountains of Lydia. In some parts it occupies large tracts of country, being untouched by any kind of cattle.

All the known species are remarkable for the intensely bitter properties residing in the root and every part of the herbage, hence they are valuable tonic medicines. That most commonly used in Europe is *Gentiana lutea*, the Yellow Gentian. The root of this species is the principal vegetable bitter employed in medicine, though the roots of several other species, including our native ones, are said to be equally efficacious. Before the introduction of hops, Gentian, with many other bitterherbs, was used occasionally in brewing.

Gentian roots are collected and dried in central and southern Europe, much of the supply for this country having formerly come from Germany, though it is also imported from Switzerland, France and

Spain, and French Gentian is considered of special excellence.

Yellow Gentian is one of the many herbs so far not cultivated in England for medicinal use, though preparations of the root are in constant use in every dispensary, and it is much prescribed also by veterinary surgeons. Though the plant is indigenous in central Europe, it can readily be grown from seed in England, and could quite easily be cultivated as a garden or field crop in this country. Though not often met with, it has been grown in gardens since the time of Gerard, who tells us that a learned French physician sent him from Burgundy plants of this species for his garden on Holborn Hill. It is a highly ornamental plant, forming one of the most stately hardy herbaceous perennials for the garden border, and when successfully treated will grow luxuriantly, even if in the neighbourhood of London.

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---Description---The root is long and thick, generally about a foot long and an inch in diameter, but sometimes even a yard or more long and 2 inches in diameter, of a yellowish-brown colour and a very bitter taste. The stem grows 3 or 4 feet high or more, with a pair of leaves opposite to one another, at each joint. The lowest leaves have short foot-stalks, but the upper ones are stalkless, their bases almost embracing the stem. They are yellowish-green in colour, oblong in shape and pointed, rather stiff, with five prominent veins on the underside, and diminish gradually in size as they grow up the stem. The large flowers are in whorls in the axils of the uppermost few pairs of leaves, forming big orange-yellow clusters. The corollas are wheel-shaped, usually five-cleft, 2 inches across, sometimes marked with rows of small brown spots, giving a red tinge to the otherwise deep yellow. Seeds in abundance are produced by strong plants, and stock is easily raised from them.

---Cultivation---For the successful cultivation of *G. lutea*, a strong, loamy soil is most suitable, the deeper the better, as the stout roots descend a long way down into the soil. Plenty of moisture is also desirable and a position where there is shelter from cold winds and exposure to sunshine. Old plants have large crowns, which may be divided for the purpose of propagation, but growing it on a large scale, seeds would be the best method. They could be sown in a frame, or in a nursery bed in a sheltered part of the garden and the young seedlings transplanted. They take about three years to grow to flowering size. It is, however, likely that the roots are richest in medicinal properties before the plants have flowered. A big clump of *G. lutea* is worthy of a conspicuous position in any large flower garden, quite apart from its medicinal value.

---Part Used---The rhizome and roots collected in autumn and dried. When fresh, they are yellowish-white externally, but gradually become darker by slow drying. Slow drying is employed to prevent deterioration in colour and to improve the aroma. Occasionally the roots are longitudinally sliced and quickly dried, the drug being then pale in colour and unusually bitter in taste, but this variety is not official.

The dried root as it occurs in commerce is brown and cylindrical, 1 foot or more in length, or broken up into shorter pieces, usually 1/2 inch to 1 inch in diameter, rather soft and spongy, with a thick reddish bark, tough and flexible, and of an orange-brown colour internally. The upper portion is marked with numerous rings, the lower longitudinally wrinkled. The root has a strong, disagreeable odour, and the taste is slightly sweet at first, but afterwards very bitter.

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---Substitutes---*G. purpurea*, *G. pannonica*, *G. punctata* and *G. acaulis* are European gentians having similar medicinal properties to *G. lutea* and are used indiscriminately with each other and the official root, from which they differ but little in appearance, though are somewhat smaller.

American Gentian root is derived from *G. puberula*, *G. saponaria* and *G. Andrewsii*. This drug is said to have properties practically identical with those of European varieties.

Belladonna and Aconite roots, and the rhizomes of Orris and White Hellebore have been found mixed with the genuine root, and the powdered root of commerce is frequently adulterated, ground almond shells and olive stones having been used for this purpose.

---Constituents---The dried Gentian root of commerce contains Gentiin and Gentiamarin, bitter glucosides, together with Gentianic acid (gentisin), the latter being physiologically inactive. Gentiopicrin, another bitter glucoside, a pale yellow crystalline substance, occurs in the fresh root, and may be isolated from it by treatment with boiling alcohol. The saccharine constituents of Gentian are dextrose, laevulose, sucrose and gentianose, a crystallizable, fermentable sugar. It is free from starch and yields from 3 to 4 per cent ash.

---Medicinal Action and Uses---Gentian is one of the most useful of our bitter vegetable tonics. It is specially useful in states of exhaustion from chronic disease and in all cases of general debility, weakness of the digestive organs and want of appetite. It is one of the best strengtheners of the human system, and is an excellent tonic to combine with a purgative to prevent its debilitating effects. Many dyspeptic complaints are more effectually relieved by Gentian bitters than by Peruvian Bark. It is of extreme value in jaundice and is prescribed extensively.

Besides being unrivalled as a stomachic tonic, Gentian possesses febrifuge, emmenagogue, anthelmintic and antiseptic properties, and is also useful in hysteria, female weakness, etc. Gentian with equal parts of Tormentil or galls has been used with success for curing intermittent fever.

As a simple bitter, Gentian is considered more palatable combined with an aromatic, and for this purpose orange peel is frequently used. A tincture made with 2 OZ. of the root, 1 OZ. of dried orange peel, and 1/2 oz. bruised cardamom seeds in a quart of brandy is an excellent stomachic tonic, and is efficacious in restoring appetite and promoting digestion. A favourite form in which Gentian has been administered in country remedies is as an ingredient in the so-called Stockton bitters, in which Gentian and the root of Sweet Flag play the principal part.

The dose of the fluid extract is 1/2 to 1 teaspoonful in water, three times daily.

Fresh Gentian root is largely used in Germany and Switzerland for the production of an alcoholic beverage. The roots are cut, macerated with water, fermented and distilled; the distillate contains alcohol and a trace of volatile oil, which imparts to it a characteristic odour and taste.

---Preparations and Dosages---Fluid extract, 1/2 to 1 drachm. Compound infusion, B.P. 1/2 to 1 OZ. Compound tincture, B.P. and U.S.P., 1/2 to 1 drachm. Solid extract, B.P., 2 to 8 grains.

Culpepper states that our native Gentians 'have been proved by the experience of divers physicians not to be a whit inferior in virtue to that which comes from beyond sea.'

Gentian:

'comforts the heart and preserves it against faintings and swoonings: The powder of the dry roots helps the biting of mad dogs and venomous beasts.... The herb steeped in wine, and the wine drank, refreshes such as be over-weary with traveling, and grow lame in their joints, either by cold or evil lodgings: it helps stitches, and griping pains in the sides: is an excellent remedy for such as are bruised by falls . . . when Kine are bitten on the udder by any venomous beast, do but stroke the place with the decoction of any of these and it will instantly heal them.'

In the eighteenth century Gentian wine was drunk as an aperitif before dinner.