

### *Cannabis sativa*

[Synonyms : *Cannabis americana*, *Cannabis chinensis*, *Cannabis erratica*, *Cannabis foetens*, *Cannabis generalis*, *Cannabis gigantea*, *Cannabis indica*, *Cannabis indica* forma *afghanica*, *Cannabis indica* var. *kafiristanica*, *Cannabis x intersita*, *Cannabis kafiristanica*, *Cannabis lupulus*, *Cannabis macrosperma*, *Cannabis ruderalis*, *Cannabis sativa* forma *afghanica*, *Cannabis sativa* forma *chinensis*, *Cannabis sativa* var. *gigantea*, *Cannabis sativa* var. *indica*, *Cannabis sativa* subsp. *intersita*, *Cannabis sativa* var. *kafiristanica*, *Cannabis sativa* var. *kif*, *Cannabis sativa* var. *macrosperma*, *Cannabis sativa* var. *monoica*, *Cannabis sativa* forma *pedemontana*, *Cannabis sativa* var. *praecox*, *Cannabis sativa* var. *ruderalis*, *Cannabis sativa* var. *sativa*, *Cannabis sativa* var. *spontanea*]

**HEMP** is an annual. Native to temperate central and western Asia, it has small greenish flowers.

It is also known as Angler's weed, *Asa* (Japanese), *Bang* (Arabic, Egyptian, French), *Bangi* (Kikuyu), *Bhaang* (Hindi, Nepalese), *Bhaango* (Nepalese), *Bhang* (Bengali, Hindi, Punjabi), *Bhanga* (Sanskrit), *Bhangi* (Tamil), *Bhang ke beej* (Urdu), *Cáñamo* (Spanish), *Cáñamo índico* (Spanish), *Canapa indiana* (Italian), *Canapa indica* (Italian), *Cannabis*, *Cannevi* (Channel Islander-Jersey Norman-French), *Cannivet* (Channel Islander-Guernsey), *Cares* (Nepalese), *Carl hemp*, *Chanvre* (French), *Chanvre cultivé* (French), *Chanvre indien* (French), *Chanvrier* (French), *Chanvrier sauvage* (French), *Charas* (Bengali, Hindi), *Cherry*, *Common hemp*, *Cywarch* (Welsh), *Dagga* (Afrikaans), *Da ma* (Chinese), *Da ma cao* (Chinese), *Da ma ren* (Chinese), *Devil's flower*, *Diamba* (West African), *Fimble*, *Gallow-grass*, *Ganeb*, *Ganga* (West Indian), *Ganja* (Bengali, Hindi, Malay), *Ganzai* (Telugu), *Giant hemp*, *Ginje* (Javanese), *Grass*, *Grifa* (Spanish), *Hachís* (Spanish), *Hamp* (Danish), *Hampa* (Swedish), *Hamppu* (Finnish), *Hanf* (German), *Haschisch* (German), *Hash*, *Hashish*, *Hempweed*, *Hennep* (Dutch), *Huo ma* (Chinese), *Huo ma cao* (Chinese), *Indian hemp*, *Indiiskaia konoplia* (Russian), *Indische hennep* (Dutch), *Indischer Hanf* (German), *Indisk hamp* (Danish), *Kancha* (Thai), *Kannabis sativa* (Russian), *Kannabisu* (Japanese), *Kansa*, *Kif* (Arabic, English, Moroccan), *Kinnab* (Turkish), *Konopa siata* (Slovak), *Konopí seté* (Czech), *Konoplia indiiskaia* (Russian), *Loco-weed*, *Maconha* (Brazilian, Portuguese), *Mariguana* (Spanish), *Marihuana* (Czech, English, German, Mexican, Spanish), *Marijuana* (English, Spanish), *Mary Jane*, *Mashinin* (Japanese), *Neckweed*, *Porkanchaa* (Thai), *Pot*, *Qinnib* (Arabic), *Qunnab* (Arabic), *Red-root*, *Reefer*, *Riamba* (West African), *Russian hemp*, *Taima* (Japanese), *Tekrouri*, *Til* (Arabic), *True hemp*, *Weed*, *Wild hemp*, and *Ye ma* (Chinese); and in flower language is said to be a symbol of fate.

Dependent upon the method of processing chosen either hemp-seed oil in the form of an inedible drying oil which hardens upon exposure to air, or an edible nutritious oil can be obtained from the seed. Fibre is extracted from the stems.

Warning – possession of hemp is illegal in many countries. Its use can cause physical and psychological effects dependent upon individual metabolism. These can range from euphoria and impotence or changes in blood pressure to hallucinations and coma. (Other symptoms can include tremors, vertigo, muscular inco-ordination, dilated pupils,

increased tactile sensitivity and drug dependence with continued use.) In Britain hemp is a legally ‘controlled drug’ and it is a criminal offence to grow any plants from this genus in that Country, however innocuous, without a special license. Animals have been poisoned by the plant but normally avoid it because of its smell.

Growth of this species is banned in many countries including the United States, Kenya, Sudan, most west African countries and, as already mentioned, Britain.

*Sativa* means ‘cultivated’.

The plant (which is a source of food, material and medicine) has been of significant economic importance for centuries. It is believed by some to have originated just north of the Himalayan range of mountains, by others to have started in southern Siberia, and yet others in China. Chinese records, said to have been compiled first in 2737 BC and attributed in large part to the Emperor Shen Nung, mention that this species has separate male and female plants. (Authorities surmise that the Chinese, who held it in high esteem medicinally, were probably familiar with the hallucinatory properties by then and were aware of the plant’s negative qualities. Some suggest that Chinese medicine had actually been using cannabis for treating malaria, gout, constipation and rheumatism since at least 2800 BC.). The Chinese were producing a strong waterproof fibre from it as early as 2800 BC – or even earlier as modern authorities note evidence of this fibre there from 4000 BC and further west, in Turkistan, of rope and thread from 3000 BC. Recently archaeologists have found specimens in Egypt that date back to about 2000 BC.

By 500 BC hemp was growing throughout most of Asia, Asia Minor and India and in due time eastern Europe. Certainly some pundits believe that cannabis was part of an anaesthetic being used in India from at least 1000 BC. (Its introduction to North America was many, many centuries later.) The Greek historian, Herodotus (c.485-425 BC) wrote of the Scythian and Thracian practice of roasting the seeds and getting ‘high’ on the fumes. By then it had long been harvested on the banks of the Volga and the Scythians (who were ancestors of today’s southern Russians and, many believe, introduced hemp to some parts of China and certainly carried it to eastern Europe) intoxicated the air of their steam baths by throwing its leaves and seeds on the hot stones – a practice which they also performed for ecstatic communal union during mourning rituals. In the 9<sup>th</sup> Century BC the Assyrians (predecessors of people now living in Iraq) were also using cannabis as incense. During Galen’s lifetime (c.130-c.201) the Greek physician noted that cakes made with hemp were intoxicating if eaten to excess – and no doubt it was these (or a drink with opium-like properties, *Papaver somniferum*) that were being customarily offered to guests around the year 200 to start the party off ‘with a swing’.

Hemp has been part of everyday life in the Himalayas and India for centuries. It is sacred to the Tibetans and plays a role in various Buddhist traditions. As cannabis is dedicated to Siva, the Hindu god of destruction and reproduction, it has attracted various Indian traditions explaining its arrival on earth. As ‘bhang’ it was sacred and gave protection against evil, it cleansed sin and it brought good fortune. Many Indians still believe that it confers supernatural powers upon those who use it. Certainly records appear to suggest that Indians, beyond any other nationality, have considered hemp to have a value in folk medicine of panacean magnitude transcending more pragmatic prescriptions. [Many centuries later John Gerard (1545-1612) the English barber-surgeon and herbalist (the latter as a charlatan for many authorities) refers to the drug as the ‘Indian Dreamer’.] Mention should also be made of the African Continent. Here too hemp featured in tribal ritual. Long before Europeans appeared, African peoples living in the Zambezi River valley regularly inhaled hemp during ceremonial ritual. At the end of the 1880s one particular Bantu tribe vanquished many others in the Congo region. Each tribe had had its own gods and ritual and the conquerors sought a means of unifying the practices and

preventing aggression between the previously warring groups. Ultimately this was achieved when the diverse religious customs were denounced publicly and replaced with the ritual use of hemp. Now the drug is either banned or restricted in most African countries.

There are three main grades of hemp, with further quality classifications within each grade. The dried green leaves and flowering male and female tops provide the least potent and the cheapest form called 'bhang' which is equivalent to marijuana apparently in the United States and is usually mixed with cigarette tobacco. The middle quality, in order of potency, is called 'ganja' and uses a mixture of resin and plant from the female flowering tops. The most potent and expensive grade is known as 'charras' (of which 'hashish' is an inferior version often smoked in water pipes) and this is pure resin obtained from the female flowers that have been growing at a high altitude and it is usually mixed with spices.

The seeds enjoyed as food by the Polish today have been eaten in Europe since at least the time of the ancient Greeks who ate them fried. In some parts of central Europe the seed oil is also used for cooking. In south-eastern Asia the leaves provide a flavouring for soup and a vegetable – and in Japan the seeds are added to fried food as a flavouring.

According to authorities hemp was introduced to western Europe from the north. [Whether independent of this view or in contradiction of it, authorities also note that remains of hemp seed (which is likely to have been an important food for early man) have been found in eastern Europe – and a hesitantly dated archaeological find in Germany may hail from about 500 BC.] By the 3<sup>rd</sup> Century BC Gaul (today's France) was exporting hemp fibre to Rome for sails and rope, and the grades of this fibre and their preparation were later described by Pliny (23-79) the Roman natural historian. Archaeologists have since found rope on a Roman site in England which dates back to about 140-180 AD, and other evidence is understood to indicate that cultivation of hemp (for fibre) increased there significantly from 400-1100. Authorities suggest that it is only relatively recently that hemp's inebriant qualities have been employed in the Western World, although they were known in the Greek and Roman Empires.

For 200 years from 1090 members of a Persian secret society formed and led by one, Al-Hasan ibn-al-Sabbah (who was held to be a fanatical disciple of Islam and died in 1145) terrorized the Persian Empire by carrying out assassinations while under the influence of drugs. The famous Venetian traveller, Marco Polo (1254-1324) included reference to this in the notes of his travels. The members were called *hashhashin* or *hashishin*, the Arabian word for 'hashish eaters' with which today the word 'assassin' is popularly associated. But both the derivation of 'assassin' and the actual drug the society's follower's used (still assumed to be hemp taken in the form of a greenish paste) are understood to be open to serious argument. Although Moslems were not allowed to smoke cannabis and authorities attempted to remove all traces of the plant within Arabian territory, even introducing harsh punishments in 1378, the use of hemp persisted and progressed through the African Continent. Here over many centuries different tribes have absorbed the medicinal and inebriant use of hemp into their customs many of which continue today. Women in the Sotho tribe smoke hemp before childbirth, and it is also valued as a cure for snake bites by both Khoikhoi and Mfengu. The region around Lake Victoria is reported as having a high number of cults that employ the hallucinatory qualities of hemp.

The Americas (especially North America), have not been able to contribute to hemp history until their more modern experiences as the plant only reached there in the mid-1500s – and then as a fibre plant (although it seems from records that the North American Iroquois Indians used it for some medicinal purpose). Authorities have noted recently that

in Mexico a plant identified as hemp has been used (under the name ‘Rosa Maria’) as an alternative to mescal buttons (*Lophophora williamsii*) by the Tepecano American Indians and has also played a primary role (under the name ‘Santa Rosa’) in a semi-Christian communal healing ceremony attended by various Middle American Indian tribes. It is contended that smoking hemp (or marihuana as it is known in America) spread from Mexican labourers across the southern United States in the early 20<sup>th</sup> Century – and from there through the rest of the Continent and over the Atlantic to western Europe. But the Europeans, it should be said, did not wait for the American fashion to jump the Atlantic. Artists and academics were ‘experimenting’ with the use of cannabis (as the drug is known in Europe) from at least the 19<sup>th</sup> Century. At that time in Paris many of the celebrated writers including the French poet and novelist, Théophile Gautier (1811-1872) the poet, Stéphane Mallarmé (1842-1898) and the well known author and poet, Victor Hugo (1802-1885) are known to have met at the *Club des Hashishins* to enjoy the green paste. The French poet, Charles Baudelaire (1821-1867) published his *Les Paradis artificiels* in 1860 in which he describes his experience of the use of cannabis. Across the Channel famous English artists also succumbed – not least the celebrated English author, Charles Lutwidge Dodgson (1832-1898) better known as Lewis Carroll, who produced *Alice’s Adventures in Wonderland* in 1865. In this Alice meets the Caterpillar who is sitting on top of a mushroom smoking a hookah. They

looked at each other for some time in silence; at last the Caterpillar took the hookah out of its mouth, and addressed her in a languid, sleepy voice.

Apparently varieties of hemp grown for the fibre are best cultivated in cooler climates and the main producers today in order of importance are Russia, Italy, Hungary, India and China. (Until civil war broke out at the end of the 20<sup>th</sup> Century in Yugoslavia, she was the third largest producer of hemp fibre.) Strangely few realize that Levi Strauss & Co. initially imported *serge de Nimes* from Nimes in France to North America and he made his first pair of jeans from the material woven from hemp fibre. Both the clothing and the material soon became known as ‘denim(s)’, a corruption of the French name of origin. But unlike jeans today, which are made of cotton (*Gossypium*), these first jeans made from hemp are reported to have been harsh (despite the fact that for hundreds of years by then it had been woven in its natural habitat into the gentlest and finest of cloths). However these jeans were meant to be extremely tough and durable as cheap protective clothing – suitable initially for the gold prospectors lured by the California Gold Rush of the late 1840s.

Some authorities contend that the hemp grown in England contributed significantly to the Island’s maritime strength in past centuries because it was from this that the tough sailcloth (‘canvas’, which apparently takes its name from the plant) was woven and the ropes made. In fact for Henry VIII (1491-1547) both hemp and flax (*Linum usitatissimum*) were considered of such importance that he decreed that anybody in England with a suitable 20 acres of land must cultivate one of these plants. Thus the fibre crop was a constructive part of the English way of life (it was also used to make material for clothing) and was included among the plants taken by early emigrants from English shores. In advance of the Pilgrim Fathers, who are said to have carried it with them to New England in 1620, hemp was introduced to Canada in 1606 and Virginia in the southern states five years later. {Earlier still hemp arrived in the Spanish colony of Chile in 1545 and of Peru in 1554.} A similar directive, where hemp was concerned, was made by Britain in the 18<sup>th</sup> Century during the last half of which George III (1738-1820) was on the throne. In this case cultivation of hemp both in England and the North American colonies (it was first introduced to Kentucky in 1775) was mandatory to feed the

demands of the English cargo ships. By then not only was it used for the ropes, rigging, anchor cables (which were then tarred) and the canvas sails, but it was also required for the materials used to caulk the hulls. An interesting footnote to this has arisen in the 1990s. In EEC countries in continental Europe species other than *sativa* have been grown for years primarily to provide a non-allergenic animal bedding. In 1993 the British Government adopted this widespread European practice and from then permitted farmers to grow specified hemp species (other than *sativa*) under strict licensing controls, for industrial use eg. the fibre can be used for making higher quality papers such as those appropriate for banknotes. [The decision to issue licences in Britain was featured in *The Archers*, a long running farming radio serial broadcast there. One of the less pragmatic farming characters was initially ecstatic at the thought of growing ‘cannabis’ legally and listeners could ‘visualise’ the many wheezes his fertile mind was cooking up. However the permitted species and varieties are unsuitable for making any narcotic material as it is understood that a whole field of these plants would be needed to be harvested to obtain sufficient material to smoke.] It is also understood that some European fashion houses may have expressed interest in the fibre with the intention of combining it with man-made fibres to produce a crease-resistant linen.

Hemp has played an important part in the paper industry for centuries. For about 800 years until the 19<sup>th</sup> Century paper in Europe was made from hemp, cotton (*Gossypium*) and flax (*Linum usitatissimum*) rags. (From about 200 BC the Chinese have made fine paper. Their method was enhanced by the Arabs who, when they invaded Spain in the 11<sup>th</sup> Century, brought the process to Europe.) Although the commercial producers of paper turn to trees for pulp, hemp fibre is now receiving renewed interest, partially as a consequence of environmental concerns, as it can be used to manufacture a very strong, flexible quality paper that can be suitable for such items as the bank notes already mentioned, and legal stationery.

Certainly in Britain and, no doubt elsewhere, hemp has been used in various charms at least from the 18<sup>th</sup> Century. It seems to have been viewed particularly as a love oracle. A woman’s true-love would be seen if on Midsummer Eve she walked into a churchyard at the same time scattering hemp seed and chanting

Hempseed I set, hempseed I sow,  
The man that is my true love,  
Come after me and mow!

A description of the divination practices is provided by the English novelist, poet and dramatist, Thomas Hardy (1840-1928) in his novel, *The Woodlanders*.

Hemp was also referred to earlier in some of the plays of the famous English dramatist, William Shakespeare (1564-1616) but generally these were in its form as rope. In *Henry V* he wrote

.....your fancies, and in them behold  
Upon the hempen tackle ship-boys climbing;  
Hear the shrill whistle, which doth order give  
To sounds confused; behold the threaden sails, .....

The seed oil, which has been used in veterinary medicine as a sedative, has also been used for lighting and for manufacturing soap. In the past the oil has been an adulterant in linseed oil (*Linum usitatissimum*) used in paints.

The seed cake left after oil extraction has been used for animal feed. Birds will eat the seeds with enjoyment. Pigeon fanciers even today give it to their birds not only to improve their condition but also as a tea with garlic to increase their stamina and speed in flight.

Today in the West the fibre is used commercially for making rope, netting, cables, twine and coarse fabrics. The seed oil is used similarly in paint, varnishes, food and soap, and the seeds themselves are found in commercial birdseed.

Medicinally, the plant was used in medieval Europe to treat many ailments eg. cystitis, gout, coughs, jaundice and gunpowder burns, and it was also employed to ease pain. Today hemp can be considered of benefit in the treatment of asthma, spasmodic coughing, glaucoma, migraine and neuralgia, and further research into its medical applications has still to be completed. (In 1998 in order to facilitate research the British Government gave a commercial company a special licence to grow the plant in greenhouses under a regime of high security for formal clinical trials. These trials were required to assess the medicinal value of using the drug eg. pain relief, easing nausea caused by chemotherapy, and if successful it would then be permitted as an ingredient in specific pharmaceutical products which would need to have formal clearance for legal use in that Country.)

It is the birthday flower for 24<sup>th</sup> June.