

*Allium sativum*

[Synonyms : *Allium controversum*, *Allium pekinense*]

**GARLIC** is a bulbous perennial (or biennial). Possibly native to central Asia it has reddish-green tinged, white flowers and among them clusters of tiny bulbils.

It is also known as *Aglio* (Italian), *Aglio comune* (Italian), *Ahos* (Visayan), *Ahus* (Visayan), *Ail* (French), *Ail blanc* (French), *Ail commun* (French), *Ail de printemps* (French), *Ail rose sans bâton* (French), *Ajlo* (Esperanto), *Ajo* (Spanish), *Ajo comune* (Spanish), *Ajo vulgar* (Spanish), *Alho* (Portuguese), *Alho ordinario* (Portuguese), *Allium*, *Bawang* (Tagalog), *Bawang bodas* (Sundanese), *Bawang puteh* (Malay), *Beli luk* (Serbian), *Bellulli* (Kannada), *Bhabang poté* (Madurese), *Česen* (Slovenian), *Česnek kuchyňský* (Czech), *Češnjak* (Croatian), *Chesnok* (Russian), *Chyet thon phew* (Burmese), *Clove garlic*, *Clown's treacle*, *Common garlic*, *Cultivated allium*, *Cultivated garlic*, *Czosnek* (Polish), *Czosnek pospolity* (Polish), *Da suan* (Chinese), *Dryák* (Czech), *Echter Knoblauch* (German), *English garlic*, *Gaarikku* (Japanese), *Garden garlic*, *Garleg* (Welsh), *Gemeiner Knoblauch* (German), *Gewöhnlicher Knoblauch* (German), *Hom tiam* (Thai), *Hvidløg* (Danish), *Hvitlok* (Norwegian), *Hvitlök* (Swedish), *Kath'ièm* (Laotian), *Katiam* (Thai), *Khtùm sâh* (Khmer), *Kitunguu saumu* (Swahili), *Knoblauch* (German), *Knoflook* (Dutch), *Krathiam* (Thai), *Lahasun* (Hindi), *Lahsan* (Hindi), *Larsan* (Hindi), *Lasan* (Gujarati, Punjabi), *Lashun* (Urdu), *Lashuna* (Kannada, Sanskrit), *Lashunaa* (Sanskrit), *Lassan* (Hindi, Punjabi), *Lasun* (Hindi, Nepalese, Punjabi), *Lasuun* (Marathi), *Lay* (Creole), *Lehsun* (Urdu), *Luček* (Czech), *Luk chesnok* (Russian), *Luk posevnoi* (Russian), *Lusoon* (Marathi), *Ma nul* (Korean), *Naharu* (Assamese), *Ninniku* (Japanese, Turkish), *Poor man's treacle*, *Rashum* (Bengali), *Rasun* (Bengali), *Rasuna* (Oriya), *Ruhan* (Kashmiri), *Sarimsak* (Turkish), *Sarmesak* (Turkish), *Sarmusak* (Turkish), *Sarunsak* (Turkish), *Saum* (Arabic), *Seer* (Persian), *Sekhdor* (Armenian), *Shoum* (Hebrew), *Shum* (Hebrew), *Sir* (Persian), *Skorda* (Greek), *Skordo* (Greek), *Skordon* (Greek), *Skortho* (Greek), *Suan* (Chinese), *Sudu-lunu* (Singhalese), *Suan* (Japanese), *Suen tao* (Chinese), *Tewm* (Maltese), *Thawm* (Arabic), *Thoom* (Arabic), *Thoum* (Arabic), *Thum* (Chinese), *Thurn* (Arabic), *Tôi* (Vietnamese), *Toom* (Arabic), *Toum* (Arabic), *Valkosipuli* (Finnish), *Vallaipundu* (Malayalam), *Vellaippuntu* (Tamil), *Vella-vengam* (Tamil), *Vellaypoondoo* (Tamil), *Vellulli* (Malayalam, Telugu), *Velluri* (Telugu), *Vitloek* (Swedish), *Vitlök* (Swedish), and *Wullaypoondoo* (Tamil).

The flavour of the cloves develops best in warm climates and the taste can become rank in more temperate areas.

Warning – garlic can irritate the skin a little. Large doses may cause indigestion and kidney damage, and it is alleged can also make eyes light-sensitive.

*Sativum* means ‘cultivated’.

The name Garlic comes from Anglo-Saxon words *gar* meaning a ‘lance’ (as a description of the shape of the leaves) and *leac* meaning a ‘pot flavouring’.

Although some authorities have believed that garlic could have been native to central Asia it is understood that many now subscribe to the view that it developed from a species in Sumeria (today's Iran).

Garlic's many qualities have been known for thousands of years all over the world. From

archaeological discoveries it is believed that garlic was used in the Dead Sea area from at least 3500-3000 BC (the end of the Mesolithic or Middle Stone Age) and models of the bulb in clay have been found in the area and dated at about 3750 BC. In the East it was respected widely as an antiseptic medicine as well as a flavouring or food. Its importance in classical times is well illustrated by the fact that garlic was buried with Tut'ankhamun (the young boy-king who was an Egyptian pharaoh of the 18<sup>th</sup> dynasty who reigned for 6 years until his death at roughly 18 years of age in about 1340 BC). Apparently six live, dried garlic bulbs were found when the tomb was opened. Records also show according to some Egyptologists that when the Egyptians were building the pyramid for Pharaoh Cheops (26<sup>th</sup> Century BC) garlic (or possibly leeks, *Allium ampeloprasum* var. *porrum*) was part of the labourers' wages (with garden parsley (*Petroselinum crispum*) and onions (*Allium cepa*)), forming part of their daily diet to give them nourishment and strength. Other Egyptologists have recently suggested that these same records are actually referring to offerings made to Egyptian deities. The Roman, Pliny the Elder (23-79) who wrote on natural history, would appear to give support to the latter theory as he suggests also that as with onion the plant's powers were invoked like those of a god when Egyptians took oaths. The Book of Numbers in the Old Testament of the *Bible* records that the Israelites ate the plant before their exodus from Egypt.

Meanwhile garlic had spread East and authorities believe that its first recorded use in China dates back to about 2000 BC. Here as in other parts of the world the bulb provided both medicine and flavouring, and from that period to the present day it seems that the Chinese have tended to combine it with ginger (*Zingiber officinale*) especially when cooking food.

The Sanskrit *Bower Manuscript* of 350-375 AD is understood to be the oldest known Indian recorded reference of garlic's use at the end of the 20<sup>th</sup> Century. This describes Indian medicinal practice back to about the 6<sup>th</sup> Century BC and garlic would appear to have played a very important role during that period.

Back in the Mediterranean area, although it was eaten by both the ancient Greeks and the Romans it seems that its smell had a bearing on religious and social custom, and that it was more popular with the latter. On the one hand the Greek epic poet Homer, writing in the 8<sup>th</sup> Century BC, attributes Ulysses' escape from a hazardous adventure to the virtues of garlic and on another occasion has Nestor serving garlic to his guest, Machaon; while on the other hand nobody was allowed to enter the temples of the great mother-goddess, Cybele, if they had eaten the bulb. For the Romans garlic's popularity seems to have vacillated between wild enthusiasm and rejection, primarily because of its smell. Horace, the Roman poet and satirist who was composing in the last Century BC, tells us that just before the birth of Christianity the smell of garlic was considered to be a sign of vulgarity and, personally, that he believed it killed passion. This apart the Roman armies were fed garlic on their long marches as it was believed to be able to engender courage and this practice led to the plant's dedication to the Roman god of war, Mars. The Romans used garlic in their cooking and also employed it medicinally, particularly as a treatment for fluid retention and as a remedy for worms.

At the time of the ancient Greek civilization's decline the Byzantines in what is now Turkey were luxuriating in garlic's culinary attributes. This is clearly illustrated in the records that mention their enjoyment of roasted garlic which had been crushed in olive oil and salt – a dish the Spaniards still make today.

In 14<sup>th</sup> Century Spain however Alfonso XI of Castile (1312-1350) had a completely different view of garlic. In 1330 he decreed that any knight who consumed garlic or onions (*Allium cepa*) was banned both from the Court and from association with courtiers for four weeks.

When at sea in the 17<sup>th</sup> Century European sailors cooked garlic with their stale and rotting food, partly to mask the unpleasant smells and tastes and partly as an antiseptic. This last was equally unwittingly relied upon by many during outbreaks of plague as recalled in Marseilles which experienced a particularly bad epidemic in 1726. Four grave robbers seemed to be immune to the disease and when caught and prosecuted were said by some to have accounted for their good health by their use of garlic. And this particular attribute in garlic's cornucopia is still respected today in rural New Mexico, in the south-western United States, where garlic can be found strung into necklaces as a protection against infection from diphtheria.

In addition to garlic's culinary and medicinal uses (for which it was often considered that the stronger the smell, the more effective the healing powers) garlic was supposed to be able to protect against evil. In Greek mythology Odysseus uses a wild garlic *moly* as a charm to prevent Circe, the sorceress, from turning him into a pig. Then Muslim legend describes how Satan left the Garden of Eden after man's fall from grace and garlic sprang up from the place where his left foot touched the ground and onion from the placing of his right foot.

The original possibility identified at least by the ancient Greeks that garlic can help to combat lethargy may have been translated into some weird beliefs and practices. Certainly it could help to explain a conviction held in some places in Europe that garlic is an invaluable asset for athletes who should be able to prevent competitors outstripping them if they chew a piece of bulb as they run. This is said to have been developed in a different direction by Hungarian jockeys however. It is alleged that they have been known to tie garlic to a horse's bridle in the belief that any other horse smelling this will fall behind. Garlic's powers were admired no less in the Middle Ages when garlic was considered to be a powerful protection against witches, demons, and the evil eye. This belief has continued into the more recent European vampire traditions and today across the Atlantic, in the countryside in New Mexico in the southern United States, it is still the custom for a young girl to use garlic to repel the attentions of an unwanted boyfriend. In order to achieve this she must place a piece of garlic and two crossed pins at the intersection of two roads and persuade the boy to pass over them without his knowledge. Other superstitions also persist, not least in some areas of Europe. One of these is that garlic hung in the house on All Hallows' Eve (31<sup>st</sup> October) will provide protection from evil spirits.

Garlic juice has been used to mend broken china and glass. Recently it has also come to the attention of fish farmers. It seems that in the Shetland Islands it has been the practice to suspend cut onion (*Allium cepa*) in fish cages as a parasite deterrent. At the end of the 20<sup>th</sup> Century salmon farmers were taking this one stage further and spraying fish food with garlic oil to combat salmon lice. Although they had been using organic phosphate pesticides for the same purpose the fish farmers had been searching for an alternative which posed less dangers. As yet (at the beginning of the 21<sup>st</sup> Century) it is not known how the garlic works but its success has been sufficient to raise the possibility that it could supersede organic phosphate pesticide in other farming applications.

Authorities believe that garlic has been cultivated in Britain since at least the beginning of the 16<sup>th</sup> Century. Many certainly subscribe to the view that it was introduced to the Islands, as in other European countries, by the Roman legions in the early Centuries AD.

Although it is not known for certain how or when it reached North America the untamed garlic growing in Quebec (Canada) is eaten by the local Indian tribes such as some of the Algonkin to whom it has long been familiar. Further south the Cherokees in Northern Carolina and Georgia used cultivated garlic medicinally – for treating asthma, scurvy, fluid retention and wind, as well as worms and croup in children.

Garlic attracts its share of attention in literature. In the plays of the famous English bard, William Shakespeare (1564-1616) there are at least five references to it including  
..... he would mouth with a beggar, though she smelt brown  
bread and garlic: .....  
from *Measure for Measure*, and  
..... you that stood so much  
Upon the voice of occupation, and  
The breath of garlic-eaters!  
from *Coriolanus*.

One perhaps surprising quality attributed to garlic in view of its penetrating and lingering smell and not mentioned so far is that of an aphrodisiac. Apparently this attribute has been recognized by some people in for example some parts of India.

As yet scientific research has not been able to uphold or dispute the benefits attributed medicinally to garlic although it has been able to show that fresh garlic has more effect than a processed alternative. It has in the past been recommended by European herbalists (alone or as an ingredient) for a very wide range of remedies and preventative measures not least protection against epidemic fevers ie. plague. In the latter case it is said that in past centuries when clergy visited the sick French priests who ate garlic regularly appeared to have immunity from the disease in question whereas their English counterparts succumbed. It has also been used to treat most respiratory ailments, rheumatism, epilepsy, fluid retention, hysteria, worms, toothache and earache. Today garlic is often recommended in orthodox Western medicine for curing colds, influenza, bronchitis, whooping cough, acne, indigestion and asthma, and it has drawn particular interest recently in the treatment of thrombosis and arteriosclerosis. Chinese medicine has used garlic for years particularly as a remedy for diarrhoea, whooping cough, indigestion, fluid retention and various skin disorders. Garlic has also attracted attention for treating lead poisoning and dysentery. Today garlic is used commercially by the pharmaceutical industry in proprietary medicines.