

Nicotiana tabacum

[Synonyms : *Hyoscyamus peruvianus*, *Nicotiana gigantea*, *Nicotiana latissima*, *Nicotiana macrophylla*]

TOBACCO is an annual or biennial (normally cultivated as the former). Of uncertain origin from tropical America it has fragrant, greenish or purplish-white flowers.

It is also known as *Ana* (Zuni North American Indian), Common tobacco plant, Creole tobacco, Cultivated tobacco, *Dhum-kola* (Sinhalese), Drunkenwort, *Kibaki* (Kikuyu), Large tobacco, *Nicotiane* (French), *Pogaku* (Telugu), *Pokala* (Malayalam), *Poyile* (Tamil), *Pugai-yilay* (Tamil), Queen mother herb, *Taa* (Twi), *Tabac* (French), *Tabacco* (Italian), *Taback* (German), *Tabaco* (Spanish), *Tabak* (Creole, German), *Tabako* (Esperanto), *Tabak virginsky* (Slovak), *Tabák virginský* (Czech), *Tamak* (Bengali), *Tamaku* (Punjabi), *Tamakhu* (Sanskrit), *Tambaku* (Hindi), *Tawa* (Twi), *Tobak* (Swedish), *Tupakka* (Finnish), *Tütün* (Arabic), Virginia tobacco, *Virginiatobak* (Swedish), and *Virginischer Tabak* (German).

Warning – all parts of the plant (especially the leaves) are poisonous for humans and animals. The poisons can be absorbed through the skin. They can cause nausea, vomiting, sweating, muscular weakness, heart irregularities, arterial degeneration, drowsiness, lung disease, cancer and death.

Tabacum is derived from a French name for the plant, *tabac*.

There would appear to be some dispute over the derivation of the word Tobacco. Some authorities say that it comes from one of the plant's American Indian names. Others contend that it relates to various plants that have been used for smoking, then there are those that declare that it is a Spanish word derived from one in Arabic applied to any plant that induces euphoria *tabāq* – and yet others that it is derived from a Caribbean word for the pipe in which it was smoked, or even a Haitian name for tobacco rolled inside a maize leaf *taina*.

American Indian tribes believed the plant had magical properties. Their priests smoked them (often in a mixture with other plants) as part of religious ritual, the medicine men used them (and still do today) both for healing and magic, and the plants were also used in the preparation of perfume. It was considered a cure for a wide range of ailments, including headaches, giddiness and rheumatism, as well as bruises and animal and insect bites. Tribes not only smoked the leaves but they also chewed and sniffed them. Tobacco leaves were used in hunting the more deadly snakes. They were thrown at the snake and as the tobacco poison in the leaves was absorbed rapidly through its skin, its movements slowed. A long stick was used to put more leaves into the snake's open mouth and inebriated the reptile was unable to put up much resistance when it was killed.

When Columbus (1451-1506), the Genoese explorer, made his 1492 voyage two members of his crew who were put ashore in Cuba brought back strange stories of the inhabitants blowing smoke from their noses and mouths. It seems that the Indians not only smoked cigars of rolled leaves (said to have been called *tobacos*) but also made small fires of the dried leaves and inhaled the smoke through their nostrils using hollow reeds. Among those who accompanied Columbus on his second expedition to the West Indies the following year was a Father Ramon Pane. He not only confirmed these tales but also

provided the first account of snuff (the most common method used by South American Indian tribes for taking it even today) when he reported that the dried leaves were ground into a fine powder and, allegedly to clear the head, sniffed through a hollow cane. Subsequent travellers also recounted how pellets made from pounded leaves and ground seashells were chewed to allay hunger and thirst on long journeys.

It is interesting to note that tobacco leaves have to be prepared in different ways according to their final use eg. cigar, cigarette, cheroot, pipe tobacco, chewing tobacco, snuff, and American Indian tribes had discovered these long before the Europeans came on the scene. Tobacco penetrated North America early on from the tropics. Indian tribes in the south, such as the Cherokee or the Navajo, generally employed it in ceremonial ritual and medicine – and considered it to be semi-sacred. Further north around the Great Lakes, and in the New England area and the plains (where tobacco could be grown less easily and was supplemented by trading), the leaves were in much shorter supply. Despite this for the Thompson Indians in British Columbia the plant came to be an offering made in their sweat-houses. The leaves also came to be smoked by the Tohono O’Odham, Oweekeno, Haisla, Cherokee and Hanaksiala Indians. The Tsimshian tribe chewed them, Hesquiat Indians included them as an ingredient in a tobacco mixture that they both smoked and took as snuff, and the Iroquois tribe smoked the roots.

As a source of medicine it was familiar to quite a few North American Indian tribes. The Cherokee used it to treat fluid retention, vertigo, worms, wind, spasms and snake bites, as well as to cause vomiting or sweating as necessary – and they prescribed it as a purgative too. Like the Thompson Indians (and the Hawaiians) they also applied it to boils or sores, and both the Hesquiat Indians and the Hawaiians put it on wounds. It was used by the Hanaksiala and Haisla tribes to ease rheumatism, the Micmac tribe chose it to stem bleeding, Rappahannock, Shinnecock, Micmac and Mohican Indians relied upon it for some ear problems, and the Montauk, Rappahannock, Cherokee and Shinnecock Indians all used it to ease toothache.

The plant (which is likely initially to have been the closely related *Nicotiana rustica* and would have produced a markedly inferior tobacco) was introduced to England in 1566 by the navigator and naval commander, Sir John Hawkins (1532-1595). From the start it was not wholly welcome. Since 1496 when Columbus returned from a voyage to the West Indies with samples of the dried leaf tobacco it had gradually been spreading through parts of Europe. (It was alleged to have potent aphrodisiacal qualities which no doubt helped its ready acceptance by the populace.) By the early 1600s tobacco smoking had taken hold. In England for example nearly every public house by then provided a communal pipe for its customers’ use. But in 1620 James VI (of Scotland and I of England (1566-1625) banned attempts in Britain to cultivate tobacco plants there (the climate was in any event inappropriate), imposed a tax of 1 shilling for every pound of leaf produced by North American settlers and the Virginia Company (presumably as a deterrent), and in 1621 declared that smoking was bad for the chest. But none of this dampened either the ever-increasing demand in Britain or the Virginian growers’ enthusiasm for their crop. Some historians believe that it was tobacco that ultimately established the Colony in Virginia after over 100 years of tremulous beginnings (the Europeans found the climate and environment alien and through their own often appallingly handled contacts with the local inhabitants, the Indian tribes – many of whom tried initially to help them – they were at the mercy of angry massacring Indians as well). By the mid-17th Century African slaves were being shipped across the Atlantic in a steady flow to work on the tobacco plantations as much as they were for the other major commodities such as cotton (*Gossypium*). Among the 18th Century plantation élite were the American statesmen, Patrick Henry (1736-1799) and Thomas Jefferson (1743-1826) the latter destined to

become the Third President of the United States. During the 17th, 18th and 19th Centuries rulers, among them Kings, Popes and Sultans, all made varying attempts to ban smoking in their realms whether in the form of cigarettes or cigars. The latter even condemned those who disobeyed to violent, cruel deaths. In 1590 the then Pope banned the use of tobacco in the Vatican with the penalty for disobedience set at excommunication, and in the 17th Century Michael Romanov (1596-1645) the Russian Tsar, declared that the nose would be chopped off anyone caught using tobacco. Nothing was successful and the plantations developed into the huge tobacco companies of the late 20th Century – which were in due time to set up their own research laboratories that, amongst other things, assessed the virulence of the plant's drugs.

Since the 2nd World War of the 1940s however disquiet about the lethal effects of tobacco products was taking root in the general public's psyche. During this time journalists obtained material that suggested that tobacco company laboratories had proved beyond doubt by at least the mid-decades of the 20th Century that smoking tobacco is both lethal and addictive. At the same time they, the tobacco Companies, are also supposed to have found ways of making far less harmful products. But it is believed to have been argued that the latter would not only reduce their income dramatically because production costs (excluding research expenditure to date) could be much increased and could not be passed on in their entirety to the consumer in the short term, but also that introduction of such products could be an admission of awareness of the lethal nature of existing tobacco products, especially cigarettes – and *de facto* a recognition of some responsibility (however small) etc. for the health of their customers (consumers). This could open the tobacco Companies to many swingeing and crippling legal claims. It should also be noted that government taxes on tobacco products are common throughout the Western world and these have contributed significantly to the exchequers of the countries concerned thus creating a conflict of interest for politicians. These taxes, long cloaked in a transparent film of social conscience, have proved to be unsatisfactory as smoking deterrents – although the size of them today is beginning to be prohibitive. One other significant facet has not been mentioned and that is the anti-smoking movement in the Western developed countries. It was gaining considerable impetus during the 1980s and 1990s and must have been a major force in encouraging large sections of Western society to view smoking as anti-social, as well as the expansion of public areas where smoking is prohibited. Now tobacco companies, especially in the United States, are being besieged by litigation from individuals who allege they were encouraged to believe that smoking was not harmful – was even good for them – and have suffered physically as a result, and from government bodies seeking compensation for the costs of community health-care. In March 1997 the first tobacco company to accept that its tobacco products (especially cigarettes) are addictive and harmful to health, agreed to use a quarter of its profits annually (for a period of 25 years), for health claims, and – perhaps of far greater importance – to release documents that included correspondence between lawyers of the major tobacco conglomerates which are alleged to display the tobacco industry's knowledge of the addictive and lethal nature of its products. In the footsteps of several other countries smoking was banned in public places in England on the 1st July 2007.

Although cultivation of the plant used to be monopolized first by Venice and then the Vatican, and the Virginia Company, it is grown commercially in many countries today. In 1985 China was not only the largest producer but also the biggest consumer. Locally there green cheroots are often smoked, made from the chopped dried stems. For the Chinese and for Westerners however there could be a disturbing 'opiate' sense of *deja vu*. Western tobacco conglomerates already referred to (including British owned bodies) are

changing their consumer targets as litigation proceeds to enable them to concentrate their energies on selling their tobacco products to Eastern countries – in particular China.

If a single drop of purified nicotine extracted from a tobacco plant were to fall on human skin the result would be death. A much diluted solution of this has long been used as an insecticide in horticulture to kill caterpillars, plant lice and other insects – and it is also used in perfumery. A further dramatic illustration of tobacco's potency is provided in a story that is perhaps worth mentioning. It tells how a man tried to smuggle tobacco leaves across a national border by securing them to his torso. Although he had managed the dangerous crossing over a mountain range successfully, he was found dead on the other side of the border. The leaves' lethal qualities had been absorbed in the relatively short time that they had lain against his skin.

The tobacco plant features in heraldic devices. In particular a stem is depicted in the national coat of arms of Brazil.

Medicinally, in the past tobacco has been used by herbalists to treat croup, constipation, convulsions, worms, tetanus, skin diseases, ulcers, piles, neuralgia, eye infections and deafness. During the 1665 Great London Plague many prospective victims were convinced that smoking tobacco acted as both preventative and antidote – and even children were encouraged to smoke a pipe night and morning.

Research being carried out at the turn of the 20th and 21st Centuries by the Japanese suggests that extracts from the leaves could provide a cure from some cancers (often caused by them).