

Indigofera tinctoria

[Synonyms : *Anila tinctoria*, *Anila tinctoria* var. *normalis*, *Indigo sumatrana*, *Indigofera anil*, *Indigofera indica*, *Indigofera sumatrana*, *Indigofera tinctoria* var. *macrocarpa*]

INDIGO (Creole, English, French) is a deciduous shrub. Native to tropical Asia (particularly India and Burma, the latter called by some today, Myanmar), it has small, pink and red flowers.

It is also known as *Añil* (Spanish), Commercial indigo, *Gali-nili* (Gujarati), Indian indigo, Indicum, *Indigostrauch* (German), Indigo weed, *Kram* (Thai), *Nil* (Bengali, Hindi), *Nilam* (Malayalam), *Nil-awari* (Singhalese), *Nili* (Tamil, Telugu), *Nilika* (Sanskrit), *Tarum* (Malay), and True indigo plant.

A black dye is extracted from the leaves.

Warning – the whole plant is poisonous. It is said to be able to cause nausea, diarrhoea and vomiting.

Tinctoria is derived from Latin *tinctus* (dyed, stained, tinged) meaning ‘used in dyeing’.

Indigo was used to dye the wrappings round the mummies found in the Egyptian tombs at Thebes that date back to about 3000 BC.

The dye was brought to western Europe in the 16th Century by the Portuguese explorers. It was known in Europe long before then however because records show that it was being imported into southern Europe from India during the lifetime of Alexander the Great (356-323 BC). It was reaching Rome via Alexandria. Then the Roman Empire began to disintegrate and during the consequent hiatus this trading link was broken. Some authorities surmise that the dye was still imported from India by Persia (now Iran) and certainly 6th Century records seem to confirm this. From there it is said to have travelled east overland to China. It was not until about 1200 that a sea route replaced the long overland journey to the Orient from north-western India. Two or three centuries later a sea route from western Europe to the Indian Ocean was to be discovered and this too was to lead to further outlets for the dye.

In 1501 the Portuguese explorer Cabral (c.1467-c.1520) returned home to Lisbon from India (via the Cape of Good Hope) with the Asian dye indigo on board and from 1516 Portuguese traders included small quantities of it among their cargoes. But western and northern Europe had built up a dependency on a less reliable and ultimately more expensive dye obtained from their native woad (*Isatis tinctoria*) and as time passed whole communities were eventually to admit to a vested interest in maintaining the use of woad. By the end of the 16th Century, however those ‘small quantities’ of imported indigo had shown a significant increase – despite determined resistance evident not least in the fact that indigo attracted derogatory names such as ‘devil’s dye’ or ‘devil’s food’. After successful lobbying by an international body of ‘woadites’ (woad producers) the 17th Century was to see legislation enacted in England, France and Germany to curb indigo’s use in those Countries. In France Henri IV (1553-1610) even went to the lengths of decreeing that importers or users would attract the death penalty for their actions. But all the restrictions in western and northern Europe had fallen by the wayside in just over 100 years. During the 17th Century the Dutch, who were quick to recognize a valuable commodity, established their own plantations in Malaysia and competed with the

Portuguese traders. By the mid-18th Century the use of indigo in Europe (instead of woad) was commonplace. The trade from north-western India was not unduly affected by indigo exports from other parts of Asia (not least because of the high quality of the dye produced in the Gujarat region) but it did stumble temporarily in the face of competition from indigo plantations which were eventually established in the Carolinas and Georgia (in the southern states in the United States). However these North American plantations themselves lost ground to their own increasing cultivation of cotton (*Gossypium*) and tobacco (*Nicotiana tabacum*), and India regained her dominance of the market.

Indigo's production as a colourfast bluish-black dye agent (which varies in quality from one place to another and is referred to as indigotin) is complex. It involves several stages including fermentation and is labour intensive. By accident in 1856 the English chemist, Sir William Henry Perkin (1838-1907), when attempting to make a synthetic quinine instead found a synthetic dye that he called 'mauve'. This eventually formed the basis of the aniline dye industry. The discovery was followed in 1880 by the successful synthesis of indigotine from coal tar products by the German industrialist and chemist, Adolf von Bayer (1835-1917). It led to further research that culminated in the early 1890s in a cheap method of manufacturing a synthetic version of the Indian dye and by the end of the 19th Century this had become cheaper than that obtained from the plant. The bottom fell out of the indigo market. Over the many, many centuries that India was exporting indigo successfully, as earlier with the northern Europeans and their woad (*Isatis tinctoria*) over a much shorter period, whole communities came to rely upon the trade and recognize its cultivation and processing constraints as the basis of their way of life. As a result its demise caused untold hardship and unemployment. Today, in addition to these aniline dyes, other close relatives have superseded indigo as they have been found to provide a higher yield than that obtained from this species.

Although its use as a material dye has been dominant, indigo has also been used to neutralize the slightly yellow tinge of icing sugar. Today indigo is used by the toiletry industry in hair dyes.

In some countries indigo has been applied as a green manure.

Medicinally, a plant extract has been used in India to treat nervous disorders, epilepsy, bronchitis, piles and ulcers, and the root has been chosen in remedies for liver disorders and scorpion stings. In Europe it was used in the past to treat diarrhoea.