

D & B ORCHIDS
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Vanilla - the Gold of the Aztecs

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Vanilla is used to flavor chocolate, cakes, cookies and ice cream. Vanilla is also used as a fragrance for perfume, hand lotion, shampoo and room freshener. We are all very familiar with this sweet flavor and aromatic fragrance. Where does vanilla come from? Vanilla is extracted by fermentation of the fleshy seed capsules of the orchid, *Vanilla planifolia*.

Europeans became interested in vanilla as a flavor and perfume when Cortes was offered a vanilla flavored drink in 1519 by the Aztecs. When Cortés entered Mexico, he was looking for gold but was given vanilla, indigo (blue dye extracted from *Indigofera*), cochineal (red dye prepared from the bodies of a scale insect) and cacao (chocolate). The Aztecs cultivated vanilla or tlilxochitl in Aztec, as a perfume, healing herb, an aphrodisiac and to flavor a cacao drink. The great Aztec leader Montezuma drank this special chocolate drink to fortify himself. Europeans did successfully produce vanilla until about 1730. The vines brought back from Mexico grew and flowered but did not produce the vanilla bean. In 1836, Charles Morren, a Belgium botanist visiting Mexico, observed the flowers being pollinated by a bee unknown in Europe or other parts of the world. So hand pollinated was the key to successfully producing vanilla beans.

Mexico was the original source of all commercial vanilla beans. Now vanilla is grown in Madagascar, Reunion, Mauritius, Tahiti, Java, the Philippines and Africa. The same techniques used to grow, flower, pollinate, harvest, cure and extract vanilla developed in Mexico are used all over the world. Today, Madagascar grows and processes 80% of the vanilla imported into the United States.

The vanilla plant is a thick stemmed vining herbaceous perennial. The plant produces a cluster of 12 to 20 creamy yellow-green flowers. When the flowers are pollinated, the tiny edible seeds grow in a fleshy capsule about the size and length of a green bean. The plant climbs by thick tendril-like roots opposite each leaf. In nature, the vine climbs up 60 to 80 foot tall trees. The thick white roots are capable of clinging to support the vine and absorbing water and

nutrients. The vanilla plant flowers from April to May in the southern hemisphere. The seed pods (vanilla beans) are hand harvested in November to January. The vanilla plant will flower in Texas from February to May. The flowers in the cluster open one at a time. Each flower is open for one day. Pollination must occur in the morning to assure fertilization.

The beans are collected from the plant while still green. The beans are cured for 5 to 6 months. First, the beans are spread on blankets during the day and covered at night until the beans turn a dark oily brown. After this sweating process, the beans are dried on grass mats for 2 or more months. The dried beans are bundled and shipped to the extractors. The properly cured beans are oily, smooth, aromatic and dark brown. The two day extracting process is done by chopping the beans and soaking them in an alcohol-water mixture. The standard is 13.35 ounces vanilla bean to a gallon of 35% alcohol.

The vanilla plant is propagated from a stem cutting. A six to twelve inch cutting with four or five nodes is good. Cut off the internode area below the bottom node. Plant the cutting in moist orchid bark. The node in the bark will grow roots to hold the plant in the pot. The new growth will grow roots to cling and help the vine climb. Once the plant has rooted, plant the vanilla plant in a pot with a trellis or obelisk or in a greenhouse where the plant can climb the wall of the greenhouse. The roots will cling to most surfaces. The plant will flower after two to three years or when the plant is about 10 to 15 feet long. Grow the vine in a south window during the winter. Grow the plant outdoors in good morning sun and afternoon shade. The plant requires good sunlight light to flower. In a greenhouse, the vines allowed to grow up to the ceiling usually flower. So be ready with a ladder. Water once a week by thoroughly saturating the bark. During the growing season, fertilize every two weeks with half strength fertilizer of a 1:1:1 ratio. Provide extra humidity for the plant by placing the plant over water. Do not allow the plant to sit in water. The roots are white with a green growing tip. If the humidity is too low the roots will shrink and the tips turn brown. Withhold water from the plant in the fall to stimulate the tropical dry season. This will promote flowers during the winter.

Orchids are so popular; many nurseries have orchids for sale. The best way to find a vanilla plant, if not at a nursery, is from members of the local orchid society. Vanilla is definitely a pass-a-long plant. The vines are fast growing if given the right conditions, so most growers are glad to share cuttings.

The best way to learn more about vanilla and other orchids is to contact other orchid growers. For the name and telephone number of an orchid society near you, contact Dotty Woodson, County Extension Agent-Horticulture in Tarrant County (817) 884-1944 or the American Orchid Society at www.aso.org.

Orchid societies hold monthly meetings and plant sales and shows. This is a great way to find out what orchids will grow in your area.

Fort Worth Orchid Society
<http://fworchidsociety.com/>

The Fort Worth Orchid Society meets the first Monday of each month at the Fort Worth Botanic Garden at 7:00 pm. Guests are welcomed.

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