



Cultural Requirements of the Vanilla Orchid

By Art "Aka" Buckman

Vanilla planifolia is a vine type orchid from Central America. It is the species most commonly grown for commercial vanilla production. It is easy to grow and averages almost an inch per day in length once established. Here are some notes on its culture and uses

Growing Media-Use equal parts bark chips, peat moss chunks, and perlite for small plants and cuttings (actually, you can grow it in any standard orchid media). Mature plants do fine with just large bark, tree fern, or macadamia nut shells. "Sweetening" the mix with agricultural lime or oyster shells promotes heavier growth.

Water-Keep media moist and spray the entire plant when possible to wet the aerial roots. It is difficult to over water these hearty vines. Till cuttings or small plants are well established on bark, trees, or trellis. Mist the roots one or two times a day.

Fertilizer-Use any balanced time-release fertilizer year round with monthly foliar applications (for aerial roots). Higher phosphorus in late winter and early spring will help flowering and pod formation on mature plants (three years or older).

Sunlight-For mature plants, grow as you would your cattleyas, under 50-70 percent shade fabric or in a natural area which provides 1500-3000 foot candles for most of the day. Full sun between 11:00AM and 3:00PM is not recommended. Vanilla can be grown indoors as a houseplant but will not flower in low light conditions. Cuttings should be started in low-level light (similar to growing African violets and phalaenopsis).



Transplanting-Established plants (3-5 feet) can be "potted up" to a production size container of 3-7 gallons any time (fig. 1). You should keep the same planting depth and additionally "train" the aerial roots into the media. The vine itself can be pulled down into the media and later cut in place from the parent portion to create separate plants. New plants can also be made by taking cuttings of a foot plus in length that have at least four leaves and good roots. Cuttings can be rooted in water of the previously mentioned starter mix.

Caution: the sap from broken or cut stems is an irritant.

Plants can also be put into the ground, at the base of a plumeria tree for instance, if the immediate area is back-filled with media and there is good drainage. Plant on the shady side and tie against the tree to promote aerial rooting on the trunk (fig. 2). This is not a good idea if temperatures fall below 45 degrees or your tree is too tall to facilitate pollination and harvest.

Special Requirements-Vines will need a tree, trellis, or other support to climb on and also reduce the chance of aerial roots drying out (tomato cages work but plants must be watered more often). It is important to "train" vines at sharp angles, but without breaking them. This and occasionally other kinds of stresses (pruning in July, wire tie constrictions, cigarette burns, etc.) help promote flowering in mature plants. An undisturbed jungle grown plant will usually not flower till it has reached the top of its host tree and begins to sunburn and or bend toward the ground.

Flowering-Spikes start to appear at leaf joints around April 1. A dozen or more yellow-green flowers are produced sequentially on each spike beginning in mid-May. Each flower lasts less than 8 hours and has a subtle unpleasant smell.

Pollination-Hand pollination is required to produce the seedpod known as a vanilla bean (fig.3). It must be done in the morning when a flower is open and can be a little tricky.

Method 1: tear off the lip (it falls apart easily) to expose the underside of the column, collect the pollen (with forceps or toothpick) from the hinged tip of the column (anther), and insert the pollen beneath the hinged "trap door" (rostellum) located midway along the column (the anther actually touches the rostellum which can be pinned back with a needle for access).

Method 2: As above, only remove the "trap door" at its base with a good pair of forceps and lightly push the hinged anther into the now unprotected cavity. Only pollinate a few flowers the first year per spike (or if the plant is weak in subsequent years). Since you have 1-2 weeks of flowering per spike, cut a flower early on and practice. Flowers tend to hold on to the plant for a while if pollination was successful. The flower stem will begin to enlarge after just a few days.

Harvest-Collect "beans" about 8 months after pollination as the tips begin to yellow. Sun dry/cure for about a month and store or use when pods are dark brown and leathery. Pods must be dry enough for storage but not to the point where the aromatic oils are lost to the air.

Uses-There are many books and pamphlets on the subject. People commonly store beans in rum or other spirits to extract the flavor for use in cooking or as a liqueur. These pods contain thousands of sticky little orchid seeds. A single bean, split and stored in a cup of sugar also gives tasty results. You can even hang the pods in your car as air fresheners. Although artificial vanilla has been available for many years, there is absolutely no substitute for the real thing. If you grow your own, the taste will improve every time you go to the market and see how much you're not paying for the world's most popular flavoring.



fig. 1



fig. 2

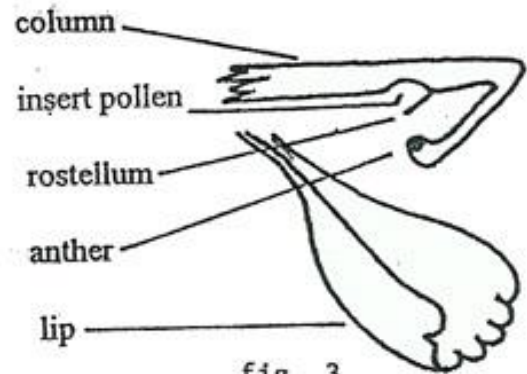


fig. 3

Additional Information

In addition to the instructions provided, here are further recommendations for your vanilla orchid plant.

- In the pot you received, the media is a mixture of bark, charcoal, coconut husk, perlite & potting mix.
- The plant is now established and should grow well in warm temperatures & in a well-lit area out of direct sunlight. Another good location for your vanilla orchid is under a tree canopy that filters the sunlight.
- Allow your plant to climb the trellis & continue to grow for another 6-8 months. After 6-8 months, the root ball should be large & healthy. Transplant into a larger 3-5 gallon pot for continued growth.
- Vanilla orchid plants produce many aerial roots. Guide the long roots toward the media to help anchor the plant as well as to help to take up nutrients & water for the plant.
- If you are interested in using our media mixture when transplanting, please contact us or visit our website. Packaged media mix for the vanilla orchid will be added online soon!

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