Selection of Trees on which to Grow Vanilla

ECHO Inc.

Wendy Rice, working in Uganda, wrote to ECHO and asked, "on what kind of trees do vanilla orchids grow? Or is there another way to grow them?" In the ECHO library we found the following information for Wendy in an article from the Economic Botany journal, vol. 7, no. 4, Oct.-Dec. 1953, titled "Vanilla Its Botany, History, Cultivation and Economic Import."

Many tree species can be used for growing vanilla orchid. Actually, wooden or wire trellises can be used, too, as long as there is some protection from the sun. There may, however, be more vine breakage than with trees. We have successfully grown vanilla on man-made supports in several places around the ECHO farm.

Many, many species are used commercially around the globe as vanilla supports. Some of the most common are *Casuarina equisetifolia* (the Australian Pine) and *Jatropha curcas* (the Physic nut) used on plantations in Madagascar. Erythrina species are commonly used in Puerto Rico. These would almost certainly be American Erythrina species, but I know that there are African species as well. Even *Moringa oleifera,* a popular species with readers of EDN, is listed as a potential species.

Potential support trees which themselves provide potentially useful crops include coffee, oil palm, avocado, mango, yellow and red mombin (Spondias sp.), loquat, calabash tree (*Crescentia cujete*), and cassava (manioc). *Gliricidia sepium, Albizia lebbeck*, and *Erythrina* species are among many leguminous trees that have been used. Leguminous trees may help build soil health.

According to the authors of the Economic Botany article, the characteristics you want in a vanilla support species include:

- small leaves which allow filtered sunlight
- branches growing low enough (5-7 feet, 1.5-2.1m) to the ground for harvesting and hand pollination
- enough strength to support the vine in a strong wind
- leaves on the tree year round
- propagation from large cuttings for rapid early growth

If possible, trees should be planted a year or more before the vanilla cuttings are set out so that they have had time to produce adequate support and shelter for the vines. If there is not enough shade, bananas or even maize are sometimes planted

nearby for shade. Additionally, if strong winds are a potential problem, wind breaks of strong, thickly branched, wind-resistant shrubs or small trees can be planted on the windward side of the area.

Before planting vanilla, readers should also know that the vine requires hand-pollination outside of Mexico and other regions where it is indigenous. Even in Mexico, commercial producers use hand-pollination to control production.

Cite as:

ECHO Staff 1999. Selection of Trees on which to Grow Vanilla. *ECHO Development Notes* no. 65

© 1999 ECHO Inc.