

## THE AVOCADO TREE AS A LIVING FENCE POST

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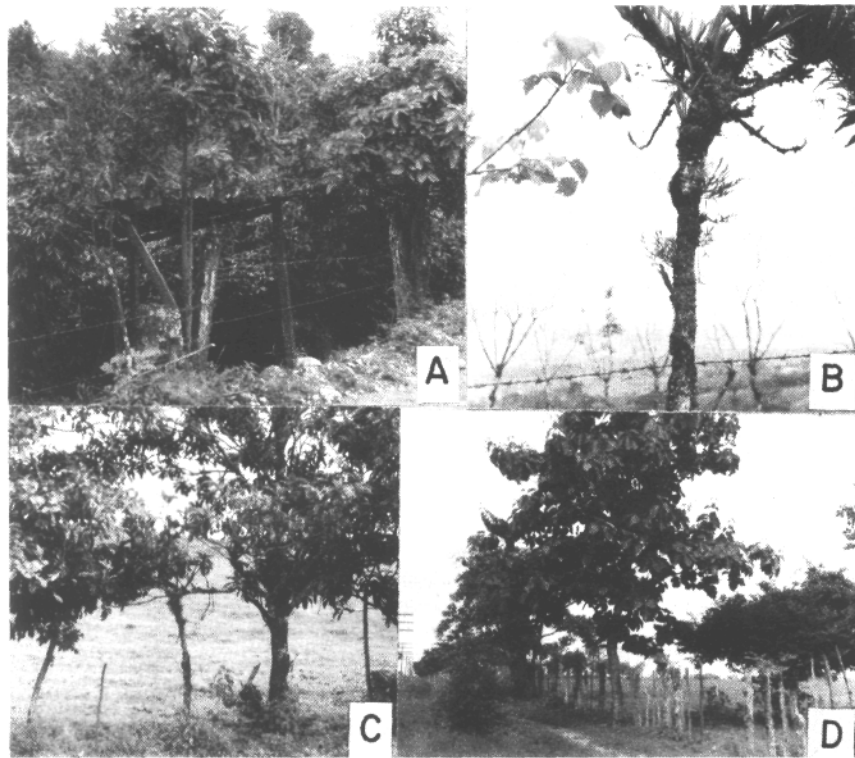
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Costa Rica is a land of colorful and bountiful plant life located just north of Panama and extending from the Pacific Ocean to the Caribbean Sea. Transected by the Cordillera mountain range some of the peaks of which reach to 12,000 feet, there is provided a wide range of climatic zones and niches which allow the successful adaptation of many cultivated crop plants. The greater portion of the land under cultivation or in pasture lies in the warmer, more humid regions of the tropical belts which cover the lower elevations and extend part way up the mountainsides. Tropical crops of sugar cane, cacao, coffee, mango, papaya, macadamia, citrus and many vegetable crops are prominent in the landscape. The avocado is cultivated though to a lesser extent than in some other Latin countries. Cattle and dairy industries have attained a prominent place in the modern agricultural economy of the country, particularly during the past two or three decades.

A major problem in all agricultural countries is the maintenance of property lines between adjacent farms and especially to restrain the movement of cattle and animals from pasture to pasture or from pasture to cultivated areas. The use of dense hedges of various plant species still can be seen in fence rows in some areas. Barbed wire, however, has been the main restraining element used for this purpose but with the rather unusual utilization of live tree species as the supporting posts for the wire. The development of improved economy of the country and the introduction of or easier accessibility to rough or finished lumber and metal posts has resulted in the rapid disappearance of a colorful and utilitarian practice of the living fence post and living fences or hedges from the countryside. While this use of living trees as wire fence support is not restricted to Costa Rica, the practice probably has been most widespread in this area of Central America.

The generally high humidity and moderate to high temperatures which prevail in much of the cultivated areas of Costa Rica result in more rapid deterioration of materials such as clothing, paper and wood products compared to the more arid desert climates of portions of Mexico, for example. Untreated wooden fence posts under conditions of high humidity, high rainfall and temperature have a short life as termite activity and fungal attack takes its toll. Many years ago the local farmers learned that living trees held up the barbed wire fencing much longer than the dead wooden posts (1). Thus many species of native trees (2) and large bushes were spaced along the fence line, trained to a single trunk to a height of eight to ten feet and allowed to branch above that level. Much of the pruning of these fence trees was done and is still accomplished by the cattle within the fenced area. It is estimated that possibly sixty or more species of trees have been utilized as living fence posts to Costa Rica alone. Not all of these trees are for the single utilitarian purpose of fence support but many species provide a dual or

triple function such as shade, forage for animals, fruits for man, and from a few others such by-products as fibers can be obtained.



#### LEGEND TO FIGURE

- A. Living fence posts of avocado (*Persea americana*) along the road near La Cruz in southern Costa Rica.
- B. Living fence post of *Erythrina* spp. with secondary growth of orchids, bromeliads and mosses.
- C. *Ocotea* spp., botanical relative of avocado, as living fence posts along road to El Yas, Costa Rica.
- D. Living fence posts of various species: *Spondias mombin*, small leaved form between the large leaved teakwood (*Tectona grandis*), along Pan American Highway just north of Pan-amanian border in Costa Rica.

The opportunity to travel by car throughout a major portion of the cultivated areas of Costa Rica during the past two decades has brought to my attention the extensive and colorful use of the living fence posts in this area. Moreover, by comparison with previous earlier visits and the observation of recent large scale developments of land clearance and new methods of pasture management, it is apparent that the living fence post may rapidly disappear from the scene to be replaced by treated wooden or other board barriers. The colorful and highly utilitarian living fence post should be recorded at least before it completely passes from the scene.

While the majority of tree species which provide living fence posts generally serve no other purpose, it was observed that some species, especially those near the homes or those planted in the farmyard, were frequently fruit-bearing trees. A list was compiled of these several species which included mango (*Mangifera indica*), papaya (*Carica papaya*), coconut (*Cocos nucifera*), guava (*Psidium guajava*), rose apple (*Eugenia*

*jambos*), cashew (*Anacardium occidentale*), loquat (*Eriobotrya japonica*), mombin (*Spondias mombin*), and several others including the avocado (*Persea americana*). These species serve to support the effective barbed wire but in addition provide easily accessible fruit for use in the nearby dwelling. It was of particular interest that the avocado should be among the fence posts for this adds another use to the list of products and by-products obtained from the species. There are several other close botanical relatives within the family Lauraceae which are native to Costa Rica. Some of these are also used on occasion to provide living fence posts particularly for pasture lands. One species, identified tentatively as *Ocotea* spp., was observed as a fence post along the road near the town of El Yas. The *yas* is a local name given to *Persea scheideana*, also called the coyo or chinini.

Thus we find the avocado still serving as a versatile plant species to provide both food and protection for man in Costa Rica, where the lure and color of the tropics are rapidly disappearing as man exploits the earth.

#### **LITERATURE CITED**

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2. JIMENEZ, OSCAR R. L. 1962. Postes vivos para cercos (living posts for fences). Turrialba 12 150-152.