

STRUCTURAL DESIGN OF A FOREST GARDEN

- ▶ The forest garden is a multi-layered system where the plants are arranged in a distance according to their frequency of use. The edges of the property can be forested with trees used for live fences and timber as well as providing a wind and noise barrier.
- ▶ Closer to the house, edible plants such as fruit trees and root crops and trees for firewood and medicinal uses can be found.
- ▶ Taking into account shade tolerance, space, and nutrient requirements of each species helps optimize the planning of a forest garden.
- ▶ An example of this is planting guandu for food or macano for firewood, two nitrogen fixers, in between other fruit trees, making the nutrient available for the plants around it.
- ▶ Ornamental plants are often located closer to the house showing the aesthetic importance of forest gardens.
- ▶ Social space with hammocks, chairs and a table are typically found under the shade of trees where people can gather and enjoy the fresh outdoor temperature created by the trees.



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FOREST GARDENS OF AZUERO

A GUIDE TO CREATING AND MAINTAINING FOREST GARDENS





WHAT ARE FOREST GARDENS

Forest gardens are multi-use associations of trees and shrubs with annual and/or perennial crops and animals, typically located in home lots. Forest gardens are agro-forestry systems that integrate trees for fruit, firewood and timber, root crops and other vegetable crops, as well as ornamental and medicinal plants. They provide a basic source of food for sustaining the food security of the family. In addition, they generate income through the sale of high value products.

8 REASONS TO HAVE A FOREST GARDEN

Save money

Producing one's own food is a way to secure the access to basic food products and avoid costly trips to distant stores.

Improve food security

Physical and economic access to healthy and preferred foods. Having different edible plants in a forest garden sustains a regular provision of food.

Maintain a long term guarantee

Forest gardens add value through timber and marketable products to a property representing an advantageous investment.

Prevent soil erosion

Vegetation acts like a buffer slowing down agents of soil erosion such as water and wind.

Improve water abundance and quality

By slowing down runoff in times of rain, vegetation allows water to percolate into the soil and groundwater and streams.

Nourish and regenerate soils

Due to their diversity, forest gardens bring different nutrients and beneficial micro-organisms to the soil. Some trees for example can associate with microbes that fix nitrogen in the soil, making it available for other plants. This makes so that added fertilizers are not needed.

Add beauty through preserving nature

Forest gardens are diverse ecosystems that include species selected for aesthetic preferences. If they are composed of native trees, they also provide habitat for wildlife.

Conserve an Azuero Tradition

Forest gardens are part of the rural tradition that emerged from a culture of family homesteading and gastronomy. With the option of buying food in stores, new generations are losing the knowledge of planting, maintaining and using such valuable local resources that forest gardens provide.

COMPOSITION OF FOREST GARDENS OF AZUERO

This list shows some of the various plants a McGill survey found commonly present in forest gardens of Azuero. Status indicates whether the plant is native (N) or introduced (I). Categories of uses/values are : FR= fruit/human food, M=medicinal, T= traditional use, PA= physical attribute, FL= food for livestock, LF= living fence, FW= firewood and W=wood.

Nombre científico	Nombre común	Estatus	Usoo/valor
<i>Aloe crepona</i>	Achilote	I	FR
<i>Passiflora americana</i>	Aguazana	M	FR, M
<i>Caribbea odorata</i>	Boribu	I	AF
<i>Musa sp.</i>	Banano	I	FR
<i>Coffea sp.</i>	Café anísolo	I	FR
<i>Chrysobalanus icaya</i>	Calabote	M	C, AF, L, PA
<i>Crucianella cubata</i>	Calabazo	M	T
<i>Sambucus sp.</i>	Cana dulce	M	FR
<i>Sidaemia macrophylla</i>	Cooba	M	C, L, CV, T
<i>Alseodora rubra</i>	Caracacha	M	AF
<i>Avicennia caribbeola</i>	Carambola	I	FR
<i>Cedrela odorata</i>	Cedro amargo	M	C, L, CV, AA
<i>Acacia gualanica</i>	Cedro negro	M	C, L, AA, T
<i>Persea sp.</i>	Cerezo	I	FR
<i>Cajuputum sp.</i>	Chile	M	FR
<i>Citrus sp.</i>	Citrono	I	FR
<i>Coccoloba nudiflora</i>	Coco	I	FR
<i>Croton sp.</i>	Croton	I	FR
<i>Avicennia bicolor</i>	Frutos de Mono	M	FR, CV
<i>Cajuputum sp.</i>	Gandú, Injil de palo	I	FR
<i>Leucaena leucocephala</i>	Guabito caribbeola	M	FR
<i>Ziziphus longifolia</i>	Guabito de río	M	AF, PA
<i>Guazuma tomentosa</i>	Guanoño	M	AF, L, CV, FR, AA, T
<i>Artocarpus muricata</i>	Guaranbana	M	C, FR
<i>Stylobanania guianensis</i>	Guayo machete	M	FR
<i>Artocarpus guianensis</i>	Guayaba criolla	M	L, PA, FR
<i>Ficus ovata</i>	Higo	M	AF
<i>Banana americana</i>	Indio desnudo	M	C, CV, AA
<i>Cordia alliodora</i>	Jagua	M	AF, CV, PA, FR, AA
<i>Chrysobalanus icaya</i>	Jamaca	I	FR
<i>Sidaemia macrophylla</i>	Jobo la garita	M	CV
<i>Cordia alliodora</i>	Juani	M	C, AF, CV, L, T
<i>Citrus s. limon</i>	Limon	I	C, FR, M
<i>Citrus limetta</i>	Limon dulce	I	C, FR, M
<i>Citrus aurantium</i>	Limon mandarina	I	C, FR, M
<i>Calyptranthes caribbeola</i>	Machón	M	C, AF, AA
<i>Calyptranthes caribbeola</i>	Madrana, hermo	M	C, AF, L, AA
<i>Artocarpus muricata</i>	Molagato macho	M	AF, FR, H
<i>Passiflora ligularis</i>	Morango, sapola	M	FR
<i>Persea sp.</i>	Naranja	I	FR
<i>Citrus reticulata</i>	Mandarina	I	FR
<i>Nerolepis indica</i>	Nerugo	I	FR
<i>Syzygium jambos</i>	Naranjita rosa/Poma rosa	I	FR
<i>Syzygium malabarica</i>	Naranjita canario	I	FR
<i>Artocarpus muricata</i>	Naranjita indiana	I	AF, FR, FR, CV, C
<i>Mimosa pudica</i>	Milpa	M	M
<i>Sidaemia macrophylla</i>	Mimbo	M	C, AF, L, CV, FR, PA
<i>Citrus aurantium</i>	Mirango	I	FR
<i>Mentha spicata</i>	Misero	M	C, AF, L, AA, FR
<i>Mentha citrifolia</i>	Mint	I	C
<i>Oregano sp.</i>	Oregano	I	FR
<i>Passiflora sp.</i>	Palma ornamental	I	AF
<i>Passiflora ligularis</i>	Palma pasito	I	AF
<i>Artocarpus muricata</i>	Palma real	M	T
<i>Macaranga peltata</i>	Palo castaño	M	T
<i>Artocarpus muricata</i>	Palo santo	M	T
<i>Sidaemia macrophylla</i>	Panama	M	T
<i>Citrus aurantium</i>	Papaya	M	FR
<i>Passiflora ligularis</i>	Pavane	I	FR
<i>Musa sapientum</i>	Pitango	I	FR
<i>Tabebuia rosea</i>	Roble	M	C, CV, T
<i>Cordia alliodora</i>	Sonzapote	M	FR
<i>Tournefortia bicolor</i>	Tamarindo	I	FR, M
<i>Passiflora ligularis</i>	Toco	I	C, L, CV
<i>Passiflora ligularis</i>	Uña	M	FR
<i>Chrysobalanus icaya</i>	Uñero	I	FR
<i>Mimosa pudica</i>	Yuca	I	FR
<i>Sidaemia macrophylla</i>	Yupion, mangajón	I	FR