# Costa Rica 

Tropical Gardening Companion


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## PRICE:

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Costa Rica: Tropical Gardening Companion
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## Dedication

# To Ivy <br> For all of her ideas and help in getting this book noticed. 

To My Husband<br>For labor and tolerance

And
To My father
Who didn't see this book published But was the one who raised us outdoors and went out of his way to put us in FFA

## INTRODUCTION

Welcome to Costa Rica, Latitude 9 in the tropics. Whether you bought a house with space to start up a garden or are just renting, Costa Rica is the place to get your fingers in the dirt. The varieties of plants that grow in this tropical belt are outstanding. Everything from your true thought of tropical gardens with bougainvilleas, gingers, heliconias, bromeliads and orchids to your cultivated geraniums and hydrangeas. You are sure to not be disappointed by anything other than possibly the odd unsuccessful adventure of hunting down that one special plant for your garden.

Like us humans, some plants can adapt and put down roots anywhere, others though need a little special treatment and climate zone. Throughout this book of flowers, trees and shrubs you'll find information on which altitude and what these plant preferences are.

Costa Ricans also have their own names for plants, so where they are known they are included, these names though may not be the same in other Central American or Latin American countries, furthermore some names are used for multiple plants. I am not a botanist and don't pretend to be one, this book is written for the many people who have asked which plant is which and where do you get it. The plants listed are from personal experience. There are many plants which are easily available yet have no name attached, or are called by several different names which actually belong to one scientific family. The plants that are not named are because either the name could not be found through research or via the local people. This gardening book is written for everyone, so although the scientific names of the plants are included much of the botanist lingo is not unless there is simply no other way to describe the plant. In addition to that, there are many plants easily encountered as to which names have not been found but are included for their beauty and ease to acquire.

The regions dealt with are from 2500 meters to down to sea level, with emphasis on Poás, Bosque del Niño, San Isidro de Grecia, Atenas, and Herradura areas. Nurseries are everywhere, locally called viveros (pronounced like vee-vair-oh, literally meaning life givers). The largest viveros are in Garita to the west of the airport but the small ones on just about every street have something a little different to offer. Although many plants are easy to find there are others that will be difficult, so if you see them in someone's garden you might want to ask for a cutting or two.

So before we get started if you're one who prefers to get down to the heart of the matter then at the end of each section of tidbits you'll find pictures and as many of the plant details as possible.

All settled in? How about waking up in Paradise to the sounds of the yigüiro or rufous wren at daylight as sense number two flips on to register... sniff, sniff, mmm, coffee percolating slowly while the morning fog rolls off the mountain top. A couple more sniffs, not of the brew now, but of the coffee blossom wafting in with morning light. Now we are ready to begin gardening.

## Chapter 1: LET'S START WITH OUR COFFEE

Café Arabica. About one third of the world's population partakes of this plant's offerings in one drink or another. As the story goes we owe the pleasure of this morning brew to an Arab goat herder whose flock was a little more than wacky. Taking an interest in his flock's behavior he tried the berries that the goats were eating and experienced that awe that we need to perk us up in the morning. Yemen was the primary grower of this Ethiopian plant. (Wilson, 2012)

Prohibition on coffee? Who would have thought? But prohibition or no it hit the coffee house tables with a splash! Subsequently it planted itself throughout Europe as a delightful concoction causing a flurry of new businesses that hasn't stopped growing in 400 years! One grand opening in the pre-Starbuck days was in London in 1652 attracting politicians, artists and literary connoisseurs. Thus established, the coffee house was on the brink of stardom spreading across Europe and across the sea, first this way then that went those sailing beans. Coffee first went sailing with the Dutch to Java and Polynesia. Later it took another world tour and with the discovery of the West Indies and the Americas propagation of these plants went wild through the region. Come the $20^{\text {th }}$ century and the coffee boom was on again with coffee houses, flavored coffee and coffee to go at its helm not to mention coffee ice cream.

These plants make nice garden features not just an agricultural income. Their dark glossy green leaves with ruffled edges make a nice hedge. The best about them, besides the coffee that is, is when the rains come and the one centimeter white flowers line the branches bringing in the pleasant fragrance of jasmine. After the flowers fall the fruits will begin to form as green berries each housing one or two beans. Once the berries are red, they are ripe and sweet. This bush needs some care though. It has its plagues even though it is found growing wild in abandoned areas. It's susceptible to rust and to black spots which require lime (locally known as cal) and spraying, respectively. It also needs to be maintained or it will take off to the sky in heights up to 15 feet making it look scraggily.


Name: Coffee (Coffea arabica), Family: Rubiaceae
Local Name:Café
Origin: Africa, Yemen
Elevation: 0-6561 feet
Likes: shade or sun, tolerates drought but prefers water
Height: 15+ feet
Leaves: dark evergreen, pointed and ruffled

Flower: white $1 / 2$ inch at each leaf joint on branch fragrance similar to Jasmine
Fruits: $1 / 2$ inch usually ripe red in dry season Dec-Feb, sometimes twice a year fruit is sweet inside one or two coffee beans
Propagation: beans but easier with bush
Uses:Throughout the ages this plant has provided more than just coffee. In addition to being used locally as firewood which burns very hot it also has some medicinal uses and folk medicine. It has been used as a stimulant, an agent for reducing asthma by dilating the pulmonary airways, a diuretic, a mild laxative, and a digestive aid. It's even been said to reduce the incidence of intestinal cancer. Add to that the use of folk medicine in boiling the leaves for use anthelmintic and fever reduction amongst a list of others.

Since morning and afternoon coffee is a cultural habit and your senses are heightened, why not have a fragrant garden in which to enjoy it?

Perhaps the first plants listed are not your native Central and South American tropical plants but they grow beautifully from Poás down to Atenas that's to say from 2952 feet or more down to 900; Roses and Gardenias.

Let's talk roses first. Too many species to name primarily from Asia have been cultivated and crossbred from fewer than 10 species. Not only are they for attesting your love or admiration or decorating a wedding table they have been used for perfumes and sources of vitamin C. The Attar of rose, especially damask and centifolia has touched many of the most expensive perfumes sold once its oil had been extracted from petals. So special a process is this that some 250 pounds of fresh rose petals may be used for one ounce of that prized perfume.

Costa Rican roses are mostly grown in mass quantities in Cartago or other higher elevations for export. The ones most commonly found at nurseries will require a bit of care since their stalks are usually quite fragile. The grafting is a little different as well, as they are grafted off the side of the main stalk. The most widely sold and commonly found colors are the red/yellow mix, red and orange. However, there are treasures too, like mauve, pure white (cosmos), yellow, red and white mix (Japanese alianza), almost black, black and red and many more, you just have to spend a bit more time looking. For an experience, albeit an expensive one, you can head up to the Rose gardens in Cartago. The difference is that your local nursery sells roses between $\$ 7-10$ whereas in Cartago some of them are upwards of $\$ 20$.

Although they like the cool cloudy mountains, they don't like the humidity and are prone to white mold (hongos) and black spots (aka manchas negras) that you can get spray for at any of the Co-operatives (Coope). Considering that they don't like all the moisture and especially don't like to have wet feet and athletes foot it's best to put some gravel or rocks in the bottom of the hole before setting the plant. Not only are they particular to how much water they like, these picky garden plants don't like to have their petals windblown, so keep in mind that most bloom profusely from December to April in the height of windy season. Place them in a sunny spot protected from the wind and you will be delighted.

If their weather specifications are not spoiled princess style enough, they require even more care. They want fertilizer every two weeks, about a tablespoon full. They make a mess of their
beautiful flower stalks by trying out some low to the ground wild growth which takes most of their energy that you will have to prune off frequently.

They may be demanding, but they bring great shows of long lasting colors and fragrance to the garden and can be clipped and placed inside too.


Local Name: Rosas
Elevation: 2952 feet and above for best results
Likes: sun, warmth, dry roots, no wind, a table spoon of fertilizer every two weeks
Looking for something a little less time consuming but still fragrant? Try Gardenias. They're not as flashy as those colorful roses but their exotic Asian fragrance can overwhelm the olfactory senses. These sparkling white gems with their deep, dark green leaves brighten up even semi-shaded areas. They do best in full sun with about a foot of space between them and unfortunately are prone to some ailments when the rains are heavy. You can leave them alone and do little more than trim them back but you may have to spray for black spots from time to time. If you clip off those wilting flower heads more will pop up in their place. Beautiful and fragrant as they are, it is difficult to use them as cut flower because they hardly last a day.

They are mountain lovers and are usually not too happy to put on a show once you get down to beach level, but between 8202 feet and 2952 feet they are pretty happy to wink at you in the sunlight. These China gems are used even in medicinal forms. Both fruits and flowers are used in Chinese medicine to help the liver function and to lower blood pressure. It has also been used to alleviate skin inflammation.


Name: Gardenia(Gardenia jasminoides) Family: Rubiaceae 200species Local Name: Gardenia
Origin: China and other parts of Asia
Elevation: 656-8202 feet/200-2500m
Likes: cool or warm temperatures, part shade, plenty of water
Height: up to6 feet
Do not use plants for medicinal purposes without seeking a medical physicians advice.

Leaves: dark green, thick leathery feel,
Flower: up to 3 inches across, white single or double petal, fragrant Propagation: cuttings

Hopefully you like white because there are so many other white fragrant flowers to decorate your garden with, some pretty common, others not. Standing in line with gardenias are those old favorites the jasmine. There are only some 300 species to choose from in this olive family, some which are bit more like a vine others a bit more shrub like. Just make sure you have a little space or a trellis you can train them to. Your true jasmines will have those woody stems but they won't shoot out little growths to attach themselves like vines do.

The many varieties are cosmopolitan; unfortunately there are no natives in North America. The most cultivated and most sold is the Common Jasmine (J. officinale) also known as poet's jasmine. The flowers are used for perfume. Arabian jasmine (J. sambac) produces the fragrant flowers that are used in Jasmine tea. One of the most fragrant though is what is locally known as Tea Jasmine. It has hundreds of $1 / 2$ inch to 1 inch white carnation shaped flowers lining its woody branches. The flowers from this jasmine plant emanate a fragrance similar to a perfumed tea. This jasmine lacks in that nostril burning sensation that some jasmines and gardenias cause to sensitive noses.

The jasmines which are used for medicinal purposes areJ. augustifolium and J. lanceolarium.


Name: Jasmine sp
Local Name:Jasmín (pronounced: Has-meen)
Elevation: above 1640 feet/500m
Likes: sun
Height: up to 6ft/2m
Leaves: vary by species
Flower: white, fragrant, style varies by species
Propagation: plant or cutting

Another shrub which will put on some tiny $1 / 2$ inch fragrant white flowers also tosses in a few bright red berries after the flowering. This one is a true local plant known in Costa Rica as uruca it is a shrub though and shouldn't be confused with the tree of the same Central American name which is the true uruca. In the past the flowers were given to young brides in the countryside for their wedding
as a symbol of promise. These usually bloom during the dry season most profusely in December. It makes a great fragrant hedge as it has a form similar to boxwood with small leaves.


Name: Orange Jessamine (Maraya paniculata)
Local Name: Uruca
Origin: Central America
Elevation: up to $3000 \mathrm{ft} / 1500 \mathrm{~m}$ prefers lower elevation
Likes: sun and heat
Height: up to $6 \mathrm{ft} / 2 \mathrm{~m}$ or more
Leaves: oval $11 / 2$ to $2 \mathrm{~cm} / 1$ inch
Flower: $1 / 2$ inch $/ 1 \mathrm{~cm}$ simple, 5 petals, white stamen
Fruit: red berries $1 / 4$ inch $/ 5 \mathrm{~mm}$
Propagation: seeds and cuttings

Since we're in the fragrant white flower section, consider some lilies. There are two types of these lilies and they both bloom typically in April unless the rains are late. They make fabulous cut flowers too but drip a very very sticky honey so make sure you have some wax paper under the flower petals. One of these can fill an entire room with its perfume. The thin leaf type will stay green all year even after flowering and will grow up to $3-4$ feet tall even at 1500 m . The wide leaf ones will tend to turn brown or wither completely in the hot dry season sun. If you cut the large leafed ones back once the rains hit you will be surprised by the show of both leaves and flowers. Both of these are bulbs and can be dug up and transplanted.


Name: Lillies
Local Name: Lirios
Elevation: 1640ft-3000ft / 500-1500m
Likes: sun or part shade
Height: Thin leaf variety up to $3-4 \mathrm{ft} / 1-11 / 2 \mathrm{~m}$. Wide leaf variety: $2 \mathrm{ft} / 80 \mathrm{~cm}$ at high elevation, $3-4 \mathrm{ft} / 1-1$ $1 / 2 \mathrm{~min}$ low elevation
Leaves: thin leaf: 1-1 $1 / 2 \mathrm{inch} / 2-21 / 2 \mathrm{~cm}$ wide, $20 \mathrm{in} / 60 \mathrm{~cm}-1 \frac{1}{2}$ meters long, ruffled edges. Wide leaf: $3 \mathrm{in} / 10-12 \mathrm{~cm}$ wide, 60 cm long, smooth, deep center vein.
Flower: 5-7 white lilies on one stalk, fragrant vanilla-jasmine Propagation: separation of bulbs

If that's not enough overwhelming delicate white scents you might try adding that roadside swamp lover; white ginger (Hedychium coronarium). This plant behaves more like a heliconia even its tapered silky leaves are long and wide. It will flower great even in shady spots and will flourish anywhere from sea level up to 2000 m. The cluster of 2 " white flowers are perched on a stalk each with its own small stem. These guys can grow out of control fast, spreading their roots throughout the moist soil!


Name: White Ginger (Heydchiumcoronarium). Family: Zingiberaceae Local Name: Jengibre blanca (pronounced Hen-he-bray)
Origin: Indonesia
Elevation: sea level to 6561ft/2000m
Likes: sun or shade, but blooms better in sun

Height: 3ft/ 1m
Leaves: long $31 \mathrm{in} / 80 \mathrm{~cm}$ or more, upright, smooth, up to $3 \mathrm{in} / 8 \mathrm{~cm}$ wide
Flower: several silky white flowers, 5 petals, yellow cream center, white stamen, fragrant Propagation: root

Do you feel like you are in a winter white out of perfume? Let's add some color to the late afternoon coffee. Let's start with a yellow native with a spine to pick you; Jerusalem, also known as Palo Verde. This one plays innocent with its feathery leaves and tiny yellow flowers, but be careful if you get close to sniff it, the spines run on all parts and are like sewing needles. Planting this one over a bench or walk way, removing the lethal lower branches, this shrub/tree will grow up to 10 feet or more draping its weeping willow type branches downwards. Once the heat of the late afternoon warms them and they begin to sway in breeze the sweet fragrance will shroud you.


Name: Jerusalem (Parkinsonia aculeate) Family:Leguminosae
Local Name: Palo Verde
Origin: Tropical America
Elevation: sea level -1500meters
Likes: sun
Height: up to 8 meters
Trunk: Draping slim branches like a willow
Leaves: Leaves alternate, pinnate, slender
Flower: Flowers racemes are yellow with peach center fragrant bloom better at lower altitudes Propagation: plant, sometimes cuttings will work

As the evening sun sets an intoxicatingly sweet smell drifts across your patio coming from those prestigiously named plants Reina de la Noche. In reality Reina de la Noche is used for other fragrant evening flowers, but here in Costa Rica it refers to Angel Trumpets. Don't run off when the sun sets, stay a little while, maybe enjoy the mystic moonlight in its halo of fog. Listen to the crickets and the frogs and breathe in the intensely sweet scent and relax.

Warning these plants are toxic. Don't eat them, smoke them or sleep underneath them as they have been reported to cause serious brain trauma. That being said, in ancient times the plants were used medicinally for such ailments as colic and spasms and even the mumps. In cases of arthritis they were used as a poultice made from the boiled flowers, leaves and seeds.

Angel Trumpet(Brugmansia suaveolens) AKA in Costa Rica as REINA DE LA NOCHE is in the Solanaceae family and originates from Brazil and the Andes, hence it is highly suited for a tropical garden and fortunately they grow at all altitude levels here. The bad; they get a little woody and up on the Poás slopes the high winds rip their fragile branches off from December to March, usually about the time that they are ready to put on a big show. The good; they grow from cuttings or just laying them on the ground in rainy season. They can actually be trained to grow as a tree. If you want to really have visitors ooh and awe, line a driveway or walkway with them, they are absolutely divine, especially the species that hang down like bells. The ugly; they get big roots and left untrained they can take over an area quickly. Once every 5 years or so you might have to dig some up and replant the stems.

There are five different types of these belles, six if you count the purple one which is not truly an Angel Trumpet. The most common here is the pink which juts its flowers out in all directions. The yellow, white, and peach all hang down like bells waiting for someone to walk beneath them. The most difficult to get are the yellows as they have been cultivated in Europe. The leaves on the yellow ones are different, they are jagged on the edges not smooth.


Name: Angel Trumpet (Brugmansia suaveolens) Family: Solanaceae
Local Name: REINA DE LA NOCHE
Origin: Brazil
Do not use plants for medicinal purposes without seeking a medical physicians advice.

Elevation: sea level and up
Likes: sun and moisture
Height: Grows up to $20 f t$ if supported can grow into a small tree
Leaves: Leaves spear shaped up to 10"
Flower: Flower trumpet shaped
Colors: White, peach or yellow, similar species is purple but very sensitive
Yellow hard to get. Leaves on the yellow one have serrated edges
Propagation: cuttings
Note: Fragile branches easily wind damaged

The true Lady-of-the-Night (Brunfelsia densiflora) has 10 cm (4") long white or yellow tubular flowers in clusters like the species in the photo below, yet with 8 cm long grass like leaves.


Need a natural fence line that serves as a blocker or a privacy fence that offers fragrant flowers,attracts birds and that doesn't demand TLC? Go for what's locally known as caña. In these tropical rains these can be chopped off machete style and stuck in the ground. The main drawback is that you might have to trim them to the height you want in order to keep the lower leaves full that means once every six to eight years. The dark green dracaena sometimes has a little yellowish or dirt brown tinge to its leaves. They don't bloom every year though, you'll just happen to have an early evening inhalation of something sweet that you cannot see. The flowers furthermore are not at all pretty. The blooms are pin cushion style alternating along racemes that can reach $30 \mathrm{~cm}(1 \mathrm{ft})$ in length. The blooms are long lasting, eventually putting on green $1 \mathrm{~cm}(1 / 2$ inch) diameter berries which will turn bright orange when ripe. These can also be grown in containers.


[^0]Local Name: Caña
Origin: Guinea
Elevation: all
Likes: sun or shade needs water
Height:20ft +
Leaves: Dark rich green up to 40 cm or 16 inches long
Flower: several pin cushion type flowers in cream to brown
Fruit: bright orange berries 1 cm or $1 / 2$ inch in diameter
Propagation: cuttings

A similar species is the Dracaena deremensis out of East Africa which varies by the color in its leaves.


Origin: East Africa

Look up! it's, it's, it's a ... fragrant flowering tree.
Of course you can't stop just above eye level, can you? Let's go up. Some of the sweetest smelling fragrant trees are the citrus fruits. Lemon blossoms smell good, orange blossoms smell sweeter and then you have tangerines which are the sweetest of perfumes and of course you have the local naranjilla. The naranjilla (little orange) is not sweet and you'll know right away if you take a bite. However for their supremely sour taste they are still useful in the form of tea. Locally they are considered a medicinal fruit and are mixed in water to aid in digestion.

Following suit are the locals. Juche or Frangipani, or Plumeria, a Mesoamerican tree comes in three colors for your garden; pink, white, and yellow. The yellow is the stronger scented one. These trees can reach heights of 40 feet with an equally large canopy spread making a lovely place for a swing or picnic bench to sit and enjoy the fragrance and shade but you may have to wait a few years if you get a small tree.


Name: Plumeria Rubra Frangipani, temple tree, pagoda tree Family: Apocynaceae
Local Name: Plumeria
Origin: Mesoamerica
Elevation: up to 1500 m ( 4900 ft )
Height: $7 \mathrm{~m}+(25 \mathrm{ft}+)$
Branches thick
Leaves: deciduous, oblong with semi point, alternate, 8 ",
Flowers: pink, white (acuminate), yellow (Yellow
Propagation: Cuttings

From the Leguminosae family originally from China this tree grows as a beautiful ornamental in Costa Rica and comes in pink, purple and white. It tends to bloom profusely in dry season. The flowers are orchid like typically on the end of the branches and the white ones seem to be the most fragrant. The leaves are round but split in the middle like a hoof. In India the pods, leaves and buds are used like a vegetable, however here in the tropics they are used for decoration or for the heavy hard wood. The older generations had also used them for tanning. They have recently been under research antibacterial, , analgesic, anti-inflammatory, anti-diarrheal. There's also research suggesting that they may have, anti-cancerous, and thyroid hormone-regulating properties. As well as potential as anti ulcer, anti-diabetic and kidney protectant.


Name: Bauhinia purpurea Aka Orchid tree, mountain ebony, pink camel's foot, ebony wood; the white one is also known as the Marriage tree.
Familia: Fabaceae
Local Name: Orquídea de árbol, Bauhinia, Casco de Venado
Elevation: up to 1500 m or more ( 4900 ft )
Likes: sun or part shade
Height: 12m+(40 ft+)
Leaves: shaped like a camel's foot
Flower: orchid shape dark pink or white
Propagation: cuttings, seeds

Just think if your garden had bottles of cologne or perfumes hanging from the branches for you to pick. Well with Ylang-ylang that's pretty much what you get. This is one of the ancient beauties used by the Egyptians. The perfumes created by them were found on mummies dating from 305 BC . This tree is said to be a speed demon shooting up some several feet per year.


Name: Cananga odorta Ylang-ylang
Family: Anonaceae
Local Name:Ilan ilan
Origin Asia
Elevation: up to
Likes: sun and heat
Height:12m (40ft)
Leaves: oval pointed
Flower: yellow green stars, petals are long and slender
Propagation: supposedly by cuttings

Now that your garden smells pleasant you can appreciate all the more those bottles of perfume on the counter that the ancients created by implementing steam distillation and fats, wax extraction, or alcohol additives with petals so that we can carry our tantalizing fragrant garden with us.

## Chapter 2: PUTTING IN A LITTLE COLOR FOR THE TABLE

Surely you're ready to put in some color and the best place to start is with those that can also be used to liven up your dinner table. You already have a few fragrant flowers to bring inside like lilies and roses, but there are many more and the tropics offer a bounty of these ranging from your normal gladiolas, hydrangeas and dahlias to your more exotic orchids, avecillas, heliconias and antorchas.

Like with perfumes, the Egyptians were appreciating what nature could give 2500-3000 years ago by placing flowers in containers or wearing them in their hair. Not all colorful garden beauties can survive the rough treatment of being cut and tossed into a container of water, for that you need a few special ones that will last longer than a day. Get ready to do a little ikebana or flower arranging too. Have no fear; just buy some foam and have fun with the bounty that is in your garden. The easiest way to bring some brightness into a little cabin like rental house is to go grab a vase, a water pitcher, or a mug and put your favorites in it. The heliconias and ginger require a much taller and sturdier vase with some rocks in the bottom or a good amount of earth quake proof museum wax.

How about a little dab of history before we start snipping blooms? The first known cut flowers were from the Emperor Hadrian's villa in Tivoli. Since then the Romans made a dark blue glass vase to hold their precious cuttings. Not much happened over the millennium until Wedgewood made a replica in $18^{\text {th }}$ century. Once the travelers, especially the Dutch, were out exploring the seas there was simply no way of stopping the influx of flowers that needed no other accoutrement, yet we've continued to try to add a human touch with spectacular crystal vases or simple baskets.

Now of course you might be thinking that this is a feminine art; try not to say that to a Samurai warrior!
The first horticulturalists were men and in Japan the masters of this art were the Samurai. To care and cultivate orchids was the job for the king's trusted male servant. Even the first floral art school was founded by a man and in Asia many men are still at the helm of these schools. However with the advent of the Victorian age women became involved and young ladies of standing were expected to be skilled in flower arranging. The sad 1930s were lifted up with the rise of the Women's Garden Club Movement. As travel became more and more popular flower arranging metamorphosed from a strict Victorian style with a low base and large tops to the Asian height and number styles to a free style. The older generation of Costa Rican women was no less adept at this art than the ikebana masters. The kaleidoscope of colors that they put together is eye pleasing to be sure.


So let's see what we can put in the ground for nipping purposes later. Let's get digging!
You can go with your commonly known bulbs like gladiolas, dahlias and brightly colored lilies which you can find at most nurseries, hardware stores, vet clinics and co-ops. If you can't find them there you can try Sol Naciente in Belem and Escazu which usually have them. Keep in mind though that these are seasonal meaning you will find many more of
them available from November on. Some grow wonderfully at all altitudes but there are those that prefer the cool nights in the high altitude instead of to the low sultry air.

How about some pretty much year rounders like avecillas, heliconias and hydrangeas? Starting small we've got those hardy sun loving avecillas. They grow at just about all elevations as long as there's sunlight. They grow taller near the warm humid beaches but flower the same at sea level or 1700 meters, above that they need a warm protected spot. It is similar to the bird of paradise, but not as tall nor does it have the purple center.


Name:Heliconia psittacorum,AKA Parrot's Flower
Local Name: Avecilla
Origin: S. America
Elevation: sea level -1500m (4921ft)
Likes: sun
Height: $61 \mathrm{~cm}+(2 \mathrm{ft}+)$
Leaves: 40 cm (16")
Flower: orange to red-orange with yellow base
Propagation: root

Hydrangeas grow like mad here so why not plant a few. They take very little work and love the volcanic soil. With all the rain and the volcanoes the acid soil calls to these beauties. Although they will take the shoreline heat they won't give the same display and will require more maintenance. Maintaining them above Grecia's 900m (2952 ft) means little more than trimming once in a while. If you really like them you can take the cutting and put it in the ground during rainy season and have a new plant in a few months. These don't do as well stuck into floral foam but in a vase they are sure to brighten up the room during those rainy days. Finding them is easy since they are a popular garden plant.


Name: Hydrangea macrophylla
Local Name: Hortensia (pr. Or-ten-see-ah)
Origin: Azore Islands off Portugal
Elevation: 0-1500m (4923ft)
Likes: water and sun
Height: up to 1m (3ft)
Leaves: oval yellow-green center vein, serrated edges, pointed tip
Flower: large flower head up to $30 \mathrm{~cm}(1 \mathrm{ft})$ with several blue, purple or pinkish flowers
Propagation: cuttings

Chrysanthemum frutescens known as margarita grow and flower exceptionally well from Poás down to Grecia. Coming from the Canary Islands they like sun and warmth. They also make excellent cut flowers.


Name: Chrysanthemum frutescens
Local Name: Margarita
Origin: Canary Islands
Elevation: 0-2000m (0-6561ft)
Likes: Full sun
Height: approx. 60 cm (2ft)
Leaves: Dark green, oval, soft
Flower: White with yellow pincushion center
Propagation: seeds and sometimes cuttings if conditions are perfect
Do not use plants for medicinal purposes without seeking a medical physicians advice.

Along a similar line is the wild growing yellow sunflower. They are a pretty big bush and can become a tree. The spade shaped velvety leaves are susceptible to leaf cutter ants. These can be put together to form a nice bright bushy section in the garden. There is also a similar plant in lavender; however it only blooms in the higher cooler elevations such as Poás and Cartago. These you should see growing along roadsides and blooming profusely in the dry season from December to April.


Name: Oyedaea verbinisoides Sunflower
Local Name: Margarita
Origin: Latin America
Elevation: $3 m+(9 f t+)$
Height:
Leaves: Olive green, soft, velvety, spade shaped, serrated edges
Flower: Yellow with yellow pincushion center 6-9cm (1 $1 / 2-3$ ")
Spice up the color spectrum with that South African Gerbera. Gerbera daisies grow well here too and come in many beautiful colors. Like the geraniums you'll have to give them some care. They need to be dead headed, fertilized, and in the proper sunny spot. If you can get them to grow right you will not be disappointed at the higher elevations you won't be disappointed but take into account they flower the most their first year. They tend to be happier at lower elevations around 900m or less.
Name: Gerbera jamesonii
Local Name: Gerbena
Origin: South Africa
Elevation: up to 1500m
Likes: Sun
Height: up to 50cm
Leaves: Dark green, thick, sometimes prickly
Flower: $10 \mathrm{~cm}+$, multiple petals with pin cushion center, come in a myriad of colors
Propagation: plant, seeds are difficult

Want some daisy like flowers that like the cooler mountain air? Then have a go with Dahlias. These bulb plants love Costa Rican soil and are often confused with roses on a passing glance when Do not use plants for medicinal purposes without seeking a medical physicians advice.
driving down the road. Plant the bulbs just before the end of the rains and wait for the sun to pop up the flower heads.


Name: Dahlia sp
Local Name: Dahlia
Origin: Mexico and Central America
Elevation: 300-1600m (984-5249)
Likes: Sun, water, no wind
Height: $60 \mathrm{~cm}-1 \mathrm{~m}$ sometimes more ( $2-3 \mathrm{ft}$ )
Leaves: Sage green, lance shaped, lobed
Flower: 8 cm or more ( $3^{\prime \prime}+$ )
Propagation: bulb
You can't go wrong with gladiolas for color and cut flowers. They grow well just about year round from Atenas ( 900 m ) zone on up to Poás and come in a variety of colors. The bad part is they don't do well in the wind and they suffer from bulb rot and every once in a while hungry armadillos and possums may dig a few up.


Name: Gladiolus
Do not use plants for medicinal purposes without seeking a medical physicians advice.

Local Name: Gladiola
Origin: South Africa
Elevation: 300-2000m + (984-6561ft)
Likes: Sun and good drainage
Height: 60cm-1m (2-3ft)
Leaves: Tall slender about 3cm (1½") wide
Flower: Multiple flowers alternating on stalk
Propagation: Bulb
In amongst these you can try some coneflowers, tithonias aka Mexican sunflowers, cosmos and some wild daisy type flowers all of which bring in the butterflies and the caterpillars. Any of these you will see growing along roadsides and most people have them blooming in the garden in dry season, all you need to do is request a few seeds. With the myriad of colors they provide, you'll be in butterfly heaven within a few months. These grow even up at 1500m. They will get about 1 m high so mixing them with gladiolas and dahlias is a great idea because they reseed themselves and bloom most of the year.


Anthuriums are garden favorites, large and miniature varieties exist, but the leaves will burn in full sun. These flowers not only grow in the soil but also hang from the trees. There are many species one is specific to Costa Rica is Anthurium scherzerianum which is known locally as the Devils tongue or Lengua del Diablo for its bright red color and slender yellow orange pistil. The difference between this one and the others is that the flower curves backwards nearly touching its own stem. There are giants, miniatures and your normal sized ones which grow in a clump to 2 feet in width and about the same height.


Name: Anthurium scherzerianum


Name: Anthuria(Anthurium andraeanum) Family: Araceae
Origin: Columbia and Costa Rica Local Name: Anthuria, Lengua del Diablo
Elevation: sea level up to 2000m (6561ft)
Likes: Part sun and good drainage
Height: 60cm (2ft) depends on species
Leaves: Leaves heart shaped
Flower: Spade shaped with pistil, can come in a variety of colors purple, red, pink, white, peach Propagation: Root

Another local is the MaunaLoa (Spathiphyllum wallisii)originating from Panama and Costa Rica. There are some 36 species of Spathiphyllum some tall others miniature but all making perfect potted plants. The flower head looks very much like anthurium but upright. Its spade like flower petal makes a cave which holds the yellow or green pistil lighting up those dark shady corners of the garden. Although not minding the tropical sun much, this is a shade lover which is able to brighten any dark corner shooting up its white flower heads. If placed in the sun the leaves become burnt and susceptible to invasion by pests like mites.


Name: Mauna Loa (Spathiphyllum wallisii)
Elevation: 0-1500m (0-4921ft)
Likes: Warm soils, not direct sunlight
Height: $40 \mathrm{~cm}-1 \mathrm{~m}(16 "-3 \mathrm{ft})$ depending on species

Leaves: Dark, glossy emerald green, $20 \mathrm{~cm}+(8$ " + ) long arching downwards Flower: White spades with very pale green splashes, yellow or green pistil

If you really want to add a little pizzazz to a flower arrangements add some Hemerocallis lilioasphodelus. A what? Well you're sure to be familiar with them by their more common name of Day Lilies or Golden Day Lilies. They bloom nearly all year long and at most elevations. This beautiful Russian immigrant grows happily in the sun bloom from the coast to the toasty volcano. Give it some room because it will spread. If you're trying to line a drive or walk this gives a beautiful 40 cm hedge, tuck in some orange avecillas behind it and you will have a grand combination to bring in guests both human and non-human.


Name: Day Lily (Hemerocallis lilioasphodelus) Family: Liliaceae
Local Name: Lirio de oro (pr. leary-oh)
Origin: Russia-Japan
Elevation: 15-2000m (49-6561ft)
Likes: Water and sun
Leaves: long slender grass like $1-11 / 2 \mathrm{~cm}(1 / 2-3 / 4 \mathrm{inch})$
Flowers: Yellow trumpets up to $12 \mathrm{~cm}\left(5^{\prime \prime}\right)$ across
Propagation: bulbs
Another hardy day lily is this orange one.


Now If you like lilies, let's add in some more for color, these common types you can buy in bulb form from the hardware stores. Plant them in November for the last rains and wait impatiently for the
first marvelous blooms to appear in January-February. Some species don't care much for the heat at the lower elevations, but at 1500m you can grow Stargazers to your heart's content.


Now we have not even touched the tip of lilies yet and one of the first ones you'll want is that tropical the Hippeastrum.

Plant some of the beautiful deep red Hippeastrum amaryllis. Since these big flower headed bulb plants are from the mountainous regions of South America they do exceptionally well to add a little bit more dry season color. They like sun and once they shoot up their thick leathery, 1-2" wide grass like leaves at the beginnings of dry season the thick round flower stalks are quick to follow. Once established the bulbs will spread slowly coming back the next year with a bigger show. The thing to remember though is that they die back in the rainy season and will pop back in like a family member the next Christmas. Keep your eyes open in hardware stores for other colors like orange or red with white stripes or shades of pink.


Name: Barbados Lily (Amarylllis vittatum) AKA Amaryllis. Family: Amarylidaceae
Local Name: Lirio rojo
Do not use plants for medicinal purposes without seeking a medical physicians advice.

Origin: Peru
Elevation: 0+
Likes: Water and sun
Leaves:2-3cm (1-1 $1 / 2$ ") wide, thick dark green 40 cm (16") long
Flowers: deep red throughout dry season starts

Similar to the fragrant white lilies is the Queen Emma Lily Crinumaugustum Aka Poison bulb lily or spider lily. This lily is also an immigrant hailing from Asia or Africa. It is a big bulb plant growing up to four feet tall with long slender dark green leaves. It puts on large red-pink-white flowers many times throughout the year but mostly in dry season. Definitely worth having in your garden but make sure it has plenty of space to spread out because just one bulb will quickly take a space of 3-5 feet across.

Another showy African, the Calalily Zantedeschia aethiopica has made its way throughout the tropics of America. The white flowers grow from leaves that appear like small ribbed elephant ears. It makes a wonderful cut flower but if you live in the hot areas at levels lower than Grecia (900m) forget about them. They don't do well in the heat but surprisingly you'll find them growing wild in the full sun closer to the Poás volcano. They can handle a good deal of direct sunlight at these higher elevations even during the dry season; however they will sometimes have burn patches on their leaves. The bulbs spread and can form large patches of these pure white flowers. These flowers with pure white cups and yellow pistil are super cut flowers for foam or vase type arrangements. They are long lasting but their leaves are not, so you'll have to throw in something else for green. To give you a little extra there other colors available too such as mauve.


Name: Calalily Zantedeschia aethiopica
Family:
Local Name: Cala Spanish Name: El Alcatraz
Origin: South Africa
Elevation: $900 \mathrm{~m}+$ Likes: Sun or part shade
Height: up to 60 cm (2ft)
Leaves: small ribbed elephant ears

Flower: swirled cup white typically buy other varieties are available Propagation: Root

You'll need some special additions in those foam floral arrangements simply because Mother Nature insists that colors look better on green. Try a few of these for adding a little tropical wow.

Schefflera arboricola is a great option for flower arrangements, especially low ones. These Taiwanese green and yellow leafed bushes grow happily all over but they grow larger and fuller in full sun with a little heat of the day shade. The plant is hardy similar to a boxwood and the cut portions survive well in the florists foam. Although this plant is said to grow in cooler mountainous regions it doesn't seem to do as well above the 1000 m zone. At 1500 m its growth is very slow taking up to four years to get 2 feet high whereas in warmer areas it can get to enormous proportions quickly. It can up to four to five feet in two years and up to 10 feet is not uncommon. This like many other tropicals it can be grown in containers too.

Another plus in addition to the variegated leaf color and climate tolerance is that it can be started from cuttings. The cuttings should be about 1 foot high and a diameter of $1 / 2$ inch minimum. Make a hole in the ground, tap the fresh cutting in root starter and place it in the hole. Water well the first few weeks and the roots will come strong.


Name: Schefflera arboricola
Origin: Taiwan
Elevation: 0-1500m
Likes: sun, water
Height: up to 3meters
Leaves: Leaves $21 / 2-4 "$ in a wheel of 8 or more leaves different varieties will have different amounts of green and yellow mix
Propagation: cuttings

Marantaceas . Marantaceas work relatively well as green fillers in flower arrangements. Typically the women here double them over and pin them to the foam. The reason for this is that just cast in water or foam the leaves will only hold up for a few days maximum before curling vertically in on themselves and losing all attraction. There are a variety of them but the two listed here are pretty
easy to find. Beware they spread, they are on their home turf and with water and semi-shade they make themselves conspicuous.

This Brazilian leaf unfurls its 1 foot long, 2" wide tapered leaves in the morning and at night curls them back up for a siesta. The upright olive leaves with wide yellow streaks make for nice contrasts in foam flower arrangements they don't hold up as well though when cast in a vase of water. A typical fast growing rain forest plant it needs moisture and shade. Another variety has dark green leaves with a yellow center vein and red stem.

You will find these growing on roadsides and gardens. Take a root piece and you'll have plenty of plants in your garden within a year if you plant them in May-July. They do require some thinning.


Name: Maranta leuconeura
Local Name: Maranta
Elevation: 50m-1500m (164-4921) or higher
Likes: Shade with a little sun and water
Height: 60cm-1m (2-3ft)
Leaves: up to 40cm (16")
Propagation: Root

Covering the ground in shaded spots always seems to be a challenge even in the tropical climates but another leafy Maranta the Zebra plant does a superb job. This plant prefers the cooler regions although it will grow nearly down to the beaches. It has thick rich green leaves with bright yellow-green veins that can get up to a foot long or more. Once the rains begin the flower heads begin to peek out. They are small dark purple batons atop short stalks, within the bracts are tiny violet purple flowers.


Name: Calathea zebrina

Local Name: Planta zebra
Origin: Latin America
Height: 60 cm (16")
Likes: Shade with a little sun and water
Leaves: typically 25 cm (10")
Flowers: violet purple with white center

Feeling a little low to the ground, don't despair, there are tall tropical beauties too like Heliconias.

For those big rooms and high ceilings try larger arrangements with heliconia type plants. In the garden these are space consuming plants with tropical flare.

The Shell Ginger provides not only green and yellow leaves for arrangements but also delicate cream clusters of gloxinia shaped flowers with bright yellow centers. Its yellow-green leaves are 3 inches wide a 1-1 $1 / 2$ foot and thick and leathery.


Name: Shell Ginger
Elevation: sea level-1500m
Likes: Sun
Height: 2m+
Leaves: 40-80cm (16-32")
Flower: cluster of cream whites with butter yellow center Propagation: Root

Let's move on to some more true tropicals in large form. These are usually sold by street vendors as cut flowers with 2-6 foot long stalks supporting the colorful heads. That means you need a tall sturdy vase. Some can be cut down and put in foam arrangements too, either way their beauty shines. The one thing to note of all heliconias for cuttings, the water needs to be changed more
frequently as it smells fishy. Heliconias also have a white dust which will get on your hands and clothes, but comes off easily.

One most popular and most difficult to grow is the Bird of Paradise. It may look similar to the avecillas, but the years it takes before it puts on that first bloom with a purple feather sticking out. Be patient; make sure you're here for a while because regardless of elevation it will be several years before you see that first striking bloom. The bad thing is that if you are in an area where they apply an abundance of herbicides this beauty will become sick and die like the tender impatiens.


Name: Bird of Paradise (Strelitzia reginae)
Local Name: Ave de paraíso
Origin: South Africa
Elevation: up to 1500m (4921ft)
Likes: sun and water
Height: up to 1 m (3ft)
Leaves: 3-5' Leaves 1' long 3"wide
Flower: like birds crown
Propagation: plant

Not one of your locals but this Malay ginger will spice up your garden and your flower arrangements. Known locally as Jengibre rojo you can buy them at nearly any nursery they are so common. It may make you think sun, but think again. In full sun it sometimes gets a little upset so find a spot where it gets good morning to noon sun and has an afternoon reprieve during the dry season. This plant will give you fabulous blooms for vases. . It will grow at 1500 meters, but above the 1000 meter mark it takes time to grow and the flowers are nothing like what you get down in the warmer climate. And don't forget to give the pink ones a try too.


Name: Ginger (Alpinia pupurata)
Family: Zingiberaceae
Local name: Jengibre rojo
Leaves:up to $40 \mathrm{~cm}\left(16^{\prime \prime}\right) \times 8 \mathrm{~cm}\left(3^{\prime \prime}\right)$ wide, long dark green lance shaped
Flowers: small white flowers hidden with in the red bracts both Red and Pink 7"-12"flower head

Since we are starting into those tall tropical beauties that grace elegant hotel lobbies let's continue on and meet some more for decorating inside and out. All of the heliconias are hummingbird draws which don't require a whole lot of work. The main thing to remember is that if you don't remove some of the huge leaves the flowers will be hidden; selective pruning really brings out the best of their colors. It's also a good idea to give them a good trimming back just before rainy season to encourage new growth. Their clumps become massive as they spread over the years, feel free to separate them and plant them elsewhere.

There are many species available although you usually have to special order them. Believe it or not the most difficult to find is the local Costa Rican native Heliconia wagneriana which is most similar in shape to the Caribaea. The difference being that the color is a soft pale green border outlining a salmon pink center and that on the whole it has a more pyramidal shape.

Of course you do have the possibility of finding a Heliconia caribaea species from the West Indies at the nurseries. This heliconia sports a deep dark red color with open cups. They grow more than 12 feet high even at altitude.


Name: Heliconia caribaea
Local Name:
Elevation: 0-1500m (0-4921ft) above that becomes a little difficult due to temperature Likes: sun and rain
Height: up to 4 m (12)
Leaves: up to 1m (3ft)
Flower: Dark garnet red bracts up to 30 cm (1ft)
Propagation: Root splitting

There are a few more natives which pop up in the rich soil, some of which you can buy, some you have to hope to see in someone else's garden and ask for a bit. These wild ones are the lemon yellow warm weather lover the latispata, the orange Heliconia acuminate which has a flower head like the Avecilla, and the candy red high altitude mountain heliconia Pedro-Ortiz. The latispata is seen growing wildly along roadsides from the Atenas region and throughout the Pacific Coast. Finding one to purchase could be difficult, as is the same with the mountain variety. The bright red mountain heliconia with its sunny yellow cup grows even in the shade of the mountain forests. These usually pop up with the rains near rivers or springs and show off their colors even in the forest. To find out more about heliconia species Puerto Rico has the best information heliconia species and cultivation.


Name: Heliconia latispata
Local Name: Heliconia amarilla
Elevation: 0-1500m
Likes: sun and rain
Height: 2m (6ft)
Leaves: up to 1 m (3ft)
Flower: orange-yellow, up to 40 cm (16")
Propagation: Root ball separation


Name: Heliconia Pedro-Ortiz
Local Name: Heliconia de la montaña
Elevation: 0-1500m
Likes: rain, shade and sun
Height: up to $11 / 2 \mathrm{~m}$ (nearly 5 ft )
Leaves: up to 60 cm
Flower: Candy apple red with lemon yellow center up to 25 cm (10")
Propagation: Root ball cutting
Now let's try something unique, and native, which believe it or not can usually be found at the nurseries. One different heliconia is known locally as Bijagua (bee-haw-gwa). Rattlesnake plant (Calathea crotalifera) is in its home in the rainforest. It grows at nearly all elevations except the highest points and the main difference will be the size of its leaves. Closer to the coast the flowers are not as abundant but the leaves are extraordinary in size reaching easily 3 feet in length. This swamp lover grows out of control near river banks but in the garden it puts out tiny white flowers from its yellow bracts enticing butterflies and hummingbirds. At higher elevations it does well even in full sun at the lower elevations it may need a little shade for part of the day.

Locally the leaves are harvested in December for the Costa Rican Christmas tradition of vegetable tamales.


Name: Rattlesnake plant (Calathea crotalifera)
Local Name: Bijagua
Height: 2meters or more $6 \mathrm{ft}+$
Leaves: $80 \mathrm{~cm}+/ 2 \mathrm{ft}+$ or more, spade shaped used for wrapping tamales at Christmas
Flowers: white inconspicuous within yellow bract shaped like rattlesnake tail
Likes: Grows best in swampy habitat but grows well and takes over in almost all places flowers best in sun but leaves burn

Propagation: Root ball cutting

The most commonly sold at nurseries is the lobster claw with its dangling bright red and yellow bracts. Heliconia Rostrata which grows from the coast up to 1500 m has an appearance similar to lobster claws hence the name. The warmer the climate the more abundant and long are the flowers. There are different species as well some with bracts longer than 12 inches.


Name: Heliconia Rostrata
Local Name: Heliconia langosta
Elevation: 0-1500m
Likes: rain and sun
Height: up to 3 m (nearly 9ft)
Leaves: up to 60cm
Flower: Red with lemon yellow tips up to 40 cm (16")
Propagation: Root ball cutting
A couple more dangling sorts that are available are the pendula and the fuzzy heliconia.


Elevation: 0-1500m
Likes: rain and sun
Height: up to 3 m (nearly 9 ft ) or more
Leaves: up to 1 m
Flower: Red with white frosted tips and yellow stamens
Propagation: Root ball cutting
The wild and wooly heliconia is a special one which is really hard to find. This Caribbean heliconia ranges from red to almost brown in color and it is covered with fuzzy. Being from the Caribbean, it does not like to leave the beach heat so once above a 1000meters it doesn't seem to survive nor flourish well. It has the same behavior of hanging down like the lobster claw and it will definitely get people's attention.


Elevation: 0-1000m
Likes: rain and sun
Height: up to 3 m (nearly 9ft)
Leaves: up to 1 m (3ft)
Flower: Red to reddish brown with white and light yellow base up to 60 cm (2ft) Propagation: Root ball cutting

Following the somewhat easier to encounter species is the Heliconia Bihai. The Bihai species has bracts that begin like inverted tear drops which subsequently open up into a Japanese soup spoon style. There are three that are frequently found; the yellow based red topped, the red based black rimmed, and the bright red base with a bright green trim which looks decked out for Christmas.


Name: Heliconia bihai
Local Name:
Elevation: 0-1500m
Likes: Sun and rain
Height: up to 3 m

Leaves: up to 1 m or more
Flower: up to 40 cm many color varieties
Propagation: Root bulb cutting
Lighting up the tropical garden is the bright orange antorcha with its yellow tips. It almost looks like that long forgotten corn candy from Halloween. Antorchas make great cut flowers lasting up to three weeks. The big heliconia leaves, like almost all the heliconias will curl and lose their appeal within the first 2-3 days. These heliconias take a little while to get established but once they're comfortable they are showing off their uniqueness.


Name: Heliconia
Local Name: Antorcha
Elevation: up to 1500 m
Likes: Sun and rain
Height: up to $2 m$
Leaves: up to 60 cm
Flower: Bright red orange torch with yellow tips
Propagation: Root bulb cutting

Also topping the chart of unusual and easy to purchase is the Bastón del Emperador. It truly does stand out on the end of a tall stalk like a red pinecone with white tips wearing a tutu. There are different varieties of course and requesting a specific one could be problematic. These take a couple years before they put on their first large heavy flower head, hence the name. Like many of the heliconias they put on a big flower show in dry season, so these are ready to be cut and either put in a vase or put in foam with papyrus and cedar to make a tropical holiday basket.


Name: Baton or Torch Ginger (Nicolai aelatior, Phaeomeria magnifica) Family: Zingiberaceae Local Name: Bastón del Emperador
Origin: Java
Height: Up to 20'
Leaves: up to 1 m long and 10 cm (3")wide
Flowers: Red with white tips, waxy to touch, flowers are inside the red bracts

And then we have the maracas! Bring on the mariachis, well maybe not here in Costa Rica. If you supply the music they'll put on a quiet show for you.

Not only are these guys lovely, but some species such as C. longa, domestic and rotund, have been used medicinally worldwide. It has been used raw for digestive aid and bug bites. It has also been used in a decoction for intestinal problems as well as liver problems. It has been used for bruises and wounds. Some communities have used it as an ointment for eczema and other skin rashes. So plant a few and seek a physicians advice or professional advice if you want to learn how to use them.


Name: Hidden Lily (Curcuma sp) Family: Zingiberaceae
Local Name: maracas
Origin: East Indies
Gives tumeric and curry
Leaves long leathery
Flower with bracts yellow-orange or red-green waxy great for flower arrangements lasts a long time

## Chapter 3: ADD SOME COLOR FROM THE GROUND UP

Sometimes you just want more color, not necessarily for taking inside. Other times you have ground that needs to be hidden.

Cover your ground with colors like these blue and white flowers. These plants have flat leaves about an inch wide that look as though they have been pressed. They cover the ground quickly spreading easily with their superficial roots. The blooms though are what should grab your attention. All of a sudden you will have these raindrop shaped closed white flower petals that literally pop open within 24 hours to show you the blue curls inside. These are great for covering even a hillside. They will bloom better in full sun but will still star for you in the shade. They are known to grow in altitudes from 900 m up to 1500 meters and are a low maintenance needing only a thinning out a couple years.


Name: Neomarica
Family:
Local Name:
Elevation: 900-1500m
Likes: Sun or partial shade
Height 60cm(1-1 $1 / 2$ foot)
Leaves: evergreen
Flower: Three white outer petals with three blue inner petals and brown center Propagation: root separation

This orange lily or spiderwort is happy to grow in the sun at many elevations. Its leaves are long and grass like which accentuate the bright orange flower with the wine colored clover shaped center. These typically begin to bloom when the rains come and make a nice splash of color in the garden.


Name: Tigridia Lily or spiderwort
Local Name: Tigre, Lirio naranja
Elevation: 900-1500m
Likes: sun
Height: up to 40 cm (16")
Leaves: up to 40 cm
Flower: three petals orange sherbet color with wine colored center outlined in lemon yellow
Propagation: Roots and seeds

Gloxinia latifolia is a native low grower that wants the cool air and only a bit of sun. This small but bright orange flower will surprise you when it pops its little flower out from the spear shaped leaves. After it gives you a nice show of cigar butt flowers it will lose its leaves and take a rest before popping up again with the next rains. These propagate easily by separating the rhizomes. This is not your grocery store variety that appears similar to a violet; this is your local species that is bright orange with a bright yellow center.

Name: Gloxinia latifolia Family: Sinningia
Local Name: Gloxinia
Elevation: 900-1500m
Likes: shade
Height: 20 cm (8") sometimes higher
Leaves: soft, velvety, featherlike veins (pinnate)
Flower: Orange cigar shaped flower with yellow center, hangs down like a bell, several flowers peek out from leaves
Propagation: roots
Add in pink Dianthus chinensis, orange marigolds, some geraniums and pink or white vincas and you will have a magnificent sun drenched color spot. The easiest way to get Dianthus started is to buy a couple plants at the beginning of rainy season they will put on tons of delicate pink, rose or purplish flowers. Of the 300 species available you'll find the pink-purple, light pink or white Dianthus chinensis here. The flowers have dual purposes: one, beauty to the eye; two, medicinal. The entire plant is used for stimulating the gastro intestinal tract and the urinary tract. It's been used for
lowering blood pressure and fevers. It has even been used for cleansing skin wounds due to its antibacterial properties.

For marigolds dig in some plants and let reseed themselves. Once dry season approaches some will die back dumping seeds into the wind for next year's décor. These are no muss, no fuss plant. Put them in a sunny spot in April and let them multiply. Marigolds have a history from Etruscan times. And they too have some medicinal uses. French marigold (T. patula) which are shown here are not only aromatic they also offer every part of the plant for use from oils for fragrance to medicinal purposes. This is a plant that is used to calm the nerves and used for a diuretic as well as for digestion. At the Ark Herb Farm in Heredia they used to serve these and nasturtiums with a little food. The leaves add a special zing to a salad and they also do a good job at keeping some pesky bugs, like aphids, at bay. When you've spent too much time on the computer, these plants also alleviate sore eyes like chamomile tea does.

If you're in the cooler climate zones you might want to toss in those well known window boxers, the geranium. Geraniums (Pelargonium) grow well in 900 meter and up region where they get the warm days and cool nights and lots of water. To keep them looking good they require pruning and clipping as much as roses.

Speaking of roses, those fragrant Pelargonium, geraniums, have a spot all their own in the history of fragrant oils for perfumes and home from the Egyptian Nile to the French Riviera. Medicinally it is only the leaves of most species which are used whereas others have whole plant usage available. Depending on species they've been used to treat disorders from head to toe, for sore feet to acne, but remember Never Use Plants for Medicinal purposes without consulting your physician.

Need a spot or two of color that can withstand the drought of dry season? Try Periwinkle Cataranthus roseus also known as Vinca or Pervinca locally. These hardy plants come in a variety of colors with the most frequently found being white or pink. These two foot tall sun lovers are tolerant of both rainy and dry weather and are easily propagated by placing cuttings in water with root starter. To keep them looking their best means giving them a trim sometimes. In old times these were used for female reproductive tract problems. In modern times pharmaceutical companies have used the properties as cerebral stimulant and vasodilator. The pharmaceutical companies have utilized this plant for acute leukemia, Hodgkin's disease and other cancers but it has been mostly used for other purposes. The leaves help reduce blood sugar leaves and increase perspiration and in old times it was used to stimulate the uterus.

Dianthus chinensis and marigolds are low growing and geraniums and vincas will get a little taller, to about $30-40 \mathrm{~cm}(12-16 \mathrm{in})$. All of these want sun and like dry season.
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1. Name: Dianthus chinensis. Flower: 5 cm across pink, grape-juice color, or white. Leaves: evergreen silvery. Origin: East Asia. Height: up to 20 cm .
2. Name: Marigolds, Tagetes patula. Spanish Name: anisillo. Flower: 2-5cm across lemon yellow or rust petals with mustard edges. Leaves: dark green, deeply divided along stalk like a fern. Origin: Mexico. Height: up to 20 cm .
3. Name: Periwinkle Cataranthus roseus known locally as Vinca or Pervinca. Family: Apocynaceae. Origin: Europe, Africa and West Asia. Flowers: pinks, whites, or purples 5 deeply separated petals. Leaves: dark shiny green. Height: up to 45 cm
4. Name: Geraniums (Pelargonium) Local Name: geranio (pr. Her-ran-ee-o). Origin: Africa. Flowers: pinks, whites, or purples. Leaves: silver-green and fragrant. Height: up to $45 \mathrm{~cm}+$

Another trick for those shady areas is the Caladium bicolor
Name: Araceae
Origin: Central America
Needs moist soil and a good amount of shade

The leaves get up to 1-2 feet long in the tropical rains and warmth and go about waving those red and green shaped ruffled edge spades in the air. This plant goes into hibernation as do many so you may want to plant it behind a low growing plant or low growing flower.

Growing wild in the forest here are the Syngonium podophyllum. These non-edible leafy greens are native to Panama and Costa Rica and very similar to the caladiums. These are not for your higher mountain regions, they have an aversion to cold and possibly to the excess water. Dig these beautiful green leaves in where you have a shady spot and appreciate their quiet statement when you walk past. There are many many varieties available bringing you the chance to try them all.


Name Syngonium podophyllum
Local name: Singonio
Origin: Costa Rica and Panama
Elevation: 0-1500m+ (0-4923ft)
Height: grows similar to a vine, on the ground low growing, tied to a spongy trunked tree they will cascade down beautifully
Likes: Shade
Leaves: Spade shaped pointed
Going up a little higher and similar to a heliconia in leaf structure is this pink paones type beauty. The leaves on this plant get about a foot to $1 \frac{1}{2}$ foot long upright on a 3 " stem, and hidden beneath them is this precious burgundy to pink flower head. This one also like semi shaded areas and it will die back in the heat of dry season. Many of the turmeric species are used medicinally, commercially or as spice. One commercial use is that of orange and yellow dyes for the wool and silk industry. It has been used to its utmost potential in Asian cuisine but also has anti-inflammatory properties and is good for the liver. It goes all out stimulating the gall bladder and the circulatory system and making those digestive processes work. In addition to this it is beneficial for bleeding and even has antibiotic effects. The root of this tropical plant just keeps on doing good things for you from spicing up those plates with mixtures like curry to taking care of ringworm. Of course with its beautiful full leaves and the large fragile pink flower it makes a nice garden plant.


Name: Wild turmeric Curcuma aromatica Family: Zingeberaceae
Origin: India
Elevation: 900-1500m
Likes: Water and shade
Height: 40cm (16")
Leaves: heliconia type, soft, pale-dark green, 10 cm (4") wide up to 30 cm long
Flower: fuchsia color up to 20 cm (8")
Propagation: Roots
40 species

Going up a little more height wise is the pink rose colored Justicia carnea coming from Brazil. Take a cutting offered from a friend, put it in the dirt and in about six months time you will have your first bloom. These flowers look as though they were made to be painted by an artist with those contrasting dark and light pink curled petals.


Name: Brazilian Plume Flower Justicia carnea Family: Acanthaceae Origin: Brazil
Height: $1 \mathrm{~m}+$ depending on conditions
Leaves: dark evergreen, lance green
Flowers: pink like small ginger

Don't forget to put the African Iris on stage too. These do well even in the dry season putting on small 5 m white flowers atop their grassy stems. They tend to form large clumps and so must be thinned from time to time. At 1500m elevation that means once every 7 years or so.


Name: African Iris (Dietesirioides) Family: Iridaceae Local Name: Iris (pr. Ee-reese)
Origin: South Africa
Elevation: 50m up
Likes: sun
Height: up to $2 m$
Leaves: Long grass like 2 cm wide
Flower:6 white petals with 3 mustard yellow stripes and 3 lavender striped white petals Propagation: root ball

Consider Begonias as well. You can use those hybrids or here you can find and plant the native kind. One thousand species have been found in the tropics most of them here in Central America so consider yourself in Begonia paradise. There are many hybrids that can be bought at the various nurseries but the forests offer up the beautiful natives from which the hybrids have come. These grow in a fashion that they show that they are from slanted land. They grow upright and all the leaves seem to hang down on one side. This is primarily due that in the wild one side is up against a tree or an embankment. They have tuber roots and often times plant themselves in gardens without the knowledge of anyone. Here you'll see two natives, wild weeds of the forest floor, in pink and white.


Name: Begonia multinervia
Local Name: Begonia, Hybrids are known as Teresita and make good garden flowers in this elevation
Origin: Central America
Elevation: up to 1500m+
Likes: Water and part shade
Height: up to 1.5m
Leaves: Dark green, lopsided oval up to 20 cm ,
Flower: Clusters of either white with light yellow center or pink with mauve color Propagation: plant or root

Once the rains come this is the plant to have to add a splash of color. They come in a variety of colors as well many of them looking as though the edges of their leaves have been dotted with gold or jewels. They are most impressive when planted in groups of 3-5 the same color with 3-5 of another color next to or in front or behind. Locally it was used to make a sort of liquor called guaro but more than that it is a common garden plant. It requires a bit of shade and a bit of sun to be happy and in dry season it may or may not survive. They flower frequently, even throughout dry season. To propagate these is very simple during rainy season, just cut and place in the ground. If you're in dry season it's better to take the cuttings put them in water until they begin to form roots; adding a little root starter helps. The varieties don't all have names most of the time but they all come from Coleus blumei.


Name: Coleus (Plectranthus scutellarioides)
Do not use plants for medicinal purposes without seeking a medical physicians advice.

Family: Lamiaceae
Local Name: Chiriti
Origin: SE Asia
Elevation: up to 2000m
Likes: Water, part sun-shade at high elevations and shade at lower elevations
Height: up to 1m at high elevation, but it will look twiggy
Leaves: Serrated, oblong with a point, multicolor and many colors
Flower: bracts with white flowers and blue petals at the top of stalks
Propagation: cutting

There's truly no better way to blanket a path than with Impatiens. They grow great here and give those little spots of color. There are two predominant types here. Walleriana is your common type which grows in the forest and along roadsides splashing up colored petals and popping seed pods. The seed pods when ripe and touched pop open into curls spreading the tiny black seeds in the air. So long as there's moisture these impatiens will grow and reproduce. However if you are in an area where they use heavy amounts of herbicides these plants will fail and nearly disappear completely. Take the picture below for example; this was a field near the Tacares River in 2004 which was blanketed in color. They also lined different roadsides in the San Isidro area until the use of herbicides in the coffee fields wiped them out, they are all gone, not one remaining. The best place to see and admire them in this mass form is to drive around Lake Arenal. The locals consider them weeds and they grow like weeds getting up to two feet high and cover vast areas. That means that they are pretty much maintenance free, but they'll bloom better if you trim them back in mid rainy season.


Name: Impatience
Local Name: Impaciencia (pr. Em-pah-see-en-see-ah)
Origin: India,
Elevation: 200m-2000m
Likes: Water
Height: up to 1 m
Leaves: oblong 2-3cm soft

Flower: 2-3cm
Propagation: seeds, roots, seldom cuttings
Another type of impatiens, hawkeri, which hales from parts of New Guinea and walleriana, which comes from Africa, is very popular here and sold at nearly every nursery. The only disadvantage is that they need a lot of water and protection from direct sunlight. They tend to die back easily and must be replanted every year. For the disadvantages though, they give in return larger flower heads than the walleriana which are highlighted by the darker leaves. There are many colors available and look as beautiful as your common impatience, but require attention.


Name: Impatiens Hawkeri walleriana
Local Name: Impaciencia (Alegria de la casa)
Elevation: 1000m+
Likes: cool air, water, part sun
Height: up to 40 cm (16")
Leaves: dark green, tapered to point
Flower: 5cm (2") 5-6 petals similar to petunias
Propagation: good cuttings if any survive dry season, or take roots to soak in water and plant in containers

Pentas lanceolata come from Yemen and Africa and have adapted nicely to Costa Rica. They range in color from whites to reds and are used singly or in rows like a hedge. After the heavy rains they need to be cut back because they tend to get scraggily and the leaves turn brown and rot. If you cut them back before the rotting stage the cuttings can be put into the ground to give new plants. These make pretty decent cut flowers too, but they drop petals. If dry season is really harsh they will die back until the rains come. Like most plants here you can't say die, they will surprise you coming back to life with a more strength than before.


Name: Pentas lanceolata
Local Name: Verbena
Origin: Africa
Elevation: 0-1500m
Likes: sun and water
Height: up to 1m
Leaves: emerald green, lance shaped, soft
Flower: ball of flowers in pink, purple, white, red, red and white
Propagation: cutting
Looking to attract butterflies? Plant two others along with the Pentas; lantana and the blue butterfly bush Stachytarpheta. With these three you will not be able to count the winged visitors. The L. camara (the orange one) needs to be cut back in order to put on the best show, otherwise it will grow out of control and become some twiggy branches with only a few flowers. Just shortly after the rains come you can give it a good pruning and plant the cuttings and you will have unlimited entertainment while hummingbirds and butterflies congregate.


Lantana Camara radiation


Yellow Lantana montevidensis Trailing Lantana. Lavender and white both bloom year round in sun and are low growing.

[^1]Name: Lantana camara (L. aculeate) Family: Verbenaceae
Origin: Tropical America
Stems: Prickly, ever green usually about 3 feet tall up 10 woody
Leaves: opposite simple oval tips pointed totted edges deep veins fragrant when moved
Flowers: 2 in flower head with many small flowers along branch bloom most of the year need sun
Notes: medicinal as stimulant

The blue butterfly bush, which also comes in a dark pink, fends for itself for the most part. It is extremely drought tolerant and tolerates most altitudes from the coast to the slopes. They like all weather and elevations, and grow and multiply with wild abandon like a weed. They can be clipped back and the cuttings planted in the rainy season. They put on a super contrasting show when planted with the orange Lantana camara radiation and between the two the butterflies and hummingbirds become decorations too.


Name: Butterflyweed (Stachytarpheta frantzii)
Family: Verbenaceae
Height: 1m
Leaves: oval serrated
Flowers: purple or pink varieties
Elevation: up to 1800 m

If you want a ground cover that is sure to keep people out the Madagascar euphorbia is the plant of choice. It's a low growing shrub about 2 feet high but can get taller. All branches are completely covered with spines making a thorny rose bush seem like a smooth reed. Other than needing full sun, these blood thirsty plants with their blood red flowers require little more than an occasional machete to prevent spreading; and avoidance otherwise.
Name: Christ thorn (Euphorbia milii) Euphorbiaceae
Origin: Madagascar
Height: 1m+ (3ft+)
Likes: Full sun
Leaves: alternate small oblong 2" on end of branches
Flowers bright red small $1 / 2$ "

Agapanthus (Agapanthus africanus) is actually an African lily that is highly popular here as it is one of the first to bloom in dry season. Planted with Amaryllis the show is spectacular. Using them as cut flowers sounds like a good idea due to their height, but pretty as they are they make a huge mess as the delicate petals fall off gluing themselves to the table top and leaving some of their dye behind. These will form colonies and will need to be divided from time to time but are otherwise easy to care for. The thick one foot long curved leaves will usually stay on throughout the year which is why they work great around the Amaryllis. For some color mixing there are also white ones available, just remember they want sun.


Name: Agapanthus (Agapanthus africanus) Family: Amaryllidaceae
Origin: North America
Likes: Full sun
Leaves: long slender $30-40 \mathrm{~cm}$
Flower: head sits atop a $11 / 2$ foot long stalk
Propagation: Bulb
Another nice shrub is Yesterday-Today and Tomorrow (Brunfelsia pauciflora) which puts on a show at rainy season of a mix of purple and white flowers. Although it does well in shade too it prefers a nice bit of sunshine. Once you get above that 1000 m mark of elevation it slows down to a crawl growth and bloom wise.
Name: Yesterday-Today and Tomorrow (Brunfelsia pauciflora) Family: Solanaceae
Origin: Brazil
Height: 2m (6ft)
Leaves: $3^{\prime \prime}$ dark green
Flowers: purple lavender and white mix
Note: It doesn't grow as well above San Isidro
Another variety from Venezuela has lance shaped leaves with purple and white flowers about 5 cm
Now if you like purple and you want to put on a spectacular show you want to get the vineshrub Petrea volubilis and plant it next to or behind the bright orange Firebush (Streptosolen jamesonii).


Name: Queen's Wreath Petrea volubilis
Family: Verbenaceae
Local Name: Raspada hojas or Lava platos
Origin: Mesoamerica and W Indies
Likes: sun
Height: 10m+ (30ft+)
Leaves: Evergreen rough like sand paper hence the local name
Flowers: Purple racemes of flowers each flower with 5 petals, color can vary by season being lighter or darker purple

Name: Marmalade bush, Firebush (Streptosolen jamesonii)
Family: Solanaceae
Origin: N. South America
Height: 2m
Leaves: small oval 2cm
Flowers: red-orange clusters which bloom all year
Tips: Full sun looks great planted next to P.volubilis
Toss in amidst these a little red or yellow shrimp plants (Beloperone guttata) Planta camaron and you'll have a Mexican folkloric dance of nice colors going on. Unlike the bleeding hearts they don't die back. This is found from sea level up the flower of tiny white petals is protected in the bracts. The leaves shoot off the stalk in fuzzy pairs one on each side.


Name: Shrimp plant (Beloperone guttata)
Local Name: Planta camarón
Elevation: up to 1500m
Do not use plants for medicinal purposes without seeking a medical physicians advice.

Likes: sun
Height: 2m
Leaves: Olive green, deep veins, oblong with point
Flower: Yellow bract with small white flowers inside

Bleeding hearts with their arrowhead lush green leaves and white bracts that encase a five petal dark ruby red flower are magnificent garden plants. Coming in from Africa the Clerodendrum thomsoniae wants sun and warmth and not an excessive amount of water. The draw backs during rainy season the flowers get a brownish tint and fall off and the plant loses its leaves and seems as though it's dead, be patient it's just thinking how to surprise you for the holidays. Left untrained these can quickly become a vine so pruning is necessary. Legend has it that this sprang from the ground at the tears of a disheartened maiden when her lover left her.


Name: Bleeding Heart Clerodendrum thomsoniae
Local Name: Corazón sangrando
Origin: Africa
Elevation: up to 1000m
Likes: Sun and rain
Height: 3m+
Leaves: 6 cm dark green, oblong with point
Flower: White bracts dropping ruby red flower with 5 petals and white stamen Propagation: plant, sometimes cuttings, and runners

Well now you might be looking for something a little more tropical in flavor. That's where some of the special plants like ground orchids come in. One pretty Aussie that nearly forms a hedge is the Phaius tankervilleae 'Big Boy'. Sometimes you have to search these specialties out in small nurseries. Of this particular one there are some 50 species available all of which will put out a display of up to 20 blossoms on their 1'-2' tall spikes.


Name: Phaius tankervilleae ‘Big Boy’ orchid
Local Name: orquidea
Origin: Australia
Elevation: up to 1500 m
Likes: sun and part shade
Height: 1'
Leaves: up to 1', 10 cm wide, ridged
Flower: 5 chestnut colored petals open exposing one central lavender flower with burgundy center Propagation: root

Another ground loving orchid is the Bamboo Orchid known as Vanda teres 'Miss Joaquin' (Arundina graminifolia). It is a tall erect orchid plant with stalks similar to bamboo which is very popular and therefore rather easy to find. The best ways to plant them is in a cluster and lightly tie them together. Unfortunately these pretty flowers just don't serve well for cut flowers.


Name: Orchid Vanda teres 'Miss Joaquin' (Arundina graminifolia)
Local Name: orquidea
Elevation: up to 1500m
Likes: sun
Height: 2m'
Leaves: up to 20 cm (8")
Flower: pale lavender outer petals with lavender bell with a creamy-yellow center Propagation: plant

Another leafy sort with color is the Cordyline rubra. At first glance these look great, however they need more work. These can grow into an unreasonable state with few attractive leaves so it's
best to cut them back and put the cuttings in the ground for fresh growth, especially if you want the bottom full. They tend to be branchy on the bottom and so they usually look nicer when tucked behind a low grower like the green asparagus or Artemisia. The ease of propagation is what makes these so easily available. Even in the dry season you can take cuttings put them covered in plastic keep them moist and watch them grow.


Name: Dracaena (Cordyline rubra) Family: Agavaceae
Local Name: Caña Roja
Origin: Asia to Polynesia
Elevation: up to 1500m+
Likes: sun
Height: 1 ½m
Leaves: up to 40 cm red with black stripes interspersed
Flower: small inconspicuous lilac
Fruit: 3mm berries
Propagation: cuttings
Another type of Cordyline that grows well is known as the good luck plant Cordyline fruticosa. It is not the deep red of the rubra and also grows taller; however its leaves tend to remain more attractive for longer periods.


Name: Good Luck Plant Cordyline fruticosa Family: Agavaceae
Origin: Asia
Height: up to $3 m$
Elevation: up to $1500 \mathrm{~m}+$
Leaves: green with pink, rose, salmon or maroon

Flower: $10-20 \mathrm{~cm}$ rose spike with lavender flowers Many varieties available
$\qquad$
Azaleas may not bring tropical hammock thoughts but at these temperatures and especially at the San Isidro to Poás elevations you are sure to enjoy their large flowers. The large leaf ones like 'Pride of Mobile' do best at the cooler elevations and the small leaf ones do better in the warmer zones below San Isidro. Unlike in other latitudes where they bloom only once a year here they put on flowers throughout most of the year. The large leaf ones also do not mind the full sun and can be maintained in beautiful hedges. They also grow fast and can be clipped and put into the ground for new plants. Sometimes when the rains are heavy you may have to clean them out and trimming is a necessity for the most flowers. The best time to trim is right after they bloom.


Name: Azalea
Local Name: Azalia (pr. Ah-zah-leah)
Elevation: up to 1500m+
Likes: sun and shade
Height: best at 1m but up to 2+
Leaves: oblong
Flower: pink, salmon, white, lavender
Propagation: cuttings
$\qquad$
This is one plant that if you are below 1000m you should have it will grow beautifully in the warmth. It requires some proper pruning to continue its show year after year. The leaves are thick and grow in a rosette form like a flower and come in many colors with one of the most impressive being the yellow which light up as though they were gold. In shaded areas the plants will not retain their magnificent coloration. Furthermore anywhere above a 1000m is too cool in the evenings for most of them causing them to be really slow growing and not quite as colorful.


Name: Croton (Codiaeum variegatum)Family: Euphorbia Local Name: Crotón
Origin: Malaysia
Elevation: up to 1000m
Likes: sun and warmth
Height: 2m (6ft)
Leaves: $20 \mathrm{~cm}+(8 "+)$ mix of reds, golds, greens many varieties available
Flower: inconspicuous
Propagation: cuttings

Some plants can stand on their own as large centerpieces. Take Euphorbia leucephala for example. If you see it in mid rainy season you wonder why anyone would plant such a thing. Hang in there; the moment you arrive to December you will see a change. You will wake up to snow in the tropics. This bush is about 3-4 feet in diameter and can get up to six feet tall or more.


Name: Pascuita (Euphorbia leucephala) Family: Euphorbiaceae
Origin: Mesoamerica
Height: 2m
Leaves: narrow, multiple, spring green, loses all leaves in rainy season
Flowers: white like many small leaves

To give the Pascuita a huge burst of brilliance in December, try putting another well known Euphorbiaceae with it: the poinsettia. Don't miss the opportunity to buy them before Christmas because once the holidays are over you can put this Euphoria outside and in the ground. This native can grow to enormous heights in the tropical climates, but can be maintained similar to azaleas, gardenias and hydrangeas. If your gardener uses a machete, which most do here, make sure they keep it really sharp or your plants will look shredded. Better to give him some sharp clippers to keep these tender plants from suffering severe damage.

When you plant these outside it is best to plant them where they get part sun and part shade so that they have a chance to develop during the rainy season and enough sun to give you their beautiful bracts in dry season. There are several varieties but this one is the typical sold at Christmas for about \$8-10 in nurseries.


Name: Poinsettia (Euphorbia pulcherrima) Family: Euphorbiaceae
Local Name: Pastora
Origin: Mesoamerica
Likes: sun and shade
Height: up to 4 m (12ft)
Leaves: oblong and toothed or wavy
Flowers: small white inside red or cream bracts

Or, you could try putting a purple tropical beauty next to the Pascuita which will also enhance the white flowers. This plant can grow to 20 feet if you let it, but if you do it will no longer look impressive because it will have fewer purple blaze torches sticking up. The branches are woody but easily snipped and they will grow the moment you put the clippings in the ground. The leaves are a bit like course sand paper similar to another wild plant here called lengua de la vaca. The flower heads are replete with lavender flowers of five petals with cranberry or cream colored centers.


Name: Silver leafed princess flower Tibouchina grandifolia/heteromalla Family: Melastomaea Local Name:
Elevation: up to 1500 m
Likes: sun or part shade
Height: up to 6 m (18ft)
Leaves: oval with pointed tip, rosette form, rigid, and rough like sandpaper
Flower: spike at end of branch with upright clusters of purple flowers, center either red wine or creamy white 2cm
Propagation: by cutting
$\qquad$
Or... you can place this nice one locally known as Nazareño, This Brazilian grows wild up to Poás and is sold in nurseries in Garita. The flowers are like morning glories but this is a bush that can become tree like in one rainy season. Keeping it trimmed is a must if you want the rich olive green foliage. These form fantastic hedges and grow in sun or shade but give more colorful displays if they are in full sun. Other than the trimming you won't have to do much at any elevation except enjoy the display. Any cuttings can be put in the ground in rainy season and will grow within a year. They will drop the petals giving you a royal purple carpet indicating its name as Princess Flower. Put some pink pride of mobile azaleas in front of these and you will feel like you are in a dream garden when you have that afternoon coffee.


Name: Princess Flower Tibouchina urvilleana - Princess-flower Family: Melastome

[^2]Local Name: Nazareño
Origin: Brazil
Elevation: up to 2000m
Likes: sun and rain
Height: $4 \mathrm{~m}+(12 \mathrm{ft}+)$
Leaves: Dark army green, opposite, lance shaped, velvety feel
Flower: 5 royal purple petals 5 wine colored sepals
Propagation: cuttings
$\qquad$
If you like the princess flower then you may also like to add a King. King's Mantle or Thunbergia erecta from Africa which is very similar only with a mustard yellow center tends to grow a little like a vine, but will eventually sprawl outwards becoming a bush.


Name: King's Mantle (Thunbergia erecta)
Origin: Arica
Likes: sun or shade
Height: up to $4 m$
Leaves: lance shaped, soft
Flowers: bloom in rainy season, deep purple with mustard yellow center

Yet another royal purple beauty is the blue ginger that grows superb even at 1500m. This Brazilian (Dichoris andrathyrsiflora) grows to bout 2 m and has rosette leaves in a rich emerald green.

Another plant that goes well with those purple flowers is locally known as paones. Paones form large hedges of yellow or deep burgundy. They have 8 inch long sturdy leaves which hold up to the winds and large flower heads. Their branches are similar to bamboo in shape and easy to cut and propagate. The yellow ones Justicia aurea are twiggy and are better planted in between the red ones to make a good contrast. The red ones make a great dense hedge row that can grow up to 20 feet. These can be trimmed with ease. The best time is before the rains, however they will tolerate it at any time. With a flower head similar to the Brazilian plume flower, also in yellow is the Hedychium Do not use plants for medicinal purposes without seeking a medical physicians advice.
gardnerianum locally known as yellow paones 'paones amarilla'. The yellow varieties are not as easily found in nurseries but the locals know where to get them. The flowers of both types attract numerous pollinators.


Name: Brazilian Red Cloak (Megakepasma erythrochlamys) Acanthaceae
Local Name: Paones
Origin: Brazil
Height: 2-4m
Leaves: $20-30 \mathrm{~cm}$ green spear shape 8 cm wider
Flowers: 20 cm long bracts with white flower inside looks a bit like red ginger but the red is different

Thinking tropical and talking about hedge rows you just can't skip Hibiscus. You have more varieties than you could shake a stick at to make a colored wall. Hybrids which come from Hibiscus rosasinensis or Rose of China are some of the most colorful and large flowering plants utilized in the tropical gardens. The variety is endless from the simple five petals to the multi-petal. Just pick your color or your mix of colors pink, orange, red, yellow, cream, etc and watch the butterflies and hummingbirds come. These garden attractions want sun and water and thus are made for this climate. They grow quickly up to 2 meters and can be kept as a flowering hedge. Unfortunately from time to time they may require some serious pruning to keep them from getting too woody at the bottom. Many hibiscus species have been used for medicinal purposes such as for respiratory difficulties, external inflammations or laxatives.


For the tightest hedge row possible the double petals are best. They grow quickly and form a dense mass that covers in flowers throughout most of the year. The most commonly found ones are
the pink, peach and yellow colored ones. These can be clipped and stuck in the ground and within two years you'll have a hedge row.


Another fast growing hibiscus is the Rosa de Jamaica. These line the road beneath the palms just before the Coope Victoria in Grecia. These can also be clipped and placed in the ground and tend to grow faster than the double petal kind. These are available in dark pink, red, and white with yellow to cream.


Name: Chinese Hibiscus Hibiscus rosa-sinensis

And of course all that blooming means a little snooze is necessary; that like the native Sleeping Hibiscus. This is yet another hibiscus which makes a great hedge row with medicinal purposes predominantly to promote hair growth and perspiration. The bad part is the difficulty in finding them for sale which is curious since they grow free on every roadside from the beach to the mountain peak.


Name: Hibiscus Mavaviscus arboreus
Aka Sleeping Hibiscus
Origin: Latin America
Height: 10+ft
Leaves: spade shaped soft olive type green
Flower: Red closed

Although the hybrids are striking in their displays of color the natives also have advantages in that they are very hardy. The only exception is the schizopetalus which is more a beach lover that comes in from Africa and doesn't do well above 900 meters in the cool mountain air. The hibiscus schizopetalus or Japanese hibiscus grows into a tall shrub nearly 10 feet and to it we should take out hats off as its genetic code helped produce those hybrids we so cherish.


Talking of unusual hibiscuses, you should try these family members if you have space. These must be trimmed regularly or they will take over. There are two colors found in the Central Valley region one burgundy and the other yellow with a burgundy center. The leaves of these plants at one point in time were used medicinally for a variety of stomach ailments as well as other uses by boiling the squashed leaves. They were initially used as tea but are now only serve as a base for teas. The red leaf variety is used locally in salads. Never use plants in a medicinal form without first seeking professional medical advice.


Name: Hibiscus sabdarifa Family: Malvaceae
Origin: Africa, Eurasia
Height: 1m+

Likes: sun
Stems: have spikes
Leaves: palmate and deeply lobed
Flowers: 7-8cm across yellow or wine colored
Seed: 2 cm round with spikes

Cana lilies can also give you that nice tropical feel but above a 1000m they just don't want to push up very fast. The good part is that there's no difficulty in finding them since just about every nursery sells them. However, most nurseries know them as platano as though you were referring to the bananas. It's best to take a picture along with you for ease.


Name: canna lily
Height: 2m
Likes: sun
Leaves: 10cm, jade green, upright
Flowers: multiples, $10 \mathrm{~cm} \times 10 \mathrm{~cm}$, open with petals curving downwards, many varieties of colors available

You can't go wrong tossing some yellow in front of the reds like these buttercup type flowers. This one needs full sun for its bright yellow flowers atop dark lush green leaves.


Name: unknown
Origin: unknown
Height: 1-2m
Likes: sun
Do not use plants for medicinal purposes without seeking a medical physicians advice.

Leaves: $6-8 \mathrm{~cm}$, dark rich green, deeply veined, lance shaped, stiff and rough feeling
Flowers: 6 cm 5 yellow petals with yellow stamen
$\qquad$
And putting in yellow flax known locally as jalalapa (attract the macaws) also looks good. These grow tall but can be controlled. Parrots, parakeets, macawas and Tucans especially the Aracari tucans love them. The jalalapa drags in many species of birds to nibble on the flowers and the seed pods. They will grow at the mountain level, but do much better at 1000 m .


Name: Yellow Flax (Reinwardtia indica Family: Linaceae
Local Name: Jalalapa (Ha-la-la-pa)
Origin: India China
Height: 3m+
Leaves 4-5cm
Flowers: bright lemon yellow trumpet like
Seed pods: long slender
$\qquad$
Yellow elder (Tecoma stans) locally known as Chirca, of the Bignoniaceae family of South America grows up to 25 ft tall and then dangles clusters of bright yellow hanging trumpets, which begin on a spiked flower head. Each flower along the spike opens into a bell shape about 5 cm long with flared petals. However the leaves on it are 10 cm long spear shaped and very soft and flexible with serrated edges.

And if you like yellow, try some Thevetia peruviana. This is known as yellow oleander, not part of the oleander family though, and is a native to the region. This is one plant that likes sun and heat and will grow to tall heights only to be beaten down by the dry season winds when means keeping it low is important. With its $1 \mathrm{~cm} \times 8 \mathrm{~cm}$ leaves it almost strikes one from the distance as being a pine tree with yellow blooms. The leaves make this plant very full and the flowers which start singly slowly becoming clusters make a striking contrast. Once the flowers fall it puts on fruits about the size of golf balls. The fruits are not edible.


Name: Yellow Oleander Thevetia peruviana Family: Apocynaceae
Origin: Latin America
Height: 15m+
Elevation: 0-1000m Leaves: slender, pointed
Flowers: yellow bell clusters, each $8-10 \mathrm{~cm}$ long $5-8$ wide
Fruit: bright green, golf ball size and shape

For hedge rows if you're below 1000meters you should also not miss the ixoras with their large beautiful flower heads. Above1000 meters it is a slow grower and doesn't bloom as profusely, if it blooms at all. At the lower elevations it has no fear of putting on a spectacular show, whether it is your hard to find red like in the photo, or your typical coral or yellow. In addition to its large tropical flower heads and thick foliage its parts have been used medicinally for a wide range of ailments such as; flowers and bark are said to have been used for blood shot eyes, branches for toothaches and leaves for sores and ulcers.


Name: Ixora (Ixora fulgens) Flame of the woods, Jungle geranium Family: Rubiaceae Local Name: Ixora
Origin: India
Height: 4-10ft
Leaves: thick evergreen opposite, lance shaped, shiny
Flowers: large flower heads at ends of stems white, deep red, coral, pink, creamy yellow

From San Isidro down, at higher elevations they do not grow well nor bloom well
A miniature variety is also available and it too needs sunshine and heat. Above 1000 m forget it, you'll plant them and watch them die.

If you're in the sunny rays of the beach areas or below 1000m you should also try the Red Flag Bush. This shrub comes in either a coral-pink or a creamy-white color. The white species is actually a different name but the local nurseries will know them as the same. The white ones are not always easy to find and are usually more expensive than the easy to propagate coral colored ones.


Name: Red flag bush Mussaenda erythrophylla
Family: Rubaceae
Origin: Africa
Height: 8-30'
Leaves: oblong
Flowers: inside the peach-pink bracts are marigold yellow or cream
Doesn't grow well above San Isidro, needsthe heat
The creamy white color is known as (Mussaenda philippica) 'Donna Aurora'
Aka Buddha's Lamp
Family: Rubiaceae
Origin: Philippines
And of course what would a truly tropical garden be without the Bougainvillea. What would a tropical garden be without that favorite the Bougainvilleas? Ever since the French navigator Louis Antoine de Bougainville sailed around the world and encountered this tropical shrub it has not lost its impressive stature. A hardy strong grower tolerating even a bit of cold has found its way to every corner and every tropical paradise mesmerizing tourists and inspiring artists. Bougainvilleas, locally called veraneras, come from South America. They were truly popularized in the Mediterranean though where they cascade down or climb up whitewashed walls giving a truly overwhelming flash of beauty. Photographed and painted to extremes they represent the tropical garden. They grow up to 1500 m but don't do to well above that elevation as the temperatures are cooler. These plants are your true sun worshippers. They want sun, sun, and more sun and without it they refuse to behave themselves. Some of the most beautiful Bougainvilleas are the purple glabra, the pink aswan, hybrid
spectabilis of pink and white. The best times to trim them into a nice hedge is after they finish their dry season blooms, and possibly again in the end of July.

Adding to their special quality is their medicinal use. Different native peoples have used the flowers in a tea form for coughs the leaves were made as an infusion for gastrointestinal and pulmonary disorders as well as being used as antispeptics for wounds. The roots were boiled for fevers and as a purgative. Plants should not be used for medicinal purposes without first consulting a physician.


Another favorite tropical that was put in the spot light in the Mediterannean and has made adaptations to many parts of the world is the Oleander. Here it is a hit or miss which color you get unless you buy it in bloom. At elevations above 1000 m its really not worth the trouble it hardly puts on any blooms and its growth is slow and twiggy. However, at the lower elevations this plant makes a nice blooming concrete wall or steel fence cover.
Name: Oleander (Neriumindicum)
Family: Apocynaceae
Origin: Mediterranean
Height: 4+
Leaves; evergreen
Flowers: red, pink, white best in full sun
Poisonous Dwarf varieties available
Grows best below 1000m
Still looking for some tropical pizzazz? Try the coral plant and cat's tail for red; the Malay ginger for white with burgundy; and the pagoda flower and Barbados flower for orange.

The coral plant grows into a thick bush with bright red flowers popping out on the terminal ends. Above 1000 m it takes years for them to grow and then they demand full sun or no show. At the higher elevations they will put on only one or two blooms whereas at 900 meters or lower they will be full and topped with flowers.


Name: Coral Plant Jatropha multifida
Family: Euphorbiaceae
Origin: Tropical America
Height: 5’+
Leaves: long droop like half closed umbrella
Flowers: red tubular spikes
$\qquad$
For that strange bit of stuff in the garden try the Cat's tail. In the beach area these plants develop many flower tails of one foot or more. At higher elevations you'll get a few about 6 inches long only.
Cat's Tail (Acalypha hispida)


Name: Cat's tail Acalypha hispida AKA Chenille plant Family Euphorbiaceae Local Name: cola del gato
Origin: East Indies
Elevation: Best below San Isidro
Likes: Part shade Part sun
Height:3m (9ft)
Leaves: Leaves bright green
Flower: Flowers red velvet long $15 \mathrm{~cm}(6$ ")+ much longer at coast
$\qquad$
Peeking out of the forest edges are white petals which look like creamy silk swaying in the breeze contrasting with the reddish-purple baton shaped bracts. Hummingbirds are seen darting in and out of these coiled loops grabbing a sip at the terminal flower heads. These are found easily
throughout the lower tropical areas, especially in Manuel Antonio but surprisingly they do well at altitudes of 1500 meters too. Provided they get full sun the blooms will pop out frequently.


Name: Crape Ginger Malay Ginger Costus speciosus pulvorientos
Local Name: Caña Agria (pr. Ka-nya, like ny sound in onion, a-gree-ah)
Family: Zingiberaceae
Origin: East Indies
Height: 4-10ft
Leaves: lanceloate on spiral stems
Flowers: large silky white petals with butter yellow center, usually 2 that drape down over the red baton shaped purple-red bracts
$\qquad$
Simialr to above but with smaler leaves is the GiantSpiral Ginger (Tapeinochilusananassae)
$\qquad$
Brightening up any drive or roadside is the Barbados Flower (Caesalpinia pulcherrima). This tropical comes in several colors and recently has a hybrid that is rose colored which is difficult to find. Although they do better from San Isidro down to coast they will grow and bloom at 1500 meters. Its appearance is similar to the Malinche or Flamboyant tree just that it is more a shrub than a tree and the leaves are a different shape. Over years they have been found to have many medicinal properties.


Name:Barbados Flower (Caesalpinia pulcherrima)

Family: Leguminosae
Origin: West Indies
Height: 6ft+
Leaves: fronds of small oval, opposite
Flower: cone shaped heads of bright orange-red or yellow
Elevation: up to 1500m
Blooms best in Full sun and in dry season fewer blooms above 1000m
Along the same lines is the Pagoda flower from Southeast Asia (Clerodendrum paniculatum) which is similar to the Barbados flower. You will see this beautiful orange and pink spiked flower head at the warmer levels. In those sunny and hot regions get ready to feast your eyes on the butterfly festival that this medicinal plant brings In the cooler mountains it just doesn't care to grow or bloom much.


Name: Pagoda flower(Clerodendrum paniculatum)
Origin: Southeast Asia
Height: 2 meters
Elevation: 900 m and below
$\qquad$
For something a little unique try the Panamensis tree. It grows a little helter skelter with long twiggy branches but its flowers are unique in appearance looking somewhat like several red and cream toucan beaks. The leaves are small and alternate making the flowers stand out. They were recently brought in to the nurseries and are now easily found even at the large nurseries in Garita, but take a picture with you to be sure you get what you want.


Name: Panamenensis
Origin: Panama
Height: up to 3 meters+
Flower: cream base and ruby red petals
Leaves: small, oval, alternate
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There's always more to do in a garden and we're not even close to finished with magnificent displays.

## Chapter 4: SPLASHES OF COLOR CROSS THE SKY

Why stop now? Keep looking up for those heavenly colored trees like the bright orange 'Llama del Bosque’ and 'Poró’; the golden yellows of 'Guachipelín', 'Primavera', ‘Corteza amarilla’ and 'Golden shower tree'; the pink-purple 'Roble sabana', 'Pride of India'; the reds of 'Malinche flamboyant tree' and the 'Australian bottlebrush'; and many more.

With tropical breezes flowing, who could resist the swaying of the slender leaf-ed, red bristle flowers of the Australian bottle brush? This aptly named tree with red bottle brush shaped flowers will grow at 1500 meters, but it will take up to 8 years before it decides to show you any flowers or tree like height. It prefers the heat of the lower elevations and wants to be sun kissed every day. In the lower warm elevations it's a fast grower and when a couple are planted together they are a delight to admire when they sway gracefully in the dry season attracting butterflies and hummingbirds.


Name: Bottlebrush (Callistemon citrinus)

Local name: hisopo or jisopo (pr. He-so-po)
Family: Myrtaceae
Origin: Australia
Height: 8m
Leaves: like 10 cm (3") long blades of grass
Flowers: red and bottlebrush like Blooms best in full sun
$\qquad$
While you're out driving the roads of dry season you will no doubt see as much gold in the mountains as the first Spanish explorers. They create spots of bright yellow in the middle of a field or stand out amongst a forest of green. You may round a curve in the road and have your eyes fixed on a Primavera, Guachipelín or Cassia fistula.

Once beneath one of these towering Asian beauties you will feel the tranquility that Siddhartha must have felt when crossing through India on his quest. This national tree of Thailand, known as the golden shower tree, is sure to enchant you so long as you are below 1200 meters. The Cassia fistula a tree with small leaves and large clusters of bright yellow flowers hanging down like grapes. If you give this tree sun and warmth it will give you a broad covering of decorative shade. Like most trees here it will put on seed pods, long bean like ones. It grows fast up to 60 feet and spreads out equally so. As the seasons change you'll find yourself sitting on a carpet of gold for that coffee break.

Although it is said to have been used for medicinal purposes such as powerful purgatives it's not recommended due to the toxic nature. In folk medicine its seeds were used to expel worms while the steeping of leaves (infusion) have a list of uses one being a laxative while the others are for skin ailments like bites or soothing burns or abrasions and eliminating fungus. They have also been used urinary tract system. Other parts of this plant have also been used such as the roots for fever and skin infections and the pulp for bruises and skin inflammation, even the fruit had been used at one time for intestinal parasites and constipation. Warning: seek medical advice prior to using any natural medicines.


Name: Cassia fistula
Local Name: Caña fistula
Family: Fabaceae
Leaves: compound 40cm dark green light underside

Seed pods: long bean shaped black<br>Flowers: racemes of golden trumpet shaped flowers

Similar in flowering is the Guachipelín (Diphysea Americana) which is touted to be the tree with seven rattles due that it rattles in the winds when the seed pods clash. This tree decorates the landscape primarily as living fence posts which are unfortunately pruned prior to flowering most of the time. However, if they were all left to bloom the roadsides would seem as though there were a stream of bright headlights shining in your eyes. This tree grows at most elevations and is easy to propagate by cuttings. Being that the flower display is similar to that of the Cassia fistula placing these over a walk way or driveway is an invitation to tropical tranquility. This tree, like the wild tobacco güitite, opens its trunk up for epiphytes. So if you can imagine purple orchids flowering along the trunks while the canopy dangles golden petals you can see the excitement of planting these easy to find, carefree trees.

Name: Guachipelín (Cassia surattensis) (Diphysea Americana)
Family: Leguminosae
Origin: Tropical Asia to Australia
Leaves: Dark green
Flowers: bright yellow blooms in dry season even up to 1500m
Seedpods: long brown
Propagation: easy to grow from cuttings

While we're experimenting with gold like Archimedes, let's get down to the warmer weather demanders; the Primavera, Corteza amarilla and the Poró poró. Have a look at the pictures of Primavera and Corteza Amarilla; can't tell the difference? You're not alone. The flowers don't tell but the leaves do.

The primavera lines the entrance to Grecia and the best spot to see it is the back road from Atenas to Orotina. This Central American native is a slow grower and will take up to 10 years before giving you those first anticipated blooms. They don't bloom for long but when they do what a show! You'll have a little competition for those petals if you're in areas where the howler monkeys or ctenosaurs live because they simply can't resist any more than those squirrels eating your red hibiscus flowers can. If you have a larger property it is worth your while to plant these or the Cortezas. The primavera has 2 inch long oblong leaves whereas the Corteza amarilla has rosettes of at least 5 leaves, sometimes more. The wood of the Corteza was utilized for the oxcarts in the past but somehow managed to escape extinction.


Name: Primavera Cybistaxdonnell-smithii
Family: Bignoniaceae
Height up to 75 ft
Flowers: clusters of bell type dry season usually end of March
Leaves: deciduous
Elevation: Up to 1000m


Name: Corteza amarilla Tabebuia ochracea/caraiba
Local Name: Corteza chiva
Family: Bignoniaceae
Origin: Argentina, Paraguay
Height: 8m (24ft)or more
Leaves: 5 " in rosette cluster
Flowers: multiple golden bell shaped flowers
Propagation: tree, sometimes cuttings depending on elevation

Another yellow flowering tree is the Poró poró (Chochlospermum vitifolium) aka Buttercup tree which is a native to the region. This 40 ft tall deciduous tree puts pretty yellow flowers within its first two years at lower elevations and a little later at 1200meters. Easy to plant from a stalk it has been used nationwide as living fence posts. Once it has cast its leaves and finished blooming it puts on large oval seed pods that are the size of a large egg. The seed pods are filled with a cottony fuzz to protect and disperse the tiny seeds. The simple five petals open from their little bud exposing their 3
inch diameter yellow flowers with dark yellow stamen. They grow more like a twig than a tree and prefer the warm rocky soils of the pacific mountain slopes. These are one of the few deciduous trees that actually change colors. The leaves turn a reddish orange prior to falling. However, one by itself just won't give you much to admire but in a tight group they put on a nice display.

Name: Poró poró (Chochlospermum vitifolium) aka Buttercup tree
Origin: Central America
Height: 15m (45ft)
Flowers: butter yellow flowers in dry season
Leaves: similar to grape leaves 5 lobes deciduous
Seed pod: large, round a bit bigger than an avocado seed and has a soft velvet feel.
Likes Rocky soil

Purple flowering tropical trees like the Argentinean and Brazilian Jacaranda may take a few years but once they start they are on par with Paradise and Corteza amarilla. As a matter of fact is sometimes referred to here as Corteza morada. This ornamental will really show off for you in dry season. Like most flowering trees it is slow! Slow growing and slow to put on blooms at any elevation. This tree has made its way around the world gracing the gardens of some of the old exclusive retreats like the Mount Kenya Safari Club. This tropical will grow from sea level up to Poás. It grows a little awkward; at first long and lanky stalks sticking out which after 8 years will give you a short show of a few flower heads. Don't miss it, it is only for a couple weeks and very minimal, maybe three flower heads at the tip top. Hang in there though, once it's established it will grow to enormous heights of 60 feet with a nice form similar to an oak tree and will be covered in flowers from top to bottom. The key with this tree is to either buy a large tree or have patience. It is a sun worshipper, if you plant it in part shade it will wake up very lazy and take its sweet time to grow and show.


Name: Jacaranda (Jacaranda mimosifolia)
AKA Green ebony
Local Name: Corteza morada
Family: Bignoniaceae
Origin: Argentina
Height: 20m
Leaves: Fern like leaves similar to flamboyant tree
Flowers: purple to blue in clusters like grapes, flowers are bell shaped and blooms occur in dry season typically in March/April

Coming in with the same fern type leaves is that all time favorite Flamboyant the Malinche. This spectacular fiery tree has naturalized in Costa Rica without papers. If you're above 1200 meters, better forget it. They tend to look sickly and seldom have there been any to survive and thrive long
enough to flower. This Madagascar native wants warmth and sun not the cool cloud forest. In the warmth you will not be disappointed by the size and flowering of this tree, however if you plant it too close to your house you will have problems with the roots. The carpet of colorful petals is only slightly undermined by the dropping of the long flat bean shaped seed pods.


Name: Malinche Poinciana regia, Delonix regia. Flamboyant tree
Family: Leguminosae
Origin: Madagascar
Height: 15m
Seed pods: 8" long or more filled with black seeds.
Elevation: below 1200m

Were you just dying to have a bright orange tropical and happen to live above the cloud line?? Not to fear Llama del Bosque is here. The Llama del Bosque grows well at all elevations nearly up to Poás itself. This African tree made its mark across Costa Rica looking like fire on the mountain as it grew up to 20 meters showing off above its neighbors. If you buy these at the nursery make sure you get tall ones. If it is at least 2-3 meters high it will be closer to five years old and closer to getting that first bloom. This is especially important if you are above the 1000 meter line of San Isidro de Grecia. In old African lore this tree was thought to be magical and give powers to the barer making its wood very popular for drums and powerful wands of the shamans. Both the bark and flowers have medicinal purposes.


Name: (S. nilotica) African tulip tree, flame of the forest, (Spathodea campanulata)
Local Name: Llama del bosque or tulipán
Family: Bignoniaceae
Origin: Tropical Africa

Height: Up to 25 meters
Flowers: Flowers dark orange tulip shaped clusters of 5 or more at end of branches dry season, sometimes all year
Leaves: opposite, dark, rough like emery board or sandpaper
Seed pods: upright lance shaped up to 20 cm (6") tall
Propagation: easy by seeds, roots runners, and cuttings (so-so) at higher elevations
$\qquad$
Being proud of your garden you shouldn't miss the opportunity to put in Pride of India. This Asian/Australian tree grows quickly, spreading out in the sunlight of these jungles with its pink-purple flowers. It towers up to 60 feet and shows off in the summer sunshine but it's usually a bit shorter about half that tall and still impressive. Sometimes when they are not in bloom they look quite a bit like a mango tree. The vertical flower stalks sit atop branch ends pointing to the sky in a cone shape. They'll grow at 1200-1500 meters, but they don't like it and won't flower well. They want to be sun spoiled all year long. Once it is done showing off it puts on some dark seed pods that pop open to spread an abundant amount of seeds. From seeds alone it can be grown, but remember you may have to wait a while for the blooms and it might be better to go buy a larger tree. This tree also has medicinal use.


Name: Pride of India Lagerstroemia speciosa
Local Name: Orgullo de la India (pr. Or-goo-yo day lah india)
Family: Lythraceae
Origin: Asia, Australia
Height: 20m (60ft)
Leaves: lance
Flowers: upright stalks of lavender/purple
$\qquad$
If you're part of foggy mountain; no worries that's where Roble Sabana comes in to play. This tree shows off like cherry blossoms in spring, only here it blooms in dry season with its height of flowers in January. This native tree does well even at altitude. Naked of flowers this Mesoamerican tree doesn't look much different than a regular old oak tree. There are no acorns but there are flowers and in abundance. It is as if this tree was made for a royal procession so spectacular is its display of dark pink flowers cast on the cerulean sky in the blazes of the sun. And best of all, you don't have to
wait ten years to see a blossom only half that or less. They used to line the street around Sabana park in San Jose.

Name: Pink trumpet tree Tabebuia rosea
Local Name: Roble sabana (pr. Row-blay sah-bah-nah)
Family: Bignoniaceae
Origin: Mesoamerica
Height: 9-20m
Propagation: cuttings

Well since we're at tree level and not sea level let's add in some of those truly tropicals those epiphytes that love those spongy güitite and jocote trees. Epiphytes that's right, there's not really a fight going on around these guys. No they're just hanging around enjoying the air and the water which is there for the taking. These spectacular plants are also known as air plants as they grow freely sitting in the tops of the trees. The richness in variety is as astounding as its home in the air. Head by any nursery and you are sure to find a variety of colors and shapes to tie to your güitite tree (see natives).

Air plants or bromeliads grow in abundance in rainforests. Some elevations have more some less. Two of the best places to see these guys growing wild is on the way to Poás volcano or around Lake Arenal. These natives are many only some 1400 species hang from tree branches or spring up on the rocks. They were specially created to have their own little vase right in the middle of their round of thick semi-vertical leaves. It's not only where they make their home that's intriguing but who's making a home in them. Poison dart frogs are known to take up residence in these plants. They make such fine penthouses that even the male hauls the little wigglers up to the water filled park. The easiest of all bromeliads and possibly the least expensive is the pineapple; sold on every corner for less than a dollar a piece. You get a great deal, a sweet tropical snack and if you go take that top that you chopped off and put a little dirt on it you'll have a new pineapple in a year or so.


Bromeliaceae aren't the only colorful epiphytes to grace the trees. Orchids grow in abundance as well from tiny tree dwellers to large ground lovers. They are a frustrating garden beauty because when you think you've got them going, they stop. When you see one in a book that you want to get, you can't find it. Add to that that they're not cheap and you get the general idea that it won't be as easy as the books say. Orchids seem to be a bit temperamental 'give me too much water and I will lose my leaves, too much sun and I will also lose my leaves, tie me to the wrong tree and I'll just quit, dump me like I'm forgotten on a pile of rotting tree trunks or next to some good highway carbon monoxide and I will bloom like you never imagined!'

Truth is it's hard to find a wide variety here. The easy ones are the national flower the Guaria Morada, a few Cattleyas, a few Phalaenopsis and a few Dendrobiums. Then there are a couple of land lovers like Vanda teres 'Miss Joaquin' and 'Big Boy'. Otherwise you have to get to know your neighbors. There are orchid shows in almost every major town at least once a year. Small nurseries may from time to time have something special. The local name for these are orquídeas (or-key-deeahs).

Only one of these has some medicinal properties and that's the Dendrobium. There are only a little more than a 1000 species of this orchid that come in from Asia, with some of the most beautiful displays being in Thailand, even growing in the overpasses of the congested highways. The stems of this beauty have been used in Asian medicine for fevers and respiratory difficulties due to its analgesic properties.


## Chapter 5: ADD SOME GREEN TO THE SCENE

Now we have color everywhere let's throw in some unique greens. Perhaps we should try some Crasas? What are Crasas? Well they are plants that are made for these regions that have wet and dry seasons. They delight in the rainy season not letting even a drop of water go to waste. They absorb as much as they can and then spread it out across the dry season. Sometimes you will be lucky enough to see these great plants shoot up one long stalk like a periscope to take in the scenery beneath its flower head. One such plant is the Agave. There are many varieties of these natives and they need space, up to 2 m for width alone.


Name: Agave attenuate
Family: Agavaceae
Origin: Mexico
Leaves: thick rosette jade color
Flower: cream-white 10ft spike
Elevation: up to 1500 m
Propagation: taking the new side growths which locals call 'hijos' (pr. Ee-hose) meaning children 300 species

Agave Americana is the most commonly seen on the road sides and grows up to 2 m . The spiked leaves of this agave have a mix of dark green edges with a pale creamy green on the center. Some species yield hecogenin which pharmaceutical companies use to fabricate steroids. All parts of this plant can be used, making it a special spiky thing in the garden. It has been used medicinally for gastrointestinal ailments. It also produces sweat and has anti-inflammatory properties. Although its sap has been used traditionally on skin ailments many people have a reaction.


Name: Agave Americana
Family: Agavaceae
Origin: Mexico
Leaves: thick rosette dark green with yellow center and spikes along edges
Flower: cream-white 10ft spike
Elevation: up to 1500 m
Propagation: taking the new side growths which locals call 'hijos' (pr. Ee-hose) meaning children
While you're out cactus planting don't forget to put in some stinky Aloe even if it's not native.


The leaves are attractive and useful and the plant puts on tall blooms with multiple tube like flowers. All you have to do is give it what Costa Rica offers and that's sun and water. Within the Aloe family are 325 species to date, including the typically smaller, yellow flowering, medicinal Aloe vera barbadensis.
Name: Aloe vera
Local Name: Sabila or aloe
Origin: Africa
Height: 80 cm
Leaves: rosette thick light green
Flower: spike with yellow green tube flowers
Elevation: up to 1500m
Likes: sun and water
Propagation: hijos or offshoots

For a truly interesting plant try the Ponytail palm (Beaucarnea recurvata). A good friend gave me one as a gift and it grew wonderfully. This Crasas plant grows throughout the region happily at most elevations because this is its native home. It is also known as pata de elefante (Elephant's Foot) because of the base which is large and round. The beauty of it though comes from the long slender leaves that flow down looking like a ponytail. The nice thing is that they are easy to find, sometimes sold from trucks along roadsides and most nurseries will have them.

Name: Ponytail palm Beaucarnea recurvata and Nolina recurvata
Local Name: Cola de caballo, Pata de Elefante
Height: up to 8m
Leaves: long, slender and curled
If you happen to arrive in the middle of April you should find on just about every road someone selling racemes of white flowers which are hung upside down on ropes. Those flowers are really important for the local people as a condiment that they add to beans, eggs and salads. However, the flowers are bitter if it's too late in the season or they've been on the stalk to long. What is this plant? Nothing other than your common Yucca. Not only are the flowers edible and make a beautiful
contrast to the bright blue dry season sky, these guys make a nearly invincible fence line of wicked spikes!


Name: Yucca elephantipes
Local Name: Yuca
Origin: America Central
Height: up to 10 m
Leaves: up to 40 cm , dark green, spear shaped with spiked tips
Flowers: raceme with many white flowers, typically blooms in March and April
$\qquad$
With all the moisture in the rain forest you shouldn't miss the big floppy Elephant's ear. Some may die back if dry season is long and drawn out but they'll come back as soon as the rains begin. They require very little care and put on a nice show as their big leaves flop in the breeze sparkling sunlight reflecting off of them like a mirror.


Name: Elephant's Ear (Alocasia macrorrhiza)
Family: Araceae
Origin: Sri Lanka, India, Malay, Indonesia
Height: 1-2 meter
Flower: cream colored spade with pistil
Leaves: large heart shape with ruffled edges up to 80 cm wide
Elevation: 1500 meters+

The Pandanus batistiiaureus is sure to liven up your garden with its two toned variegated leaves but it's the roots that will really make people talk. It takes a few years but these plants grow roots above ground and will elevate the leaves making a see through root playground for kittens and puppies. To see them in their true state when mature means taking a little road trip to Arenal or to the beaches. At a little hotel called Villa Caletas near Playa Herradura they have a roadway lined with them.


Name: Timor Screw Pine
Family: Pandanaceae
Origin: East Indies
Height: up to $6 m+$
Leaves: long grass like $3-4 \mathrm{~cm}$ wide dark army green leaves with yellow stripes
Full sunGrows well at 1500 m
$\qquad$
Papyrus makes great cover but can spread out of control like bamboo. There are a few types available here, even a couple of dwarf varieties if you don't have the space that these guys need. When the rains come these plants are easily separated and placed in different areas by simply dividing the root system. They require sun and water both and work very well where there's water runoff. They work well for short periods as cut flowers however they will begin to smell within a day or two if you forget to change the water.


Name: Papyrus ( Cyperus papyrus) Papiro
Family: Cyperaceae
Origin: Madagascar
Leaves: sit upon Tall stalks making for Feathery tops
Height: Up to 5 m or more
Needs water
$\qquad$
Bits of green means you shouldn't skip out on the Mano de Tigre. It is trouble free and can either grow up a tree like it does in the forest or it can be left to form a 5 ft plus wide clump of big holey green leaves.


Name: Philodendron selloum
Local Name: Mano de Tigre
Family: Araceae
Origin: Brazil
Height: a clump of 2 m or climber up to 20 m
Leaves: large $11 / 2-3$ ' in width and length
Flowers: yellow-green long narrow cone shape edible

Monstera deliciosa or Costilla de Adán. This vine is found in moist forests growing up to 20 m clinging to the sides of trees and grows from Poás levels all the way down to the coast. Leaves are heart shaped and start in a light green glass color with slits on the edges. As they grow and mature the leaves change and the slits become oblong holes. Although the plant is poisonous are said to have fruits that have a flavor similar to banana and pineapple.


Name: Philodendrone rubescens
Spanish Name: Monstera deliciosa, Filodendro sonrojado, Costilla de Adán
Origin: Colombia
Height: up to 20m
Likes: shade and water
Leaves: 20 cm heart shaped bright green with slits or oval holes, leaves are each on their own stalk
$\qquad$
Although thinking of a cactus causes one to think of a hot dry desert it's just not so with the Prickly Pear. It loves the rainforest and grows happily to towering heights. Its spines are daunting and the yellow blossoms cruel with needles but the fruits are succulent when red-purple and ripe. This is known as Tuna, not to be confused with atún the tuna fish.


Name: Prickly Pear (O. monacantha)Opuntiavulgaris, Barbary fig Do not use plants for medicinal purposes without seeking a medical physicians advice.

Local name: Tuna
Family: Cactaceae
Origin: Brazil and Argentina
Height: up to 3 meters or more
Leaves: Flat round or oblong branches with spines
Flowers: bright yellow with spines
Fruits: red when ripe spines
$\qquad$
Or maybe something a little bit leafier, like Tabacón. Tabacón is a large leafy plant of the tropics which is found growing in trees and on the ground. This plant likes warm and humid so near the beach is good. However it does grow up to about 1400m, above that it is a little too cool. The one thing to note down is that this guy like the Agave needs space and lots of it as it can spread its leaves out to two meters.


Name: Tabacón
Family Name:
Origin:
Height: up to 2 meters in warmer areas
While we're going green and tropical let's mosey on over to the Ferny side of the street. Now these could be a full chapter in and of itself due to the variety and the fact that these are grown in mass for export in the mountainous regions. One walk through a forest and you will no doubt notice the moisture laden environment gives a safe place for ferns to develop. There's no lack of fern species to enjoy wild, cultivated, indoors, or out, so go for it. Some of the most beautiful ferns in the world grow in the cloud forests but there are also a few at low altitude that give a nice welcoming wave. These here are just but a few that are easy to spot.


Do not use plants for medicinal purposes without seeking a medical physicians advice.

Culantrillo (Adiantum raddianum). This is one of the most precious and fragile looking ferns, it looks similar to lace and grows along embankments from Poás to Grecia. It makes a great indoor potted plant, just don't forget the water.


And then of course there is Osmundo regalis Real Fern grows up to 3' long leaves especially on embankments and is a very hardy fern which even grows in Europe. However it needs a lot of moisture.


Didymochlaena truncatula. This is a very popular indoor fern but it does not like sun and it likes lots of water. The odd part about this popular indoor plant is that it seems to handle the dryness of most houses.


Nephrolepsis exaltata helecho espada One more that you'll find growing on trees is the Nephrolepsis exaltata the spade fern whose small spade shaped leaves line a center stem. Although one of the most popularly sold ferns it is also one of the most difficult because they die out frequently even in their natural habitat. The leaves turn yellow brown in November and begin to fall and won't start new growth again until the first rain.


Adantium hispidulum A hardier type fern that is capable of withstanding the dry spells it shoots up to a stalk of 5-7 fern leafs. These can get up to $2 m$ high but in the forest near Bosque del Niños they get about 16 cm high. These are a unique and beautiful fern plant for in or outdoors.


Cyathea. 300sp helecho arboreo tree fern Tree Fern (Alsophila australis) or (cyathea) AKA Australian tree fern Cyantheaceae Australia Grows wild along river banks in Costa Rica reaching heights up to 10 feet, looking a bit like an imaginary space creature when it first begins to open its new branches in the end of dry season. It needs lots of humidity above 50\% hence they are not usually found growing too far from the rivers. They want water and shade as well.


And there are many other ferns that make their home here in this tropical paradise of foggy forests.


Along the same line of fern is the Blechnum gibbum which you will find growing in the moist humid areas on tree trunks leaves grow in a rosette form. This fern is originally from Pacific Islands. Leaves are green and pointed and often times the edges will be a dark purple-black color. This particular type of fern doesn't mind a little sun either. Old branches die off and need to be pruned. Coming from the canary islands the Davillia canariensis or Canary fern or rabbits foot is probably you most recognizable fern with its Christmas tree shaped leaves growing opposite along a single stalk with the largest ones at the base and getting progressively smaller. On the bottom side they are covered by red-brown fuzz. Since it grows tall and then cascades down it makes a great plant for covering low, shaded block walls.

## Chapter 6:0H THOSE PRECIOUS WALL FLOWERS

Sometimes you just get stuck behind steel bars or concrete walls in Central America so why not give yourself a little ease to the optical nerves and plant some vines. Now here locally almost all of them are called bejucos (pr. Bay-who-ko) or enredadera (pr. En-ray-dah-day-rah)

Naturally there are some that you already know like the Common Morning Glory (Ipomoea purpurea) which once established sets off on a show of deep royal purple flowers putting on new blooms almost every 24 hours. These you can also put in flower pots if you're in a temporary spot. The seeds germinate fairly easily here once the rains are in full swing, usually by June. Ipomoeas come in a variety of colors but the most commonly found here are white, the deep purple, and lavender.


Name: Common Morning Glory (Ipomoea purpurea)
Local Name: bejuco
Elevation: sea level to 1500m+
Likes: sun

Height: as high as it can go
Leaves: heart shaped
Flower: round with petals delineated by darker color but not separate Propagation: seeds
$\qquad$
And then there's the Thunbergia grandiflora with its big purple to lavender flowers this one is also available in white. What's the difference between this and the morning glory? Well, two things really, one the leaf shape; these have spade shaped leaves and two the flowers have distinctive petals.


Name: Thunbergia grandiflora
Local Name: Enredadera de Trompeta azul
Origin: India
Height: 4m+
Leaves: lance shaped, olive green and heavily veined
Flowers: lavender, purple or orange, 5 petals, usually yellow or cream center, trumpet shaped, 810 cm across
$\qquad$
Similar to Thunbergia grandiflora are the absolutely gorgeous Mandevilla boliviensis with the same type of flower just in white or rose pink with shiny leaves.

Another common vine is the passion vine. Again there are many but here the most popular are the Passiflora caerulea the common passion flower. It has the artistic style of creamy green petals for a base topped with needle type petals of alternating black white and deep purple topped with green and sometimes burgundy colored stamen. The fruit from the Passiflora edulis is known locally as maracuya (see fruits) and is used frequently in juices, pies, and jams. These frequently grow wild on fences even at higher elevations.
1.



Name: Passiflora caerulea
Local Name: granadilla
Elevation: 1000m+
Likes: sun and climbing trees
Height: 3 m up
Leaves: up to 20 cm , heart shaped
Flower: 10 or more outer petals
With needle shaped petals of dark purple, white and black
Propagation: cuttings cutting

Passiflora edulis
maracuya
sea level up
likes sun or shade
tri-lobed dark green oval leaves serrated leaves
10 white outer petals
with wriggly white needle petals

10 red petals $8-10$ red petals inner petals black

Throw in a little honeysuckle to have some fragrance and invite more hummingbirds. Name: Honeysuckle (Tecomaria capensis) Cape honeysuckle
Family: Bignoniaceae
Origin: South Africa
Height: up to $2 m+$
Leaves: opposite, pinnate, round toothed
Flowers: at ends of branches bell shape with five petals
Not for Poás region, it needs the heat of San Isidro down to coast
--------
For some reason purple and orange just make a marvelous combination. Originating in southern South America Pyrostegia venusta is another of those bright tropical vines. Growing all the way up to Poás this fiery orange flowering vine puts on a show year round. Above 1200 m it takes its longer to grow than waiting for molasses or ketchup to pour, but like those once established it will give you more than you were ready for. Like most flowering tropicals it loves the sun Bignoniaceae likes hot sunny places locally known as tricky-tracky.


Name: Pyrostegia venusta Family: Bignoniaceae Local Name: tricky-tracky
Origin: South America
Likes: hot sunny places
Height: climber up to $10 \mathrm{~m}+$
Leaves: concave lance shaped 8cm
Do not use plants for medicinal purposes without seeking a medical physicians advice.

Flower: bright orange clusters of tubes 6-8cm Propagation: cuttings

Want something in bright orange that will still grow at altitude? Try something like the trumpet creeper from South Africa; Leonotis leonurus. Not truly a vine but it grows a bit like one. The nice part about this plant is it can be used for wall covering or it can be kept as a hedge type bush. The bad part is that it does tend to spread. The good is that the hummingbirds love it. Similar to it and more easily encountered here is another type of trumpet creeper. The difference between the two is that the Leonotis leonurus has longer lance shaped leaves up to 10 cm whereas this species has short rounded leaves up to 5 cm and the flowers are not stacked in rosettes on one stalk, rather the flowers are usually on the ends in one group of 5-8 tube flowers which spread their 5 petals wide. The flowers on the Leonotis leonurus remain tubular with the opening downward.


Name: Trumpet creeper Family: Bignoniceae
Origin: South Africa
Elevation: 1500m+
Likes: sun or part shade
Height: as a crawler up to treetops or as shrub 1-3m
Leaves: round with jagged edges, alternate
Flower: red-orange trumpets 5 petals with yellow-orange stamen
Propagation: cuttings or root shoots

Yellow is also a good color and for that we have the Golden Trumpet which hails from Brazil and like the creeper can be kept as a bush or trained to cover a wall. Adding a little yellow and your fence line will be enticing to all the buzzing creatures. Allamanda cathartica or yellow trumpet Tropmeta dorada from Brazil is sure to light up any spot. It's not truly a vine but has a tendency to grow like one with a little help. Lacking tendrils it won't be tying itself to anything but will weave in and
out to put on its show. It has five petals like the Thunbergia grandiflora but its dark green leaves are thicker and grow in a rosette.


Name: Golden trumpet Allamanda cathartica
Origin: Brazil
Height: up to 2 m
Elevation: 1500m+
Leaves: dark green shiny leathery rosette
Flower: yellow tube type center with darker yellow 5 rounded petals overlap
Propagation: cuttings
$\qquad$
Thunbergia alata or the black-eyed susan grows uncontrolled even in the cooler region of Poás. It has arrowhead shaped leaves with scalloped edges and $11 / 2$ inch yellow blooms with five petals surrounding a brown center. There's also a similar flower in a milk white color.


Name: Thunbergia alata Brown-eyed susan
Elevation: 1500m+
Origin: Africa
Likes: sun
Height: 20m+
Leaves: arrowhead shaped
Flower: mustard yellow or milk white with brown center Propagation: seeds, crawlers, and sometimes cuttings

More of a low crawler that will behave like a cascading vine is the nasturtium. Tropaeolum majus Nasturtium also grows very well here and with the rain will take over growing to about 1 meter high left alone on the ground it will crawl in all directions with its five orange petals peeking out from beneath 2" round leaves that look little umbrellas flattened out. This plant loves soil that other plants refuse to grow in. Once it puts out and disperses its round black seeds you'll have more than you need. The nice thing is that they are edible.


Name: Tropaeolum majus Nasturtium
Local Name: Nasturtium
Elevation: 1500m+
Likes: sun, air and poor soil
Height: up to 1.5 m
Leaves: round with scalloped edges
Flower: deep orange to light yellow-orange 5 petals, yellow stamen
Propagation: runners, cuttings

As long as we are on vines why not put in a conversation piece. You might not want to ask your best friend to smell this flower but it's odd look is a sure attention grabber. The mottled burgundy flower truly smells atrocious. You might not want to plant it next to where you have an afternoon coffee or cocktail. They quite often hang around in the jungles without being seen and sometimes their dark color makes them imperceptible in your own garden.


Name: Pelican Flower (Aristolochia gigantean)
Origin: Brazil
Leaves heart shaped 10cm+
Flower: heart shaped red wine to maroon mottled up to 25 cm
Elevation: up to 1500 m possibly higher

And if you really want something special, try Mansoa hymenaea. Make sure you plant it a Little bit away from your fragrant garden. The common name says it all: Garlic Vine. But the flowers look like orchids hanging down.

## Chapter 7: ADD A LITTLE SHADE AND SOME FRUIT

Gettin' a little hot are ya? Let's put up some shade trees, a hammock and a tea table and have some juicy fruit right on hand. Some of those flowering trees will provide a good deal of shade but there are trees that give shade and then there are Shade Trees. Those wide spread beauties that are made for placing a hammock or garden table under. Although the mango fits the bill, it also drops two pound fruits on your head.

One big beautiful shade tree is the ficus. There are many to choose from, like about 800 species and almost all can have a branch cut off and stuck in the ground to form a new tree. Although they are fast growing they all need adaptation time, especially at higher elevations so it's best to purchase them when they are nearly two meters tall. Keep in mind they are messy and some require a little fruit or leaf clean up.

Of course the one you'll see with frequency is the strangler fig, known locally as matapalo, chilmate higuerón.

Touted the largest tree on the planet, the Ficus benghalensis (local name laurel de la India), is known not for its height but for its canopy spread of up to 200 m you are sure to be protected from the sun for that afternoon treat. This tree and the other ficus varieties as well are highly adaptable to shades of light and types of air from the fresh mountains to the polluted cities to the dry air of an office. In addition to your shade they give some nice nesting sites and some small fruits to the critters that inhabit these forests.

One very popular is the Ficus elastica or hule(not oh-lay, but oo-lay) the rubber tree. The sap flows in large amounts. Even if this originate in India it has made its home here and grows wild in the forest usually adhering to another tree growing up more like a vine. Once it reaches the top where it can get sun it branches out and as the host tree dies the rubber tree sends down its roots. Growing up to 60 m they are often times the largest tree in the forest. You can propagate these by cuttings placed in loamy soil covered with a plastic bag to maintain the moisture. Up to 90ft known locally as laurel.


Name: Rubber tree Ficus elastic Family: Moraceae
Local name: hule (pr. oo-lay) or laurel del hule
Origin: India
Height: 60m+
Ficus benjaminaor weeping fig as it is otherwise known makes a great fence line. The leaves are a yellow-green and it tends to grow helter-skelter like a weed with no direct course. Once it takes its first growth spurt it will cover you in about 5 years.


Name: Weeping fig Ficus benjamina
Origin: India
Local Name: Laurel de la India (pr. La-ur-el)
Height: 20m+
$\qquad$
For gardeners many of the fruit trees are also a very good garden trees putting out a lot of shade, fragrance and food for bees, butterflies, bats and birds. However you have to plan ahead they are slow growers and take about six years before it shares its fruits with you. Even waiting on the fruit can test your patience as you slowly count the days from their first appearance to that of delicious colorful edible. And if you don't grab them soon they are either eaten by one of your fruit loving competitors or hit the ground so that you have to rake up all the fruits less you want flies and smell.

Let's have some common fruits for that cooling off and afterwards we'll go native.

Of course for that afternoon cooling off you'll want to have a big glass of ice cold lemonade and for that you need lemons! Citrus fruits abound! These are not as fought over as some of the sweeter fruits, the main competitors are insects and bats. All types imaginable grow in Costa Rica from the sweet tangerine to the lemon. There are a few though to be aware of because they are there to fool you such as naranjilla. Naranjilla looks like an orange but it's not. It is super sour and used mostly as a refreshing morning tea with sugar. On the opposite is a lemon look alike which is not a lemon but a sweet lemon! Citrus trees are prized worldwide producing not only for fruits but fragrant flowers and oil essence for home and body. They grow from sea level up to 1500 meters, maybe even a little higher, attracting nectar lovers from far and wide. Once again though, this garden fruit tree requires patience and sometimes a little work. It grows slowly at first taking three-four years to really start looking nice, like it might one day turn into a tree, with its dark rich leaves and at about four or five it begins to put on its first fruits. To make a truly beautiful tree and increase fruit production it sometimes requires pruning, which is tough here because some of the trees fruit most of the year, so just take your pick of the time, although we have found just before the rains come works well at 1500 m . Well, let's see what's recognizable on the citrus fruit list here; oranges, tangerines, lemons, limes and grapefruits.


Throughout the years the various citrus fruits have provided many medicinal remedies and have been part of folk medicine. Some citrus fruits like Naranjilla. The naranjilla is one tree used for calming the nerves by boiling the leaves or the flowers. Now then the Naranjilla, bitter orange, (Citrus Do not use plants for medicinal purposes without seeking a medical physicians advice.
aurantium), not to be confused limes $C$. aurantifolia, has a legacy all its own having been noted in Chinese medicine all the way back to the $1^{\text {st }}$ century but it really made its way around the world prevailing from Spain. Judging by the name it's quite possible that it was introduced there by the Moors. The lovely mystical name of Azahar conjures images of mystic mosques with tile inlays. This bitter orange (Citrus aurantium), drank locally as a morning tea, just because it tastes good and the fruit is plentiful and cheap, is a fountain of anti-anxiety. In old time they boiled the flowers (especially the young flowers) and leaves to utilize for insomnia and as a sedative. It also aided in spasms and colic. Although both the naranjilla and lemon were drank before meals to aid in digestion, it was the naranjilla that aided the anorexic by stimulating the appetite. The blossom water was used to treat infant colic. This bitter baby has also been used to lower blood pressure, an anti-inflammatory agent for skin and is rich in anti-fungal and anti-bacterial agents.

Limes, C. aurantifolia, and lemons C. limon are just filled with sour goodness. The visible difference in these two is their shape not necessarily their color. Lemons tend to be ovoid whereas limes tend to be round, but in general they share a great many properties. Medicinally they have been used for centuries for a variety of ailments. The use of the lime included any part; the leaves, fruit, peel and oil. The lime was primarily used for diarrhea and to expel intestinal worms. Well let's not forget those noisome headaches, even the boiled leaves were used for this too common an ailment. Its astringent properties make it a useful wound cleanser, although the juice burns like dickens in those cuts. This plant has been used: as a diuretic, for indigestion, sour throats, to improve blood circulation and even to help with hemorrhoids and to expel worms. In certain areas it was mixed with red wine for outbreaks of dysentery. This is only the tip of this fruit. It has also been used to stop bleeding and help heal and cleanse wounds. Even the roots had been used for liver ailments and colic. Fresh buds were boiled with sugar for a night time tea for insomnia. And the list is endless of this green wonder. Sharing some of the fame is the C. limon, your lemon that is.

The lemon has been found to have nearly as many properties as the lime which is so common here. It's been used internally to aid in respiratory difficulties, coughs, phlegm, and sore throats. It's also been used for alleviating kidney stone pain and fevers and varicose veins. Like the lime it has also been used for headaches and hemorrhoids. Equally it's been used externally for skin disorders such as eczema. Of course, being out in a garden with lemons and limes is sure to come in handy too since all gardens have bugs that sting or bite and these citrus' do almost as well as onion juice in alleviating the sting. So, check with your physician before using it medicinally, but go ahead and enjoy a good glass of lemonade or some lemon tea.

Shall we go sweet now? Oranges and tangerines. The mandarin or tangerine (C. reticulate) is another one of those millennial magicians from the garden to the soul. These were used throughout Chinese history in medicinal preparations like most of the citrus fruits. However this fruits properties became more potent with age. In Chinese medicine it was used in both male genital problems and female breast ailments. Due to its properties it has been used for indigestion and flatulence and aids in the functions of the liver and gall bladder. Working its way through the system it also stimulates the
pulmonary function alleviating congestion and stimulates the kidneys. Oranges are also heaped with uses.

Known locally as naranja dulce, they are good for more than just your morning breakfast juice. All those natural sugars and tannins are combined with a great source of mineral salts and vitamins such as: A, B1, B2, B5, B6, C, E. It's uses are similar to the other citrus' but its seeds were used in the mornings as a vermifuge (worm expeller). Let's move on to some other sweet garden fruits of the non-citrus variety.

One for me and one for them, one for you and one for them, one for me and two, three, four of those delicious bananas straight off the tree, ripe and yellow for them. Which them? Mmmm, well, this them.


And several other 'thems' as well, either with teeth or colorful beaks or feathers.
There are two sweet edibles here, you common grocery store variety and a petite version about 4 inches long and an inch thick and the birds love them both. The one the monkey has is also small, but rarely sweet. These tropical climate lovers were made to eat and eat and eat! Steeped in a history of natural medicinal purposes they have been said to accomplish many curative feats.

The leaves have been used for more than just a base for fajita or wrapping tamales, they've been used as a poultice. Boiled down the leaves have been used for their anti-inflammatory properties to ease those pesky cold and flu season bronchial irritations. The leaves were also eaten for eliminating those irritating intestinal parasites, as were the roots.

The juice from the trunk was used to treat coughs like the citrus' due to the tannins that it contains. The juice from young trunks less that a meter tall was mixed with honey to combat asthma. The young stalks were cut and left with a covered indent for juice collection and the following day was drank to ease bladder and liver problems. The sap has also been used to take the sting out of bug bites and sooth irritated skin.

This tropical wonder even gives from its flowers which were boiled down to aid in pulmonary disorders, diarrhea, hemorrhoids, ulcers, and other gastro-intestinal problems. But of course what we and the animals want most is that sweet ripe fruit! Which of course offers up something helpful; it eases ulcers, aids as an appetite stimulus, and when cooked can be used to lighten pain from skin wounds.

And don't forget the peel, it was also used heated with the green fruit and the leaves to apply to arthritic joints.


Name: Banana Musa acuminata Family: Musaceae
Local Name: banano o banana
Origin: India, Malay, Asia
Elevation: 1500m+
Likes: sun, more sun means more fruits
Height: 3m+
Leaves: $1 \mathrm{~m}+$ leaves get much larger nearer the coast
Flower: pendula 5 petals plastic red
Propagation: root ball
Other Musas available; the foot long platano and 4 inch long guineo Musasapientium. The platano needs to be grilled for the best sweet taste and the small bitter green guineo (pr. gi <rhymes with key>-nay-oh) is usually cooked with toppings of beans and meat or brown sugar as a meal. The guineo was used in folk medicine for irritability simply by eating one three times a day with water.

Of course let's not forget that all time favorite juicy fruit that also snuck in here from India; the mango. There are two popular types here, the small green mango which is usually eaten with salt and that big juicy red and green mango made into juice, milkshakes or devoured immediately. You will probably find them year round, but the best time is really May and June when they are in season and super cheap! All along the coastal road from Tárcoles to Jacó you'll see people selling them. In off season they are about a $\$ 1.00$ each, in season you get about 40 or them for $\$ 4.00$. El mango (Mangifera indica) is a beautiful tree branching out like a magnificent oak tree shading you from the hot sun and giving you a refreshing juice. It casts out its roots holding the soil together. Just beware of falling fruits, Newton would have had a headache had one of these $11 / 2-2$ pounders landed on his head. You might have to fight a monkey or macaw for a juicy ripe one of these. This fruit has made its way around the world tantalizing taste buds from the moment it was out of India. What makes this so special is not just that sweetness, but its compounds of tannins, beta-carotene, and vitamins B and $C$.

Mangifera indica brings with it many medicinal uses and has been used for a wide array of ailments such as diabetes mellitus in India. The dried flowers were once used for diarrhea as were the boiled leaves. The green fruits and tender bark from fresh shoots was considered to have
antibiotic properties and the sap was used to heal open skin wounds. The leaves were boiled and used for bronchial ailments from asthma to pneumonia.


Name: Mango (Mangifera indica)
Local Name: mango (pr. Mahn-go)
Origin: India, Malaya
Height: 20m (60')
Elevation: up to 1500m, above 1000m very slow
Leaves: deep dark green, waxy, shaped like a lance or spear about 30cm (12") long
Flowers: small creamy-yellow on rust colored panicles
Fruit: 16 cm (4-6") large red-purple combined with green and yellow. In season May-July sometimes longer.
$\qquad$
The other type is a small green to yellow oval usually eaten green with salt but sometimes yellow and ripe, locally these are sometimes called mangas in contrast to mangos, but it depends on where you are.


Name: Mango
Local Name: manga verde o mango verde
Fruit: 8cm (3")
$\qquad$
Ooooey gardening can make you thirsty! Rejuvenate with a little sweet sugar water. Pineapple (Ananas comosus) a delicious tropical with a fragrance that sets the mind off to the beach is not a tree at all but a member of the bromeliad family. Pineapples are everywhere in Costa Rica and you can typically buy them three for 1000 colones (\$2.00). There are two types in this region of Mesoamerica; one the normal everyday yellow pineapple which is sometimes acidic; two, the deliciously sweet and hard to find white pineapple. White only refers to the fruit inside. It may well change your mind forever though when you go to buy pineapples in other countries. Most of these fruits are raised in orchards and as part of the bromeliad family they put on a flower display of multiple dainty deep purple and pink flowers between the bracts which attract hummingbirds.

This South American is easy to start. Go by the local market buy one with the leaves on top. Slice the top off and put it on the ground in a bright sunny spot put a Little dirt over the top and voila in a few months you will have a pineapple plant growing. Wait a few more months to a year and your might get your first flower which of course will be poking out from between the exterior bracts. These flowers are tiny, purple and very attractive to hummingbirds, but they are also short lived. Once it starts to put on its one little fruit you'll have to wait four very long months to get a small but sweet juicy pineapple.


Name: Pineapple (Ananas comosus)
Local Name: Piña (pr. pee-nya)
Elevation: up to 1500 m
Likes: sun
Height: 40cm
Leaves: long
Flower: small purple to pink between bracts
Propagation: cuttings from the top of the pineapple
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While you're nibbling on pineapple thinking of the beach you might want to stop by a street vendor and have yourself a little pipa. A little what? 'Pipa' is the local term for coconut milk, served cold in the hull. Appreciate these guys that sell it because getting to the coconut milk was not made for the impatient or thirsty! A lot of machete effort and a few tricks go into getting to this beach time companion. The hulls are perfect for orchid planters too. Cocos nuciferaa Pacific Island coconut palm grows to 30 m (100ft). The coconut palm is just part of the tropical garden. They won't grow well above 1000m due to the cooler air but if you're lower give them a try. They are messy and require a lot of clean up of their fibrous woody discarded leaves, however when they begin to put flowers and the first tiny palm nut fruits the parakeets will bring their boisterous flocks in for foraging. These can even be started from a simple coconut.


Name: Coconut palm Cocos nucifera Family: Palmae
Origin: Pacific Island
Local Name: Coco Fruit: Pipa
Elevation: up to 1000m
Likes: sun
Height: 30+m
Flower: Racemes of creamy-yellow sweet smelling flowers
Propagation: Coconut

Papaya (Carica papaya) Looking out your window you will some strange skinny tree shooting up some 10-20 ft with large cutout looking leaves and some large yellow fruits. The leaves can be up to 2 ft long and the fruit can get as long as a foot. This is one of those year round fruits here which you can usually get for about a $\$ 1.00$ in most places, some charge by weight though. It shouldn't cost you more that 600 colones for one. When you choose though it's important to make sure it's ripe, then, put it in the refrigerator until cold. Once it's cold eat it plain or put a little lemon juice on it. If it's not ripe the flavor is not as enticing, but when ripe they are very sweet nearly like a sweet yam. Many locals dry the seeds, grind them up and use them for seasoning. Many birds including toucans love papayas and the evergreen lives about $15 y r s$ putting on a crop of pendulous fruits every year after three years. One of the main properties of this fruit is papain which breaks down protein, so have a side of papaya with that juicy side of beef. In addition to this enzyme, every part of this plant has been used medicinally. The fruits are used for digestive disorders. The seeds and leaves for intestinal parasites, especially the dried seeds mixed with the sap and chopped root. The green papaya was cooked and eaten to eliminate worms and was used for respiratory infections such as coughs, asthma and tuberculosis. The boiled down leaves were used in cases of asthma as well as heart and liver problems. The boiled (infused) flowers were used for cough syrups and for fevers. It's also been used for healing puncture type wounds. The enzyme has been said to reduce the injuries in vertebrae and to help dissolve blood clots. And just think this plants enzyme is also used in products such as chewing gum, termite control and to prevent certain fabrics from shrinking like silk and wool.

For that little added pleasure toss the rind, seeds and maybe a few pieces in the feeder with some bananas and watch what comes to feast.


Name: Papaya (Carica papaya) Family:Caricaceae
Origin: Tropical America
Height: 6m+
Leaves: long stem with lobed leaf on end
Flowers: small white
Fruits: clustered on trunk beneath leaves, oblong oval o round ripe when they are yellow with some green $15-30 \mathrm{~cm}$ (6"-12")

Do you need something with a little more substance? How about some nuts or avocados? A little guacamole from the garden perchance? There are a few species of avocados here sadly the imported ones taste the best the local one are large and round and truly as the name implies, taste like water. This is another patience tester. Everybody wants a bit including little bugs that get to it before you do and the ants that grab it the moment it hits the ground. Those all come after 8 years of waiting and watching! Oh and the best ones, the big ripe juicies, they're at the very tip top of the tree taking a sun bath! They're not hailed much for medicinal purposes but have been used for their soothing effect on skin. According to folk lore the peels have been cooked until red for intestinal parasites and the leaves have been used to lower blood pressure. Seek professional advice before using medicinally, instead sit back under their shade and enjoy a good guacamole from one of the 100 different species of avocados. You might even want to appreciate the fact that artisans value their wood for creating works of art.


Name: Avocado Persa Americana (P.gratissima) Family: Lauraceae Local Name: Aguacate
Origin: Tropical America
Do not use plants for medicinal purposes without seeking a medical physicians advice.

Height: 25m+
Leaves: opposite dark green oval shaped
Flowers: small jade colored in clusters at end of branches
Fruits: oval shaped shiny skin green-brown dry season December to April. Nutritious oils and vitamins

Take a look in the local market at this orange-red pear shaped fruit. Don't eat it, as a matter of fact; don't even buy it because getting to that delicious nut is nearly impossible! The marañón (pronounced similar to mar-onion) (Anacardium occidentale) is not your everyday ordinary fruit. It stinks and it's toxic, but the nut is good. This 30+ foot tree likes the low, warm tropical zones. It begins branching out very low on the trunk making a great play ground for little kids. At the end of the branches before the fruits are tiny rose colored flowers which give off a pleasant fragrance. Some plants are special in many ways and this one is no exception. Oils are extracted from the seeds and are used in the makings of many products that require an oil base, such as medicines and insecticides. The oil from the shell of the nut has potent antibacterial effects and has been used for ringworm and warts. This unique plant also gives you brake linings, well not literally, but the shell oil is used in them. Although people have used leaves to reduce fevers and the bark to reduce blood sugar levels it's best to stick with the nuts you get at the supermarket. The fruit has been used for juice and as a diuretic, a cure for diarrhea and the flu as well as for jams, but the fruit has a horrific smell! The best part is the nut filled with nutrients and easily used for seasoning other dishes.


Name: Cashew(Anacardium occidentale)
Local Name: Marañon
Height: 12m
Elevation: up to 900m
Leaves: oval, opposite
Flowers: clusters of small green flowers with deep pink petals
Fruits: red-orange to purplish

How about some native fruits? I mean after all that's the fun part of being in another country. If you're a bird lover you won't want to miss the chance to get Aguacatillo and Güitite to accompany that Musa of yours. We'll put these in somewhat alphabetical order. Beware though that when you come to the Gua's and Gui's things get a little confusing but they are different.
The A's, B's, C's and D's
The Aguacatillo is a native tree in the higher elevations that attracts those endangered beauties such as the Quetzal. This tree bears 1 cm fruits that look like small avocados that you can
get the seed from for planting. It will eventually reach its branches up to 40 feet and once established the fruits will be abundant and the birds too. You can at times find these for sale in nurseries only remember they are not for lower elevations. One means of recognizing it is by the older leaves which turn red and the veins which are also a reddish color, that said, many of the tropical trees sport these characteristics.


Name: Aguacatillo(Persea caerulea) Family: Lauraceae
Local Name: Cirrí
Origin: Central America
Elevation: Above 1000m
Likes: cooler air of cloud forest
Height:15-20m
Leaves: Leaves alternate simple texture like canvas or cardboard
Flower: creamy
Fruit: 1cm
Propagation: seeds from fruits and cuttings

El cas (Psidium friedrichsthalianum) pronounced like cus but with an 'ah' for 'cas'. This fruit is hard to find for purchase, but in just about any restaurant or soda you can get a cas drink. If it is made with enough sugar it is delicious and refreshing, but if not the it's natural flavor will make you pucker! The tree itself is not found with any frequency in the wild. However, it is in many gardens and is a great bird attractor which unlike many fruit trees is very adaptable ranging from sea level to 2500meters. Other than the fruit the only tell tale of this tangled mass of branches is that of its gray, green, brown and white camouflage that deer hunters try to emulate. This one isn't used with the same frequency as other fruits for jellies and pastry fillings. It is a patience demanding fruit tree taking up to 12 years before yielding a harvest, luckily though there are hybrids which give fruit at the normal waiting period.
Name: cas (Psidium friedrichsthalianum)
Local Name:Cas
Origin: Tropical America
Elevation: up to 2500 m
Likes: Sun
Height: 3m+
Fruit: Round tart

There's just nothing like chocolate ice cream on hot day, or a piece of chocolate or hot chocolate on a cool evening. If you're in a warm steamy zone plant a cacao tree. El cacao is mostly Do not use plants for medicinal purposes without seeking a medical physicians advice.
found along the Atlantic region but over the years has been brought to other warm humid zones. The fruit is a unusual pod of seeds that packs a flavor that took the world by storm. It is about seven inches or more in length with grooves on the outside like a kiwi fruit and it looks far from appetizing inside and out. The seeds inside are layed together like puzzle pieces. The tree itself is strange growing tall and slender with hardly any branches. There are two types of cacao and both give that sweet hot chocolate that we crave on a cold day in addition to the chocolate delicacies from Belgium and Switzerland. There's the common type Cacao and the Herrania purpurea.


Ripped out as weeds or pests are the Cercropias because bats frequent for the fruits or nectar. This native of our tropical rainforest has some 61 species that line the regions from coast to mountain. If you want monkeys and toucans this is the tree for you. Locally it is known as Guarumo (pr gwa-room-oh). The huge leaves on these look like rubber gloves as they have seven or more lobes that hanging from a rounded center like fingers. The trees grow at odd angles creating a new dimension in the garden and put on an umbella shaped crown atop each tall slender trunk. Old local myths touted these trees as holding super natural powers most probably due to the sounds they make when the winds rattle their 80 grit sand paper leaves together. These trees are important for many reasons one of which is that it will pop up on those fields that have been burnt or destroyed by agriculture and proved necessary food source. One word of advice if you don't like ants then you might want to plant these further away from your home as they are a refuge and home to tropical ants which work with some bird species protecting their nests from robbers and that means that they could be a stinging nuisance to you too. The long finger like yellow fruits are heavenly to slots because they can sit in one spot and forage for a great deal of time. Not only are the animals attracted to the easily self propagating tree but so are humans for special uses like flutes or guitars. You will see very few of these if you are in an agricultural area because they are not appreciated if you wait a short period of time they will impose on open terrain, where there's one there will be more as the animals distribute the seeds.


A similar species is Pourouma bicolor which has large lobed leaves also but are pointed on the tip rather than round and the stem attaches at the base of the leaf rather than in the middle of the palm of the hand shaped.
Name: Cercropia obtusifolia Urticaceae
Local Name: Guarumo
Elevation: Up to 2500 m depending on species
Likes: open space
Height: 15m+
Trunk: visible rings, usually grows at odd angles
Leaves: Leaves rough up to 40 cm with up to 11 lobes
Flower: red upright cone similar to banana flower
Fruit: up to 20 cm long pimply fingers $2-3 \mathrm{~cm}$ wide
Propagation: seeds, cuttings

Let's take jump over to the G's. Hang in there it seems to be a popular letter, maybe for GO TREES! There you'll have the tongue twisting guessing game of Guanabana ( Anona), Guava and Guayabo, Guabos and Güísaro (Psidium sp),
Let's get through the Gua's first.
Guanabana, one of the strangest fruits you may see may well be in the anona family with the oddest looking one being the soncoya Annona purpurea. All of the anonas have a skin that is similarly shaped like a pineapple but softer and smoother. This anona comes from a small native tree along the pacific coast. It has a large canopy and large leaves to go along with the melon size armadillo armor looking fruit. Inside is a fragrant orange pulp with large black seeds. Another type of anona is similar to the favored guanábana, the Annona muricata, however it is not the same, the flavor is much sweeter.

Similar but smaller is the anono o chirimoyo Annona cherimolia this fruit grows wild on spindly trees as you climb up in elevation from the coast. The baseball size fruits with the odd skin are either hidden in amongst the perfectly oval leaves or more typically found on the ground having fallen from the trees half eaten by the birds or other frugivores. If you're lucky enough to pull one from the tree, inside awaits a pulp that if unripe tastes like flour and if ripe is very sweet. However getting to them before the fruit lovers is a trick and then you have to spit seeds like eating a watermelon. It is in with custard apples as a fruit and you can always find them in the local market and sometimes even in the upscale supermarkets like Auto Mercado.

This special little fruit tree given just a little space in a tight forest will tend to grow upwards leaving its fruits for those that are capable of flight. In more open areas it takes on a more bush like appearance and might put fruits on within your reach. It grows in most regions from the pacific coast sea level up to San Isidro de Grecia and Bosque Del Niño. Although it has flowers they are almost imperceptible greenish white.

There are several species. A native Tropical America. These trees grow wild usually straight up making the fruits out of our reach but within reach of all the tree top dwellers and flyers like birds, bats, bugs, fruit rats, possums, etc. It grows to about 20 feet and actually makes a nice garden plant because of its evergreen foliage and glossy oval leaves. The heart shaped fruits are sweet only when
ripe otherwise they taste like baking soda and flour. You'll also have to spit out a few seeds which are black like watermelon seeds and about three to five times the size. Locally, the fruit is used in jams and made into a type of sherbet.


Name: anono o Annona cherimolia Aka soursop, prickly custard apple;
Local Name: Anona, guanábana, cherimoya
Origin: Tropical America
Elevation: up to 1500 m
Likes: sun and shade
Height: 3m (20ft)
Leaves:evergreen oval gloosy
Fruit: Heart shaped, Edible

One wildly growing fruit is the Guayabita del Perú (Psidium cattleianum). The fruit is edible but it is usually left for the bird and other small rodents. The fruit is very similar in appearance to the large guava but the flavor is a little different and the fruit is only a fraction of the size. Most of the time it is found only as a shrub although it can get to a height of a small tree.


Name: Guayabita del Perú (Psidium cattleianum)
Local Name: Güísaro
Origin: Peru
Elevation: up to 1500meters
Height: up to 10-15 feet
Leaves: $5-10 \mathrm{~cm}$ long elliptical
Flower: white with stamen
Fruit: Green which changes to reddish
Propagation: by seed
El guayabo (Psidium) This fruit is super easy to find, just drive down the highway from the airport and you can buy the fruit, and even the tree if you have a garden here to plant it in. It's a hardy tree withstanding just about any condition, but in altitude it is a slow grower taking more than five years to reach 10 feet. This fruit is so popular here in Costa Rica that many towns bear its name. With this tree in your garden your dogs will be sufficiently entertained chasing and barking at all the mammals and birds that come in for a bite. If you manage to harvest some of your own fruits they
make great jellies, but if not, you can find the mass production jellies in the supermarkets. Up until a few years ago most people still cooked on a wood burning stove and the wood from this tree was as prized as that of coffee for leña.
Name: guayabo (Psidium)
Elevation: up to 1500 m
Likes: sun
Height: 4m+
Leaves: Round-oblong with rough texture like sand paper
Fruit: round, baseball size, sweet when ripe
Propagation: cuttings and plant
$\qquad$
If you are into making jams you should have this aromatic fruit tree, but beware it makes a mess and attracts bugs.


Name: Guava (Psidium guajava) Myrtaceae
Local Name: guayabillo
Origin: Tropical America
Elevation: up to 1500 m
Likes: sun
Trunk: Bark green peels off in strips
Height: 25ft tree
Leaves: opposite, simple, oblong, fuzzy bottom
Flower: white 1"
Fruit: round like baseball but smaller and with brown button on free end, yellow when ripe. Aromatic Propagation: Cuttings and seeds
$\qquad$
For a little confusion this one doesn't know if it is a Gua or a Gui, or possibly even a Cua.
Guabos o Cuajiniquiles


Do not use plants for medicinal purposes without seeking a medical physicians advice.

Name: Guabos (gwa-bo) o Cuajiniquiles (kwah-he-knee-key-less) Inga spectabilis
Origin: Tropical America
Height: 6m+
Elevation: 1500m+
Leaves: soft and draping down with a small leaf between the true leaves
Flower: white and fuzzy like a mimosa flower
$\qquad$
El güísaro (Psidium guineense) a longer seed pod looking fruit with sweet pulpy covered seeds are also sold sometimes at the toll booths sometimes in the markets. There are a couple different types one really large about a foot to a foot and a half long and two centimeters thick and another smaller one that is usually seen in coffee plantations as shade trees and natural fertilizer. The larger one is the sweeter of the two.

Moving on to the Gui's

Güitite Acnistus arborescens Solanaceae. After the long hot dry season this tree gets ready with its inventory, the whole warehouse is up for gold grabs. The tree with its unusual bark of thick spongy indents was also designed for orchids and other epiphytes. This special tree used to be found easily in coffee plantations but is gradually dying out due that sugar cane has taken over. The fruits on this tree are supplied from May to nearly October making one stop shopping for most birds. Seldom is there a shortage on the shelf, these branches are loaded with fruits some branches being ripe while others are still green. These easy growers range 900 to 2600 meters on this Pacific corridor from Mexico to Brazil. The fruits are egg yolk yellow and taste like a sweet melon when ripe. Recently this special plant has been studied as having anti-cancer properties. Research by CIPRONA University of Costa Rica and other Universities has found promise in the chemical compounds of this tree in the fight against cancer. It appears that the fruit, stems and leaves could inhibit cancer cells. In addition the bark has been mashed into powder to cure burns. The same is said of the tender blossoms and the leaves which were fried in butter, cooled and used like a thick lotion. For eczema the old people used the soaked leaves as soothing agent.

The bird food is not its only specialty; all those tiny, fragrant, white flowers with yellow centers are bee and insect attractors as well to give a little honey production.


Name: Acnistus arborescens Family: Solanaceae
Local Name: Güitite
Origin: Central America

Elevation: 900-2600m
Height: 15m+
Leaves: oblong with pointed end, lightly concave, waxy feel, the older leaves develop 3mm bead like growths on the underside
Flower: drupe bell, creamy yellow all along branches
Fruit: orange berries up to 1 cm but usually 8 mm
Propagation: cuttings
Coming fresh off the vine are fruits like the granadillas and maracuya (passion fruit).
Granadillas are a fruit that comes from a very fragrant flowering vine. The flowers look very similar to a purple passion flower but the leaves and the fruit are much larger. The fragrance of this flower also fills the air with a sweet perfume. The vine is very seldom seen and frequently ripped out as a weed by many who do not recognize its 5 inch long heart-shaped leaves. The fruit itself is a goldenrod yellow when ripe and is full of seeds like a pomegranate that you can swallow. The flavor is a sweet citrus which attracts parrots and other frugivores, meaning if you stumble across the vine you have to fight to get one of these delicious fruits. They're not usually sold in juice or batido (frozen fruit drink or milkshake) form, more likely they are to be found either as the fruit in the market or sold in pies and pastries. The local people strain them to remove the seeds making a juice out of them. The seed filled granadilla fruit is as tasty as its flowers are fragrant.


Name: Granadilla
Local Name: Granadilla
Elevation: above 1000m
Likes: shade and sun, cool evenings
Height: tree tops
Leaves: 15 cm heart shaped
Flower: 10cm purple with green basal leaves
Fruit: the size of a pear up to 10 cm filled with tiny seeds
Propagation: cuttings
Throughout these forests are trees that provide homes for a number of critters listed here are just a few of interest.

The H's I's and J's
Jocote is a fruit that you will see advertised. They are usually sold in a bag of about thirty-five or more. If you're on the new highway you won't see them for sale until you get a little closer to Garita where you can pick them up for 2000 colones a kilo, about $\$ 4$. They look a little bit like pecans, Do not use plants for medicinal purposes without seeking a medical physicians advice.
unpeeled, a little smaller, and smoother and with little bumps. The trees they come from line much of the roadsides and are used as fence posts providing lots of shade when their leaves are full. If the fruits are ripe they're sweet, if not, they're a bit bitter and sour. Buy a bag full and give them a try, but only eat the inner part.


Name: Jocote
Local Name: Jocote (pr. Ho-coat-tay)
Origin: Tropical America
Elevation: 1500m+
Likes: sun
Height: 5m+
Leaves: compound 2-5cm oval
Fruit: 5 cm oblong yellow when ripe
Propagation: cuttings
Another fruit bearer is the Jorco Garcinia intermedia Clusiaceae. This tree not only gives off beautiful dark evergreen leaves for shade but abundant fruits that look nearly like small ripe tomatoes hanging heavily down on the ends of branches. The leaves on this tree look a bit like citrus fruit trees. This disappearing tree is a Pacific coaster that used to cover the region in its natural days. It is seldom found in higher elevations and is difficult to cultivate due that te seeds can take many months before beginning to germinate. If you can find one or a little sapling you will be replenishing a lost forest tree that provided the region with a sweet fiber rich fruit.
Name: Jorco Garcinia intermedia Clusiaceae
Local Name:Jorco
Elevation: below 900
Likes: any type of soil
Height: up to 35 feet

The K's, L's, M's
El manzano de agua (Syzygium malaccense). The fruit has the red apple color but it has the shape of a pear. The flesh inside is white and sweet. During the beginnings of dry season this tall full tree puts on tiny reddish-purple flowers at the base of its branches followed by a bumper crop of fruits.

If you are in the mood for a little snack why not buy a package of cashews from the street vendors. But before you do, take a look in the local market at this orange-red pear shaped fruit. Don't eat it, as a matter of fact, don't even buy it because getting to that delicious nut which held it attached Do not use plants for medicinal purposes without seeking a medical physicians advice.
to the tree is nearly impossible! The marañón (pronounced similar to mar-onion) (Anacardium occidentale) is not your everyday ordinary fruit. It stinks and it's toxic, but the nut is good. This 30 foot tree likes the low, warm tropical zones. At the end of the branches before the fruits are tiny rose colored flowers which give off a pleasant fragrance. Some plants are special in many ways and this one is no exception. Oils are extracted from the seeds and are used in the makings of many products that require an oil base, such as medicines and insecticides.

The N's O's and P's
El níspero japonés, níspero dulce o loquat Eriobotrya japonica is a dark green beauty with stiff leaves and a delicious $1 \frac{1}{2}$ inch long pear shaped bright yellow fruit with two seeds inside. If you can get to them before the bugs and the parrots you are doing good. It's not originally from Costa Rica, but like the mammon chino its popularity is unquestionable. Often times the tree appears to have died only to one day see new growth shooting off of an old gnarled rotted looking trunk. Its branches and leaves have a velvety type feel along them. This fruit is one that gives off its sweet morsels in rainy season, typically in August. If they aren't ripe you will notice on your first sour bite. Telling the difference between nance and nispero can be a bit tricky, especially if you only see the fruit, but on the tree it's clear enough. Nispero fruits are in clusters typically at the end of branches whereas nance fruits are found near the splitting off of new branches. The trees also have a growth preference with nispero preferring the cooler mountain regions and nance preferring the warm coastal region.


Nance and Nispero grow and are found for sale in the market. Nance (Byrsonima crassifolia) is yet another fruit tree that brings both a sweet and sour taste. It is a yellow fruit that is ready to drop to the forest floor upon ripening. The tree itself is not so pretty nor is it as large as the wild cashew or the fig. It is one fruit that you will most probably find only in the local market and is well worth a try. Throughout Latin America this fruit is cherished in as many dishes as the North American apple. However, since it only propagates by seed it becomes less and less seen. As you drive the old route to Carara Park from Atenas you will see stores and shops bearing the name Nance. it is one of those plants that can withstand the dry seasons it spreads all along the coastal regions giving fruit to many creatures in addition to humans. Nance's June flowers are not the demure cream like nispero but bright orange to gain your attention. The 1 inch fruit is filled with vitamin $C$ but lacks the sweetness of nispero. Maybe not the favorite fruit to eat it has many uses from shade to wood for cabinets due to its coloring and possibly medicinal.

Similar in looks to Nispero and Nance is the Brosimum alicastrum breadnut. This tree twists its way up from forest floors across Mesoamerica and especially like the low wetland areas of Carara Park. This citrusy outer fruit hides a very important nut. The nut once dried or cooked has many uses and seems to have a history dating back to pre-Columbian times. It is high in fiber, protein and many vitamins and minerals. Although found more easily in Guatemala this is one of those towering trees offering food in the "Tree Top" restaurants.

Do not use plants for medicinal purposes without seeking a medical physicians advice.

As you drive along the roads you will see street vendors cooking something orange with lots of steam coming off. It's pejibaye (see section on palms). The edible red, yellow or orange fruit is extremely popular among the locals and you should give it a try. The palm fruits are usually stewed in salt water eaten with mayonnaise or with salt and honey. The taste is a little bit like eating cookie dough without sugar.
$\qquad$
The R,S T and U and V to Z
Don't forget the sweetener in your hot chocolate, coffee, or lemonade. Saccharum officinarum Sugar cane is a main export product form the tropics and there to make everything in life taste a little sweeter. These cane plants are seen all over the hillsides as you drive shining in the sun or swaying their grassy limbs in the breeze. They grow about 15-20 feet high and are most impressive when they have their flower heads at the end of rainy season. The best way to get a true taste of sugar cane is to try trapiche. Why not head out to Los Trapiches and Los Chorros, between Grecia and Poás for a sample of their special sugar cane drink and admire the flowering fields.
$\qquad$
Tamarind is another fruit that is very popular and frequently sold off trucks. It's not eaten like a fruit though. In reality it was used for many years like a natural soda pop. Mixed in with water it has a bitter type flavor like that of a cola, add a little sugar and it is a good drink to refresh with.
$\qquad$
In days gone by climbing up trees to get fresh fruit was a treat and one such tree that lured children to its branches was the Tucuico (Ardisiarevoluta). The Tucuico has tiny sweet fruits usually a dark purple or blood red depending on the species. This handsome tree has a dome shaped canopy with leaves that are nearly elliptical curved at their tips and pointed at the leaf stalk (petiole). Once it begins to flower it doesn't stop, hundreds of fragrant small white flowers put on a show before theygive those sweet delights.

You have only touched the tip of the iceberg of interesting fruits and if you haven't found them on the back of a truck just wait. The place to find the most variety of tropical fruits are the fruit stands where in addition to the recognizable will be the new and strange.

## Chapter 8: TROPICAL BREEZES

What would a tropical garden be without palm trees? Don't despair if you're at altitude there are some that do quite well.

Palm Let's talk tropical thoughts of inhaling a lightly salted air on unpopulated beach while the sand rubs gently as it slides out from beneath your feet with the receding tide and the sea breeze makes music through the palm. Palms, that tropical delight that conjures thoughts of peace and freedom and where better to be than Costa Rica. Maybe the smell of coconut.

After the coconut palm the one you will see is the Bactris gasipaes native to South and Central America which grows up to 25 m . This palm grows throughout the region giving off its highly demanded red, orange fruits the pejibaye. Pejibaye are sold by roadside vendors where they are being boiled in salt water. The fruit tastes a little like flour but here it is eaten with mayonnaise. They can also be eaten raw, used for jams or made into flour or oils. These trees are very important to the wildlife as they are natural food for macaws parrots and parakeets.

The most frequent and popular here is actually one that brings in birds such as the Chachalaca; the Areca lutescens (Chrysalidocarpus lutescens) This palm grows a little wildly and requires, like all palms, a lot of clean up. Originally form Madagascar this palm is good for areas from Bosque del Niño down to Atenas, although it grows much slower at altitude. It is a sun lover and grows best in full sun and warmth. It provides a great privacy barrier with its leafy yellow green stalks but will need to be cut back from time to time or it becomes bare at the bottom and more tree like than hedge. They have black spots on them as the norm so don't get concerned it's part of its coloration. If you are using it as a potted plant it is recommended that you boil water and let it cool down or have water at room temperature before hand as the cold water tends to shock the roots.


One of the 100 species of Licuala also makes a nice garden plant growing to about 2 m with a big,ridged paper fanlike leaves measuring up to 1 foot or more across each one on its own stalk. This palm is a water lover and although it will grow at higher altitudes it is impeded by the cooler air. This one also makes a nice indoor plant.

If you really love palms try Roystonea regia Royal Palm from Cuba. It grows tall and straight up to
40-70 feet. The pinnate leaves form a crown for the February nesting of pizotes (Coati). Unfortunately they don't grow well above San Isidro (1000m) like most palms. The flowers shoot off just beneath the leaves and then show small purple fruits.

If you have space have a go with the Palma viajera (Ravenala madagascariensis) AKA Travelers Palm from the Streitziaceae family. This palm From Madagascar shoots up Tall banana leaf like fronds to 4 ft or more waving at all the passersby like an old fashioned folded fan. The seeds are said to have been edible and they were a source of water for travelers in old colonial days.

For a little unique color in your garden try the silver palm. This Mexican palm may be a slow grower, but it makes up for it in the size and color of its leaves. palma plateada Brahea armata.


The Brahea edulis or Guadalupe Fan Palm from the Palmae family gets easily up to 10 m and makes a home for the tent making bats.
$\qquad$
The Mountain Palm has an edible trunk that locals love.


A smaller palm is the Manila palm which has clusters beneath the leaves of small red fruits similar to the pejibaye. These are seen mostly in Manuel Antonio area and are actually from Philippines. This Veitchia merrillii grows to about 5m (15ft).
$\qquad$
Another palm that you'll see growing in the forests along the beach areas like Jacó and Carara National Park is the palm nut. These are adored by monkeys and scarlet macaws and typically are filled with large bushels of fruit from May-July being at their peak in June.

## Chapter 9: LET'S GO NATIVE

Some other native trees and plants are easy to spot and relatively simple to buy. They bring more to your garden because they are native and that means that the critters love their offerings. If you can't find them in the local nursery try the local ICE office which you have to wait in line for or you can go to Cartago to the University to buy them.

Let's start with critter and bird food and then move on to housing and condo complexes some of which foot both bills.

One easy to spot tree is the Beach Almendro (Terminalia catappa) swaying its large leaves in the ocean breeze. This tree makes for some nice shade from the noon sun permitting enough sunlight to cascade through its leaves as to cause sparkling effects. This is not a cool air plant, this Indian tree wants to color itself in the sun and be near the water to spread its seeds on the ocean currents. Within a couple years you'll have a nice size shade tree of about 15 feet which will continue growing up to about 30 feet attracting ctenosaurs and birds. This tree isn't really ornamental its flowers are tiny and clustered along racemes which will become edible fruits. In many parts of the world the wood is appreciated for its reddish color and is used for a variety of different wood articles including canoes. Grab a few seeds if you're near the coast and create a little shade for afternoon lemonade.


Name: Almendro (Terminaliacatappa)
Likes: Sun Soil good drainage
Height: 15-35feet
Leaves: Leaves large round
Flower: Flowers green white racemes
Fruits: 3cm edible

Chestnut Castanea from the Fagaceae family is a deciduous tree with serrated leaves and 2-4cm yellow green flowers which ultimately become brown, round spiky fruits about 5 cm . The ones of Spanish origin were used in seasoning foods as well as curing coughs, mucus and sore throats.
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This caregre tree has beautiful evergreen leaves that make for a nice garden plant add to it the bright red fruits and you have something similar to a holly just without the spikes. This hardy little tree suspends its fruits in the air in dry season for many animals, unfortunately it is not easily found so if you know someone who as a forest on their property ask if they have this low maintenance tree. It's worth the effort to have one
as they used to cover the entire San Jose valley region but now only exist in what's left of the forests. They grow from 500-2000meters.


Name: Caregre ( Picramnia quaternaria) Family: simarubaceae
Elevation: 500-2000meters
Height: 4m
Leaves: evergreen
Flower: white
Fruit:bright red berries
Propagation: root and cuttings

Now if you have a special like for the holidays try some Araucari aheterophylla (A. excels) also known as Norfolk Island pine.This conifer grows nicely from the Poás region down to Grecia and grows up to 60 m tall and dark green with spaced branches it will give you the holiday feel throughout the year and especially during the warm tropical December.
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For a flurry of hummingbird feathers you might want to plant Hamelia patens aka Firebush. This can be shaped into a shrub or left to grow into a tree. The hummingbirds love this tree. There are dwarf varieties available in the US, but l've not found them at the nurseries here.
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If you like shrubs and hedges you should try Duranta repens Grano de Oro in Spanish, but not in Costa Rica where the Grano de Oro is coffee. Most nurseries sell Duranta repens. It has nice dark green foilage and can be kept neat and tidy. It puts on a raceme of lavendar flowers follwed by a chain of golden berries, hence the latin name. It is very easy to maintain, drought tolerant and rain tolerant.

Cedro dulce aka cedro macho Cedrelasa Ivadorensis Meliaceae If you can get ahold of one of these from Cartago you'll be giving Central America back one of its tree treasures which was exploited nearly to extinction. This wood has been used for furniture because of its fine quality and for the ox yokes that you see when you visit Sarchi or the oxcart parade in Sabana Park. This cedar will grow up to 2000 m will put on a fruit that looks like a wooden flower with 5 wood petals and the interior like a wooden pistil for grinding herbs and spices. Grab them off the tree before they pop open and plant the seeds which are hidden inside.

Not your ordinary cedar is but lovely and endangered is the Cedrelaodorata. This native tree likes a well drained soil and can grow happily to its height of 90 feet in zones lower than 1200 m . This tree is popular for woodworking because of its weight and resistance to termites and rot and its aroma acts as an insect repellent. This tree provides a wood that was used for flamenco and classical guitars and is frequently used for furniture. Sadly this tree is on the vulnerable list of UICN even though it is easily propagated and could be planted for harvest.

Another cedar possibility is the Cedrela odorata Spanish Cedar or Cedro amargo of which there are also very few. The trunk is a gray brown sort of color and as the name odorata implies it is aromatic. These typically grow in the lower, warmer elevations, but have been found even up to 1500 m . Amongst their 15 cm oblong pinnate compound leaves are tiny flowers in May and small brown fruits in June-August.

Plant the beautiful Fresno Faxinus uhdei tree from the Oleaceae family and appreciate the sway of its leaves. These Mexican trees were found to be so climate compatible that they have been cultivated throughout Latin America. With all the arts, crafts and furniture makers here the wood became popular for its strength and flexibility. The smooth yellow-caramel wood has been used for many sporting goods such as baseball bats where the flexibility and strength are both needed. Not a woodworker? No problem they are exceptional condo complexes for a variety of animals. It will tower over you at 35 meters even at an elevation as high as 1500 m . It will put on some tiny greenish flowers but nothing extraordinary like the llama del bosque or Corteza, here it's the leaves to appreciate.

Ipil ipil Leucaena leucocephala either part of the Fabaceae or Mimosoideae family are natives to Mexico and to Central America. They top their tall crown with white pompom flowers above mimosa type leaves. Locally the leaves have been used for food for animals and having migrated to Thailand the young seed pods were put to use in spicy recipes.
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Jaúl Alnus acuminate from the Betulaceae is another native tree that grows from Mexico all the way through to Argentina above 1500 m . They like the humid cloud forests of these regions and put on a show growing up to 120 ft tall with a full round crown. It would seem that these riverside trees were made for dry season shade but they don't want to keep their leaves when it's hot so as the temperature goes up and there's more sun, they drop their leaves and go sunbathing. With the dumping of their leaves they give the soil around them some nice nitrogen rich humus. These plants have a self made anti-microbial sanitation for their soil so if you plant a cutting or seeds make sure you have some of the original soil from the mother tree to aid the new one in its growth. When you look at these trees; think ballroom. Why? Ah these trees not only supply the forest floor with some needed nitrogen, the wood has been used to make instruments and high heeled shoes for dancing, and they even produce a little jewelry to wear to the dance. How's that you say? Well the sap that oozes has been polished and used for jewelry similar to amber. Of course it has also been used for more practical things too like broom handles. The flowers though are not big attention getters, small and pale green they hang inconspicuous in 15 cm long racemes.

Along those winding roads are many fences for keeping cattle in and people out which use live fence posts. One of the most popular live fence posts is the native Madero Negro. Cut off a branch stick it in the ground and walla you have a new sturdy post which will become a tree in a couple of years. This tree flowers too, but you'll probably never see it unless you plant your own because as soon as dry season comes they are all trimmed back down to posts and as luck would have it, this tree has beautiful foliage. Even though it has its own lavender flowers it is open for epiphyte use, so go ahead and tie on some orchids and bromeliads. This is a multipurpose tree that even with its common name of Mata Raton gives its indications. In the past this tree was used for rat poison and insecticides and nitrogen rich fertilizer. Believe it or not, even as a rat killer this tree has medicinal purposes primarily for skin ailments such as mange, fungus, burns, cuts, rashes and bug bites. The leaves are chopped up and put over the infected applying the same use for earaches. The leaves have also been used for colds and flu. The bark was used for Gl disorders and the branches were used in baths to bring down fevers in children.


Name: Madero Negro (Gliricidia sepium) Family: Papilonaceae
Local Name: Madero Negro, Mata Raton, Cacao de Nance
Origin: Costa Rica
Elevation: 0-1500m+
Height:up to 15 m
Trunk: Smooth white to gray and even reddish Leaves:dark shiny green on top grey green on bottom, composite 30 cm
Flower:fuchsia in dry season at end of leafless branch
Fruit: pod up to 15 cm brownish when ripe
Propagation: cuttings

For a tree with an interesting looking trunk try Matasano also known as white zapote. The (Casimiroa edulis) Rutaceae grows from 500-2500m. The trunk on this tree has a coloring of golden-brown with splashes of green sprinkled with raised white dots which makes it easy to identify. The grapefruit size fruits are edible and their common name is derived from the fact that its fruits contain compounds that produce sleep and cause one to relax even the heart beat. The sad part is that this tree was removed without thought and very few remain due that one president in the history of the country decided that when the people ate the fruits
they became unproductive and lazy, and therefore had them cut down. The good part is if you know someone who has one you can take a cutting and get your own tree.

Throughout Costa Rica you will find many trees offering up red or orange berries to the birds. One of these that is commonly seen is the Pirul or pimiento from South America. These trees are some easy growers they just simply are not finicky. Anywhere up to 3000 meters is fine. Rain, shine or shade is also fine. The 5 mm $1 / 4^{\prime \prime}$ red grapelike clusters of fruit from this are used in very small quantities in South and Central America along with black pepper to spice up certain dishes. The bad about this tree is you have to watch that it doesn't take over freely propagating by seeds throughout your garden. There are two types the Anacardiaceae, the terebinthifolius and the molle or Peruvian type. The S. molle was used in the past for medicinal purposes as it had antiseptic and antibacterial properties in addition to many other uses. The Incas are said to have used it extensively both as a drink and as medicinal.
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We already added some poro extranjero to liven up the garden sky line but there are other poros which are not quite as flashy but serve the birds and serve as shade and fertilizer. One such poro is the Poro Tico or Poro criollo with its large heart shaped leaves, red blade type flowers and spiked trunk. Like so many of these tropicals their uses are many from jewelry from the seed pods to cattle feed. The seed pods being bright red were used for the making of little bracelets and the leaves make good forage for cattle and horses due to the rich leguminous properties. Those leaves are so good that they add nitrogen back to the soil and are super to put into your mulch pile. The seed pods are the one bad part of this tree due that they are toxic, however the other parts are good for human or animal. The blade shaped flowers are often eaten by parakeets in an unusual way. They go in from the bottom side apparently sipping out the sweet nectar in the base. Hummingbirds love them and we can eat the flowers too. These need pruning though to put on the best show.


Name: Erythrina coralloides/berteroana/criollo or poro tico Family: Leguminosae/Papilonaceae Origin: Arizona Mexico
Elevation: up to 2000 m
Height:5 meters
Leaves: Heart shaped 5inches
Flowers: Bright flowers bright red at tips of branches 3"long
Seed Pods/Fruit: pod 6" coiled and red

Growing freely along the rivers of Costa Rica from sea level to 1200 meters is the Sotacaballo Zygia longifolia Mimosaceae Fabaceae. These trees evolved a means of happily living on the river embankments and tolerating rising and subsiding waters. These are the ones that you'll see with their roots partially exposed but securely fastened to the ground that they are in right next to the river. There's no need for all those sand bags Do not use plants for medicinal purposes without seeking a medical physicians advice.
or concrete to keep the erosion down Mother Nature blessed Costa Rica with a natural way that not only protects the river banks but also drops lots of food for fish and other aquatic and semi aquatic creatures.
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Spotting a Targuá is like spotting a Jaguar,...well ok, maybe not, but they're still extraordinary tropical trees. Targüa is one of those tropicals whose uses and values are complimented by its weed like growth. This tree has a sap that is exuded when cut which has many properties. The old timers used the sap to treat wounds saying that it had astringent, antiviral anti bacterial and anti-inflammatory properties. This tree has been touted by the old folks as a wonder plant. It prevents and alleviates pain, such as from a sting or bite or dental work supposedly for up to six hours. It's touted to alleviate Gl tract problems. This tree also brings needed nitrogen to the soil.


Name: Crotondraco Sangre de Dragón Family: Euphorbiaceae
Local Name: Targuá
Origin: Valle Central Costa Rica
Elevation: 200-1500m+
Likes: open spaces and forest edges
Height: up to 18 meters
Trunk: gray
Leaves: heart shaped with pointed tip up to $20 \mathrm{~cm}\left(8^{\prime \prime}\right)$ wide and $25 \mathrm{~cm}\left(10^{\prime \prime}\right)$ long or more depending on location
Flower: raceme up to 50cmor more
Propagation: seeds, possibly cuttings
$\qquad$
Also growing everywhere and typically full of fruits during dry season are the various locally known ratoncillos and dantillos which are part of the Murta Myrcia oerstediana, Myrtaceae. These trees are here just for those beautiful birds that you wish to see. So if you see them growing you may not want to rip them out.


Driving down the road and looking out across cattle pastures if you spy a short trunk and a large crown spreading like an umbrella with too short a shaft then you know you're looking at a Guanacaste or a Cenízaro.Mimosa type Samanea saman Monkey pod tree Leguminosae Central America 80 ft 100 ft spread fast leaves open for sun deciduous wood used in art.

After a long hot day in the garden and the forest, you're sure to be hungry, so grab some of those fruits to make a sauce for dinner, but wait...there's one thing we still need. Spice for that sauce, and since we have such good soil, let's put in some herbs. There are herbs that grow everywhere and those that are more persnickety. Most of them grow above 1000 m pretty easily, like rosemary, oregano, thyme, mint, peppers and horseradish but others like basil seem to have a time adapting at 1500m. Many of these are also steeped with medicinal purposes. We already covered some herbs which are trees like papaya and cacao or vines like the Passiflora, but now let's go for those that add a little spice to life.

The rich soil here dedicates itself to herb growing with a little bit of space you make a pretty and fragrant spice rack. Try some rosemary surrounded by thyme, tarragon, dill, and basil. Sometimes plants don't share the dirt very well, so things like mint shouldn't be planted next to parsley. You can always let some flower, but the leaves may not be as tasty. It's also a good idea to trim the leaves so that the plant will get full, but don't overdo it or the plants will revolt. Once you let them put on blossoms they'll also give you some seeds for next year. Once they've turned brown start gathering them. You can put them in a dry place and let the seeds fall on their own into a container for the next planting season. With the deluges of April and October you'll want to start your little seedlings someplace safe. Drying herbs in the rain forest is tough; unless your house is air conditioned or dehumidified it's going to be difficult. Herbs can be found for sale at small nurseries, ferias (farmer's market), vet clinics or the big home and garden stores.

One mint plant Agastache foeniculum, hyssop, is a native of Central America. These make great garden plants because their spiked heads have blue-purple flowers which are extremely enticing to bees and hummingbirds. The leaves are a shiny light jade green with pale undersides and have well defined veins on the top. They grow up to nearly a meter high so you may have to watch where you put them. Its parts are also of some medicinal use. It leaves and flowers been used in infusion form for bronchial ailments and to promote perspiration.

Chives cebollinos (pr. Say-bow-ye-nos) not have pretty edible lavender pompom bloom they also add great flavor to dishes. Since they are rarely available here and finding them is difficult it's a nice one to pop in the ground.

That European favorite, dill, local name eneldo does really well here sometimes growing out of control like oregano and rosemary.

Sage also found its way over from the Mediterranean coastline to season meals and use medicinally. At one time in history it was even used for healing snake bites.

If you're near the coast you've got it made with rosemary. It's easy to conjure thoughts of the Mediterranean Sea while you sit having some pork baked in a rosemary apple sauce and look out across the Pacific Ocean. It grows great up to 1500 m ; above that it starts to get too cool and doesn't get enough sunlight.

Thyme, known as tomillo, is also an essential herb. This herb is also great around rose bushes helping keep those little hungry monsters off the blossoms. The bad thing with thyme is trying to get it off the stem! For that a fork comes in very handy sliding it down the stem it strips the leaves off and you're ready to get cooking.

Have you had thoughts of cooling off in Siberia after working in the garden? Well, it might be better to plant some Russian tarragon and daydream of touring the Hermitage instead. Locally tarragon called estragón (pr. Eh-stry-gone)Hiding under the leaves are fragrant oil glands which give off the pleasant aroma of this herb. Tarragon can overpower the food so you might have to go a little easy on it.

Cilantro locally known as culantro (pr. Cool-an-tro) grows great! There are two types here, the one we all know well and the local one. The local one is a bit more pungent but tastes great if chopped and tossed into a nearly finished pot of beans. The ordinary one that we are familiar with has the best tasting leaves at the bottom. These will also put on light pink flower heads. Even the roots of this one can be eaten and are called for when making some Asian dishes or curries. However the most popular part of this plant has traditionally been the seeds, coriander. Once the seeds are roasted they can be crushed and ready for spicing up those meals.

Having that plate of hors d'oeuvres before dinner could surely use a little decorative touch of parsley. Parsley is known as perejil here (pr. Pear-a-hill) at the grocery store it is usually a bit tough, better to plant your own or buy it at the feria, or get the flat leaf kind.

Oregano is the best grower at 1500 m . It will become a bush if you let it. Not only does it taste good in meat dishes, pasta dishes, beans, and eggs, it also works well around rose bushes to keep some of the bugs out. If you can dry them you'll find the flavor much stronger.

Fennel with its yellow flower heads looks great, and tastes great when mixed with fish.
Lemon balm punch is always good for a cool refreshing drink when mixed with guava or maracuya juice and only means planting a few.

Mint will grow happily wild here. The special types like pineapple might be a little difficult to get though. Just imagine grabbing that mint and with a rinse and slight maceration dropped into a cold glass of water.

Basil grows best a little lower down elevation wise, best below 1000m. At 1500 m it develops brown spots, rots, and becomes slimy making it highly unappetizing. If you can get it growing though, it goes well with everything!

Another herb you may have heard of is a native here; annatto or achiote/lipstick tree. In Mexico they mix spices such as annatto, cumin and oregano. This is a shrub like tree with 5 cm round red, spiky fruits like the litchi/mammon chino. From the Bixaceae family this ancient one has a long history in the Amazons. Although the main use is from the seeds for seasoning many different dishes, there have been other uses such as red dye. The leaves are used medicinally for intestinal worms and fevers.

How about peppers for spice? Since the Tico don't typically like the Mexican style hot and spicy finding jalapeños used to be difficult, habaneros are even rarer. If you like it hot you're in the right spot, either on the ground or in a pot, just make sure there's sun, a lot. You can really grow these guys especially from 1000 m down. At 1500 m they're really slow and you're better off to buy the plant just when dry season begins so it'll get plenty of sun. These will grow up to $11 / 2$ meters high and will often reseed themselves. If you're lucky enough to have a green house you can start almost any herb there. Capsicum, chili peppers that is, are filled with secrets. They are high in vitamin C and rich in medicinal purposes. Grilled, roasted, dried, fresh whole or powdered your sure to get that zing! String chilies to get them dried and they'll be around for you to pull off
the shelf for a long time. Once they're dried you can make them into powder or crush them the old fashioned mortar and pestle way. Mix the powder with other powdered herbs and you can get a nice chili sauce going. Here the easiest to get for the garden are sweet pepper Grossum and jalapeño. The sweet peppers are highly popular here and served in many dishes but they contain special properties that stimulate the circulatory and digestive systems and promote perspiration. For wounds they have antiseptic properties and promote blood supply for healing. Add to that their use in food helping cleanse the intestinal tract and you have a delicious pepper good for food and you.

Paprika comes from sweet peppers chile dulce and there are plenty of them available here, meaning they grow easily.

There's another little garden piquant that we could add like horseradish. Horseradish does well up at 1500 m , puts on a nice leafy top and spices up anything from fish to mustard.

Turmeric we already talked about back in the garden along with ginger.
The allspice tree or Jamaica (pr. Ha-my-ka) as it is known flourishes here at the lower elevations, but it is a tree and may take a little time to grow. However, you get more than spice for the kitchen, you'll get it in the garden too when there are fragrant white blooms.

Looking to put a little pepper with the salt? The Brazilian pepper tree Schinus terebinthifolius has peppercorns and is as close to a native as you can get as it comes from Brazil. These are great for decoration, but not so great for real seasoning. This 6 m bush puts on red berries in December. The birds love 'em, but they seem to cause skin and respiratory irritation for some. Their color has them dubbed as pink peppercorns and they unfortunately are toxic in large quantities.

Mushrooms are great additives and a rain forest serves them up in grand quantities; the problem is knowing which is which of the many wild ones here. In this case appreciate the colorful wild ones but go to the grocery store.

Onions grow wild here too. If you are attracted to the art of cooking you might want to try your hand at growing shallots, especially if you're at the higher elevations. They give you that smooth subtle onion taste, not that overpowering yellow or red. What would an onion be without its best companion; Garlic?

Yep, garlic will grow here too. If you plant garlic or onion though, you may want to have it a ways a way from your veranda or sitting place because at certain times of the year you can be overwhelmed by the smell.

Have a go at tomatoes. Cherry tomatoes seem to do best at 1500 m , but all others grow better in the warmer climates.

Some are a little harder to find like angelica and chervil.
Let's not forget that Guanacaste tree the tamarindo. It is used in drinks and fish and poultry dishes, in sauces. To make that popular tamarind drink here all you need is water, sugar, tamarind and time, like several hours until it begins to soften. Tamarind is available at just about any market.

We've been to the bitters and the pungent now it's time for something nice, and sweet.Since your garden already has lemons, oranges, tangerines, coconuts and cashews, we just need a little vanilla, chocolate, sugar, honey, and cream to make that deliciously rich dessert.

Chamomile Chamaemelum known as locally as manzanilla (the little apple pr. Man-zah-knee-yaa)may not be native but this German has taken to the land here and made it home. It brought with it so many good
things that it is sold in every weekend farmers market and at most supermarkets. Somehow it doesn't seem that the Rabbit was getting the sedative effects from this plant in the Tale of Peter Rabbit. However, most chamomiles found here are actually the Roman species, but both offer the same sedative and calming effects. The tea made from these flowers has been used by women with morning sickness and for a wide array of digestive disorders. Its calming effects help in promoting sleep and calming down hyper children. A great many products use the oil from this plant for things such as skin and hair care to asthmatic inhalers. It grows like a weed here so if you have space and like that slight apple scent, try a little in the garden.

Getting home grown vanilla beans will be a chore. Yeah, orchids grow here, but nope getting the vanilla (local pronunciation vy-knee-yah) one to work probably won't happen unless you are very dedicated, and even then it's questionable and requires some luck or special knowledge. They are home bodies and prefer being home in Veracruz, Mexico. Of course chocolate and sugar we've touched on before and for cream and honey you'll have to hit the grocery store.

Well, the garden is ready and you are through for the day...almost.
It's time to get cleaned up and eat. Gardens just require clean up. Leaves, cuttings, piles etc, even yourself. With all the clippings you get a great big overwhelming pile fast here, so it's good to have a couple of tricks to get that pile into mulch fast. If you're just moving to Costa Rica and want to do gardening try to get a mulcher shipped with your furniture, if you're shipping, it will be invaluable. If you don't have a mulcher, first thing you want to do is get in the habit of make those clippings as small as possible so they can deteriorate. Secondly the needed parts to make a compost pile are: plant clippings, natural sugars, heat, air and nitrogen. Sometimes though they just don't want to compact or deteriorate and you have an ugly pile of sticks that just won't become dirt! That's where you give back to the garden from the kitchen. Mix together a little coca cola, liquid dish soap and ammonia with a lot of water and pour it onto the stack. Manure is good on mulch because it is processed plant material, but dog poop just won't do because it has too much protein not plant byproducts.

Cleaning the shovel is the easier part; it's the hands that get the dirt caked in. One way to get that dirt out is to mix in some salt with your soap. If you're hands are feeling a bit dry and your nails are making you look a little like a left over Neanderthal, no worries, take a little olive oil mixed with either sugar or salt and give yourself a nice hand rub. Salt will of course sanitize your hands a little too. Don't forget you can add some fragrance too from those citrus', roses and jasmines.

You're ready for dinner and to show off your garden in a new way. Setting the table with herbs is yet another way to bring your garden inside. In addition to using banana or palm leaves as a place mat you can decorate place settings with herbs. Grab a sprig or two of thyme, oregano and rosemary, maybe a cinnamon stick, tie them at the base like a bouquet then wrap the bottom in a strip of banana leaf tie it with brown string and tuck in a nasturtium or bougainvillea blossom for color and you have the eco-friendly edible place setting decoration. Let's have a little salad to start by mixing in some watercress, cilantro, parsley, nasturtium leaves, and/or dandelion with the lettuce, fruits, and nuts. Top it off with a homemade herbal dressing either in olive oil or in vinegar. Mix in your favorite herbs and spices and let it steep for a while and give it a test. Remember olive oil like Dracula doesn't like light and will lose its powers if exposed for too long. Oh and don't forget a little herb butter to go with the bread. You can get really creative here once you've melted the butter
and mixed in the herbs and let it chill you can make butter balls, carvings, get stamps to put designs in or even make them into rose petals.

Once you get to the main course, don't be afraid to decorate the plate or top the meat with edible flowers. The list is long and all you have to do is pick them in the morning (or previous morning) when they are fresh; give them a good rinsing; remove the pistils; stamens and petiole (flower base) and keep them cool until show time. Have a look here at just a few: carnations, pansies, dianthus, geranium, cornflowers, chrysanthemums, baby's breath, lavender, marigolds, nasturtiums, daylily, gladiola, sweet pea, roses, and citrus blossoms. Sauces can be made from the garden too, especially if you grew a few tomatoes. Mix your herbs or spices with creams, tomato sauce, yogurt, mayonnaise or mustard and you are sure to give the main course a good burst of extra flavor.

To make something a little unique you can candy the petals. Don't forget, almost all the herbs and flowers can be infused, mixed with sugar and chilled for a flavored water or by letting steep for at least a couple weeks in a bit of vodka or other alcohol you can make a nice fresh punch.Speaking of drinks, don't forget your coffee or tea. The list of ways to make and mix them is long add sweets like vanilla or liquors to coffee and you can use sweets or bitters with teas like passion fruit or orange blossom, and either one can be served hot or cold.

And as the night falls on a long garden day in Paradise step outside and take a breath in of the dracaenas and the angel trumpets.

## Chapter 10: Helpful Spanish Words

If you don't speak the language and will have help in your garden you should invest \$10-12 in the Spanish-English picture dictionary by DK publishing. Another good helper is Madrigal's Magical Guide to Spanish. In case you don't have that wonderful dictionary here are just a few vocabulary words and phrases for explaining to the gardener what you want them to do. Don't expect them to make an attempt to understand what you mean, be ready with a picture.
Let's start with two important words; here and there. Here (ah-key) aquí, (ah-kah) acá or here and there (ahyah) alla or (ah-ee) ahí.


Trunk=Tronco (pr. Tron-co) pronounce like throne without the ' $r$ '. On other plants that are not quite trees but could be it is known as Palo (pr pal-oh).


Plants in general are known as matas (pl) or mata ( sg ) (pr mah-tah)
Shrub=Arbusto (pr. Are-boost-oh).
Of course you also have roots=raíces (pr rye-ee-sis)


Pump sprayer=bomba (pr bome-bah) 'first part of word rhymes with home' this will suffice for either a large sprayer or small and even a gas station. More properly known as asperjadora. When you want

[^3]them to spray for bugs or weeds it's fumigar (pr foo-me-gar). For weeds you would use herbicide=herbicida (pr er-be-see-dah), for bugs insecticide=insecticida (pr. In-secty-see-dah).

Something a little less common here is potting soil. Potting soil can be found at the larger hardware stores and coopes. The actual Spanish name for this is substrato universal (pr sue-strah-toe oo-knee-verse-all) but may also be called tierra Buena (tee-air-uh bway-nah). Oh oh and let's not forget wet dirt, mud that is, called lodo (low-doe) or barro like the word to borrow.
Don't forget that you need rubber boots and since you read about the rubber tree you already have half of the words. Rubber boots=botes de hule (bo-tess day oo-lay)
You may want to have some rocks at the bottom of those roses or bougainvillas for that the word piedra (pee-eh-drah) will work.


Of course you want to fertilize some plants. This word is fairly simple because it is close to bonus, like the ahhh bonus of blooms you'll be getting after fertilizing. Abono (ah-bone-oh). You can get it in liquid=liquido (lee-key-dough) or powder=polvo (pole-vo), it makes the plants roots and stems strong like a volvo.


Speaking of making roots strong, sometimes those cuttings need a little help shooting out new roots, that's where you want to get some root starter. Now this word is on of those long ones enraicedor para plantas ornamentals. I know it's a mouthful. Enraizador (en-rye-ee-sa-door) which truly means to take root.


Well, now let's not forget that all important resource for plants and gardens; water.


## Hose=Manguera (man-gehr-ah)


sprayer or sprinkeler=Rociador (Row-see-ah-door-ah)


Ladder= Escalera (es-call-air-ah)


Flower pot=maceta (ma-say-tah)


Rake=Rastrillo (rah-stree-yo)
Let's do some cutting. Cut=cortar (court-are) Pruning=podar (poe-dar)


Clippers= tiejeras (tee-hair-ahs)
More cutting.


Weedwacker=Motoaraña (mot ah-ran-ya)
Let's do some digging. Dig=cavar (kah-var). Bury=enterrar (en-tear-are)


Shovel=Pala (paula, pronounced the English way)
Clippings or cuttings are known as recortes (pr ray-court-es)
A pile of clippings or compost heap=monte (mon-tay) this is also used for tall grass so you might just have to explain like this; I want the cuttings piled here 'pon los recortes aqui por favor' (pon lows ray-court-es ah-key pour fah-vour). If you always want them in that place add 'siempre' (see-em-pray). Only today 'solo hoy' (solow oiy). You'll probably have to tell them to cut the pieces small enough to deteriorate 'cortes pequeños por favor' (court-es pay-ken-yos). What to do if it is too much? Two possibilities here; the common but stinky, burning. For this you say (kay-ma los ray-court-es por favor) 'quema los recortes por favor', basically burn the cuttings please. The other less common possibility is 'se pueda llevar' (say pwe-dah yea-var), can you take them?

Here a weed, there a weed, everywhere a weed weed! Weeds invading your garden? Ready to scream? Simply say 'saca las malas hierbas por favor' (sah-kah las mah-lahs ee-air-bus) or'quitalas malas hierbas por favor' (key-tah las mah-lahs ee-air-bus).
Maybe you want to ask them if a flower smells good?Huele bien? (well-eh be-in) for the opposite just put no in front.

What about 'I like it’? Me gusta mucho (may goose-tah mooch-oh) for the opposite just put no in front. Do you want to tell them too much sun, shade, water, or too hot or cold? Easy. Now you can do it the right way and say (day-mah-see-ah-doh sol) (day-mah-see-ah-doh so-mm-bra)(day-mah-see-ah-doh ah-gwa)(day-mah-see-ah-doh kah-lor)(day-mah-see-ah-doh free-oh).
Oh yes, you need to be able to say rain. Va a llover=It's going to rain (vah ah yo-vair). It rained=llovio (yo-veeoh). Llueve=rain (you-eavy) almost like heavy. And now how about that R\&R? Maybe in a rocking chair?


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## Chapter 11: Trash Trees, Weeds And Wild Things

Although I have pictures of most of these, due to size limitations I simply couldn't fit them in. However, good pictures exist on the internet and I recommend going to the Missouri Botanical Garden website and downloading their field guides. A word of advice; download ones from all over the Central and South American region. Some of the field guides say Belize or Peru, but you will recognize a number of plants on different ones.

## Fruit Trees:

You may wonder why I list these as Trash Trees, The reason is that most people cut them down long before knowing what they are or who they attract.

1. Wild Tobacco. Acnistus arboresencs, known locally as El Güitite (gwee-tea-tay) is a native flowering and fruiting tree. They are easily recognized when in fruit as their branches are loaded with clusters of 1 cm orange fruits. The lightly fragrant flowers are small but very showy in clusters along the branches. They will give a repeat flower and fruiting during the year attracting many species of birds, hummingbirds and butterflies. In addition, many other fruit eaters come to enjoy the bounty. It is an especially important crop for the Clay colored robin, aka Yigüiros (gee-gwee-roe), at the end of dry season, which is nesting season, as it may be the only fruit available for the chicks. It grows from Mexico to Brazil. In addition it is a perfect place for attaching epiphytes such as Orchids and Bromeliads. These trees were originally planted as shade trees for coffee. The only two drawbacks to having this tree in your garden are: fruit litter, which attracts bugs, and leaf diseases. This tree has been researched as a medicinal plant for cancer and liver ailments. Leaves are Nitrogen fixating. Propagation? A cutting stuck in the dirt. Attracts bird and butterfly species.
2. Soursop. Anona cherimola, known locally as Anona. It comes in a variety of hybrids, but also grows wild. The leaves are oval and of a pale green which are soft and fur like when new. The fruits are edible for humans and many fruit eaters. The fruits are the size of a baseball to a softball with many almond sized black seeds inside. They are soft and sweet when ripe. The inconspicuous flowers attract hummingbirds and butterflies.
3. El Capulín (Ardisia compresa or revoluta) This fruiting tree was an old favorite of children in the coffee fields years ago and the old folks can still point them out to you along the riverbanks. The fruits are dangling clusters of 1 cm red berries. The closest description to their flavour would be that of Gooseberries or Huckleberries. Many birds come to dine on the fruits. The flowers are small and not showy but attract many butterflies and hummingbirds. The leaves are a shiny apple green making a pretty garden tree.
4. Belscheidia (muntigia, ocotea, pouteria, minquartia, nectandra) In this section I have a lumped a number of related trees which will be a great part of your garden. Many of these trees are available at nurseries. They are native and provide fruit for such tropical birds as the Quetzal and the Toucan. The fruits of these trees range in size from a cranberry to that of an olive. They typically go through a colour stage from yellow-red to blue/black or purple shades. The nectandra species are more easily recognized by the red cap on the fruit. The others will have green caps. The down side to these trees is the amount of time required to maturity. The good side, you will be giving Costa Rica back a piece of her past which had been eliminated through harvesting wood and pasture clearing eras.
a. Ocotea javitensis
b. Ocotea rivularis

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c. Ocotea sp Cinnammomum brenesii Aguacatillo
d. Ocotea veraguensis this is bark loser with leaf like mango, green berry and red stem flower spike with cream color flowers
e. Pouteria campechiana Common
f. Pouteria belizensis
g. Pouteria leptopedicellata
h. Pouteria silvestris
i. Minquartia Manu negro
j. Nectandra ambigens
k. Nectandra ramonensis quizarra Common
I. Nectandra salicina
m. Nectandra smithii
3. Carapa guianensis (jágua) Locally known as Papa de Monte or Sapote blanco. Please not this is SAPOTE not Zapote. Basically a poor man's potato. This tree is found mostly along river embankments where there is high humidity but it can be purchased through Technical Institute in Cartago. Often times ICE Electric company has native trees available (this takes a lot of time and an extraordinary amount of patience as the trees are free and you have to find someone who knows what you are talking about). The fruit is about the size of a golf ball. It opens much like a nut to reveal a fruit inside. The seed is comparable in size and shape to a peach seed. The fruit will set off growth in semi shade moist mulch atop soil. The seed once separated from the fruit does not seem to germinate. It is only viable a short time so storage does not seem to be possible. Coati, Tayra, and peccaries are attracted to the fruit in addition to the birds.
4. Cercropia sp Guarumo (gwa-room-oh). There are two species which grow well at this elevation the Peltata and Rotundifolia, there are others like C. polystachya, but these are the two most easily recognizable and available. These are a secondary forest tree which pop up first in an abandoned pasture thanks to passing birds. The fruits of this tree are very attractive to Toucans (and Sloths). They are long slender finger like fruits hanging down in clusters, up to 20 cm in length or more. They are hollow and the outside has the appearance of a snake skin when lying on the ground. The tree is also a home for many species of woodpeckers because of the soft woodand the ant community.
5. The Trema micrantha is a tree which is laden with fruits, actually seed clusters. The leaf structure reminds one of the pecan. The seeds are about 5 mm and fill in the gaps between the leaflets. Seed eating birds, which include many of your song birds, are highly attracted to these. The biggest drawback is that a bore weevil is also attracted and makes quite a mess through the trunks. However, the tree seems to be able to withstand the onslaught.
6. Conostegia xalapensis This is one of my favorites. The tree is one of those easily recognizable Melastome species. It's leaves are distinctive in that they have parallel veins running from tip to base. The flower clusters are replete with 1 cm white petaled yellow centered flowers. The blooms on these trees can be seen from a distance. The fruits from this tree are blue-black and important source of food for tropical birds. This particular species is great for Guans, Toucans, and Chachalacas. Many other species delight in the sweet edible fruit too, including humans. Be careful of the bark though, it is full of hairy spikes which irritate the skin.

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7. Croton draco o hoffmannii (Targüa) This is a fast grower up to ( 6 feet) $2 m$ tall in one season from a $2^{\prime}$ cutting, and with nearly an equal canopy spread. This tree is great not only as a food source for butterflies and birds, but also for the $20-40 \mathrm{~cm}$ long white flower spikes. The flowers have a light fragrance similar to a mix of fresh cut grass and apple. You'll have to put your nose right up to them in the first warmth of morning to catch it though. However, other creatures can zero in on the fragrance, such as hummingbirds and bats. The fruits are nothing spectacular, just simple $5 \mathrm{~mm}-1 \mathrm{~cm}$ green globes along the spike. Nevertheless they attract a host of bird species and the Crimson fronted parakeet has a special fondness for them. In addition this tree is great for trapping carbon and its leaves turn colours and fall giving the soil much needed nitrogen. An exceptionally valuable plant in folkloric medicine.
a. Croton niveus
b. Croton payaquensis euphorbiaceae flower spikes same but leaves are rounded/oval green berries
c. Croton schiedianus
8. Erythroxylum macrophyllum Danto. A lush tropical tree with fruits which look like small red peanuts dangling in loose clusters at the end of leaflets. Chachalacas are often found in this tree and tend to pass the seeds whole. Of the various young chachalacas I have picked up lost they have been under this particular tree. It is typically a secondary forest tree. I have not yet tried propagation as they grow wildly like a weed popping up in various places.
9. Ficus insipida. There are a host of Ficus plants available; however, the most appropriate for bringing in the birds is the Ficus insipidida. This has 7 mm blue-green fruits which turn to shades of dark red-brown. The fruit is a favorite of many tropical birds including the Toucan, parakeets, parrots, and Masked Titrya. The canopy is large. It is a moderate growth rate. From a cutting in the ground to a tree in 4 years, to fruit another couple. Once it begins to fruit it is incessant.
a. Ficus aurea
b. Ficus obtusifolia
10. Mangifera indica Ah beneath the Mango tree. Well, at 1500 m ( 4500 ft ) they are incredibly slow growing and may give you $a$ fruit in 5 years. At 1200 m , go for it. The flowers are attractive even if small panicles. Many hummingbirds and butterflies will zip in and out foraging on the sweet nectar.
11. Musa sp Every type of musa from guinea to your hybrids are valued by the birds and other critters. The hummingbirds come for the flower nectar and the rest come for the fruits. Especially the tanager species and the Saltator sp.
12. Persea Fruit
a. Persea americana
b. Persea caerula Aguacatillo
c. Persea indica
d. Persea schiedeana
13. Picramnia quaternaria aka Caregre a type of Buckthorn is a lovely tree with nicely shaped leaves and structure making it perfect for a garden. It puts on small flowers followed by red berries which are enticing to many seed eaters. It may be a bit more difficult to find at the nurseries is La Garita, but some of the smaller nurseries know where to find them. They do grow from seeds but need the proper medium, meaning they prefer the ground over a pot. They look sickly for a year if you take them as a transplant from the wild.
a. Picramnia antidesma
b. Picramnia parvifolia
14. Inga Fruit Cuajiniquil o Guaba. This is a great tree for the garden. It is cut down relentlessly as a trash tree but if you want to see parrots you might want to keep it. The leaves make it easily recognizable as they have a leaf like shape between each set of leaves on the leaflet. It was used as a companion and shade tree for coffee plantations. It's delivery of fruits and leaves to the ground enrich the supply of nitrogen. The flowers are plentiful showing their feathery white acacia type flowers at least a couple times a year. When they are in bloom it will have a canopy covered in butterflies and hummingbirds. Once the $30-40 \mathrm{~cm}$ seed pods are ripe they become a delicacy for the blue fronted parrot (Senilus). Many animals come for this fruit including big and little children. The fruit is actually a pulp similar to cotton candy around the inner seeds. There are many varieties available from cultivated types with large seedpods to your average coffee shade plant.
a. Inga allenii
15. Ira Sloanea, locally known as picapica. This tree has large leaves up to 60 cm long and 15 cm wide. It is usually one of the taller trees in a forest and prefers moist embankments. The fruits of this tree are much like a chestnut. They are $5-8 \mathrm{~cm}$ round red fruits with spikes. The nuts inside are the prize for many fruit and nut eaters.
16. Oreopanax, Dendropanex locally known as Caucho de Venado, and Schflera morotoni are all native trees with a unique leaf shape. The leafs are 5-9 fingers. Much like you nursery variety, yet these are dark shades of green and produce flower spikes and fruits. The flower spikes are about 20 cm in length and bring in myriads of butterflies and other nectivores. The flowers form $0.5-0.8 \mathrm{~mm}$ round green fruits which are as popular for the birds as popcorn is for humans.
17. Quercus Oak tree. These trees put on acorns and attract many different types of foragers.
a. Q. brenesii
b. Q. bumelioides Roble Encino
c. Q. copeyensis Roble Colorado
d. Q. magnoliifolia Roble Amarillo
18. Sapium Locally known as 'Yos'. As in previous pages, the fruit is used locally in beverages. Birds and other animals come for the harvest.
a. Sapium allenii
b. Sapium glandulosum
19. Spondias purpurea (Jocote). Again we talked about this one in Chapter 9. The fruits are loved by many birds especially the Keel-billed toucan

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20. Tabernae Montana Known locally as Huevo de caballo for the double split fruit. The fruit is orange when ripe and many critters come to eat.
a. T. Donnell yellow flower
b. T. Littoralis white flower
21. Papaya trees also discussed earlier grow prolifically.
22. Diospyros dygnia
23. Exothea paniculata Dantisco
24. Zorrillo the Little skunk fruits attract many birds.

## Flower Trees:

1. Bocconia frutescens Plume or tree poppy, locally known as Guacamaya it has beautiful leaves and long panicles of cream flowers. It is messy and considered invasive in Hawaii, just to let you know how prolific the seed dispersion is.
2. Calliandra fasciculate Fabaceae-Mimosaceae This tree has red feathery flower tufts.
3. Gliricidia sepium Madero negro is a large tree with tubular purple flowers which attract pollinators. These trees are used through the country for fence posts. They were at one time utilized for woodwork as well. A beautiful tree for your garden. The leaves are pinnate and very similar to the jocote.
4. Parkinsonia aculeate. Jerusalem tree. We touched on this tree in Chapter 1 for its divine frangrance and pretty yellow flowers.
5. Podachaenium eminens. This large tree has big daisy like flowers which attract many kinds of pollinators.
6. Hamelia patens aka Firebush which we touched on in Chapter 9, has orange tube flower clusters which are highly attractive to hummingbirds. It is unfortunately a victim of the machete.
7. Heliocarpus americana also produces flowers for pollinators. The locals also call this balsa.
8. Aiouea costaricensis Ira amarilla. This tall tree was found throughout the country many years ago. Its hard wood was valued by builders and woodworkers.
9. Ochroma pyramidale Balsa. This tall tree puts on a profushion of blooms which attract many butterflies into the top of the canopy.
10. Montanoa guatemalensis Cura or Montanoa Cura aka Turu is another native to keep for its white blooms. Sadly, it looks like a weed when it starts and therefore meets with blade before it grows full height and blooms.
11. Erythrina berteroana Poro criollo aka Coral Tree has bright red-orange blooms. We touched on this one in a previous chapter.
12. Diphysa americana Guachipelin we touched on in Chapter 4. They come up naturally on road sides but again are chopped before they can put on a show.
13. Castilla elastica Hule or Rubber tree. Always a nice tree for a large garden. Slow growing at altitude.
14. Cybistax donnell. These dry season bloomers, locally known as Primavera, we touched on in Chapter 4.

## Shrubs

1. Helianthus angustifolia This large *yellow daisy" tree is worth having just for the profusion of yellow blooms in dry season.
2. Cnidoscolus acontifolius Chaya is a local plant which was used in times of famine. It has white umbrels and large leaves. The leaves were boiled in water and eaten like spinach.
3. Psychotria sp have bright berries in a variety of colors. Sometimes the plants look leggy, other times they look full and make a good attractor for wildlife.
4. Urospatha Is a large vine type plant. Thfe fruitis devoured by many creatures.
5. Wild begonia are found in the higher elevation near water or in moist woodland/forest areas. Their flower heads are large and the leaves are attractive. Humminbirds and butterflies seek them out.
a. Begonia popenoei
b. Begoniaceae Begonia
c. Begonia multinervia
6. Lepiandes peltata
7. Calathea wortels
8. Canna paniculata The orange flowers of this Canna are spectacular in the garden setting. They can grow quickly into their own 1m diameter round. You will see these growing on the roadsides especially around Atenas.
9. Canna tuerckheimii These natives are rather slow and not as impressive as the above. At our elevation these die back and will come up again.
10. Clidemia hirta This one is a favorite of mine. It has small white flower clusters and tasty blue berries.
11. Croton niveus Colpachi This is used frequently for fence lines. At low elevations it is a fast grower and impenetrable.
12. Costus barbatus These are found in woodlands growing wild. The leaves spiral and twist up into a red cone with yellow tubes similar to ginger.
13. Eucharis $s p$. These also pop up in spring like weeds. If left to grow they have dainty flowers that look like orchids. The leaves look much like a hosta.

## 14. Tradescantia zanonia

15. Gibasis geniculata Commelinaceae
16. Pipers. There are tons of pipers. They make interesting garden accents and are almost always chopped off as some invasive vine. Their seed pods beckon to moths, butterflies and other insects.
a. Piper cordoncillo
b. Piper tuberculatum
c. Piper aduncum
d. Piper aequale Piperaceae
e. Piper auritum
f. Piper reticulatum cordate

## 17. Miconia argenta

18. Miconia affinis This shrub to small tree is also a Melastomataceae with red stems and blue-black berries
19. Tibouchina bipenicillata
20. Tibouchina naudiniana. This Tibouchina is definitely a princess flower. In the Melastom family like other Tibouchinas, the 2-3cm lavender/pink flowers belong in a garden. I have not tried transplanting one of these from the wild. They grow readily in abandoned lots, pastures and secondary forests.
21. Guajvas we already went through these in the 'Let's Go Native' section but they are of interest to the naturalist or gardener, and they grow wild. I have transplanted these with success.
a. Psidium cattleianum
b. Psidium friedrichsthalianum Cas
c. Psidium guajava
d. Psidium guinensee
22. Sauria rubiformis
23. Solanum. Most of these have green berries about 1 cm in diameter. Usually in clusters. The flowers on the majority of them are star shaped with white petals and yellow centers. The Solanum campechiense locally known as ' huevo de perro' is one to be cautious of. The leafs have spikes on the underside. The fruits are about 2.5 cm in diameter, two together, and they look a Little bit like a watermelon rind. The fruits explode to deposit their seeds and they will grow anywhere. Not a kind for the garden.
a. Solanum ameicanum
b. Solanum betaceum
c. Solanum deflexum
d. Solanum erianthum
e. Solanum campechiense locally known as ' huevo de perro'.
f. Solanum incanum o capsicoidum
24. Yucca itabo We went over this one for its white edible flowers in previous chapter.
25. Dracaena we also touched on in a previous chapter. They make great fence rows and have fragrant but ugly blooms unless you get a close up.
26. Alphelandras also grow wild here. They make beautiful garden plants with their bright red flowers. The hummingbirds find them very attractive too.
a. Aphelandra golfodulcensis
b. Aphelandra longiflora
27. Cajanus cajan
28. Duranta repens we touched on in Chapter 9.
29. Allophylus There are many of these shrubs in the tropics, but the most frequently found here is the Allophylus racemosus
30. Aparisthmium cordatum
31. Doliocarpus dentatus
32. Justicia aurea yellow paones type shrub in Chapter 3.
33. Oyedaea verbesinoides is a weed/shrub which has sunflower type blooms, see chapter 2.
34. Talipariti tiliaceum Malvaceae This shrub we talked about in a previous chapter on hibiscus.
35. Syngonium podophyllum Aracea we covered earlier.

## Weeds and flowers

A number of these lovely wildflowers are available in seed form. Unfortunately, again, people rip them out as a noxious weed. In clusters these flowers make impressive displays and attract hordes of butterflies and hummingbirds.

1. Ageratum houstonium
a. Fleischmannia pycnocephala
2. Lobelia
a. L. laxiflora these orange tube flowers are treasured by hummingbirds. They grow wild on roadsides.
b. L. siphilitica these blue lobelias need full sun and attract many pollinators.
3. Tithonia These we went over in Chapter 3.

## a. Tithonia rotundifolia

b. Tithonia diversifolia Mexican sunflower
4. Kalanchoe pinnata
5. Dormillon
6. Stachytarpheta we took a look at in Chapter 3.
7. Scoparia dulcis
8. Lippia
a. Lippia dulces
b. Lippia alba also known as Juanilama
c. Lippia cardiostegia
d. Lippia graveolens
9. Justicias
a. J. pectoralis o sherardia
b. Justicia tinctorea
c. Justicia brenesii These blue beauties could be added to a butterfly garden.
d. Justicia crenata These look like a red honeysuckle and grow wild along forest edges. They need a little shade though. The hummingbirds are highly attracted to them.
e. Justicia oerstedii these are very similar to Lobelia laxiflora in color shape but like shaded areas and moisture.
f. Justicia pectoralis
g. Justicia sarothroides
h. Justicia spicigera
10. Sonchus oleraceas not really a good garden plant but pollinators love it.
11. Petiveria aliaceae
12. Impatiens balsamina Yes this regular garden plant is considered a weed here and people rip them out.
13. Hemerocallis fulva we looked at early on.
14. Arrabidaea patellifera This weed has purple to lavender tubular flowers.
15. Lupines perennis grow great here. We did not plant them and cannot say from where they suddenly appeared in dry season. They bloom profusely in the dry season and will re-seed themselves without problem. They do not like the weed killer which is sprayed so readily. The butterflies are all over them.
16. Salvias As you might have noticed what we consider a garden plant is considered a weed here. There is a good reason for that. They grow like weeds!
a. Salvia occidentalis This blue weed has lips like an orchid.
b. Salvia polystachya This one grows wild as well.
c. Salvia wagneriana
17. Lycoseris grandis Asteraceae. This orange flower looks very much like a Mexican sunflower only it has the habit to climb upwards.
18. Dichorisandra hexandra
19. Bidens reptans This yellow weed grows well in the dry season.
20. Bidens pilosa
21. Calea urticifolia This yellow weed needs to be closely compared with bidens (bidens trifolio)
22. Triumfetta bogotensis
23. Castilleja sp This flower is very much like the Texas Indian paint brush, the only problem is that they are not spread out before you like a blanket.
24. Columnea hirta This weed is endemic to Cost Rica, meaning you should have it in your garden. Itis another tube flower in orange very similar to Justicia oerstedii and Lobelia laxiflora. By now you should be getting the idea just how many weeds there are to attract hummingbirds of any size.
25. Cosmos sulphureus We went over the Cosmos in Chapter 2. These you should really broadcast some seeds for and watch the butterflies come. You will find them growing at nearly every house, just ask for some seeds. The plants themselves don't take kindly to being moved.
26. Crassocephalum crepidoides
27. Emilia fosbergii These bloom all over the place. They are similar shaped to a dandelion but with 3 red flower heads.
28. Crinium amarylilidaceae This we went over in Chapter 2.
29. Crocosmilflora george Davidson This is another one that you should have for the butterflies.
30. Dicliptera unguiculata I have only found these blue pompom type flowers on occasion in dry season. They seem to grow similar to sage. They love full sun.
31. Dyssodia Montana Try planting these if you find them growing someplace.

## Epiphyte

Guarianthe skinneri orchid Guaria morada. If you have a garden or not, you need this native NATIONAL FLOWER. Believe it or not these will sometimes seed themselves and put on an unimaginable display in about 4 years. Ours seeded itself on an old dead stump. Within four years it completely covered the 60 cm diameter stump in a profusion of purple blossoms.

## Vines and Lianas

Welcome to the jungle! Tarzan's delight for swinging through the trees. Take your pick of the very many of these. Some may not be so good in your garden just for lack of flowers but they will be of interest that's for sure.

1. Macuna local name Ojo de Buey (ox eyes). This vine has attractive flower heads dangling in a cluster like a flat lamp base with dangling bulbs hanging down. The seed pods are the most extraordinary and eye catching, but don't touch them. They are covered with tiny needle sharp hairs which are nearly impossible to get out!
2. Monstera take your pick of the monosteras available. Many are for sale in the nurseries too.
a. Monstera epepremnoides Araceae
b. Monstera acuminata, This one has holes in the leafs giving it a nice shape.
c. Monstera deliciosa Mano de tigre Philodendron
3. Maclura tinctoria Let these grow wild in places that you don't plan to go into. The critters will all love you for the wild red berries.
4. Philodendrons grow great here, just make sure you have the space.
a. Philodendron aurantifolium Araceae
b. Philodendron hederaceum Araceae cordate
5. Sechium tacaco vine Tacaco This vine is not one for the garden but definitely unique. The squirrels and pizotes eat the fruits, as do the Ticos. The fruits have spike around one end and they hurt like mad if you tread on one barefoot.
6. Passiflor edulis We covered in Chapter 6.
7. Aristoche Pelican flower We covered this stinker in Chapter 6.
8. Anemopaegma orbiculatum
9. Cissampelos grandifolia This vine weaves throughout the canopy.
10. Cissus anisophylla
11. Crossopetalum uragoga rhacoma
12. Dioscorea hondurensis
13. Ipomea alba is covered in the wall flower chapter 6.
14. Mansoa hymenaea We talked about this one in chapter 6 too.
15. Passiflor edulis Maracuya
16. Paullinia cupana
17. Pinochia monteverdensis
18. Rytidosstylis gracilis grows everywhere and attracts many birds. The fruits are also consumed by humas.
19. Sechium edule aka chayote a type of squash.
20. Smilax gracilis piper type vine
21. Vitis tiliifolia this grows throuoghouot the canopy

## Chapter 12: Other Garden Visitors

## Birds:

American swallow-tailed kite (Elanoides forficatus) Common seasonal Eats Insects
Baltimore oriole (Icterus galbula) Common seasonal Likes bananas, papaya, nectar from the Paones (p62)
Black guan (Chamaepetes unicolor) Very Rare Wild fruits, esp Ocotea, Nectandra
Black vulture (Coragyps atratus) Very common Carion
Blue-and-white swallow Notiochelidon cyanoleuca Very common Insects
Blue-crowned motmot (Momotus momota Common Güitite (p116), Banana, Papaya, Pineapple, grudgingly dogfood Blue-gray tanager (Thraupis episcopus) Very common Güitite, Banana, Papaya, Pineapple, Bronzed cowbird Molothrus aeneus Fruits, dog food
Brown jay (Cyanocorax morio) Very common Banana, Papaya, Pineapple, and dog food
Buff-throated saltator (Saltator maximus) Common Seasonal. Banana, Papaya, Mango
Buffy-crowned wood partridge (Dendrortyx leucophrys) Common
Cattle egret (Bubulcus ibis) Very common Insects
Chachalaca (Ortalis cinereiceps) Very common Güitite, banana, and wild berries and seeds
Chestnut headed oropendola (Psarocolius wagleri) Rare and seasonal Mango
Chestnut-mandibled Toucan (Ramphastos swainsonii) Very rare fruits, frogs, lizards, eggs
Chestnut-sided warbler (Dendroica pensylvanica) Insects
Clay-colored thrush (Turdus grayi) NATIONAL BIRD SPRINGTIME SINGER. Very common. Güitite, Ocotea, Banana, Papaya, Dog food
Common nighthawk (Chordeiles minor) Common Insects
Common potoo (Nyctibius griseus) Insects
Crimson fronted Parrot (Finscii) Common seasonal. Eats Targüa p139, Inga p116, Banana, Mango, Ocotea p138, Jocote p118, Ficus $p 140$
Dusky-capped flycatcher (Myiarchus tuberculifer) Insects
Emerald toucanet (Aulacorhynchus prasinus) used to be very common Eats Targüa p139, Inga p116, Banana, Mango,
Ocotea p138, Jocote p118, Ficus p140
Fiery-billed aracari (Pteroglossus frantzii)
Flame-colored tanager (Piranga bidentata) Common Banana, Papaya, Insects
Great kiskadee (Pitangus sulphuratus) Very common Banana, Papaya, Pineapple, Mango, and dog food
Great potoo (Nyctibius grandis) Insects
Grayish Saltator Eats Banana, Mango, Ficus p140
Grey hawk (Buteo plagiatus) Prey birds, lizards, skinks, mice, snakes
Grey-capped flycatcher, (Myiozetetes granadensis) Common Insects
Groove-billed ani (Crotophaga sulcirostris) Common Eats Targüa p139, Inga p116, Banana, Mango, Ocotea p138, Jocote
p118, Ficus p140
Black-thighed Grosbeak newly arrived
Hoffmann's woodpecker (Melanerpes hoffmannii) Very common Eats Banana, Papaya
House sparrow (Passer domesticus)
Jilguero (Myadestes melanops) Very Rare

Keel-billed Toucan (Ramphastos Sulphuratus Common seasonal. Eats Targüa p139, Banana, Mango, Ocotea p138, Jocote p118, Ficus p140
Lineated woodpecker (Hylatomus lineatus) Common. Insects
Long-tailed manakin (Chiroxiphia altlinearis) Toledo Common seasonal. There's a Youtube video fromMonteverde about these colorful and active birds.
Masked tityra Tityra semifaciata Common seasonal. Ficus p140, banana and insects
Melodious blackbird (Dives dives) Insects
Mottled Owl
Mozotillo Very Rare
Nightingale Rare
Pacific screech owl (Megascops cooperi)
Pale-vented pigeon (Patagioenas cayennensis) Very common Banana, papaya, Native fruits, and dog food
Pauraque (Nyctidromus albicollis) rare
Plain-breasted ground dove (Columbina minuta) Seeds
Red-billed pigeon (Columba flavirostris) Rare
Resplendent quetzal (Pharomachrus mocinno) Very Rare. Nectandra p138
Roadside hawk (Rupornis magnirostris) Common
Rock dove (Columba livia) Common
Rufous-capped warbler (Basileuterus rufifrons)
Rufous-collared sparrow (Zonotrichia capensis) Very common
Rufous-naped wren (Campylorhynchus rufinucha) Common Loves over-ripe bananas
Rufous-tailed hummingbird (Amazilia tzacatl) Very common. Güitite, Hamelia patens, Paones,Passion vines,
Stachytarpheta
Scrub euphonea (Euphonia affinis)
Social fly catcher (Myiozetetes similis) Common Insects
Sooty robin (Turdus nigrescens) Rare
Spotted-bellied bobwhite (Colinus leucopogon) Very Rare, used to be Very Common
Squirrel cuckoo (Piaya cayana) Ficus
Sulphur-bellied flycatcher (Myiodynastes luteiventris) Insects
Tennessee warbler (Vermivora peregrina) Insects
Tropical kingbird (Tyrannus melancholicus) Insects, Ripe bananas
Turkey vulture (Cathartes aura)
Violet sabrewing (Campylopterus hemileucurus) Paones,
White-crowned parrot (Pionus senilis) Eats Targüa p139, Favors Inga p116, Banana, Mango, Ocotea p138, Jocote p118,
Ficus p140
White-winged dove (Zenaida asiatica)
Zetillero Very Rare

## Animals:

Just about all of these, except the carnivores, like fruits especially Mangos, Bananas, Avocados, Sapote blanco, Pouteria, Psidium sp.

1. Bat Vampire Common
2. Bat fruit
3. Common Opossum (Didelphis marsupialis) Zarigueya Very Common. Likes Güitite, banana and avocado
4. Nine-banded Armadillo (Dasypus novemcinctus) Common. Likes grubs.
5. Variegated squirrel (Sciurus variegatoides) Ardilla Common Hibiscus and banana
6. Mexican Hairy Porcupine (Coendou mexicanus) puercoespín Common. Likes Güitite and Banana
7. Coyote (Canis latrans) Coyote
8. Jaguarundi (Herpailurus yaguarondi) gatillo de monte
9. Tayra (Eira Barbara) Tolomuco Very rare now
10. Striped Hog-nosed skunk (Conepatus semistriatus) zorrillo
11. Hooded skunk (Mephitis macroura)
12. Long-tailed Weasel (Mustela frenata) comadreja
13. Raccoon (Procyon) Mapache
14. White-nosed coati (Nasua narica) Pizote
15. Collared Peccary (Tayassu tajacu) Saino
16. White-lipped Peccary (Tayassu pecari) Puerco de monte or Cariblanco

## Reptiles/Amphibians/Crustacea:

The following happen to eat insects and each other, but they come to your garden unaware that they are food for many of the above animals and birds.

1. Marine toad / Cane toad (Bufo marinus) Sapo Common
2. Leopard frog (Rana taylori) Rana Common
3. Frog
4. Freshwater crab (Trichodacyloidea) Very rare
5. Coral snake (Micrurus nigrocinctus) rare
6. Green parrot snake (Leptophis ahaetulla) Culebra lora, rare
7. Skink-eater (Scaphiodontophis annulatus) false coral, common
8. Tropical kingsnake (Lampropeltis triangulum) milk snake coral falsa Common
9. Green spiny lizard (Sceloporus malachiticus) Common
10. Litter skink (Sphenomorphus cherriei) Common
11. Brown rat snake Rare

## Mollusk/Arthropods:

These are just a few more critters that come to nibble in your garden and are ultimately food for the birds, lizards, snakes, possums, skunks, armadillos and many others.

1) Katydids
2) Field cricket
3) Praying mantis
4) Grasshopper
5) Earwigs
6) Treehoppers Rare
a. Horned treehopper(Umbonia crassicornis)
b. Sponged treehopper (Sphongophorus sp)
7) Leafhoppers Rare
8) Cicadas (arrived 2016) (Tibicin canicularis)
9) Spittlebug (Philaenus spumarius) Common
10) Aphids Very common
11) Mealy bugs Very common
a. Mealy bug (Pseudococcus calcoelariae)
12) Milkweed bugs
a. Lygaeus kalmi
13) Mosquitoes
14) Walkingstick (Diapheromera femorata) Common
15) Praying mantis (Stagmomantis californica)
16) Earthworms

## Pretty wings

17) Dragonflies Very common in dry season
18) Damselflies (rest w wings folded) Very common in dry season
19) Monarch (Danus plexippus) Monarch Common
20) Other tiger butterflies (Danus sp) Common
21) Fritillary (Argynnini) Common
22) Painted lady (Vanessa cardul) Common
23) Angel wings Common
24) Red admiral (Vanessa atlanta) Common
25) Spring azure Common
26) Maesites hairstreak (Chlorostrymon maesites)
27) Acmon blue (Plebejus acmon)
28) Holly blue
29) Small copper
30) Sulphurs Very common
a. Orange barred sulphur (Phoebis philea)
b. Sleepy orange (Eurema nicippe)
31) Swallowtails
a. Zebra butterfly (Heliconius charitonius) Very common
b. Papilio eurymedon white tiger swallowtail
32) Skippers Common
33) Small Tortoise Shell butterly the most amazing about these are the caterpillars which move along in large groups
34) Sphinx moths
a. Fig sphinx (Pachylia ficus) These will be the largest orange caterpillars you will find.
35) Giant Leopard caterpillar moth
36) Acronicta innotata
37) Alfalfa looper (Autographa californica)
38) Tomato hornworm
39) Woolybear moth (Lophocampa maculat)
40) Lorquin's admiral (Limentis Iorquini)
41) Tent caterpillars are Very common and are a major food source.It is a good idea to limit them butdon't eliminate them completely. Cut the piece of branch off that you don't want them on and rid your tree of those.
42) Cankerworms

## Colorful beetles

1) Stink bugs(leaf footed bug) Very common
a. Acanthocephala terminalis
2) Shield bugs Very common
3) June beetles Common
a. Green (Cotinis mutabilis)
b. Spotted (Pelidnota punctata)

## Large beetles

1) Scarab beetles Very common where there's livestock
a. Dung
b. Rhinoceros
c. Tumblebugs
d. Hercules
e. Ox
2) Arizona gold beetle (Physonota arizonae)
3) Horn beetle
4) Peg beetle (Odontotaenius disjunctus)
5) Stag beetle
6) Darkling beetle
7) May beetles

## Small beetles

1) Tiger beetles
a. Splendid tiger beetle (Cicindela splendida)
2) Rose chafer
3) Black carrion beetle Very common where there's livestock
4) Lantern Click beetle (Pyrophorus schotti) Very common
5) Caterpillar hunters
6) Fireflies Common
a. Western (Ellychnia californica)
b. Woods (Photuris pensylvanica)
7) Ladybird beetles (Hippodamia convergens) Common
8) Striped cucumber beetle
9) Striped blister beetle
10) Flathead \& longhorn borers Common
a. Elder borer
b. Pine sawyer
c. Flat-headed borer (Buprestis gibbsi)
d. Shade-tree longhorn (Stenodontes dasytomus)
11) Nut weevil
12) Rose curculio (Merhynchites bicolor)

## Fly types

1) Black horse fly
2) Sawfly (Tenthredo grandis)
3) Syrphid flies

## Bee and Wasp types

1) Paper wasps (Polistes exclamans) Very common
a. Bees several species, but you will see the honey bee most.

## Ant types

1) Ants Very common
a. Carpenter
b. Fire
c. Little black
d. Argentine
e. Army
2) Velvet ant (not really an ant)
3) Fire bug

## Chapter 13: THE ONES IN DANGER

If you can get your hands on these, please do so and start planting.

Now this first one may sound strange to you.
DEAD TREES! Please leave one around they are usually exterminated as eyesores, but they are home to many a critter. If you like birds, you want them, if you are an etymologist you want them, if you like the rain forest you want them.

El almendro de la montana, almendro de lapa. Dipteryx panamensis.
This tree and its birds are in trouble. This attracts the Lapa Verde which is now in danger. It is the main food source. You can check out a youtube video which was filmed in the Tortuguero area of Costa Rica to find out more about these beautiful parrots.

The following Pouteria trees are a prime fruit resource for many birds but have made the IUCN list.
Pouteria austini IUCN
Pouteria filiformis IUCN
Pouteria triplarifolia VU

The Quercus costaricensis Oak Tree has also made the IUCN EN

Nobody ever really things of weeds as being endangered, but with so many vulnerable to herbicides more and more are coming to light.
Verbesina serrata Cav a yellow wild flower weed is one such species endangered

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## Useful websites and Resources:

www.Toptropical.com
www.MBG.org (Missouri botanical garden Field Guides)
www.msue.anr.msu.edu
https://bugguide.net
Kewgardens

If you want a little History and Ecology get Daniel Janzen's textbook. It's out of publication but you can find it on Amazon used.
Look for books by Hoffman in the 1820's for botanical research.
Go to University of Costa Rica's Insect museum.
Also check out the Main library on the campus, you can go through a number of books.
Check out the library at Centro Cultural in San Pedro, san Jose.
Many of the parks have books by various researchers on wildlife.

Visit
Else Kintzler Botanical Garden in Sarchi

Butterfly farm in Poás<br>InBio in Heredia<br>Nurseries on Nursery Row in Garita<br>Check out little 'Viveros' Nurseries on the roadsides

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## About the Author

The author has lived and worked in Costa Rica since 2001. She and her husband reforested and put in tropical gardens on the down slopes of the Poás Volcano. While living in Costa Rica the author worked in veterinary medicine, animal rescue, neuroscience lab and taught cognitive science at the UCR. She was self-taught in primate research, botany, and ecology. She is also an avid gardener and bird watcher.


## Preamble

As with the previous books (COSTA RICA: BENEATH THE GOLDEN CANOPY; Jungle Living: A Look At Life And Social Behavior Of Man And Monkey In Central America; Costa Rica: Monkeys, Animal Behavior And Cognitive Neuroscience; And The Future Book COSTA RICA: THE LOST FOREST) this book was written with the intention to introduce people to more of the wonders that lie in the rich lands of Costa Rica. Many of the riches of the land from the soil to the animals and the people have been undergoing irreversible changes in recent years and it is hoped that travelers and expats alike will plant and enjoy some of the oddities that grow in the region.

The magnitude of nature conservation is an ever important subject in this changing world and the impacts we have upon these forests can illuminate the boundaries within which we have restricted ourselves and the animal inhabitants. This land offers plants rich not only in color and variety for visual appeal but equally useful for nourishment, natural medicines and air purifiers.

This book is written with dedication to the environment and wildlife of Costa Rica. These forests and their inhabitants, as well as other natural areas worldwide, are the impetus for the e-book publication format.



[^0]:    Name: Dracaena fragrans (D. massangean)AKA Corn Plant Family: Agavaceae Do not use plants for medicinal purposes without seeking a medical physicians advice.

[^1]:    Do not use plants for medicinal purposes without seeking a medical physicians advice.

[^2]:    Do not use plants for medicinal purposes without seeking a medical physicians advice.

[^3]:    Do not use plants for medicinal purposes without seeking a medical physicians advice.

