Heritage Garden Manual

A guide for Wildlife Club leaders, teachers and home gardeners

Heritage Garden Manual

A guide for Wildlife Club leaders, teachers and home gardeners

October 2009

Supported by

SEACOLOGY

Contents

About the Heritage Gardens Project

The Heritage Gardens is an award-winning project started by Nature Seychelles and Wildlife Clubs of Seychelles, in collaboration with the Department of Natural Resources and Ministry of Education. It began in 2005 upon realization that traditional food crops, fruits and medicinal plants were rapidly disappearing from farming communities and from the local cuisine. Its vision was therefore to introduce young people to plants that were valued by their parents and thereby enable them to become custodians of a rich heritage. A demonstration garden and nursery was established at the Centre for Environment and Education at Roche Caiman followed by other gardens in schools. It is hoped that more schools and home gardens will grow out of the demonstration garden thereby fulfilling the Garden's mission of helping people create and maintain gardens of medicinal plants, useful herbs and vanishing food crops.

Acknowledgement

Nature Seychelles and the Wildlife Clubs of Seychelles gratefully acknowledge the extensive contributions made by different international volunteers to the NGO, notably Rahel XXX and Corner Jameson who initiated the concept for this publication with preliminary research on and illustrations on some Seychelles medicinal plants. We are also grateful to Lyndy Bastienne, then Education Coordinator at Nature Seychelles who took on from there and gathered other materials on medicinal plants, fruits and vegetables for the present compilation.

Our particular thanks go to Cindy Lithimbi, student volunteer from Kenya, who fashioned the contributions received into logically structured text and adapted them to all range of readers. She equally intensified knowledge of the plants through further research on the subject and matching them with her photographs taken at the Heritage garden.

We equally extend our gratitude to Elizabeth Mwambui, Nature Seychelles' Communication Manager who improved the quality of the publication, provided additional photographs and prepared the manual for production.

Our final - and very special - thanks go to: Lucina Denis, the horticulturalist at the demonstration Heritage Garden at the Centre for Environment and Education, who with time has shaped a fascinating model inspiring all visitors who stop by from time to time, and to Terence Vel who has always been at hand with his technical advice and on-going support to the project.

This publication would not have been envisioned without the initiation of the project by Nature Seychelles' Nirmal Shah and Kerstin Henri, plus other technical inputs by Mermedah and Antoine Moustache, Ministry of Environment, Natural Resources and Transport and of course all the clubs who have taken part and replicated the garden in their schools or community.

The publication was prepared for the Wildlife Clubs of Seychelles under the coordination of the Education Department of Nature Seychelles, designed by Elizabeth Mwambui and supported by the Ministry of Education.

You may send your feedback including any further suggestions to:
wildlife@email.sc or wcs@natureseychelles.org

Foreword

This is textholder

Spice up your garden!

This chapter addresses herbs and spices and their various uses including culinary and medicinal. This book does not set out to recommend any herbal remedies to you. If you have an ailment, your first course of action must always be to consult a qualified doctor. However, traditional and alternative medicines are increasingly recognised as a complement to conventional modern medicine. Get to know your plants – and you may find the world becomes a better, colourful and infinitely more interesting place.

This is textholder Spice up your garden!

This chapter addresses herbs and spices and their various uses including culinary and medicinal. This book does not set out to recommend any herbal remedies to you. If you have an ailment, your first course of action must always be to consult a qualified doctor. However, traditional and alternative medicines are increasingly recognised as a complement to conventional modern medicine. Get to know your plants – and you may find the world becomes a better, colourful and infinitely more interesting place.

This is textholder Spice up your garden!

This chapter addresses herbs and spices and their various uses including culinary and medicinal. This book does not set out to recommend any herbal remedies to you. If you have an ailment, your first course of action must always be to consult a qualified doctor. However, traditional and alternative medicines are increasingly recognised as a complement to conventional modern medicine. Get

Introduction

Imagine a time when there was no pharmacy on the street corner, no place dispensing headache tablets, antiseptic creams and sprays, lotions to rub on bites and stings, drinks to settle stomachs, plasters to put on cuts and grazes. It is just you and the environment around you.

You actually don't have to go back that far to find a time like this, especially in the Seychelles. In those days, people knew their own medical treatments for minor ailments – and perhaps even some not-so-minor ones too. Or, if they didn't know themselves, they most certainly knew someone who did.

The herbalist has always been an important figure in rural and more recently even urban communities. Sometimes they were men, sometimes women. They had the knowledge of which plants to pick for which treatment, and how to prepare the plant for use. Today, we still find herbalists in Seychelles who can provide knowledge and advice, but their numbers are diminishing.

Plants provide the nutrients, vitamins and minerals that are the source of a balanced diet and good health. A healthy, balanced diet is the basis of health and vitality, and may stop you from feeling unwell in the first place. Prevention, as they say, is better than cure, or needing any treatment.

This book is also part of a nation-wide initiative to preserve and promote knowledge on the local plants that have been – and can still be - the source of alternative natural treatments.

You will find enclosed in this manual, chapters addressing herbs and spices and their various culinary and medicinal uses; information on the disappearing fruit species of Seychelles and ways to process them; the medicinal values of a number of heritage crops and a detailed plan on how to start your own garden! Some of the plants contained in this manual are grown in the Heritage Garden at the Centre for Environment and Education and we encourage Wildlife Clubs to replicate this garden in their schools, homes and community and contribute towards food security in the Seychelles.

Herbs & Spices

Spice up your garden!

This chapter addresses herbs and spices and their various uses including culinary and medicinal. This book does not set out to recommend any herbal remedies to you. If you have an ailment, your first course of action must always be to consult a qualified doctor. However, traditional and alternative medicines are increasingly recognised as a complement to conventional modern medicine. Get to know your plants – and you may find the world becomes a better, colourful and infinitely more interesting place.

Cinnamon

(Cinnamomum zeylanicum)

Found abundantly on the hills of Seychelles, this tree reaches 10m in height and has a grooved aromatic bark. The flowers are small, 5mm long and are whitish/yellowish in colour. The fruit is ellipsoidal in shape and fleshy and the leaves are reddish when young turning green with maturity. The leaves are of a shiny nature through-out the majority of the trees life-span.

- The leaves are used together with other plants to bathe those suffering from high fever and rheumatism.
- Creole Curry's are also spiced up by cinnamon leaves.
- Oil produced from the leaves is used against toothaches.

Cinnamon has has also been used to treat diarrhea and other problems of the digestive system. Cinnamon leaf oil has been found to be very effective in killing mosquito larvae.

Other names: Kannel
Plant Family: Lauranceae
Size: Up to 15m
Uses: Culinary, medicinal

Mint

(Mentha X pipertia L)

Simply known as peppermint, the plant has a well-defined aroma and flavour. The menthol in the peppermint gives the herb its characteristic effect when eaten which is an initial hotness, followed by coolness in the mouth. It is also considered to be an effective antispasmodic, a decongestant and an antiseptic agent.

- A tea made out of fresh or dried leaves and drank after dinner will soothe and aid digestion.
- Mint can also help soothe and relax muscles when inhaled or applied to the skin

Rubbing the temples with peppermint oil diluted with vegetable oil can be helpful. An alternative is to sprinkle one or two drops of oil on a handkerchief, rest in a darkened room and inhale the aroma…

Other names: Lanmant, Podina
Plant Family: Lamiaceae
Size: Up to 60cm
Uses: culinary, medicinal

Aloe Vera

(Aloe barbadensis)

Aloe vera is commonly referred to as the Lily of the Desert, or the Plant of Immortality. Aloe vera is native to Africa and is considered as a medicinal plant. It has a lifespan of 25 years and can tolerate drought.

- Aloe vera extracts have antibacterial and antifungal activities
- Break off a leaf for use when you need it. Use aloe vera fresh and as soon as you remove it from the plant. Aloe vera's healing properties decrease over time. Aloe vera can be purchased in the store, but it is most effective when used fresh.
- Aloe vera can be used as an after-sun treatment, with its anaesthetic and anti-bacteria properties leaving the skin feeling soothed and advancing the restoration of damaged skin.
- Use aloe vera to treat acne, eczema and oily skin. Squeeze the juice out onto the troubled skin and rub it in.

Aloes made into powder and strewed upon bloody wounds, stops the blood and heals them; it also closes up old ulcers, particularly those about the private parts

Other names: Alovera Mazambron, Barbados aloe
Plant Family: Aloaceae
Size: Up to 60cm
Uses: medicinal

Rosemary

(Rosmarinus officinalis)

Rosemary is a strong stimulant especially of the circulatory system and pelvic region. The leaf infusion is also used as an emmenagogue, promoting menstrual discharge. Health Precautions: Rosemary in culinary or therapeutic doses is generally safe; however, precaution is necessary for those displaying allergic reaction or prone to epileptic seizures.

- It is a treatment for high blood pressure. It is used externally for wounds of all kinds including bites and stings.
- In colds or flu, Rosemary can be taken in the early stages as a warm infusion, and may be used as a cooling tea when there is nervousness and insomnia.
- In the kitchen, combine equal amounts of rosemary, thyme, mint and parsley to season and enhance flavour. It also gives extra taste to your roasts and grills especially lamb

Think your memory might be failing you? Why not try putting a few sprigs of Rosemary into a mug, pour on boiling water and infuse for up to 15 minutes and enjoy hot to revitalize the brain!

Other names: Rozmari
Plant Family: Lamiaceae
Size: Up to 90cm (3ft)
Uses: culinary, medicinal

Chives

Allium schoenoprasum

A well known culinary herb, chives also contain sulfur oil, which has anti-septic properties and lowers blood pressure. Chives however have a greater culinary purpose than medicinal value: their medicinal value is similar to that of garlic, but far weaker.

- Bright green, finely snipped chives are a popular garnish, sprinkled over soups mainly.
- Medicinally, chives were valued for their stimulant effect on the appetite and as an aid to digestion.

Chives also have insect-repelling properties which can be used in gardens to control pests. Its flowers are attractive to bees, which are important for gardens for pollination.

Other names:
Plant Family: Liliaceae
Size: Upto 30cm
Uses: culinary, medicinal

Dill

(Anethum graveolens)

This dainty herb was one of the main ingredients of gripe water, used to soothe fretful babies. Today we think of it primarily as a culinary herb applied to a wide variety of dishes, such as fish and meat, soup, salad etc

- Make a dill infusion. Steep a teaspoon of dill seeds in a half-cup of boiling water for 10 minutes. Use a fine strainer if you dislike seeds floating in the infusion. Sweeten with honey to taste.
- Drink the dill infusion to calm your stomach and stimulate your appetite. Expectant and new mothers can use a dill infusion once daily to increase mother's milk. You can also use it to relieve colic.
- Ground Dill seeds could also be used as a healthy alternative to salt!
- In the kitchen to give flavor to seafood mixes, mix equal amounts of dill, tarragon and lemon peel.

Dill is a unique plant in that both its leaves and seeds are used as a seasoning However, its seeds are stronger and more flavorful than the leaves

Other names: Dill seed, dill weed
Plant Family: Umbelliferae
Size: 60-90cm (2-3ft)
Uses: Culinary, medicinal

Wild Celery

Apium graveolens L.

Celery is an herb that has a pronounced 'celery' smell and shiny leaves. Because of this, it was primarily used for flavouring in many meat dishes and Currys. However, medicinally, celery is rich in essential oils and was eaten to treat indigestion and loss of appetite and importantly to reduce blood pressure.

- Bright green, finely snipped chives are a popular garnish, sprinkled over soups mainly.
- Medicinally, chives were valued for their stimulant effect on the appetite and as an aid to digestion.

There are two varieties of celery as we know it. Cultivated celery has a milder flavour allowing it to be eaten as a vegetable raw. It is recommended that you eat at least 4 cultivated celery stalks per day (to be eaten raw or cooked in your favorite meal) in order to lower your high blood pressure.

Other names: Seleri, Smallage
Plant Family: Umbelliferae
Size: Up to 1m (3ft)
Uses: culinary, medicinal

Chamomile

(Chamaemelum nobile)

Chamomile is a low-growing creeping herb, part of the Daisy family and it one of the most popular medicinal herbs known to man today. It grows readily in less than perfect conditions and can be used as a ground cover. It has silver-white flowers with yellow centers. It is abundant in aromatic oils.

- An infusion of chamomile flower can serve as a remedy for a number of ailments including acne; eczema; digestive problems; and to ease nervous tension.
- When harvesting for teas, use only fresh flowers, as older flowers have lost most of their beneficial oils. Remove as much green material as possible, and dry on screens in the shade. Store in airtight containers and use as needed.
- The chamomile essential oil is used to calm anxiety and dispel anger. As an inhalant used 2/3 drops at a time is effective for this.

NB
Only use the first 3-4 inches of foliage or the flowers of this plant. The rest is unusable.

Other names: Kamomil
Plant Family: Asteraceae
Size: up to 30cm
Uses: culinary, medicinal, decorative

Coriander

Coriandrum sativum

Coriander is a rigid, strong-smelling annual with pronounced taproot, and slender branching stems up to 60 cm, with tiny white flowers at specific times of the year. It is also part of the parsley family and is found in many parts of the world. The pleasing flavour of the coriander fruit is not thoroughly developed until it is completely dry. The young plants are especially popular for aromatizing sauces, chutneys etc..while the dried fruits are commonly used as a spice and are a very popular ingredient in curry powders. The seeds are ground into a paste for application to skin and mouth ulcers.

- For relief from the pain of rheumatism, pound the seeds and combine with hot water or tea to make a paste, and then apply to the affected area. Oatmeal may be added to this mixture to produce the desired consistency.
- Coriander, both ground seeds and leaves chopped can be added to meat to give it an oriental flavour.

For upset stomach and flatulence relief, chew on Coriander seeds or drink a tea made from the seeds.

Other names: Cotomili, Coriandre, Chinese parsley
Plant Family: Apiaceae
Size: 15-60cm
Uses: Culinary, medicinal

Lemon Grass

Cymbopogon citratus

Lemongrass is unique to tropical climates and rarely flowers. Where conditions suit, the plant will grow up to 1.5m tall. Its stems are dense and long and its leaves thin. Because of the stalks tough and fibrous nature, it is often simply crushed to release its aromatic oils and added whole. Alternatively, the outer casing is peeled off and only the lower, white tender part of the stalk is finely chopped or crushed before using. For culinary use, the lemon grass is preferred dried.

- To help attenuate a fever, a lemon grass steam inhaled under a blanket was used.
- Use Lemongrass in the bath for a soothing aromatherapy experience by placing a mesh bag with a handful of leaves under the running bath water, then letting the bag soak in the water with you as you bathe. Very relaxing and another way to help with the symptoms of fever.

When wrapped in a paper bag, lemon grass stems can last 2 to 3 weeks in the refrigerator. The stems can also be frozen for several months.

Other names: Sitronnel, Citronella
Plant family: Poaceae
Size: Up to 1.5m
Uses: Culinary, medicinal, cosmetic, insect repellant

Fennel

Foeniculum vulgare

Fennel belongs to the same family as a number of other herbs, including dill, parsley and coriander. Fennel is a host for butterflies, which spend their entire life cycle either on or near it, and as such, it is a valuable part of any garden habitat. The leaves can be used in fish (lighter varieties; use seeds for stronger fish varieties), veal, and pork, and mixed with flavored butters, oils, vinegars, and salad dressings. The seeds can be ground and used as a spice, mainly for breads.

- Both the seeds and the root of this plant can aid digestion and soothe discomfort
- Why not try making Fennel tea (also known as Fennel water): use 8 drops of the essential oil to 1 pint of water - take up to 8 teaspoons per day.
- The tea can also be gargled as a breath freshener and applied as an eye wash.
- As an eye wash to treat sore and red eyes (conjunctivitis and other such infections call for medical attention), a sterilized eye bath should be used, then a fennel infusion used to bathe the eyes.

All parts of the Fennel are edible: roots, stalks and leaves, with the spice coming from the dried seeds

Other names: Lanni, Gros l'Anis, Fenouil
Plant family: Apiaceae
Size: 1.5-2m
Uses: Culinary, medicinal, decorative

Lovage

Levisticum officinale

Lovage was mostly considered a medicinal herb, but today its uses in the kitchen are perhaps how it is known, as it tastes and smells strongly of celery. It has a well-rounded flavour and adds life to low-salt dishes.
The leaves, stems, and roots can be used fresh as needed, blanched and frozen, or dried

- Lovage leaf stalks and stem bases can be blanched and eaten and its chopped leaves added to soups and sauces to thicken them. It also makes up a good salad or can be cooked as a green vegetable.
- The most well known medicinal use for lovage to date is for urinary problems. Lovage contains diuretic properties (mostly in the root), and has been observed to work well as an anti-flatulence agent and for colic in children.
- For external use, put a handful in a mesh bag under the tap when running the bath water to relieve skin irritations.

Required

Other names: Love parsley; sea parsley
Plant family: Apiaceae
Height: Up to 2m
Uses: culinary, medicinal

Lemon Balm

Melissa officinalis

For centuries, this plant has been valued for its various medicinal properties. This easy-to-grow plant has a distinctive lemon scent and is loved by bees. Being part of the mint family, it is equally as appreciated for its culinary uses; combining with peppermint in tisanes; and in dressings, fruit salads and custards.

- Lemon balm tea was known to have powers of longevity. Today the tea is taken to treat colds and flu, lower blood pressure and for insomnia and indigestion.
- This is a safe herb for children, and it tastes very good.
- Fresh leaves can be used to sooth insect bites, and a liniment made with lemon balm will help heal cold sores.

Lemon balm is also commonly used in mint chocolate production, giving it a fresh minty taste.

Other names: Sitronelis, melissa
Plant Family: Lamiaceae
Size: Up to 60cm
Uses: Culinary, medicinal

Curry Leaf

Murraya koenigii

The curry tree is now widely cultivated in most tropical countries. The name 'curry' is a reference to the leaves' strong spicy smell and flavour. It is native to the countries of Southern Asia. It has long been valued for both its culinary and medicinal uses. Curry leaf was tradionally ministered to treat skin conditions, digestive problems and diabetes. Modern research has shown that curry leaf does indeed have anti-diabetic properties.

- Suffering from digestive disorders? Why not try sipping an infusion of the leaves and stem after meals. The herb should be used either fresh or frozen to preserve the valuable essential and volatile oils.
- To relieve the irritation from insect bites and stings, the leaves can be applied directly to the affected skin

The curry tree is also a widely popular ornamental tree. Both seeds and root suckers can be used to propagate the curry tree.

Other name: Kari pile, Carripoulé Indian bay
Plant Family: Rutaceae
Size: Up to 6m (20ft)
Uses: Culinary, medicinal, decorative

Basil

Ocimum basilicum

Basil is a must-have culinary herb with a mild, spicy, somewhat minty flavor that can be used fresh, dried, or chopped and frozen in ice cube trays! It is particularly linked with Mediterranean cuisine, where it adds its aroma to dishes such as tomato salads, pasta sauces and soups. Most famously it is a key ingredient in pesto, a blend of basil, garlic, pine nuts, Parmesan cheese and olive oil. There are a number of varieties of basil, including the Purple Ruffles, Green Ruffles and Opal Basil.

- The juice from freshly crushed leaves is added as drops to an infected ear.
- Had a stressful day at work or school? There is also some evidence that Basil has somewhat of a sedative effect, so relax after a busy day with a cup of basil tea.

An ancient belief and myth is that Basil grew around Christ's tomb after the Resurrection and was seen as a symbol of love.

Other names: Bazil, bazilik
Plant Family: Lamiaceae
Size: Up to 50cm
Uses: Culinary, medicinal

Oregano

Origanum vulgare

Mentioning Oregano immediately brings to mind tomato sauces and Italian cooking. Oregano is part of a fairly large genus of herbs, and there are many similar plants in this genus that are mistakenly identified as Oregano. A notable one is Marjoram. Oregano actually mingles well with a large number of foods, including roasted and stewed beef, poultry, game, marinated vegetables, potatoes, cheese and egg combinations, onions and shellfish.

- Cough sufferers can inhale the steam from a bath containing oregano essential oil.
- To make a classical herb mixture, HERBES DE PROVENCE, to compliment and enhance the taste of your meal, combine equal amounts of oregano, rosemary, thyme, savory, marjoram, and French lavender.

Oregano is one of the few herbs that is stronger when dried than when fresh. Oregano is commonly called "the pizza herb," because of its use in Pizza.

Other names: Wild marjoram
Plant Family: Lamiaceae
Size: 30-90cm
Uses: Culinary, medicinal, cosmetic

Parsley

Petroselinum crispum

Parsley has an easy, gentle flavour and works well in blending other flavors together in a given dish. There are three main types, curly leaf, flat leaf, and parsnip-rooted. Although it is very familiar to most of us, it is often taken for granted because of its ever-present use as a garnish. In fact, parsley has long been valued as a medicinal herb, however not exceedingly used to date. It has some significant cosmetic uses. Parsley is also a rich source of vitamin C and iron.

- The herb is known to be a strong diuretic which is useful for treating urinary infections and stones, as well as fluid retention. The root appears to be more effective than the leaves, but leaves can also be used.
- In Seychelles, people used crushed parsley leaves to rub on mouth sores and "zaf"
- Because of its high vitamin C content, an infusion of 30g of parsley leaves in 1 litre of water can be used against colds and influenza

With high chlorophyll content, raw parsley leaves help combat bad breath!

Other names: Persi, Persil frise, Curly Parsley
Plant Family: Apiaceae
Size: 30-40cm
Uses: Culinary, medicinal,

Sage

Salvia officinalis

Sage is a herb that has long been valued for its healing properties. Sage can be used to flavor almost all kinds of meat and poultry, and is probably best known as a delicious addition to poultry stuffing. The oils and tannins in Sage have astringent, antiseptic, and irritant properties. It is therefore an important herb in medications for mouth sores, mouth ulcers, and sore throat medications. The volatile oil has both a carminative and stimulating effect on digestion. Sage tea, which does so much to ease respiratory disorders, is helpful in relieving discomfort.

- For sore throats, try mixing a Sage tea with apple cider vinegar and salt for gargling.
- For a herb mix for pork dishes, add equal amounts of sage, thyme and marjoram. This will act as a good gastric stimulant, aiding the digestion of the meal and producing a succulent tasting dish.

As a mouth rinse for mouth ulcers and sores, try a tea with equal parts of chamomile and sage

Other names: Common sage, clary sage
Plant Family: Lamiaceae
Size: Up to 60cm (2ft)
Uses: culinary, medicinal

Thyme

Thymus vulgaris

With its aromatic leaves and antiseptic properties, thyme was used by a number of communities worldwide. But in the kitchen exceedingly, thyme is one of the great culinary herbs, and the old saying..."When in doubt, use "thyme" certainly still applies today. Thyme blends well with dozens of foods, and there are varieties that mimic other herbs almost exactly when used in cooking. Thyme is very nearly the perfect useful culinary herb.

- To help relieve the symptoms of cold/flu, apply thyme essential oil to your chest and rub in well. Alternatively, place one or two drops on a handkerchief, or add about six to eight drops of the oil to 1pint/600ml of water, cover your head with a towel and breathe in!
- An infusion made from fresh or dried leaves will help soothe sore gums or toothaches. Swish the infusion round in your mouth and retain in there as long as possible.

An infusion of thyme has the ability to ease flatulence and soothe the digestive system.

Other name: Diten, Thym
Plant Family: Lamiaceae
Size: 15-30cm
Uses: culinary, medicinal, cosmetic

Making herbal teas…

People have used herbal teas for centuries, first for medicinal use, and later for enjoyment as tasty and refreshing beverages. Not all herbs are suitable for making tea, so become informed on each particular herb before ingesting a tea made from it. Steps involved in making medicinal teas and enjoyable beverages are pretty much the same, the only difference being that when making medicinal teas, the tea pot should be fully covered to entrap as many of the beneficial properties of the herb. While the aroma of the tea is part of the enjoyment for making beverages, there should be no aroma when making teas for medicinal use. Having said that, making medicinal herbal teas is very simple:
A non-metal container should be used, as metal will interfere with the purity of the tea.

Add 2 tablespoons of fresh, or 1 tablespoon of dried herb (or crushed seed) to the pot for each cup of water, plus an extra 2 tablespoons of fresh or 1 tablespoon of dried "for the pot."

For iced tea, increase to 3 tablespoons of fresh and 2 tablespoons of dried herb to allow for watering down by melting ice).

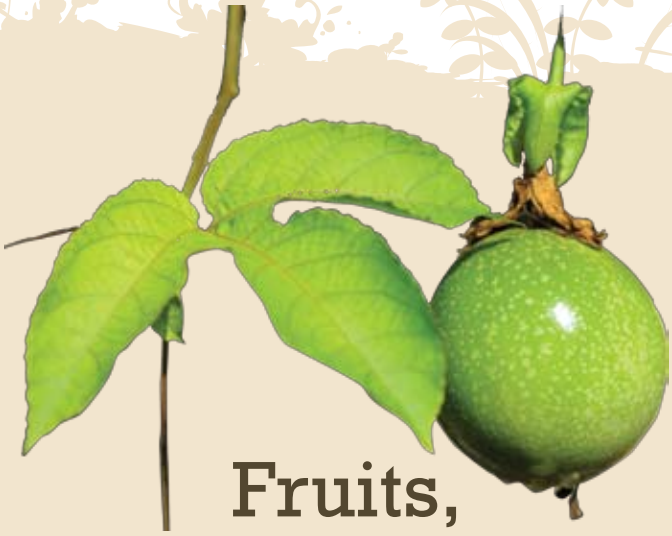
Making herbal oils…

Aromatherapy is the use of essential plant oils as a means of promoting emotional and physical well-being and was a practice widely appreciated by ancient cultures around the world. It formed a significant part of medical practice in China and Egypt where the therapeutic powers of the oils were well recognized. Oils can be administered by:

- the way of the skin, with massage- the skin is our largest organ and absorbs the volatile oils which are taken up selectively by different tissues in the body. They also reinforce the body's own natural healing processes. There is an added benefit in the massage is soothing!
- the airways in inhalations- one drop of, for example, lavender oil on a handkerchief can produce enough aroma to be both calming and relaxing, whilst 2/3 drops in a large bowl of hot water produces a strong vapour. To maximise the effects of this aromatic steam, hold your face about 25cm from the bowl, cover your head with a towel, close your eyes and breathe deeply through your nose for one minute.
- the digestive tract in tisanes.

Just as the oils themselves are complex, so their action is complex and is still not fully understood. Essential oils are highly concentrated and should not be taken internally unless under the advise from an expert. Concoctions made at home tend to be less concentrated than those prepared commercially, but use the oils with precaution.

Use 4lb of fresh herb OR 2lb of dried herb
Heat the herbs gently with 1 pint of olive oil/pure vegetable oil, uncovered for around 1 hour
For an essential oil, strain, bottle and cap tightly when cooled.
To make an ointment, add 1-1.5 lbs of beeswax to the mixture as it heats.



Fruits, Vegetables & Agro-processing

The Disappearing fruits of Seychelles...

When Seychelles was discovered, none of the commonly used fruit existed besides coconut. The succulent fruits you see drooping from branched trees with ever-green leaves are more often non-native, a result of a gradual introduction to the islands for a multitude of purposes.
This chapter has a brief description of many of the fleeting fruits and vegetables once found abundantly in the Seychelles. Also included are methods on how to process some of these for home consumption or simply just a longer shelf life with a handful of Creole recipes...

Bullock's heart

A. reticulate. L

Also known as custard apple, this tree originates from the West Indies. It reaches between 6-8m in height with some whitish/ greenish scented flowers. The fruit whose pulp is aromatic, with a sweet, creamy taste, is rich in vitamins (vitamin C especially), proteins and magnesium.

The leaves are used for tanning and to obtain a black dye. Recent studies have shown the seeds to have potent cytotoxities against various cancer lines.

Other names: Kerd Bef
Plant Family: Annonaceae

Cherimoya

Annona cherimola

The genus Annona comprises of some 80 species, most of them native to the Americas. One variety, cherimola is a wide tree spreading to about 20 feet tall and 15 feet wide. The fruits have an excellent taste, texture, and fragrance with the pulp being juicy and sometimes granular in texture. A tree well worth growing!

Cherimoya pieces can be dipped in lemon or orange juice to prevent darkening

Other names: Serimolia
Plant Family: Annonaceae

Sugar apple

Annona squamosa L

Sugar-apple fruit is high in calories and is a good source of iron. Closely related to the soursop, it is usually round or oval, slightly pine cone-like, 6-10 cm diameter and weighing 100-230 g, with a scaly or lumpy skin. The fruit flesh is edible, white to light yellow, and resembles and tastes like custard. The seeds are scattered through the fruit flesh; they are blackish-brown, 12-18 mm long, hard and shiny.

The leaves are used for tanning and to obtain a black dye. Recent studies have shown the seeds to have potent cytotoxities against various cancer lines.

Other names: Sweet sop. Zat
Plant Family: Annonaceae

Soursop

Annona muricatum

Another relative of the cherimoya, this one is larger weighing up to 2kg and growing up to 12m and with some fibres. An infusion of the leaves is used to treat high blood pressure and asthma, with the fruit being eaten raw as a salad or as a dessert. Soursop mixed with passion fruit also makes a refreshing fruit juice.

Crushed seeds are used to kill both external and internal parasites, as the decoction made of seeds kills even head lice!

Other names: Korsol
Plant Family: Annonaceae

Granadilla

Passiflora quadrangularis L.

Granadilla, also known as the giant granadilla, is a big passion vine, with the biggest fruits of the Passiflora genus. Despite the distribution and abundance of this vine compared to others in its genus, is not the best in quality. The plant is somewhat coarse and is a strong climber. When fully ripe, this fruit is yellow, and slightly 4-angled. The giant granadilla is generally eaten fresh and fully ripe.

The unripe fruit may be also boiled and served as a vegetable

Other names: Grenadin
Plant Family: Passifloraceae

Passion fruit

Passiflora spp

The passion fruit is a vigorous, climbing vine that clings by tendrils to almost any support. It can grow 15 to 20 ft. per year. A single, fragrant flower, 2-3 inches wide, is born at each node on the new growth. The nearly round or ovoid fruit is 1-1/2 to 3 inches wide, within is a cavity more or less filled with an aromatic mass of double walled, membranous sacs containing orange-colored, pulpy juice and as many as 250 small, hard, dark brown or black, pitted seeds.

Passionfruit juice can be boiled down to a syrup which is used in making sauce, gelatin desserts, candy, ice cream, sherbet, cake icing, cake filling, meringue etc

Other names: Fri la pasyon
Plant Family: Passifloraceae

Mulberry

Morus alba L. var. indica

This is a tree that can reach 20 m in height and 45 cm in diameter. Red mulberry has a short trunk and stout, spreading branches that form a round-topped crown. The bark can be smooth or scaly and is dark brown in color. The branchlets are covered with short hairs. The leaves are simple, alternate, and up to 20 cm long. The leaves are broad, egg-shaped, and lobed. The fruits are juicy and have a dark purple color.

The fruits can be made into wine and make an excellent dried fruit, especially the black varieties

Other names: Mie
Plant Family: Moraceae

Jackfruit

Artocarpus heteropyllus

The largest fruit of all, rich in starch and weighing up to 50kgs. The part that is eaten is the fleshy part surrounding the seed. The taste is often described as juicy fruit gum! The seeds are also very tasty when boiled or roasted. In Asian cultures Jackfruit is cooked into a delicious curry. An infusion of the leaves is used to treat high blood pressure and asthma, with the fruit being eaten raw as a salad or as a dessert.

First rub utensils such as a your knife and hands with cooking oil as Jackfruit has copious gummy latex

Other names: Zak
Plant Family: Moraceae

Mangosteen

Garcinia mangostana

Mangosteen is typically becoming known as a "super fruit", presumed to have a combination of appealing characteristics, such as taste, fragrance and visual qualities, nutrient richness, antioxidant strength and potential impact for lowering risk against human diseases. Before ripening, the mangosteen shell is fibrous and firm, but becomes soft and easy to pry open when the fruit ripens.

Mangosteen twigs are used as chewsticks in Ghana

Other names: Mongousta
Plant Family: Guttiferae

Fig

Ficus carica L.

Figs are particularly rich in sugars, fructose and glucose, vitamins A, B1, B2 and C. It is an attractive tree heavily branched and growing up to 10m or more. There are two varieties, caprifigs and domestic figs. The fig is highly appreciated as a fresh fruit or when cooked, but is also used to make jams. Fig leaves left to soak over night and consumed the next day are also appreciated as a laxative

Dried figs can be stored for six to eight months

Other names:
Plant Family: Moraceae

Java Plum

Syzgium cumini

The fruit is edible, but will pucker your mouth if it is not fully ripe or soaked in salted water. It can be made into preserves or wines. There are many reputed medicinal values to almost all parts of this tree: the decoction made from 5 seeds in a cup of water, taken 3 times a day is used against diabetes, while the juice extracted from the fruit treats dysentery.

In Seychelles, Zanblon is even brewed to make a sweet alcoholic drink.

Other names: Zanblon
Plant Family: Myrtaceae

Vavangue

Vavangueria madagascariensis

This plant is widely distributed in Africa, Madagascar, Comoros and the Seychelles. It is a small tree usually with a small trunk and flattened top. The flowers are small and greenish/yellowish in colour. The fruit is close to spherical, about 5cm in diameter and is often referred to as the Spanish tamarind. Uses – Once fully ripe, the fruit can be eaten, although it has been said to have a sour taste. Due to its high tannin*, it is sometimes used in traditional medicine against dysentery, piles and diarrhea.

* Tannins are astringent, bitter plant polyphenols that cause the dry and puckery feeling in the mouth following the consumption of red wine, strong tea, or an unripened fruit

The Spanish tamarind is generally propagated by seeds. Propagation by cuttings is also possible.

Other names: Spanish tamarind
Plant Family: Rubiaceae

Star fruits

Averrhoa carambola

Carambola fruits are ovate to ellipsoid, 2-1/2 to 5 inches (6 to 13 cm) in length, with 5 (rarely 4 or 6) prominent longitudinal ribs. Slices cut in cross-section are star shaped. The skin is thin, light to dark yellow and smooth with a waxy cuticle. The flesh is light yellow to yellow, translucent, crisp and very juicy, without fiber.. There may be up to 12 flat, thin brown seeds or none at all. Seeds lose viability in a few days after removal from fruit. The fruit is popular for making juices, jams and is a good food source of vitamin C.

Starfruit
is said to control blood
pressure when eaten raw.

Other names: Karanbol
Plant Family: Oxalidaceae

Pommegranate

Punica granatum L.

Legend has it that the pomegranate was first planted on the island of Cyprus by Aphrodite. It is a symbol of fertility from ancient times. The fruit, a spherical drupe yellowish to red in colour, is a large berry filled with numerous hard seeds each surrounded by a pulp. It is from a shrub or small tree reaching 5m in height. The flowers are bright red.

Uses - The juice is used to make syrup known as grenadine, and eaten raw act as a diuretic due to their high water content.

Pommegranate are highly nutritious being abundant in potassium and phosphorous.

Other name: PonmGrenad
Plant Family: Punicaeae

Avocado

Persea Americana

There are about 150 species of the genus Persea. A medium avocado contains approximately 15% of fat RDA, though they are high in monounsaturated fat. They are rich in B vitamins, as well as vitamin E and vitamin K. A fatty alcohol is found in avocado and has been tested for anti-bacterial and anti-inflammatory properties. These properties are likely related with the curative effects of avocado described for a number of ailments (diarrhea, dysentery, abdominal pains and high blood pressure).

The avocado is very popular in vegetarian cuisine, making an excellent substitute for meats in sandwiches and salads because of its high fat content

Other names: Zavoka
Plant Family: Lauranceae

Golden apple

Cytherea sonn

Also known as Jew Plum, the Golden apple is a fast growing tropical tree up to a height of up to 2ft, and has pinnately-compound leaves. The small inconspicuous white flowers grow in clusters. The fruit is oblong, yellow-orange and considered a good source of vitamin C.

Golden apple can be made into a juice with ginger and sugar added for taste.

Other names: Frisiter
Plant Family: Anacardiaceae

Tamarind

Tamatindus indica

The tree reaches up to 15m in height, with dull green leaves and yellowish flowers. The pods are thick, woody brown and curved on the inside containing a sweet acid pulp used as a flavouring in cooking. Uses - The fruit pulp, made into a drink was used to ease constipation while the leaves were boiled with a little salt and gargled to ease tooth aches. The bark was also used to make a tonic drink.

The ripened fruit is used in desserts as a jam, blended into juices or sweetened drinks, or as a snack. It is often used as a component of savory dishes

Other names: Tanmaren
Plant Family: Cesalpiniaceae

Java Apple

Syzygium samarangense

The Java Apple is a tropical tree growing to 12 m tall, with evergreen leaves 10-25 cm long and 5-10 cm broad. The flowers are white, 2.5 cm diameter. The fruit is a bell-shaped edible berry, with colours ranging from white, pale green, green, red, purple, crimson, to deep purple or even black. It's remarkably refreshing and juicy.

In some parts of the world, the greenish fruits are eaten raw with salt or are cooked as a sauce.

Other names: Zanmalak
Plant Family: Myrtaceae

Malay apple

Eugenia malaccensis L.

Malay trees thrive in tropical climates and can grow from 12-18m in height. The branches bear dense clusters of conspicuous, four-petalled bright pink flowers. The fruit is oblong-shaped and dark red in color, although some varieties have white or pink skin.

The flesh is white and surrounds a large seed. The flesh makes a jam prepared by stewing with brown sugar and ginger.

The Malay apple is also stewed with cloves or other flavoring and served with cream as dessert

Other names: Ponm lokal
Plant Family: Myrtaceae

Coffee

Coffea spp

Coffee is a widely-consumed stimulant beverage prepared from roasted coffee beans of the coffee plant. Coffee was first consumed in the 9th century, when it was discovered in the highlands of Ethiopia. Coffee berries, which contain the coffee bean, are produced by several species of small evergreen bush of the genus Coffea (e.g. C. arabica, C. canephora). Coffee berries and their seeds undergo several processes before they become the familiar roasted coffee.

It is belived that Ethiopians, were the first to have discovered and recognized the energizing effect of the coffee bean plant.

Other names: Kafe
Plant Family: Rubiaceae

Star apple

Chrysophyllum cainto

This sweet fruit comes from a tropical tree that grows rapidly and reaches 20 m in height. The tiny flowers are purplish white and have a sweet fragrant smell. The fruits are delicious as a fresh dessert fruit; sweet and best served chilled. The flattened seeds are light brown and hard. Uses - Infusions of the leaves have been used against diabetes and articular rheumatism. The bark is considered a tonic and stimulant, and a bark decoction is used as an antitussive (to control coughing).

The fruit exists in two colors, dark purple and greenish brown. The purple fruit has a denser skin and texture while the greenish brown fruit has a thin skin and a more liquid pulp

Other names: Kaymet
Plant Family: Sapotaceae

Governor's plum

Flalourtia indica

A small tree that bears large edible berries of dark purple to black and is similar in texture to a European plum. It is an attractive tree with coppery new growth. The fruit is small with a large seed. The flesh is tart but sweet to the taste. Governor plums should be eaten when they are ripe but not too overripe.

Greener plums can be enjoyed with a little salt and pepper!

Other name: Prin di Pei
Plant Family: Flacourticeae

Bilimbelle

Phyllanthus acidus

This is a small tropical tree with ovate pointed leaves that grows up to 16m tall. Also known as the Tahitian gooseberry, it bears fruit in abundance on the branches. It has reddish flowers and pale-yellow waxy fruit, 1inch thick and has 6-8 ridges; in the center is a hard stone containing 4-6 seeds. The yellow fruit of the bilimbelle is edible and tastes sour; it is one of the few members of the Euphorbiaceae family that has edible fruit. Others include the bilimbi.

Bilimbelle is often used as a flavouring for fish soup and to make chutney or even as pickles or jams.

Other names: Bilenbel
Plant Family: Euphorbiaceae

Chinese Guava

Psidium cattleianum Sabine

It is a fairly slow growing shrub or tree ranging from 2-4m. The fragrant flowers are white with prominent stamens. The fruit is round or obovoid, 2.5-4 cm long; thin-skinned; in most cases dark-red. Red-skinned fruits have white flesh more or less reddish near the skin. The flesh is aromatic, about 3 mm thick, surrounding the central juicy, somewhat translucent pulp filled with hard, flattened-triangular seeds.

Free of the muskiness of the common guava, the flavor is somewhat strawberry-like, spicy, sub acid. It could blended into a refreshing juice

Other names: Gouyav de sin
Plant Family: Myrtaceae

Rousaille

E. uniflora

The Surinam cherry is a bush or small tree to 25ft in height producing small, 1" around, shiny red to black fruit with prominent lobes. Flesh is juicy, with an acid to sweet flavor. Often dark red or black fruits produce higher quality flesh. If seeded and sprinkled with sugar before placing in the refrigerator, they will become mild and sweet.
Uses - They are often made into jam, jelly, relish or pickles.

A decoction of the leaves taken orally is used in the treatment of diarrhoea, dysentery and an infusion of the leaves is drunk to relieve stomach ache.

Other names: Rousay
Plant Family: Myrtaceae

Jujube

Ziziphus mauritania

Also known as the Red Date or Chinese date, its primary use is for fruit. It is a small deciduous tree or shrub reaching a height of 5-10 m, usually with thorny branches. The fruit is an oval drupe 1.5-3 cm long; when immature it is smooth-green, with the consistency and taste of an apple, maturing and darkening and wrinkling to resemble a small date. Ziziphin, a compound in the leaves of the jujube, suppresses the ability to perceive sweet taste in humans.

The fruit, being moist and sticky, is also very soothing to the throat and decoctions of jujube have often been used in pharmacy to treat sore throats.

Other names: Gouyav de sin
Plant Family: Myrtaceae

Ramboutan

Nephelium lappaceum

Originating from the same family as the more popular Litchi fruit, it is an evergreen tree growing to a height of 10-20 m. The fruit is a round to oval drupe 3-6 cm long and 3-4 cm broad, found in clusters of 10-20 fruits. The leathery skin is reddish, and covered with fleshy flexible spines. The fruit flesh is translucent, whitish or very pale pink, with a sweet, mildly acidic flavour.

The fruit are usually sold fresh, used in making jams and jellies, or canned.

Other names:
Plant Family: Sapindaceae

Sweet Orange

Citrus sinensis

Sweet orange is probably the most popular of all citrus fruits, available in a number of varieties that ripen at various seasons. They come from a small flowering tree growing to about 10m tall with evergreen leaves. The orange fruit is a hesperidium, a type of berry. As other citrus fruits, the sweet orange is abundant in vitamin C.

xxx

Other names: Zoranz po fin
Plant Family: Rutaceae

Sour Orange

Citrus autantium L.

Native to northern India, this small low-growing tree with thorny branches is the toughest of all the common citrus fruits and is used for grafting. Many varieties of bitter oranges are used for their essential oil, which is used in perfume and as a flavoring. They are also used in herbal medicine. Also known as the Seville orange, it has a thick, dimpled skin and is prized for making marmalade, being higher in pectin than the sweet orange, and therefore giving a better set and a higher yield.

xx

Other names: Zoranz gro lapo
Plant Family: Rutaceae

Calamondin

Citrus mitis

A shrub or small tree growing to 6 m at the most, bears small citrus fruit used mainly to flavour foods and drinks. The fruit of the calamondin resembles a small, round lime, usually 25-35mm in diameter. It has the inviting odor of a tangerine with a very thin green or orange colored peel. In spite of its appearance and aroma, the taste of the fruit itself is quite sour, though the peel is sweet.

xxx

Other names: Bigarad
Plant Family: Rutaceae

Lemon

Citrus limon

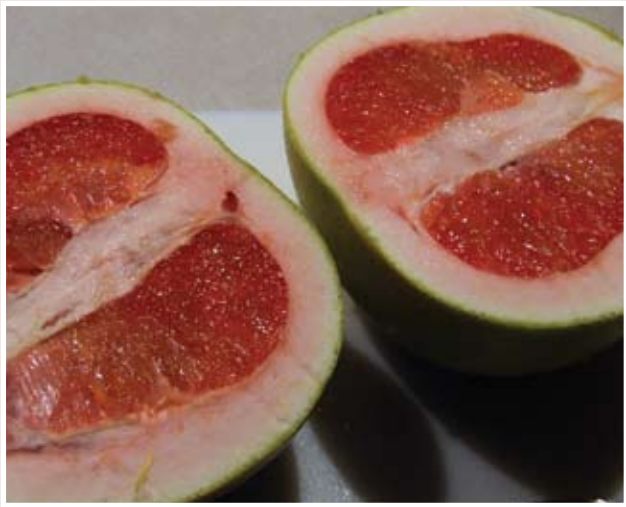
The lemon is used for both culinary and non-culinary purposes throughout the world. The fruit is used primarily for its juice, though the pulp and rind (zest) are also used, predominantly in cooking and baking. Lemon juice is about 5% citric acid, which gives lemons a tart taste.

xx

Other names: Lim
Plant Family: Rutaceae

Pummelo

Citrus grandis



Belonging to the Rutaceae family like the grapefruit, you can recognize a pummelo fruit by its larger size (up to 25cn in diameter) and thick outer skin. Inside the pummelo, edible white or pink flesh is present. Additionally, the skin of a pummelo is commonly used as an ingredient in preserves and to be made into a candied confection. Pummelo skin is also used medicinally in some cultures. For instance, in Southeast Asia raw pummelo skin pieces are given to patients to eat who are having problems with excessive coughing and who have a history of epileptic seizures.

xxx

Other names: Ponmelo
Plant Family: Rutaceae

Air Potato

Dioscorea bulbifera

The air potato is a large vine 6 meters or more in length. It produces tubers; however the bulbils which grow at the base of its leaves are the more important food product. They are about the size of potatoes (hence the name air potato) weighing from 0.5 to 2 kg. Some varieties can be eaten raw while some require soaking or boiling for detoxification before eating. It is popular in home vegetable gardens because it produces a crop after only 4 months of growth and continues for the life of the vine, as long as two years. Also the bulbils are easy to harvest and cook

xx

Other names: Ponm Edwar
Plant Family: Dioscoreaceae

Bitter gourd

Monordica charantia L.

Also known as bitter melon, bitter gourd comes in a variety of shapes and sizes. The fruit has a distinct 'warty-looking' exterior and an oblong shape. It is hollow in cross-section, with a relatively thin layer of flesh surrounding a central seed cavity filled with large flat seeds and pith.

Uses - It is enjoyed by many far eastern countries as part of their local cuisine despite te exceedingly bitter taste. Like most bitter-tasting foods, bitter gourd stimulates digestion: this can be helpful in people with sluggish digestion, dyspepsia, and constipation.

A decoction of the leaves can provide a tea used to treat Malaria and Diabetes

Other names: Margoz
Plant Family: Cucurbitaceae

Bottle gourd

Lagenaria siecraria

This is a vine grown for its fruit, which can either be harvested young and used as a vegetable or harvested mature, dried, and used as a bottle, utensil, or pipe. The fresh fruit has a light green smooth skin and a white flesh.
The calabash was one of the first cultivated plants in the world, grown not for food but as a container. Additionally, the gourd can be dried out and used to smoke pipe tobacco.

XX

Other names: Kalbas
Plant Family: Cucurbitaceae

Cucumber

Cucumis sativa

The cucumber is a widely cultivated plant in the gourd family Cucurbitaceae. The cucumber is a creeping vine that roots in the ground and grows up trellises or other supporting frames, wrapping around ribbing with thin, spiraling tendrils. The plant has large leaves that form a canopy over the fruit. The fruit is roughly cylindrical, elongated, with tapered ends, and may be as large as 60 cm long and 10 cm in diameter.

xxx

Other names: Kokonm
Plant Family: Cucurbitaceae

Horse Radish

Moringa oleifera

A fast-growing, drought-resistant tree, considered one of the world's most useful trees, as almost every part of the tree can be used for food, or has some other beneficial property. A soup made from Horseradish is rich in iron and other vitamins.

Uses - In the tropics it is used as forage for livestock. The oil obtained from the seeds is employed in the treatment of skin diseases. The juice extracted from its roots and leaves is used in poultices for inflammation and swellings of the neck. Bred mouroum is commonly used in Seychelles in the famous "bouyon bred"; a plain soup or added to fried fish.

xx

Other names: Bred mouroum
Plant Family: Moringaceae

Amaranthus

Amarantus hybridus

Amaranthus, collectively known as amaranth or pigweed, is a broad-based genus of herbs. Approximately 60 species are presently recognized, with inflorescences and foliage ranging from purple and red to gold. Because of its importance as a symbol of indigenous culture, and because it is very palatable, easy to cook, and its protein particularly well suited to human nutritional needs.

Besides protein, amaranth grain provides a good source of dietary fibre and dietary minerals such as iron, and the leaves and stalks are used in various Creole cuisine.

xxx

Other names: Bred Payater
Plant Family: Amaranthaceae

Pigeon pea

Cajanus cajan

This plant is commonly cultivated as a protein adjunct to an otherwise starchy diet. It is consumed in various forms, most common being cooked with spices and vegetables.. India is by far the largest producer. The herb reaches up to 2m high, and has yellowish/brownish flowers. The fruit is oblong or linear compressed pod contains 3-8 seeds.

Uses - The husks of the pod make up a good feed for cattle. And the leaves are used for rearing silk worm. In Seychelles it is mainly used for its medicinal properties to treat high blood pressure.

xx

Other names: Zanbrovat
Plant Family: Leguminosae

Tomato

Lycopersicon esculentum

Once thought to induce madness in the beloved, tomatoes are a world known culinary plant. They come from an erect plant reaching up to 1m in height, with hairy and glandulous features.
Uses - . With dentate leaves and yellow flowers, the tomato can be eaten raw, in salads or cooked in a number of ways. The crushed leaves were applied as a poultice to treat burns.

xxx

Other names: Tomat
Plant Family: Solanaceae

Sweet potato

Ipomoea batata

Originating from Mexico, this plant's root is now an important food crop and several varieties have been cultivated in several parts of the world, including Seychelles. It produces flowers that are pinkish-mauve or whitish-pink in colour with a fruit that is rarely formed. The sweet potato can be boiled and eaten as a side dish or even cooked into "Ladob", a Creole cuisine specialty.

XX

Other names: Patat
Plant Family: Convolvulaceae

Agro-processing

Do you wish to add values to your food crops and make them last longer? Then, the way to go about this is well known as Agro-processing! This is a practice where-by agricultural crops are processed into secondary products that have a longer shelf life and can preserve the food value.

There are a number of methods to prepare and process fruits and vegetables:

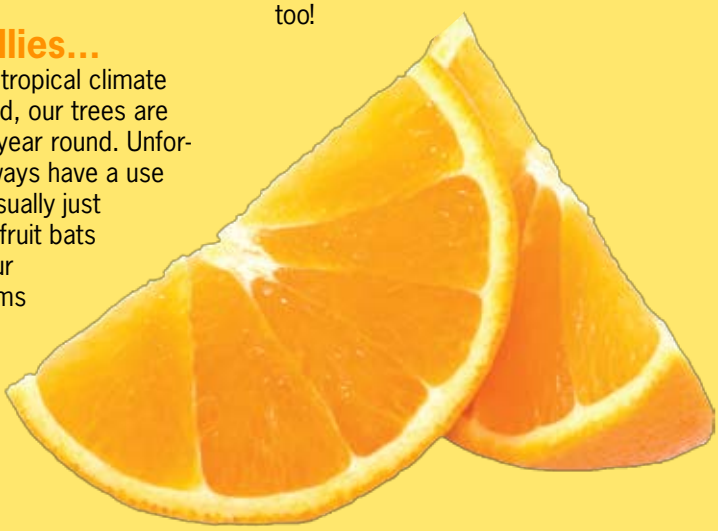
- Drying
- Salting
- Pickling
- Baking
- Jams and jellies
- Drinks; alcoholic/ Non-alcoholic
- Ice creams
- Sauces and others

Jams and Jellies...

Thanks to our warm tropical climate present all year round, our trees are able to bear fruit all year round. Unfortunately we don't always have a use for the fruit, which usually just ends up feeding the fruit bats or being added to our composts heaps! Jams and Jellies are a fun way to save your fruit from rotting or going to waste AND in the process provides edible nutritious products! Here we'll guide you through the simple steps.

Fresh fruit juices...

A FUN and EASY way to get more vitamins & minerals into your diet is by drinking freshly made fruit juices, vegetable juices. Fruit drinks are refreshing, highly nutritious and simple to prepare. Another benefit of drinking fresh juices is that your body can absorb MORE of the vitamins and minerals then if you were to eat the fruits and vegetables whole! Many of the nutrients are TRAPPED in the fiber and by blending fruits and vegetables; you break down the fiber and release the vital nutrients. They can be alcoholic or non-alcoholic too!



Jams

Choice of Pan

- Use a stain-less steel or enameled, wide shallow pan. The jam will boil quickly and a lot of steam will evaporate, so that the jam will jell (thicken) quickly without turning brown.

Choice of fruit

- Use full but not ripe fruit. Slightly under-ripe fruit, contains a gummy substance called pectin which helps the jam to jell. When ripe this pectin turns into a sugar called pectose.
- Use sound, un-bruised fruit gathered on a dry day if possible: damp fruit may cause jam to go mouldy.

Preparation of fruit

- Wash and drain, or wipe the fruit.
- Discard any bruised or over-ripe fruit and remove stems, thick skins, etc.
- Soak very acidic fruit, e.g. tamarind, overnight. Next day cover with fresh cold water, heat to boiling-point, then throw away the water. Add a pinch bicarbonate (baking) soda, if liked and cut fruit into suitable sized pieces.

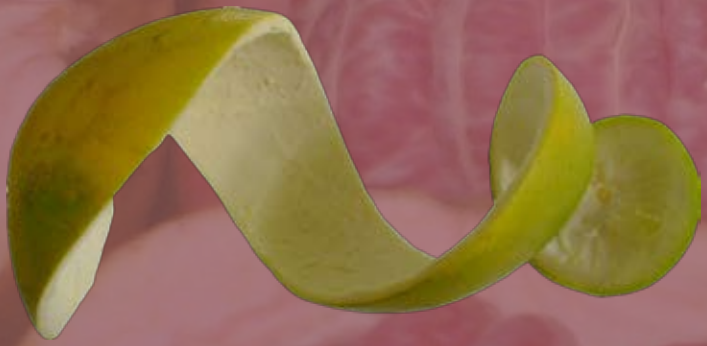
Preparations and methods for differents fruits

Soft fruit (e.g. tomato)
Use no water. Allow 1 lb. sugar to every lb. fruit. Flavour with spice. Place fruit in a wet pan and heat gently for about 15 min. to extract a little juice. Add sugar and follow general rules.
Firm fruit (fruit de cythere, pomerac, mammy apple, etc..)
Flavour with ginger or spice. Break a few of the stones and put back the kernel. Allow half a pint of water to 6lb. Fruit, ¾ lb. sugar to every lb.fruit. Dissolve sugar and water slowly . Add fruit and follow general rules.
Hard fruit (pumpkin, googe, pineapple, etc.)
Flavour with the spice, ginger, or vanilla bean. Allow about half as much water as fruit, ¾. Sugar to every lb. fruit. Boil fruit gently without sugar until nearly soft add sugar and follow general rules

General rules for jam...

- Do not let jam boil until all sugar has dissolved.
- Stir occasionally while boiling.
- Skim when necessary.
- Boil steadily: too fast boiling breaks the fruit, while too long boiling turns sugar brown.
- When jam looks thick test it by putting a teaspoonful on cold dry plate. Leave about 5 min. in a cool place, and if jam sets it is ready.
- Bottle at once in clean dry warm jam jars (bottles). If warm they are less likely to crack and more likely to be dry.
- Stand them on something wooden while filing.

Crystallizing



Crystallized Shaddock/Pomelo

Wash, dry, and grate off some of the green peel. Cut into strips about 11/2 in at the widest part. Soak in cold water for 12 hrs., changing the water several times, or better still leave under a slowly running tap – this removes bitter flavour. Put into fresh water and boil until soft. Colour during this stage if liked. Squeeze out all the water by twisting the strips.

Prepare a syrup by slowly dissolving 1 ½ lb. (3 cups) white sugar in ¾ pt. (1 ½ nips) water (do not stir). Simmer the peel in the syrup until it has all dried up (do not let it brown.) Let dry in the sun for one day.

Note: 1 nip = 250 mls 1 pint = 500 mls

Sauces

Creole pepper sauce

1 dozen red peppers
1 small green pepper
1 large onion
4 tbsp. mustard
1-2 cloves garlic
2 tbsp. salt
1 ½ pt. (3 glasses) vinegar
½ teasp. ground saffron
1 teasp. Curry powder
Boil pawpaw in skin, then cut into small squares or strips. Scald,
stone, and mince or chop peppers. Mince onion and garlic. Mix all
solid ingredients, add vinegar and simmer mixture gently for 20 min.
Cool, bottle and label.

N.B 1 cup boiled salad beans may be added if liked. (remove hard edges and cut in half.)

Banana Sauce

2 medium sized bananas
1 clove and a small bay leaf
Pinch cayenne pepper
½ teasp. Guava jelly
Or other flavourings to taste
½ pt. (1 glass) water

Wash and peel bananas and put all ingredients in a
saucepan. Boil for 10 min., then sieve.
Serve hot or cold.

Fruit juices

Soursop Punch

1 medium-sized soursop
About 1 ½ pt. (3 glasses cold water)
1 strip lime peel
Enough condensed milk or sugar to sweeten
Pinch of salt

Wash and peel one soursop, mash in a bowl with lime peel. Gradually stir in 1 pt. water. Mix well and strain. Add another half pint of water, and squeeze and stain again to be sure that all the flavour is drawn out. Add salt and condensed milk or sugar. Chill before serving.

Coconut drink

The simplest drink is water of a tender coconut flavoured with gin (alcoholic) or bitters (non-alcoholic)

Lime Squash

4-6 limes according to size
3-4 tbsp. sugar
1 qt. (4 glasses) water

Wash limes and squeeze juice from them. Dissolve sugar in about 2-3 tbsp. boiling water. Mix all ingredients and add ice just before serving. If limes are scarce use some of the peel to increase the flavour. Wash, peel very thinly, so that only green and no white skin is used; use 3-4 strips only and add to sugar. Pour on boiling water, cover and infuse 10 min., then strain.

Orange/Grapefruit squash can be made in the same way as Lime squash but less sugar will be needed. Seville (sour) oranges make a refreshing drink but more sugar is needed!

Medicinal plants

Geriser (healers) and Herbalists had the knowledge of which plant to pick for anything from a rash to a critical fever. They kept extensive gardens of medical plants. The sad thing is that today they are few and far between.

Did u know?

- *Geriser are an important heritage in the Seychelles tradition.*
- *There is an association of traditional healers in Seychelles.*
- *Geriser and herbalists use hundreds of plants in their work.*
- *Only a handful of these plants are endemic to Seychelles.*
- *Most Seychellois still use some plants for healing.*
- *Some medicinal plants such as roz anmer (Madagascar periwinkle) are now used in modern medicine.*

Arrow Root

Maranta arundinaceae

The popular name may be a reference to the use of the plant as an antidote to poison arrow tips. It was used for a number of ailments in olden days, including poison from bites and stings and stopping the spread of gangrene. The plant reaches up to 1m and has a fleshy rhizome, white or pale brown in colour. The leaves are 7cm wide and flowers white. Remarkably, tests done on rats have shown that arrowroot also reduces cholesterol levels. Other uses include treatment of urinary infections by boiling the roots or traditionally cooked as baby food.

The rhizome, boiled with roasted rice is often prescribed during dysentery. A decoction made from the leaves makes a refreshing drink

Other names: Larourout
Plant Family: Marantaceae
Size:
Uses: Culinary, medicinal

Neem

Azadirachta indica

Amongst the scores of natural occurring plants used for medicinal purposes throughout the tropics and the world, Neem is one of the most beneficial and for that reason, most popular. Neem trees are now grown commercially in more than 30 countries. Because of its climatic versatility, Neem trees are being used in many reforestation projects around the world. The tree reaches 20m in height with a dark bark and white scented flowers. Its fruit, about 2cm long and olive-like, is yellow at maturity and contains a bitter-sweet pulp enclosed in a thin skin. In East Africa, the tree is given the name *Mwarubaini* meaning tree of the 40, as it is believed to cure 40 illnesses.

- A poultice made from the leaves is applied on boils and scabies cases.
- A root decoction is reported to help expel intestinal worms.
- A decoction made from the seeds is applied on crops as an insecticide

Neem is a fast growing tree and is increasingly being used to reverse desertification and reduce erosion and deforestation.

Other names:
Plant Family: Meliaceae
Size: Up to 20m
Uses: Medicinal, pesticide

Guava

Psidium guajava

The tree is small, measuring up to 10m in height with a reddish peeling bark, white flowers and round, yellow skinned fruit which can sometimes be smaller and red/yellow as with the wild variety P. littorale. The fruits are green, turning yellow when ripe with the edible fruits being found under the bush. The centre of the fruit contains a lot of seeds in cream-white, soft flesh.

- Drinking the liquid of boiled leaves stops diarrhoea and stomach pains
- An infusion of the leaves treats fever
- The fruit or an infusion of the leaves is considered good for diarrhoea

xxx

Other names: Gouyav
Plant Family: Myrtaceae
Size: Up to 10m
Uses: Culinary, medicinal,

Cassava

Manihot esculenta

Cassava is the third largest source of carbohydrates for human food in the world, with Africa its largest center of production. Although a very popular food plant, improper usage and consumption of this plant can result in poisoning. Parts of the plant contain toxins that are harmful. The sweet cassava variety contains toxins in the skin on the tubers while the bitter cassava has the poison incorporated in the tubers as well as the skin. The toxins are destroyed by drying and cooking.

- The bitter variety of cassava root is used to treat diarrhea and malaria
- The leaves are used to treat hypertension, headache, and pain. The oiled leaves are applied on the forehead of the patient suffering from headaches.
- The roots grated as a poultice or powdered can be applied to wounds, whitlow and skin disorders, also used for pneumonia, and mixed with castor oil can relieve pain.
- The roots are mainly boiled with coconut milk and sugar and eaten as "Ladob"; or simply boiled and baked as various types of bread, cakes or porridge.

NOTE: The leaves cannot be consumed raw since they contain cyanide, a natural occurring poison. Cassava grown during drought is especially high in these toxins.

Other names: Mayok
Plant Family: Euphorbiaceae
Size: Up to 4m
Uses: Culinary, medicinal, Clothes production

Coconut Palm

Cocos nucifera

A tree of life: every part of this tree can and has been used in countless ways by the people of Seychelles and other coastal communities worldwide! The leaves have been used as roofing material, the husk fibres for ropes amongst other things, the oil in Creole cuisine and Toddy a common palm wine, is tapped from the coconut tree.

- Coconut water can be used as a drink to combat diarrhoea and this liquid rubbed on the forehead relieves sun-stroke.

The oil from mature nuts, rubbed on the skin, relieves fever and rheumatism

Other names: Koko
Plant Family: Palmae
Size: Up to 30m
Uses: Culinary, medicinal, decorative

Papaya

Carica papaya L.

The papaya is a small, fast-growing, smooth, semi-woody tree cultivated in the tropical regions worldwide. One of the specificities of the tree and its fruits is that they contain papain, which helps digestion

- An infusion of male flowers or of the seeds is drunk to kill worms.
- The milky sap from the unripe fruit is rubbed on eczema.
- The mashed fruit is applied to boils.
- High blood pressure is thought to be reduced by eating the fruit.

The green fruit is used as a vegetable; the ripe fruit is eaten raw and is sweet. It contains a lot of grey-black, slippery seeds

Other names: Papay
Plant Family: Caricaceae
Size: Up to 6m
Uses: Culinary, medicinal

Cassie

Leucena leucocephaie

The "flower" of this plant, is in reality an inflorescence of many little flowers together. You can only see the white or cream anthers and stigmas.

- The leaves are used to treat problems with the bladder.

The oil from mature nuts, rubbed on the skin, relieves fever and rheumatism

Other names: Wild tamarind, Kasi
Plant Family: Leucaena
Size: Up to
Uses: Medicinal

La Coquette

Turnera ulmifolia

This is an herb, which is sometimes woody and sometimes shrubby whose yellow flowers close by midday.

- An infusion of the plant is used against stomachache, coughs and problems with the digestion

xx

Other names: Yellow alder, Creole: Koket
Plant Family: Turneraceae
Size: Up to m
Uses: Medicinal

Banana

Musa sp

This unique tree resembles a tree but has no real woody material. The leaves are sheathed and become further shredded by the wind. There are a number of varieties ranging from 2 – 15metres tall.

- The fruit is grated and applied locally to remove thorns.
- Cook the green, unripe fruit in the peel. It can stop diarrhoea.
- The sheaths enveloping the leaves are applied to burns.
- Young leaves, rubbed with castor-oil, are applied to the head for headache.

A decoction of the leaves with sugar is used against colds, coughs and influenza.

Other names: Banann
Plant Family: Musaceae
Size: 2-15m
Uses: Culinary, medicinal

Bred marten

S. nigrum L

An endemic plant to Seychelles, defined as a slender herb or a weed with simple hairds, ovate leaves and small clusters of white flowers

- The juice from pounded leaves added to honey is rubbed in the mouth to treat thrush in babies.
- The berries are used to treat diarrhoea, fever and eye diseases.
- A decoction of the plant is used in treating worms and as a blood purifier

xx

Other names: Black nightshade
Plant Family: Saolanaceae
Size: 2-15m
Uses: Culinary, medicinal

Bwa savon

Colubrina asiatica

Bwa Savon is a low-growing shrub found on coastal fringes and low lying areas, usually between rocks

- Bwa Savon is used against asthma

The oil from mature nuts, rubbed on the skin, relieves fever and rheumatism

Other names: Banann
Plant Family: Musaceae
Size: 2-15m
Uses: Culinary, medicinal

Herbe chatte

Acalypha indica L

- A paste of the plant is used to treat skin infections.

xx

Other names: Lerb sat
Plant Family: Euphorbiaceae
Size: Up to 0.5m
Uses: Medicinal

The Power of Gardening

It has been said that gardening can help everyone, in some way shape or form, regardless of age, gender or even disability. Some of the benefits of a sustained and active interest in gardening include:

- Better physical health through exercise and learning how to use or strengthen muscles to improve mobility
- Improved mental health through a sense of purpose and achievement
- The opportunity for connection with others – reducing feelings of isolation or exclusion
- Acquiring skills to improve employability
- The sense of just feeling better for being outside, in touch with nature and in the 'great outdoors'.

Some of the changes seen in people through gardening are astonishing. Especially for physically or mentally disabled peoples who want the same opportunities, freedoms and choices as the rest of us; gardening can help achieve this.

Starting your own school garden!

After reading about all the endless possibilities that can arise from a garden, you must be extremely enthusiastic to start your own garden now! We will lead you through a few steps to get you going. In no time, your garden will be looking as lush and green as ours at the Centre for Environment and Education at Roche Caiman!

1. Seeking Administration Approval

Your Head of School is probably the first port of call. The garden will require extra designated teacher time, unforeseen hitches in timetables and extra curricular patterns and of course some resources. However, before any approaches, you need to develop an outline of your vision. There are a few areas you will have to address:

Incorporating the garden into your local curriculum; subject areas likely to benefit

Its use as an interdisciplinary tool

The benefits to students and the local community

Potential supporters

Remember a thoughtful and professional outline will illustrate your commitment to the project.

2. Creating a Support Network

Although the administration of the school might approve, you will still need to get the support of other members of the school/institution. However, putting together a 'Heritage Garden Team' does not have to be limited to teachers alone, why not try recruiting parents, other staff and volunteers. Enlarging the thinking pool will mean more ideas and increased creativity and ingenuity. For members of the Heritage Garden Team to feel committed and valued, assign them specific roles. Make it clear what is expected of them and the level of commitment needed.

New levels of responsibility, with special priorities, can be created within the school system e.g. garden wardens to increase the appeal of the project.

A starting point would be a brainstorming session, get all the potential members of the team together and map out the path ahead. A key primary step is spreading the word on the plan, through school newsletters, notice boards and in staff meetings etc.

Remember a LARGER SUPPORT NETWORK will mean a LARGER PROJECT!

It will take time and energy to develop your support network, involving the school and local community in a school project will require a huge effort but

there are numerous potential benefits for everyone:

• Promotes project sustainability because responsibilities don't fall entirely on the shoulders of few individuals
• Decreases the likelihood of vandalism because more people have a stake in the success of the program
• Provides connections to potential volunteers and donors of labor, plants, money, and supplies
• Encourages cross-generational mentoring and friendships among students, teachers, and a diversity of community members including senior citizens
• Brings needed expertise and fresh ideas to the project.

3. Identifying goals and linking the garden to your curriculum

Will the garden project fit in the current curriculum?
Will it be used to help accomplish learning objectives or as an extra-curricular activity such as schools' Wildlife Clubs and other clubs?
What topics will be taught using the Heritage Garden as a learning area?
What plants do you want to grow?
Will the garden have a central theme (preserving traditional food plants; food security; healthy living) or will it be divided into smaller areas with different themes?
You need to set short term and long term goals and KEEP A RECORD of these!

4. Designing the garden

This should be practical, functional and fun! There are no definitive ways in which to do this...just remember to leave room for expansion!

5. Identifying needs

Before you even think of searching for funds, you must have a fairly good idea of your exact needs. Draw up a realistic preliminary draft plan including design steps and a small budget. This will create a firm foundation before gathering supplies to start; MAKE A LIST! Here's a starting point...

Plants – seeds and seedlings are relatively inexpensive or readily available at the Centre for Environment and Education or can be provided by club members. Their growth helps students visualize the full life cycle of a plant. The Ministry of Environment might also willing to assist.

Garden containers¬¬ – For these gardens, you will need numerous containers for soil. But be creative, you can use just about anything that can hold enough soil for roots to propagate

and that has enough holes for water to drain e.g. barrels, old wheelbarrows, bath tubs, pots, old tyres, large tins... Recyclables are ideal!

Soil and compost – START YOUR OWN COMPOST HEAP!(details on this to follow) If you have too much on your plate already, why not put the word out to parents that you're looking for a compost/soil source. Many parents would be willing to help even if it means just relaying information, or providing a contact in the community.

Irrigation Supplies¬ – Plants needs water. Therefore hoses, sprinklers and water cans are an important asset. PUC or community farmers can assist.

Child-sized garden tools – Shovels, spades etc. Child-sized versions are necessary for health and safety reasons as well as efficiency! The soil is also teaming with life, therefore gloves are a good idea to have.

Fertilizer – a very important asset to gardening. You might decide to use an organic fertilizer like compost/mulch or pellets.

6. Obtaining supplies and funds

This is the tricky part a lot of the time, and puts many people off a project altogether! However, it does create an opportunity to involve the community. 3 main ways of obtaining funds is through donations, grants and fundraising projects.
Creating a work book or project plan before approaching donors will show your commitment. Why not begin with parents of the club's or school's students. Identifying potential donors could be made easier by matching what you need for your garden, with respective donors (e.g. flower cuttings with a florist?). But be specific with what you require. Remember also to acknowledge all donations big and small and don't look just for money, you may find donors for other things more easily e.g. wood, compost, posters, banners, volunteers etc.

7. Planting the garden

This is the fun part and watching months of planning materialize is the BEST part! Look on the next page for step-by-step ideas that can act as guidelines for you to follow.

8. Maintaining and sustaining the garden...

There is more to continuing a garden than keeping plants alive. The Heritage Garden should be an educational tool for students 10 years from now. Fundraising is a good way to keep the

garden going financially: make and sell products from your garden, like traditional food stuff; plant and sell vegetable/herb or flower seedlings: create and sell craft projects e.g. pot-pourri and pressed flower stationery; make herbal teas, essentials oils and seedlings to sell.

It is important to continue to recognize the support received from donors: Nature Seychelles and The Wildlife Clubs of Seychelles will help you post signs and plaques to recognize contributors to the garden. Why not create a newsletter so donors can track the progress or a regular e-newsletter?

Composting

Composting is a natural way to get rid of waste material. Let your leaves and other garden waste rot slowly, so you can re-claim the nutrients for your own garden.

The ideal compost bin is easily accessible, has no gaps in the sides and may be insulated with cardboard or straw and has a lid or cover. An ideal compost bin is located in a sunny or semi-shaded position, directly on the soil or turf and away from watercourses. Compost is one of nature's most effective fertilizers and it's much cheaper than commercial fertilizers. You can also set up a compost heap in a well built and accessible area in a small corner of the garden.

Compost Ingredients!

- Anything that was once living will compost, but some items are best avoided. Meat, dairy and cooked food can attract vermin and should not be composted.
- For best results, use a mixture of types of ingredient. The right balance is something learnt by experience, but a rough guide is to use equal amounts by volume of greens and browns (see below).
- Some things, like grass mowings and soft young weeds, rot quickly. They work as 'activators', getting the composting started, but on their own will decay to a smelly mess.
- Older and tougher plant material is slower to rot but gives body to the finished compost - and usually makes up the bulk of a compost heap. Woody items decay very slowly; they are best chopped or shredded first, where appropriate.

Compost ingredients

'Greens' or nitrogen rich ingredients

- Shrub leaves
- Grass cuttings

Other green materials

- Raw vegetable peelings from your kitchen
- Tea bags and leaves, coffee grounds
- Young green weed growth – avoid weeds with seeds
- Soft green prunings
- Animal manure from herbivores e.g. cows and goats
- Poultry manure and bedding

'Browns' or carbon rich ingredients - slow to rot

- Cardboard e.g. cereal packets and egg boxes
- Waste paper and junk mail, including shredded confidential waste
- Cardboard tubes

- Glossy magazines – although it is better for the environment to pass them on to your local doctors' or dentists' waiting rooms or send them for recycling
- Newspaper – although it is better for the environment to send your newspapers for recycling
- Bedding from vegetarian pets e.g. rabbits– shredded paper, wood shavings
- Tough hedge clippings
- Woody pruning
- Old bedding plants
- Sawdust
- Wood shavings
- Fallen leaves

Do NOT compost

- Meat
- Fish
- Cooked food
- Coal & coke ash
- Cat litter
- Dog faeces

1. Try, if possible, to collect enough compost materials to make a layer of at least 30cm or more in the compost heap. Mix in some straw, woody cuttings, scrunched up cardboard packaging e.g. cereal boxes – this helps create air spaces within the heap. It may help if you place a few woody plant stems or small twigs on the bottom first as this will improve the air circulation and drainage.
2. Continue to fill the container area as and when you have ingredients. If most of what you compost is kitchen waste, mix it with egg boxes, toilet roll middles and similar household paper and cardboard products to create a better balance. Make sure you stir up the mixture regularly to keep the air flowing though.
3. When the container is full or when you decide to, stop adding any more. Then either just leave it to finish composting (which could take up to a year) or go to Step 4.
4. Remove the container from the material, or the material from the container – whichever you find easiest. If the lower layers have composted, use this on the garden. Mix everything else together well. Add water if it is dry, or add dry material if it is soggy. Replace in the bin and leave to mature.

Planting your garden

The traditional outdoor garden is planted in the ground of a school. You will first need to evaluate your soil and determine whether this is a good option for your club or group. Unless the area has been cultivated before, you will often need to amend and till compacted soil before you begin planting.

Raised garden beds are another option commonly used by schools. Create a raised bed by shoveling soil from surrounding pathways or bringing in new soil or compost to create mounds that are 1 to 2 feet taller than the adjacent paths.

The top of the mound should be flattened to decrease soil erosion. Raised beds look nice, support healthy plant growth, and keep people on paths. The loose soil encourages roots to grow strong and deep, and the garden soaks in moisture easily.

To create more permanent, defined raised beds, make 1- to 2-foot-tall frames using materials like recycled plastic, rot-resistant wood such as takamaka; stones, or concrete blocks and then fill the frames with soil. Be careful of using treated woods as the chemicals may leak into the soil and poison plants.

Framed raised beds can be built over soil or on top of concrete or tarmac surfaces. Although making framed raised beds is more expensive than planting directly in the ground, it does offer a number of benefits.

- Framed raised beds are more permanent and define the garden bed area.
- You can choose your own soil, making them easier to cultivate and eliminating worries about toxins such as lead.
- They usually have fewer problems with weeds and drainage.
- They may help with pest control by making it easier to spot insects and wire as barriers.

A third outdoor option is to plant in containers. As suggested earlier, anything that holds soil and has drainage holes will do. You can even use an old bathtub!

STEP 1 – Site analysis

You will have to determine what you are dealing with physically.

- The availability of land will determine the type of garden to plant. Remember to leave room for expansion as you will definitely have more new ideas as the project goes on.
- Is the area exposed to an

adequate amount of sunlight? Most flower, vegetable, and herb gardens need to be exposed to full sunlight for at least six hours a day. Students can check the potential garden site at different times during the day and year to see how much sun it receives. Determine the path of the sun throughout the day to anticipate shadows. Use shade areas for gathering places or to plant shade-tolerant crops such as lettuce

- Soil is composed of sand, silt, and clay particles and has pore space reserved for water and air. Over time, as we walk on the soil, and through other environmental forces, the soil becomes compacted and the structure loses important pore space. By tilling the soil, we decrease compaction and increase the pore space. This improves the soil structure and makes it easier for you to plant and for plants to establish their roots. Avoid tilling excessively wet or dry soil. If the soil is too dry or too wet, tilling can actually damage the soil structure rather than improve it. To test soil moisture, scoop up a handful of soil and try to create a ball. With perfect moisture, the soil will form a stable ball but will crumble easily when touched. If it is too dry, it will not stick together. If it is so tightly stuck together that it will not come apart when touched, it is probably too wet.

If the garden is fairly small, the soil can be tilled by hand with a shovel. This is a great activity for students with energy! Try to turn the soil to a depth of 1 to 2 feet if possible. One method used to ensure a thorough tilling of soil by hand is
called double digging.
To do double digging, begin by having students dig out a row of soil in the garden approximately 1 foot wide and 1 to 2 feet deep and place the soil in a wheelbarrow.
Next, dig out another row of soil 1 foot wide and 1 to 2 feet deep, and move this soil into the first empty row. Have students continue to move across the bed until they reach the end and then dump the wheelbarrow full of soil from the very first row into the last empty row.
(Refer to the Figure 1).

Tilling should be done several weeks before the planting season and again right before planting day if possible. Add any soil amendments such as compost or topsoil during your first till. Remove weed and grass plants during tilling. Grass and weeds will compete with garden plants for water, nutrients, and space. After tilling, rake the garden soil smooth, being careful to avoid walking through the beds so as not to compact the soil.

There are other important factors to

consider; Accessibility- the site should be close to the classrooms to allow easy access, but in its own vicinity. It should also not be too far away. An area that can be accessed during out-of-school hours would be ideal, so the children can attend to the garden over the weekends if they please; Safety and Security - Do not choose a site near heavy road traffic or close to other potential hazards. If possible, locate your garden within sight of classrooms and neighbours so a close eye can be kept on it; Water drainage- avoid slopes and low spots that will accumulate water. It is important to get this right to avoid water-logged roots and rotten seedlings.

Prior to Planting Day:

• Ask your club members or students to research the growing needs of the plants you are planning to include in the garden. This will increase their involvement and understanding of the planting process.

• Involve club members and the Heritage Garden Team and additional adult volunteers to help on Planting Day. It is important to have extra hands and eyes to keep up with all the activities. Talk to the volunteers about how important it is for each child to be an active participant in the project.

• Publicize Planting Day to keep the community informed of your project; installing the garden will make wonderful photo opportunities.

• Take a "before" picture of the site for records and report puposes.

STEP 2 – Planting

Plants may be started from seed, grown from cuttings, or received as mature plants. It is best to begin the gardens by planting seeds because their growth helps students to visualize the full life cycle of a plant. Whatever garden structure you have decided to follow, the planting methods will be about the same.

On Planting Day:

• Encourage students to wear hats. Require everyone to wear closed-toe shoes.

• Begin your day with safety instructions and ground rules. Teach students how to use the tools, how to hold tools with sharp edges pointed down, and that they must walk, not run, when carrying them. Remind students to keep tools below the waist when working in the garden and to leave rakes, hoes, and shovels pointed down and out of pathways when not in use.
Provide the right size of tools and

gloves for your students.

• Demonstrate proper planting and watering techniques and describe all the plants to be installed in the garden. If you do not feel comfortable with the demonstrations, recruit an experienced gardener or a member of the Heritage Garden team to serve as a guest speaker.

• Divide the students into groups and have an adult volunteer available to work with each small group. Make sure the volunteers understand what their group should work on. Installation should be a hands-on experience for all students; working in small groups ensures that everyone will have a chance to participate.

• Keep a first-aid kit in the garden and provide plenty of drinking water to prevent students from getting dehydrated.

• Take lots of pictures to chronicle your work.

• Remember to HAVE FUN!

• In moist, but not wet, soil, have students make holes or shallow trenches, place seeds in these holes, and then cover them with soil.

• It is important to avoid planting seeds too close together. Crowded seeds compete for resources as they grow.

• Place a label with the date and crop or variety name where it can easily be seen.

• After planting, ask responsible students or adult volunteers to water the seeds with a gentle spray. If the water spray is too forceful, the seeds will move from their original planting spot, and seedlings will emerge in clumps. Make sure the initial watering is thorough enough to moisten the soil to the depth of the planted seed.

They may have to provide a succession of gentle sprays to moisten the soil appropriately, allowing the water to soak into the soil before applying another gentle spray. After planting, it is important to keep the soil constantly moist so the seeds will germinate. However, too much water will encourage disease and decrease germination rates.

Careful planning is needed to ensure a successful Planting Day.

After Planting Day

• Water plants with a gentle spray and check to see that the plants' root zones are moist.

• Make sure to clean all tools and store

them in a safe location.

• Thank all students and volunteers for their hard work.

• Take “after” pictures of the newly planted garden.

• Share details from Planting Day with school administrators, sponsors, and the community through letters, the school Web site, newsletter and newspaper articles. Thank them for their support. This follow-up will allow supporters to see the result of their contributions. The Wildlife Clubs should be the major contributor to the garden but may wish to network with other school-based clubs.

Incorporate the garden into the curriculum, especially the Technology and Enterprise department of Agriculture. Other subject areas may use the Heritage Garden outcomes as an aid for various other learning areas such as languages, sciences, art, mathematics, IG and social sciences. Some if not all of these subject areas can also take part in continued basic maintenance activities.

Discalimer

This manual is for information purposes only and suggestions given should only be tried at your own risk. The information on medicinal uses of plants is not intended to be used to diagnose, prescribe or replace conventional medical care.

The plants described herein are not exclusively intended to treat, cure, diagnose, mitigate or prevent any disease and no medical claims are made. Professional attention must be paid to a number of conditions; pregnancy, liver/kidney problems, persistent symptoms, excess intake/application, if a patient is already ill and on other medication, infant use to name but a few.

Nature Seychelles and the Wildlife Clubs of Seychelles will take no responsibility for any harm that may arise from the medicinal suggestions made in this manual. Ask for additional advise from experts on how to prepare and use the different formulas.

However despite this, we still strongly encourage you to start your own school or home garden!

Bibbliography and Copyrights

GURIB-FAKIM Ameehah (1999), “Mauritius through its Medicinal Plants”

LINFORD Jenny (2007), “A Concise Guide to HERBS”

www.gardenorganic.org.uk

www.gardensablaze.com

Thrive.org

Photographs: