

DAINTREE LIVING FACTSHEET

Gardening (beta ver. 1.0)

Developing a productive garden in the Daintree can be a challenge. For a variety of reasons tropical rainforest soil is exceptionally nutrient poor. Unlike the Pacific islands and the local Tablelands (which tend to be basalt derived), the soil in the Daintree area is derived from granite or metamorphic rocks which contributes to this lack of nutrients plus the heavy rainfall leaches the nutrients out of the soil very quickly (most of rainforest soil nutrients are actually in the trees and the nutrients from rotted material is quickly taken up by a network of fine roots close to the surface. Rainforests are considered the "ultimate recycler" for this reason.



Clear the forest (as happened in the 70's) and the remaining nutrients get washed out very quickly which means that a lot of work has to be done to restore them and the soil structure.

In addition to soil nutrition fungus infestations (e.g. *Fusarium* wilt), insects (e.g. grasshoppers), and animals (e.g. brush turkeys) with the munchies are other important garden considerations.

Related Factsheets

Water Sources (pdf, [file size]) *Water table and rainfall fluctuations; contamination and filtration; water conservation and recycling, Water system installation and maintenance issues for rain, stream/creek, and bore sources.*

Waste Management (pdf, [file size]) *Grey water systems, composting, recycling non-organics, e-waste options, creative reuse, burning or, as a last resort, the dump.*

Weed Control (pdf, [file size]) *Weed locations, identification, herbicides, and control methods.*

Animal Care (pdf, [file size]) *Prevention of disease and protection from danger for: pets (dogs, cats, fish, birds), domesticated (horses, chickens) and native (cassowaries, crocodiles, dingos, bats, brush turkeys, jungle hens, rodents, and pigs) animals. Animal control: runs, fences, snake relocaters, pig traps and hunters.*

Soil Nutrition

The first steps in to developing nutrient rich soil for your garden is to start a compost system. Note that the use of worms IS NOT advised. They are not necessary, are not native and they pose a threat to the native environment. **See** *Composting* in our Waste Management factsheet.

If you do fertilise, try to administer only as much as your crop needs, and reduce applications during the wet season, when nutrients will just be washed into the waterways. Increases in nutrient levels from fertilisers and effluents are a significant risk to the reef, causing a domination of fast-growing soft corals that out-compete slow-growing hard corals.

Garden Bed Designs

Everything from old tyres cut in half to galvanised tank sections can be used to create garden beds. **The Permaculture Manual** can be a great source of inspiration. For some plants such as tomatoes it will probably be necessary to ensure that you use sterilized soil mix and prevent soil contact with the ground to minimize the chance of getting soil-borne fungus infections (such as *Fusarium*).

Plants That Do Well Here

Herbs and spices that have been found to do well in the Daintree include mint, chillies, tarragon,

parsley, Mexican coriander and basil. Lemon grass does well – but beware – citronella is sold as lemon grass (very closely related) and produces huge clumps – ask around for a source of real lemon grass. **Vegetables** that thrive here include alternanthera ('New Guinea Spinach'), bananas (especially plantain and pisan raja varieties), basella, eggplant, manioc, papaya, pumpkins (Kent variety), and taro. Productive trees – breadfruit and jakfruit, kaffir lime, limes and lemons, grapefruit and mandarines, Of course, we have been conditioned to prefer more European varieties (which don't do well in the wet tropics) – but for long term self- sufficiency – maybe we will have to learn to eat Fiji style!

There is always the local seed saver's network. <http://www.facebook.com/groups/ssfnq>

Big problem is that here, production is very seasonal, with a glut in summer, so storage of produce can be an issue. Breadfruit (as chips) freezes well.

Water

If you have a garden or revegetation area that requires watering, you will have significantly higher usage during the dry season. Drip irrigation systems make far more effective use of water. **See Grey Water** in our "Waste Management" factsheet.

Light

Insufficient light you will get thin and weedy plants (or they won't grow at all). Try to locate your garden in a spot that gets at least good sun for 6 hours or more. You can always move the soil!

Weeds

Invasive plants threaten our local ecosystem and many of these are escapees from local gardens. For example, infestations of Singapore Daisy, Heliconias and Syngonium at Cow Bay and Noah Beach are all escaped garden plants. Consider this when choosing your garden plants. There are many excellent alternative plant choices that do not pose threats to native flora and/or fauna. You can also keep your garden plants from invading the local environment by using dedicated garden beds, avoiding plants that self-propagate, and taking care with where you spread your compost and garden soil (i.e. keep it away from the forest). See our "Weed Control" factsheet for more information.

However you will be doing battle with grasses and Navua sedge – which are very difficult to control. Early weeding is good – but in our modern life – finding time to weed can be difficult (unless you can convince your kids to do it!). Cardboard is quite a good weed suppressant – but take care to strip off the plastic tapes that seem to hold them together nowadays – they have a long life. Don't use waxed boxes. Rolls of **woven** "plastic mulch" are useful and can be reused many times.

Pests

There are lots of animals that will be lining up to share your garden.

There will be brush-turkeys (which have a particular liking for manioc – and will excavate the tubers and lay waste to the plant) and pigs. Pigs are fairly easily kept away with an electric fence (there are solar powered ones on the market), however brush turkeys have to be fenced off with chicken wire. Bandicoots and the like are really not a bother.

- *Austrop Foundation*
