

## Propagation of Mauritian Plants For a Landscaping Project

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**A large number of plants were propagated for planting in a unique landscape at a hotel complex on the Indian Ocean Island of Mauritius. Most of the plants are indigenous to the island and therefore unavailable commercially or in botanic gardens. Seed and cutting sources had to be identified, propagation techniques developed, infrastructure established, and the site cleared and prepared for planting. The project can be regarded as the largest source of indigenous Mauritian plants in the world.**

### INTRODUCTION

Patric Watson is a South African landscaping designer who is known as a trendsetter who creates unique landscapes for example: Lost City, Wild Coast Sun, and Thabanchu Sun. He uses the whole of nature as a source and the list of plants he requires often includes plants that are indigenous to the specific area which have never been propagated in a nursery, as well as, endangered species. These plants are often not available in collections at botanic gardens and have to be sourced in nature and subsequently propagated. The role of the plant propagator is, therefore, absolutely crucial in a project of this nature. We have been involved in a number of his projects and the one described in this paper is the Coco Beach Resort on the east coast of the Indian Ocean island of Mauritius.

Approximately 95% of the indigenous vegetation on Mauritius has been removed for agriculture and other development. The vegetation can roughly be divided into two types: coastal and upland.

### THE PROJECT

The project had to be completed in only 2 years. The existing landscape consisted mainly of traditional landscaping plants and Sun Hotels was convinced to destroy it and to venture into something completely new.

Patric made a long list of plants which are indigenous to Mauritius and the surrounding islands using books. No indication of how many plants was given because he usually uses what has been propagated to create the new landscape. The first problem to overcome was to locate a source of plants to be used for propagation. With the help of the local authorities and enthusiasts, we located most plants in their natural habitat. It required, however, that Gerhard de Jager, (one of the authors) had to circle the island on a weekly basis to collect the material at the right time. Seed, seedlings, and cuttings were used, but the most successful was seed. The collection of seed, however, was a demanding task as the plants had to be visited regularly to harvest them when they were ripe and before they were harvested by birds or the local population. Patric Watson insists that no plant is impossible to propagate. If this was the case, he believes, they would not exist anymore! Propagation of a large number of plants unknown to the nursery industry under these circumstances required very special intuition and skill and total dedication

from the propagator. The propagator must be able to use various propagation techniques successfully, has to think like a plant, be hands-on, and apply constant vigilance 7 days a week.

The nursery industry on this small island was not at all suitable for supplying plants in adequate numbers. The necessary infrastructure had to be constructed in a short period of time. The first shade house was destroyed by a cyclone ( $160 \text{ km h}^{-1}$ ). The second one was subsequently equipped with a steel frame. For cuttings 80% shade net was used, and for hardening off, 50% shade. Wind breaks had to be planted to protect the nursery against the strong wind and salt spray from the sea. Virtually all the material and consumables for the nursery had to be imported from South Africa. A local manufacturer was contracted to make plastic plant bags of different sizes. Bags were designed by ourselves. Seedbeds were equipped with perspex covers for protection against the weather. Nursery staff was recruited from the local population. We found that the people from the east coast tend to grow their own vegetables and, therefore, had the basic interest and feel for plants.

One of our biggest problems in the nursery was scheduling. Plants were often grown on for longer than normal in a specific bag size, depending on the requirements from the site.

The hotel is sited on granite outcrops. To clear the site, most of the existing (exotic) vegetation was chopped off, burned, and then treated repeatedly with herbicides. Earth moving machines were brought in to make holes in the granite. Each hole had to be filled with growing medium before plants could be planted.

## THE RESULT

Apart from the fact that a unique landscape was established in a hotel resort, the plants that were used serve as the largest collection of a wide variety of Mauritian plants. They can be used as source for propagation material for similar projects on the island or elsewhere. Many of the plants are rare and normally not available elsewhere. Two thousand bottle palms were used to establish a palm forest. Plants are still being planted to complete the project. About 600 large coco palms and 1400 plants of *Dictyosperma* (which are indigenous to Mauritius) were harvested by subcontractors. Other indigenous plants include *Hibiscus* and *Crinum*.