

**NY520**

**Implementation of quality management in  
Lord Howe Island Kentia Palm Nursery**

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**HORTICULTURAL  
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**Partnership in  
horticulture**

**IMPLEMENTATION OF QUALITY MANAGEMENT  
IN  
LORD HOWE ISLAND KENTIA PALM NURSERY  
NY520**



**HRDC**

**FINAL REPORT**

**December 1997**

## IMPLEMENTATION OF QUALITY MANAGEMENT IN LORD HOWE ISLAND KENTIA PALM NURSERY

### **Introduction**

Kentia palms have been cultivated over a hundred years as indoor potted plants and ornamental outdoor plants in frost free areas. They have gained an exceptional reputation as an indoor plant in Europe and North America. The scarcity of seed for propagation and the palm's qualities as an indoor plant have made the palm extremely valuable and highly sought after. A major export industry has developed around the sale of seed to Europe and North America. More recently a valuable market has developed for exporting germinated palm seedlings which is a major value-added product.

The major production area for the seed and seedlings for NSW is Lord Howe Island, where the palms originated. The production and marketing system of the seedlings from the island has developed considerably over the past few years. The operation was at a stage where the introduction of quality management principles would be of substantial benefit.

### **The Project**

The aim of the project was to introduce a quality management system to the level of the International Standard (ISO9000) into the Nursery. Initially, the production and marketing of kentia palms from Lord Howe Island plantings were analysed in terms of quality management. This included the personnel organisational structure, the type of technology being used and the policies, goals and business objectives of the marketing enterprise. A process flow diagram and hazard analysis of the systems was set out which was used for continuing improvement. The problems of the original quality system, the best options for change, and the quality parameters, through which the system is orientated, were all set out during this stage of the study.

The project development was a step-by-step process using a GANTT chart and the new system was gradually introduced over the time.

Firstly, meetings were held with the Lord Howe Island Board and personnel responsible for the production and marketing to explain project. We then carried out an Initial Investigation of the seedling production and marketing process. This consisted of interviews with operational personnel to determine the existing system and carry out preliminary hazard analysis.

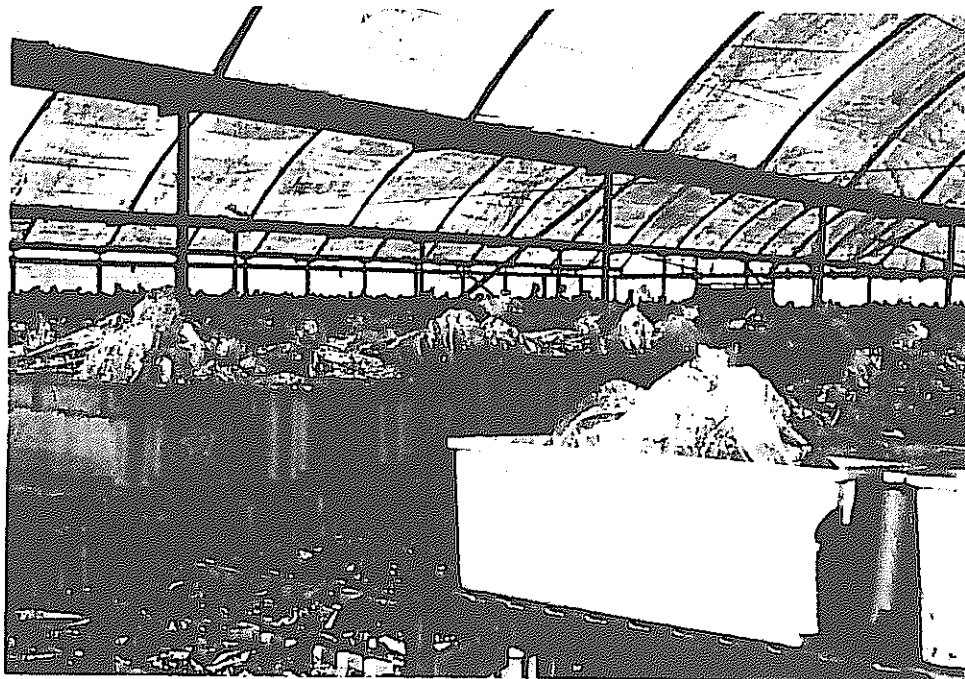
An important goal was to increase the knowledge of staff about quality management, and a number of training courses for personnel involved were conducted.

Information was collected from the market on competing product quality parameters required for export to all markets.

At the end of the preliminary phase an Initial Investigation Report was prepared which contained information on the existing production, packing and handling status, including technology used, records kept, and management organisation. This was then linked to the marketing program and the quality parameters required by the different market sectors. It compared the current situation with what is required by quality management procedures and quality assurance schemes. It recommended the possible changes to upgrade the current enterprise production and marketing system from the old to the new. The Initial Investigation Report thus became the blueprint for the implementation of the system.

The report was presented to the Lord Howe Island Board in a management review and discussions as to the contents and future implementation confirmed. The illustrations show various aspects of the project.

Illustration 1 Seedlings in plastic bags growing in the igloo.



Further collection of data and other information continued. Development of draft quality manuals, procedures manuals, work instructions and other forms of documentation, according to changes, then took place.

Over the next period of time implementation of change in the system procedures too place. Further training sessions and management reviews were regularly scheduled.

Illustration 2 Packing seedlings ready for export



In the last period of the project the Quality Manual, Staff Manual, Procedures Manual, Document Manual and Work Instructions Manual for the new system were completed. During that time intensive audits of all parts of the system took place in order to verify that the system was working as it should.

The external auditor carried out the site audit in April 1997 and recommended that the Nursery be accredited to ISO9002.

In May 1997 the Lord Howe Island Nursery the ISO Certification was awarded, as well as the Australian Horticultural Quality Certification System award.

Illustration 3 Management Review

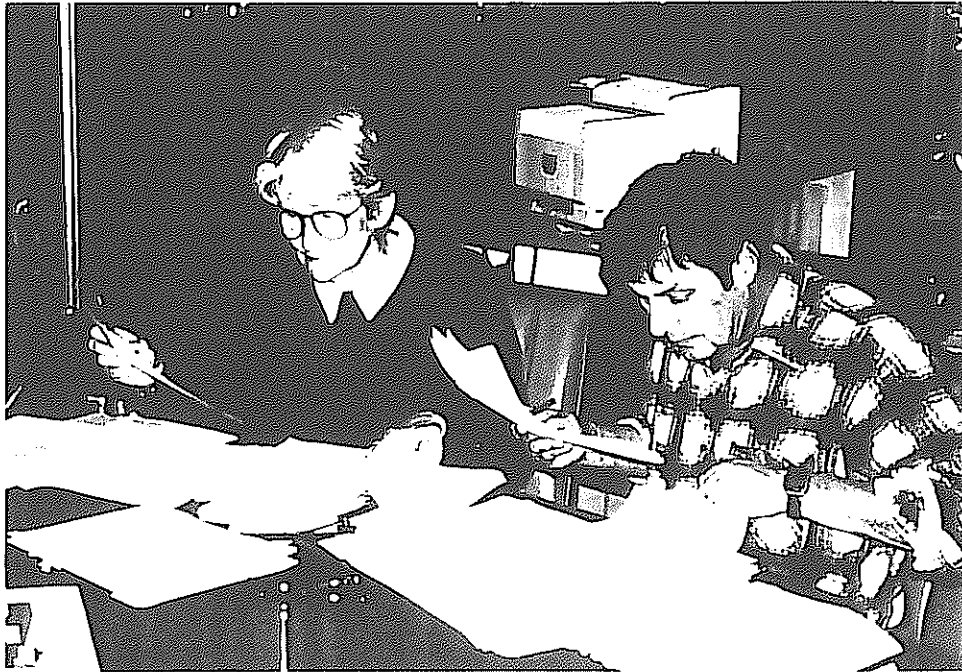


Illustration 4 Loading packed cartons of seedlings onto the aircraft for dispatch to European markets



The ISO standard contains 20 clauses identifying areas of the business that the Lord Howe Island Board considered and then adopted as the most appropriate for developing a quality system in the Nursery. ISO9002 is an investment into the future for Australian nurseries as well as other horticultural businesses. Its disciplines create a useful and demonstrable structure from which continuous improvement programs can be implemented and progressed.

### **Outcomes**

The European Union Council and Commission are promulgating marketing directives setting quality standards for ornamental, fruit and vegetable plants and propagating material. In the United Kingdom the government has been consulting with growers and distributors and retailers with the aim to produce domestic legislation. The various directives require that specific material, when marketed, must be substantially free, on visual examination, from organisms and diseases which impair quality. There are requirements for labelling, nomenclature, production process and record keeping that apply variously to different levels of the industry.

Most of the demand for quality standards is being driven, as in Australia, by the retail sector and particularly in foodstuffs from a safety point of view. The major buyers of horticultural produce have many schemes of quality assurance which requires the supplier to have the documentation to prove the product fulfils the market specifications.

The industry is probably not as advanced as here in Australia in the implementation of formal quality management systems but the pressure is growing on the market from both the European Union, individual countries legislation and commercial selling.

The list of customers in Europe who prefer QA Registered suppliers and is growing and in the future it is probable that these customers will only do business with those suppliers with some sort of certification or registration to ISO9000. The growing list European Union Directives requiring imports to the European Union to have come from an approved quality system also is a good indicator of future marketing trends.

The Lord Howe Island Nursery on attaining ISO certification will be approved for entry into Europe, as will other Australian export nurseries with the same accreditation. It will also help cement customer relations who already know of the high and reliable quality of plants from the Nursery.

For Lord Howe Island Nursery, implementation of an effective Quality System underpins entry into Europe, provides improved efficiency, and an enhanced reputation. It will lead to reduced costs, and ensures the maintenance of world leadership in marketing kentia palms.



## **Summary and Recommendations**

Within Europe the recognised standard for Quality Systems applicable to the marketing of most products, including horticultural produce is ISO9000. The particular form of ISO accreditation for the horticultural system is ISO9002 and this has been accepted in Australia. It is an international standard subscribed to by not only Europe but the UK, USA, Japan, and most of the rest of the world.

ISO9002 is a guide for documenting and maintaining an effective quality management system. Its purpose is to demonstrate an organisation's commitment to quality, their capability to meet customer requirements and work towards total customer satisfaction through continuous improvement and to error prevention.

ISO9002 helps an organisation introduce the tools to implement and maintain continuous improvement programs, that will ultimately translate into good product and service quality. ISO9002 is a common-sense written-down system and provides the framework to manage, coordinate and control all aspects of the business.

When Australian horticultural exporters are satisfactorily assessed to ISO9002, they will be able to display the Certification Body's logo on their correspondence. The logos will increase the stature of Australia in the world wide market place and help to strengthen and enlarge the customer base. Achieving ISO also qualifies for the Australian Horticultural Corporation's Australian Horticulture Quality Certification Scheme which demonstrates to the world the high standards of Australian horticultural products.

It will convince the market that Australian horticulture operates to a controlled system which will result in fewer problems for customers and confirm the on-going commitment to getting it right first time.

ISO9002 is an international standard and it will maintain opened international doors. All Australian enterprises interested in succeeding in the export market should be encouraged to implement a quality management system. The policy of assisting industries to implement quality management systems is correct and should be continually strengthened.