Acknowledgements. Use has been made of The Handbook, the Nursery Industry Accreditation Scheme, Australia available from the Nursery Industry Association of Australia; and "Profits in Quality", a video on the subject of Nursery Accreditation available from the Australian Horticultural Corporation.

Practical Experience with Total Quality Management

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INTRODUCTION

This paper does not claim to be a "how to" guide in the preparation of a Total Quality Management (TQM) system, but aims to give an insight into the basic guidelines that must be followed when embarking on TQM. The process is still in its infancy at Plant Growers Australia (PGA) and from our experiences I will attempt to recount the processes and problems encountered to date.

There is growing world-wide recognition of the importance of the relationship between quality, productivity, and competitiveness. TQM can improve all three of these key business areas. TQM was first instigated in the USA but has been further refined and developed in Japan over the last four decades. Companies in Australia and the U.S.A. have been slow to take up this management approach but the process is now starting to gain momentum. According to business experts, TQM will be a requirement of all businesses that wish to remain competitive both in Australia and internationally.

The main objectives of TQM are economic production, service, and customer satisfaction.

To achieve these objectives the following are considered as vital elements when introducing TQM.

Principles of TQM. The fundamental management principle of TQM is to gain continuous improvement in the quality performance of all processes, products, and services of an organisation. Managers must focus on the entire process to ensure consistency and improvement of the final output. The message at the core of this principle is that maintenance of quality throughout the organisation will lead to higher returns.

The concept of "total quality" is the vital element and conveys that an organisation-wide improvement effort is required. This involves every person regardless of their position or function using their individual skills and experience to improve all processes and their outputs. Total quality is about leadership, clear goals, plans, and benchmarks in an on-going pursuit of improved performance.

For TQM to succeed, it must be driven by and have the total support of the top management. When managing and improving processes TQM favours the gradual approach where management and staff are equally involved in managing and improving processes that serve the customer. People are the key to a successful enterprise and TQM relies on people to make it work.

As customer satisfaction is one of the main objectives, methods must be devised for measuring and understanding customer expectations and acceptance of quality both now and in the future. Everyone understands the importance of the external customer but another important element is that of the internal customer. Recognising that the next person or department in line is your customer. For example:

Propagation > Production > Greenlife > etc.

This is an area that will impact greatly on both quality and production through each department supplying their "customer" with the best possible product produced by the best possible method.

In essence TQM does not view quality as just a feature of a finished product but also as quality deriving from well designed processes, standardisation, improvement of processes, understanding variation, and from sharing and using data. It is also about readiness to accept change and a balance between achieving control over quality, improvement, and innovation.

Personal Experience with the Implementation of Total Quality Management Program. My first experience with TQM was a short training course with a tertiary institution. It became apparent after completing this course that TQM was the direction in which our company should be heading.

As a company which is a recognised industry leader, quality does play a major role in our business success. But we are realists and are aware that we do not always achieve what we believe, and more importantly what our customers believe, is the best quality of product or service. The drive to do better, to improve our quality and service, to increase productivity, and to improve and continually improve in all aspects of our organisation as well as gaining a further advantage over our competitors were all reasons why we decided to implement a TQM Program.

This decision was given total support by all top management.

As customer satisfaction is one of the main objectives it is important to have an understanding of their requirements in both product and service. Our perception was that we did understand reasonably well what our customers required, but it was decided that we should put this to the test. The best way to do this was with a customer survey conducted by an independent party. We gained some very useful suggestions and information, both positive and negative, about our quality and service. It is important to look at the information in the right context and to respond to the criticisms positively and to ensure that the good points are recognised and maintained. The results of this survey gave us an understanding of the areas that needed the most attention and enabled us to set priorities.

Once the commitment had been made to TQM, the next step was the introduction and implementation of the system to the staff. As this was a new system for the entire organisation we adopted a "learn as we go" policy. It was decided that before endeavouring to apply the system to the entire nursery we would first experiment with one department. Focusing on one department enabled us to work with a small group, making it easier to get the information across and receive input into the development of the job process. It also allowed us to hone our writing techniques for the preparation of procedures and the development of procedures for conducting meetings with staff. Once we had put the process in place it was also easier to check for mistakes, rectify them, and get feed back that would be of benefit to the other department processes which were to be covered.

The department selected was the one responsible for potting production. We decided to start with the potting process because we had experienced significant stock losses shortly after potting with the potting machine.

A meeting was called to brief the potting staff on what TQM was all about, to reiterate the importance of the role that potting played in the overall quality of our product, and to show where the potting crew fit into the internal customer chain. That is, the quality of the product coming off the machine was not only critical in satisfying the external customers needs, but improved quality could reduce losses and make the caring for and selection of those plants a much easier task for the internal customers (namely the greenlife care department and the sales and dispatch department). A flow chart of all the departments in the nursery was used to impress the point of the internal customer system.

One of the benefits of this system is the involvement of the staff. The people who are actually doing the work are providing the input for the formulation of the process. If the staff are involved in the process and their thoughts and ideas play a major part the development of the process then they are more likely to embrace the system than if it was purely another management enforced "good idea".

As a manager I was used to initiating new ideas and formulating changes to processes, so it was at first a little strange to take a back seat and not be the focal point in these discussions. It was certainly an interesting and enlightening experience to receive ideas from people who would have been least expected to contribute. In some instances the changes that were made to our processes were only minor but it was quite amazing the impact that they had on the effectiveness of the process. Even these minor changes had only become apparent because of the way each process is built or rebuilt from the ground up through the active involvement of all staff.

There were some reservations at the start, but it was encouraging to see the enthusiastic way in which this system was embraced and the number of good ideas and problem solving that was generated from our meetings. The cooperation of the staff is a vital element for not only the development of the processes but also for maintaining and improving them. Without this cooperation the whole system would be impossible to manage successfully.

The processes were written in such a way that they could be used for training new personnel in all aspects of any given process. Every detail of the job process was included whether large or small and instructions were written, starting from the first task performed through to the last one completed. Training new staff has always had its problems, how they performed different tasks often depended on who was doing the teaching. A common complaint from new staff was that they were confused as to which method was best. This can lead to variability of both product and service. However, TQM standardisation and documentation of each process has solved this problem.

When formulating this process using TQM, every care was taken to firstly ensure the quality of the product and secondly to carry out the task in the most efficient and productive manner. Because of the in-depth way in which the potting process was developed, the problems we experienced before hand quickly became apparent and procedures were put in place to ensure that these problems didn't arise again. Once the revamped potting process was documented we again had a meeting to check that it was correct and to make sure that there was nothing more to add or

alter. Copies of the document were displayed in the potting area and extracts pertaining to each section of potting were displayed prominently in the appropriate place. This provided help for new personnel as well as staff who only occasionally worked on the potting machine and needed a reminder of the procedure. Once the potting protocol was up and running, audits were carried out on the process to ensure that it was being performed according to the documentation.

We did make some mistakes, one of which was not reviewing the process often enough after its initial implementation and audit. We also made some minor changes to the process over a period of time but these were not properly documented and implemented. It must not be forgotten that continual improvement of all processes is a vital element of the system, but those improvements must be implemented according to set procedures and corrected documents reissued. We have learned from those mistakes and have made a commitment to avoid those situations in the future.

As the number of departments covered by TQM increased it has became difficult to control the reviews and the updating of the procedures. With this in mind it was decided that the staff would elect a spokesperson for each of the various departments. Because these people are involved in the day-to-day activities, any problems or ideas for improvement could be relayed through the spokespersons. These people could then arrange a meeting with the TQM officer and the staff to discuss the possible changes.

Setting aside time for the implementing and reviewing processes has presented problems for us especially during the busy periods where we have had a tendency to keep putting them off. The best solution to this is to schedule meetings for a certain day of each month.

As stated earlier the TQM processes mentioned are still in their infancy at PGA. Obviously, as time goes by, additional problems will be encountered but I feel if we follow the procedures relating to change we will overcome any difficulties encountered. The process of change is never ending and TQM will provide sustainable long-term gains. It is my hope that this paper has stimulated your interest in the subject of TQM and that you endeavour to investigate its obvious benefits through your own study. Your investigations may be time consuming but any sacrifices made will be returned many times over through productivity gains and customer satisfaction.