During the last two decades, with the advances in wine technology and consumer awareness the wine industry in New Zealand has adopted a market-led rather than a product driven approach. The industry has to be driven by its customers rather than by what it produces. In a highly competitive market those companies that best satisfy the needs of the customers will be the most profitable. The challenge then for us was to develop ways to respond to a market that demands an ever increasing variety of products.

In 1988/89, our systems were not adequate to cope with the customers demands. Our bottling hall efficiencies were below our expectations; a high percentage of inward goods (packaging components) were either totally rejected or returned for sorting; reworks and wastages were not at an acceptable level; the orders were not being despatched on time; unplanned downtime was high. We then realized that to stay competitive means ‘to be there first’. Our exports to the UK were growing and we recognized the need for change. With this background we set as our objective:

1. to implement an effective quality management system
2. certification of the quality management system.

The first task then was to develop a quality policy. The CEO and the senior managers met and drafted a quality policy that our company would seek to live by. This policy, this vision, was then translated into a detailed orientation program and training program encompassing TQM.

Our expectations were high. In order to meet these high expectations, we had to bring about a fundamental change in thinking and attitudes. We achieved this by:

1. Making quality our objective
   When low cost is the goal, quality often gets lost; but when quality is the goal, lower costs follow.
2. Focusing on the process rather than the results
   If the process is right, the results must follow.
3. Focusing on the longer term rather than the short term
   Like quality, if short-term performance is the goal, long-term performance often suffers. But if medium-long term performance is the goal, short-term results are more likely.
4. Involving everyone on the organization
   From senior managers to shop floor, from customers to suppliers, everyone benefits. Continual improvement leads to more satisfied customers, more aware suppliers and greater security in the future.

We recognized that quality and its improvement is the responsibility of everyone in the organization. According to a Japanese quality ‘guru’, Masaaki Imai, three factors are important for the success of the quality improvement program.

1. Commitment to a change in thinking and attitude
2. Training and education: quality improvement starts with training and ends with training.
3. Standardization: firstly to maintain improvements already made and secondly to provide a basis for further improvement.

The culture change required by the organization adopting a quality system is demanding on staff. ‘Organizational culture’ has been defined as the values and expectations that people come to share which powerful shape the organization.

We adopted the following guidelines in order to bring about the culture change:

- Listen and respect the opinion of others.
- Discard preconceived ideas about employees not being able to perform certain tasks.
- Share information and improve communication.
- Define responsibility and authority.
- Build up confidence.

Key elements of TQM

In order to deliver total quality in every product and service that we provide, we looked at the key elements of TQM:

1. Commitment: from CEO to all employees of the organization.
2. Customer satisfaction: everyone serves a customer – external or internal – who defines the level of quality to be achieved.
3. Everyone works in the system and should be involved in the improvement process.
4. Improvement must be planned and planning requires input from everyone in the organization.
5. Personal development: engage in continuous appraisal, training and development of individuals at all levels.

Thus, the key players of the TQM program were:

1. The customer
2. The supplier
3. The staff
4. Engineering/machinery

Meeting customers’ demands

Current business trends demonstrate the need to respond to market demands and modify structures necessary in order to remain competitive. The consumer at the retail level and the immediate customer dictate what he wants and when he wants. He must receive the product in good condition. The
type of packaging and the mode of transport are also dictated by the customer. Thus, the customers' expectations became an integral part of our Quality Management System.

Over the last two years at Montana Wines Limited we have made considerable progress in improving customer relations, reducing pickup errors, improving delivery times and reducing transport damage. We were able to achieve this by focussing on the customer and involving the customer in continual improvement through active participation. The discussion, the problem-solving mechanisms and feedback were the cornerstones in the development of our customer service program.

The next process is your customer—from raw materials in to final delivery to the customer. The next process or activity was regarded as the customer of the earlier one and is given the rights of a customer. The principal right is that of rejection if the standard of product or service does not meet the agreed level. This had the major effect of minimizing the work carried out on something that is already below standard and therefore, unacceptable.

**Total commitment**

CEO's commitment was crucial to the development of our Quality Management System. The managers who work for the senior executives knew that the future rests with their ability to get things done through people—right first time. The professional employees knew that the accuracy and completeness of their work determined the effectiveness of the entire workforce.

- The CEO must have a clear vision of what the organization is like when quality systems are in place.
- The CEO has a firm commitment that management performance is a complete function requiring that quality be first among equals—schedules and cost.
- The CEO is committed to having the customer receive what was promised, believes that the company will prosper only when all the employees feel the same way.
- The CEO dictates the quality policy which is understood and accepted by everyone.
- The CEO provides the resources that enable the managers and the rest of the staff to achieve their goals.
- The CEO and all employees as a whole recognize that their individual commitment to the integrity of requirements is what makes the company sound.

The senior managers performed an important role during the early phases of the implementation:

1. They demonstrated total commitment through policies, practice and support.
2. Doing it right first time at the sources of production.
3. Participated on an on-going basis in review of productivity and quality improvement projects.

**Suppliers**

The quality improvement activity must extend from the supplier through to our consumers. Our suppliers are:

1. Grape grower
2. Packaging supplier
3. Winery chemicals supplier
4. Equipment/machinery supplier

Montana Wines Limited has a preferred supplier policy. In 1989, we implemented a supplier quality improvement program. We were interested in a long-term relationship with our suppliers. The relationship with the suppliers goes beyond the question of quality performance of the supplier. The supplier's financial stability, the price, the ability to meet delivery times and the readiness to enter into a partnership affect the overall relationship. The quality parameters must be weighed against all other factors in arriving at a balance which optimizes the relationship.

The concept of partnership enabled us to work together as effectively as if we had merged while maintaining separate identities.

The success of the supplier quality improvement program was due to two main reasons:

- Preferred supplier policy
- Partnership

We achieved this through regular quality improvement meetings and this approach provided us with an excellent tool to support each other and resolve quality issues at each other's work place in a mutually beneficial manner.

With this program in place we were able to reduce the level of rejected or sorted out inward packaging components from 7.2 to 1% in one year and subsequently to 0.2%. Downtime due to poor quality packaging components was then a rare occurrence.

**The staff training program**

While the supplier quality improvement program was being implemented we commenced a staff training program. The training package consisted of four major components:

1. **Personal development program**
   - A clear perception of ourselves and how others see us are important elements in effective communication, improved relations and better teamwork. The staff were trained and assessed on the basis of personal factors, people skills and task skills.

2. **Development of technical skills**
   - At all levels specific training was given to educate the employees on productivity and quality improvement concepts. Such training included:
     - measurement of efficiency and quality
     - evaluating and interpretation of data and controls
     - improvement monitoring
     - awareness of quality and productivity issues.

3. **Development of problem solving skills**
   - The problem-solving skills included the ability to identify a problem, generate potential solutions, select and plan the best solution and then of course evaluate the solution. The problem-solving skills were developed in order to resolve problems at the source of production. Work groups assumed total responsibility for the quality and productivity and formed an integral part of the goal setting, processing and the results.

4. **Providing positive feedback**
   - Constructive criticism with emphasis on positive aspects brought encouragement and built confidence among the staff.

**Optimization of machinery and equipment**

In order to remain competitive in manufacturing all machine breakdowns and troubles should be avoided. The effectiveness of machinery was achieved through employee participation in preventive maintenance activities. These activities were

1. Preventative maintenance
2. Detect abnormal machine conditions as early as possible
3. Develop operating skills
4. Improve machine set-up times
5. Improve the design to suit the process

A preventative maintenance program was implemented which required the participation of the engineering staff and the technical staff. The program included:

1. Introducing SPC techniques
2. Developing measurement for percentage defective, rework and other engineering changes
3. Measure variability of the process on an ongoing basis
4. Correcting failures and errors at the source of production

With this program in place were able to improve the bottling hall efficiencies, machine set-up times and reduce unplanned downtime.

**Problems and solutions**

**Overcoming the problems faced by the staff**

Unwillingness to change work habits
It is often difficult to break away from old habits and accept new ones. The problem was overcome by educating the people about what new productivity and quality improvement will bring to their tasks, making them understand both tangible and intangible benefits of changing from old methods to new ones. The program included:

- Developing operating skills
- Improving machine set-up times
- Developing measurement for percentage defective, rework and other engineering changes
- Developing measurement of variability of the process on an ongoing basis
- Correcting failures and errors at the source of production

With this program in place, we were able to improve the bottling hall efficiencies, machine set-up times, and reduce unplanned downtime.

**Overcoming problems created by the management**

So far our discussion has focused on what the management can do to get the staff actively involved in the implementation program. Some problems are created by the management.

Fear of losing control
A major barrier to active involvement of staff is the management’s fear of losing control. The thought of sharing responsibility causes senior managers to feel insecure about their diminishing authority. The management justifies the fear by assuming that:

- others do not have enough knowledge of the company’s needs and actions
- others may make mistakes because of lack of experience
- others may act in their own interest rather than the company’s

These fears have no basis provided the managers give guidance and training to those who need them. We developed an attitude of letting people try more and practiced tolerance of minor failures if people have done their best.

Lack of management support
When we move from a powerful central authority to a decentralized form, the management must create a supportive environment in which people can have the freedom while working towards a common goal. Our role then changed to that of a facilitator, providing guidance and training to those involved in productivity and quality improvement programs to have an open mind and accommodate multiple perspectives.

Inadequate sharing of quality improvement gains
Productivity and quality improvement gains obtained from improvement programs must be recognized to encourage continued innovation for further improvement. It is important to recognize that money is not the only source of motivation. A major barrier to active involvement of staff is the management’s fear of losing control. The thought of sharing responsibility causes senior managers to feel insecure about their diminishing authority. The management justifies the fear by assuming that:

- others do not have enough knowledge of the company’s needs and actions
- others may make mistakes because of lack of experience
- others may act in their own interest rather than the company’s

Productivity and quality improvement go hand in hand. The typical practice of pushing schedules when they are needed and pushing quality when it is wanted should be completely eliminated. Having double standards leads to confusion among those responsible for the tasks.

Complacency resulting from current status
Everyone in the organization must realize that there is no limit to success through quality improvement. The more improvement ideas are implemented, the better off the organization would be financially.

Starting out too big
For improvement programs to be successful, they must be started with reasonable projects that the available resources can handle. The most effective projects which incur the least cost should be selected for quality improvement.

**Summary**

The involvement, commitment, and dedication are important elements in a quality improvement program. The path to successful implementation is not easy. But the joy, satisfaction and the benefits resulting from successful implementation of a Quality Management System bring about an excellent environment to work in while providing financial benefits and security to all.