

SEARCH CRITERIA

Model	Model B: Programmed learning Model
Industry	Horticulture, Fruit and vegetables
Focus/Level	Industry
Delivery Mode of Learning	Action learning, Adult learning
Outcomes	Technical training, Business development
Special Interest Groups	other

1. PROJECT TITLE:

Quality Management Training for the Vegetable, Melon, Stone fruit and Mango Industry

2.FUNDERS:

Horticulture Australia, Queensland Fruit & Vegetable Growers, AUSVEG, Queensland Rural Adjustment Authority (QRAA), course participants, Department of Primary Industries Queensland

3.PROVIDERS:

Department of Primary Industries Queensland

4.KEY CONTACTS:

Scott Ledger, Queensland Horticulture Institute, Agency for Food & Fibre Sciences (AFFS), QDPI, Scott.Ledger@dpi.qld.gov.au

John Bagshaw, Queensland Horticulture Institute, AFFS, QDPI, John.Bagshaw@dpi.qld.gov.au

John Maltby, Queensland Horticulture Institute, AFFS, QDPI, John.Maltby@dpi.qld.gov.au

5.INDUSTRY/ISSUE/GEOGRAPHY:

Horticulture

Fruit and vegetables

Queensland

July 1 1997-June 30 1999

Tomato – July 1 1994- June 30 1996

6.PROJECT CONTEXT:

The project was developed to address the problem of poor quality management systems – particularly by the small to medium growers in these horticultural industries. There was confusion about quality management systems for horticultural products and a lack of knowledge and skills was seen as limiting the ability of the horticulture industry to adopt the systems.

Since the mid-1990's a number of changes in the horticulture industry placed more pressure on growers and packers to improve their quality systems. These included customer demand; increasing competition; joint marketing arrangements; consumer concerns about food safety; and commonwealth legislation.

7.PROJECT NICHE (SPECIFIC OBJECTIVES):

This project (or projects in the suite) were developed specifically to provide growers with clear, practical knowledge and skills to improve their business and guide them through the maze of QM standards and requirements.

Training was used to emphasise good management practices using QM principles rather than the requirements of any particular QM standard. Training emphasised the internal business benefits of improved management practices to strengthen motivation to improve and understanding of the principles underpinning requirements so as to increase their understanding and ability to implement appropriate practices and standards.

8.PHILOSOPHY/APPROACH:

Programmed Learning Model

The project summary for the initial Tomato Quality Management Project described Action Learning as the basis for the project approach. The advantage of this approach was seen as focusing the project on ensuring the plan, act, review cycle was completed – otherwise the project would just have been another information delivery QA project without necessarily any action/outcomes in growers management systems.

The QM projects were developed in close cooperation with the relevant Sectional Groups of the Queensland Fruit and Vegetable Growers (QFVG) organisation.

9.RESOURCES, MANAGEMENT AND STAFFING STRUCTURES:

Funding from Horticulture Australia/QFVG/AUSVEG

- Vegetable: \$127 000 over 2 years
- Melon: \$35000 over 2 years
- Stonefruit: \$43 000 over 2 years
- Mango: \$62 000 over 2 years

Funding from QRAA: \$34 000

Funding from course participants (\$50/business/workshop): \$82 000

Funding from DPI Queensland (salaries, infra-structure): \$70 000

Project team – 10 extension officers (part time) from Queensland Horticulture Institute, QDPI, 1 trainer (part time) from Centre for Food Technology, QDPI, 1 private trainer (part time), 1 administration officer (75% full time), QDPI, 1 QFVG officer (part time)

Work with existing sub-committee of QFVG.

Industry reference groups

10.PROCESS/METHODS USED:

Grower meetings to introduce QM systems and to receive expressions of interest for the training programs – distribution of a booklet entitled: 'Introduction to Quality Management'.

QM training program using action learning and adult learning principles.

- A series of workshops (10 X 4-hours) in regional centres over an 18 month period. The concept was to present a parcel of QM information to participants at each workshop then allow one month for them to implement these practise. These were reviewed at the beginning of subsequent workshops.
- A VET Accredited 'Hazard and Critical Control Point (HACCP) was delivered using the course developed by the Centre for Food Technology. Participants needed to pass the assessment to a set standard to receive the certificate of attainment.]
- In the final workshop, participants were asked to self-assess themselves against a given checklist towards SQF 2000^{cm} and Approved Supplier Requirements, and to set priorities for improving their businesses.
- .On-farm individual follow-up was offered for guidance and QM system development.
- An 'Approved Supplier Guide' was developed to deal with confusion about what was required in an approved supplier program.
- A leaflet entitled 'Quality Management for Fruit and Vegetable Growers – what do I need' was also developed to help guide growers through the maze of different quality systems and conflicting advice about what was needed for supermarket requirements.

11.IMPACTS TO DATE (AND EVALUATION APPROACHES USED):

Evaluation was built into the projects in the form of feedback sheets at the end of each workshop. Also a self assessment worksheet was provided to participants at the beginning and end of the workshop series to assess level of progress. HACCP exam results also provided another form of evaluation.

Reactions: 72 % of participants indicated on the feedback sheets that the workshops were very useful, 26% useful, and 2% as OK.

Practice change: At the completion of the workshops, 36% indicated that they intended to improve record keeping; 25% to implement the HACCP plan; 14% to document a HACCP plan; 8% to implement an approved supplier system; 3% to document and work towards a plan; 8% to prepare work instructions; 7% to improve staff training, develop product ID and traceability, and 7 % to achieve SQF 2000cm.

An evaluation using a mail questionnaire was used to evaluate the effectiveness and impact of the earlier Tomato Quality Management Project that formed the basis of the further projects. Semi-structured interviews were also used on a stratified sample of 10 growers across the regions – focusing on improvements to the workshops.

The Tomato QM evaluation demonstrated:

Reactions: 91% of respondents were strongly positive about the workshops.

KASA: 91% reported better understanding – supported by interviews.

Practice: 82% of respondents said they had implemented some aspects of QM. 17% of business who participated were in the process of developing certified systems.

Industry benefit: 88% of respondents indicated that they had received some benefit from QM.

12.EFFECTIVENESS:

A total of 195 business (317) people attended the first workshop, with 75% completing the series.

Of the 256 people who were assessed for HACCP accreditation, 94% met the VETEC requirement and 75% met the SQF 2000^{cm} requirement for HACCP practitioner

The Tomato QM evaluation stated that...participants generally found the training project to be very useful – it gave them a good understanding of QM, it encouraged a relatively high rate of implementation of QM and left most participants with a positive attitude to QM. Further comments on project effectiveness were: The project strategy was to highlight quality systems as a tool to improve business performance, rather than concentrate on certification as an objective for all businesses. The strategy in no way discouraged business from pursuing certification. Many small to medium sized business did not have the resources to aim for a certified system, but did implement parts of a quality system to meet their perceived needs. These business identified many and varied benefits implementing parts of a quality system.

13.PROJECT DOCUMENTATION AVAILABLE:

Bagshaw J & Ledger S (2000) Quality Management Training (vegetables, Melons, Stone Fruit, Mangoes) Final Report HRDC Projects: VG 97022; VG 97032; FR 97004; FR 97011. Queensland Horticulture Institute, Queensland Department of Primary Industries/Horticulture Australia.

Maltby J, Ledger S & Bagshaw J (1996) Queensland Tomato Quality Management – Final Project Report (Project No: VG 429), Queensland Horticulture Institute, Queensland Department of Primary Industries/Horticulture Australia.

Ledger, S.N & Bagshaw, J.S. (1997). Reflections on ten years of helping horticulture quality management. Proceedings 2nd Australasian Pacific Extension Conference, Volume 1, pages 451-459

14.ISSUES:

Work pressures experienced by growers between and after training workshops can be barriers to implementation of training – ideally, individual follow-up is needed to assist with implementation.

15% of participants recommended that there should be more group work between formal workshops to assist with developing plans. In one region, the local DPI extension officer facilitated group work between workshops and this lead to improved adoption. It also help empower the group and they have continued to operate and undertake further training on other topics relevant to their needs.

Farm visits/videos/case studies would add to the value of training – looking at real life examples.

Input from 'experts' (for brief sessions) is appreciated in training sessions.

A good introduction to the course is needed – detailing the coming topics and context.

15.COMMENTS/CONCLUSIONS:

Based on their experience and the evaluation of the projects, the project team came up three recommendations:

1. Awareness training is needed to overcome confusion: Growers need to have a clear understanding about what is involved before progressing further.
2. Group training plus individual support is needed for effective implementation: growers gave feedback that interaction and sharing with other growers was very useful during training. Business pressures and a dislike for documentation were barriers to adoption that individual follow-up visits would have helped with.
3. Simple systems were needed for small to medium sized business: systems need to be achievable within limited resources.

During the delivery of the training course, the requirements of the supermarket chains for suppliers to implement QM systems increased and the need for a practical, industry recognised, on-farm food safety program became apparent. Experiences gained from the QM training projects enabled the project team to initiate a national network of QM facilitators. This national network developed guidelines for on-farm food safety, a Code of Practice for the Freshcare on-farm food safety program, and a VET accredited Approved Supplier Requirements training course. From 1999 to 2002, the QDPI project team delivered 167 courses, involving 1996 businesses and 2908 people. Close to 5000 people have completed the course throughout Australia.

16.REVIEW METHODS:

Desktop Review: Final reports & proposals.
Iteration with project team.