

**Implementation of national
environmental strategy for
the vegetable industry -
extension to November 2009**

Richard Mulcahy
AUSVEG Ltd

Project Number: VG06015

VG06015

This report is published by Horticulture Australia Ltd to pass on information concerning horticultural research and development undertaken for the vegetable industry.

The research contained in this report was funded by Horticulture Australia Ltd with the financial support of the vegetable industry.

All expressions of opinion are not to be regarded as expressing the opinion of Horticulture Australia Ltd or any authority of the Australian Government.

The Company and the Australian Government accept no responsibility for any of the opinions or the accuracy of the information contained in this report and readers should rely upon their own enquiries in making decisions concerning their own interests.

ISBN 0 7341 2014 1

Published and distributed by:

Horticulture Australia Ltd

Level 7

179 Elizabeth Street

Sydney NSW 2000

Telephone: (02) 8295 2300

Fax: (02) 8295 2399

© Copyright 2009

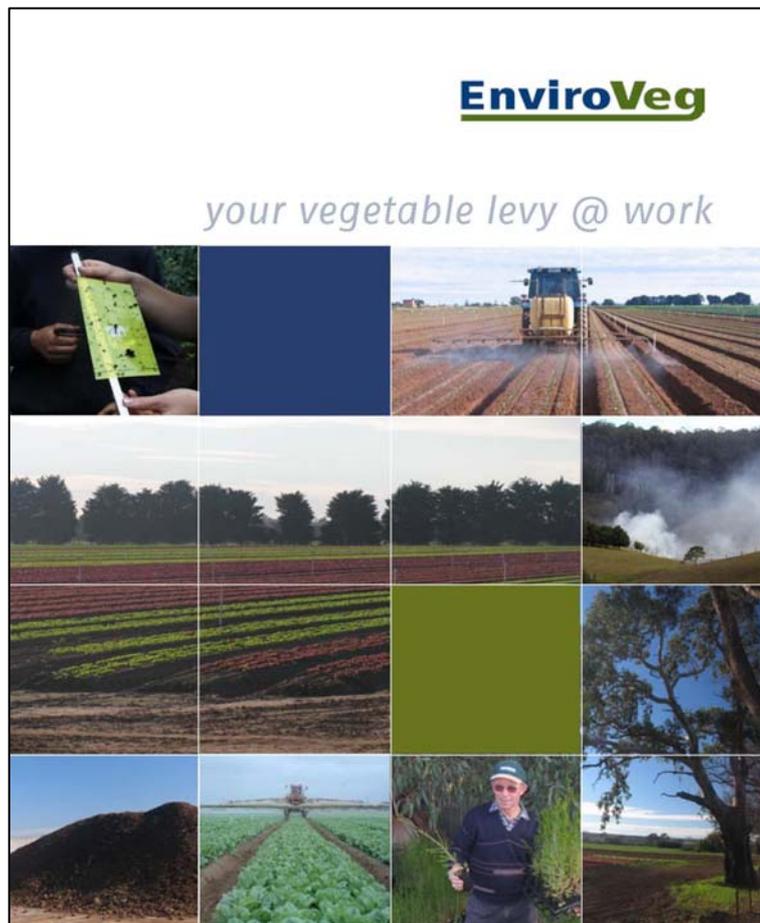


Know-how for Horticulture™

Horticulture Australia Ltd.

Project VG06015
(Completion Date May 2009)

**Implementation of National Environmental Strategy
for the Vegetable Industry**



Author: Helena Whitman, Environmental Manager, Ausveg

Research Provider: Ausveg Ltd

HAL Project: VG06015

Project Leader: Mrs. Helena Whitman
Environmental Manager
AUSVEG Ltd
PO Box 563
MULGRAVE VIC 3170
Tel: 03 9544 8098
Fax: 03 9558 6199
Email: helena.whitman@ausveg.com.au
Web: www.ausveg.com.au/EnviroVeg.cfm

Other key personnel: Ausveg Environmental Committee Members:
Jeff McSpedden, Chair *Jason Huggins (Qld)* *Luis Gazzola (Vic)*
Eddie Galea (NSW) *Tim Burgess (Tas)* *William Allen (SA)*
David Anderson (former WA member) *Gavin Foord (WA)*

Purpose of the Report:

To provide a Final Report on the outcomes of this project and to meet the reporting requirements as per the agreement with HAL.

Funding Sources:

This project is facilitated by HAL in partnership with AUSVEG and is funded by the National Vegetable Levy. The Australian Government provides matched funding for all HAL's R&D activities.



Date of Report: 29 May, 2009

Any recommendations contained in this publication do not necessarily represent current HAL Limited policy. No person should act on the basis of the contents of this publication, whether as to matters of fact or opinion or other content, without first obtaining specific, independent professional advice in respect of the matters set out in this publication

Table of Contents

Media Summary.....	2
Introduction.....	3
Background.....	3
Materials and methods	4
EnviroVeg Manual.....	4
Courses & Training Material	4
Use of Logo.....	4
Feasibility of audit	4
Website.....	5
Environmental database for the industry	5
Results	6
Discussion	7
Review & Rewrite of EnviroVeg Manual.....	7
Courses & Training Material	8
Use of Logo.....	11
Feasibility of audit	11
Website.....	12
Technology Transfer.....	14
Communications/Extension Activities:.....	14
Recommendations	17
Appendices.....	18

Media Summary

Despite lack of market drivers, many growers are now beginning to see the sustainable and economic benefits of responsible environmental practices on-farm. Most choose to modify practices for personal reasons and not because of external pressure, however seek some form of recognition for their diligence.

Pressure from some Local Governments and funding institutions is requiring growers to demonstrate that their activities will not harm the environment. Many Councils now require an Environmental Action Plan or Property Plan before any planning approvals are given. The majority of EnviroVeg members choose to have their membership status provided to their local Council.

In response to these requirements, the EnviroVeg guidelines and manual were rewritten to incorporate a Business and Property Management section as well as a total rewrite of all sections into an EMS (Environmental Management System) that can meet the requirements of auditable environmental Codes of Practice such as Freshcare Environmental and ISO 14001. The new guidelines will assist growers to progress to audit should this be required of their business.

Regional Natural Resource Management Boards are developing management targets that could adversely impact on vegetable production.

Through another project, VG08110 - *Building partnerships with regional NRM bodies Using EnviroVeg as a resource management tool*, NRM issues are being identified and addressed.

EnviroVeg is well placed to further develop modular training for the specific sections of the guidelines and to identify external expertise to deliver research outcomes that fit within the environmental program. It presents an ideal opportunity to deliver the outcomes of many of the R&D outcomes through forums and workshops or through the Industry Development Program.

It is also well placed to deliver information and training on emerging issues such as Climate Changes and Greenhouse Gas Emission. The program needs to remain in constant review to be able to update and assist growers to adapt to Industry and external requirements.

Introduction

The objective of this project was to provide the supporting material and an articulated structure to enable vegetable growers to demonstrate through self assessment and certification that they are being environmentally responsible both on-farm and to their surrounding environment. The key attribute of this project was to demonstrate that the Industry was proactive on management of environmental sustainability.

Although the EnviroVeg project had been available for some time, the Ausveg Environmental Committee recognised that the program had to be broadened to encourage more widespread industry participation. This included a number of tiers of environmental management from basic awareness to environmental assurance and the appropriate records, tools, advice and training to support this outcome.

Background

The initial EnviroVeg programs (VG00016 and VG03088) developed and assisted the implementation of guidelines to enable vegetable growers to demonstrate good environmental performance. It was successful in establishing itself as the environmental program of choice for the vegetable industry. Following increasing demand and to meet evolving Government and Industry requirements it became obvious that the program was entering a new phase.

The EnviroVeg guidelines were in need of review and the program in need of next-stage expansion. Both technical knowledge and grower practices had moved on and a revision of the guidelines was overdue to reflect emerging industry and research practices. There were also additional legislative requirements to consider as well as the impact of other related environmental assurance options such as ISO14001.

The overall structure had also outlived its initial arrangements. The scoping study completed in the previous project VG03088 confirmed that industry would be best served with a three-tier structure that included industry-tailored training materials, the existing but revised grower self assessment tool and provision for independent third party certification.

The previous projects had focussed specifically on the EnviroVeg program. As a sign of Industry maturity and acceptance of the environmental agenda, the title of the Project Manager position was changed from EnviroVeg Officer to Environmental Manager to facilitate the addressing of a range of environmental issues facing the industry and to provide credibility to the role.

There was also an ongoing issue regarding ownership of the EnviroVeg trade mark. This was originally registered by the Vegetable Growers' Association of Victoria (VGAVic). Following considerable dialogue between HAL, VGAVic and Ausveg, an agreement was reached enabling Ausveg conditional use of the EnviroVeg logo.

The outputs and activities undertaken in this project were:

1. A multileveled vegetable industry specific environmental program
2. Supporting documentation and records to enable growers to achieve certification
3. Ongoing support through the website
4. Growers certified to Environmental Assurance
5. Useful information and data on a regional basis
6. Training courses and material specifically designed to address environmental issues in the vegetable industry
7. Investigate feasibility of an auditable vegetable industry environmental program
8. A one-stop-shop website of relevant information
9. A forum for Associate Members through which they can pass on information to grower members.

Materials and methods

EnviroVeg Manual.

The new manual and Self Assessment Checklist includes all the elements required to assist growers to achieve third party certification to the Freshcare Environmental Code of Practice (CoP) as well as other industry codes, e.g. Eurepgap and ISO 14001. The Horticulture For Tomorrow Guidelines were also extensively used to ensure compatibility. Discussions were held with Freshcare to ensure a cooperative approach to auditing requirements. Appropriate records based on those in the Freshcare Environmental CoP were also incorporated into the new manual for auditing purposes.

Two new modules were added to the EnviroVeg program and manual – Property & Business Management as well as Chemical Management. These practices have been identified as integral and important components of environmental practices and are now increasingly being required by Local Governments and Catchment Management Authorities of growers wishing to make improvements or changes on farm.

The manual has been written to accommodate those growers wanting to remain at a self-assessment level or who may choose to proceed toward certification. Growers will still have the option of implementing changes at their own pace.

Courses & Training Material

Specific training material was developed and training workshops conducted to assist vegetable growers to implement environmental practices on-farm. Units of competency under the National Training Information Service: National Certificate of Amenity Horticulture have been identified, however there is currently no system available under the program to provide growers with recognition of achievement of these units.

Use of Logo

The relaunch of the program provided an opportunity to update the Enviroveg logo. Several designs were presented to the Environmental Committee, however it was agreed that the existing logo was now recognised and apart from changing from ‘Enviroveg’ to ‘EnviroVeg’ it should not be altered.

Old style

The logo consists of the word "Enviroveg" in a blue, sans-serif font. The letters "i", "o", and "v" are green. A thick green underline is positioned beneath the entire word.

New Style

The logo consists of the word "EnviroVeg" in a blue, sans-serif font. The letters "i", "o", and "V" are green. A thick green underline is positioned beneath the entire word.

This applies to all forms – EnviroVeg Self Assessment, EnviroVeg Environmental Assurance and gate signage.

Feasibility of audit

The feasibility of developing and EnviroVeg auditable Code of Practice was discussed and investigated, and it was agreed by the Environmental Committee that, before creating a further auditable program, the option of working with the Freshcare Environmental CoP was further investigated.

Website

The development of a secure EnviroVeg member section on the website was considered and following discussions and agreement with HAL deferred by the Environmental Committee for the following reasons:

1. There was already a security requirement for growers to log in to the Ausveg site therefore it would be duplication and growers would require two sets of identifying passwords.
2. The current level of membership didn't warrant the expense.
3. There was insufficient sensitive information on the site to warrant protection.

Environmental database for the industry

The information gathered from growers can be collated and used to substantiate applications when negotiating with government agencies and other service providers and in identifying shortfalls in information, research and infrastructure on a regional basis. Training programs and workshops can be developed to provide further support to growers.

Results

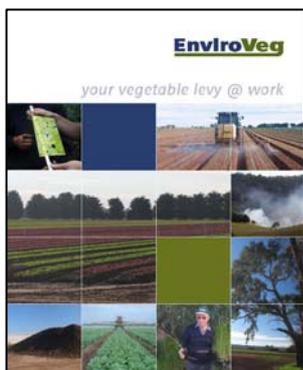
The membership of EnviroVeg peaked at just over 150 members, however this number has decreased as growers have retired, sold off their farms or suspended membership until circumstances change. Limited water availability, the drought and other climatic conditions are affecting participation – growers have more important matters on their minds. Completing Self Assessments is not a priority.

Membership extends across all states including the Northern Territory, however not all states have had the benefit of an EnviroVeg training workshop or Soil Awareness Day. Workshops have been held in 14 of the 32 regional NRM/CMAs.

Ten growers have undergone and successfully completed second party audit and been approved to use the EnviroVeg logo and signage. There have been requests from several other growers and interest will increase as the logo becomes more visible on packaging and gate signs.

Discussion

Review & Rewrite of EnviroVeg Manual.



The review and rewrite of the EnviroVeg manual became necessary for several reasons:

1. The original information was very state (Vic) based.
2. The information was dated and needed to be revised to accommodate current practices.
3. Federal and State Legislative requirements were not the same in all cases.
4. The H4T Guidelines and Freshcare Environmental Code of Practice were now complete.
5. The new manual/program needed to be benchmarked across H4T, Freshcare, Eurepgap and ISO14001.

During the rewriting process other environmental programs were considered, benchmarked and, where appropriate, incorporated into the manual.

The new manual and Self Assessment Checklist includes all the elements required to assist growers to achieve third party certification to the Freshcare Environmental Code of Practice (CoP) as well as other industry codes, e.g. Eurepgap and ISO 14001. The Horticulture For Tomorrow Guidelines were also extensively used to ensure compatibility. Discussions were held with Freshcare to ensure a cooperative approach to auditing requirements. Appropriate records based on those in the Freshcare Environmental CoP were also incorporated into the new manual for auditing purposes.

Two new modules have been added to the EnviroVeg program and manual – Property & Business Management as well as Chemical Management. These practices have been identified as integral and important components of environmental practices and are now increasingly being required by Local Governments and Catchment Management Authorities of growers wishing to make improvements or changes on farm.

There are nine modules and four additional sections:

- | | |
|-----------------------------------|-----------------|
| 1. Property & Business Management | Resources |
| 2. Soil & Nutrient Management | Work Sheets |
| 3. Water & Waterway Management | Action Plans |
| 4. Pest Management | Self Assessment |
| 5. Chemical Management | |
| 6. Biodiversity Management | |
| 7. Waste Management | |
| 8. Air Quality Management | |
| 9. Energy Management | |

Each of the modules includes (see Appendix 1):

- Guidelines
- Objectives
- General description of the practice
- Action Planning
- Internal Checklist
- References



Darwin (NT)



Myalup (WA)



Virginia (SA)



Cowra (NSW)



Cobbitty (NSW)



Katherine (NT)

The workshops provided some interesting outcomes for the environmental program and EnviroVeg. Key findings from the project were:

- Most growers have no knowledge or understanding of CMAs or NRM bodies
- Regional NRM strategies are at various stages
- Has lead to some cooperative NLP applications
- Should be taken to other regions
- Networks should be supported to continue – provide further training and assistance
- Growers not ‘scared’ of the “E” word when shown that they are already doing most of it

The trial also identified that growers needed further support and information – not necessarily training – in the following areas:

- ♦ **Property & Business Management**
Most growers have a basic knowledge of their legal obligations but are not aware of Natural Resource Management targets which also impact on production practices.
- ♦ **Water & Waterway Management**
Some growers have not carried out a risk assessment of their water supply needs for the future. Most growers do not have an irrigation schedule or plan.
- ♦ **Soil & Nutrient Management**
This area appears to be well understood and managed, however there is a growing interest in carbon retention and emmissions.
- ♦ **Pest & Disease Management**
Growers do not seem to consider their surrounding vegetation as of an important aspect of their pest management strategy. Not many used IPM.
- ♦ **Chemical Management**
Not enough emphasis on emergency planning.
Correct calibration of chemical application equipment is another area that requires further attention.
- ♦ **Biodiversity Management**
This area is still greatly misunderstood however those growers that do look after their biodiversity do it exceptionally well. It is all or nothing.
- ♦ **Waste Management**
Access to recycling can cause growers ‘not to bother’ about sorting or storing waste. Not a priority area for growers.

♦ **Air Quality**

An issue for growers encroaching urban areas but for the majority in rural areas this is not an issue.

♦ **Energy**

An area to which many growers are reviewing to make savings – reviewing electricity and fuel consumption.

Recommendation:

1. Utilise the ‘Vegnote’ series to provide much of this information to all growers.
2. Identify or develop short courses or information booklets for some topics, eg calibration, biodiversity management
3. Develop an MOU with external trainers/organisations to deliver the ‘Introduction to EnviroVeg’ material.

Mapping of EnviroVeg against NRM targets – this process has been completed for all NRM regions that have a documented NRM Plan (see appendix 2). A copy of the matrix has been sent to each NRM bodies once completed and has been useful in having EnviroVeg endorsed as the appropriate program to assist growers to meet these targets. The matrix will be added to the EnviroVeg website once the Ausveg site is updated.

Mapping of EnviroVeg against competencies – this has been undertaken and has provided the program with a set of competencies that can now be developed into training modules or be recognised for those growers seeking Recognition of Prior Learning (See appendix 3).

The process of achieving course recognition was more difficult than anticipated at the time of application for funding. EnviroVeg was not aligned with an RTO (Registered Training Organisation) and therefore could not issue Certificates of Achievement, however it was AGREED by the Environmental Committee that Certificates of Attendance should be issued to participants.

It was AGREED to raise this matter with HAL and seek a variation of Milestone criteria as there was still potential to link the training with the National Certificate of Amenity Horticulture. Accordingly, HAL agreed to amend the Milestone Achievement Criteria and the potential for linking with the National Training Information Service: National Certificate of Amenity Horticulture will be raised with the Environment Working Group and identify future steps for certification/recognition.

Through this project:

- Training has been continually delivered to groups of growers.
- A set of guidelines, overheads for delivery and workbooks for participants have been developed for delivery by other trainers.
- All relevant national course information has been gathered to identify suitable Units of Competency.
- A desk top audit of levels of qualifications and relevant information has been carried out.
- EnviroVeg has been mapped against these Units of Competency.
- The full write up of Unit requirements was commenced.
- Currently there is no Certificate or Diploma in Horticulture that is specific to vegetable production practices – need to determine how this course will fit into the system.

Recommendation:

- a) That the option of Course Recognition - potential for linking with the National Training Information Service: National Certificate of Amenity Horticulture be discussed with the Environment Working Group and identify future steps for certification/recognition.

- b) It would be prudent for the Horticulture Industry to develop and register a Certificate in Production Horticulture - Vegetable Production that addresses the aspects of vegetable production. There are already specific Certificates for Horticulture in:

- Landscape
- Parks and Gardens
- Retail Nursery
- Turf
- Wholesale Nursery

There is a Diploma of Production Horticulture, however the Units required to achieve this are not production based.

Use of Logo

The relaunch of the program provided an opportunity to update the EnviroVeg logo. Several designs were presented to the Environmental Committee, however it was agreed that the existing logo was now recognised and apart from changing from ‘Enviroveg’ to ‘EnviroVeg’ it should not be altered.

Old style



The old style logo features the word 'Enviroveg' in a blue, lowercase, sans-serif font. The letters 'i' and 'o' are green. A thick green underline is positioned below the text.

New Style



The new style logo features the word 'EnviroVeg' in a blue, uppercase, sans-serif font. The letters 'i' and 'o' are green. A thick green underline is positioned below the text.

This applies to all forms – EnviroVeg Self Assessment, EnviroVeg Environmental Assurance and gate signage.

Members wanted to be able to display the EnviroVeg Logo on produce packaging, stationary and advertising to further substantiate that they are ‘vegetable growers caring for the environment’ while others who carried out mixed farming were looking for a generic logo to use on gate signage. The Environmental Committee felt this was appropriate as the EnviroVeg program embraced whole of farm. The following logos were developed for use by growers:



The EnviroVeg logo consists of the word 'EnviroVeg' in a blue, uppercase, sans-serif font. The letters 'i' and 'o' are green. A thick green underline is positioned below the text.

Vegetable growers caring for the environment



The EnviroFarm logo consists of the word 'EnviroFarm' in a green, uppercase, sans-serif font. Below it, the tagline 'Farmers caring for the environment' is written in a smaller, grey, sans-serif font.



However, it was also important that the integrity of the program and logo was maintained by growers. To ensure this, the Environmental Committee determined that growers would need to undergo an initial second party audit by the Environmental Manager and continue to complete annual internal audits to retain eligibility.

Since the introduction of this process in April 2009, 10 businesses have successfully undergone the second party audit and have been approved to use the EnviroVeg logo on packaging and gate signage.

Feasibility of audit

The feasibility of developing and EnviroVeg auditable Code of Practice (CoP) was discussed and investigated, and it was agreed by the Environmental Committee that, before creating a further

auditable program, the option of working with the Freshcare Environmental CoP should be further investigated.

To this end, discussions were held with Freshcare and HAL and a trial of a process to enable EnviroVeg members to be third party audited under Freshcare was initiated.

EnviroVeg/Freshcare Environmental CoP trial - A trial to evaluate EnviroVeg against the Freshcare Environmental CoP was held in Cranbourne (Vic) with six vegetable growers participating. It constituted a one-day workshop about the requirements of the Freshcare Environmental CoP followed by visits to two properties the following day.

The group of six vegetable growers had been involved in the EnviroVeg program since inception. The objective of the workshop was to benchmark EnviroVeg against the Freshcare Environmental CoP for compliance and compatibility and to see if the Freshcare Code could be used as the auditable component of the EnviroVeg program.

Overall informal feedback was that EnviroVeg and the Freshcare Environmental CoP are sufficiently aligned that advanced EnviroVeg members will be well-equipped to meet the requirements of, and be certified to, the Freshcare Environmental CoP. Training and support is needed particularly to help these growers to understand and meet the specific documentation requirements of the Freshcare Environmental Code of Practice.

Following the workshop, the participant chose not to proceed to audit at this time, however there were two other EnviroVeg members who had successfully undergone the audit process under the Freshcare Environmental CoP.

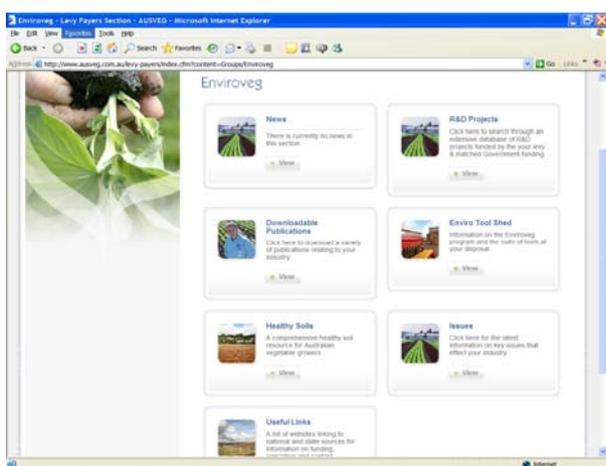
Recommendation:

As there currently is no driver or requirement for growers to achieve certification, the expending of industry funds on developing and registering a further auditable environmental CoP that may or may not be required for some time cannot be justified.

Website

The development of a secure member section on the website was evaluated and following discussions and agreement with HAL deferred by the Environmental Committee for the following reasons:

1. There was already a security requirement for growers to log in to the Ausveg site therefore it would be duplication and growers would require two sets of identifying passwords.
2. The current level of membership didn't warrant the expense.
3. There was insufficient sensitive information on the site to warrant protection.



The EnviroVeg webpage has been developed and embedded in the Ausveg website. The development of the website was managed by the Ausveg Communications Team.

Currently the public access Environment site carried:

- EnviroVeg front page
- Information
 - Newsletters
 - Registration Form
 - General information
- Healthy Soils

The grower portal EnviroVeg site contains several Ausveg links plus:

- Enviro Tool Shed
- Downloadable publications
- Healthy Soils Link
- Useful Links

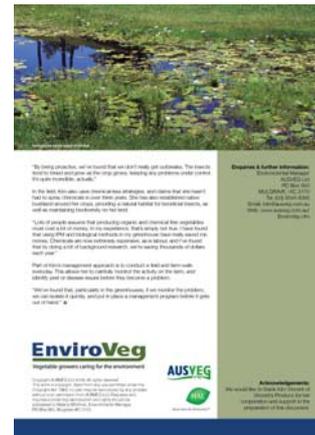
Technology Transfer

Communications/Extension Activities:

EnviroNews – this is printed and mailed out as an insert in alternate issues of Vegetables Australia.



Case studies – Two have been produced and will be mailed out in alternate issues of Vegetables Australia.



Vegetables Australia – EnviroVeg article & advert – October 2008 issue.

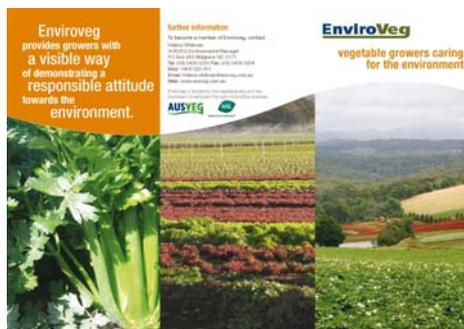


Webpage – this is continuing to be developed and populated

Media & Industry coverage



Promotion – an EnviroVeg brochure was developed for distribution through Vegetables Australia, at promotional events and has been sent to every Local Government/Council across Australia.



Other grower meetings – EnviroVeg has been promoted at all the Soil Awareness Day workshops and also at various other grower meetings and Conferences.



meetingnotice Growing the Business of Farming **NSW Farmers' ASSOCIATION**

Member Service Centre: 1300 774 000 www.nswfarmers.org.au

NSW Farmers' Association Hawkesbury Horticultural Branch invites all to attend the next Hawkesbury Horticultural Branch Meeting

DATE: Tuesday, 3 February 2009
VENUE: Vineyard Hotel, Corner Boundary & Windsor Rd, Vineyard
TIME: 6pm for attendees wanting bistro dinner 7.00pm start

AGENDA INCLUDES – Guest speakers

- **Helena Whitman, AUSVEG Environmental Manager**
 - **What is EnviroVeg:** (the vegetable industry's own environmental program) and Natural Resource Management. A photographic exploration of what growers are already doing right and what can be improved will be provided.
 - **Background:** Growers who have attended previous workshops have been very interested and many have signed up straight away to become members. Membership is free and it will help you as professional growers to get an environmental management system started on your farm. If you are keen, you will be able to get 17 packs supplied using Freshcare Environmental, in the particular areas it can also help growers with problem neighbours. Growers involved in Victoria have received a medal where they are allowed to display an EnviroVeg sign on their gates. This is a very positive image for the industry. (30-40 minutes)
- **Dr Leigh Pilkington, DPI**
 - Update in 2007/2008 on lettuce project (15 minutes)
- **Len Teseroro, DPI**
 - Hydroponic lettuce virus survey (15 minutes)
- **Dr Sophie Parks, DPI**
 - Medicines in hydroponic lettuce review (10 minutes)
- **Sylvia Jelinek, DPI**
 - Workshop determining what resources are the most important to be developed within the vegetable IPM project. (3 minutes)
- **Graham Nicol, Bayer**
 - Moverbio pesticide for sucking pests, and Staff pesticide for chewing pests
- **Hazim Arafeh, Seminis**
 - Fancy Lettuce Varieties (15 minutes)
- **General Business**

FOR MORE INFORMATION CONTACT:
 Joe Danantasi, Glenorie Hydroponics 0418 210 547
 Frances Vella, NSWFA Regional Service Manager 0428 228 818
 "Together we're a force to be reckoned with"



Recommendations

There are several recommendations arising from this project:

Recommendation 1:

1. That the ‘Vegnote’ series be used to provide more technical environmental information to all growers.
2. That short courses or information booklets be developed for some specific topics, eg calibration, biodiversity management.
3. That in an effort to increase resources, an MOU be developed with trainers/organisations to deliver “Introduction to EnviroVeg” workshops.

Recommendation 2:

That the option of Course Recognition - potential for linking with the National Training Information Service: National Certificate of Amenity Horticulture be discussed with the Environment Working Group and identify future steps for certification/recognition.

Recommendation 3:

It would be prudent for the Horticulture Industry to develop and register a Certificate in Production Horticulture - vegetable production. There are already specific Horticultural Certificates and Diplomas for:

- Landscape
- Parks and Gardens
- Retail Nursery
- Turf
- Wholesale Nursery

Recommendation 4:

As there currently is no driver or requirement for growers to achieve certification, the expending of industry funds on developing and registering a further auditable environmental CoP that may or may not be required for some time cannot be justified.

Appendices

Due to size of files, some of these have been included on the CD provided with this report.

Appendix 1: EnviroVeg Manual (hard copy included with report)

Appendix 2: NRM/EnviroVeg matrix (see CD)

Appendix 3: EnviroVeg Competencies (see CD)