Implementation of national environmental strategy for the vegetable industry - 6 month bridging project

Richard Mulcahy
AUSVEG Ltd

Project Number: VG08178

VG08178

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Level 7
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Sydney NSW 2000
Telephone: (02) 8295 2300
Fax: (02) 8295 2399

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EnviroVeg

VG08178

Implementation of national environmental strategy for the vegetable industry - 6 month bridging project

Final Report 190

Completion date: 1st December 2009

Authors: Mr Richard Mulcahy, Dr Siwan Lovett & Mr Hugh Tobin

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Implementation of national environmental strategy for the vegetable industry - 6 month bridging project

Project Code: VG08178

Project Manager: Richard Mulcahy, AUSVEG, PO Box 563 Mulgrave VIC 3170,
Tel: 039544 8098, Fax: 03 9558 6199

Project Purpose:

This project is a 6 month bridging project following on from the EnviroVeg project VG06015: 'Implementation of national environmental strategy for the vegetable industry' that finished in May 2009. This short-term project has been supported by industry and HAL to ensure continuity of the EnviroVeg Program; whilst contracts are finalised for a three-year extension of the EnviroVeg project (VG09002).

Acknowledgements:

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Date of report: 18th December 2009

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Project/Technical Summary:

In May 2009, the EnviroVeg Program completed its current phase and funding was required to support the Program through the subsequent six months during which time a EnviroVeg Plan was further developed. The funding provided through the six month 'bridging' project enabled the EnviroVeg Program to fulfil its aim of supporting vegetable growers to demonstrate, through self assessment and certification, that they are being environmentally responsible both on-farm, and to their surrounding environment. Key outcomes guiding the EnviroVeg Program over the past six months have been:

- Improved environmental practices on farm.
- Identification and risk assessment of potential environmental impacts through farming practices.
- Adoption of best environmental management practices by growers.
- Demonstration by growers of their commitment to the adoption of best environmental practices to the community and other stakeholders.
- Support for the implementation and achievement of Environmental Assurance for the vegetable industry.
- Proactive growers developing their own program for best environmental management practices.
- Continual improvement and profitability through best practice.

In order to achieve these outcomes, the EnviroVeg Program has improved the website; provided a number of articles for *Vegetables Australia* on matters of interest to growers, and ensured

representation at several workshops and conferences to raise awareness about the work of the Program and how growers can get involved. This work has been complemented by the related project VG08110 *'Building Partnerships with NRM Regional Bodies using EnviroVeg as a Resource Management Tool'*. The two Final Reports for these projects should be considered together, as effort was made to ensure activities were seamless and integrated to provide maximum benefit to growers.

Introduction:

Vegetable Growers want to meet community expectations regarding the environment and the way in which their food is grown and sold. They want to know that their valuable natural resources are being managed efficiently, without harm to the wider environment. The EnviroVeg program has been specifically designed by vegetable growers to meet the requirements of both the industry and the broader community. This six month bridging project has enabled the EnviroVeg program to continue to meet the needs of Australian vegetable growers by maintaining web-based and hard copy materials, undertaking reviews of self-assessment checklists, improving EnviroVeg Member's record management, providing articles and case studies on how environmental management can be integrated into productive enterprises, and being a point of contact for vegetable growers on environmental issues.

Overall, the Program has sought to encourage greater adoption of environmental planning and implementation in vegetable production, to increase the frequency of self assessment of current environmental performance, to reduce the potential for environmental damage caused by vegetable production, and to enhance positive environmental outcomes through the implementation of environmentally responsible farm management practices.

Materials and Methods:

The following section is organised against the three main methods used to achieve project outcomes:

1. Website redesign
2. Development of newsletters and case studies
3. Finalisation of training and course material

1. Website Redesign

The EnviroVeg website has been updated in the past six months to provide growers with access to new information and resources. This update has focused on three main topics that provided the content for articles in the *Vegetables Australia* magazine, and which were supported by workshops around the country. The results of the project VG08110 *'Building Partnerships with NRM Regional Bodies using EnviroVeg as a Resource Management Tool',* that investigated ways to improve connections between growers and NRM Regional Bodies, also provided new information for the website. The EnviroVeg website now has new sections covering:

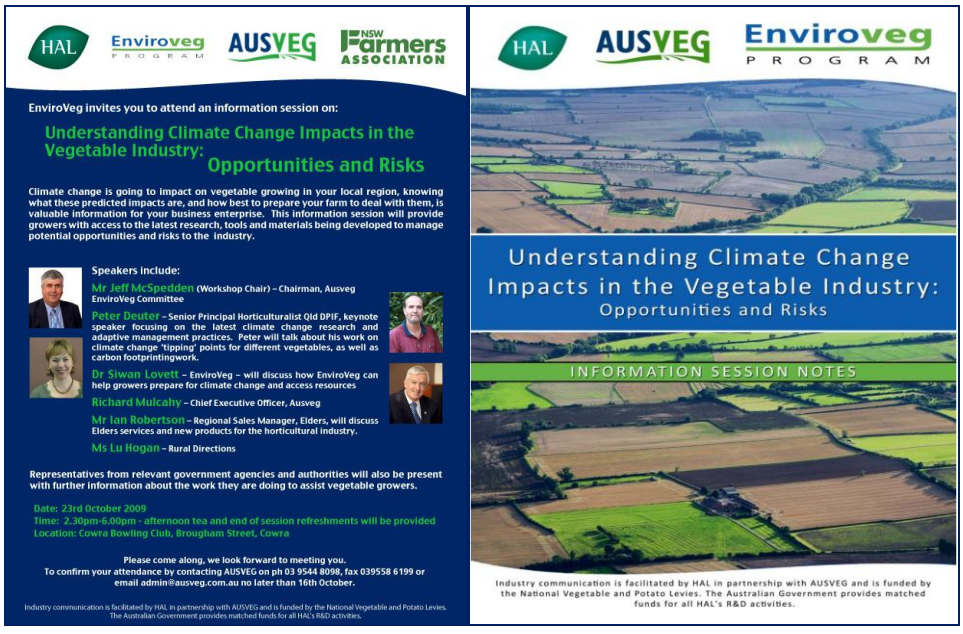
EnviroVeg - Self Assessment – these pages provide information to growers about the contents of the EnviroVeg manual and the reasons why applying that manual is a positive step towards increasing sustainability practices on-farm. It also discusses how the environmental management practices growers use on-farm, can link to wider NRM Regional Body objectives. A hotlink is provided to the Horticulture for Tomorrow website (www.horticulturefortomorrow.com.au) that provides further links to the 56 different NRM Regional Bodies across Australia. Growers are encouraged to investigate possible incentive programs that may be offered through these Regional Bodies, as well as to get involved in local decision making so that their needs are considered within the broader catchment.

Information about the Horticulture Natural Resources Management Strategy is also provided, as well as guidance about how to complete the self assessment checklist on farm. Upcoming workshops and events where EnviroVeg training is provided will be listed on these pages, as well as links to the grower portal where individual grower EnviroVeg records will be kept. The registration form for growers to sign up to EnviroVeg is also provided.

Climate Change – these pages provide an introduction to the concept of climate change and the possible impacts it could have for vegetable growing in different parts of Australia. Four workshops were held during the latter part of 2009 to enable growers to access the latest climate change research and practice. For each of these workshops the material was tailored for each workshop location. The four workshop fliers and accompanying workbooks are all available on-line, as well as additional publications and hotlinks to key climate change websites:

- Climate Change Research Strategy for Primary Industries
- Managing Climate Variability Program
- Horticulture Climate Change Initiative
- Department of Climate Change

Example of climate change flier and workbook – now available via the website



Healthy Soils – these pages have been updated so that the latest information from the Healthy Soils for Sustainable Farms Program is accessible for growers. This was a Department of Agriculture Forestry and Fisheries funded Program and AUSVEG had a project that developed the popular Healthy Soils Ute Guide and accompanying DVD. In the past six months, two healthy soils workshops have been held using these products, as well as pit demonstrations at several field days. The Healthy Soils Ute Guide is available on-line. The Healthy Soils workshops were well attended, reflecting the interest from growers in this topic. This is encouraging, and it will be worthwhile examining the resources provided on the Soil Health Knowledge Bank website (the legacy website for the Healthy Soils for Sustainable Farms Program), as there are many case studies and training materials that could be tailored for vegetable growing regions. Hotlinks to the Soil Health Knowledge Bank and Soil Knowledge Exchange are also provided off this part of the website.

Grower Portal

Over the past six months, work has been undertaken to review the grower member lists for EnviroVeg and to start the process of reorganising files so that each grower can access their self assessment reports, graphs and the EnviroVeg Manual on-line. Over time, several growers have completed between three to five assessments, and these were categorised by year, rather than by grower. AUSVEG is now consolidating those records for each grower, so that they can be made available via the grower portal. This will enable each EnviroVeg member to review their progress and chart improvement year by year.

Currently, EnviroVeg members can complete their self assessment on-line by downloading the checklist and emailing it into the EnviroVeg Coordinator for review and placement on the website. This means that EnviroVeg members can keep a copy on their computer that they can easily access whenever they want to review or update information.

There are currently 128 EnviroVeg members, with Table 1 showing where they are located and how many completed a self-assessment in 2008-2009. To date, AUSVEG has done a pilot

reorganisation of records for six growers, and intends to continue this process, as time and resources permit, with the 52 growers listed as 'active' in 2008-09, the first group to be 'done'.

Table 1: EnviroVeg Membership

State/Territory	Number of Members	2008-09 Assessment
NSW	30	19
Vic	53	12
Qld	12	5
SA	8	5 (4 at workshop)
WA	11	5 (4 at workshop)
Tas	7	4
NT	7	7 (6 at workshop)
Total	**128**	**52**

2. Development of newsletters and case studies

As discussed in the previous section, three topics have focused EnviroVeg activities over the past six months. Rather than developing individual newsletters on each of these topics, it was felt that integrating the articles into the *Vegetables Australia* magazine was a way of showing growers that environmental matters go 'hand in hand' with the other issues and articles contained in the magazine. The Climate Change article ran over two pages in Sept/Oct edition

of *Vegetables Australia*, providing an introduction to the topic, as well as highlighting the Houston Farm Carbon Footprinting research and the upcoming workshops in Wanneroo (WA), Cowra (NSW), Stanthorpe (Qld) and Ulverstone (Tas).

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Climate change – What are the opportunities and risks for your business?

Confused about the impact of climate change on your business? A new brochure produced by HAL should help clear the fog.

Australia's increasingly variable climate poses challenges for vegetable growers given the sector's dependancy on natural resources, especially water for irrigation. This makes the sector inherently vulnerable to the impacts of both short-term climate variability and long-term climate change. The extent these physical impacts affect products and businesses will be further shaped by the:

- growing global demand for food
- impacts of climate change policy
- increasing demands for productivity growth
- increasing competition for natural resources
- requirements for ever more efficient and sustainable production practices.

Most of the anticipated climate change scenarios point towards the need for a very high standard of crop management. Growers will need to distinguish between 'old climate expectations' and 'new climate realities' in determining and implementing adaptation strategies or options.

It will be important for management strategies to be identified and implemented by growers to either offset negative impacts or take advantage of positive responses. It will also be necessary to develop capacity and knowledge so that growers can make effective business decisions, minimise risk, and manage their response to climate variability more effectively.

EnviroVeg

Brochure available

Horticulture Australia Limited (HAL) and the Climate Change Research Strategy for Primary Industries network have produced a new brochure so that growers have information about:

- predicted climate change impacts on horticulture
- research underway to assist growers in responding to climate change
- practical measures to mitigate and adapt to the challenges and opportunities presented by climate change
- a glossary of commonly used climate change terms.

The brochure clarifies what can be done now—through existing business operations and strategies—to help growers reduce greenhouse gas emissions (mitigation) and prepare for future climate conditions (adaptation).

Register for workshops

EnviroVeg will provide a series of four workshops in October and November to consider the impacts of climate change on the vegetable industry, and explain the latest research and practical tools for growers, including the Houston's Farm and Vegetable Carbon Footprinting Tool project (see panel).

The workshops will be held on:

- 16 October, Perth, WA
- 23 October, Cowra, NSW
- 6 November, Stanthorpe, Qld
- 27 November, Ulverstone, Tas.

If you are interested in attending a workshop, please contact the new EnviroVeg Consultant, Siwan Lovett.

For more information about EnviroVeg, and the EnviroVeg Manual and workshops, contact:
Dr Siwan Lovett, EnviroVeg Consultant
Phone: 02 6247 7997
Email: siwan.lovett@cowra.nsw.gov.au
For more information about climate change visit:
www.managingclimate.gov.au
or www.ccrspi.com.au

Dr Siwan Lovett is the new EnviroVeg Consultant. She has worked for many years as an independent consultant and brings with her natural resources management and science communication skills.

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Vegetables Australia September/October 2009

Eco-jargon explained

Carbon footprint

Carbon footprints calculate the amount of carbon dioxide (CO_2) produced by an activity, a business or a country.

In its strictest sense, a carbon footprint accounts for both direct emissions (those that a business or activity is wholly responsible for, which means all on-farm activities that produce greenhouse gases) and indirect emissions (those related to activities such as transport of raw materials to a business, and transport of a product to the consumer).

Other greenhouse gases that contribute to global warming are often converted to 'carbon dioxide equivalents' (CO_2-e), which is the amount of carbon that would have a similar effect to the actual amount of the greenhouse gas released.

The carbon footprint combines the impact of all CO_2 and CO_2-e gases in terms of carbon. Growers will need to look at their exposure to all greenhouse gases for potential new product labeling and regulatory reporting under either the proposed Carbon Pollution Reduction Scheme (CPRS) or the National Greenhouse Energy Reporting Framework.

Life cycle assessment

A life cycle assessment is an assessment of the environmental, economic and social impacts of a production system or product. The life cycle commences from the raw materials stage through to processing, transport, use, reuse, recycling or disposal. Sometimes it is described as analysing a product's impact from the 'cradle to the grave'. A new fact sheet has been produced on life cycle assessment, if you would like a copy contact EnviroVeg Consultant, Siwan Lovett, or visit www.ausveg.com.au.

Food miles

Food miles are the distance food travels throughout the complete production process ending with the consumer. The concept allows for a simple comparison to be made among different foods in relation to energy use and greenhouse gas emissions. v2

Taking the first step

Houston's Farm is developing new tools for the industry to assess the impacts of climate change.

Houston's Farm is a fully integrated grower and processor of fresh-cut salads supplying more than 1,400 major retail outlets nationally.

In light of the retail focus in UK and US supermarkets on food miles, and the growing debate in Australia about greenhouse gas emissions, Houston's Farm developed a strategy to calculate its business carbon footprint using product life cycle assessment.

Using its fully integrated grower, processor and distribution model, Houston's Farm developed a calculation tool that has the ability to analyse the relative impact and merit of proposed changes to its production and distribution model.

In 2007, Houston's farm was the inaugural winner of the Woolworths Fresh Food Grant in recognition of its strategy. It chose to leverage award funds by investing in a project through HAL to develop a project of wider significance.

The Houston's Farm project commenced in June 2008 and has three stages:

1. The development of the tool using Houston's Farm modeling
2. Development of a simple interface to enable adoption across industry
3. Dissemination to industry.

The first stage (June 2008 – June 2009) has been completed, and stages two and three (July 2009 – June 2011) are ready to commence. These involve the modification of the Houston's Farm tool into a more widely applicable Vegetable Carbon Footprinting Tool and will include dissemination to industry through an education process.

The EnviroVeg Climate Change article followed on from the case study on Steve Skopilianos, Director of Melbourne's Ladybird Organics, and winner of the Brisbane Produce Market Innovative Marketing Award at the Australian Vegetable Industry Conference held in May this year. This was a deliberate strategy to demonstrate to growers how working with the environment can reap benefits. Steve's inspirational story provided an excellent lead in to the piece on climate change and the promotion of EnviroVeg management approaches on farm.

> *"We get emails and phone calls from consumers thanking us for being thoughtful about the environment"* Steve Skopilianos

Steve Skopilianos Case Study: Vegetables Australia Sept/Oct Edition

Calculated risk pays dividends

For Steve Skopillanos, Director of Melbourne's Ladybird Organics, the rebranding his company after switching to organic farming has brought commercial success, writes Yolina Arigewin-Castro.

ladybird organics

Building the brand

According to Steve Skopillanos, building a recognisable brand requires a clear vision, determination, and the willingness to take a risk.

good for you, good for your tastebuds, good for the environment

"We get emails and phone calls from consumers thanking us for being thoughtful about the environment."

Based on grower demand, AUSVEG may investigate the possibility of including this story in a case study booklet focusing on positive stories of productivity and sustainability goals being met on farm.

Healthy Soils provided the content for the Nov/Dec edition of *Vegetables Australia*, and this article discussed the characteristics of healthy soil and the ten habits of healthy soils farmers. The newly released Soil Health Knowledge Bank was also featured, with this new website containing a range of case studies, soil health diagnostic tools, and resources for growers to access and apply in their day-to-day farming operations. The upcoming workshops in Bowen (Qld) and Cranbourne (Vic) were also promoted in this article.

Healthy soils for sustainable farms

Growers who want to maintain good soil-management practices have a number of tools available to them, writes EnviroVeg Consultant Dr Siwan Lovett.

Healthy soil is defined as soil that is productive and easy to manage under the intended land use. Healthy soils have chemical, biological and physical properties that promote the health of plants, animals and humans. They also support profitable farming systems and grow regional economies.

In some parts of Australia, past farming practices have resulted in degraded soils. Key degrading processes include erosion, structural decline, carbon depletion, nutrient loss, acidification and salinisation. These processes threaten the short- and long-term sustainability of productive agriculture.

Soil workshops

The Healthy Soils for Sustainable Farms Program (2005–2008) was established in response to these threats; it aimed to assist farmers to adopt good soil-management practices. Key messages to come out of the program were the six attributes of healthy soils, and the 10 habits of healthy soil farmers (see panel).

These were developed by bringing together the science of soil health with the experience of farmers. For vegetable growers, the *Healthy Soils for Sustainable Vegetable Farms Ute Guide* and accompanying DVD were produced to communicate these messages in practical ways for on-farm use.

To continue the work of the Healthy Soils for Sustainable Farms, the EnviroVeg Program is running two soil health workshops. The first of these was scheduled to be held in Bowen, Queensland, on 11 November; the second workshop will be in Cranbourne, Victoria, on 20 November.

Vegetable growers in the Cranbourne region will be given the opportunity to talk to researchers and practitioners first-hand about the latest developments in managing soil for optimal health and productivity.

If you are interested in attending this workshop, please email <admin@ausveg.com.au> or call AUSVEG on 03 9544 8098.

For growers unable to attend these workshops, a new Soil Health Knowledge Bank is available online at www.soilhealthknowledge.com.au. This website contains a range of free, locally-relevant soil health guides, case studies, soil assessment tools, and education and training materials.

Links to the website can also be found on the new EnviroVeg soil health webpage, www.ausveg.com.au/healthy-soils.cfm.

Climate Change seminars

In other EnviroVeg news, three of the four EnviroVeg Climate Change seminars have been successfully held in Western Australia, New South Wales and Queensland.

The final workshop, Understanding Climate Change Impacts in the Vegetable Industry: Opportunities and Risks, will be held in Ulverstone, Tasmania, on 27 November. Attending growers will learn about the impacts of climate change on the vegetable industry, and be given information about the latest research and practical tools.

Speakers include AUSVEG CEO, Richard Mulcahy; Queensland Primary Industries and Fisheries Senior Principal Horticulturalist, Peter Dozier; and representatives from Elders. Further information can be obtained from the EnviroVeg website. vg

The Healthy Soils for Sustainable Farms Program was managed by Land & Water Australia on behalf of the Department of Agriculture, Fisheries and Forestry, and in partnership with the Grains Research and Development Corporation.

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Soil Health Knowledge Bank
an Australian Government initiative

"There is much in agriculture we can't control, however healthy soils and sustainable practices are our best opportunity to be successful. The decisions we make regarding sustainable practices and soil health now, will cement our place in profitable agriculture for generations to come."

John and Kerry Steel, Farmers, Mid-Loddon sub-catchment, Victoria

Healthy soils:

- Maintain organic matter for robust soil structure and carbon storage
- Match nutrient supply and demand
- Optimise water entry, storage and supply
- Enhance soil biological function
- Optimise productivity
- Enhance environmental and community health and well-being.

The 10 habits of healthy soils farmers:

1. Maintain organic matter, ground cover and plant diversity
2. Balance (targeted) application of inputs to maintain soil fertility
3. Maintain healthy plant growth
4. Manage for soil structural stability
5. Monitor and evaluate soil condition
6. Understand soil limitations
7. Learn for continuous improvement
8. Value the balance between production, and ecological and environmental services
9. Invest in profitable strategies to enhance soil health
10. Manage for climatic variability.

The January/February edition of *Vegetables Australia* is currently being developed, and EnviroVeg will once again be contributing a two page article. This article is going to talk about the NRM Pathways project and provide information about the benchmarking EnviroVeg analysis which showed such positive connections between the EnviroVeg Manual and NRM Regional Body targets and objectives. The article will also give an overview of the workshop series, some

of the key findings and another link for growers to view the four new workbooks that were produced as a result of this investment. A separate article will also be provided featuring the Bowen Healthy Soils Workshop as this event coincided with the opening of the new Elders Office in Bowen. This is a new partnership for AUSVEG and Elders have been very supportive and interested in promoting EnviroVeg through their outlets across the country. This is an opportunity that will be further explored in 2010.

The idea of a case study booklet featuring different vegetable farmers and the work they do to manage for both environmental and productivity goals, is one that will be a priority for 2010. The booklet will have a number of different commodity farmers from locations across Australia, and will focus on providing the practical techniques that vegetable growers are using on-farm to meet different environmental issues, for example, increasing water use efficiency, adapting to climate change, switching pesticide use so that soil health can be protected, and many more. These case studies will be supported by a resources list of publications, websites, courses and other information vegetable growers might find useful in applying the real-life approaches they have read about on their own farms.

3. Finalisation of training and course material

Over the past year, Horticulture Australia has managed a *Caring for our Country* funded project investigating the development of an Environmental Recognition Framework for horticulture. This investment was made on the basis that there are several environmental programs operating through different industry, non-government and government organisations, making it confusing for growers to know which approach to take on their farm. By providing a standard assessment framework that can let growers and retailers know which environmental 'systems' are part of the Environmental Recognition Framework, greater clarity and guidance will be provided. Preliminary findings from this project were presented at the *Keep it Real* conference, held in November this year. Based on the presentation provided at the conference, as well as discussions with those involved in the project, the EnviroVeg

Program is an excellent candidate to be assessed for inclusion under the Environmental Recognition Framework. However, the Environmental Recognition Framework project has a few more months to go before completion, and there is some uncertainty about where it's ongoing organisational home will be. If the Framework is accepted by industry and further funding provided for maintaining the system it requires to support it, the EnviroVeg Program will be put forward for assessment and inclusion.

In addition to providing input to the Environmental Recognition Framework, AUSVEG have had discussions with Clare Hamilton from Freshcare about EnviroVeg accreditation being provided through the Freshcare Environmental program. EnviroVeg and Freshcare are complementary, with the EnviroVeg Program covering all of the Freshcare elements, as well as a few extra environmental modules.

	Freshcare Elements	**EnviroVeg Elements**
E1	Land and soil	Soil management
E2	Water management	Water management
E3	Chemical management	Chemical management
E4	Nutrient management	Nutrient management
E5	Biodiversity management	Biodiversity management
E6	Waste management	Waste management
E7	Air management	Air quality management
E8	Energy management	Energy conservation
E9	Other practices	Pest and disease (Integrated Pest Management)
		Organic farm management
		Hydroponics – field management
		Hydroponics – greenhouse management
		Bio-security – managing risk

In practice, the EnviroVeg Manual and self-assessment checklist require a greater level of detail about on-farm environmental activities than the Freshcare or Horticulture for Tomorrow guidelines. The EnviroVeg Manual covers more topics in greater depth. Ms Hamilton was very open to the idea that EnviroVeg and Freshcare could work together. This is another opportunity to be explored in 2010 once the outcome is known about the Environmental Recognition Framework.

Developing the EnviroVeg self-assessment and accreditation Program into a recognised certificate or diploma has been put on hold until the future of the programme is confirmed. A decision is expected early in the New Year, and once this has been made, the EnviroVeg Program will work towards a consistent and standardised approach to accreditation and further development of a system to support growers who wish to become EnviroVeg members.

Results:

The previous discussion on materials and methods incorporated information about the results achieved in each of the three key activities undertaken through this project. Overall, this project has met the outcomes it was contracted to achieve. In so doing, it has continued the work of the EnviroVeg Program over the short six month period between completion of one phase, and moving into a new three year period.

This bridging project has supported the VG 08110 *'Building Partnerships with NRM Regional Bodies using EnviroVeg as a Resource Management Tool'* activities, through website updates, magazine articles, grower case studies, attendance at workshops across the country, and participation in the *Keep it Real* conference. In addition, ongoing input and discussions with retailers, Total Quality Assurance (leaders of the Environmental Recognition Framework project)

and Freshcare have provided a sound basis for moving forward on accreditation options for the EnviroVeg Program.

Discussion:

The discussion section is organised around the three main activities undertaken through this project.

1. Website redesign

As the AUSVEG website is updated, the objective is to start tracking user movements on the site and to assess which web pages are being accessed the most, where users are logging in from, and which parts of the site they spend the most time in. This will enable us to get a feel for how many growers are accessing the self-assessment checklist on-line, as well as how many growers are scrutinising and using their records through the grower portal. This facility is currently not available, but it will be built into future upgrades.

Web literacy is an important issue to be considered, as there will be a need to build the capacity of many vegetable growers so that they access the information available through the AUSVEG and HAL sites. At each of the workshops, growers were asked what their preferred method of communication was, with most nominating the facsimile machine, and few citing the web as something they used regularly for information gathering. This could present a significant obstacle to projects relying on web-based delivery. For this reason, the EnviroVeg Program will continue to improve web-based resources, but will always ensure a large amount of activity is face-to-face and delivered through a range of other communication mechanisms and AUSVEG is concurrently building facsimile databases for those growers who are not yet ready or willing to embrace the internet

2. Development of newsletters and case studies

EnviroVeg will continue to provide a two page article in each edition of *Vegetables Australia*, highlighting to vegetable growers that environmental matters can be considered hand-in-hand with other on-farm activities. The development of a case study booklet will also be something undertaken in 2010, with input from HAL about the choice of vegetable growers featured. This booklet can then be distributed to those growers who might be thinking about EnviroVeg, but who want the reassurance that it is a positive step to take on-farm. Hearing the words of other respected vegetable growers is a far more effective communication approach than using 'experts' with no connection to the realities of on-farm life.

Closer working ties with HAL will also mean that EnviroVeg could develop newsletters that feature research of relevance to vegetable growers. While HAL produces a range of fact sheets, tailoring this information for vegetable growers is often the best way to get people to read, accept and apply findings. The work AUSVEG has done for climate change and healthy soils has shown that growers like to have results applied in their region so that they can 'see it with their own eyes'. AUSVEG will continue to use a range of communication approaches to get research results to growers that are meaningful and relevant to their business.

3. Finalisation of training and course material

The EnviroVeg Manual is being used in an ad hoc way by TAFE and other educational institutions that have come across it in the course of their interactions with the vegetable sector. There is plenty of scope for ongoing work with the agricultural extension and education sector to integrate the EnviroVeg Program into training courses as an example of tailoring information for a specific audience. The EnviroVeg Manual 'translates' the theory into practice by synthesizing a vast amount of information from a range of different organisations, researchers and industry codes of practice. This makes the Manual and the self assessment checklist a very useful resource, and in 2010 AUSVEG will explore further possibilities for the EnviroVeg Program to raise its profile in the education sector as a way of encouraging and connecting vegetable growers with ideas and approaches to improve environmental management on-farm.

Technology Transfer:

Several examples of the effort that has been made to effectively communicate the work of this project have already been provided in this report (see pages 6-11) as well as in the VG 08110 *'Building Partnerships with NRM Regional Bodies using EnviroVeg as a Resource Management Tool'* project. Technology transfer activities have not been separated out between the two projects, and for more information please refer to the technology transfer section of the VG08110 report. In brief, a sustained communication effort has been undertaken over the past six months using web, magazines, AUSVEG Updates, rural and national radio and newspapers, to promote the Climate Change and Healthy Soils workshops, and to raise awareness about the EnviroVeg Program.

Recommendations:

1. To maximize the outcomes of this project it is recommended that further funding be provided to continue the work of the EnviroVeg Program and this view is supported by the Environment Committee of AUSVEG. The EnviroVeg Program is known and trusted by the vegetable industry, and this provides HAL and other organisations wanting to work with growers like the NRM Regional Bodies, a mechanism to use. Of particular importance is the length of time the EnviroVeg Program has been running, as NRM in Australia is characterised by the constant churn of programs, people and projects. Vegetable growers now recognise the EnviroVeg brand and look to the program to provide them with the most up to date information on how to improve environmental management on-farm within the context of a commercial vegetable growing operation.

2. The activities undertaken through this bridging project - website updates, grower portal improvement, easier and more accessible grower records management, case study booklet, and ongoing investigations about the most appropriate accreditation options for EnviroVeg - be continued to provide ongoing continuity of investment and vegetable grower confidence in the EnviroVeg brand and message.

Acknowledgements:

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