

**Facilitating the
communication and
development of the
Vegetable Industry in NSW
(continuation of VG99053)**

Dr Alison Anderson
NSW Farmers Association

Project Number: VG07140

VG07140

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 2131 8

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™

**Facilitating the communication
and development of the
Vegetable Industry in NSW**

Dr Alison Anderson
NSW Farmers' Association

Project Number: VG99053/VG07140

July 2009

HAL Project VG99053 & VG97140

Dr Alison Anderson*
NSW Vegetable Industry Development Officer

NSW Farmers' Association
GPO Box 1068
Sydney NSW 2001

* Arris Pty Ltd
PO Box 206
Highgate SA 5063

Phone: 02 9576 5449
Mobile: 0400 600 628
Email: aanderson@arris.com.au

This final report provides an overview and summary of the NSW Vegetable Industry Development project, October 2000 – June 2009. The project has collaborated closely with industry development projects in other states to maximise uptake of outcomes of the National Vegetable Research and Development (R&D) Program and to strengthen communication channels in the Vegetable Industry nationally.

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

Thank you to the vegetable growers of NSW, NSWFA, NSW DPI, and research providers and industry stakeholders nationally for their support of the NSW Vegetable Industry Development project.



Any recommendations contained in this publication do not necessarily represent current HAL 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.

Contents

Abbreviations	4
Summary	5
Introduction	6
Methodology & Activities	8
NSW Vegetable IDO Activities	8
Project Establishment	8
Project Management	10
Communication Strategy	10
Other Activities	16
Evaluation	22
Independent Evaluation of the NSW Vegetable Industry Development Project	22
National Reviews	25
Discussion	26
Recommendations	28
Acknowledgements	30
References	30
Appendices	31

Abbreviations

ACGA	Australian Chinese Growers Association
AHGA	Australian Hydroponic and Greenhouse Association
AVGA	Australian Vietnamese Growers Association
DAFF	Australian Government Department of Agriculture, Food and Forestry
DBM	Diamondback Moth
HAL	Horticulture Australia Limited
HRDC	Horticultural Research and Development Corporation
IDO	Industry Development Officer
IPM	Integrated Pest Management
LOTE	Language Other Than English
LVHN	Lachlan Valley Horticultural Network
NSW DPI	NSW Department of Primary Industries (formerly NSW Agriculture)
NSWFA	NSW Farmers' Association
NVIDN	National Vegetable Industry Development Network
RIRDC	Rural Industries Research and Development Corporation
R&D	Research & Development
WFT	Western Flowers Thrips

Summary

The National Vegetable Research & Development (R&D) Program began in 1996, funded by the National Vegetable Levy and Australian Government via the Horticultural Research and Development Corporation (now HAL). AUSVEG, the national peak vegetable industry body, identified the need for Industry Development Officers (IDOs) to facilitate the transfer and adoption of R&D project outcomes to industry and to communicate industry R&D investment priorities to AUSVEG and HAL.

NSW Farmers' Association were successful at obtaining funding for a NSW Vegetable IDO through HAL. The NSW Vegetable IDO was appointed in October 2000 and remained in the position until the conclusion of the Vegetable IDO projects in June 2009.

Industry workshops across NSW in 2001 established NSW Vegetable Industry R&D and communication priorities, which were used to guide the activities of the NSW Vegetable IDO.

The NSW Vegetable IDO developed a comprehensive NSW Vegetable Industry database and a communication plan, both used to disseminate R&D information. The IDO was involved in a range of activities including facilitating workshops, participating in project steering committees, assisting growers prepare for R&D meetings, writing industry publications and strategic plans and developing the VegeNote fact sheet series with Vegetable IDOs from other states.

An independent review of the NSW Vegetable IDO project in 2005 found that the NSW Vegetable IDO has been successful in achieving a high level of grower awareness and trust in what is a fragmented, geographically and culturally diverse industry.

Introduction

HAL (formerly HRDC) project VG99053, 'Facilitating the communication and development of the Vegetable Industry in NSW' commenced in October 2000. The project was funded by the National Vegetable Levy and the Australian Government and managed by HAL.

NSW Farmers' Association (NSWFA) was contracted by HAL to deliver VG99053 through recruitment of a Vegetable Industry Development Officer (IDO). Alison Anderson was employed to fulfil the position of Vegetable IDO for NSW.

The NSW Vegetable IDO was part of the National Vegetable Industry Development Network (NVIDN). Prior to the commencement of the NSW Vegetable IDO project, IDO projects had been initiated in South Australia, Victoria, Queensland and Western Australia. Tasmania employed an IDO shortly after NSW. Together the Vegetable IDOs from each state formed the NVIDN.

The Vegetable IDO projects were funded to allow the Vegetable Industry to maximise the benefits of its Research and Development (R&D) investment. Prior to 1998 (when the first of the IDO projects commenced) there was no coordination of the communication and delivery of outcomes from R&D projects that had been funded by the National Vegetable Levy. Communication was made more difficult by the fragmented nature of the Vegetable Industry. The IDO projects allowed communication and technology transfer to be managed, planned and coordinated. Establishment of IDOs and the NVIDN meant that growers and industry knew who they could contact to find out information about R&D project outcomes and R&D providers knew who could assist them with technology transfer in each state.

The main roles of the Vegetable IDOs included:

- Facilitate the development of the Vegetable Industry
- Facilitate transfer and adoption of relevant technologies and practices
- Increase grower awareness of information sources and services that aim at improved productivity
- Identify impediments to the progress of the Vegetable Industry and suggest potential solutions
- Assist in the implementation of the Australian Vegetable Industry Strategic Plan
- Encourage and facilitate communication between researchers and growers.

Key activities conducted by the Vegetable IDOs included:

- Assist industry delegates in preparation for R&D committee meetings
- Organisation and involvement in Industry events
- Identification of Industry R&D needs
- Publication and distribution of newsletters
- Facilitation of meetings with growers and researchers

- Maintenance of industry databases
- Training courses for growers
- Assist researcher providers develop effective communication strategies
- Assist with the minor use permit program for agricultural chemicals
- Technical tours for growers
- Formalisation and strengthening of regional grower groups.

The NSW Vegetable IDO project was overseen by a Management Committee (a representative from NSWFA, a representative from HRDC/HAL/AUSVEG and 3 growers).

In July 2005 the NSW Vegetable IDO project was extended for twelve months to allow for a review of all IDO projects and industry development activities across all of horticulture, rather than fund a new IDO project for NSW. The review process took longer than initially anticipated and the NSW IDO project continued to be extended past July 2006. In 2007 the project was continued as HAL Project VG97140. The NSW IDO position became part-time in October 2007 and the project was completed in June 2009 in time for the roll-out of a new and comprehensive Vegetable Industry Development Program, which will build on the successes and recommendations from the Vegetable IDO Projects and other industry development programs between 1998 and 2009.

Methodology and Activities

NSW Vegetable IDO Activities

The activities to be undertaken by the NSW Vegetable IDO were specified in the project proposal for VG99053 which was submitted to HRDC and approved for funding. The activities were:

1. Identify existing grower groups and associations at commodity and regional level and establish and foster a communication network between them.
2. Develop communication linkages between research and extension personnel and relevant grower groups and ensure a targeted flow of R&D information between the groups.
3. Assist vegetable producers to develop strategic plans for their industries.
4. Make recommendations to the Vegetable R&D committees on the research needs of vegetable industries in NSW.
5. Assist commodity delegates to feed back information from National meetings to grower constituents and to manage and document grower feedback relevant to the R&D priority setting.
6. Facilitate the establishment of working partnerships between growers, researchers, government extension personnel and the agribusiness sector to solve industry problems through R&D.
7. Assess the level of technology uptake by vegetable producers and the effectiveness of the NSW Vegetable IDO to facilitate the process.
8. Make recommendations to State R&D committees on regional and commodity R&D needs and propose specific projects identifying relevant R&D personnel capable of undertaking the work.

Project Establishment

In the first 6 – 12 months of the NSW Vegetable IDO project the focus of the IDO was to develop the profile of the IDO within the vegetable industry in NSW, with the assistance of the Management Committee.

Specific activities undertaken to establish the NSW Vegetable IDO project in NSW are outlined below.

1. Establishment of IDO office

The IDO office was established within the NSW DPI (formerly NSW Agriculture) building at Sydney Markets at Flemington. This allowed the IDO to gain support from NSW DPI personnel who could introduce her to key vegetable growers and to readily visit growers whilst they were in the markets. It also allowed development of relationships with Sydney Markets Limited, the Australian and NSW Chambers of Fruit and Vegetable Growers, Levies and Revenue Services (a division of DAFF) and some key rural suppliers in the Sydney Region.

2. Industry introduction

With the assistance of NSWFA, NSW DPI, and HRDC the IDO was introduced to key people in the NSW Vegetable Industry. In the first week of employment the IDO spoke at a large (approximately 100 attendees) grower meeting at Windsor (NSW Free Growers Horticultural Council) to outline the roles and responsibilities of the IDO.

3. Vegetable IDO activities in other states

The NSW Vegetable IDO established contact with the other IDOs in the first week of the project. She met all other IDOs, key industry personnel and grower representatives on National R&D Product Groups (the R&D investment decision making committees) in the second week of her employment. Following this meeting she spent 3 days with the SA Vegetable IDO and 3 days with the Queensland IDO a few months later.

From the other Vegetable IDOs, the NSW IDO was able to learn how they facilitated the communication of R&D outcomes, how they prepared for R&D Product Group meetings and how they reported back to industry on the outcomes of R&D Product Group meetings. A report on the findings was prepared for the Management Committee with recommendations for NSW with regards to how to address these activities.

4. Establish database

Early contacts such as NSW DPI and individual growers were able to assist in the initial development of a NSW Vegetable Industry database. The establishment and maintenance of a comprehensive database was a key component of successful and targeted communication of R&D outcomes to industry.

5. Project overview for industry distribution

The NSW Vegetable IDO prepared a short personal dossier detailing her previous industry experience as well as an overview of the intended outcomes of the NSW Vegetable IDO project. It was forwarded to industry publications.

6. Industry needs analysis

The IDO prepared a brief for a NSW Vegetable Industry Research, Development and Communication Needs Analysis. The needs analysis was a joint collaboration between the IDO and an appropriately qualified consultant.

7. Tender review

The IDO and the Management Committee considered appropriately qualified consultants and appointed Noel Wright from Dynatron Research to assist the NSW Vegetable IDO in completing a NSW Vegetable Industry Research, Development and Communication Needs Analysis.

8. Needs analysis workshops

The IDO worked with the appointed consultant to organise and implement the industry needs analysis process. Workshops were held in Cowra, Bathurst, Macksville, Hay, Griffith, Camden, Windsor, and at Sydney Markets for greenhouse growers. At each workshop there were also guest speakers

including staff from NSW DPI (to report on R&D outcomes where relevant) and Peter Dal Santo (Vegetable Chemical Minor Use Coordinator).

9. Preparation of industry needs analysis report

Upon completion of the industry needs analysis the IDO, consultant and Management Committee compiled a report outlining the outcomes and recommendations. The IDO used this report, 'Outcomes of the NSW Vegetable Industry Research, Development and Communication Needs Workshops, 2001' to guide future activities. A summary of the priorities identified at the workshops and proposed actions is given in Appendix 1. The preferred communication channels identified are given in Appendix 2.

10. Regular feature articles

The NSW IDO began contributing a monthly article on activities, events or R&D outcomes for 'Vegetable Platter', the vegetable R&D section of 'Good Fruit and Vegetables' magazine. The SA Vegetable IDO coordinated this activity, and the NSW Vegetable IDO managed the coordination when the SA Vegetable IDO was unavailable.

Project Management

The NSW Vegetable Industry Development Project was managed on a day-to-day basis by the NSW Vegetable IDO with input from the Horticulture Policy Analyst at NSW Farmers' Association. The project was overseen by a Management Committee comprising of:

1. NSWFA representative (Horticulture Policy Analyst/Policy Manager) – since October 2000 this position was filled by Liz Chamberlain, Belinda McNeill, Luke Jewell and David Moffitt.
2. HRDC/HAL/AUSVEG representative – this position was initially filled by Jonathan Eccles and then Ross Ord.
3. Three growers – these positions were filled by Jeff McSpedden (Bathurst), Mario Muscat (Windsor) and Eddie Galea (Camden) for the life of the project.

The IDO provided milestone reports to the Management Committee and HAL every six months, which included intended activities and a workplan for the subsequent six months. Workplans were not overly structured, allowing for flexibility and the NSW Vegetable IDO to respond to industry issues and needs and new outcomes from the Vegetable R&D Program.

The IDO, through self-awareness, taking time to reflect after workshops and activities and feedback from industry used a cycle of continual improvement to adjust project methodologies.

Communication Strategy

Following the NSW Vegetable Industry Research, Development and Communication Needs Analysis 2001, a strategy was put in place to communicate with the NSW Vegetable Industry.

The NSW Vegetable Industry Communication Strategy needed to take into consideration how the NSW Vegetable Industry preferred to receive information and the range of information sources used. At the Needs Analysis Workshops in 2001 it was highlighted that growers and industry stakeholders use a range of medium for their information.

Printed material, workshops (especially in the evening) and trusted sources such as other growers, rural suppliers and NSW DPI staff were the most cited sources of information. Email and the internet were not seen at the time as attractive sources of information due to poor connections or little computer experience.

The findings for communication preferences in 2001 have changed little over time. More growers are using the internet and email but still reluctant to use them as their primary sources of information as they find them too time-consuming and difficult to use.

In the 2005 independent evaluation of the NSW Vegetable IDO project (Clarke, 2005) a strong preference for printed newsletters and field days was expressed.

Research by Taverner Research for Concept Consulting (Concept Consulting, 2008) found that the main sources of information for vegetable growers nationally were other farmers (15%), suppliers (14%), own experience (10%) and agronomists (9%). They also found that NSW growers were most likely to use suppliers (37%) and Government agencies (20%) as a source of information and they were the least likely to use agronomists (6%).

Given the high usage of rural suppliers, leading growers and NSW DPI staff as sources of information particular effort was made to communicate with these groups. If these groups were up-to-date with R&D outcomes and other industry information then it was likely that they would use this information when advising growers. The downside to utilising this network of information providers to get key information to growers was that the sources of information may not always be identified, that is the National Vegetable R&D Program may not be credited as being the initial source of useful information. However it was considered that it was most important that growers had access to R&D outcomes (and therefore the ability to implement them) and a concerted effort was made to have strong communication linkages with rural suppliers, leading growers and NSW DPI staff. A much wider network of growers could be reached using this method.

Another key consideration for communication with the NSW Vegetable Industry is that approximately 80% of growers have a Language Other Than English (LOTE) background (Vegetable Growers with a LOTE: A Snap Shot Report, 2005) and that there are a large proportion of small businesses. Growers with a LOTE background utilise other growers, their grower associations, rural suppliers and dedicated bilingual NSW DPI officers for information. Small businesses are less likely to utilise the internet and agronomists for information (Concept Consulting, 2008).

The goals of the NSW Communication Strategy were to:

- Raise awareness of the Vegetable R&D Program
- Improve access to R&D outcomes and other industry information
- Improve understanding of R&D outcomes and other industry information
- Identify priority issues of the NSW Vegetable Industry
- Improve communication between growers, researchers and other industry people.

Key messages for communication were (as identified at a National Vegetable IDO Meeting, November 2001) were:

1. Your levy is a worthwhile investment (potential for leverage)
2. Outcomes of direct benefit are produced from the R&D program
3. Access to these outcomes is easy
4. Adoption may benefit your bottom line
5. There are many sources of information available
6. By working together you can achieve more
7. You can have your say
8. The R&D program is available to all levy payers.

The strategies employed for communication with the NSW Vegetable Industry were:

1. Produce a state-based newsletter, NSW VegeLink
2. Produce articles for 'Vegetable Platter' in Good Fruit and Vegetables magazine
3. Workshops
4. Targetted mailouts
5. Email newsletters and news
6. Grower association meetings
7. AUSVEG and HAL information distribution
8. Priority issues
9. Industry database

More information about how these strategies were developed and implemented is given below.

NSW VegeLink Newsletter

Publication of a NSW Vegetable Industry R&D newsletter was seen as the best way to regularly communicate with the industry with regards to:

- New projects funded through the Vegetable R&D Program listed each year, with contact details of project leaders
- Final reports available from HAL
- Current research projects and contacts
- New newsletters and publications (e.g. CDs, DVDs, ute guides) available and how to obtain them
- Upcoming workshops, meetings and conferences
- Key industry people
- The Minor Use Chemical Permit program.

The NSW VegeLink newsletter was circulated to NSW growers and industry stakeholders such as NSW DPI staff, rural supplier and processors and also to key industry stakeholders nationally. Some interstate researcher also asked to be on the mailing list.

Eighteen issues of NSW VegeLink were published, beginning with Issue 1 in September 2001. Before 2006 there was little funding in the project for publication of a newsletter. It was therefore produced in black and white and there was little secretarial support for printing, folding and distribution. In 2006 the AUSVEG Communication Manager, Lisa Maguire, and the design staff at Arris Pty Ltd assisted in improving the design and readability of NSW VegeLink and publication in colour commenced (Issue 12, Summer 06/07).

Vegetable Platter

The NSW Vegetable IDO contributed a monthly article on activities, events or R&D outcomes for 'Vegetable Platter', the vegetable R&D section of 'Good Fruit and Vegetables' magazine from October 2000 to early 2007 when the content of the magazine changed under the direction of a new Editor. The SA Vegetable IDO coordinated this activity, and the NSW Vegetable IDO managed the coordination when the SA Vegetable IDO was unavailable. 'Vegetable Platter' was seen as an excellent avenue to reach the wider industry and other horticultural industries with information about the Vegetable R&D Program. It also gave growers who read 'Good Fruit and Vegetables' that were not on IDO databases to learn about the R&D program and be given the opportunity to contact their local IDO.

Workshops

Workshops were held in the vegetable growing regions of NSW where relevant to the region to extend the outcomes of research projects, enable better understanding of outcomes, allow participation in research projects and improve communication between growers, researchers and other industry stakeholders.

Workshops were either organised and facilitated by the NSW Vegetable IDO in response to requests by a group of growers (e.g. Macksville Vegetable Information Evening October 2002, Managing Thrips and Virus in the Sydney Region Information Evening January 2003, Root Diseases in Hydroponic Lettuce Meeting April 2004, Hydroponics Workshop for Chinese Vegetable Growers December 2007) or because of a request by a research provider to communicate the outcomes of their R&D project (e.g. Managing Clean and Safe Water for Washing Vegetables Workshops June 2002, Management of White Blister and Black Rot in Brassicas Workshops October 2005, Diamondback Moth Management/Brassica IPM Workshops and Lettuce IPM Workshops most years) or in response to an industry emergency (e.g. Lettuce Aphid Meeting February 2006).

Workshops were either held in the evening or during the day if access to the field was required. For evening workshops supper was provided, or workshops were held at a venue where attendees could meet for dinner beforehand (e.g. RSL Clubs). For daytime events a BBQ was usually held,

often provided by NSW DPI or a rural supplier. For all workshops local NSW DPI staff either assisted in the organisation or attended. Rural suppliers and industry leaders also assisted in promotion of events.

Some workshops (greenhouse production, Brassica IPM) specifically for research, extension and allied (e.g. rural suppliers) service providers were organised jointly by the NSW Vegetable IDO and NSW DPI staff.

Targetted Mailouts

Crop-specific or area of interest (e.g. IPM) newsletters and publications were mailed to growers. It is costly and time consuming to send all newsletters and publications to all industry stakeholders. They are generally also not relevant or useful to all stakeholders. The NSW Vegetable IDO determined which newsletters and publications should go to who, based on information available such as crops grown, region, production type, language background and areas of interest.

Newsletters distributed by the NSW Vegetable IDO included Brassica IPM, Carrot News, Galls and All, Minor Essentials, Thrips and Virus and VegPASH. Where researchers had the resources to coordinate mailouts labels were sent to them for distribution of material. These included Lettuce Leaf, Sydney Basin IPM newsletter and various ute guides, posters and manuals.

All newsletters and publications available were publicised in the NSW VegeLink newsletter and/or Vegetable Platter. This gave growers and industry stakeholders the opportunity to obtain a newsletter or publication they may not necessarily have received directly.

Email

Email was primarily used to communicate chemical minor use permit updates and information about upcoming workshops, meetings and opportunities such as grower tours and courses. There were some growers on the email list but it was used primarily to communicate with other industry stakeholders such as NSW DPI staff, consultants and rural suppliers with requests to pass on information to growers. Many attempts were made to increase use of email within the NSW vegetable industry but in grower surveys and at meetings when collecting attendee details email addresses were not provided or quickly became out-of-date.

Grower Association Meetings

The NSW Vegetable IDO was available for grower association meetings. She regularly attended meetings of the NSW Farmers Association Horticulture Committee and the Camden Horticultural Branch to give vegetable industry updates.

Every second year the Australian Chinese Growers Association of NSW held a field day on the June long weekend. The NSW Vegetable IDO would attend with NSW DPI staff and have a display of publications and other material. She would also attend the annual ACGA of NSW dinner.

The NSW Vegetable IDO also attended meetings of Greenhouse Vegetables NSW Inc. and some field days organised by the Australian Vietnamese Growers Association and the Australian Cambodian Growers Association of NSW.

As well as being an excellent forum for giving updates attending association meetings is a good way to keep up-to-date with industry issues and receive direct feedback.

In February 2003 the NSW Vegetable IDO met with NSW DPI staff (Leigh James and Jeremy Badgery-Parker) to discuss getting the various vegetable grower associations in the Sydney Basin to work together on common issues and to keep them up-to-date with R&D activities. The first meeting of the Sydney Area Vegetable Growers Alliance (SAVGA) was held in March 2003 and representatives from most associations attended. Industry issues such as water use efficiency, pesticide residues, chemical minor use, IPM, Vegetable R&D Program were discussed. Five SAVGA meetings were held in 2003 and 2004 and they contributed significantly in building trust and communication networks between the different grower organisations. Since the SAVGA meetings leaders of the growers' organisations have worked together on issues and have been more likely to attend workshops and meetings not specifically for their association. They are also more aware of services available to them.

Since the SAVGA meetings and through the continual involvement of the NSW Vegetable IDO with the various vegetable growing communities the involvement of growers with a LOTE background in R&D projects and industry committees has significantly increased. For example a grower with a Chinese background is on the Vegetables Australia Editorial Committee, members of the Chinese, Arabic and Cambodian communities attended the AUSVEG LOTE growers workshop in Perth in 2008, a grower with an Arabic background is on the APVMA Community Consultative Committee and a Vegetable R&D Committee, all LOTE groups had representatives attend a minor use pesticide forum, and a young grower with a Vietnamese background took part in the AUSVEG Young Growers Tour to NZ in 2006.

AUSVEG and HAL Information

All AUSVEG and HAL information such as strategic plans, annual reports and notices for levy payer meetings were sent to the various vegetable growers associations in NSW. In recent years the annual Vegetable Industry Report was sent to all levy payers on the NSW database.

R&D Priority Issues

Each year a call was made for NSW vegetable industry priority issues. This was carried out via a survey form put together by the Vegetable Industry Development Officers (Appendix 3) and later using a format provided by AUSVEG.

In 2004 and the survey form was translated into Chinese, Vietnamese and Arabic. Survey forms were again translated in 2008 (AUSVEG funding) with

the addition of Cambodian. In all cases where a translated form was mailed to a grower, an English version was also sent. Many growers are illiterate in their own language and use their children to read mail (and they often can only read English).

R&D priority issues were also identified by contacting various vegetable grower association committees, key growers and talking with NSW DPI staff and other industry stakeholders.

Priority issues for NSW were communicated to NSW service providers, HAL and AUSVEG.

Industry Database

An industry database including growers, research providers, consultants, rural suppliers and other industry stakeholders was developed and maintained for NSW. Much assistance in developing the database was given to the NSW Vegetable IDO by NSW DPI and grower associations by providing grower lists.

The database holds contact details, crop information, areas of interest, language, publications received, mailing lists for newsletters and attendance at workshops. Where growers provided more information or regularly attended workshops and meetings the IDO was able to provide a more thorough service as she knew the interests of those growers.

At the end of June 2009 the NSW database contained contact details for approximately 1040 growers and 300 industry stakeholders.

The database was used only for the distribution of R&D information. Labels were provided to research providers when they needed to let industry know about a meeting or workshop or to disseminate newsletters or publications produced with funding from the National Vegetable R&D Program.

NSW Farmers' Association, despite being contracted by HAL to deliver the NSW Vegetable IDO Project, has never had access to the database to distribute information about the association or to recruit membership.

Other Activities

Farm Visits

The NSW Vegetable IDO regularly visited individual farms. One-on-one visits were particularly valuable when establishing the NSW Vegetable IDO project. Opportunities to visit farms were taken when:

- Holding workshops in regional areas;
- Interstate researchers visited NSW for workshops, meetings or to carry out field work or interview growers for their projects;
- Interstate for National Vegetable R&D meetings; and
- NSW researchers were visiting farms as part of their IPM or disease management.

The NSW Vegetable IDO was utilised by research providers (particularly those from interstate) to introduce them to growers and to find farms to conduct field research on.

Study Tours

The NSW Vegetable IDO was involved in organising and leading several educational study tours. These included:

- Sunraysia Growers Tour of the Northern Adelaide Plains (August 2002) to visit the Greenhouse Modernisation Project and some local greenhouses;
- NZ Vegfed Processing Sector Tour of NSW vegetable growing regions (April 2002);
- AUSVEG Young Growers Tour to NZ (August 2005); and
- NZ Chinese Growers Association Tour of Sydney and Central Coast NSW vegetable farms (August 2006);
- Vegetable Industry Conference 2007 farm visits.

Clubroot Control Demonstrations on Asian Vegetable Farms

In the summer of 2002/03 Leigh James (NSW DPI) and the NSW Vegetable IDO established hot lime trials on 4 Asian vegetable farms with severe clubroot. A Chinese interpreter was employed by NSW DPI to assist with the trials. The trials were encouraged by the ACGA of NSW and the demonstrations proved to be successful in showing Chinese growers how to control clubroot on their farms.

Project Steering Committees

The NSW Vegetable IDO was invited to be a member of many Vegetable R&D project steering committees, either to give technical advice or input into the communication and extension components of a project. Steering committees included:

- HAL Soil Health Group
- NSW DPI greenhouse projects
- NSW DPI IPM extension project
- NSW DPI/RIRDC bilingual officer projects
- NSW Vegetable Industry ground truthing project
- Greenhouse Industry Strategic Plan development project
- NSW DPI Asian vegetable names project
- IPM and Pathology Working Groups
- National DBM and Clubroot projects

VegeNotes

At a NVIDN meeting in November 2001 the IDOs initiated the VegeNote project in response to industry requests for an easy-to-read, technical and practical fact sheet series. The IDOs developed a project proposal for discussion at the Vegetable R&D meetings in March 2002. The project was approved and the IDOs managed the employment of a consulting team to write and publish the VegeNotes (Arris Pty Ltd) while the IDOs decided on topics to be covered.

The second phase of VegeNotes was managed by the AUSVEG communication team. The NSW Vegetable IDO continued to have input by suggesting topics and also co-wrote a VegeNote on healthy soil management in 2008.

Industry Conferences

The NSW Vegetable IDO regularly attended industry conferences to gain knowledge and report back to the NSW and National Vegetable Industries. The NSW Vegetable IDO also assisted at several conferences, e.g. Chairing Sessions at the 2007 Vegetable Industry Conference. Conferences attended included:

- Australian Lettuce Conference 2002, 2004, 2006;
- Werribee Field Days;
- Australasian Precision Agriculture Symposia 2006, 2007, 2008;
- Keep it Real Conference 2005, 2007 (in 2007 assisted in the running of a Soil Salinity workshop);
- Australian/NZ Soil Science Conference 2004, 2006, 2008 (in 2006 spoke about the vegetable soil ute guide project); and
- Vegetable Industry Conference 2006, 2007, 2009.

EnviroVeg

The NSW Vegetable IDO was very supportive of EnviroVeg program. In January 2004 the NSW Vegetable IDO introduced the then EnviroVeg Program Manager Sarah Hearn to vegetable industry leaders in Sydney and Bathurst (including NSWFA, ACGA of NSW, AVGA and the NSW Free Growers Horticultural Council) as well as NSW DPI staff. In March 2004 the NSW Vegetable IDO travelled with Sarah and the Queensland Vegetable IDO to meet vegetable growers in the Cudgen area and NSW DPI staff at Alstonville.

In July 2005 the NSW Vegetable IDO spent 3 days in the Riverina with AUSVEG Environmental Manager Helena Whitman to meet with NSW DPI staff, growers and Catchment Management Authority (CMA) staff to discuss the EnviroVeg program.

In August 2005 the NSW Vegetable IDO organised for the AUSVEG Environmental Manager to speak at the LVHN annual meeting in Cowra. EnviroVeg presentations by the AUSVEG Environmental Manager were also organised for Coffs Harbour in November 2008 and Bathurst and Sydney Hydroponic Lettuce Growers in February 2009.

In May 2008 the NSW Vegetable IDO gave a presentation about EnviroVeg at the NSW DPI Field Vegetable Meeting in Yanco.

Soil UTE Guide for Vegetable Growers

The NSW Vegetable IDO was a team member of the Healthy Soils for Sustainable Vegetable Farms project from late 2005 until mid 2009. The project was funded by the Land & Water Australia, Healthy Soils for Sustainable Farms Programme and the AUSVEG Environmental Programme.

The AUSVEG Environmental Manager, Helena Whitman and the NSW Vegetable IDO identified that easily accessible soil information for vegetable growers was lacking, leading to the development of the project and establishing a project team of soil scientists with a strong background in communication and adult education. Other team members were Jim Kelly and Dr Bob Holloway of Arris Pty Ltd and Dr David McKenzie of McKenzie Soil Management Pty Ltd.

The NSW Vegetable IDO was an editor of “Healthy Soils for Sustainable Vegetable Farms: Ute Guide”, producer of the DVD which complements the ute guide, and co-facilitator of Soil Awareness Workshops in Sydney, Stanthorpe (Qld), Humpty Doo (NT), Bunbury (WA), Myrtleford (Vic), Werribee (Vic) and Dareton (NSW).

The Ute Guide was distributed to all vegetable growers free-of-charge in 2007 and was launched by the then Minister for Agriculture, Peter McGauran at the Werribee Vegetable Expo in May 2007.

The project was a major success with very positive feedback from growers and industry stakeholders nationally.

The NSW Vegetable IDO was invited to give a presentation on the project at the National Soil Conference in Adelaide in December 2006.

Industry Strategic Plans

The Australian Vegetable Protected Cropping Industry Strategic Plan was completed in late 2006 and January 2007. Others on the project team were Craig Feutrill (SA Vegetable IDO), Tony Burfield (SARDI) and Simon Drum (HAL). The NSW Vegetable IDO was involved in workshop facilitation with NSW growers and NSW DPI extension staff (6th October 2006), project team meetings (Adelaide, 24th October plus teleconferences) and report writing.

The NSW Vegetable IDO was involved in workshops to develop VegVision 2020.

Minor Use Program

The NSW Vegetable IDO was involved in the chemical minor use program managed by Peter Dal Santo (AgAware Consulting Pty Ltd). The NSW Vegetable IDO received requests from industry for off-label permits, assisted in prioritisation of permit applications, facilitated minor use workshops and communicated to industry new permits.

National Vegetable R&D Meetings

The NSW Vegetable IDO attended National Vegetable R&D meetings (Product Groups and Advisory Groups) twice per year plus Working Group meetings when they were established. Secretarial support was provided to the Root Product Group, Consumer and Production Advisory Groups, and IPM and Environmental Working Groups.

When the Product Group format was used NSW Product Group representatives would meet in Bathurst twice per year (with invited guests such as research providers) to prepare for National Vegetable R&D meetings.

The Vegetable IDOs would usually spend a day visiting local growers after a Product Group meeting (they were held in Sydney, Melbourne, Brisbane, Adelaide and Launceston) to gain an appreciation of vegetable production and to improve knowledge of key issues in other vegetable growing regions.

NSW Horticultural Industries Dinner

In 2004 the NSW Vegetable IDO joined with Leigh James (NSW DPI), Tally Matthews (Ace Ohlsson) and Frances Vella (NSW Farmers' Association) to organise an industry dinner to give growers in the different horticultural sectors a chance to network and explore opportunities to work together as well as a chance to celebrate being part of the horticultural industries.

The inaugural *NSW Horticultural Industries Dinner* was held on November 13th, 2004 with more than 300 people attending and a good level of sponsorship was obtained.

The different vegetable grower associations in the Sydney Region usually have their own annual dinners but they generally do not attend each others dinners. Members from many NSW grower associations attended the dinner, including representatives of NSW Farmers' Association, NSW Free Growers Horticultural Council, Australian Chinese Growers Association of NSW, Australian Cambodian Growers Association and Greenhouse Vegetables NSW Inc. Representatives of other organisations were also in attendance, for example AUSVEG, NSW DPI and chemical and seed suppliers.

Following on from the success of the 1st NSW Horticultural Industries Dinner in 2004, another dinner was held in July 2006. Approximately 350 attended including representatives from NSW Farmers' Association, Wesfarmers Insurance, HAL, NSW DPI, Chep, New Holland and many local rural suppliers and consultants. Over \$30,000 in sponsorship was raised plus many lucky door prizes.

The 3rd NSW Horticultural Industries Dinner was held on the 26th July, 2008. Over \$50,000 in sponsorship was raised and over 400 industry people attended. Platinum sponsors were: Chep Australia, Ace Ohlsson and Syngenta. Gold Sponsors: Elgas and Woolworths. Silver: Agrichem, Wesfarmers Federated Insurance, NSW Farmers Association, AUSVEG and Westpac. Bronze: Sydney Markets Limited, Agrobest, CropCare, NSW DPI, drumMuster, National Farmers Warehouse and Leppington Speedy Seedlings. At the dinner growers and industry stakeholders were urged to collaborate on issues important to the industry and to actively participate in the future of their industry.

Each dinner was covered by Good Fruit and Vegetables magazine and a local Sydney newspaper.

Vegetables Australia

The NSW Vegetable IDO was invited to be on the Editorial Committee of the AUSVEG published Vegetables Australia magazine in 2006 and regularly contributed story ideas to the Editor.

AUSVEG LOTE Grower Project

The NSW Vegetable IDO had a major involvement in the AUSVEG LOTE (Language Other Than English) project due to her knowledge and experience working with LOTE growers. The NSW Vegetable IDO had input into the LOTE grower communication plan, introducing AUSVEG staff to LOTE grower groups and their leaders and took part in the AUSVEG LOTE grower workshop in Perth in May 2008.

Vegetable Industry Strategic Leadership Course

The NSW Vegetable IDO participated in the inaugural Vegetable Industry Strategic Leadership Course in 2009.

Evaluation

Independent Evaluation of the NSW Vegetable Industry Development Project

An independent evaluation of the project was carried out by Michael Clarke of AgEconPlus Consulting for the Management Committee between December 2004 and February 2005. The review was commissioned to help guide the project in its final year and direct a proposed 5-year continuation (however in July 2005 it was decided by HAL and AUSVEG to review the current industry development structure rather than fund new IDO projects).

The executive summary of the report was as follows.

This document is a review of the first four years of the NSW Vegetable Industry Development Officer Project (VIDO).

The review finds that the VIDO has been highly effective in communicating with vegetable growers and the research community. The VIDO has:

- *Assembled a good size and relevant database (> 1,000 stakeholders).*
- *Regularly and effectively communicated R&D program information.*
- *Created awareness of the R&D program amongst grower groups.*
- *Established a strong industry presence, especially in the Sydney Basin.*
- *Conducted field days and road shows to explain R&D outcomes.*
- *Established the VIDO as a 'one stop shop' for grower information.*
- *Worked with growers to establish research priorities.*
- *Build bridges between grower groups and NSW Farmers' Association.*
- *Become part of a national network for distributing research findings.*
- *Provided grower feedback to researchers.*

The VIDO has been successful in achieving a high level of grower awareness and trust in what is a fragmented, geographically and culturally diverse industry.

The review finds that it is now appropriate for the VIDO to build on grower awareness and trust and adopt a more strategic approach to industry development. The Review recommends that the VIDO:

1. *Be less responsive to ad hoc calls on the projects time. This was initially useful in establishing the project and has served its purpose.*
2. *Not accept sole responsibility for extension of NSW DPI and interstate projects. This is a potential threat that could become an unsustainable project burden.*
3. *Allocate project time and resources on a cost benefit basis, i.e. direct time to those activities with the most potential for industry payoff.*
4. *Prepare an annual 'calendar of attack' for the project based on cost benefit analysis findings.*
5. *Examine ways to 'spin-off' current projects to ensure they retain momentum but do not limit VIDO capacity to address new priorities.*

6. *Actively court the large and often independent regional growers who are the industry's future. A Sydney Basin presence is well established.*
7. *Engage in formal region-by-region planning processes to identify grower issues prior to R&D priority setting (by telephone based survey).*
8. *Lift the R&D planning horizon from immediate concerns to longer-term issues, i.e. key business challenges five years hence (engage a futurist)*
9. *Convert issues into targets and establish relevant delivery groups. Targets established now will facilitate project evaluation in 5 years time.*
10. *Engage 'downstream' players such as marketers, agents and retailers who should be regarded by the project as an industry resource.*
11. *Build on service provider workshops (the 'REAL' initiative) to understand the requirements of commercial players (e.g. rural resellers) who are the growers' major source of business advice.*
12. *Prepare a long-term strategy for technology transfer that sets out the logic for the approach adopted.*

To do this the VIDO will require a Management Committee that:

- *Insists on concrete work plans and an agreed strategic and cost benefit driven calendar of attack.*
- *Is expanded to include NSW DPI and a rural reseller along with grower members who regularly attend meetings.*
- *Supports the allocation of project resources for secretarial and newsletter assistance (as proposed in the current project application).*
- *Encourages the NSW Farmers' Association to take a greater interest in the project and promote its achievements.*
- *Works with the VIDO to ensure appropriate professional development. Professional growth will ensure that the current VIDO remains with the project.*
- *Provides a single manager with responsibility for the VIDO. The current AUSVEG Industry Development Manager is suggested.*
- *Formalises current ad hoc communication between meetings and examines more regular formal meetings. Consideration should be given to shifting six monthly meetings to a four monthly timetable.*

On the broader scale consideration could be given to:

- *Expanding the VIDO role to include R&D project monitoring and evaluation. The VIDO is ideally placed to provide formal advice on which projects work and which ones do not.*
- *Add an additional NSW VIDO to cover a region, a group of commodities or production practices (e.g. greenhouses).*

The review concludes that the NSW VIDO project is effective and an efficient use of vegetable levy funds. The project is well supported by the NSW grower base.

Key comments from those surveyed in the review included:

- VegeLink newsletter excellent.
- Printed material and field days and VIDO visits preferred method of communication (can see what the levy is doing).
- The VIDO is a means of feeding back information and distributing information.
- VIDO database of growers by commodity is of great value to researchers and extension people.
- If the VIDO sends it I know that it is relevant to a grower and I read it. If it is from government or NSWFA I don't.
- Very good work in Sydney basin with LOTE growers.
- VIDO is a way of accessing the bureaucrats and a useful answer.
- We know what is happening with our levy money and the database ensures that information gets out.
- VIDO is building a sense of industry, the Horticulture Dinner was a great idea.
- She is contacting growers who are not in her circle, she is expanding networks and breaking new ground.
- VIDO has developed a communication strategy. It involves segmenting the industry and tackling both resellers and growers.
- Rural areas under-serviced, e.g. Hay. Rural areas include large producers.
- VIDO completes workshops and roadshows outside Sydney.
- Nothing like the VIDO before and it has been really missing from our industry.
- The VIDO has been really good but growers are reluctant to participate because they feel they are in competition with each other.
- The effectiveness of the VIDO in coordinating technology transfer varies by project – some more successful than others.
- VIDO good but translation of grower priorities to what is funded is poor. At end of the day there is a huge discrepancy in grower requests and what gets funded.
- The VIDO is the first step in identifying good R&D projects.
- The VIDO is a critical conduit between growers and researchers.
- She is very accessible to growers.
- We like that she is independent of government.
- VIDO is a 'one stop shop' for information.
- Excellent at establishing relationships, providing face-to-face contact.
- She comes to the paddock and growers can see value for their levy.
- Newsletters with short articles are the best.
- Receiving a newsletter personally addressed makes you feel important.
- Translation of newsletters is important for Chinese growers.
- Hard to get time to go to field days.
- We are not big users of web pages.
- All forms of communication are important to achieve coverage, there is no 'silver bullet'.
- Emails are efficient but lots of growers don't use them.

- More work needed on grower demographics and which growers will adopt R&D outcomes. With limited industry resources cost benefit ratio should be used for setting priorities.
- Antagonism from growers not in favour of the levy has all but disappeared. Project has gone a long way to decreasing conflict.
- Improved awareness of nationally significant projects.
- Improved dissemination of relevant information on R&D and environmental initiatives.
- State wide coverage of issues and state wide familiarity with issues.
- The NSW VIDO provides the industry with a national perspective gleaned through the IDO network.
- Continuity of the person – stability and awareness benefits.
- VIDO not relevant to large producers and they don't have time for VIDO activities.
- The project should be less reactive to *ad hoc* demands and more planned.
- Project needs to understand the requirements of commercial players like Elders who are intermediaries with growers and a major source of production/business advice.
- NSW DPI are abandoning project communication/extension and expecting VIDO to pick it up. Watch this does not become an unsustainable burden for the VIDO project.
- The VIDO has direct access to grower priorities for R&D. This is not recognised higher up. VIDO priorities need greater recognition at national R&D meetings.
- Room for more IDOs in NSW vegetable industry, current IDO spread is too broad and threatens project success.
- Biggest challenge is getting growers to participate.
- VIDO's might be more effective if they were responsible for regions rather than states.

National Reviews

A number of independent national reviews of the Vegetable Industry Development Officer Network and overall Industry Development activities have been carried out for HAL and AUSVEG. These include:

1. Coutts, J, Bell, K. and James, J. 2003. Review of the Vegetable Industry Development Officer Network on behalf of CRRI-Q for Horticulture Australia Limited.
2. Concept Consulting. (2008). Vegetable Industry Information Dissemination Stakeholder Research. Concept Consulting.

The 2003 review stated that the vegetable IDO positions are effective and valuable positions with the total R&D system within the Australian Vegetable Industry and should be retained and strongly supported.

Discussion

The NSW Vegetable IDO project has been able to establish a central point for communicating the outcomes of the National Vegetable R&D Program in NSW and for feeding priorities into the R&D Program from NSW. The project has also provided a single point of contact for growers and industry stakeholders who wish to know more about an R&D project, for research providers who need to liaise or communicate with the NSW Vegetable Industry and for growers and industry stakeholders who need assistance in finding out who the correct contact is to help them with their enquiries (e.g. identification of a pest or disease, more information about a particular R&D project).

It is difficult to exactly quantify how effective the NSW Vegetable IDO has been as a facilitator of the uptake of R&D outcomes, change agent and knowledge broker. This is because branding of R&D projects is not always obvious (many growers see the person and their direct employer and not the funding source), there is often confusion as to who the IDO is employed by (many industry stakeholders and growers assume it is NSW DPI), and because the IDO utilises a large range of information providers (e.g. grower associations, industry leaders and rural suppliers) to ensure that outcomes of the National Vegetable R&D Program are communicated to as many growers as possible. However feedback strongly suggests that the growers are supportive of the IDO project because they know that there is someone working on their behalf, representing them at meetings, collecting information and they have an unbiased contact to ask questions of and to put them in the right direction. For example grower feedback in Clarke (2005) includes that the Vegetable IDO is a 'one stop shop' for information, good that the IDO is independent of government, the IDO is our way of accessing the bureaucrats and the IDO ensures that we know what is happening with our levy money.

The NSW Vegetable IDO project has created a database which provides the ability to disseminate information to the majority of growers and industry stakeholders in NSW. Prior to the IDO project there were multiple regional databases maintained by NSW DPI staff and member lists for some grower associations. However there was no single database that could be utilised to disseminate information from the National Vegetable R&D Program. The database has been a work in progress and continually improved, particularly as more grower databases from associations became available. This came about because the NSW Vegetable IDO served in the position for a long time and was able to build rapport and trust with grower associations. They were able to see the benefits of providing their databases to the IDO for the purposes of receiving information about levy funded R&D projects. Nationally the creation and management of industry databases by Vegetable IDOs has been critical for industry development.

The NSW Vegetable IDO has been frequently contacted by growers and industry stakeholders looking for information and to discuss industry issues. She has also organised and facilitated (often in partnership with NSW DPI or

NSWFA) workshops, meetings, field days to disseminate outcomes of the National Vegetable R&D Program or to set priorities for R&D investment.

It has sometimes been criticised that the NSW Vegetable IDO (and other IDOs) spend too much time assisting smaller vegetable growers. However, it could be argued that all growers need to improve their skills and knowledge for the vegetable industry to prosper and to be successful in meeting VegVision 2020. All growers contribute an equal percentage of their farm-gate income to the National Vegetable Levy and need to benefit from their investment. The market and consumers only see a vegetable industry and do not distinguish between large and small growers and so it is important that all growers are adopting the outcomes of the Vegetable R&D Program. The NSW Vegetable IDO found that first generation Australian vegetable growers were the most likely to attend workshops and were very keen to improve their production skills.

Growers who do not have access to Government extension horticulturists (NSW is one state that still does have extension horticulturists) tend to rely more heavily on the Vegetable IDOs for information. In some regions of Australia a large proportion of growers are supplying a processor which employ field officers. These growers are usually more positive about the amount of information they are receiving and are also likely to be utilising R&D outcomes.

Industry development programs need to be flexible and be able to cater for growers with different sized farms, growers from different backgrounds, growers with different levels of education and growers with access to varying levels of service and assistance, being from either Government, consultants or field officers employed by the market they supply. A wide range of industry development activities need to be provided to the vegetable industry, from written material to workshops to industry specific websites. Additionally information provided needs to target varying levels of technical knowledge.

The NSW Vegetable IDO has established strong working relationships with vegetable growers, consultants, rural suppliers and grower associations in most vegetable growing regions of Australia.

Due to her technical knowledge, experience, and involvement in the Vegetable Industry for almost a decade the NSW Vegetable IDO was invited to be part of an increasing number of project steering committees and other Vegetable Industry committees. The NSW Vegetable Industry was able to have input into a large range of committees and forums through their IDO.

The appointment of Vegetable IDOs nationally has been critical in encouraging industry cohesiveness, support and knowledge of the National Vegetable R&D Program and increased involvement of the industry in the R&D Program. Most of the IDOs served the industry for more than 5 years and had considerable knowledge, skills and networks which benefitted the industry.

Recommendations

It is strongly recommended that the Australian Vegetable Industry continues to invest in industry development projects, in particular IDOs or regionally based extension officers so that there is a face to the Vegetable R&D Program in the vegetable growing regions of Australia. However changes should be made so as to improve the service that IDOs/extension officers are able to deliver to the Vegetable Industry. Recommendations are:

- Clear job descriptions and key performance indicators nationally so as to remove the ambiguity with regards to the roles, responsibilities and 'ownership' of IDOs. It needs to be made clear that IDOs are not to become involved in political matters or selling membership for the State grower organisations that employ them. Ownership has not been an issue in NSW as the IDO has been allowed to work independently and with all grower associations.
- The work of the IDOs and the AUSVEG Communication Team should be better integrated so that they are working together for industry rather than as two separate groups. IDOs do not need to work directly for AUSVEG for this to occur. All industry development personnel funded by the National Vegetable Levy (including IPM Extension Officers for example) should be working together for the greater good of the Vegetable Industry regardless of their employer. They should see themselves as being on the same team.
- Consideration of allocating IDOs/extension officers per region rather than state-based. There is inequity in the number of growers and industry complexity that each IDO has to work with. Each IDO should be allocated a number of regions to work with. For example the Sunraysia region is in 3 states even though the growers there see themselves as one region. One IDO should be given the whole region. This will reduce confusion and overlap between IDOs.
- Consideration of having national management and coordination of the IDO (regional extension) program with a larger number of regionally-based IDOs (not necessarily full-time). Regionally-based IDOs could be employed based on the primary trusted information provider/s in a region (e.g. grower organisations, Government, rural suppliers, processors). This system would allow flexibility and trusted sources of information to be utilised in each region but would have to be managed carefully to ensure consistent Vegetable R&D Program messages nationally.
- HAL needs to provide IDOs with a list of all current R&D projects twice per year or provide a list of all current projects, accessible by all of industry, on their website.
- IDOs should not maintain individual state-based websites but support the development and improvement of the AUSVEG website as a one-stop-shop for the National Vegetable R&D Program. The AUSVEG website would benefit from suggestions and input from the IDO network.
- A central, nationally managed industry database should be developed for the purposes of disseminating R&D information (National

Registration of vegetable growers would assist this process). The database would include information about crops grown, growing methods (e.g. hydroponics) and interests so that information could be targeted. The database would be accessible to all R&D providers and IDOs who need to disseminate R&D information and IDOs would provide updates to whoever is managing the national database.

- All material produced as part of Vegetable R&D projects should be available on the AUSVEG website (an R&D shop), e.g. ute guides, booklets and manuals. This allows for growers and industry stakeholders that were not growing a particular commodity at the time of distribution or new growers to access past publications. This will go some way to addressing the recurrent requests for particular issues to be addressed by R&D projects.
- IDOs need to be adequately resourced, e.g. secretarial support, funding for translators.
- The individual skills and knowledge of IDOs should be better utilised by the Vegetable Industry particularly in the area of R&D investment decisions, project management and improving industry knowledge (e.g. coordination of which IDO should attend external workshops or conferences).
- IDOs should be allocated to project steering committees based on their knowledge and areas of expertise so as to better spread the workload involved in participating on steering committees. National responsibilities have not been evenly distributed amongst IDOs in the past.
- IDOs as valuable assets to the Vegetable Industry need to be provided with professional development opportunities. This might include gaining a Certificate IV in Workplace Training and Assessment, attendance at conferences or other short courses relevant to their roles and responsibilities.

Acknowledgements

The NSW Vegetable IDO would like to thank the NSW Vegetable Industry for their support and friendship. There were many individuals that were actively involved in the Vegetable Research & Development (R&D) Program. I appreciate you giving your time for the betterment of the industry, thank you for sharing your knowledge and ideas, for providing input at meetings and workshops and for serving on various committees. In particular I would like to thank the growers who were members of my Management Committee, Jeff McSpedden (Bathurst), Mario Muscat (Windsor) and Eddie Galea (Werombi), the staff at NSW Farmers' Association for managing the IDO project and NSW DPI, Horticulture Australia Limited (HAL) and AUSVEG staff for providing valuable assistance.

I would also like to thank interstate growers, research providers and Vegetable IDOs for their friendship, advice and input into improving the knowledge and skills of both vegetable growers in NSW and nationally.

References

AUSVEG, HAL & Step Communication. (2005). Vegetable Growers With a Language Other Than English: A Snap Shot Report.

Clarke, M. (2005). Project Evaluation – NSW Vegetable Industry Development Officer – Report for The Management Committee of the Vegetable Industry Development Officer in NSW. AgEconPlus Consulting.

Wright, N. and Anderson, A. (2001). Outcomes of the NSW Vegetable Industry Research, Development and Communication Needs Workshops. Dynatron Research.

Concept Consulting. (2008). Vegetable Industry Information Dissemination Stakeholder Research. Concept Consulting.

Appendices

Appendix 1: Outcomes of NSW Vegetable Industry Research, Development and Communication Needs Workshops 2001 – Priority Issues and Action Summary

Appendix 2: Outcomes of NSW Vegetable Industry Research, Development and Communication Needs Workshops 2001 – Communication Results

Appendix 3: Example form for identifying R&D issues

Appendix 4: Workshops facilitated by the NSW Vegetable IDO

Appendix 5: Key meetings/events attended by the NSW Vegetable IDO

**Appendix 1: Outcomes of NSW Vegetable Industry Research,
Development and Communication Needs Workshops 2001 – Priority
Issues and Action Summary**

**OUTCOMES OF NSW VEGETABLE INDUSTRY
RESEARCH, DEVELOPMENT AND COMMUNICATION
NEEDS WORKSHOPS**

PRIORITY ISSUES & ACTION SUMMARY



Horticulture Australia

Introduction

Between April and July 2001 eight workshops were held in Sydney and regional NSW to ask vegetable growers what issues concerned them most. Workshops were held in Cowra, Bathurst, Griffith, Hay, Macksville, Windsor, Camden and at the Sydney Markets (specifically for greenhouse vegetable growers).

Priority Issues

The major issues affecting NSW vegetable growers are:

- Profitability and future viability of the family run vegetable farm;
- Supermarket dominance;
- Lack of expert help (extension officers);
- Marketing and promotion;
- Pest, disease & weed management;
- Chemical registration;
- Grower training;
- Water quality & use;
- Packaging;
- Labour; and
- Communication.

These issues are not in priority order as each region varied in their priorities. However profitability was the number one concern at each of the workshops.

1. Profitability

Profitability is the number one concern of vegetable growers around NSW. They are concerned about the viability of the family run vegetable farm in the future. Adding to the downturn in profitability of the vegetable farm is the fact that costs (labour, packaging, chemicals, seed, fertiliser, fuel, freight) have increased with time while the

price received for vegetables has not. Over-supply of vegetables is also an issue that needs to be addressed. Growers suggested that production scheduling needs to be introduced and more co-operation between growers and States is needed for this to occur. Growers also suggested that a national marketing scheme for each commodity be introduced.

2. *Supermarket dominance*

Vegetable growers felt they do not have the power to deal with supermarkets and to obtain a reasonable price for their produce. They were not happy that the supermarkets negotiated low purchase prices for their produce and then sold these at what seems to be very profitable prices. They believed that this was only possible because the supermarkets wielded inordinate market power when it came to buying and retailing vegetables. Growers felt that they had no influence on market prices and that they could not negotiate better prices because they were small and acting alone. They wanted help with marketing (how to market) so as to improve profitability. Help with setting up packing sheds, co-operatives and identifying alternative markets were suggested. Many growers feel they know how to grow the product, but that they need help with the marketing.

Growers also believed that supermarkets utilised their own Quality Assurance (QA) processes to manipulate buying prices. They felt that they put a lot of effort into delivering a quality product to the market, but were let down by the supermarkets. Growers could see no benefit of having a QA system in place because the supermarkets did not. Growers with a QA system do not appear to obtain a premium price for their produce and no distinction is made between their produce and other produce at market. Growers want supermarkets to implement their own QA systems and learn how to store and handle vegetables. High prices and the lack of quality control when selling vegetables could be restricting vegetable consumption.

Growers were also concerned about the honesty of agents in the market. The variable commissions charged by agents is an issue as is being able to obtain a reliable market report. Growers were upset that they now had to pay for a market report and that it was not consistent with prices they were receiving from agents. Small independent market reporters appear to have more accurate reports. Growers requested that all agent transactions be made transparent, particularly in relation to commissions and the levy.

3. *Lack of expert help*

Growers feel unsupported with the lack of expert help available. Growers are requested by Government to make changes to their practices, but often feel unable to make these changes because they do not have the support they need. Access to NSW Agriculture extension officers was an issue all around NSW. Although they praised the work of the NSW Agriculture extension officers (District Horticulturists), growers felt they were under-resourced. Growers felt the only people coming on-farm these days were seed, fertiliser and chemical company representatives, and although they gave advice, growers were concerned that their advice is biased as they have products to sell. There are too few independent horticultural consultants available.

4. Marketing and promotion

Growers felt strongly about the need for promoting vegetables to consumers. There was seen to be a need to promote the Vegetable Industry, as well as to educate consumers about vegetables. Growers felt consumers had little understanding of the vegetable industry. Growers also wanted more information about what the consumer wanted and their purchasing trends.

Growers suggested that some of the R&D Levy be used for market development, promotion and marketing purposes. They felt that promotion was required to increase the domestic consumption of vegetables and that the R&D Levy should address the issue. It was mentioned that funding should also come from the Chamber of Fruit & Vegetable Industries. Some growers suggested that a dietician (e.g. Rosemary Stanton) be used in advertisements. It was mentioned that the Vegfed advertisements in New Zealand were excellent, with their use of a dietician giving consumers nutritional information about vegetables, along with some sample recipes.

Growers wanted more information about how they could value add their products. This would be part of a consumer study to find out what the consumer wants, with the aim of identifying value adding segments (e.g. pre-packs). Value adding will help stimulate the domestic consumption of vegetables.

5. Pest, disease and weed management

Information about how to manage pests and diseases was highly sought after by growers. Information requested included pest identification and monitoring training, chemical controls, alternatives to chemical control and guidebooks. Growers wanted to be able to easily access the latest information on Integrated Pest Management (IPM). Many growers also expressed a need for more expert help, from NSW Agriculture extension officers to horticulture consultants.

There are a large number of pests, diseases and weeds that growers would like specific information on and help in controlling. There are already a number of projects addressing some of these (e.g. clubroot management). Some pest, disease and weed problems were given a higher priority than others and these are reflected in the 'Actions or R&D Projects proposed' section below.

6. Chemical registration

Overall growers were upset that chemical companies do not always put vegetables on the label anymore. Growers were very positive about Crop Protection Approvals (CPA) and the Minor Use Chemical Permit Program. Individual chemical registrations were amongst many of the issues brought up at meetings.

7. Grower training

Along with wanting more accessible information growers wanted more training courses. Training in identifying pests and diseases and crop monitoring was seen as very important, as was education on the use of beneficial bugs.

Growers wanted training on how to market. Training on how to manage their supply chain and how to be more in control of their produce once it leaves the farm would be valuable.

Growers stressed that some training should be for all value chain participants. Particularly relevant is produce handling and managing the cool chain.

Internet and general computer training would be useful. Most workshop participants were not comfortable using computers. Training in this area is becoming more important as more information is provided via the Internet.

User friendly QA training was requested by growers.

8. Water quality & use

Water quality was a major issue at the Windsor workshop. Water in South Creek is polluted and growers would like to know the effect it is having on plant growth. They feel that no one is taking responsibility for pollution in South Creek.

Growers sought water licencing that is fair to growers and with greater consultation when changes to legislation are being made. Growers were concerned that they had an image that they did not care about water quality, when they were actually very concerned about water management.

Information about water use and run-off management was sought by the greenhouse vegetable growers.

9. Packaging

Growers in regional NSW were concerned about the cost of packaging as they do not have access to second hand boxes. They would like access to recyclable/returnable boxes, cartons or plastic containers to keep their costs down.

10. Labour

Cost, quality and availability of labour for harvest was a major concern to growers. They felt that the award was not flexible enough and that on-costs (superannuation and workers compensation) were prohibitive. Growers suggested that the dole should allow a higher earning threshold for farm labour. They also felt that the quality of labour determined the quality of produce and that pickers should be trained and do a 1 to 3 week apprenticeship. In order to help obtain labour, growers suggested that positions available be placed on the Internet so that they are readily accessible to backpackers.

11. Communication

It was demonstrated at the workshops that there is a need for all parties involved in supporting growers, via the levy, to communicate their activities to growers. Without this, growers have no appreciation of how the levy is being, or can be used. When the levy structure and processes are defined and explained, particularly from the point of

view that it is driven by growers, attitude changes are very evident and positive. It is critical therefore that an interactive and two way process of communication be put in place and actively used.

AUSVEG and Horticulture Australia need to build their image and communicate with growers as the first step to gaining grower support and interaction.

Actions or R&D Projects proposed

For each priority issue some actions and R&D (Research & Development) projects have been proposed, based on the comments of vegetable growers at each of the workshops. They have been divided into R&D Projects, Total Industry Issues, VIDO (Vegetable Industry Development Officer) Actions, Association Issues, CPA (Crop Protection Approvals) Issues, AUSVEG (Australian Vegetable & Potato Growers) Issues, Government Agency and R&D Provider Issues, and Horticulture Australia Issues.

1. R&D Projects

- That AUSVEG commission a project to determine production levels of each vegetable crop in each State (within each growing region) and to document the time of year each crop goes on the market.
- That AUSVEG commission a formal demographic analysis of what the consumer wants and consumption trends.
- That AUSVEG commission an R&D project to identify value adding opportunities for different vegetable crops.
- That AUSVEG commission a project to develop 'Pest, Disease & Disorder' pocket guides books for a range of vegetable crops, as was done for the Vegetable Brassicas.
- That AUSVEG commission a project to develop control options for mosaic virus in zucchinis and to also look at developing a virus resistant zucchini.
- That AUSVEG commission a project to develop control options for angular leaf spot in cucumbers.
- That AUSVEG commission a continuation of the sweet corn IPM project, with a focus on issues brought up at the Sweet Corn Workshop in May 2001 at Lakes Entrance.
- That AUSVEG commission a continuation of IPM projects in brassica crops and lettuce. Key issues to be addressed should be updated towards the end of current projects.
- That AUSVEG commission a project to address effective management options for Sclerotinia and Big Vein in lettuce.
- That AUSVEG commission a project to address nematode control in cabbages and to examine alternatives to fumigation.
- That AUSVEG commission weed control projects to address difficult to manage weeds across all types of vegetable crops.
- If onions contribute to the Vegetable Levy in the future then AUSVEG should commission projects to develop control options for wireweed and thrips in onions.

- That AUSVEG commission a project to develop insecticide resistance management (IRM) strategies for new chemicals available to the Vegetable Industry so that the Industry is seen as being proactive by chemical companies.
- That AUSVEG commission a project to develop a training package for growers on how to use the Internet and access information that is relevant to them.
- That AUSVEG commission a computer training company to travel to growing regions around Australia to give growers basic computer training and to also look into funding available to help with this training.
- That AUSVEG commission a supply chain expert to talk at grower meetings about supply chain management, how to assess their supply chain, and how to become more involved and in control of the selling process.
- That AUSVEG commission a project to test the quality of water in South Creek (Windsor) and study the differences between crops grown with irrigation water from South Creek and crops grown with clean irrigation water. The study could serve as an example of changes in plant growth and vegetable quality when growers are forced to rely on polluted water for irrigation.
- That AUSVEG commission a project to educate growers about water management, how to monitor and know when to irrigate, how much water to give the crop and information about types of irrigation systems.
- That AUSVEG commission a study to determine a type and size of recyclable carton/container that would be suitable to growers, agents and supermarkets.
- That AUSVEG commission a project to develop an information sources and industry contacts database (information about QDPI's GrowSearch service could be spread Nationally).

2. *Total Industry Issues*

- That grower organisations and AUSVEG hold discussions with supermarkets and agents to negotiate higher returns to growers, to cover the increasing costs of production.
- That the Horticulture Industry examine ways of making the Industry more attractive as a career choice, and encourage agriculture students to study horticulture.

3. *VIDO Actions*

- That the VIDO provide growers with a list of current and recently completed R&D projects on IPM and on particular pests highlighted at the different workshops.
- That the VIDO work closely with NSW Agriculture researchers in developing extension activities for the greenhouse research projects and to help with inviting growers to extension activities.
- That the VIDO distribute all future editions of CPA's newsletter, 'Minor Essentials' to all attendees of the workshops.
- That the VIDO encourage and work with NSW vegetable growers to submit minor use request forms to CPA.
- That the NSW VIDO begin publishing a quarterly newsletter to keep NSW vegetable growers up-to-date with levy funded R&D.

- That the NSW VIDO put together a list of all R&D newsletters so that growers can subscribe to those that they are interested in.
- That more short evening meetings be organised to pass on information about projects to growers. R&D providers should be encouraged to travel interstate where relevant.
- That the VIDO's develop a National Vegetable Industry Communication Plan.

4. Association Issues

- That grower organisations (e.g. NSW Farmers' Association, NSW Free Growers Horticultural Council) hold talks with Sydney Market Authorities to discuss implementing agent transparency and investigating the accuracy of market reports.
- That the NSW Free Growers Horticultural Council hold discussions with Local Government to discuss the pollution problem in South Creek and the effect it is having on the quality of local produce depending on South Creek for irrigation.
- That grower associations (e.g. NSW Farmers' Association, NSW Free Growers Horticultural Council) continue to lobby Government for fair water licenses for vegetable growers.
- That the NSW Farmers' Association hold discussions with carton manufacturers to obtain a better price for growers.
- That the NSW Farmers' Association continue to put pressure on Governments to ease the burden of growers and to make employing casual labour more flexible and less complex.
- That the NSW Farmers' Association, as the State member organisation of AUSVEG, keep other Associations up-to-date with AUSVEG activities. The NSW Executive Officer or AUSVEG Board Member could put regular updates in the NSW VIDO newsletter.

5. CPA Issues

- If onions contribute to the Vegetable Levy in the future then CPA should examine the possibility of having the registration of Stomp extended and alternatives to Stomp for the control of wireweed in onions.
- That CPA (with AUSVEG) lobby chemical companies to register their chemicals for use on vegetable crops.

6. AUSVEG Issues

- That AUSVEG consider employing Marketing Industry Development Officers for each State to help growers form alliances and identify marketing opportunities and alternative means of marketing.
- That AUSVEG hold talks with the major supermarkets and encourage them to implement their own QA systems, and educate them about storage and handling.
- That AUSVEG hold talks with supermarkets and agents to discuss paying growers who implement a QA system a premium for their produce and to encourage them to make a distinction between QA produce and other produce.
- That AUSVEG gain an understanding of vegetable consumer desires and purchase habits and explore options to the supermarket system.

- That AUSVEG consider allowing some of the R&D Levy to be used for the generic promotion of vegetables and consumer education.
- That AUSVEG (with CPA) lobby chemical companies to register their chemicals for use on vegetable crops.
- That AUSVEG consult QA training providers about making training more relevant and user friendly to growers. Growers should be involved in the process.
- That AUSVEG develop a website or use an Industry website to advertise casual positions on vegetable farms and make the site known at backpacker hostels.
- That AUSVEG develop brochures outlining the role of AUSVEG, Horticulture Australia and the VIDO's. A VIDO brochure will be helpful to explain to growers the scope of the position so that VIDO's are not expected to handle all issues important to growers. Brochures should be translated.
- That AUSVEG publish a Vegetable Industry magazine (similar to 'Potatoes Australia').
- That AUSVEG get the law changed so that VIDO's have access to the AFFA vegetable growers database (for dissemination of R&D information only).
- That AUSVEG allocate levy money to the translation of important information about AUSVEG and key findings of R&D.
- That AUSVEG consider making 'Infopest' available to all vegetable growers at a price subsidised by the levy.

7. *Government Agency and R&D Provider Issues*

- That NSW Agriculture consider employing more extension officers and that Government Agencies (DLWC, EPA, NSW Agriculture) put the support structure in place to help vegetable growers adopt new practices when new legislation is introduced.
- That NSW Agriculture entomologists, plant pathologists and extension officers, with the assistance of the VIDO, organise more training workshops for growers to educate them about pest and disease identification and management.
- That all researchers funded through the Vegetable Levy and Horticulture Australia, when working on growers' farms, or giving talks, ensure that growers are aware that their project is funded by the Vegetable Levy.
- That more short evening meetings be organised to pass on information about projects to growers. R&D providers should be encouraged to travel interstate where relevant.

8. *Horticulture Australia Issues*

- That Horticulture Australia make sure researchers know that they are to give all information produced (newsletters, fact sheets, articles) from a R&D project to all VIDO's so that they can put articles in their newsletters and keep growers in their State up-to-date.
- That Horticulture Australia request that all projects dealing with IPM or pest, disease and weed management put together fact sheets (that could be added to folders) or newsletters throughout the project that can be distributed by the VIDO's to growers.

- That more short evening meetings be organised to pass on information about projects to growers. R&D providers should be encouraged to travel interstate where relevant.

For more information

The full report can be obtained from the NSW Vegetable Industry Development Officer, Alison Anderson (02 9746 1865 or 0409 383 003). The full report contains project objectives, project methodology, and NSW Vegetable Industry background information. The priorities from each workshop are listed in full, with the number of votes they were given by the vegetable growers. Summaries from each workshop are given. The report also contains a communication needs analysis. Growers at each workshop were asked how they receive information and how they would like to receive information.

Appendix 2: Outcomes of NSW Vegetable Industry Research, Development and Communication Needs Workshops 2001 – Communication Results

COMMUNICATION NEEDS ANALYSIS

As mentioned earlier in this report it is essential that this key issue be addressed. Growers have indicated a clear need for information transfer and communication with all levels of the Industry.

Without this link it is envisaged that the status quo will remain in place.

Key organisations/groups that growers wished to enhance communication with were:

- AUSVEG, to gain a better understanding of the role of their peak industry body.
- Horticulture Australia, to gain an understanding of how the organisation works for them.
- Supermarkets, for dialogue on pricing/profits from a grower perspective, QA issues and why supermarkets do not use it themselves.
- Agents, for transparency in stock delivered and prices.
- NSW Agriculture for more information and field support.
- Anyone with R&D information/services, market prices and trends locally and overseas, and goods and services to benefit vegetable growers.
- The VIDO to obtain information from levy-funded projects and to give input into projects that can be funded.
- Consumers for the promotion of vegetables and to understand what consumers want and how they make buying decisions.
- Policy makers in Federal, State and Local Governments (chemical spray records, urban encroachment, water quality and access, chemical registrations, etc.).

Growers would also like to be able to easily communicate with any of the above via their own means or via their Grower Association.

There is a clear requirement at all Industry levels for a structured communication pathway to be established for the Vegetable Industry, as current processes are inadequate. There is no television channel, radio station, magazine or newspaper, newsletter, or other form of communication that has the capacity to firstly reach a high proportion of vegetable growers, let alone contact a specific category of growers when required.

The most logical pathway is to have a professionally structured and managed database that captures the widest number of producers and the crops they grow. The only such source for this information is held by AFFA (Levies and Revenue Services). This has the highest potential for being the basis of a new and more effective communication path. Privacy laws and protection of the rights of growers would need to be an essential consideration in such a pathway.

The VIDO's in each State have developed their own databases for getting R&D information to growers. It is difficult for them to obtain databases from Industry bodies and Government Departments due to privacy laws. All vegetable growers should receive information as to how their levy is being spent. If the VIDO's had access to the AFFA database then they could spend more of their time getting information to growers rather than keeping their database up-to-date. A grower update could be received each year. This would also help AFFA as growers will be obtaining information and will not have to ask AFFA why they should be paying and where the money goes. AFFA will not have a complete list of growers as they collect money from agents on behalf of some growers.

Without this pathway AUSVEG will find it difficult to support a wider set of growers.

Such a pathway would be supportive in addressing the following issues and concerns as expressed by growers and Industry attendees at the workshops:

- Allow growers to be notified and updated on research and development projects undertaken through levy funds.
- Provide a mechanism for cohesive and representative feedback from growers to Industry issues.
- Give AUSVEG/Horticulture Australia a better means to demonstrate the value added by these projects as well as allowing better administrative functioning.
- Serve as a point of unity across the Vegetable Industry.
- Act as a conduit for suitable information to be transmitted to growers, e.g. VIDO Newsletters, announcements, R&D project requests/proposals, Minor Use Chemical Permit Applications, AUSVEG communications, Horticulture Australia communications.

The potential also exists for self-funding such a centre, however considerable discussion and planning would be needed to achieve this and protect growers interests and rights under the Privacy Act.

When the information from the workshops is examined it is clear that for many reasons vegetable producers prefer 'in field' support with information being given in a way that growers can understand and apply on a local basis.

It is also clear that the crop, language and regional diversity of growers reinforces the need for a good communication plan. Growers use a very wide variety of information sources and use their own experience as their main decision making benchmark. Gaining the confidence to try new or modified processes can be very daunting for growers. This further increases their desire for locally interpreted information. With this in mind growers looking at trial results derived in Carnarvon (Western Australia) may well be dubious about applying that information to crops they grow in Hay (New South Wales).

Industry organisation databases should also be part of the communication structure to enhance information flow.

Extension efforts are clearly hampered by the lack of an effective communication pathway. Industry attendees at the workshops displayed a large amount of informative publications for growers to view, and the resultant interest and demand for this material was astounding. This further reinforces the need for an effective information transfer link. Such a link would be highly supportive of Industry organisations that do not have the manpower or resources to mount effective extension programs to growers throughout the State.

It is also evident that growers in different areas have slightly different preferences as to how they would ideally like to get their information. The following sections provide an insight into the information sources utilised by producers and their preferences for each of the workshops. Adding to the complexity of the whole communication process is that growers have information needs covering a very diverse range of topics such as finance, machinery, chemicals, fertilisers, seeds, packaging, storage, transport, markets, varieties, agronomic and irrigation practices. Many of these are highly specialised in themselves. Despite this, all purveyors of goods and services to vegetable growers, face the same dilemma of how to communicate with growers in a timely and effective manner.

Following the workshops some growers have asked when the next information night is going to be. They enjoyed getting together as a group, meeting people in the Industry and finding out about projects. Information evenings are a good way of meeting people from outside the region where the meeting is being held. Growers often know about projects being conducted in their area, but do not know about relevant projects from other regions and interstate.

SYDNEY GREENHOUSE GROWERS

This group primarily had Arabic as their main spoken language. A language barrier is evident here and interpretation was required throughout the meeting. They expressed an interest in having information translated.

Their preference was for direct on-farm provision of information, demonstrations, seeing what other growers were doing, and getting information from retailer agronomists.

The group wanted more general training and expressed a strong need for an extension officer, and for their own Executive Officer (for Greenhouse Vegetables NSW). Television was seen as a good medium in that it was visual. Current information sources used were:

- Personal experience/other growers.
- Store and company representatives (seed and chemical).
- Websites (very few had computers but most agreed that given training in this area they would utilise this more and access the NSW Agriculture Greenhouse Project Listserver).
- Company information and brochures.
- Ethnic radio.
- Field days and on-farm workshops.
- Greenhouse Vegetables NSW Newsletter.

COWRA

The Cowra group liked concise information and saw a real need for updated Agfacts from NSW Agriculture (this is apparently underway but due to poor resourcing it is going to take a long time). They liked short courses and would like to access more information on the Internet. The Internet was seen as slow and frustrating to use but would be more accessible if a vegetable specific site was available. A more direct way of communicating was seen as desirable.

The group expressed the need for improved communication and more readily available information. They suggested an information database which lets growers know all the places that they can obtain information. Other information sources used were:

- Other farmers/own experience.
- Simplot/Cowra Export Packers field officers.
- Lachlan Valley Horticultural Network.
- Retailer and company representatives.
- Seed companies and merchants.
- NSW Agriculture.
- 'Good Fruit and Vegetables' magazine.
- 'The Land' newspaper.
- People at the markets.
- Major field days like Werribee and Gatton.
- Handbooks.
- Information in the mail.

BATHURST

This group had a preference for what they called unbiased information. With the demise of extension services from NSW Agriculture they felt more commercial interests had become the purveyors of agronomic information, and that these were more interested in promoting their interests.

They saw the Internet as having potential to aid communication but needed training in this area. Many felt that they did not have time to waste in this area as the Internet was too slow and cumbersome with many dead-ends and poor information. A vegetable specific site would be advantageous. In addition to this it was seen as costly with low return on the investment.

Once again the hands on direct approach to obtain information was preferred and extensively used. When asked how they obtained information growers nominated produce agents, ABC radio, newsletters and other growers as their most used information sources. NSW Agriculture (Clarrie Beckingham) and an Elders Agronomist (Greg Kocanda) were the next most used sources of information. Some growers liked the idea of informative videos as opposed to the Internet and published items, however they felt that a reference list of publications and articles would be useful. Other sources of information noted were:

- Chemical representatives.
- Seed companies.
- Irrigation companies.

- 'The Land'.
- 'Good Fruit and Vegetables'.
- 'Vegie Bites' newsletter from NSW Agriculture.
- 'Galls and All' R&D newsletter.
- NSW Farmers' Association Horticulture newsletter.
- 'Landline' television program (should have a vegetable update section).

These growers felt that there were too many websites, newsletters, retailers stories, articles, brochures, representatives tales around and these all combined to make it difficult to get information and make the right decision. A single co-ordinated Information Transfer point would help growers enormously to get the right sort of information and act as a reference point also.

MACKSVILLE

A wide variety of crops were represented here with a spread of attitudes to technology. Many preferred to read or see their information visually, be that on television (there is no specific rural station and few regular programs) or through local demonstration and farm experience. Crop specific newsletters were seen as very desirable. Again updated Agfacts from NSW Agriculture were seen as desirable. Many growers liked radio (ABC Country Hour) as a source of information as they were able to do other things as they listened.

The Internet and computers were not seen as attractive alternatives due to poor telephone line quality, the cumbersome nature of the Internet, time taken to find relevant information, cost and complexity. Other information sources used were:

- Agents.
- 'Landline' documentaries.
- 'The Land' newspaper.
- 'Potato Australia', 'Eyes on Potatoes', 'Good Fruit and Vegetables' and machinery publications.
- Field days.
- Networking with neighbours and friends.
- Agricultural companies such as fertiliser and chemical companies.
- Local retailer staff.

WINDSOR

The pattern continues in this area with regards to information source utilisation and preferences. The Internet was not liked for similar reasons as outlined above. The question does arise however that if producers were more familiar with computers and the Internet and good information was available and readily retrievable, would this communication tool be seen as more desirable? Most groups indicated that they would like computer and Internet training.

This group expressed the view that they would like more direct mail that was targetted and relevant to them, as opposed to junk mail. Many felt that could absorb this type of information better and be able to build an accessible reference base. An independent vegetable magazine was also proposed. They also wanted more on the ground support via NSW Agriculture. Growers felt NSW Agriculture helped them be more

productive, compared with the huge funding growers saw going into the EPA which growers felt was well funded but did not add to their productivity. Many felt powerless to influence Government policy in these areas.

Information sources utilised by this group were:

- 'The Land' newspaper.
- Company and retailer representatives.
- 'Good Fruit and Vegetables' magazine.
- Field days.
- Neighbours and own experience.
- NSW Agriculture – Leigh James (very good but under resourced).
- Markets and market publications.

CAMDEN

As in other workshops a wide variety of information sources were used by these growers. Preferred sources were quarterly newsletters, possibly the use of computers and the Internet if training was provided, field days and localised information days. Many felt that the Internet was not as useful as a hard copy. To some in the group videos were desirable. A wide variety of ethnic backgrounds were present at this group and it was felt that some language barriers would need to be crossed. Translation of information was suggested. Localised information was definitely preferred. Other information sources were:

- Resellers and nurseries.
- Other growers.
- Own observations/experience.
- Grower Associations e.g. NSW Farmers' Association, Australian Chinese Growers Association, South East Horticultural Producers Association.
- CD roms of pests and diseases.
- Chemical resellers.
- 'Good Fruit and Vegetables' magazine.
- 'The Land' newspaper.
- NSW Agriculture.
- Seed Merchants.
- Conferences.
- Kondinin Group.

The growers in this group saw particular value in having a quality Vegetable Industry Magazine. They saw a real need for farmers to work together more and for the Industry to be more cohesive and responsive, particularly in the area of information transfer. This information transfer needed to take into consideration language issues. Better communication between growers and supermarkets was also sought.

Growers would like to see a communication system established between growing areas that could provide early warning of pest and disease outbreaks, as well as a comprehensive guide book on vegetable crops and spray programs. Many of these are already available but growers are unaware of them, which further illustrates the need for a more effective communication pathway.

HAY

As in other groups these producers firmly believed AUSVEG and Horticulture Australia needed to clearly explain how the system worked and how levy funds can and are being applied, and the benefits and value of these projects to growers. Without this growers would continue to resent the levy and seek to remove it.

Despite extensive efforts to get growers to this workshop only a limited number attended. The quality of representation however was outstanding and will certainly provide a base for continued VIDO activity, as is the case for all the workshops.

Information resources utilised were narrower here as opposed to other groups. The key sources utilised were past experience and other growers. In addition the following sources were used:

- Rural suppliers such as seed representatives.
- Reseller's agronomists.
- NSW Agriculture.
- 'Good Fruit and Vegetables' magazine.
- 'Landline'/'Countrywide' television programs.

The concept of video presentation of information was acceptable on the proviso that the information was relevant to producing the crops they grew. The type or style of presentation they liked was related to the television program 'Landline'. This group also saw the value in a specialist Vegetable Industry magazine. Again it is worth commenting that these items will only be useful if they can be sent to all the right people.

Internet based communications via a specific vegetable site was seen as a possibility but growers felt that based on their current experiences with the Internet that this may be too time consuming and that they had very little time as it was. Overall the Internet was seen as too slow, too cumbersome, capital was required, lines were 'dodgy' and they really had no time to use it as opposed to making a few telephone calls to an agronomist. Growers commented that a specially tailored vegetable site with quick and appropriate links to crop and subject specific areas may be useful if easy to use.

Infopest was seen as a good tool and it was proposed that this be made available to all vegetable growers at a price subsidised by the levy.

GRIFFITH

This area is well serviced by local research and extension centres. CSIRO are located in Griffith and the National Vegetable Industry Centre (NSW Agriculture) is located in Yanco. These Centres are quite active locally. There are also a number of retailers present locally who have specialist agronomic staff.

Videos were seen as a possibility for information transfer, but some growers present preferred to read newsletters.

The 2002 Riverina Vegetable Conference is being planned and funding is required. The conference is going to focus on marketing and export.

Pest/Crop fact sheets were seen as very useful. Growers said they are in need of updating however. NSW Agriculture has started updating Agfacts but does not have the resources to do it quickly.

Information sources used were:

- Agronomists from resellers, suppliers, NSW Agriculture, and CSIRO.
- 'Vegie Bites' newsletter from NSW Agriculture.
- IRE Farmers Newsletter.
- Two growers used the Internet and would like a vegetable site.
- 'Good Fruit and Vegetables' magazine.
- Various other newsletters.
- Field days (becoming difficult as time constraints were high)
- 'Landline' television program.

Actions and R&D Projects proposed to improve communication within the NSW Vegetable Industry:

- **AUSVEG Issue – That AUSVEG develop brochures outlining the role of AUSVEG, Horticulture Australia and the VIDO's. A VIDO brochure will be helpful to explain to growers the scope of the position so that VIDO's are not expected to handle all issues important to growers. Brochures should be translated.**
- **AUSVEG Issue – That AUSVEG publish a Vegetable Industry magazine (similar to the one produced by the Potato Industry).**
- **AUSVEG Issue – That AUSVEG get the law changed so that VIDO's have access to the AFFA vegetable growers database (for dissemination of R&D information only).**
- **R&D Project – That AUSVEG commission a project to develop an information sources and industry contacts database (information about QDPI's GrowSearch service could be spread nationally).**
- **VIDO Action – That the NSW VIDO begins publishing a quarterly newsletter to keep NSW vegetable growers up-to-date with levy funded R&D.**
- **VIDO Action – That the NSW VIDO put together a list of all R&D newsletters so that growers can subscribe to those that they are interested in.**
- **Horticulture Australia Issue – That Horticulture Australia make sure researchers know that they are to give all information produced (newsletters, fact sheets, articles) from a R&D project to all VIDO's so that they can put articles in their newsletters and keep growers in their State up-to-date.**
- **AUSVEG Issue – That AUSVEG use levy money to translate important information about AUSVEG and key findings of R&D.**
- **NSW Farmers' Association Issue – That the Association, as the State member organisation of AUSVEG, keeps other Associations up-to-date with AUSVEG activities. The NSW Executive Officer or AUSVEG Board Member could put regular updates in the NSW VIDO newsletter.**
- **AUSVEG Issue – That AUSVEG consider making 'Infopest' available to all vegetable growers at a price subsidised by the levy.**
- **R&D Provider Issue – That all researchers funded through the Vegetable Levy and Horticulture Australia, when working on growers' farms, or giving**

talks, ensure that growers are aware that their project is funded by the Vegetable Levy.

- **VIDO/Horticulture Australia/R&D Provider Issue – That more short evening meetings be organised to pass on information about projects to growers. R&D providers should be encouraged to travel interstate where relevant.**

Appendix 3: Example form for identifying R&D issues

Have YOUR Say in Vegetable Industry Research & Development (Levy Funded Projects)

Are you involved in the vegetable industry and would like to see things improve?

Through the NSW grower representatives on the Vegetable Research & Development (R&D) Product Groups, NSW AUSVEG Board member and NSW Agriculture Field and Greenhouse Vegetables Advisory Committees (made up of researchers, growers and other industry people) you have the opportunity to have direct input.

If you have any issues that you would like raised such as:

- Production issues?
- Lack of registered chemicals?
- Cost price squeeze?
- Marketing issues?
- Other issues?

please fill in the form on the back of this page and return by **Friday 23rd July, 2004**. You can fax the form to (02) 9746 1865 or mail to the NSW Vegetable Industry Development Officer, PO Box 1, Sydney Markets, NSW, 2129.

All issues put forward will have a response to the proposer – and will be put forward to the appropriate body such as research agencies for R&D funding and agripolitical bodies.

This is an opportunity for the Vegetable Industry to have direct input into Research & Development and other processes that will affect you in NSW.

The NSW Product Group representatives find input from the Vegetable Industry to be very helpful to them when preparing for National Vegetable Research & Development meetings.

Fill in the form and fax/mail it off so that YOUR voice is heard

By returning the form you will ensure that your contact details are correct and that you will receive information about workshops and the latest outcomes from research funded by the National Vegetable Levy.

All growers that return the form will go into the draw to win a 1 year subscription to the industry magazine ‘Good Fruit & Vegetables’. The first 10 growers to return the form will receive a pair of PVC gloves and Tyvek overalls.

For more information please contact Alison Anderson, NSW Vegetable Industry Development Officer on alison.anderson@bigpond.com, phone/fax (02) 9746 1865, or mobile 0409 383 003.

NSW Vegetable Industry
Research, Development and Extension Issues Sheet
"Have your say"...Please use this form to submit issues for consideration

The Problem/Issue Title

Description of the Problem (50 words or less)

Significance of the Problem (eg State, Regional, National/% of crop loss)

Contact Details:

Name:

Address:

Phone:

Fax:

Mobile:

Email:

Crops Grown:

I am interested in research & development in the following areas (please tick):

- | | |
|--|--|
| <input type="checkbox"/> Pest and Disease Management | <input type="checkbox"/> Export |
| <input type="checkbox"/> Water Use Efficiency & Irrigation | <input type="checkbox"/> Communication & Extension |
| <input type="checkbox"/> Marketing & Market Development | <input type="checkbox"/> Environmental Management |
| <input type="checkbox"/> Product Development | <input type="checkbox"/> Supply Chain Competitiveness |
| <input type="checkbox"/> Resource Sustainability | <input type="checkbox"/> Health Benefits of Vegetables |
| <input type="checkbox"/> Other (please state _____) | |

Return by 23rd July to:

Alison Anderson, NSW Vegetable Industry
Development Officer
PO Box 1, Sydney Markets, NSW, 2129
Fax: (02) 9746 1865
Email: alison.anderson@bigpond.com.au

Appendix 4: Workshops facilitated by the NSW Vegetable IDO
(many of the workshops were facilitated in partnership with NSW DPI)

Date	Location	Topic
April – August 2001	Cowra, Sydney Markets, Camden, Windsor, Bathurst, Macksville, Hay, Griffith	NSW Vegetable Research, Development and Communication Needs
11 – 12 May 2001	Richmond	Sydney Basin Vegetable Exhibition “Your R&D Levy at Work” display and presentations
10 June 2001	Sydney	ACGA of NSW Field Day: R&D presentation and displays
5 – 7 November 2001	Bathurst, Camden, Windsor	DBM Management
20 June & 31 July 2002	Griffith, Cowra	Managing Clean and Safe Water for Washing Vegetables
12 August 2002	Sydney	Disease Management Strategies for Downy Mildew in Shallots (Chinese translation)
September 2002	Windsor, Camden	Lettuce Spray Application Demonstrations and Workshops
October 2002	Macksville	Vegetable Information Evening
January 2003	Sydney	Managing Thrips and Virus in the Sydney Region
June 2003	Bathurst, Richmond, Cowra, Leppington (Chinese translation)	DBM Management (+ Sweet Corn disease management and clubroot management in Cowra)
7 – April 2003	Camden, Richmond	Lettuce IPM
July 2003	Mildura/Dareton	Vegetable R&D Information (with Victorian IDO)
November 2003	Coffs Harbour	National Vegetable R&D Program; NSWFA Update; Producing in a Greenhouse Environment
November/December 2003	Camden	3 X IPM Demonstrations in Brassicas
April 2004	Sydney	Lettuce Aphid Emergency Workshop
April 2004	Sydney	2 X IPM in Lettuce and Sweet Corn
April 2004	Richmond	Root Diseases in Hydroponic Lettuce
12 August 2004	Mildura	Processing Vegetables
24 & 26 August 2004	Sydney	2 X DBM Workshops
24 September 2004	Sydney	Chemical Use in the Greenhouse Industry
October 2004	Cowra, Bathurst	Management of White Blister and Black Rot in Brassicas
28 October 2004	Windsor	IPM Demonstration in Brassicas
March 2005	Richmond, Camden	Lettuce IPM
6 July 2005	Griffith	EnviroVeg
1 September 2005	Coffs Harbour	Vegetable R&D Program Update
11 October 2005	Mildura/Dareton	Disease identification and management in greenhouse and field vegetables
17 & 18 October 2005	Sydney, Bathurst	Clubroot and White Blister Management in Brassicas
9 December 2005	Bathurst (with bus from Sydney)	Brassica IPM Field Day

27 February 2006	Sydney	Lettuce Aphid
18 & 19 May 2006	Sydney	Chemical Minor Use Gap Identification
6 February 2007	Richmond	IPM pathology gap analysis workshop
23 February 2007	Sydney	Chemical Use in Hydroponic Lettuce
19 June 2007	Sydney	Chemical Use in Hydroponic Lettuce
8 May 2007	Sydney	AVIDG workshop
13 – 18 May 2007	Werribee, Dareton, Adelaide	Soil Awareness Days
July 2007	Bathurst, Camden, Richmond, Leppington (Chinese translation)	Brassica IPM
3 December 2007	Leppington (Chinese translation)	Hydroponic Production Techniques
11 September & 13 October 2008	Dareton/Mildura, Sydney	Managing Water for Yield and Profit Workshop
November 2008	Coffs Harbour	Greenhouse & Hydroponics (EnviroVeg; Natural Resource Management Targets; Disease Management; Cleanfresh)
2 – 3 February 2009	Bathurst, Sydney	EnviroVeg

Appendix 5: Key meetings/events attended by the NSW Vegetable IDO

Date	Location	Topic
June 2001	Windsor, Griffith	Environmental Best Practice workshops
29 May 2001	Melbourne	IDO meeting
30 – 31 July 2001	Melbourne	DBM Project Team Meeting
31 August 2001	Cowra	Lachlan Valley Horticultural Network AGM
12 th September 2001	Richmond	Phosphorus on vegetable farms
2 – 5 October 2001	Toowoomba	National HAL (across horticulture) IDO meeting and APEN conference
16 October 2001	Bathurst	Sweet corn
23 October 2001	Sydney	Exporting vegetables
30 – 31 October 2001	Adelaide	WFT Project Team Meeting
29 – 30 November 2001	Melbourne	IDO 'Communication Plan & VegeNote' meeting
10 December 2001	Sydney	EPA Pesticide Use in Agriculture meeting with industry
2 February 2002	Sydney	Australian Vietnamese Growers Association of NSW inaugural meeting
15 February 2002	Gosford	Greenhouse Vegetable Industry Supply Chain
20 February 2002	Gosford	Greenhouse Vegetables Research Projects Steering Committee
18 April 2002	Sydney	Hydponic Lettuce Growers meeting
30 April – 2 May 2002	Bunbury	National Vegetable Pathology Working Group
5 – 8 May 2002	Gatton	Australian Lettuce Industry Conference
16 – 17 May	Echuca	Regional IDO meeting for computer training and skills audit
7 June 2002	Rossmore	Cucumber diseases workshop (NSW DPI)
21 – 22 June 2002	Griffith	NSWFA Horticulture Conference
5 July 2002	Sydney	Cambodian Growers Co-operative meeting
July – August 2002	Sydney X 6	Chinese Vegetable Growers Chemcert courses (to give R&D update)
23 – 24 July 2002	Melbourne	Clubroot Project Team Meeting
7 – 9 August 2002	Adelaide	DBM Project Team Meeting
25 October 2002	Sydney	Cambodian Vegetable Growers Chemcert course (to give R&D update)
2 – 4 November 2002	Sydney	National HAL IDO meeting and AusSHS conference
25 – 27 November 2002	Adelaide	IDO and 'VegeNotes' meeting
10 – 11 December 2002		IDO review meeting
February 2003	Orange	WinHort (Women in Horticulture) Planning Day for NSW
March 2003	Sydney	Vietnamese Communication Officer (RIRDC funded) Steering Committee meeting
May 2003	Hobart	National WinHort Training Meeting (took 8 women from Sydney Basin)
July 2003	Melbourne	AHGA Conference
4 April 2003	Gosford	Greenhouse Vegetables Research Projects Steering Committee
8 May 2003	Sydney	HAL WFT meeting
4 June 2003	Yanco	National Vegetable Industry Centre, Yanco Advisory Committee Meeting
12 June 2003	Gosford	RIRDC Asian Vegetable Program Meeting
23 – 24 June 2003	Sydney	IDO/AUSVEG meeting
26 June 2003	Sydney	NSWFA Horticulture Conference
11 August 2003	Sydney	Cambodian Growers Co-op Launch

15 August 2003	Sydney	Vietnamese Communication Officer (RIRDC funded) Steering Committee meeting
3 September 2003	Sydney	IDO field trip (after R&D meeting)
20 September 2003	Sydney	Vietnamese Growers Field Day
25 September 2003	Yanco	National Vegetable Industry Centre, Yanco Advisory Committee Meeting
13 October & 19 November 2003	Sydney	Fertiliser workshops for Chinese and Vietnamese growers
October 2003	Sydney	WinHort Computer Course (3 days)
24 – 26 November 2003	Hobart	National HAL IDO Conference
November 2003	Canberra	APVMA Minor Use Forum
25 February 2004	Sydney	Ethnic Biosecurity Education and Awareness Campaign Launch
28 April 2004	Melbourne	AUSVEG/HAL Lettuce Aphid Planning meeting
20 – 23 April 2004	Adelaide	National Pathology Working Group Workshop
28 April 2004	Melbourne	Lettuce Aphid R&D planning meeting
24 – 26 May 2004	Launceston	Vegetable Biosecurity Plan Meeting
7 – 8 June 2004	Brisbane	RIRDC Asian Vegetable Program Meeting
11 June 2004	Richmond	Asian Vegetable Pest and Disease Workshop
13 June 2004	Gosford	Chinese Growers' Association Picnic Day
6 July 2004	Cowra	Sweet corn growers meeting.
19 – 20 July 2004	Sydney	National HAL IDO Conference
20 July 2004	Sydney	Soil fumigation seminar
20 August 2004	Sydney	Australian/NZ Precision Agriculture Symposium
8 September 2004	Gosford	Thrips and virus project planning meeting
27 – 28 September 2004	Canberra	RIRDC Five year planning meeting
19 – 20 October 2004	Sydney	Brassica research projects update
26 October 2004	Melbourne	Water projects steering committee meeting
16 November 2004	Sydney	Horticulture for Tomorrow summit
23 – 25 November 2004	Hobart	TQA Conference
6 – 9 December 2004	Sydney	SuperSoil – National Soil Conference
1 February 2005	Sydney	Asian Vegetable Project steering committee meeting
23 February 2005	Sydney	NSWFA Horticulture Committee meeting
7 March 2005	Bathurst	Simplot sweet corn field day
2 March 2005	Sydney	Carrot R&D planning workshop
3 March 2005	Sydney	B.R.A. workshop
22 March 2005	Sydney	Vietnamese Communication Officer (RIRDC funded) Steering Committee meeting
3 May 2005	Melbourne	Communication meeting with IDO's and AUSVEG
4 – 6 May 2005	Werribee	Lettuce Industry Conference and Werribee Expo
26 May 2005	Sydney	Greenhouse IPM farm walk
18 – 21 July 2005	Bundaberg	AHGA Conference
10 August 2005	Sydney	Sydney IPM Extension Project Steering Committee meeting
11 August 2005	Sydney	AUSVEG LOTE grower project meeting with Step Communication
16 – 17 August 2005	Melbourne	IDO/AUSVEG meeting
22 August 2005	Bathurst	IPP project meetings with Brian Ramsay
29 – 30 August 2005	Sydney	IPP project meetings with Brian Ramsay
13 September 2005	Sydney	Asian Vegetable Project Steering Committee meeting
28 September 2005	Sydney	NSWFA Horticulture Committee meeting

28 October 2005	Sydney	Sydney IPM extension project commercialisation meeting
7 November 2005	Cabramatta	Asian Vegetable project naming launch
6 – 7 December 2005	Melbourne	IDO Meeting
15 December 2005	Sydney	Pesticides in hydroponic lettuce meeting at HAL
19 December 2005	Richmond	NSW DPI bilingual officers meeting
10 January 2006	Sydney	LOTE growers workshop with Step Communication and AUSVEG staff
14 February 2006	Sydney	IDO meeting
15 – 16 February 2006	Sydney	National IPM Workshop
7 March 2006	Sydney	NSWFA Horticulture Committee meeting
28 March 2006	Sydney	RIRDC Asian Foods meeting
6 – 7 April 2006	Windsor/Gosford	IPM extension training for consultants
10 – 11 April 2006	Adelaide	Soil Ute Guide project meeting
7 – 8 May 2006	Brisbane	Australian Vegetable Pathology Working Group Meeting
9 – 11 May 2006	Brisbane	Australian Vegetable Industry Conference
6 June 2006	Sydney	DEC communicating with vegetable growers meeting
12 June 2006	Sydney	NSW Chinese Growers Association field day
8 & 22 June 2006	Sydney	IPM in greenhouse vegetables workshops
21 June 2006	Richmond	Hydroponic lettuce conference
5 July 2006	Sydney	Greenhouse R&D planning meeting at HAL
17 July 2006	Sydney	NSWFA Horticulture Conference
19 July 2006	Cowra	Lachlan Valley Horticultural Network Conference
24 – 26 July 2006	Adelaide	Soil Ute Guide project meeting
7 August 2006	Cowra	Beetroot R&D needs meeting
14 – 15 August 2006	Sydney	HAL Protected Cropping workshop
24 August 2006	Melbourne	AUSVEG Communication Meeting
25 – 26 August 2006	Sydney	Farm tours and meetings for visiting NZ Chinese vegetable growers
28 – 30 August 2006	Adelaide	Soil Ute Guide project meeting
13 September 2006	Sydney	NSW DPI sustainable chemical use meeting
18 – 20 September 2006	Adelaide	Soil Ute Guide project meeting
21 September 2006	Sydney	HAL Soil Health planning meeting
9 October 2006	Sydney	GS1 meeting
12 & 26 October 2006	Sydney	Lettuce IPM field days
17 October 2006	Melbourne	Australian Vegetable Industry Conference 2007 steering committee meeting
23 – 25 November 2006	Adelaide	Soil Ute Guide project meeting
4 – 7 December 2006	Adelaide	National Soil Conference
8 December 2006	Windsor	Sydney IPM Extension Project steering committee meeting
31 January 2007	Sydney	Industry development review meeting with Richard de Vos
9 February 2007	Sydney	NSW DPI chemical residues meeting with growers and industry representatives
14 February 2007	Sydney	Sydney Markets tour for Sumitomo staff
5 March 2007	Sydney	AUSVEG/HAL/IDO meeting
12 March 2007	Sydney	NSW Farmers Association Horticulture Committee meeting
12 March 2007	Sydney	Greenhouse modification workshop
14 March 2007	Sydney	Greenhouse Better Management Practices Workshop
19 – 21 March 2007	Adelaide	Soil Ute Guide project meeting
27 March 2007	Camden	NSW DPI vegetable compost field day

29 March 2007	Richmond	NSW DPI Sydney field vegetable good agricultural practices demonstration block information day
3 April 2007	Freemans Reach	Zucchini virus management field day
4 April 2007	Richmond	ACCC/NSWFA Code of Conduct meeting
17 April 2007	Sydney	Meeting with Levies Revenue Unit
2 – 4 May 2007	Werribee	Werribee vegetable field days and the launch of the Soil Ute Guide for Vegetable Growers by Minister McGauran
30 May – 1 June 2007	Sydney	Vegetable Industry Conference
18 July 2007	Sydney	Waste Management Association Compost Meeting
6 – 9 August 2007	Hobart	TQA EMS Conference
20 August 2007	Sydney	Industry Development Review meeting
22 August 2007	Cowra	Lachlan Valley Horticultural Network annual meeting
31 August	Sydney	Lettuce training day
13 – 14 September 2007	Palmerston North	Fertiliser Application Technology Workshop and the Australasian Precision Agriculture Symposium
19 November 2007	Sydney	Assistance with Skills One™ video on pest control in vegetables
28 November 2007	Richmond	NSW DPI lettuce symposium
5 December 2007	Perth	IDO meeting
18 – 19 March 2008	Sydney	LOTE grower project meeting with key grower in Sydney and Hannah Burns from AUSVEG
26 March 2008	Sydney	AUSVEG Environmental Committee meeting
18 April 2008	Sydney	NSW Farmers Association meeting to discuss chemical residues in vegetables
5 – 6 May 2008	Yanco	NSW DPI Field Vegetable Meeting
13 May 2008	Sydney	Hydro Produce Asian vegetables meeting
22 May 2008	Sydney	HAL Vegetable IPM meeting
30 May 2008	Richmond	Launch of NSW DPI Sydney Field Vegetable Demonstration Farm
31 May 2008	Perth	National LOTE Grower Workshop
2 June 2008	Perth	IDO meeting
5 June 2008	Sydney	NSW Department of Planning meeting with horticulture representatives
1 July 2008	Sydney	AVIDG presentations
10 July 2008	Sydney	Meeting with American nematologist and Organic Crop Protectants staff
7 August 2008	Adelaide	Brassica Think Tank
9 September 2008	Sydney	IDO meeting
19 September 2008	Sydney	Precision Agriculture Symposium
14 – 15 October 2008	Sydney	Vegetable Carbon Footprint Workshop
27 October 2008	Sydney	NSWFA Horticulture Committee meeting
6 November 2008	Sydney	NSW DPI WFT Steering Committee meeting
1 – 5 December 2008	Palmerston North	Australian and New Zealand National Soils Conference
9 December 2008	Melbourne	Bayer CropScience – new chemistry update
16 December 2008	Sydney	NSW Cleanfresh project update
17 December 2008	Penrith	NSW DPI and Penrith Council forum: Sydney's Agriculture – Planning for the Future
4 – 8 May 2009	Melbourne	Vegetable Industry Conference and Werribee Field Days
18 May 2009	Sydney	Chep /NSW DPI plant pathologists meeting