Facilitating the communication and development of the Tasmanian Vegetable Industry (continuation of VG00070)

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Project Number: MT07055

MT07055

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Know-how for Horticulture™

Facilitating Communication and Development in the Tasmanian Vegetables Industry

Roger Orr *et al*

Tasmanian Institute of Agricultural Research

Project Number: VG 00070 & continuation MT 070055

(1st. July 2009)

VG 00070 1/10/00 to 30/6/07
MT 070055 1/9/07 to 30/6/09

VG 00070 & continuation MT 070055

Project Aim: To develop an efficient and effective industry communication network in order to facilitate the exchange of information within the Tasmanian vegetables industry, and to maximise the benefits from industry-driven R&D projects.

This report is a record of the Tasmanian IDO project from October 2000 until June 2009.

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This project has been facilitated by HAL in partnership with AUSVEG, and has been funded by the National Vegetable Levy. The Australian Government provides matched funding for all HAL's R&D activities. The project has been hosted by the Tasmanian Farmers and Graziers Association, (1st Oct.2000 to July 2007 and subsequently by The Tasmanian Institute of Agricultural Research (1 September 2007 to 30 June 2009

The achievements have been augmented through the employment of an Industry Development Officer to carry out the project's day-to-day activities. It should be noted that the project's close linkages with, the Tasmanian Farmers and Graziers Association, the Department of Primary Industries and Water and the Tasmanian Institute of Agricultural Research have been instrumental in the project's overall success.

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LIST of ACRONYMS used in this report.

Many businesses & organizations referred to in this report have long names but they are generally known by their acronyms. Other acronyms in common use are also used for ease of reading.

APVMA	Australian Pesticides & Veterinary Medicines Authority
ARAC	Agricultural Research & Advisory Committee
BFG	Brassicas Futures Group
CFT	Controlled traffic Farming
DED	(Tasmanian) Department of Economic Development
DPIW (DPIWE)	Department of Primary Industries & Water (formerly Dept. Of Primary Industries Water & Environment)
EMS	Environmental Management System
HAL (HRDC)	Horticulture Australia Limited (formerly Horticultural Research & Development Corporation)
IAC	(Vegetable) Industry Advisory Committee
IDM	(AUSVEG) Industry Development Manager
IDO	(Vegetable) Industry Development Officer
QA	Quality Assurance
R&D	Research & Development
SARDI	South Australia Research & Development Institute
TAGG	Tasmanian Association of Greenhouse Growers
TFGA	Tasmanian Farmers & Glaziers Association
TIAR	Tasmanian Institute of Agricultural Research
TQA	Tasmania Quality Assured
VDPI	Victorian Department Of Primary Industry

Other Businesses and Organizations referred to.

AgAware	Pesticide consulting service
Agronico	Agronomy service and R&D provider
AUSVEG	Peak Vegetable Industry Body
CARS (G&D Moore)	Fresh market grower/packer/exporter
Elders Ltd	Agricultural merchant and Agronomy services
Harvest Moon	Fresh market grower/packer/exporter
Houston's Farm	Fresh market grower/packer/exporter
McCain Foods	Vegetable processor
Peracto	R&D business arm of Serve-Ag
Perfecta	Fresh market grower/packer/exporter
Premium Fresh	Fresh market grower/packer/exporter
Roberts Ltd	Agricultural merchant and Agronomy services
Serve-Ag	Agricultural merchant and Agronomy services
Simplot Australia	Vegetable processor

Summary

In 1996 a Vegetable Research & Development (R&D) Levy was introduced to put funding of projects on a secure basis and to better manage industry priorities and extension of outcomes. To facilitate industry driven research and to disseminate outcomes Industry Development Officers (IDO) were established in each State by Horticulture Australia. (HAL) The Tasmanian Farmers and Graziers Association hosted the first IDO commencing in January 2001 to service the levy paying Vegetable Industry. In 2006 the Potato and Onion industry IACs agreed to contribute to become part of the Tasmanian IDO project.

The value has been a dedicated person to facilitate two way communication and information transfer between growers, secondary industry, agronomy providers, R&D providers, AUSVEG (the Vegetable Industry peak body) and HAL. Networking of State IDOs has facilitated communication and actions on national issues.

Promoting the role of the IDO position was the first task which resulted in the IDO building a personal network with all the commodity industries, R&D bodies, service providers, key growers and groups.

To facilitate communications a database was built. A complete postal list has been compiled and progressively developed to include crop and other contact details. (Further work is required to capture full details for all growers.)

Targeted distribution of R&D information has been a major role. The IDO has produced a quarterly newsletter to highlight R&D results, industry events, topical issues and conducted surveys and reviews to gather information.

Other valued activities have been managing chemical issues, facilitation and support of workshops and field-days and assisting with biosecurity and pest issues.

Industry priorities have been actively sought to direct R&D. The IDO has worked with commodity industries, local Agricultural Research & Advisory Committees and the national Vegetable Industry Advisory Committee (IAC) Production Advisory and Chemical Technical groups.

The main outcome has been greater two way communication at both a local and national level. The IDO has been the central contact for information flow to and from the R&D process. A challenge for the future will be delivering the services provided by the IDO that the industry has grown to expect and rely on.

The IDO project finishes on the 30th of June '09. It is recommended that the new development program consider:

- advising all stakeholders immediately that the IDO position no longer exists with a brief of the new program, its aims, a contact person, its management structure and personnel.
- putting in place a contact person to handle queries and to manage or redirect services, previously delivered by the IDO.
- as a priority establishing a network by personal contact with the major processors, packers and agronomy companies.
- that the R&D delegates are provided assistance to be able to make the best decisions they can on directing the levy investment.
- that vegetable development projects in Tasmania include potatoes and onions because with carrots, brassicas and peas these crops dominate the crop mix grown by farmers and the mix handled by packers, exporters and processors.
- that with greater uptake of the internet in recent years it is now timely to utilise it for more efficient and rapid communication. A follow-up survey to build the phone, email and crop details in the database is likely to be successful and is recommended. At a later time an annual resurvey of growers, processors and packers could be used to also capture crop statistics.
- that a website for the new program would provide efficiencies for information collation and distribution.
- that traditional printed material and postal distribution are still essential to reach all of industry.
- that Chemical management is a major area to be maintained and kept up to date.
- how best it can support emergency biosecurity events as well as long-term management options.

1 Introduction

1.1 Historical Background-Why Undertaken

In 1996 a Vegetable industry Research & Development Levy was introduced, and to be managed by the HRDC (now HAL), with matching Federal funds. This put funding of R&D projects on a more secure and managed basis with industry direction and representation coming via the grower peak body AUSVEG.

Around Australia however extension of research outcomes was seen to be fragmented, poor or lacking and partly attributable to the reduction of extension services by State Departments of Agriculture, Tasmania being no exception to this. The concept of Industry Development Officers (IDOs) developed by HAL in other industries some years prior had proven to be a clear success and so was pursued by State Grower Associations around Australia from 1998 on. The Tasmanian Farmers and Graziers Association were successful in applying to host an IDO position as a HAL funded project to commence in October 2000 to service the vegetable levy payers. In 2006 the Potato and Onion industry IACs agreed to contribute to become part of the Tasmanian IDO project. This was a demonstration of confidence in the good work of the project.

1.2 Significance for Industry

The value to industry is that there has been a dedicated position with the sole focus of facilitating rapid two way communication and information transfer between all stakeholders; growers, secondary industry, service providers, R&D providers, AUSVEG and HAL. In addition the State IDOs formed a national network that allowed national issues to be rapidly disseminated and coordinated expert responses to be organised.

1.3 Aims of the Project

As proposed: "The project seeks to address the communication needs of the R&D planning and reporting process, linking growers, grower groups, private R&D providers, Department of Primary Industries, Water and Environment (DPIWE), Tasmanian Institute of Agricultural Research (TIAR) and Tasmanian Agricultural Research Advisory Committees (ARACs).

Development of an efficient and effective industry communication network to facilitate information exchange within the Tasmanian vegetables and potato industries is considered to be a high priority. This activity is intended to maximise the benefits from industry driven research and development outcomes. An additional important aspect is to develop linkages and working relationships with Industry Development Officers in other States."

1.4 Project Timeline

The project has seen a number of changes since commencement with changes to the IDO employee and several extensions to the contracted conclusion of the project. The sequence is as follows:

- Project VG00070 was approved to commence 1st October 2000 and to conclude a 5 year period on 31st October 2005.
- Following advertising for a suitably skilled person Roger Tyshing commenced in the IDO position on the 22nd January 2001 and acted in the role until resignation on the 3rd January 2003.
- Following readvertising, Stephen Welsh was appointed on the 5th of May 2003.
- During his tenure, at the host's request, the project was extended to the 22nd of June 2006 to compensate for the time that the project was without an IDO in the role.
- As a consequence of a major Industry Development review HAL extended the project twice; first out to 30th June 2007 and then out to 28th February 2008.
- In mid July 2007 S Welsh resigned and the host employer, the TFGA, terminated their contract as they saw the time of the project left to run as being too short to find a suitable replacement coupled with the review of Industry Development not being finalised and providing any surety of a future project.
- Because of the vegetable industry strong support for the IDO role TIAR, in negotiation with HAL, offered to support the established IDO work program to its concluding date and until

the review changes were implemented. The continuing project was contracted as MT070055.

- Roger Orr from TIAR was appointed as the main person to conduct the IDO program with Peter Simmul (TIAR) to cover the Brassica Futures program because of his location and prior work with the group.
- With further delays on the review HAL again extended the project to the 1st July 2008, again to 30th December 2008 and finally to 30th June 2009.

2 Method

2.1 Strategy

Upon appointment of the first IDO the strategy employed was for the IDO to progressively develop the major planned work activities as described in the Job Specification (below) in the original project proposal. Although some of the industry bodies evolved or changed over time the activity aims essentially remained unchanged.

In the initial year promotion of the IDO position as to what it could deliver and establishing communications and personal contact with all stakeholders was the priority. They included growers, grower groups, industry sectors (processors, packers and exporters), service providers, R&D providers and National bodies. Building a contact database for these people was essential early work. This provided the network on which two-way exchange of information could be delivered. A start was also made on understanding and collating local issues and priorities and developing plans to address them.

This was built on with additional initiatives and stronger national networking which had developed as a result of the close, collaborative and frequent communication between the other State IDOs, AUSVEG and HAL.

The final IDO utilised the existing plan and the range of developed activities that were accepted by all stakeholders as core functions of the IDO position. Because of the very short contracted time of the project to run few new initiatives were started during this period.

2.2 Original Job Specification (Objectives)

"While the major work tasks of the position will be formulated and agreed by the Management Committee with the Industry Development Officer, it is likely they will include the following:

1. Development and update of R&D plans for Tasmanian vegetable commodity sectors through widespread grower consultation at local and regional level, in conjunction with the TFGA Vegetable Council and the Vegetable and Potato ARACs. It should be noted that the use of the term "vegetables" throughout this document is intended to include all crops grown for human consumption.
2. Assist TFGA commodity delegates with the dissemination of information to growers from National R&D deliberations. Provide support and assistance to commodity delegates with R and D priority setting locally and nationally. Prepare briefs, as appropriate, for commodity delegates and arrange meetings with growers, grower groups and relevant industry personnel as required.
3. Identify existing grower groups and associations by commodity, locally and regionally. Establish and foster a communication network between grower groups and associations.
4. Explore the effectiveness of the existing communications systems used by industry.
5. Identify gaps in the Tasmanian vegetable industry communication network and evaluate recommendations from the national project, which investigated the electronic information needs of the potato industry. Facilitate the development of a plan for the adoption of information transfer.
6. Develop an industry communications plan, which links existing grower groups. Foster the establishment of regional groups, as appropriate and identify key communications linkages and methods, which need to be developed to improve the overall process.
7. Develop communications linkages between research and extension personnel, including vegetable processors, growers, DPIWE, TIAR and private R and D providers, in order to ensure a targeted flow of research and development information between the groups.

8. Work with the Vegetables and Potato ARAC's to identify regional commodity R and D needs and work with the ARAC's and R and D providers to develop specific projects.
9. Assist in the measurement of the effectiveness of the communication process. Fine tune methods as well as assessing the effectiveness of technology transfer methods employed by research groups in implementing change and having technology adopted by growers.
10. The project will be owned and operated by industry representatives, with a clear objective of industry development and progress through the adoption of research and development outcomes.

The major part of the Industry Development Officer's time is intended to be one of face to face interaction with growers as individuals or in group situations."

2.3 IDO Project Management

The project was originally hosted by the TFGA, followed by TIAR, and the project direction and development has been overseen by a Management Committee comprising three grower representatives, plus a representative from DPIWE, TIAR and the TFGA. Historically the TFGA Vegetable Council Executive Officer acted as the day to day project supervisor. With the hosting transfer to TIAR the supervisor role was transferred to the TIAR representative. The AUSVEG Industry Development Manager (IDM) was an ex officio member being kept informed by the committee minutes, activity reports, notices and IDO work plans. The IDM was responsible for IDO developments and management with national activities. *An example of a typical work-plan discussed with management committee Appendix 1*

The Management Committee has monitored and guided the IDO activity and has received and assessed regular reports on progress. HRDC/HAL has required comprehensive milestone reports to be periodically presented.

3 Activities

For the purposes of this report the activities have been grouped under five headings:

3.1 Communications & Networking
3.2 Information Distribution & Technology Transfer
3.3 Special Issues
3.4 R&D Exchange Process
3.5 Leadership & Industry Representation

3.1 Communications & Networking

3.1.1 Intra State

The first task undertaken was to make the IDO and role known to growers and associated industry stakeholders. With the change of IDO the personal contact had to be re-established but the role had become progressively known.

Media promotion for the IDO position was undertaken but getting to personally know and be known was considered and found to be the most effective method in establishing a base for successful communication and developing the IDO role with them. The small Tasmanian distances made face to face contact possible. At the beginning being hosted by and located at the TFGA offices greatly assisted in the opportunity to meet key grower representatives on the TFGA vegetable council and obtain introductions to other key people and organisations.

The Tasmanian vegetable industry is dominated by growers contracted to processing companies and packers/exporters. As agronomy decisions, advice and information is delivered by their field officers or contracted agronomists then face-to-face meetings with the company managers, field officers and the private agronomists was undertaken.

Visits were undertaken with the processors Simplot and McCains, their managers and field officers. Similarly with the packer/exporters of Harvest Moon, Field Fresh (now Webster Fresh), Premium Fresh, Perfecta and several other smaller grower/packer/wholesalers such as G & D Moore, D Davis , Youngs Vegie Shed, Bovill Bros. and Houston Farms.

Visits and contact was also made with the staff of the main service providers Serve-Ag, Agronico, Roberts and Elders Ltd. These companies traditionally provide a contracted agronomy function for the production companies to complement their field officers.

R&D organisations visited included TIAR, Peracto (research arm of Serve-Ag) and research staff from Agronico.

At a State government level relevant Department of Primary Industry, Water & Environment (DPIWE now DPIW) and the Department of Economic Development (DED) staff were met with.

Individual grower contacts have been made but more effort was put into making opportunities to be invited or to attend growers meetings or activities so as to meet with as wide a range and number of growers as possible.

All these contacts have over time allowed the IDO to be recognised as a central contact point to deal with information and issues on a vegetable industry wide basis as well as a source for individual information. Because 90+% Tasmanian crops are grown and managed on contract to processors and packers then greater communication has taken place via the latter and their networks to growers.

3.1.2 Inter State

Meetings and regular contact with the other State IDOs has been invaluable in information exchange, delivery of national project results and working with the IAC Advisory and Technical committees. The States' IDO network has been of particular assistance in providing contacts and mentoring for new IDOs following resignations in recent years.

Following the appointment of an AUSVEG Industry Development Manager (IDM) in December 2004 there was more regular contact and coordination of the IDOs in dealing with National issues and improved facilitation of the R&D project approvals process.

Another significant area of interstate contact has been with National project leaders. The IDO has been a key contact for National leaders seeking information exchange. The IDO project has been an efficient vehicle for bringing and hosting National experts to speak at Tasmanian Field-days and other Forums.

3.1.3 Database development

Prior to the IDO project, contact across industry was fragmented and often narrow within the various companies and organisations. Like the other States, development of a database was seen an essential early task to facilitate information dissemination and networking activities across the vegetable industry.

It has been a progressive job and hampered by issues of privacy and company confidentiality for access to lists of growers. Acquiring details of company and organisation staff has not been a problem as this was readily provided as they are also publically listed and wish to be readily contactable.

To get around confidentially an information dissemination arrangement was developed with the various companies to target information to their crop groups or growers. All companies were willing to disseminate crop specific newsletters, booklets, field day flyers etc from the IDO to their growers of carrots, onions, beans, brassicas etc. To date this has worked well for these purposes but the deficiency in phone, e-mail and crop details to the IDO has occasionally hampered targeted and timely communication.

Fortunately initial access to the TFGA vegetable council member database and communication with DPIW and TIAR staff provided a good starting list of growers and key contacts. Over the years this has been built on and regularly updated by the three IDOs that have filled the position.

Up to September 2008 a survey had not been conducted to try and capture more individual grower details. In October 2008 the last IDO surveyed all the mail-out database entries with the purpose of updating coupled with a request for additional details, which would allow greater ease, flexibility and speed in communications. *(See appendix 2)* A new database was compiled as returns were received. A good response of over 33% was achieved and it is suspected that many return forms were set aside and forgotten at this busy time of the year. A follow up of

non-returns this winter is considered likely to be productive. An 'MS-Access' database platform was developed by the IDO to more efficiently manage and query the data than the old program.

Following the survey there are 676 contacts in the **mail-out** database, 572 identified as growers and the other 104 being associated industry, service and research personnel. This has provided an up to date list for industry-wide postal dissemination but is still not comprehensive for phone, fax, e-mail, crop and industry sector details.

It is believed that there is now very few growers if any who are not on at least the mail-out list.

3.2 Information Distribution & Technology Transfer

A range of methods have been used for the distribution of information.

3.2.1 Phone

Phone contact has been useful where information has needed to be communicated to an individual or a small number of people. It has the advantages of speed and the opportunity to more fully discuss the information. In biosecurity emergencies it would be very desirable to have this contact information for all growers.

3.2.2 Grower visits

Individual grower visits have been restricted by best use of time but have still been undertaken where the visit has been assessed as being of mutual benefit; providing the IDO with district, industry or other knowledge useful to the role.

3.2.3 E-mail

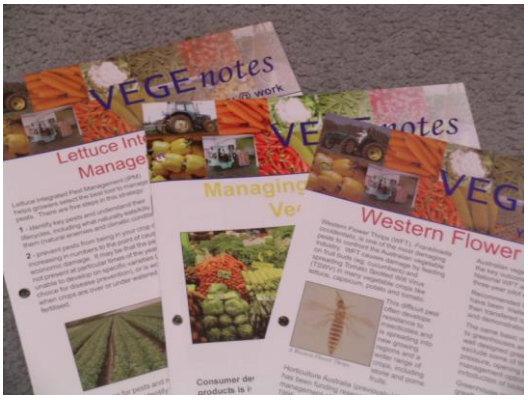
E-mail has almost exclusively been used to contact or exchange information with agricultural companies, service providers and organisations. It has been generally efficient and quick to contact these industry groups but on occasions with pressures of other work reminders or phone follow ups have been necessary where timeliness and importance have been critical. E-mail acceptance and take-up have moved considerably in the life of the project and it is now likely to be useful in reaching a significant number of growers.

3.2.4 Post

Post has been used for contacting the whole vegetable industry. It has been principally used for project generated newsletters, booklets, reports, CDs/DVDs, local newsletters etc. and recently for surveying all the industry. The mail-out database has been regularly used for distribution of the Vegetable Australia magazine, the VEGEnotes series and the local Getting Results newsletter.

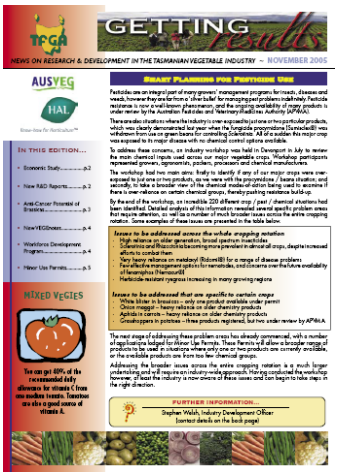
3.2.5 Publications

3.2.5a VEGEnotes Information Leaflet Series



The national VEGEnotes information leaflet series project was developed by the IDOs in late 2002, published by ARRIS, and contributed to and managed by the vegetable IDOs. In 2007 AUSVEG were contracted to publish with ideas and contributions from the IDOs. The project has produced over 40 leaflets on key R&D projects, and delivered them in a handy ring binder to every known vegetable grower in Australia. A wide array of topics have been covered, such as integrated pest and disease management in brassicas, cool chain management, managing cadmium build-up in soils, slug control, greenhouse soil disease management and recently Native Vegetation and Pest Control. The response from growers has been overwhelmingly positive to the VEGEnotes series, with growers noting how well the information is presented and how easy it is to understand.

3.2.5b Getting Results Newsletter


GETTING results

NEWS ON RESEARCH & DEVELOPMENT IN THE TASMANIAN VEGETABLE INDUSTRY – NOVEMBER 2006

SMART PLANNING FOR PESTICIDE USE

IN THIS EDITION...

MIXED VEGIES

FURTHER INFORMATION...

From 2003 to 2007 a quarterly Tasmanian newsletter has been produced by the project and distributed to all 670+ members of the Tasmanian vegetable industry. Featured articles highlighted local R&D programs and achievements, and there were regular columns dedicated to farm business management, upcoming industry events and newly-available R&D extension materials. Special supplements were included on topical issues, such as a comprehensive farm safety check list, chemical storage and a guide to help growers understand and navigate the quality assurance maze. With the scheduled short term to run when the project was picked up by TIAR a new mechanism required to publish this quarterly were not put in place. *An example of a special supplement is shown in Appendix 3*

3.2.6 Industry Events

A broad range of workshops, field days, seminars and other grower-focussed industry events have been organized, facilitated or assisted through the project, for example:

- IPM in brassica production, in conjunction with Harvest Moon and the National Diamondback Moth project and SARDI (x6)
- IPM in green beans, in conjunction with National IPM in Beans project and QDPI (x2)
- Integrated pest and disease management in greenhouse production, in conjunction with National Centre for Greenhouse Horticulture, DPIW and TAGG (x2)
- White blister management in brassicas, with Serve-Ag Research and VDPI (x4)
- Diseases of bunching vegetables, in conjunction with VDPI (x3)
- Onion industry forum and field day, with TFGA Vegetable Council
- Clubroot detection and management, in conjunction with VDPI (x2)
- National Greenhouse Conference, Launceston
- Lettuce aphid IPM investigation, in conjunction with DPIWE (x4)
- Tasmanian IPM transfer & development, in conjunction with IPM Technologies.
- Brassica Vegetable Workshop, 3 national program leaders sponsored by IDO project.
- Carrot Powdery Mildew Forum. NSW plant pathologist and SA agronomist were sponsored by IDO project to share experiences and to discuss collaborative research.
- Regional GPS Base station clusters & networks forum for growers and contractors. CTF Solutions Pty Ltd sponsored by IDO Project.

3.2.7 Grower Discussion Groups

Numerous local grower discussion groups operate throughout the state, to foster uptake and understanding of improved crop production practices by vegetable growers. The meetings allowing participants to share information coupled with field visits and hands-on crop inspections, and have proven to be very effective over the years, with many growers attributing substantial production gains to their participation. The Industry Development project has provided facilitation, organisational support and some funding assistance to these groups to help them continue to be active and productive.

In 2006, vegetable processor Simplot Australia evolved their grower groups to encompass more of a business focus, and the IDO was part of the committee overseeing these changes and implementing the new model.

3.2.8 Linkages with industry

Whilst the project has focussed on its core goal of coordinating information sharing and technology transfer in the Tasmanian vegetable industry, it has also gone on to become a key networking and organising resource for the industry. The IDO is continually contacted by people from within and external to the industry to assist with an array of events and issues, including:

- organising workshops, field days and meetings on topical issues

- facilitating meetings for government representatives, industry service providers and consultants to meet with growers and other industry stakeholders;
- organising local growers to participate in the development of initiatives such as EnviroVeg and Horticulture For Tomorrow to ensure the needs of the Tasmanian industry are recognised
- assisting researchers to meet with growers to extend project outcomes
- promoting upcoming seminars, workshops and other events throughout the industry
- coordinating industry responses to issues such as chemical withdrawals

3.2.8a Brassica Futures Group

The local Brassica Futures Group (BFG) was formed in 2005 to primarily address the decline in brassica production for processing in Tasmania. The BFG represented growers, industry bodies, packers, processors, government and service providers. From 2005 -2007 the IDO chaired the BFG Board, and with close association with TFGA and DPIW, coordinated the BFG's activities in investigating direct seeding of broccoli, and pursuing funding for future research and development activities for the group. A series of trials and field days were jointly conducted with this industry sector.

Inspecting direct seeding trial of Broccoli

3.2.9 Tours

World Potato Congress in China, and New Zealand Vegetable Industry Tour

The IDO attended the World Potato Congress in China along with several other members of the Tasmanian potato industry in 2004. Attendance at the Congress provided an outstanding opportunity to gain a thorough understanding of the world potato industry, and establish linkages with potato researchers and producers from all over the world.

New Zealand Tour

The IDO participated in a ten day tour of New Zealand's Canterbury Plain vegetable producing area in 2006 with nine other members of the Tasmanian industry. The tour investigated a range of agricultural enterprises and issues, and also allowed participants to meet with and interact with numerous members of the NZ industry. After the tour, the IDO coordinated a written report of outcomes and produced a video and photographic record of the tour to make the information gained available to the wider Tasmanian vegetable industry.

3.3 Special Issues

3.3.1 Chemical Product Management

The Industry Development project has played a significant role in helping the Tasmanian vegetable industry address its needs in chemical access and usage for crop production. The IDO has acted as a central point for permit issues, including disseminating new permits, seeking new permits and permit renewals, responding to chemical product reviews and proposed changes to usage patterns.

This has been acknowledged by industries and growers as a major improvement for timely and efficient agrochemical management. Over 150 new permits have been rapidly distributed to targeted industries and agronomists following issue by the APVMA. From time to time a complete list of all current permits with expiry dates has been distributed to all industries and service providers.

Concurrently in 2000 HAL and AUSVEG established Crop Protection Approvals Ltd. which subsequently became AgAware Pty. Ltd. Since then the IDO and AgAware have regularly worked together to expedite permits and to review industry needs in finding safer, more

effective and environment friendly chemistry. The IDO has worked with AgAware in seeking and prioritising Industry annual "wish lists" for new pesticides to address specific crop problems and assisted with prioritising Tasmania's interests in new pesticide data for the "IR4" collaborative work with the USA and Canada.

In 2005 the IDO initiated several actions to assist the industry take a more strategic approach to chemical access and usage. A 'gap analysis' was conducted to review all major chemicals used across the top six commodities grown in Tasmania, to identify where 'weak links' existed in the current chemical usage strategies, and where new chemistries could be adopted. This gap analysis proved so useful that HAL commissioned AgAware to implement a wider crop Strategic Agrochemical Review Process (SARP) for the vegetable industry Australia wide.

As part of involvement with the onion industry the IDO played a role in Chemical Residue liason between grower, the testing authorities and the APVMA.

3.3.3 Pests and Biosecurity

Specific summits have been organised by the IDO to focus on significant problematic areas, such as white blister management in brassicas, and integrated disease management in green beans. These summits have brought representatives from all parts of the affected industry sector together to explore the full extent of the problem, and then develop long-term, integrated solutions whilst seeking to minimise operator, consumer and environmental impacts.

Biosecurity is an area of critical importance in maintaining the Tasmanian vegetable industry's relative pest-free status and consequent marketing advantage. The IDO has represented and assisted the industry with numerous biosecurity issues, such as the development of the National Potato and Vegetable Industry Biosecurity Plans. The IDO sat on the industry reference groups overseeing their development, and ensured key local industry members were regularly consulted as part of the plan development process.

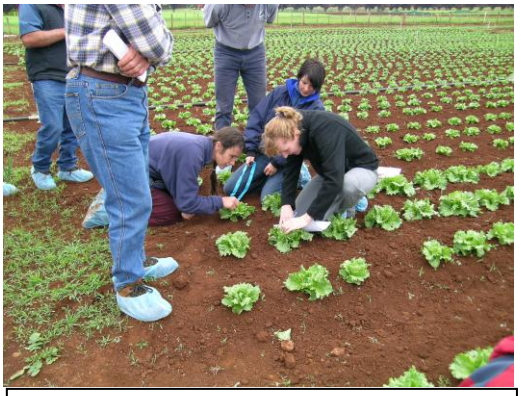
The IDO has participated in surveys to monitor for Western Flower Thrips incursions and has been involved with the DPIW Biosecurity branch in developing a Risk analysis for this pest and Silverleaf Whitefly. On two occasions the IDO has conducted seed trace-backs with greenhouse producers following outbreaks of Potato Spindle Tuber Viroid in other States.

The IDO is part of a working group proactively raising awareness and progressing measures to prevent the incursion of the Psyllid/Zebra Chip disease complex from entering Tasmania and Australia. Preparedness management plans are also being considered. This disease has the potential to devastate potato and other solanaceous crop industries. The potato industry has been kept informed of Potato Cyst Nematode outbreaks on the mainland.

From time to time new pest and diseases has occurred within Tasmania or Australia and the IDO's local and national networking capabilities has been able to significantly assist with issuing alerts, emergency response and long term management.

3.3.3a Currant Lettuce Aphid

The arrival of lettuce aphid in 2004 caused much concern amongst lettuce growers and exporters. The IDO participated in both the Tasmanian and national Lettuce Aphid Advisory Groups to develop and implement emergency management procedures and investigate longer-term management options for this new pest. The IDO also spent considerable time working with growers and other key stakeholders to communicate strategies and actions to respond to the aphid, and assisted with the establishment of local R&D projects to investigate management options.

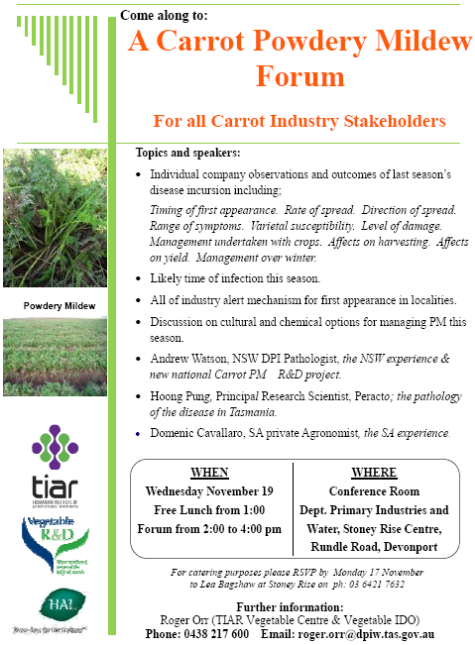


A series of field days were conducted in partnership with DPIW to assist lettuce growers understand the new pest Currant-Lettuce Aphid and explore management options.

3.3.3b Carrot Powdery Mildew

In January 2008 the IDO alerted the carrot industry of the threat of a new disease Powdery Mildew (which had been detected the year before in NSW and SA) and provided information and precautionary advice. As a consequence of the alert, early detection was made in March. On formal confirmation the IDO alerted the whole carrot industry and arranged 2 emergency permits for immediate and ongoing management of this disease.

The IDO continued to monitor the spread and affect of the disease and at the end of the season conducted a forum of all stakeholders with pathology experts to review the season and develop strategies for next season. *(See Case Study appendix 4)*

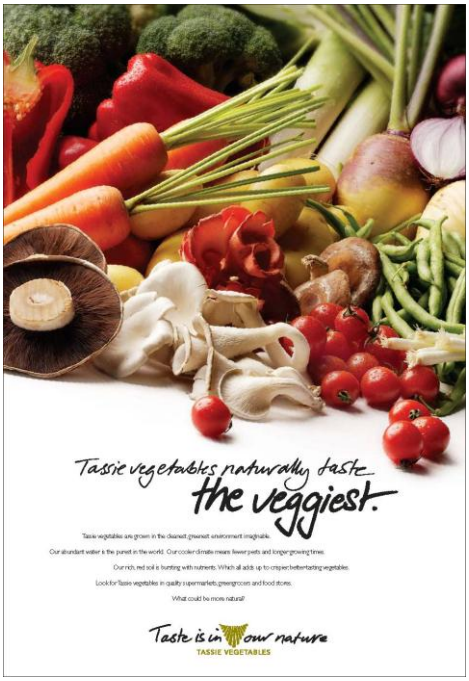


3.3.4 Tasmanian Vegetable Industry Strategic Plan

A component of this plan developed late in 2007 is the Marketing Plan for the Tasmanian Vegetable Industry. During 2008 the IDO has worked with the consultant and other TIAR staff engaged in the

Taste is in our nature
TASSIE VEGETABLES

"Taste is in Our Nature" promotion on billboards, in leaflets, in magazines and other media. The IDO has provided detailed crop information on 13 crops for development of promotional material and critically reviewed the drafts as produced. Information included volume and seasonal availability and the soil, water and climatic advantages of Tasmania in their production. Beneficial compounds for healthy diets in these crops were also collated for the consultant. The IDO sourced and provided quality produce for the production of photographical material and recipe development by chefs.



3.3.5 Environmental Management and Quality Assurance

Environmental management is an issue increasingly impacting upon the Tasmanian vegetable industry. Some growers, particularly domestic fresh market and exporting carrot and onion growers, have already undertaken EM and QA systems, however many growers have been confused by EMS and QA in general, and have historically been quite reticent to adopt such programs.

Recognising this problem, the IDO undertook several activities in this area of benefit to the industry, including

- Promoting the vegetable-industry-developed EnviroVeg program to local growers and established a Tasmanian EnviroVeg reference group
- Conducted industry familiarisation visits and group meetings for the national EnviroVeg coordinator.

- Nominated growers to participate in Horticulture Australia's developing *HorticultureForTomorrow* program and assisted the facilitation of one group helping develop the guidelines manual.
- In the 'Getting Results' newsletter a special four-page newsletter supplement was produced on QA systems to help growers understand and navigate the maze of different systems and requirements. In addition the DPIW 'On Farm Chemical Storage Checklist' was enhanced and distributed to everyone on the IDO database.
- Due to the combined promotional efforts of the IDO, the TFGA, DPIW, TIAR and Tasmania Quality Assured (TQA) the processing industries have recently taken on Freshcare QA which means that an estimated 95% of the Tasmanian vegetable industry is quality assured and progress to Environmental Assurance is closer.

3.4 R&D Exchange Process

3.4.1 Distribution of R&D Report Technical Summaries

A new information distribution service was developed mid 2004 to distribute copies of the "Technical Summaries" from newly-published R&D reports. Over 160 technical summaries have been distributed since the initiative began, and the service has proved particularly popular with agronomy providers as they are now more aware of current R&D projects and are able to pass this information on to growers much quicker. Full reports have been supplied on request.

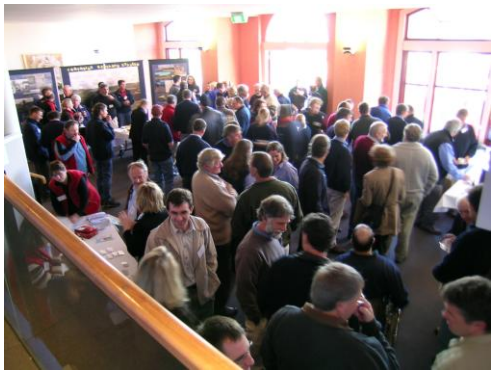
3.4.2 R&D Coordination

The IDO has acted as a key coordinator for research and development (R&D) projects in the Tasmanian vegetable industry. The IDO has maintained close contact with all sectors of the industry to identify priority needs for R&D, and has communicated these needs to research providers and funding decision makers, at State and National levels. The IDO has annually sought and collated priority suggestions from commodity industries and followed them through formal processes with the local Agricultural Research and Advisory Committees (ARACs) and nationally with the Horticulture Australia by way of the Technical and Advisory committees advising the vegetable IAC.

The National R&D funding process is a major activity of all State IDOs and has involved the IDOs at up to four meetings per year acting in a secretariat and advisory capacity. The Tasmanian IDO has worked with the Production Advisory Committee and the Chemical Technical Committee.

The IDO has provided significant support to Tasmania's grower representatives to the National Vegetable Levy R&D committees in keeping them abreast of R&D issues locally and around the country especially prior to IAC advisory group meetings.

The project has provided important funding and sponsorship to various R&D-related activities, such as sponsoring keynote speakers for the annual ARAC Presentation Day, which has been Tasmania's foremost R&D extension event. The IDO has regularly presented on the IDO role, the R&D process and project activities at this day.



Gathering for ARAC Presentations

3.5 Leadership & Industry Representation

3.5.1 APVMA Board Meeting and Tour

The Board and executive staff of the Australian Pesticides and Veterinary Medicines Authority (APVMA) visited Tasmania in 2005 as part of their schedule of holding Board meetings in regional Australia. To coincide with their visit, a half day tour of the vegetable industry was organised by the IDO to demonstrate the many unique aspects of vegetable production in Tasmania, and discuss how important chemical products are to our industry. The opportunity for local industry representatives to meet face to face with the APVMA Board and senior staff

was extremely productive, and has served both parties well in forging closer and more productive relationships with the handling of chemical product issues.

3.5.2 Representing the Tasmanian Vegetable Industry

The IDO is frequently called on to represent the Tasmanian vegetable industry at local, State and National levels for a broad range of issues. For example:

- National Carrot Industry R&D Management Group
- APVMA Product Safety and Integrity Committee
- National Vegetable Pathology Working Group
- National Greenhouse Industry Review
- National Greenhouse Industry R&D Issue Identification
- National Vegetable Industry Review
- Aust / NZ Onion Industry Disease Management workshop
- Vegetable and Potato Biosecurity plans
- ABARE Regional Outlook conference speaker
- National Food Industry Strategy, Tasmanian workshop
- National Review of Climate Change in Agriculture
- Taiwan Access Working Group (Vegetables)
- National Lettuce Industry Conference, Werribee.
- National IPM Working Group, Sydney
- National Vegetable Industry Pathology Working Group (x2)

4 Evaluation

Although not an independent evaluation of the project the delivery of objectives by the IDO has been regularly monitored by the Management Committee at 2-3 meetings per year and by HAL with 19 Milestone reports over the 9 year period. In 2005 and 2006 a specific detailed Performance Plan and Appraisal was conducted by the Chair of the Management committee, the Project supervisor and one other Committee member. *The performance against Key activities and outputs for 2006 is detailed in Appendix 5.* This evaluation gives a good summary of the measurable achievements and the level of attainment by the principal IDO during the project.

The Case study on Carrot powdery mildew *Appendix 4* already mentioned at item *3.3.3* is a measure of the value of both the national IDO network and local IDO function for biosecurity awareness and emergency response.

The numbers and listings of R&D summaries, chemical permits, forums, meetings, field-days, industry representations in this report also give some measure as to the wide scope and level of activity of the IDO.

5 Implications

With a project such as this it is difficult to objectively measure its effectiveness but possibly the key measure is the development and acceptance of the new communication network and processes that have been put in place to deliver the project objectives. It must be stated that this is not solely attributable to the IDO but has been assisted by the support and willing collaboration of the industry stakeholders.

Prior to the IDO project communications within the vegetable industry was more fragmented with processors, exporters, R&D bodies & ARACs and the TFGA tending to work within their own network and interests. The IDO has made strong working links with all these groups and key growers. The IDO has been accepted as an independent intermediary and facilitator. Having a dedicated person with the sole purpose of facilitating communication and information transfer has been the key to the successes of the project.

Networking and the survey undertaken by the IDO has enabled a comprehensive database to be built which now ensures information from R&D projects can be distributed to all levy payers and associated stakeholders. Targeted information can now be speedily delivered to industry businesses, service agronomists and key and specialist grower groups because of crop and e-mail details obtained for them. A mechanism has been put in place with processors and packers to target their contracted growers when required.

The IDO is now seen by growers and industry groups as a facilitator to take and champion their R&D and other issues into the R&D funding process. The IDO has also come to be relied on in the R&D process to annually seek and collate a priority list of R&D issues for the Tasmanian vegetable industry and assist in the preparation of a national priority list.

In Tasmania the vegetable industry is dominated by potatoes, carrots, brassicas, peas and onions. Under the original terms of the Tasmanian project the IDO worked for the Vegetable levy payers. Although the potato and onion industries were not part of this project some issues such as permits were dealt with as a universal service to vegetable growers and those industries were included in 2006. In Tasmania it would be sensible to always included potatoes and onions in any overall vegetable industry development programs as all these crops are a common mix for growers, fresh market packers/exporters and processors. In farm gate value terms onions are comparable to peas or combined brassicas.

At a national level the R&D process has evolved and developed over the life of the IDO period and the IDO has been part of that process working closely with HAL, AUSVEG, the other state IDOs and the IAC Advisory and Technical groups in streamlining and improving the process. Meetings with and information provided to the local R&D representatives about priorities and happenings throughout the whole Tasmanian industry prior to the IAC meetings were considered of considerable assistance to the representatives.

As a consequence of the working relationship developed with AgAware, the IDO has become accepted by local growers and industry as a more efficient path for expediting permits and other chemical issues than in the past. In reciprocal fashion the IDO has provided AgAware and the APVMA with the local information to develop used to improve chemical use and management systems.

Progressively since 2000 the IDO project has become widely known and valued but the protracted delivery of the 'Industry Development Needs Analysis' in its latter period has been a negative to initiatives and development. Unsure of the long term future, as the review dragged out and extensions occurred, the principal IDO resigned leaving a gap in delivery and the short term replacement IDO has only been able to deliver in-place and reactive activities. Planning longer term future work to address local needs could not be made under this uncertainty.

The challenge for the future will be delivering to the levy payers, industry and R&D bodies the services provided by the IDO that they have grown to expect and rely on. Alternative delivery methods are entirely possible and hopefully better but it will take some time to put in place and the challenge will be to bridge the immediate future with essential communication and information needs. The new program will need to be introduced and well explained as to how it will work and be of benefit. New personnel and contacts will need to become known and accepted and local ownership engendered if the new industry development program delivery is to be perceived relevant and of value.

6 Recommendations

As the IDO project finishes on the 30th of June '09 and the industry development is to be delivered by a totally new program consideration should be given to:

- The new Industry Development Program needs to be advertised to all levy payers and associated stakeholders immediately so they are aware that the IDO position no longer exist and new arrangements are being put in place. Full implementation and development is likely to take some time but all stakeholders need to hear without delay:
    - A clear statement of the aims, objectives and benefits of the new program.
    - Who is to run the program, management structure, personnel and their functions.

- How the R&D program is to gather industries and regional priorities and any other possible changes in the program.
- Who or where to direct queries to and on services previously provided by the IDOs.

- Because 90+% Tasmanian crops are grown and managed on contract to processors and packers in Tasmania the priority for the new Industry Development Program will be to establish a communication network with this group and the agronomy companies that are subcontracted by them. This should be established by personal contact. Most R&D priorities and drivers for adoption of outcomes will come from and be controlled by these groups.
- An important past role for the new program to pick up will be to ensure the R&D delegates are provided assistance to be able to make the best decisions they can on directing the levy investment.
- Potatoes, carrots, brassicas, peas and onions are commonly grown by a majority of vegetable growers in Tasmania and a similar mix of produce is handled by secondary industries. It would be sensible to include the separate levy potato and onion industries in any future vegetable development programs in Tasmania.
- Consideration should be given to building on the crop and contact details in the database by way of a follow up survey (this winter) on the one conducted late last year. This will improve the efficiency for targeted and timely information flow. An annual re-survey to update is suggested.
- At a later time it is suggested, at annual survey time, that it is used to also capture annual crop statistics which are regularly required to prioritise R&D and funding. Surveying the processors and packers as well would provide good complementary data to capture the current size and value of the whole vegetable industry.
- Use of electronic communication has moved a long way since the start of the project and an Industry Development website would be a good vehicle for national communication and information but must have regional sections for region specific news, activities and information. Possibly AUSVEG could be contracted to further develop their website for this purpose. Screening and promotion of good other resource websites is worth consideration. A review of what is held on the HAL and AUSVEG websites should be conducted to rationalise any duplication and with clear links provided to the information held on each website.
- A collection of information and links to resources has been amassed by the IDOs over the years. It could be of value for this to be collated, reviewed, catalogued and made readily available as electronic or electronic converted material. The South Australian IDO website* is good model for this. * www.savegido.arris.com.au
- Use of e-mail is still not universal for individual growers but because of its many benefits to the vegetable industry it should be actively promoted and growers encouraged to supply their details, as available, to be included in the database.
- Printed information is still essential to good information transfer and should be maintained and developed. Targeted R&D summaries should be mailed to all relevant growers, industries and regions and web access available for full reports. Booklets and guides developed as useful tools from projects are always well received and enhance adoption of project results. Topical newsletters and magazines still serve a role and should be supported as another line of communication.
- Coordination for chemical issues has been a significant service required, sought and utilised by many sectors. As it is a frequently changing area it is vital for industry to be kept up to date with a system in place to manage new registrations and permits, deal with changes to use and emergency situations and obtain information to assist with reviews and new developments.
- Biosecurity is critical to Tasmanian industries because of the high reliance on exports and relative pest-free advantage. The new Industry Development Program will need to consider how it can support emergency events as well as long-term R&D and management options.

7 Acknowledgements

- Tasmanian vegetable growers and commodity industries for their ongoing support.
- The Tasmanian Farmers & Graziers Association, executive and staff, for their guidance and support to the two IDOs hosted by them.
- The Tasmanian Institute of Agricultural Research, managers and staff for their guidance and support for the IDO hosted by them.
- The National IDO Network for providing support and collaboration on ideas and work on National R&D issues, development and programs.
- Horticulture Australia Ltd. staff for information, direction and assistance in fulfilling the role.
- AUSVEG staff and especially the IDM for their assistance in coordinating and supporting the IDO activities especially at a national level and R&D meetings.
- Members who have served on the IDO Management Committee for their guidance in formulating and planning work to deliver the best outcomes for the levy payers.

8 Appendices

Pages 17 to 26

Appendix 1 ***Example of Workplan***

Project Work Plan: July – December 2008

This plan is a development of the previous plan. Completed tasks have been removed and new ones added. With new and continuing tasks comments have been added *(in italics)* on status, progress and possible direction for consideration by the management committee.

Key Result Area One: Communication with industry

Performance Objective: Results from industry funded R&D made available to growers.

- Organise and facilitate an industry forum to review the many aspects of the incursion of Powdery Mildew in carrots and to discuss management strategies for the coming season. Interstate experts to be sought to bring mainland experience and additional knowledge on the disease. – ***New task***.
- Ongoing distribution of information received from R&D projects in a targeted manner to growers, agronomists, researchers and other industry members as appropriate. – *Newsletters and R&D information being distributed.* ***Ongoing****. - Review of research reports on Issues raised in the recent grower submissions to HAL and collated summaries or reports sent out to targeted groups. -* ***New task.***
- Continue rapid dissemination of information on changes to chemical registration and usage patterns, and new / altered Minor Use permits; ensure the industry's needs for Minor Use permits are identified and included in national permit application processes. – *New and renewed Permits processed & distributed. Local use and needs feedback to AgAware.* ***Ongoing****. – Build a Permit expiry calendar with a 6 month automatic warning to ensure Permits are renewed before expiry. -* ***New task***
- Prepare articles and media releases on significant events and other issues within the industry for local, state and national media; provide regular updates of industry activities to media such as ABC Country Hour staff – *Utilised as required;* ***Ongoing****. – Resurrect Getting Results newsletter which was set aside because of presumed short project life. -* ***New task***
- Maintain public awareness of upcoming industry events and activities through print and electronic media. – *All of industry achieved through post but targeted grower groups relies on arrangements with agri-business as limited by lack of database details. Will be improved by development of database to include crop, phone, fax and e-mail details. -* ***New task****.*
- Keep the project's grower database up to date. Develop to improve usefulness. - *Postal details of 470 growers & 230 industry-related people are up-to-date but limited other details for growers. A survey is planned to capture as many details as possible and put into an MS Access database, which will be more efficient and useful. -* ***New task***
- Participate in the editorial committee of national publication Potatoes Australia. – *Not pursued as another TIAR member is part of the editorial committee. Will discuss to see if the IDO role may be able to contribute otherwise. -* ***New task***

Key Result Area Two: Facilitation and assistance to the Tasmanian and National R&D processes

Performance Objective: Tasmanian issues recognised and included in the national R&D priorities.

- Given the change to the national Vegetable Levy R&D groups, liaison with the Vegetable and Potato ARACs, TIAR, TFGA and growers will be conducted to ensure R&D issues and priorities are raised locally and given due consideration at the national level. – *Well involved in the national R&D process.* ***Ongoing.*** *Local ARAC/TIAR process inactive and action required with those groups. Discussed with M. Hart and will be pursued once TIAR R&D plan in place. -* ***New task***
- Assist the annual ARAC Presentation Day, including provision of sponsorship from the project. – *In principal support but will need to be determined when TIAR R&D plan in place. -* ***New task****.*
- Participate in the new Veg Levy Chemicals Working Group and provide assistance with other R&D Advisory groups where required. – *Full participation &* ***Ongoing****; Process seen to need improvements and will raise at next IDO, AUSVEG HAL meeting. Poor timeliness of papers, pre-meeting grouping of projects/issues required and repetitive reviews by groups, need to be looked at. -* ***New task.***
- Continue to assist Tasmania's vegetable, potato and onion R&D representatives with their dealings in the national R&D levy processes - *Yet to be actioned with potato & onion reps. Follow up with reps.* - ***New task.***

Key Result Area Three: Industry representation and coordination

Performance Objective: The interests of the Tasmanian vegetable industry are acknowledged and included in national strategies, plans and reviews

- Assist the implementation of activities contained within the Tasmanian Vegetable Industry Strategic Plan. – *Been involved in the market promotion activity:* ***Ongoing****. Discuss with steering committee as to further involvement. -* ***New task.***
- Assist market research and promotion projects funded by the state government. – *Continue to assist:* ***Ongoing.***
- Assist the delivery of specific projects including:
  - HAL-funded commercial IPM Service in Tasmania overseen by IPM Technologies and TFGA. – *Have been assisting in a small way:* ***Ongoing****. Explore additional assistance with project leader; eg*. pest/predator diagnostic guide - ***New task.***
  - Alternative Business Structures funded by Regional Partnerships program. – *Alternative funding has been agreed on and project being progressed by M. Hart. IDO support will be required. -* ***New task.***
  - Two projects investigating the applicability and practicalities of Controlled Traffic farming systems in vegetables. – ***In hand by J. McPhee.(TIAR)*** *IDO support has been offered if required.*
  - Continue to work with the Brassica Futures Group in improving the cost-competitiveness of the process brassica sector. *BFG role changed to be an advisory reference group; now chaired by J. McPhee (TIAR). P. Simmul has filled the IDO vacancy on the group.* ***Ongoing****.*
- Continue to liaise with the National Residue Survey in streamlining residue testing in the onion industry, including equivalence with EurepGAP requirements. – *No contact; Follow up as to its status and IDO role. -* ***New task.***
- Assist Dept of Education and OPCET to establish an industry reference group to oversee coordination and delivery of training programs to meet the skills and knowledge needs of vegetable growers. – *No contact; Follow up as to its status and IDO role. -* ***New task.***
- Maintain high levels of awareness of the IDO project and its role in the Tasmanian industry at state and national levels. – *Local and National networks being maintained.:* ***Ongoing****.*

Key Result Area Four: Project administration

Performance Objective: The IDO project is conducted in a professional manner and all reporting requirements are met.

- Continue to work with the Management Committee, HAL and AUSVEG in determining the future role of Industry Development and its applicability to the Tasmanian vegetable industry. – *Confounded by delays in 'Needs Assessment' and project extensions;* ***Ongoing****.*
- Identify funding options and prepare project applications to deliver strategic benefits to the industry in the area of Industry Development specifically, and other areas as opportunities arise. – On hold awaiting outcomes of 'Needs Assessment': **Ongoing**.
- Prepare and submit Milestone & final reports to HAL. –*New TIAR contract Milestone 1 accepted in September 07 and Milestone report 2 submitted in February 08 and accepted in March 08. June final report now changed to Milestone 3 with another extension. Milestone 3 submitted July 08: Final report now due December? Draft by November. -* ***New task.***
- Conduct a meeting of the project's Management Committee in mid November to review project outcomes and final report draft. – *Draft final report for review and approval by committee for mid November meeting. Prepare with historical checking by S. Welsh. -* ***New task***

Prepare activity reports for TIAR board and other committees as appropriate. *– 3 Brief activity reports submitted to TIAR Board*

Appendix 2 Database Survey covering letter & form.

Tasmanian Vegetable Industry Database

Dear vegetable industry stakeholder,

You are receiving this letter as you are listed on the Database managed by the Vegetable Industry Officer (IDO) which is used for distribution of the "Vegetable Australia" newsletter, crop specific industry newsletters and other information that is distributed via the IDO position. It is used by the IDO to facilitate two-way information flow between growers, service providers, researchers and funding bodies and to provide immediate alerts and information in the event of pest and disease outbreaks. There are some 500 listed growers with around 200 others associated with the vegetable industry in secondary industries, research and agronomy services.

The database has been assembled over many years from a number of sources but is mainly a postal address one. Other details such as phone, fax and e-mail addresses have been acquired and entered for most of the secondary industry and service providers but these details have only been acquired for a smaller proportion of growers.

Records of crops grown by growers are limited and possibly out of date. This has not presented any major difficulty in sending information such as 'Chemical permits', R &D reports, 'Brassica newsletters' or disease and pest alerts to targeted vegetable industry sectors as the processors, fresh vegetable packers and service providers have been very willing in forwarding this on to their growers or clients. While this is satisfactory it is inefficient at times, is slower or risks some growers missing out on the information.

Australian Bureau of Statistics (ABS) statistics are based on sampling and are several years behind. Governments and funding bodies routinely request summarised current industry statistics to gauge the value and importance prior to making an investment into research, agricultural infrastructure and programs. An upgrading of this database will make it valuable for this purpose.

I am sending out this letter to invite you to **confidentially** provide the Vegetable IDO position with your current details on the attached **Feedback Form**. This information will only be used to carry out the IDO work and not passed on to another party without your permission.

From time to time Horticulture Australia and AUSVEG have requested access to the database to conduct targeted surveys for the vegetable industry. This has had to be refused because of the original confidential compiling of the database but as Horticulture Australia is your main research funding body and AUSVEG the peak body for the Vegetable Industry it makes sense for them on request to be provided with appropriate grower contact information to efficiently conduct such surveys or occasionally forward information direct saving double handling. If you agree with this would you please indicate on the form as to your willingness for your contact details to be used by them?

Roger Orr
Vegetable Industry Development Officer
Vegetable Centre
Tasmanian Institute of Agricultural Research (TIAR)
Prospect Offices

Phone: 03 6336 5273
Fax: 03 6344 9814
Mob: 0438 217 600
e-mail: Roger.Orr@dpiw.tas.gov.au

Feedback Form

Mail to
Roger Orr
Vegetable IDO
Tasmanian Institute of Agricultural Research
Mail: PO Box 46, Kings Meadows, 7249

Please take the time to update your details on the Tasmanian Vegetable Industry Database.

Tick where appropriate.

Contact Details:

Surname:_____ First Name:_____

Business Name:_____

Mobile:_____ Phone W:_____ Phone H:_____ Fax:_____

Email:_____ Broadband/ADSL: ☐ Dialup: ☐

Mailing Address:_____ Town:_____ Post Code:_____

Farm Address:_____ Post Code:_____

Are you willing for your contact details on request to be provided to
Horticulture Australia *Yes/No*_____
and/or AUSVEG *Yes/No*_____

What is your Communication Preference for quick or only means of notification other than phone?

(Please rank 1, 2 or 3)

☐ E-mail ☐ Fax ☐ Mail

E-mail *allows quick delivery and is efficient to send out Pest & disease alerts, Permits, Field day notices etc.* ***to many people and to those who regularly check their e-mail.*** *Only small files of information would be sent to Dialup connections.*

Fax *allows quick delivery of 1 or 2 pages of information to a small number of people but slows considerably if more pages and large numbers of people have to be informed.*

Mail *is best suited where quick notification is not required and can reach a large number of people with more information such as contained in magazines or reports.*

Category: Grower ☐ , Grower/packer ☐ , Field Officer ☐ , Agronomist ☐ , Research Officer ☐

Other_____

Crops you usually grow, approximate area . Indicate Fresh Market (F) and /or Processing (P) as appropriate.

Crop	F or P	Approx. annual area ha.	Crop	FM or P	Approx. annual area ha.	Crop	FM or P	Approx. annual area ha.

Appendix 3

Horticulture Australia

A SPECIAL SUPPLEMENT ON CHEMICAL STORAGE ~ MAY 2004

TFGA

Tasmania
DEPARTMENT of PRIMARY INDUSTRIES, WATER and ENVIRONMENT

ON FARM PESTICIDE STORAGE (MINOR STORAGE)

A ***Guide* and *Checklist*** for the storage of Agricultural Pesticides and specifications to meet most current Quality Assurance requirements.

This guide is for what is classified as **'Minor Storage'** according to the **Australian Standard AS 2507 – 1998** and will satisfy most farms where the quantities and types of chemicals stored will meet that classification. Where quantities exceed 1000 kg or L combined there are additional specifications to be met and must comply with **AS 2507 – 1998**, the **Dangerous Goods Act 1998** and **Dangerous Goods (General) Regulations 1998**. The minor storage limit for Class 4.3 dangerous goods *(fumigants)* is 10 kg or L combined.

The store must be a dedicated shed or room and not be used for other than storage or measuring out pesticides.

SITE SELECTION

The store must be located at least:

- 15m from the property boundary
- 10 m from buildings occupied by people or livestock
- 5m from watercourses, dams, drainage or sewage lines
- 3m from stored flammable materials
- well above maximum flood level

The site should preferably be:

- in an open area with low risk to wild-fires
- located to have good air circulation and avoid temperature extremes
- near to the tank mixing and filling area

The site must have access to:

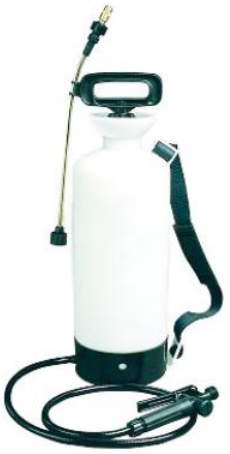
- a clean and reliable water supply for tank filling and emergency use

STRUCTURE / CONSTRUCTION

- structurally sound to wind and weather especially good roof with no leaks
- fire resistant structure and internal cladding is preferred
- wall and roof insulation to moderate storage temperature is desirable
- should have clear access and outward opening doors

The floor

- must be impermeable and preferably graded to aid collection of spills and wash down
- must be graded or bunded to contain 25% of the total liquid in the store. Some QA schemes may require this to be 110% of the possible store contents. Check that doorways and service entry/exits do not compromise containment
- a normally closed pipe feeding an external lime pit for dilute wash down is acceptable
- should be clear of fixtures and items to aid a total clean up in the event of a spill
- should be non slip for worker safety



Ventilation

- must be adequate to prevent build up of chemical vapours; both lower vents just above the bund and upper vents in the walls or roof are highly recommended

Lighting

- must be adequate to read labels in and to measure out chemicals; natural light is preferred

Shelving

- must be sturdy and made of non absorbent materials
- located on the coolest side of store and away from direct sunlight, electrical and heat sources
- must be sufficient to avoid stacking and allow ease of use

Water supply
- clean, reliable and capable of 15 minutes continuous flow to wash chemical off any part of the body

Security
- the store must be lockable and kept locked to prevent unauthorised entry
- windows and vents must be designed to prevent entry by children or others
- only authorised staff should have access to store keys

SIGNAGE
- at entry point: 'PESTICIDE STORE', 'AUTHORISED STAFF ONLY', 'NO SMOKING'
- inside: 'NO SMOKING', SPILL KIT'
- NB Hazchem placarding is not required for Minor storage

EQUIPMENT AND INFORMATION LOCATED IN STORE

Spill kit
- signposted and kept in store
  needs to contain;
- absorbent material for liquid spills (eg. 'kitty litter')
- hydrated lime for neutralising some spills; *organophosphates* and *carbamates*
- shovel and broom
- heavy duty plastic bags and bins to contain contaminated material

Material Safety Data Sheets (MSDS)
- must be obtained and held for all products in store
- preferably held in store and sorted in a folder for ready reference to any product

Pesticide inventory
- must have a safe but readily available copy held away from store for emergency services, eg. In Office.
- A 2nd copy suggested for the store
- product ID and quantity updated at least every 3 months; easy to keep a running balance on the store copy

Measurement equipment
- scales and jugs appropriate and accurate to measure the quantities and volumes used
- test weights to check scales and jug markings must be clear and readable

PESTICIDE STOCK MANAGEMENT
- all products must be in original package with labels intact
- only "registered" product should be kept in store. Only "approved" products may be a QA requirement
- containers need to be kept closed to prevent accidental spillage
- only open in well ventilated area
- suggest arrange herbicides, insecticides and fungicides separately on shelving
- should place powder or granular products above liquid products on shelving; a must for some QA schemes
- segregation of some incompatible chemicals may be required; check warnings on labelling
- empty containers/packaging awaiting safe disposal must be secure; allocate a separate storage zone in the store. For DrumMuster requirements and availability check local councils or Meridith Rodenrhys on 0407 059 432

EQUIPMENT LOCATED OUTSIDE BUT NEAR THE STORE

Personal protective equipment (PPE)
- should be located near but must not be in the store
- clean equipment should be kept separate from dirty awaiting cleaning or disposal
- PPE should be appropriate to the chemical being used; refer to label and MSDS
  eg: overalls, waterproof pants and coat, gumboots, rubber gloves, respirator, goggles, face shield, PVC apron, hat

Fire equipment
- dry powder extinguisher mounted near and outside store

DISCLAIMER

The information in this publication is offered by the Department of Primary Industries, Water and Environment (DPIWE) as a guide to farmers for on–farm storage of pesticides. Whilst all due care has been taken in compiling this information, DPIWE, its officers and employees take no responsibility for any person relying on the information and disclaims all liability for any errors or omissions in the publication.

For additional worker safety information Workcover Tasmania and Workplace Standards Tasmania may be contacted on 1300 366 322.

FURTHER INFORMATION...

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GETTING RESULTS ~ A SPECIAL SUPPLEMENT ON CHEMICAL STORAGE

Appendix 4
Case Study – IDO network - Dealing with New disease outbreak – Powdery Mildew in Carrots

The IDO network and role performs a valuable function in the event of new pest, disease or weed outbreaks across Australia. The IDOs can ensure timely awareness and facilitate the rapid distribution of relevant information, pursue chemical permits where required and coordinate specialists to develop R&D as appropriate.

In late December 2007 having heard that powdery mildew, first detected in NSW in February, had recently appeared in SA, the Western Australian (WA) IDO in put out an advisory note to WA growers and circulated this to the other State IDOs. They inturn investigated the situation with their local carrot industry and agricultural departments and as appropriate also issued an advisory note.

In Tasmania after consultation with local pathologists as to the likelihood of infection and development an advisory note with description and hygiene precautions was sent out to the whole carrot industry and their advisors to be on the lookout during the summer.

In the first week of March the first suspect crop in Tasmania was detected by industry, pathology samples taken and the IDO informed. The IDO alerted 'AgAware' who inturn informed the 'APVMA' that emergency chemical permits were likely to be required to manage the outbreak. Within 2 days positive confirmation was received by 2 local plant pathologists. The IDO confirmed with State biosecurity that this new incursion did not have any quarantine implications to be addressed.

The IDO immediately forwarded the official note from the DPIW pathologist to 'AgAware' to seek permit approvals and sent out a carrot industry wide note informing all of the presence of this new disease in the State and that permit approvals were underway. The IDO also informed the IDO network that it had now reached Tasmania and to be on heightened alert as the means of arrival could not be determined. Wind did not seem a vector as no reports had been received by the Victorian IDO. Seed or vehicle/people movement was suspected but no substantiating evidence could be ascertained.

Within a week the APVMA had extended the existing NSW's permits to include Tasmania and South Australia (SA) and these were sent out by the IDO to all of industry and their advisors. By the end of another week the IDO by regular contact received reports of further spread, widespread across the North of the State, and it had spread as quickly against as with the prevailing westerly winds. Vehicle or people movement seemed to be the more likely vector. It was detected across varieties but seedlines could not be ruled out without further investigation.

For the rest of the season the IDO kept in contact with the industry to monitor the progress, the commercial impacts of the disease and management employed.

To learn from what had happened and to be prepared for the following season the IDO arranged a 'Carrot Powdery Mildew Forum' in November for all of industry to share their range of experiences and knowledge and to discuss possible strategies for the coming season. As NSW and SA had dealt with the disease in 2007 Andrew Watson (NSW pathologist) and Domenic Cavallaro (SA Agronomist) were brought over to add to the knowledge of this disease. Andrew, in addition, was able to present his early research trials on the disease and discuss this coming season's trial which will include collaborative work in both Tasmania and SA. The forum was valuable for him to be able to obtain first hand information from both States to better tailor his collaboration.

The forum was attended by key representatives from the whole of the carrot industry. Processors Simplot and McCain, Fresh Market packers/exporters Webster Fresh, Premium Fresh , Harvest Moon, C.A.R.S, agronomists from Serve-Ag and Agronico, researchers from Peracto and TIAR and growers.

The forum has given the industry a better understanding of the disease and suggested promising options for minimising infection, development and spread by both cultural actions and a range of chemical options. The forum agreed on an industry alert and data gathering mechanism through the IDO for the coming season. Collated data will include spray details that will support permit renewals or full registration and data that may uncover the mechanism(s) of spread.

Roger Orr
Tasmanian Vegetable Industry Development Office
VG 00070 & continuation MT 070055

Appendix 5

TASMANIAN VEGETABLE INDUSTRY DEVELOPMENT OFFICER
Performance Plan and Appraisal, 2005-06

Review conducted 21st July 2006, comprising:
Brian Bonde (Chair of Management Committee)
Denis Leonard (project supervisor and Management Committee member)
Tim Burgess (Management Committee member)
Stephen Welsh (Industry Development Officer).

Ratings for the annual review are given as follows:

3.0	Expected outcomes to achieve key action strongly exceeded
2.5	Expected outcomes to achieve key action satisfactorily met and somewhat exceeded
2.0	Expected outcomes to achieve key action satisfactorily met
1.5	Expected outcomes to achieve key action close to being satisfactorily met
1.0	Expected outcomes to achieve key action not satisfactorily me

Key Result Area One: Communication with industry

***Performance Objective**: Results from industry funded R&D made available to growers*

	Key Actions	**Timeline**	Measure of Achievement	Result	**Score**
1	Disseminate outcomes and other relevant information from local and national R&D projects to growers, agronomists, researchers and other relevant industry personnel	Ongoing	Copies of newsletters, handbooks, brochures, reports, cd-roms and other outputs from R&D projects distributed in a targeted and timely manner	Information turn-around occurring quickly and effectively. Good involvement in industry activities such as industry tour to NZ and Brassica Futures Group (BFG). Comprehensive industry database well maintained.	2.5
2	Facilitate and assist the operation of grower discussion groups to assist growers to obtain and share information on a face-to-face basis	Ongoing	Regular meetings facilitated of discussion groups in partnership with the processing and agronomy companies	Slightly less focus on grower groups this year due to involvement in other important activities such as BFG. Good involvement with Simplot's new business groups, whilst still organising McCain Sassafras group. Well respected by growers, and seen as an independent and impartial facilitator.	2.5
3	Raise awareness and encourage transfer of outcomes from R&D projects to all sectors of the industry through print and electronic media	Monthly	Two articles published per month across all media (examples include ABC radio, Tas Country, daily papers and Good Fruit & Veg monthly trade magazine)	Media outputs improved since last review, but could still receive a higher focus as a high media presence is very important to be seen to be achieving outcomes for industry. Set monthly goals to provide regular updates to media. Work with DL, BB etc to establish regular veg column in Tas Country.	2.0
4	Publish an IDO project newsletter to raise awareness of and share information about R&D in the industry	Quarterly	Four editions of the *Getting Results* newsletter published per year	Only two editions of newsletter published in last 12 months due to 'competition' from Veg Australia mag, and also time spent on other pressing issues. Quarterly publication of newsletter deemed to still be important as it presents good local information in a grower-friendly manner. Proposed project assistant will help address this area.	2.0
5	Participate in the planning and conduct of the annual ARAC R&D presentation day	July	ARAC R&D Presentation Day assisted	Project once again co-sponsored the ARAC presentation day. Chaired one session and gave a presentation on the BFG. Good ongoing involvement in R&D activities and assisting the ARAC presentation day.	3.0
6	Develop and maintain strong communication linkages with other key industry R&D stakeholders to enhance access to R&D projects and outcomes from throughout Australia	Ongoing	Communication networks established and maintained with other IDOs, Horticulture Australia, AUSVEG, Industry Advisory Committee and other stakeholders as appropriate	Represents IDOs on national carrot and sweetcorn R&D committees. Organised local workshops for national projects including IPM in beans and brassicas. Very good intra and interstate networking. Suggest an increased focus on public relations about these activities.	3.0

Key Result Area Two: Facilitation and assistance to the Tasmanian and national R&D processes					
Performance Objective: *Tasmanian issues recognised and included in the national R&D priorities*					
Key Actions		**Timeline**	Measure of Achievement	Result	**Score**
1	Participate in the Potato and Vegetable ARAC processes and R&D priority setting activities	Annually	All ARAC meetings attended and participated in	Organised and prepared R&D priorities for 2005/06 on behalf of Vegetable ARAC. Networks well with key R&D people in the industry.	3.0
2	Participate in national R&D deliberations, including facilitating the *Processing* and *Product Development* groups	Annually	All national R&D meetings attended; *Processing* and *Product Development* groups facilitated	Brisbane R&D meeting missed due to annual leave. Good ongoing involvement and participation in national R&D activities. Now formally involved with onion and potato R&D activities in recognition of good record of achievement in vegetables.	3.0
3	Identify, discuss and prioritise R&D issues across all levels of the industry	Ongoing	Regular contact maintained with growers, agronomists, researchers, government and other industry members to identify, discuss and prioritise R&D issues	Very good linkages maintained with researchers and R&D providers. Good communicator.	3.0
4	Assist and coordinate Tasmania's representatives to the national R&D process	Ongoing	Liaise regularly with R&D representatives to assist them to remain up to date with current issues; facilitate meetings prior to national activities to ensure the representatives are conversant with Tasmania's R&D issues and priorities; provide general assistance to the representatives so they can more effectively carry out their representational role	R&D delegates well looked-after with information and assistance. Provides good leadership and information on R&D process.	3.0

Key Result Area Three: Industry representation and coordination					
Performance Objective*: The interests of the Tasmanian vegetable industry are acknowledged and included in national strategies, plans and reviews*					
Key Actions		**Timeline**	Measure of Achievement	Result	**Score**
1	Represent Tasmanian vegetable industry on appropriate local, state and national committees, strategies, working groups etc	Ongoing	Active participation and representation of the Tasmanian vegetable industry's interests as issues arise (such as: lettuce aphid incursion; development of industry biosecurity plans; national greenhouse strategic plan)	Very actively involved in many industry activities including initiating the chemical gap analysis (now being used across Australia); national carrot group; national nematode workshop; biosecurity plans. Uses initiative well and input to national activities is highly valued by industry leaders.	3.0
2	Coordinate Tasmanian industry responses to national surveys, chemical product reviews etc	Ongoing	Each issue discussed with key industry representatives, and a collated industry response provided within the specified timeline	Managing many important issues that may otherwise be missed, including review of linuron WHP in carrots, multiple insecticide issues in onions and reviews of procymidone and diazinon. Good networking between local industry members and national bodies such as APVMA.	3.0
3	Improve growers awareness of and access to industry-support services, such as Landcare, Quality Assurance and Environmental Management Systems	Ongoing	Awareness raised and maintained of what industry-support services are available, and the benefits of each; grower access to these services facilitated on an as-needs-arise basis	General information on a range of options regularly made available throughout industry. More info could be provided on QA in particular due to recent moves by process sector to require QA certification – act as a networking resource to help growers tap into relevant QA experts.	2.5

Key Result Area Four: Project administration					
Performance Objective*: The IDO project is conducted in a professional manner and all reporting requirements are met*					
Key Actions		**Timeline**	**Measure of Achievement**	Result	**Score**
1	Six-monthly meetings of the project management committee to review IDO activities, workplan and budget	Six monthly	Management committee meetings held	Meetings held on time and management committee kept well informed of activities, budget, workplan etc. Good communication and relationship with project supervisor in particular.	3.0
2	Six-monthly milestone reports submitted to HAL in accordance with project milestone schedule	Six monthly	Milestone reports submitted and approved by HAL	Reports all submitted on time and accepted by HAL.	3.0
3	Activity reports provided to the TFGA Vegetable Council	Ongoing	Reports presented to all Vegetable Council meetings	Reports prepared and other information always presented to Vegetable Council in a timely manner.	3.0
4	Project income and expenditure budgets prepared and regularly monitored, and management committee kept informed	Ongoing	Budget and expenditure monitored monthly; report to management committee meetings	Budgets and financial information professionally managed, and information well presented to management committee.	3.0