



*Know-how for Horticulture™*

**Facilitating the  
development of the  
Vegetable Industry in  
Victoria**

Patrick Ulloa  
Vegetable Growers  
Association of Victoria Inc

Project Number: VG98109

## **VG98109**

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# 1. INTRODUCTION

The Industry Development Officer (IDO) concept was developed by Horticulture Australia some years ago to promote stronger communication links and better dissemination of information within the horticultural industry. Several IDO have been employed since to assist with industry development.

Years ago, the vegetable industry, encouraged by the Australian Vegetable and Potato Federation (Ausveg), voted to accept a levy to fund the research and development (R&D) work that the industry needed. The different grower associations around the country took the opportunity to apply for funds to employ an IDO in each state. The Vegetable Growers Association of Victoria (VGA) successfully applied for funds and recruited Mr Patrick Ulloa to become the Victorian Industry Development Officer.

Under the direction of the VGA, a management committee was established to lead the IDO project in Victoria. The management committee has met regularly with the IDO to agree on the direction of the project and the specific tasks the IDO is expected to carry out. Besides his reports to his management committee, the IDO also reports to the VGA's executive committee and to Horticulture Australia.

The IDO project has come to its final fifth year and this report presents a summary of the major outcomes achieved by this project. The tasks carried out by the Victorian IDO are not necessarily presented in chronological order. To achieve the project outcomes, the IDO had had to carry out many different activities during the same period of time. For this reason this report has been organised following the major IDO's areas of responsibility.

Under each heading or area of responsibility an explanation is given about what were the objectives for the area. Also, some examples of specific outputs produced are highlighted, and the general outcomes for the section are presented.

## **2. EXECUTIVE SUMMARY**

The IDO position in Victoria was established by the Vegetable Growers Association of Victoria to facilitate information interchange with the Victorian vegetable industry and between all states. It was determined at that time that the position was critical to maximise the benefits from industry driven research and development.

The first major activity conducted by the IDO was to work with the IDO's management committee, industry leaders, and researchers to develop a strategy for the position that would maximise the benefits to the industry. The strategy included a vision for the year 2003 and a set of goals and objectives based on the vision.

The original vision with its related goals and objectives were mostly correct. Yet, there were some aspects that were clearly over ambitious. The vision was heavily biased towards the use of electronic communication tools. In practice, the adoption of electronic communication has only become important during the last year of the project. The project goals and objectives were then modified to include the IDO review project that was conducted by Horticulture Australia. Following the directions indicated in that review, the role, areas of responsibilities and goals and objectives more appropriate to the position were developed.

It was established that the main role of the IDO was as an industry learning facilitator. The IDO was expected to act as a broker identifying industry issues, R&D gaps, and information needs. The IDO was also expected to determine the best means to make information available to growers. In summary, the IDO should act as a bridge between grass root growers and grower groups, commodity committee delegates and R&D personnel.

As indicated by the roles and responsibilities, the IDO was able to identify several important industry issues. The issues identified included the need to establish an industry environmental program, vegetable processing in regional areas, and the impact of 'green wedges' or agricultural reserve areas.

The IDO played a critical role in the development of the industry's environmental program. The IDO developed, managed, and wrote the guidelines for the environmental program named 'Enviroveg'. The program was later continued by the Victorian environmental officer and it has now been transferred to Ausveg as a national project.

Another project initiated by growers with the assistance of the IDO was an investigation into processing vegetable opportunities for the industry. The project was commissioned to David McKinna et al. The consulting company has produced two important reports for the benefit of the processing industry.

The IDO has also assisted regional growers to initiate an investigation into the impact of the government's proposed 'green wedges'. The national R&D industry advisory committee has accepted the concept proposal prepared by the IDO, and it is now awaiting further action from Horticulture Australia.

To identify the real issues affecting the industry, the IDO has had to participate in many industry meetings and communicate with a large number of industry leaders. Private communication with individual growers was also very useful to identify important issues affecting growers. Unfortunately, due to time constraints, individual visits to growers had to be kept to a minimum. To keep up to date with relevant developments relevant to the industry, the IDO attended a good number of events, courses, seminars, and workshops.

An important goal for the IDO position was to establish and maintain an industry communication network. This communication network had to include vegetable growers, researchers, chemical resellers, consultants, and other people in the industry. Using his industry contacts, the IDO was able to collect several lists of growers located in different regions. A database developed by the Potato Industry Communication Manager was used to store all the information gathered. According to the number of growers, five major production areas were identified: South-East Melbourne, Werribee, East Gippsland, Mildura/Swan Hill, and Melton/Moorabool. Currently, the database includes 550 active growers and about 300 other industry people.

The R&D program has also been an important role for the IDO. Meetings have periodically been conducted in major production areas to identify R&D priorities for regional growers. Growers in South-East Melbourne and Werribee have been particularly active and therefore have participated of most meetings. Initially, growers expected that many of their requests would become R&D projects to be funded by the industry. Unfortunately, it became clear from the beginning that the national R&D commodity delegates would not assess industry priorities in the same way as regional growers. After some initial disappointments, it was decided that it was better not to raise expectations among growers and that working towards nationally agreed industry priorities would be more effective. At least this way, the national committee was most likely to support projects that addressed previously agreed national priorities.

The IDO has worked closely with the Victorian R&D delegates. A good level of support has been given to each R&D delegate through individual and group meetings. Also, the IDO has periodically prepared project summaries that assist delegates to quickly find all the information they need to remember and discuss all critical points of project proposals. The proposals have been widely supported by the Victorian R&D commodity delegates. It is expected that as the proposal format continue to improve, the need for project summaries will be greatly reduced in the future.

The success of the R&D program is closely linked to the effectiveness of research organisations and their officers. The IDO has routinely met Victorian researchers to discuss the progress of different R&D projects funded by the industry. The discussions have mainly been about how to improve dissemination of information.

At a national level, the IDO was requested to facilitate the leafy vegetable group. The IDO has assisted the group by facilitating the national meetings to review R&D proposals. Since last year, some attempt was made to begin a strategic investment plan for the commodity group. It is likely that the work on the strategic investment plan will become increasingly important as an IDO role.

Also at a national level, the IDO has been working with the IDO network. Each year, the national IDO network has met to discuss activities of national relevance. Despite the natural difficulties associated to working at a national level when positions are directed by state priorities, the IDO network managed to initiate a number of activities and projects of national industry value. The combined activities include the 'Vegetable Platter' selection of articles published in the industry magazine 'Good Fruit and Vegetables,' the publication of the 'Vegenotes' series, and later the establishment of the industry's website.

Apart from the work at a national level, another important priority has been the work carried out with regional industry groups. It was decided that it was better for the industry to establish regional groups that could act as central points to identify and solve problems affecting local growers. The IDO has assisted two major groups in Victoria, the Werribee Young Growers, and the South-East Grower Network. Both groups have become very active in assisting local growers address important problems. In the future, the IDO will be working in other regions to attempt establish similar groups. Growers in Bacchus Marsh, East Gippsland, and Mildura may be able to establish groups for the benefit of their regions. One of the major benefits of having regional groups is that dissemination of information is greatly facilitated

Information dissemination is one of the most important roles of the IDO. Early in the project, the IDO established the 'Vegelink' newsletter to create awareness about the R&D activities conducted in the country and to highlight the direct benefits growers can obtain from the R&D program. Today, more than 800 copies of the 'Vegelink' newsletter are distributed quarterly. The 'Vegelink' newsletter has become the single most important communication tool to disseminate information to Victorian growers.

Even though the newsletter has been successfully received by the industry, the IDO has continued with his attempts to promote electronic dissemination of information. Among the options available, the IDO decided to establish a website in conjunction with the Vegetable Growers Association of Victoria. This website will continue to improve and offer better information to growers.

Another important tool to disseminate information are presentations to groups of growers. The IDO has organised a number of technical seminars to help Victorian growers to easily access useful information. The IDO has also worked with local researchers to promote field days bringing information to a farm where growers can better relate to the information being presented.

Growers are also supportive of industry tours. They feel tours are a good way to quickly learn about and adopt new ideas. During tours, most growers are able to better concentrate on learning because they are away from their farms. The IDO was involved in directing a tour of Australian growers to New Zealand. The IDO also directed another tour by the Werribee Young growers to the Virginia Pipeline scheme.

The latest IDO initiative has been the development of a Technology Resource Centre for the Victorian vegetable industry. He has requested a room at the Vegetable Growers Association of Victoria to establish a central point to gather, classify and make available to growers all relevant industry publications and outputs from R&D



projects. The work to establish this centre has already begun and it is expected to be completed within the next two months.

### 3. Strategy development and planning

The first major activity conducted by the IDO was to widely consult with industry leaders and researchers to determine the strategy that would maximise the benefits to Victorian levy payers. These discussions resulted in the development of a vision.

#### 3.1 Initial vision:

*By the year 2003 most active growers will have an appreciation of the value of R&D. Growers will seek to strengthen the industry's research base.*

*The number and location of most long-term growers will be known. These growers would have established regional groups to discuss and decide on R&D priorities. Regional groups will be meeting periodically and will communicate and link with the rest of the industry.*

*The vegetable industry will act, at least on R&D issues, cohesively and united.*

*The position of Commodity Delegate will be well regarded within the vegetable industry. Many growers will be keen to become industry representatives.*

*Growers will be aware of the projects being carried out and they will be actively seeking specific information relevant to their operations. Also, growers will be keen to provide feedback on the most effective technology transfer activities.*

*Consultation with industry will be a normal part of the activities carried out by R&D personnel and consulting firms.*

*Many growers in regional locations will be using computer or other modern technology to communicate with the rest of the industry. Computer technology will be the main means for disseminating and retrieving information in the vegetable industry.*

*Modern technology will be used for activities such as interactive field days. During these field days one researcher will be able to contact many growers in regional locations at the same time.*

*Growers will frequently access the information made available to them and will request more information as needed.*

Based on this vision, it was determined that the project would have the next five major goals:

1. To facilitate cohesion and unity within the industry (hrdc)
2. To maximise the benefits from industry driven R&D
3. To maximise the effectiveness and impact of Victorian Commodity Delegates
4. To assist industry to embrace change and adopt new practices and technologies

5. To facilitate the development of a 'strategic planning' culture within commodity sectors and the whole industry

Very quickly, it became clear that the initial vision was over ambitious. First, the vision was heavily biased towards the use of modern technology for communication. The adoption of electronic communication has begun to increase only during the last part of the project, and has had limited application for most part of it.

Another aspect that had been underestimated was the lack of support growers gave to the national vegetable levy. Many growers felt that the levy had been imposed on them without proper consultation. For this reason, most growers were not interested in participating in the industry's R&D program.

Yet, the goals were basically sound and were worthwhile pursuing. The IDO felt that the roles of the position had to be re-evaluated and defined to have a better chance to succeed in achieving the stated goals. Also, by defining the IDO's major roles and responsibilities, more specific goals and objectives could be drawn.

Using the IDO review process conducted by Horticulture Australia, the role, areas of responsibility, and the new goals and objectives for the IDO position in Victoria were defined.

## **3.2 The Role of the IDO**

The main role of the IDO is as industry learning facilitator. The IDO acts as a knowledge broker by identifying industry issues, and R&D and information needs. The IDO also determines the best means to make information available to growers. The IDO acts as a bridge between grass root growers and grower groups, commodity committee delegates and R&D personnel.

## **3.3 Major areas of responsibility, goals and objectives:**

### **3.3.1 Information gathering**

The IDO identifies, collate, and document information about industry issues, and R&D needs. To perform this task, the IDO uses links and tools such as industry associations, grower groups, R&D advisory committees, workshops and personal communication. The IDO also monitors relevant developments outside the industry that may have an impact on the industry.

#### Goals

- To give growers more opportunities to raise issues affecting their survival.
- To have easier access to relevant developments outside the industry that may have an impact on growers.

#### Objectives

- To attend industry meetings to identify issues affecting regional growers
- To formally survey growers in the industry to identify issues and priorities
- To visit some growers to identify issues and priorities

- To read relevant publications and attend seminars to keep abreast of developments

### **3.3.2 Establishment and maintenance of a communication network**

The IDO maintains a Database with the contact details of all relevant industry people. Apart from contact details, the database also describes the activities the person performs (e.g. grower, wholesaler, researcher), the crops grown, and areas of special interest.

#### Goals

- To improve the access to contact details of all levy payers, R&D personnel, services providers, and other industry stakeholders

#### Objectives

- To periodically survey industry to maintain database updated

### **3.3.3 The Industry R&D Program**

The IDO assist in maximising the benefits of the industry R&D program. The IDO not only assists by ensuring that State growers have an input in the identification of issues and priorities, but he facilitates the establishment of more formal networks of participation in the industry's R&D program. The establishment and maintenance of R&D advisory committees in all growing regions is a key aspect of the facilitation.

The performance of Victorian product members during national meetings is enhanced by the assistance provided by the IDO. Researchers also benefit by obtaining relevant information about industry R&D needs and priorities. At a national level, the Victorian IDO provides support for the leafy vegetable group.

#### Goals

- To increase the participation of regional growers in setting R&D priorities
- To better assist Victorian product members
- To improve communication with researchers
- To better assist the national leafy vegetables commodity group

#### Objectives

- To prepare a schedule of meetings for regional growers to discuss R&D and info needs
- To formalise regional R&D advisory committees
- To periodically meet Victorian delegates to discuss R&D issues and needs
- To pass on issues and comments from grass root growers to delegates
- To pass on issues and comments from other States to delegates
- To periodically meet with researchers to assess R&D project progress
- To periodically survey national leafy vegetable group to improve the effectiveness of group

### **3.3.4 Industry Groups**

The work of the IDO is enhanced when he works with groups of growers. Regional grower groups are encouraged and supported by the IDO. The assistance may include helping with organising meetings and activities. More importantly, the IDO can help regional groups to organise themselves and create an appropriate structure and work plan.

In some cases, the IDO may help grower groups to obtain funding for R&D activities.

#### Goals

- To increase grower participation through regional grower groups

#### Objectives

- To assist the establishment and maintenance of at least four regional grower groups
- To periodically meet with regional grower groups to identify issues and their needs
- To assist growers obtain funding for R&D projects as required

### **3.3.5 The IDO Network**

The IDO work is enhanced by activities of national relevance. The IDO should actively participate with other Vegetable IDOs in those activities or initiatives of national industry value.

#### Goals

- To increase collaboration with other IDOs for the benefit of the industry

#### Objectives

- To periodically meet with IDOs to discuss issues of national significance
- To carry out specific tasks in collaborative work with IDOs

### **3.3.6 Dissemination of Information**

Dissemination of useful information is one of the keys to the success of the IDO program. Most growers expect to be able to access useful information as a result of the R&D investment. An important element of the information dissemination program is the establishment of a Technology Resource Centre. The Technology Resource Centre provides a repository of resources and information available to the industry.

Other means of information dissemination are the Vegelink newsletter, the industry Website, and the IDO email messages. The IDO actively encourage the dissemination of R&D results by helping organise workshops, seminars, field days, and technical tours.

#### Goals

- To improve access to useful and relevant information

#### Objectives

- To create and maintain an excellent Technology Resource Centre for Victorian Vegetable Growers
- To periodically publish and distribute the Vegelink industry publication
- To periodically organise R&D/technical forums for regional growers
- To maintain the industry website
- To periodically organise seminars, field days, and technical tours
- To periodically send relevant email notices to growers

This new set of goals and objectives allowed the Victorian IDO establish a work plan that was more compatible with the needs of the industry. The work plan has also made monitoring of work progress more effective. For an example of a work plan see appendix I.

## **4. Report on areas of responsibilities**

### **4.1 Information gathering**

During the life of the project, the IDO was able to identify several important industry issues. Some of the issues identified included the need to establish an industry environmental program, vegetable processing in regional areas, and ‘green wedges’ or agricultural reserved areas. These issues were further discussed with industry leaders and funding was obtained to carry out R&D projects based on these important challenges.

The IDO played a critical role in the industry’s environmental program. Even though IDOs are not expected to get involved in the management of specific projects, at that moment it became difficult to find an organisation able (or willing) to develop a program that would equally consider both, the environment and the interests of growers. The program was named ‘Enviroveg’ to highlight the two major concerns of the program. After successful introduction in Victoria, the program is now being promoted nationally under the direction of the Australian Vegetable & Potato Growers Federation (Ausveg).

Another project that was initiated through the direct participation of the IDO was the investigation into processing vegetable opportunities for the industry. This project was established after the IDO met with growers in East Gippsland. Those growers were not impressed with the R&D projects being carried out at that moment. They felt that more work needed to be conducted identifying potential markets, in particular for processing vegetables which in the past had been an important source of income for local growers. The project was commissioned to David McKinna et al. This consulting company has produced two important reports for the benefit of the processing industry.

The ‘Green Wedges’ or agricultural reserve areas project was also initiated by after the IDO met regional growers and identified their needs. The IDO had kept a close association with the South-East growers network to allow proper identification of issues affecting those growers. After a number of meetings with the group, it became apparent that the ‘green wedges’ issue was a good candidate for an R&D project. The IDO prepared a proposal on behalf of the group. The proposal was reviewed and approved by the national industry advisory committee.

One of the reasons the IDO was able to identify relevant issues was his participation in many industry meetings and personal contact with industry leaders. Surveys and brainstorming sessions with growers produce only limited results. To actually determine the real problems affecting growers the IDO was forced to spend many hours carefully listening to what growers were saying. In most cases, growers only stated the symptoms of problems. Only after the IDO asked for more details the underlying problems became more evident.

Personal communication with key players in the industry was another important tool to identify relevant issues. Personal communication with growers many times revealed important issues that had general application. In most cases, growers felt

more comfortable raising issues privately. Unfortunately, due to time constraints, individual visits to growers were kept to a minimum. To ensure the widest possible impact on the industry as a whole, the IDO usually worked with groups.

Apart from working with Victorian growers, the IDO has been expected to identify developments outside the industry that may have an impact on the local industry. One way to keep abreast of developments in the global vegetable industry is accessing international publications. The management committee suggested that a number of international publications should be available for the IDO to review and identify areas that can have an impact on Australian growers.

Meanwhile, the IDO has attended courses, seminars and workshops to keep up to date with relevant developments relevant to the industry. The events attended by the IDO included:

- Eurolink seminar for potential exports to Europe
- Assessing environmental risks
- Implementing environmental management systems
- 'Future' conference (HAL)
- Risk communication seminar
- SQF 1000 and its application in the industry
- Sea freight industry council workshop
- Fresh 2001 conference
- Austrade food exporter seminar
- Cooperative start up manual workshop
- National Pathology Meeting
- Lettuce conference (Gatton)

## **4.2 Establishment and maintenance of a communication network**

The communication network in Victoria includes vegetable growers, researchers, chemical resellers, consultants, and other people interested in the industry. At the beginning of the project, the only information available was the contact details offered by the Vegetable Growers Association (VGA). Unfortunately, the members of the association only represent less than half of the total number of growers in Victoria. Even though the members of the association tended to be the more influential growers who are usually more interested on industry issues, the role of the IDO was clearly directed to benefit all levy payers.

The IDO contacted researchers working in the industry and was able to collect their list of growers in their regions. At that time, the privacy act had not yet been activated allowing the free interchange of that information. If the same activity was tried today, it is likely the IDO would find it more difficult to obtain this information.

The database developed by Leigh Walters (Potato Industry Communications Manager) was found to be the best option to maintain all the information easily accessible. That database has undergone three revisions and continues to be an important resource for the IDO.



According to the number of growers, the following production areas were identified as part of the communications network development:

- South-East Melbourne
- Werribee
- East Gippsland
- Mildura/Swan Hill
- Melton/Moorabool

Overtime, the number of growers in the industry has been decreasing. This trend has been expected since growers that retire are not being systematically replaced by a younger generation. Another trend is that the growers left in the industry tend to grow their business maintaining the level of production as an industry.

Many other service providers and interested parties have also joined the industry's database. At the moment, nearly 40% of the people included in the database are not classified as vegetable growers.

An attempt has been made to increase electronic communication within the industry. Some electronic messages had been sent with limited success. Until recently, the level of email usage among vegetable growers in the State was low. However, during the last 12 months there has been a noticeable increase of email messages being sent by different industry people. The industry survey that the IDO will send in the near future is expected to bring a much higher number of email addresses.

### **4.3 The Industry R&D program**

From the beginning of the project, the IDO became heavily involved in assisting Victorian growers become involved in the industry's R&D program. At that time the industry was working towards preparing the first version of its strategic plan. As part of this effort the IDO organised a workshop to bring together growers and researchers to establish the initial R&D priorities for the industry. This activity was followed by meetings in the major production areas in the State where growers were able to highlight the issues that were important to them. The summary of the issues and priorities were passed on to researchers so they could write R&D project proposals.

Everyone thought this was the most logical approach. Everyone that participated in the process was very confident that the majority of proposals developed in this manner were likely to be approved. The results after the first national R&D meeting were disappointing. Most of the proposals presented by Victorian researchers were rejected. The main reason for this high level of unsuccessful proposals was that the issues presented by regional growers did not seem to be equally important to representatives from other States. The whole exercise was very disheartening for all involved since much energy had been spent meeting growers to identify priorities and preparing proposals to meet their stated needs. More importantly, by assisting growers to raise issues an expectation was created that at least some of those issues would be addressed by the industry's R&D program.

It was decided that gathering issues and priorities to be passed directly to state researchers would only frustrate everyone involved. A better approach was to pass on

the State issues and priorities to the R&D national committee. In this way, the national committee could decide if regional needs represented the overall national interest. After that, researchers could get a list of priorities that would be already acceptable to the national committee. This would improve the chances of researchers obtaining funds needed to conduct R&D for the industry.

From the beginning of the project, the IDO worked closely with the Victorian commodity delegates. Most commodity delegates found the number of proposals hard to handle. They said that it took them many hours to review all the proposals. Also, the technical language used in the proposals was not conducive to developing a good understanding of what the researchers were proposing. To assist delegates, the IDO prepared one page summaries of each proposal to make sure all important information could be readily available in front of the delegate assessing the proposal.

Another advantage of the summaries was that they facilitated group discussion of proposals. The IDO prepared single overhead transparencies for each proposal. Each overhead was then displayed to the delegates. With all critical information on the screen, everyone was able to comment on proposals and also ask relevant questions.

The only disadvantage of the summaries was the possibility that the IDO might miss an important point contained in the proposal prepared by the researcher. However, after trying the system for a few years, delegates found that the summaries really represented their understanding of the proposals. In the end, any disadvantage of the summary system was clearly outweighed by the opportunity for open and effective discussion it provided to delegates. In general, Victorian delegates attended national meetings with a good idea about the content of the proposals and were ready to have a constructive input during discussions. The important thing was that the independence of thought of each delegate was never compromised. As a group, the Victorian delegates never took a predetermined decision on any project to the national meetings. Each delegate was able, and expected, to vote on projects according to his or her own opinion on projects.

Without any doubt, preparing summaries of each proposal was very time consuming. Given a better choice, it is likely that the IDO would have preferred not to prepare those summaries. However, most proposals tend to be written in technical language which makes it very difficult for delegates to extract all relevant information in a simple and effective manner. Ideally, the proposal format should force researchers to present a summary containing all the critical elements they propose. Most researchers contacted by the IDO were supportive of a shorter proposal format, in particular for preliminary proposals.

The IDO has also worked closely with State researchers. Many meetings were organised to allow researchers to get information from the IDO. The discussions were mainly about how to improve dissemination of information and how to better identify industry needs for research and development. One of the aspects the IDO tried very hard to communicate to researchers is the need to identify the real underlying problems when talking to industry people. Growers are usually very close to their own problems and issues and when asked to explain what their major problems and issues are, they tend to give answers that only touch the surface of the situation or they just mention the symptoms of problems. For researchers to be effective in identifying

R&D project opportunities they need to ask the correct questions to force industry people to really explain what the underlying problems and issue are.

At a national level, the IDO was requested to facilitate the leafy vegetable group. The work carried out with the group over the years was to assist the group to effectively review R&D proposals. Last year, due to changes in the structure of the national meetings, some attempt was made to begin a strategic investment plan for the commodity group. Previously, the IDO had been directed to spend most of the time assisting in the development of the State industry. As some of the local growers networks are better established, there is no doubt that more time will be dedicated to national activities such as the leafy commodity group. However, the level of support required for national activities needs to be balanced with the needs of the State. As understood by the IDO, his main priority is the development of the State's industry. If the focus of the position should change to have more participation in the national industry as a whole, some reporting structures need to be modified to accommodate the changes of focus.

#### **4.4 Industry Groups**

The project management committee originally expected the IDO to visit to as many growers as possible. After discussing this request in several occasions, it was decided that the IDO would not be able to visit so many growers and at the same time accomplish the major goals of the project.

The management committee decided that it was better to establish regional groups that could act as central points to identify, discuss, and solve problems affecting local growers. The IDO initiated the process by inviting all growers to different meetings to discuss R&D related matters. From those meetings two potential groups were identified.

The Werribee Young Growers had already been operating for some time with the assistance of a local officer from the Department of Agriculture and a representative of a chemical reseller. The purpose of the group was not clearly defined. In general, they maintained the group as an opportunity to meet friends and to invite some speakers to the address the group as required. The IDO met the group and facilitated a discussion to determine the purpose of the group. Most members wanted to maintain the friendly character of the groups but they also wanted to explore the possibilities of showing leadership by addressing some issues that were important to regional growers. A strategic plan was initiated and documented to better define what the group wanted to achieve.

One of the issues confronting Werribee growers was the lack of irrigation water and the opportunity to access reclaimed water. The IDO assisted the group to organise a trip to South Australia to learn about the experiences gained by growers in Virginia. They had already obtained access to reclaimed water, and had useful information for the Werribee growers. Due to this type of activities, the Werribee Young Growers has really become the focal point for all growers in that region.

Another group that has been revitalised as part of the IDO activities is the South East Grower Network. This group was originally established to take advantage of some

export opportunities that had been identified by local growers. Unfortunately, the group was not able to materialise the opportunities identified and it became inactive until some important issues began affecting local growers.

One of the most important issues affecting growers in South East Melbourne was the lack of irrigation water and the opportunity to obtain reclaimed water for the region. The IDO was requested to invite regional growers to discuss this issue and very soon it was decided that the group needed to be revitalised to help address those problems that could not be solved individually. Over the last two years, the IDO has continued to provide support to this group by sending invitations to all regional growers, organising venues for the many meetings the group has organised and by attending their meetings to identify potential R&D work useful to those growers.

As part of the activities carried out for the South East Grower Network, the issue of agricultural reserve areas ('green wedges') was identified. The group wanted to do some work in this area to identify potential solutions to growers that would not be able to sell land for housing and that will need keep farming near housing developments. The proposal written by the IDO to obtain funds to address this issue was later approved and it is awaiting further action from Horticulture Australia.

The management committee has requested that the establishment of other regional grower groups be encouraged. Both, the Werribee Young Growers and the South East Grower Network have only needed some basic support from the IDO. It may be more difficult to establish other grower groups in other regions. First, the number of growers in other regions is considerably less than in Werribee and South East Melbourne, and in many cases growers have not shown the same inclination to work together. However, it is possible that some groups may be established in Bacchus Marsh, East Gippsland and Mildura. To do this, the IDO will need to identify a few local growers willing to take the initiative and provide the local leadership required to form a group.

#### **4.5 The IDO Network**

Each year, the national IDO network met regularly to discuss activities of national relevance. The group tried very hard to identify those initiatives of national industry value. In some cases it was difficult to materialise initiatives because the decision making process to authorise the activities was beyond the control of individual IDOs. Also, because of the nature of the position, IDOs had their own individual understanding of what was needed for the industry. A lack of independent facilitation made it difficult in some occasions to reach consensus.

Despite the natural difficulties associated to working at a national level when positions are directed by State priorities, the IDOs managed to initiate a number of activities and projects of national industry value. First, the process to review R&D projects was discussed many times and some changes have been made to make the process more effective.

Following an initiative from the South Australian IDO, all IDOs have been periodically sending articles to the industry magazine 'Good Fruit and Vegetables'. A section called 'The Vegetable Platter' was reserved for this purpose and IDOs use this

venue to keep the industry as a whole informed of the activities carried out in all States.

Another initiative that has been discussed many times with the IDO network is the establishment of an industry website. Initially, the website was going to be established in conjunction with the potato industry, but in the end some activities will need to be carried out separately. The IDO network expected to have the website established by now. Unfortunately, this project keeps being delayed for different reasons. The IDO decided that for the moment it was better to establish a website in conjunction with the Vegetable Growers Association (Victoria) while the national industry website awaits completion.

The most advanced initiative that came from the IDO network is the publication of 'Vegenotes'. 'Vegenotes' are a set of publications with R&D information directed to levy payers. Many industry people had mentioned that not enough useful information from the R&D program reaches vegetable growers. The 'Vegenotes' were developed to highlight practical solutions that have been made available through the R&D program.

After discussing this publication with the other IDOs, the Victorian IDO prepared a discussion paper summarising the guiding principles for the Vegenote system. All IDOs agreed to those principles and supported the presentation of a project proposal to Horticulture Australia. The tender for the publication of the 'Vegenotes' Series was awarded to ARRIS in South Australia. The first part of the series is now ready to be distributed among levy payers.

#### **4.6 Dissemination of Information**

The first step taken to initiate the information dissemination process was to visit growers and researchers in the four major production areas in Victoria. The purpose of the visit was to assess what communication methods were more acceptable to growers. Most people preferred to receive information by talking to someone directly. Obviously, it was not going to be possible for the IDO to offer that level of service. The second preference was written material in the form of a newsletter.

The Vegelink newsletter was developed to create awareness about the R&D activities conducted in the country and to highlight the direct benefits growers can obtain from the R&D program. The idea was to help growers see how the vegetable levy was producing useful outcomes for growers. Originally, 600 copies were distributed. There were positive comments about the newsletter and today more than 800 people receive a copy of the Vegelink newsletter.

As expected at the beginning of the project, the Vegelink newsletter has become the single most important communication tool to disseminate information to growers. The newsletter includes short articles highlighting events of industry interest, advances on research projects, and notices for the industry. After publishing 16 issues, the newsletter is well regarded by vegetable growers in Victoria. Feedback from growers indicates that most people recognise the newsletter and enjoy reading the short and direct articles included. Currently, Vegelink is published together with the VGA's

newsletter. Most active growers find it useful to have the combination of R&D and political aspects that are part of the VGA's line of interest.

At the beginning of the project, the IDO expected that electronic communications would be quickly adopted. The IDO made some attempts to promote the use of electronic communication by sending some monthly messages to the few email addresses in the database. Only the last two years the number of growers using email has notoriously increased. Electronic communication is definitely more economical than printed newsletters and is therefore an attractive alternative. However, it seems that many organisations feel the same way and the number of electronic messages and newsletters has multiplied to the point that it is hard to keep up – and properly review – each one of them. Sometimes it is easier just to delete electronic newsletters as they arrive.

For this reason, the IDO has not commenced an electronic newsletter, and unless there is strong evidence that growers would prefer the change, the main tool to disseminate information will continue to be the printed Vegelink newsletter. On the other hand, the IDO position is expected to have a positive influence regarding the adoption of useful new technology. The website development has been a good option to provide useful information to growers in an economical manner.

The IDO established a website in conjunction with the VGA. The VGA only requires a very small space to include the information offered to industry, while the R&D program has an unlimited potential to provide useful information to growers. The website is still in its infancy, and there is plenty of room for improvement. In the future, it would be beneficial to spend more time improving and promoting the website to make it the first point of call for growers looking for information. Feedback from growers indicated they wanted to be able to find links to results of the R&D program, and that the VGA's website would be a good starting point for their search.

Mail outs have been another important communication tool for the IDO. This tool has been used frequently whenever there is an issue of general interest. One of these issues that demanded a large amount of written information sent to growers was the minor use registration program implemented by Crop Protection Approvals (CPA). A few years ago, obtaining permits for the use of some pesticides was one of the most important issues for growers in the State. To respond to this priority, the IDO sent hundreds of application forms to build an industry 'wish list' to include all grower requests. Many of those forms came back to the IDO and they were passed on to CPA for review and follow up if required. The good original response from growers demonstrated that written correspondence is still an effective communication tool when issues are important to growers.

The work carried out on behalf of CPA went beyond sending and collating a 'wish list' for Victorian growers. Meetings were held in Werribee to discuss which pesticides were more important to regional vegetable growers. Later, when it became clear that the need for permits was not going to be directly applicable to Victorian growers, the interest in adding more chemicals to the 'wish list' was greatly diminished.

The Western Flower Thrips (WFT) outbreak was another important issue that required immediate action. The IDO sent relevant information to all growers in Victoria so they could take the necessary precautions to minimise crop damage. After all the basic information had been sent, further space was later allocated in the Vegelink newsletter to ensure growers had access to other details.

Other mail outs have been carried out on behalf of several industry organisations and R&D projects including:

- Slug control project
- Melbourne University's apprenticeship program
- Brassica Video
- Lettuce IPM manual
- Food Safety manual
- IPM newsletter
- CPA newsletter

Seminars have also been an important tool to disseminate information. The IDO has organised a number of technical seminars to help Victorian growers to easily access useful information. Some of the seminars organised by the IDO include:

- Genetic engineering in the vegetable industry
- Basic computing skills for vegetable growers
- National R&D committee visit to Food Science Australia
- Opportunities for vegetable processing (Food Science Australia)

Compared to seminars, field days have the advantage of bringing the information to a farm where growers can better relate to the information being presented. The IDO worked in conjunction with DNRE to organise a field day for growers to discuss the results of the water treatment project and use of recycled water. The field day was well attended and growers were satisfied with the event. Another important field day was the one carried out with the bunching vegetable project team.

Growers are very supportive of industry tours as a mean to quickly adopt new ideas. Tours allow growers to see how other people use technology. Also, growers are able to better concentrate on learning because they are away from their farms, and even if they wanted, they are not able to go back to their farms to work.

The IDO was involved in directing a tour of Australian growers to New Zealand. A total of twelve Australian growers, representing all States, toured the north island in New Zealand visiting local growers and other industry people. They also participated of the NZ industry conference. At the end of the tour, the IDO prepared a report that was accepted by Horticulture Australia.

The IDO also organised a tour for the Werribee Young Growers. The group visited the Virginia pipeline in South Australia. Growers wanted to learn about the use of reclaimed water in vegetable production, and how South Australian growers had been able to negotiate an acceptable contract with the water authorities. After successfully completing the tour, the IDO gave a presentation to other growers in Werribee to

highlight the findings of the tour. Copies of the report were given to growers that attended the presentation.

The latest IDO initiative to facilitate the dissemination of information is the creation of technology resource centre for vegetable growers. The VGA has allocated some space so a number of useful publications can be made available to growers. The R&D program has been producing many reports and other useful materials that need to be displayed so growers can get a better understanding of what is being produced as a result of the vegetable levy. The technology resource centre is being established at the moment and it is expected to contain copies of all final reports, and copies of all technology transfer materials (including newsletters) produced by the industry.



## 5. CONCLUSION

The position of Industry Development Officer is highly regarded by Victorian growers. After five years, the Victorian industry has come a long way regarding its appreciation of the R&D program. Originally, most growers were only concerned about the cost of maintaining the program through the vegetable levy. Today, the majority of growers understand that the R&D program is necessary to ensure a future for the industry. Growers may not be fully supportive of each individual project, but they can now see the value of a strong R&D program.

The IDO has helped to create awareness of the R&D project by communicating results to the industry via the Vegelink newsletter, seminars, and field days. He has also given growers the opportunity to obtain tangible outputs from projects such as manuals, guidelines, videos, CD-ROMs. Lately, the development of a website is increasing the access of Victorian growers to the R&D program.

Apart from receiving publications from the R&D program, growers have been given many opportunities to have their say regarding industry priorities. Many meetings were organised to discuss the issues that affect growers. The IDO has met growers individually whenever possible to discuss how R&D can be useful to the industry.

Also, the IDO position has provided local researchers with a clear starting point to contact the industry. The IDO has met researchers many times to assist in clarifying industry requests and to help organise technology transfer events. This interaction has really created a positive environment of cooperation for the benefit of the industry.

The industry database includes the contact details of most active vegetable growers in the State. The database also includes the contact details of many other people interested in the industry. Today, thanks to the database, the IDO is able to contact most relevant people in the industry. Without the information from the levy collection unit, it is impossible to know if the industry database is really complete. However, for practical purposes, the industry database is a valuable resource for the industry.

The industry is today more cohesive and united. The Werribee Young Growers and the South East Grower Network are two regional groups that have been very active assisting local growers address important issues. The IDO has been able to support those regional groups to increase their effectiveness. The East Gippsland Horticultural Groups, although not as active as the first two groups, has also produced some good results for its region.

Regional growers are also well represented by the Victorian commodity group members. Even though the commodity group members for the R&D program were chosen mainly due to their expertise on the specific commodity group they represent, they are also closely linked to the main production areas in the State. This has helped regional growers to be represented not only at a commodity level, but also they are represented on issues affecting them locally.

The position of commodity group member is well regarded in the State. Yet, it is difficult to find replacements for the current delegates. The main reason for this is the amount of time required to effectively fulfil the position. Most growers are extremely

busy managing their own businesses and are usually not able to commit the extra time required to attend all meetings and review all proposals. As the system to review proposals is streamlined, it is expected that the amount of time required from commodity delegates will be reduced.

Regardless of the requirements on Victorian delegates, the IDO has spent a great deal of time and effort to assist delegates to perform to the best of their abilities. The project proposal summaries and related meetings have assisted Victorian delegates to make meaningful contributions during discussions at the national level.

There is no doubt that the original expectations regarding adoption of electronic communication by the industry were too high. During the last five years the adoption of electronic communications has only been limited. However, during the last twelve months of the project there has been a noticeable increase of message between active industry members. It is likely that the next two years will bring a rapid increase in the adoption of email as a means of communication.

The increased use of email will certainly play an important role in improving industry communication. However, other traditional forms of communication such as newsletters will continue to be the main vehicle to provide useful information to the industry. The VGA's website and later the national industry's website will also play a critical role in distributing information to the industry.

The success of the IDO project was highlighted by a review conducted by Horticulture Australia. In that review, not only Victorian representatives showed their satisfaction with the IDO program, but all States consistently supported the need to continue with State IDOs. Without IDOs, it would be very difficult to maintain the communication linkages required to develop the industry.

Appendix I – Example of Work Plan

General Goals	Quarterly Objectives	Targets	Y/N	Comments
<ul style="list-style-type: none"> <li>❑ To increase opportunities for growers to raise issues affecting their survival</li> <li>❑ To improve access to relevant developments outside the industry that may have an impact on growers</li> </ul>	<ul style="list-style-type: none"> <li>❑ To attend industry meetings and identify issues</li> </ul>	<ul style="list-style-type: none"> <li>❑ Attend at least 2 VGA, 1 SEGN, and 1 Werribee Growers meetings</li> </ul>		
	<ul style="list-style-type: none"> <li>❑ To survey growers to identify issues and priorities</li> </ul>	<ul style="list-style-type: none"> <li>❑ Send 1 survey to identify issues and priorities</li> </ul>		
	<ul style="list-style-type: none"> <li>❑ To visit some growers individually to identify issues</li> </ul>	<ul style="list-style-type: none"> <li>❑ Carry out at least 5 individual grower visits</li> </ul>		
	<ul style="list-style-type: none"> <li>❑ To review relevant publications and identify important developments</li> </ul>	<ul style="list-style-type: none"> <li>❑ To review at least 4 publications</li> </ul>		
<ul style="list-style-type: none"> <li>❑ To improve access to contact details</li> </ul>	<ul style="list-style-type: none"> <li>❑ To survey industry and update database</li> </ul>	<ul style="list-style-type: none"> <li>❑ Send 1 survey and update database</li> </ul>		
<ul style="list-style-type: none"> <li>❑ To increase grower participation in setting R&amp;D priorities</li> <li>❑ To better assist Victorian product members</li> <li>❑ To improve communication with researchers</li> <li>❑ To better assist the national leafy vegetables</li> </ul>	<ul style="list-style-type: none"> <li>❑ To schedule meetings with regional growers to discuss R&amp;D needs</li> </ul>	<ul style="list-style-type: none"> <li>❑ At least 4 meetings with regional growers</li> </ul>		
	<ul style="list-style-type: none"> <li>❑ To periodically meet Victorian delegates</li> </ul>	<ul style="list-style-type: none"> <li>❑ At least 2 individual meeting with each Victorian delegate</li> </ul>		
	<ul style="list-style-type: none"> <li>❑ To pass on comments from interstate commodity delegates</li> </ul>	<ul style="list-style-type: none"> <li>❑ At least 2 email messages with interstate issues and priorities</li> </ul>		
	<ul style="list-style-type: none"> <li>❑ To periodically meet researchers conduction R&amp;D relevant to Vic growers</li> </ul>	<ul style="list-style-type: none"> <li>❑ Interview at least 3 researchers about the progress of their work</li> </ul>		

national leafy vegetables commodity group	<input type="checkbox"/> To periodically survey the national leafy group	<input type="checkbox"/> Send one survey and begin a draft R&D leafy investment plan		
<input type="checkbox"/> To increase grower participation through regional grower groups	<input type="checkbox"/> To provide assistance to at least 2 regional groups	<input type="checkbox"/> Provide on-going support to the SEGN		
		<input type="checkbox"/> Assist the Werribee growers group with at least 2 activities		
<input type="checkbox"/> To increase collaboration with other IDOs	<input type="checkbox"/> To assist with Vegenotes program	<input type="checkbox"/> To review the Vegenote program and report to management committee		
	<input type="checkbox"/> To provide articles for 'vegetable platter'	<input type="checkbox"/> To provide at least 3 articles for the 'vegetable plater'		
<input type="checkbox"/> To improve access to useful and relevant information	<input type="checkbox"/> To create and maintain a technology resource centre	<input type="checkbox"/> To visit the Cotton Industry technology resource centre		
		<input type="checkbox"/> To organise final reports and magazines in the market office		
	<input type="checkbox"/> To periodically publish Vegelink	<input type="checkbox"/> To distribute 2 issues		
	<input type="checkbox"/> To maintain industry website	<input type="checkbox"/> To add R&D committee details and the Classifieds section		
	<input type="checkbox"/> To periodically organise technical tours	<input type="checkbox"/> Tour to SA for Werribee growers		

	<input type="checkbox"/> To periodically send email notices	<input type="checkbox"/> At least 2 email notices		
		<input type="checkbox"/> Yes/Total tasks		
		<input type="checkbox"/> % Achieved		

Werribee Young Growers Tour to  
the Virginia Pipeline Scheme  
(Aug 2003)

Patrick Ulloa  
VIDO (Victoria)

## Summary

Due to the drought currently affecting most production areas in Australia, water has become a critical limiting production factor. Both, government and the private sector are taking steps to find non-traditional sources of water for irrigation to reduce the pressure on heavily used rivers and aquifers.

While so many people are keen to have more water available, it seems illogical to waste great amounts of water by discharging effluents into the sea. The situation seems even more illogical when organisations in charge of effluent disposal are under increasing pressure to improve the quality of the water being discharged.

Vegetable growers in Werribee are being affected by serious shortages of irrigation water. Melbourne Water is keen to provide treated reclaimed water to growers in the region. It seems that these two major parties are ready to begin discussions on how to best establish a scheme that will benefit all involved.

However, many growers are especially cautious to adopt this new water source because of:

1. Their limited understanding of water reclamation and reuse;
2. Some potential management issues with reclaimed water use; and
3. A lack of confidence in this new resource/technology

For those growers who are already convinced of the need to access this water resource, their major concern is to negotiate a contract that will allow them to remain viable in the longer-term. Werribee growers decided that visiting a region that has already established a reclaimed water scheme would allow them to better prepare themselves to obtain the best possible scheme for their own region.

The first place visited was the St Kilda Dissolved Air Flotation Filtration (DAFF) plant. The plant can treat up to 150 mega litres per day. The scheme produces water suitable for irrigating vegetables. The treatment process begins by leaving the raw water to settle in stabilisation lagoons for about 28 days. After the grit has settled and removed, suspended particles are lifted by air bubbles and then scraped off. The water is then passed through multimedia rapid sand filters and left in stabilisation lagoons for another 30 days. Finally, the water is filtered and chlorinated before it goes via a pipeline to Virginia to be used for irrigation by market gardeners.

The Virginia Pipeline Scheme (VPS) is privately operated and is currently managed by Water Reticulation Systems Virginia, a Tyco Company.

In Virginia, four participants met Rocco Musolino, an important carrot grower in the region. He mentioned that the main benefit of the pipeline scheme is the peace of mind that comes from knowing that he can just open the tap and get the irrigation water he needs, regardless of the weather conditions. However, Rocco believes that the producers of the effluent should also contribute to pay for the water treatment. In South Australia, treated water is provided free of charge to growers. Growers only pay for the cost of the pipeline scheme.

Rocco gave some specific suggestions that growers should consider when negotiating a deal for a Werribee reclaimed water scheme. First, the cost of water for growers must be as low as possible. He also recommended that grower representatives should never make decisions without consulting first with a grower committee. And, more importantly, growers should never negotiate individually.

Werribee growers also visited the Wullanga Basin Water Scheme to have an opportunity to compare two different systems. The water provided by this scheme is of lower quality and much more expensive compared to water from the DAFF plant. Growers accept the high price of water because they grow a high value crop and because they use comparatively low volumes of water.

Clearly, the tour was very beneficial to the visiting Werribee growers. They have developed a good understanding of the technology used to ensure the safety of reclaimed water, and they have also seen how growers in Virginia have benefited from access to this new source of water. More importantly, the visiting growers learned what is required to negotiate an acceptable contract with the relevant bodies.



## **Introduction**

The weather patterns observed the last two years clearly demonstrate that water is a critical limiting production factor in Australia. Both, government and the private sector are taking steps to find non-traditional sources of water for irrigation.

In Victoria, there are already plans to allow access of reclaimed water for vegetable production. In other regions, such as Virginia (South Australia), the use of reclaimed water for irrigation has already been underway for some time.

According to the HAL project VG00087, reclamation of water from sewage treatment works offers a long-term viable option for our limited water resources in Australia. This projects also refers to project VG97081 to highlight that vegetable growers are especially cautious to adopt this new water source because of:

1. Their limited understanding of water reclamation and reuse;
2. Some potential management issues with reclaimed water use; and
3. A lack of confidence in this new resource/technology

However, with the prospects of continued shortages of irrigation water, it is likely that growers are now ready to leave their concerns behind and embark on the learning process to use reclaimed water effectively.

In South Australia, there are industry people with expertise on the use of reclaimed water. In fact, Virginia has the largest high-quality (Class A) reclaimed water scheme in the world. This provides Victorian growers with easy access to useful information on how to best take advantage of the future access to reclaimed water planned for the State of Victoria.

The Werribee Young Growers Group decided to organise a field trip to South Australia to learn how the Virginia reclaimed water scheme works and how vegetable growers are benefiting from the project. The Werribee growers were also keen to find out how South Australian growers were able to negotiate a contract that was acceptable to their needs.

The touring group included thirteen Werribee growers and two officers from representing EE Muirs & Sons and the Department of Primary Industries (Victoria). The Victorian Vegetable Industry Officer assisted the group by organising an itinerary, transport and accommodation. The assistance from Jim Kelly, Business Development Manager (ARRIS) was critical to ensure the success of the tour.

The tour included the St Kilda Dissolved Air Flotation and Filtration (DAFF) plant, visits to two vegetable growers (Rocco Musolino and Barry Nicol), the Greenhouse modernisation Centre at Virginia, and the Wullanga Basin water recycling scheme.

The information gathered during the tour is presented according to the itinerary followed by the participants.

## **The St Kilda DAFF plant**

The St Kilda Dissolved Air Flotation Filtration (DAFF) plant can treat up to 150 mega litres per day. The scheme produces treated water suitable for irrigating vegetables that will be consumed raw. The treated water must meet guidelines set by the Department of Human Services, Environmental Protection Agency (EPA) and SA Water. Treated water is sent via the Virginia Pipeline Scheme (VPS) to Virginia, 30 Km north of Adelaide, where it is used by market gardeners to irrigate their crops.

The process begins at the Bolivar Wastewater Treatment Plant stabilisation lagoons. The raw water is left to settle on those lagoons for approximately 28 days. This ensures the grit settles to the bottom of the lagoons. This grit is later taken away and used for landfill. Aluminium Sulphate and a polymer are then mixed with the raw water to help tiny suspended particles bond together and increase in size. Once the suspended particles become large enough, they can be removed from the water during the next treatment stage.

To remove the suspended particles, the water is mixed with air under pressure (500kPa) until it becomes saturated. The air bubbles formed lift the suspended particles to the surface, forming a thick scum. This scum is then scraped off, collected and pumped back to digestion tanks to produce methane gas and sludge. The sludge can be dried and then used for soil improvement.

After the scum has been removed, the water still contains some suspended particles and microscopic pathogens, and therefore requires further treatment through multimedia rapid sand filters. Once the water has been filtered, it is pumped to a secondary settling tank, then it passes into stabilisation lagoons for about 30 days. The water is finally filtered and chlorinated and then it goes via a pipeline to Virginia to be used for irrigation by market gardeners.

The Virginia Pipeline Scheme (VPS) is privately operated and is currently managed by Water Reticulation Systems Virginia, a Tyco Company.

## **Northern Adelaide Plains (Virginia)**

The growth of the industry in this Region was limited by the availability of irrigation water from already depleted underground aquifers. All vegetable growers have welcomed the access to this new water resource.

### **Rocco Musolino**

Rocco Musolino is an important carrot grower in the region. He played a critical role as a grower representative during the negotiations that took place before the establishment of the pipeline to Virginia. His first comment to the touring growers was that if they get it right, referring to reclaimed water for Werribee, growers will have a future.

The main benefit of the pipeline seems to be the peace of mind of knowing that users can just open the tap and get the irrigation water they need, regardless of the weather

conditions. But, even taking this into account, Rocco believes that the people that produce the effluents should help pay for water treatment.

Rocco insisted that the reclaimed water issue must be looked in perspective. The government authorities in charge of water treatment plants need to get rid of treated water in a way that is environmentally acceptable. Growers must be willing to negotiate the deal they want. In fact, in South Australia, the treated water is provided free of charge to growers. Growers only pay for the cost of the pipeline scheme.

According to Rocco, the vegetable industry is in big trouble. Most young people do not want to become market gardeners. He thinks growers will not survive if the water they buy is too expensive. Experience shows that most agricultural inputs increase in price, but the price of vegetables does not increase that much. To ensure a better deal, growers should not accept a pay back for the scheme of only 15 years. Most projects of this magnitude should have a pay back period of about 30 years.

He also recommended that growers should not allow their representative to make decisions on the spot. They should always take any recommendations back to a grower committee to determine the best outcome for growers. In his experience, professional negotiators never make decisions on the spot, and they always go back to their offices to have a chance to think carefully about all implications. Growers should do the same.

Rocco went even further. He insisted that a grower committee should be formed and every grower should determine how much water would be needed. That information should remain confidential during negotiations. Also, growers should never discuss or negotiate individually with the other party.

### **Barry Nicol**

Barry Nicol runs an impressive carrot farm and an even more impressive packing facility. He is very active in the industry and is the South Australian R&D delegate for root crops.

Barry thinks the price of water negotiated for the Virginia scheme is close to what growers wanted. Now that growers are using reclaimed water, the original aquifer has risen again.

### **Greenhouse modernisation centre**

The Greenhouse modernisation project was established in Virginia to promote the adoption of modern greenhouse technology among regional growers. The concept of this technology transfer facility is to allow growers to see how they can achieve better results with more advanced facilities and equipment.

Dominic Cavallaro, manager of the centre, explained how the new greenhouse structures provide a more suitable growing environment. Some of the group members have their own greenhouses and were happy to check the technology available at the centre.

## **Wullanga Basin Water Scheme**

The Wullanga Basin Water Scheme is located about 70 km south of Adelaide. The water treatment process in this scheme is not as stringent as the one used for the Virginia Pipeline Scheme. This does not represent a problem since the water is used for irrigating vineyards under drip irrigation. The water does not come in contact with the final product so there is no risk of contamination.

The water provided by this scheme is quite expensive when compared with other schemes. Grape growers pay about \$600 per megalitre. One of the reason water is much more expensive here is that the pipeline that was required was considerably longer than the one in Virginia. The Wullanga pipeline is 80 Km long, while the Virginia pipeline is 30 Km long. Another reason this scheme is more expensive is that the water is delivered with pressure so growers do not have to spend extra to get the water to the crops.

Another important difference between the Wullanga and the Virginia schemes is that the Wullanga scheme is privately owned. Property owners had an opportunity to increase land values by adding water availability. Local growers accept the high price of water because they grow a high value crop and because they use comparatively low volumes of water.

## **Appendix I: Tour participants**

- ❑ Robert Nave
- ❑ Steven Moore (EE Muirs & Sons)
- ❑ John Costa
- ❑ Chris Bettioli
- ❑ Johnny Costa
- ❑ Andrew Fracapane
- ❑ Amedeo Mason
- ❑ Anthony Nedinis
- ❑ Steve Zausa
- ❑ Michael Goegan
- ❑ Adam Buzza (DPI Victoria)
- ❑ Michael Tran
- ❑ Giovanni Palma
- ❑ Justin Agosta
- ❑ Giovanni Randello
- ❑ Patrick Ulloa (IDO Victoria)

## Appendix II: Photo Gallery



