VG06116
Carrot Supply Information Intelligence Scoping Project

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The purpose of this final report is to communicate the successful delivery of project VG06116 E*stablish support to form a Carrot Supply Information Service and develop goals and operating protocols for the Service.*

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Media Summary

The carrot industry has identified a major impediment to maximising returns is the lack of market intelligence on supply and demand. This leads to a mismatch between market supply and demand thus decreased returns. This also has an adverse impact on customer satisfaction.

An inability to forecast supply (and demand) means the industry is unable to take advantage of domestic and export market opportunities.

Experience from other industries including apple and pears has demonstrated that a concerted effort to gain intelligence on supply and demand through the establishment of a Supply Information Service can lead to increased returns to growers, packers and other stakeholders in the supply chain.

To gauge the support for establishing a Supply Information Service for the carrot sector, the vegetable industry invested in a national scoping project. A consultant with recent experience in establishing similar Services was employed to, through a series of workshops throughout Australia gauge interest for and the boundaries of a Carrot Supply Information Service.

The workshops were led by John Baker from the Australian Fresh Fruit Company. Workshop participants in each state identified their information needs and priorities. Information sources for all priorities were identified. Issues relating to confidentiality of data and trust were openly discussed with growers and packers indicating both issues could be managed successfully.

It was recommended the vegetable industry implement a pilot Well Informed Carrot Grower project for an initial period of 12 months. An application to fund a pilot project is t be considered by the Vegetable Industry Advisory Committee at its March 2007 meeting.

Technical Summary

A major impediment to maximising returns to carrot growers is the lack of market intelligence on supply and demand. This leads to a mismatch between market supply and demand thus decreased returns. This also has an adverse impact on customer satisfaction. The industry is unable to take advantage of domestic and export market opportunities due to an inability to forecast supply and demand.

The establishment of a Supply Information Service in other horticulture industries including apple and pears has demonstrated that a concerted effort to gain intelligence on supply and demand can lead to increased returns to growers, packers and other stakeholders in the supply chain.

The project's goals were to, through consultation with carrot suppliers and suppliers/packers in all states, confirm the need for Carrot Supply Chain Information Service. The proposed Service would cover:

- Domestic market prices, product availability and movement, crop forecasts (volume and quality), marketing and promotion activities
- Relevant international information and developments
- Domestic and international planting and production information and trends
- Communication of information for the group (to the group and possibly others) to maximise:
    - Category management and development opportunities
    - The outcomes of R&D investment and
    - Grower profitability."

Workshops were held in each state to test and confirm the support for a Carrot Supply Chain Information Service. Participants in each state were asked to identify their information needs and priorities through a survey form, which was completed at the workshops or meetings.

Workshop participants identified their information needs and priorities by completing a short survey. For each category of information participants were asked to allocate a ranking, using the following criteria:

1. Essential
2. Desirable
3. Optional -useful, if it can be sourced, collated and reported cost effectively.
4. Not required

The top five information priorities identified by the 30 participants who took part from around Australia were:

1. Domestic marketing – pricing and volumes,
2. Current competitive products,
3. International market developments (retail environment, promotion, new products),
4. Crop forecasts - likely volumes,
5. International developments relating to China.

Workshop participants recommended a Carrot Supply Chain Information Service be piloted.

Introduction

Australia has an internationally competitive carrot industry that prides itself on quality and production efficiencies. Unfortunately supply and demand do not always equate leading to customer dissatisfaction and decreased returns to the supply chain. This lack of market intelligence on supply and demand is a major impediment to maximising returns to the supplier.

The industry consists of a number of large businesses producing a large percentage of the product. One business can have a major effect on regional and national supply. A whole of industry supply intelligence will allow industry to influence demand by moving product globally as well as program promotions to manage peak periods. This, however requires an inability for the industry to forecast supply (and demand) to take advantage of domestic and export market opportunities.

Other industries including apple and pears have demonstrated that a concerted effort to gain intelligence on supply and demand through the establishment of a Supply Information Service can lead to increased returns to growers, packers and other stakeholders in the supply chain.

To gauge the support for establishing a Supply Information Service for the carrot sector, the vegetable industry invested in a national scoping project. The goals of the project were to confirm the support for and boundaries of establishing a Supply Information Service for the carrot industry

Materials and Method

To gain an accurate view of what carrot growers of forming a Supply Information Service for the sector, the following methodology was adopted:

- Consultation to be with growers and grower/packers in each of the main growing regions in Australia
- Consultation to be a combination of workshops and one-to-one discussions
- All growers involved in the workshops and meetings to complete a survey

The workshops and individual meetings were arranged by the state vegetable Industry Development Officers who attended the meetings. The AUSVEG Industry Development Manager also attended each workshop/meeting.

Workshops were conducted in Devonport (Tas), Melbourne (Vic), Virginia (SA), and Perth (WA). Meetings with individual growers were held in Griffith region (NSW) and Fassifern Valley (Qld).

A similar approach was adopted for the workshops and meetings:

- Overview of the project, including results from the Supply Information Service adopted in other rural sectors
- Completion of the survey
- Feedback on the survey- from the group and a summary of feedback/comments from other groups obtained in the current round of consultation
- Discussion, including how a Supply Information Service could be funded- both pilot and on-going
- Other issues
- Summary, including confirmation attendees would be provided with the draft and final project reports

The survey asked respondents to identify their information needs and priorities
For each category of information participants were asked to allocate a ranking, using the following criteria:
1. Essential
2. Desirable
3. Optional - useful, if it can be sourced, collated and reported cost effectively.
4. Not required

A copy of the survey is included at Attachment 1.

Results

Overview of results

The top five information priorities identified by the 30 participants who took part the workshops and meetings from around Australia were:
1. Domestic marketing – pricing and volumes,
2. Current competitive products,
3. International market developments (retail environment, promotion, new products),
4. Crop forecasts - likely volumes,
5. International developments relating to China.

Information sources for some of these priorities (e.g. 2, 3 and 5) are already available or could be readily developed. Sourcing information for priorities 1 and 4 will require the collaboration and cooperation of industry participants. Similar circumstances exist for the other 17 priorities identified in the summary of the survey responses (Attachment 2).

All priorities and some potential information sources are listed in the Summary and Recommendations section of this report

Specific comments

The workshops and interviews resulted in a range of comments to support the information priorities. Where similar comments were made at more than one workshop, they are recorded at the beginning of this section. Comments specific to one workshop or region are recorded separately. An indication of the level of support at each location is also recorded.

a. Annual v. Perennial Crop

There was considerable discussion on the application of the Well Informed Grower concept to an annual crop like carrots (i.e. it is not the same as apples and pears). It was generally agreed there were advantages to sharing information and data, especially if it can influence prices gained in the future.

b. Confidentiality and Trust

While recognizing that confidentiality was critical to the success of the concept, much of the information identified at the workshops was already in the public domain. Other information must come from growers themselves and confidentiality was essential.

Trust was also essential (i.e. members had to feel the information being contributed was accurate and timely) and there were questions about whether there was enough trust in the industry to make the concept work. It was recognized that some degree of additional confidence and trust should evolve over time through participating in an information network.

It was generally agreed that information should only be shared with active participants (i.e. those that gave as well as received).

c. Crop Forecasting

Recent historical stocks/production figures are a good starting point. It was suggested to use these figures to build a model for volume forecasts for at least a month into the future or longer, if possible.

d. Pricing

Customer (and retail) pricing is important. It is important to recognise and record the different pricing structures for loose and prepacks.

Carrots have become a fairly stable priced item. Standard pricing helps, especially for prepacks. There is the potential to map supply with price fluctuations over time.

Use the member network to obtain supermarket buy prices, as well as the prices received from the different wholesale markets (as this will be more accurate than the market reporting service currently available).

e. Competitive Products

Information on competitive products was a high priority, but there was a range of views on what were competitors to carrots. No consensus was reached at or between meetings, reflecting the unique nature and position of carrots. This could be an area for further study. Views on competitive products included:

- Potatoes and broccoli
- Pumpkin and sweet potato (i.e. similar coloured vegetables, especially in food service)
- Depends on meal – with roasts it could be other orange-coloured vegetables or parsnips; other stew ingredients; with salads it may be none, maybe beetroot.
- Depends on season – sweet potato in winter, capsicum in summer.
- Freezer packs of mixed microwavable vegetables that do not include carrots could be a serious competitor.

f. International developments

What happens internationally has an impact on Australian carrot exports and also on the domestic market. Information needs to include:

- What is happening in China tactically – when China is short of product WA exports more, resulting in shortages in the domestic east coast markets. The reverse has also happened. Producers in the eastern states will benefit from knowing the WA export data.
- What is happening in New Zealand is important because it can have an impact on the Australian domestic market via imports.

g. Structure and Funding

There is a need to distinguish between the different information needs of grower/packer/marketers concentrating on the domestic market and those also active in export marketing, plus the needs of growers who do not market their own product.

Email dissemination of information would work, as most likely members have email access.

A range of funding options to take the concept to the next stage were identified, including:

- all R&D levy funding, and
- part member contribution, such as equal contribution from members and levies, then matched by HAL.

There was no consensus on the preferred funding model. This needs to be explored further as an important early step if the decision is to progress to the next stage.

Workshop specific comments:

Devonport (Tas)

- All the major grower/packer/ marketers were either represented at the workshop or responded subsequently.

- The trend for Tasmanian carrots is towards pre-packs, which represent 60-70% of domestic sales v. loose.
- Features of the Tasmanian industry included – a few major participants; a reasonable degree of self regulation; more programmed production and less unplanned production than some other areas.
- Crop forecasting could be modeled on onions, where one person is responsible for collecting data in each state and supplied to a national coordinator for collation and distribution
- **Level of Support**: All supported taking the concept to the next stage.

Melbourne (Vic)

- Three grower/packer/marketers attended, from different parts of the state.
- The Victorian trend is towards supply of prepacks rather than loose. Estimates range from 67% to 80% prepack. Quality and presentation of the prepack bag is important.
- The structure of the Victorian industry is different to Tasmania
- **Level of Support**: "What we hear about the proposal is good". Fully support taking the next step, but not fully confident it will work.

Virginia (SA)

- Eight growers (mostly smaller producers) and packer/marketers attended.
- It is essential to know movements in export markets
- **Level of Support**: Agreed it was worth going to the next stage.

Perth (WA)

- There are now about 14 growers in WA. Four were present, including the two largest, who between them represent 50% of the local market (Perth) and 75% of exports as well as shipping to east coast markets.
- Mix between loose and prepacked is 30-35% prepacked for domestic and 20% for export. i.e. opposite trend to the eastern states. Both consumers and retailers influence this pattern. Loose is seen as a premium product with a premium price.
- Best margins are in loose carrots – most WA marketers send product to the eastern states as loose.
- WA information requirements may be different to other states as WA is more export orientated.
- Information required – International developments, then pricing for domestic market, crop forecasting, competitive products, plantings and production.
- Through better information it may be possible to increase sales, but there is a need to confirm it is cost-effective to source the information.

Summary points:

- ➢ If WA supplies are short for exports, product will come from China not the eastern states
- ➢ Eastern states growers will benefit from export data from WA
- ➢ WA will benefit from domestic figures from the east
- ➢ Will assist margins therefore a good thing

- **Level of Support**: It is worth going to the next step. There is a need to convince growers not present that they will have more information on what is happening in the eastern states. The next Go/No Go step could be assessing the accuracy of information.

Griffith (NSW)

- Three of the main growers participated, via individual meetings.
- The main emphasis is on processing (juice carrots are supplied to two major processors located in Griffith and Mildura, who export to Japan). Production for processing is around 60,000 tonnes and increasing.
- **Level of Support**: Main interest and priority was on sourcing information on international developments in the juice market, especially Japan.

Fassifern Valley (Qld)

- The three main grower/packer/marketers participated, via individual meetings. They also source product from other growers in the district.
- The area used to be a significant exporter until about 3 years ago when China took over the market in Hong Kong and elsewhere in Asia.
- Main supply season is June to December, and is complementary with the Tasmanian industry for the balance of the year.
- **Level of Support**: The level of support for the concept varied; there was majority support to take the concept to the next stage.

Other Issues Identified

A number of other issues, associated with information, were also identified. Some issues were related to this study and some relate to other situations. These comments were recorded because they may be of interest to the carrot industry, Ausveg and others. These included:

Information Related:

a. Food Service

The food service industry is an unknown for carrots. Information is needed on the size of the sector, what penetration is being achieved by carrots and what are the opportunities.

b. Value-adding

Similarly, what is happening with value-added products (e.g. convenience packs), in Australia and internationally? How can the industry benefit?

c. Consumer Research

More information is needed on:

- Product uses – as a plate vegetable, in school and institutional canteens, platters etc, cooked v. raw,
- Frequency of purchase and use
- Volume of purchases

d. Engaging with retailers

The question as to where retailers fit into this initiative prompted a number of responses and suggestions, including:

- Engagement with retailers is important, including field visits, to share relevant information.
- Centralised supermarket buying is not a good move. It has resulted in a loss of local relationships and understanding.
- Polishing has sold more carrots, but it reduces the shelf life, especially for loose carrots. This explains why supermarkets have problems with loose carrots. Independent retailers are better product managers and have fewer problems. Assisting supermarkets to better merchandise carrots could have benefits right along the supply chain.
- Supermarket special buys are disrupting the market.

e. Processing

- Reliability and continuity of supply means harvest is sometimes undertaken in wet conditions, causing soil compaction
- Processors are suggesting moving to payments on carotene levels. Information is needed on the best varieties suited to the area, as well as improved cultural/management practices.
- There is an imbalance of information coming back from the market e.g. is the market growing, what new segments are emerging, what is happening with competitors (US costs of production etc) and trends?

f. Other:

- Some participants want to know more about outcomes of R&D projects (this was a strong sentiment from smaller growers). Include updates on R&D in teleconferences, plus other current issues e.g. use of chemicals.
- There needs to be a promotion component to the carrot levy; undertake the necessary research now so the industry is ready (like potatoes have done).

Information priorities, sources of information

The priorities for required information, and possible sources of information are as follows:

- Domestic marketing – pricing and volumes. Participants
- Current competitive products. Add to current report from Sydney Markets
- International market developments (retail environment, promotion, new products). Produce Marketing Association (PMA-US), USDA, Trade publications (‘Eurofruit’, ‘Asiafruit’ and their Congresses etc)
- Crop forecasts - likely volumes. Participants
- International developments relating to China. USDA, Trade publications (‘Asiafruit’ etc)
- Production R&D results. HAL, IDOs
- Potential Competitive Products. ‘Retail World’, ‘Progressive Grocer’ etc.

- Marketing R&D results. HAL, IDOs
- Domestic Plantings x State. ABS, participants
- Weather conditions (domestic). Participants, BOM
- Product Availability (domestic). Participants
- International developments New Zealand. Participants, trade contacts
- Domestic production x state x timing. Participants, ABS
- Forecasts of crop timing. Participants
- Product development R&D results. HAL, PMA, IDOs
- Domestic fresh, export fresh and processing production. ABS
- Forecasts of domestic crop quality. Participants
- Other domestic information. Range of sources, when available
- Domestic promotions. Supermarket catalogues, consumer magazines etc
- Domestic sales forecasts. Participants
- Domestic stock movements. Participants
- International developments USA. Participants, trade contacts, PMA

Discussion

The Scoping Project to identify the support for establishing a Carrot Supply Information Service proved to be a very worthwhile exercise to obtain an accurate view of growers and grower/packers on this issue. As detailed in the Results section, there was broad support for moving to the next stage; that is, pilot the Service. To cater for seasonal production in Tasmania and Queensland, a 12 month pilot program is required. The review of the success of the pilot would include examining:

- value of the information to participants,
- level of support by participants, and
- availability and accuracy of information.

There was differing views on some of the detail. For example, some growers could see little value (to them) of gathering data on international market developments. Others, however, viewed such information as the most valuable intelligence they would gain from a Supply Information Service.

Technology Transfer

Industry consultation has been a critical component of developing and implementing this project. The draft and final report from the consultants were distributed to all growers who participated in the project, and Industry Development Officers in each state. A copy of the consultant's final report is to be distributed at the Vegetable Product Group and IAC meetings in March 2007.

In November 2006 HAL arranged a forum at which industry sectors could share their experiences in establishing etc supply information services. The 'Horticulture Industry Market Information Show & Tell' forum was attended by representatives from many sectors including mushroom, avocado, vegetables, apple and pear, citrus and cherry. The

Project Leader Ross Ord and consultant John Baker from PMA participated in the forum and gave a presentation on the outcomes of the carrot Supply Information Service project.

Recommendations

Based on support received from carrot growers in all regions of Australia, the recommendation is that a project proposal be forwarded to the Vegetable IAC to fund a pilot Carrot Supply Information Service. The pilot should be conducted over 12 months commencing July/August 2007.

Note: In response to HAL's 2007/08 Industry Call of October 2006, a project proposal to pilot a Carrot Supply Information Service will be considered by the Vegetable Product Groups and IAC at their March 2007 meetings.

Attachment 1

Well Informed Carrot Grower Information Survey

To identify the information required by key businesses in the carrot industry, as well as identifying their importance and priority, the following list has been developed.

1. *If some types of information have been overlooked, please list them so they can be included for consideration,*
1. *For the categories of information listed below, please allocate a* ***ranking*** *of 1, 2, 3 or 4 using the following criteria:*
    1. **Essential**
    2. **Desirable**
    3. **Optional** - *useful, if it can be sourced, collated and reported cost effectively.*
    4. **Not required**

DOMESTIC PLANTINGS AND PRODUCTION (historically to now):

1. Plantings x State (ha)
2. Production x State (tonnes) and Timing
3. Fresh Market, Processing and Exports
4. Other (please specify) e.g. varietal trends in regions:……………………..

CROP FORECASTS FOR EACH REGION (coming up in the short term):

1. Likely Volumes
2. Timing
3. Quality
4. Weather conditions and impact on quality e.g. rain, heat/cold
5. Other (please specify):………………………………………………………

INTERNATIONAL DEVELOPMENTS/COMPETITORS:

1. Plantings, production, quality, timing, export intentions - CHINA

2. Plantings, production, quality, timing, export intentions – NEW ZEALAND
3. Plantings, production, quality, timing, export intentions - USA
4. Other Information (please specify):……………………………………….

DOMESTIC MARKETING:

1. Pricing and volumes sold in previous reporting period (e.g. 2 to 4 weeks)
2. Product Availability
3. Stock movement
4. Sales forecasts
5. Promotions information (e.g. supermarket promotions – catalogues etc)

COMPETITIVE PRODUCTS:

1. Current competitors (and who are they?)
2. Potential competitors
    a. Domestic plantings coming into production; changes in marketing
    b. Import Market access developments.

OTHER DOMESTIC INFORMATION:
(e.g. RPC's/One Touch packaging; retail consolidation)

OTHER INTERNATIONAL MARKET DEVELOPMENTS:
(e.g. retail environment, promotion, new products)

RESEARCH & DEVELOPMENT:

1. Production R&D results
2. Marketing R&D results
3. Product development e.g. Dehydrated carrot products as ingredients

Attachment 2

INFORMATION SURVEY SUMMARY

MAJOR INFORMATION AREA	Most Important (Ranking 1 to 10)	Also Important
DOMESTIC MARKETING	• Pricing and Volumes (1)	• Product availability (11) • Other Domestic Information (18) • Promotions (19) • Sales Forecasts (20) • Stock Movement (21)
COMPETITIVE PRODUCTS	• Current (2) • Potential (7)	
INTERNATIONAL DEVELOPMENTS	• Other International Market Developments (retail environment, promotion, new products) (3) • China (5)	• New Zealand (12) • USA (22)
CROP FORECASTS	• Likely Volumes (4) • Weather Conditions (10)	• Timing (14) • Quality (17)
R & D RESULTS	• Production (6) • Marketing (8)	• Product Development (15)
DOMESTIC PLANTING AND PRODUCTION	• Plantings by State (9)	• Production x State x timing (13) Fresh Market, Processing, Export (16)