

# Clare Valley Olive Producers

## Olive Industry Scoping Study

### Part 1 – Supply Audit and Processing Requirements

Commercial – In - Confidence

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## 1. Background

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The Clare Valley Olive Producers Pty Ltd (CVOP) was established from a common need within the Clare Valley region to share knowledge, information and direction on the development of the region's olive industry. The region's olive industry has reached a stage where the establishment of a local centrally located processing and bottling facility is being considered as having commercial potential.

The Clare Valley Olive Producers Pty Ltd together with the Mid North Regional Development Board commissioned a two-stage scoping study in order to realistically assess the commercial potential of such a facility:

- ▶ Supply audit
- ▶ Processing and bottling facility feasibility study.

Rural Directions Pty Ltd successfully tendered to undertake the scoping study. The project commenced in late January 2003.

A third component, market demand, is the subject of a separate study.

## 2. The Survey

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Rural Directions Pty Ltd undertook a survey of olive producers in the Clare Valley, Gilbert Valley, Jamestown/Bundaleer and Balaklava areas in order to determine:

- ▶ Current olive tree numbers and tree age;
- ▶ Current (2002) harvest (tonnage and litreage);
- ▶ Projected olive production (in tonnes) from existing groves to the year 2010;
- ▶ Existing and anticipated demand for a centrally located olive processing and bottling facility;
- ▶ Processing and bottling facilities currently used by existing growers;
- ▶ Demand for other associated infrastructure.

The survey was undertaken using a telephone survey process, supported by an initial introductory letter to provide details on the project and details for the background information that would be required for the survey.

### Step 1 – Refine the Database

The database for the survey was supplied by the Mid North Regional Development Board. The database represented a collection of people who have had association with the industry in the past. In some cases full contact details were recorded. In other cases, limited contact details were recorded.

The first step of the project involved the refining of the database. This was achieved firstly by meeting with the Steering Committee to determine:

- ▶ Growers who had exited the industry (Action: Delete from database);
- ▶ Possible postal details for people with no or limited contact details (Action: Source postal details or rely on local Post Office for initial contact);
- ▶ Active growers versus people with an historic interest in the industry (Action: Clarify active growers).

In the process of refining the database, some contacts were deleted (approximately 20 contacts) due to the inability of the consultants or Steering Committee to provide contact details. These were generally for contacts where only a name and non-specific location (eg. council area or Adelaide) were supplied.

### Step 2 – Develop Introductory Letter and the Survey

In association with the Steering Committee, the consultants developed an introductory letter and survey (Attachments 2 and 3). The survey questions focused on producing both qualitative and quantitative data on the supply of olives and the demand for future services.

As part of the survey development, the survey was tested with a grower to:

- ▶ Determine the approximate survey time for each grower (Could the surveys be completed on budget?);
- ▶ Test the introductory letter approach;
- ▶ Further refine some of the survey questions.

### Step 3 – Post Introductory Letters

The introductory letter was sent on Thursday 6<sup>th</sup> February to 141 people. The letter was sent from Larry Cavallaro on Mid North Regional Development Board letterhead to demonstrate to potential participants the support from the Board.

The letter included a fax-back response section to allow recipients to:

- ▶ Provide details of preferred contact times for the survey OR
- ▶ Request that their details be taken off the database.

As a result of feedback from the fax back forms and initial telephone contact with people, 23 names were deleted from the database. These represented people who attended an olive information session in the past and are no longer interested in planting olives.

### Step 4 - Survey

The survey was undertaken by five Rural Directions Pty Ltd staff. To ensure consistency in survey process, a script was developed for all of the survey team.

Surveys began on Monday 10<sup>th</sup> February and were completed on Wednesday 5<sup>th</sup> March. Fax-back forms were only effective in establishing interview times with around 25% of participants. The remainder of survey participants were phoned directly during the day or after hours. In some cases the interview occurred at the time of this initial phone call. In other cases (the majority of cases), a time was booked and a follow-up phone call was required.

The introductory letter proved extremely useful for the majority of interviews, increasing both the efficiency and effectiveness of the process. The participants were able to prepare themselves for the interview and collate information on current and future plantings. In a minority of cases, the introductory letter and attached table had to be re-sent prior to interview.

The following table provides a summary of the survey process:

<b>Initial Database for Mail-Out</b>	<b>Refined Database <sup>1</sup></b>	<b>Number of Surveys Completed</b>	<b>Number of Active Growers</b>	<b>Number of Inactive Growers <sup>2</sup></b>
141	117	88 (75%)	82	35

<sup>1</sup> The *Refined Database* is the database after non-growers have been deleted from the database.

<sup>2</sup> The inactive growers category is comprised of:

- ▶ Six people who currently have no trees planted but wish to remain on the database;
- ▶ Twenty-nine growers who could not be contacted (letters were sent to a postal address but no response was received).

### Step 5 – Compile Survey Responses

Survey results were compiled to meet the objectives of the project. A database was developed to assist in the compilation of survey results.

A “Work in Progress” meeting was held with the Steering Committee on Friday 28<sup>th</sup> February. At this meeting, the draft report was discussed and refined.

### Step 6 – Source ABS Data

Information was purchased from the Australian Bureau of Statistics (ABS) from the 2001 Agricultural Census (2000/01 Financial Year data) to provide comparison figures to the information obtained through the survey. It should be noted that the ABS data is only for primary producers in the survey area. Small growers who are not registered as primary producers, will not be represented by the data.

For the Clare and Gilbert Valleys, the following information was provided:

	<b>Clare &amp; Gilbert Valleys</b>	<b>Yorke Peninsula</b>	<b>Goyder</b>	<b>Wakefield</b>	<b>Total</b>
<b>Trees less than six years</b>	7,638	574	9,015*	7,426	24,653
<b>Trees six years and older</b>	42	0	474	5,968*	6,484
<b>Olive Production (kg)</b>	2,496	0	13,284*	294,420*	310,200
<b>Olives – Total trees</b>	7,679	574	9,489*	13,393	31,135

\* These figures have a high error value (between 25% and 50%) and should be used with caution

From this information, the following comments can be made:

- ▶ The largest planting of olives is in the Wakefield district council.
- ▶ Assuming that trees less than six years of age have little or no production, production from trees greater than six years is 47.84 kg/tree. However, there is a high error value associated with the bulk of the ABS figures.
- ▶ A predominance of trees (79%) are aged less than six years.

### 3. Specific Survey Findings

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The survey findings (Attachment 1) provided a wealth of information on the status of the olive industry through the project area. These findings provide information to meet the objectives of the first stage of the feasibility process:

The survey involved 82 respondents who have planted 73,326 trees. Of these trees, 52,024 are in the Northern Areas, Clare and Gilbert Valleys, Yorke Peninsula, Goyder and Wakefield Council Areas.

#### 1. Current Olive Grove Tree Numbers and Age

##### *Current Plantings*

Less than or equal to 5 Years	6 Years	7 Years	8 Years	9 Years	Greater than or equal to 10 Years
41,092	10,100	9,626	4,960	1,599	5,949
56.04%	13.77%	13.13%	6.76%	2.18%	8.11%
<b>Total Trees for Survey Group</b>					<b>73,326</b>

A significant proportion of trees in the project area (70%) are aged six years and younger. This is reasonably consistent with the ABS data that indicates that 79% of trees in the area are aged six years or younger.

The 73,326 trees in the survey is roughly double the 31,135 trees indicated in the 2000/01 ABS data. Allowing for some error values in the ABS data, this indicates that a significant number of trees have been planted in the intervening two years.

##### *Scale of Operation*

The majority of respondents (66%) are small growers with less than 1,000 trees.

Less than 500 trees	500 – 1,000 Trees	Greater than 1,000 trees
38%	29%	33%

##### *Future Plantings*

From the survey data, it is expected that future olive plantings will be comprised of:

- ▶ 18,719 trees which will be planted between 2003 – 2007;
- ▶ 700 trees which will be planted between 2007 – 2012.

## 2. Current (2002) Harvest by Olive Tonnage and Litreage

Harvest generally runs over six months from March to August.

The majority of groves (70%) are designed and managed to allow for mechanical harvest.

A number of respondents have not completed a harvest operation due to the age of their trees. The 2003 harvest is likely to be low due to the dry season in 2002.

From the 2002 harvest, there was a carry over of oil by 24% of growers. This translates into the following litreage:

	<b>Less than 500 litres</b>	<b>Greater than 500 litres</b>
Number of Growers	16	2
Litres	1,105	1,800

This 2,905 litres represents 6% of the potential 45,000 litres oil production from the 2002 season. This potential is calculated on the following assumptions:

- ▶ 18 % average oil yield;
- ▶ Yields per tree:
  - ▶ 5 kg/tree for 6 year old trees;
  - ▶ 10 kg/tree for 7 year old trees;
  - ▶ 15 kg/tree for 8 year old trees;
  - ▶ 20 kg/tree for 9 year old trees;
  - ▶ 30 kg/tree for 10 year and older trees.

There were 1,746 feral and old colonial trees which constitute 30% of the trees 10 years and older. These older trees would have contributed significantly to the 2002 harvest. In the future when more trees come into full production, the feral and colonial trees will be a less significant proportion of adult trees.

### 3. Projected Olive Production (in Tonnes) From Existing Groves to 2010

#### Projected Production 2003

	Trees	End Use	Trees	Estimated Production Per Tree	Kg Fruit	Kg of Oil
Less than or equal to 5 Years	41,092	Oil	39,709	0	0	0
		Table	1,383	0	0	
6 Years	10,100	Oil	9,223	5	46,115	7,885
		Table	877	5	4,385	
7 Years	9,626	Oil	9,493	10	94,930	16,233
		Table	133	15	1,995	
8 Years	4,960	Oil	4,437	15	66,555	11,380
		Table	523	20	10,460	
9 Years	1,599	Oil	1,549	20	30,980	5,298
		Table	50	25	1,250	
Greater than or equal to 10 Years	5,949	Oil	5,900	30	177,000	30,267
		Table	49	35	1,715	

#### Assumptions

The following assumptions have been made in the above table:

- ▶ A slightly higher production per tree has been allowed for table olives as a larger proportion of these are irrigated.
- ▶ Oil extraction rate is 18%.
- ▶ 1 tonne of oil = 950 litres of oil.

The annual projections from 2003 – 2010 will be developed under the next stage of this project – *Processing and Bottling Facility Feasibility Study*.

#### 4. Existing and Anticipated Demand for a Centrally Located Olive Processing and Bottling Facility

Respondents were asked to comment on the features they would require in a new processing facility. The following table summarises the responses:

Features	Very Important	Important	Not Important	Not Sure
Processing capacity:				
‣ Large tonnage	46.3%	29.3%	11%	13.4%
‣ Small tonnage	50%	37.8%	2.4%	9.8%
‣ Both	59.8%	24.4%	3.7%	12.2%
Bottling facility	30.5%	43.9%	19.5%	6.1%
Labelling facility	25.6%	43.9%	24.4%	6.1%
Batch processing	59.8%	30.5%	2.4%	7.3%
Storage facility:				
‣ Bulk	34.1%	34.1%	24.4%	7.3%
‣ Batch	26.8%	36.6%	28%	8.5%
‣ Bottles	24.4%	32.9%	32.9%	9.8%
Organic certification	19.5%	43.9%	23.2%	13.4%
Quality accreditation	56.1%	32.9%	1.2%	9.8%
Flexible hours of operation	51.2%	32.9%	8.5%	7.3%

From these responses it can be interpreted that to meet the needs of potential customers, a processing facility should:

- Be capable of crushing both small and large tonnages (84.2% very important and important to cater for large and small tonnages and 90.3% very important and important to allow batch processing). This is consistent with the number of growers with less than 1,000 trees (65.9%). To cost effectively allow for smaller batch processing, a batch processing cost will need to be determined. This is consistent with processing facilities in other regions.
- Provide oil bottling facilities on site (74.4% very important and important).
- Provide labelling facilities on site (69.5% very important and important).
- Provide storage facilities:
  - For bulk storage (68.2% very important and important);
  - For batch storage (63.4% very important and important);
  - For bottle storage (57.3% very important and important). There was more divergence in this question with some respondents expressing the opinion that it would be their responsibility to store bottled oil.
- Provide for organic certification (63.4% very important and important). This response was in spite of the fact that only 10.9% of growers are organic or in conversion. Respondents felt that whilst organic certification may not be important for them, the facility should cater for the needs of all growers.
- Provide for quality accreditation (89% very important and important). Most respondents were aware of the importance of general quality and food safety issues.
- Provide for flexible delivery and processing times (84.1% very important and important).

With the assumption that these features were taken into consideration, respondents asked to indicate their commitment to crushing fruit at a centrally located olive processing and bottling facility:

	<b>None</b>	<b>0 – 25%</b>	<b>25 – 50%</b>	<b>50 – 75%</b>	<b>&gt; 75%</b>	<b>Not Sure</b>
How much will be crushed at the facility?	7.3%	1.2%	1.2%	3.7%	72%	14.6%
Number of Trees Represented by Respondents	3,397	777	400	2,730	55,572	9,910

The majority of respondents (72%) indicated that they would expect to commit 75% or more of their annual production to processing at a local facility. This response was based on the proviso that:

- ▶ The criteria listed as important for the facility were give due regard;
- ▶ The processing plant was cost competitive with other processing facilities;
- ▶ That the fruit was not purchased for processing in another region.

The 72% of respondents represent 55,572 trees (76%) of the surveyed 73,326 trees. These trees can be split into the following age groupings:

- ▶ Five years or less – 34,994 (63%). Young trees are a significant component of current plantings and will soon begin to impact on the demand for processing facilities.
- ▶ Six years or more – 20,578 (37%). Older trees will be currently processed in other locations. However, the figure of 20,578 represents 64% of 32,234 trees aged six years or older. Assuming that the facility meets the criteria specified by the majority of respondents, a significant amount of fruit from these older trees would be committed to a regional plant.

The relatively large response of “Not Sure” is due to the uncertainty regarding much of the detail of the processing plant. In view of this uncertainty, respondents felt that this response most accurately reflected their commitment to the concept at this stage.

## 5. Processing and Bottling Facilities Currently Used by Existing Growers

Existing growers are using a range of processing and bottling facilities.

### *Crushing*

Location	Responses
Own plant	1
Riverton	32
Kadina	2
Virginia/Two Wells/Cavan/ Greenfields	13
Loxton	3

Some respondents have committed to travelling relatively large distances to ensure that efficient and quality processing is achieved.

A number of respondents expressed dissatisfaction with the current processing facilities. Issues raised include:

- ▶ Inability of plant to handle large volumes;
- ▶ Distance that needs to be travelled from grove;
- ▶ Quality issues with pressing in some years;
- ▶ Facilities for cooling olives prior to pressing and oil after pressing;
- ▶ Time factor (travel, queues at processing plant, slow processing).

### *Bottling - Oil*

Location	Responses
Bottle on own premises	38
Sold as bulk	4
Sold as fruit	2
Virginia	1
Riverton	3
Adelaide Hills	1

The majority of respondents bottle oil on their own premises. This is a reflection of:

- ▶ The development stage of the industry. Production levels are currently low.
- ▶ A significant number of growers are have small groves:
  - ▶ 37% of growers have less than 500 trees;
  - ▶ 66% of growers have less than 1000 trees.

### *Bottling - Table*

Location	Responses
Bottle on own premises	12

All respondents currently bottle table olives on their own premises.

## **6. Demand for Other Associated Infrastructure With The Processing and Bottling Facility**

Survey respondents provided a number of comments in relation to requirements for other infrastructure associated with the processing and bottling plant:

### ***Grower Support***

A number of respondents felt that the processing facility should have some associated grower support:

- ▶ Grower liaison service – 1
- ▶ Training for growers – 1.

### ***Marketing***

A number of growers felt that the processing facility should be connected in some way to the marketing of the resultant produce:

- ▶ Role in marketing of regional produce - 5
- ▶ Retail venue associate with processing plant (tourism integrated) – 1
- ▶ Tourism shouldn't overtake commercial processing – 1.

### ***Sale of Produce***

A number of respondents were interested in the possibility of selling fresh fruit directly to the processing facility:

- ▶ Able to sell fresh fruit direct to a buyer – 2.

It should be noted that the survey team separately reported that many growers expected to sell their olives as fruit and did not wish to pursue their own label and marketing arrangements. In this respect, their approach to growing olives reflects the winegrape industry in which there is a significant proportion of growers producing a grape commodity with no direct interest in the marketing or value adding component of the product chain.

### ***Chemical Analysis***

The ability to chemically analyse oil on-site was considered important by some respondents:

- ▶ Able to chemically analyse oil – 3.

### ***Storage of Oil***

Some respondents commented on the need for dedicated facilities for the storage of oil:

- ▶ Cool room for storage of oil to assist in maintaining quality – 3.

### ***Harvesting***

Associated infrastructure to assist with harvest was considered important by some respondents:

- ▶ Contract harvesting – 3
- ▶ Facility to hire crates and harvest equipment - 1
- ▶ Labour force for hand picking – 1.

### ***Waste Management***

Several respondents were aware of the need for sound waste management from the processing plant:

- ▶ Environmentally sound waste disposal - 3

### ***Packaging and Transportation***

Several respondents felt that there would be a need for transport infrastructure associated with the plant:

- ▶ Transport arrangements and facilities – 3.

## 4. Issues Relating to the Survey

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### Industry Environment

There has been a significant amount of new olive plantings both locally and interstate. This has been driven by a number of factors.

Olives have been viewed as a diversification opportunity by a number of landholders and investors. This has been assisted by:

- ▶ The adaptability of olives to a wide range of Australian growing conditions;
- ▶ Investment schemes which allowed small investors to gain access to the market;
- ▶ Down turns in other commodity prices at that time;
- ▶ The purchase of “lifestyle” properties by a swelling baby boomer population;
- ▶ A sympathetic taxation ruling that has applied to both olives and grapes since 30<sup>th</sup> June 2000. Under this ruling, businesses suffering a taxation loss have been able to use this deduction in the year in which the loss occurred, rather than carry it forward until the business generates more than \$20,000 of income in a taxation year.

This has contributed to an upturn in plantings through this period which is evidenced in both the ABS and project survey data. A significant proportion of trees (70%) are aged six years or younger. Due to the large number of young trees, there will be an increased need for the capacity to process olives at a local processing and bottling facility in the next two – three years.

### Limitations of the Survey

- ▶ The survey aimed to reach a representative group of growers in the project area. A survey target of 65% of was considered to be a realistic target for the project. The final number of people surveyed represents 75% of the refined database.
- ▶ The extent of the survey was limited by:
  - ▶ The extent of the database supplied by the CVOP and the Mid North Regional Development Board;
  - ▶ The project budget and timeframe. Due to budget and time constraints, grower names that arose at a late stage of the survey process were not included in the survey.
- ▶ The industry is relatively fragmented and consequently, there will be growers in the area who were not surveyed under this project. Surveys in other regions have had to resort to a “door-knocking” process to canvas a wider range of growers. Whilst this will increase the effectiveness of a survey, it will also significantly increase the cost.

**Key Opportunities**

Many growers expect to sell their olives as fruit and do not wish to pursue their own label and marketing arrangements. In this respect, their approach to growing olives reflects the winegrape industry in which there is a significant proportion of growers producing a grape commodity with no direct interest in the marketing or value adding component of the product chain.

There appears to be a market opportunity for a processing facility that purchases local fruit and sells produce (olive oil and table olives) under a local identifiable brand.

## **Attachment 1 – Compiled Survey Results**

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## Attachment 2 – Introductory Letter

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## Attachment 3 - Survey

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