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THE UNIVERSITY OF QUEENSLAND
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The contribution of the grape and wine industry to the regional economy of Queensland's Granite Belt

Rural Economies
Centre of Excellence

This report is one of a set of reports for a research project that looks at how economic understanding of the linkages amongst rural / regional industries can add to economic resilience, in the face of ongoing challenges for regional areas.

The key results of this stand-alone report on *The contribution of the grape and wine industry to the regional economy of Queensland's Granite Belt* are also incorporated into other reports for this project.

The University of Queensland research team was led by Dr Sally Driml of the Business School and Associate Professor Richard Brown of the School of Economics and Institute for Social Sciences Research.

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Reports for this Research Project include:

1. Tourism in the Granite Belt Destination Report
2. The Granite Belt Visitor Survey Report
3. The contribution of the grape and wine industry to the regional economy of Queensland's Granite Belt (this report)
4. Agriculture and Tourism – regional economic contributions and links. A case study of the wine and tourism industries in the Granite Belt region: Project Report

Executive Summary

This study reports the findings of the first comprehensive survey of grape and wine growers in the wider Granite Belt (GB) regional economy undertaken during the second half of 2021. The main purpose of the survey was to gather information to assess the direct and indirect contributions and impacts of the Granite Belt Grapes and Wine (GBGW) sector on the regional GB economy. Of the 59 growers in the region, a representative sample of 16 growers across the full range of farm sizes was interviewed in depth. (A copy of the questionnaire is reproduced in Appendix 1.)

The results reveal that the sector makes a significant contribution to the regional GB economy, both directly and indirectly. Directly it accounts for approximately $15.2 million in income per annum and generates employment for 440 full-time equivalent employees per annum.

The GBGW sector can also be considered a very high 'value-adding' industry, with value added accounting for over 77 per cent of gross revenues, compared with an average of around 35 per cent for the GB region as a whole. Most of value added in the GBGW industry consists of salaries and wages to paid employees, with owners' profit margins being relatively low, estimated here at around 12 per cent of gross revenue on average.

By far the greatest share of both capital and operating costs in the GBGW sector were incurred within the GB region itself (around 80 per cent). The balance was incurred mainly in other regions of Queensland with only 5 per cent incurred outside Queensland. This suggests that the GBGW sector provides strong economic linkages to other sectors within the GB region, which is explored further in some detail in this study.

The survey data were used to adapt a regional input-output model for the GB region, to quantify the backward and forward linkages from the GBGW sector into the rest of the local economy. It was found that for every $1 of wine supplied, a further $1.23 worth of output is generated in other sectors of the GB economy supplying inputs into the GBGW industry, which places it among the region's strongest sectors in terms of backward linkages. Furthermore, the GBGW sector generates $2.26 worth of additional output in other sectors

for every $1 of gape/wine output, making it the sector with by far the strongest forward linkages in the GB regional economy.

Moreover, the GBGW sector has strong links to, and participates directly in, the GB tourism industry, providing significant on-site cellar door and restaurant facilities, accommodation for tourists, as well as venues for functions and special events. Over 80 per cent of the sample offer on-site cellar door and/or restaurant/café facilities, with 75 per cent of these offering year-round operations, and around 30 per cent of the sample also providing on-site paid accommodation.

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1. Introduction

1.1 The Project: Aims and Objectives

The Queensland wine industry has grown significantly over the years to cover approximately 1,500 hectares throughout the State. Most of this growth has occurred during recent years with significant plantings throughout the southeast corner of the State. Queensland has two significant wine producing regions – the Granite Belt and the South Burnett. This is currently where most of Queensland's wine is produced. Despite the growth of this industry there is a paucity of reliable data with which to undertake rigorous quantitative economic analysis of the industry's contribution to the regional economy. This is of particular concern in relation to the identification of: (i) linkages to other sectors in the local economy, especially tourism, which help in diversifying regional income sources when climatic events cause variability in agricultural incomes; and (ii) constraints to the industry's future performance, especially in the context of assessing policy options to foster economic growth and income stability at the regional level.

This study assessed what primary data collection was required and how these could feasibly be gathered for the purpose of economic analysis to gain a better understanding of the sector's contributions to and interrelationships within the local economy. As an exploratory pilot study, it was limited to one of the two main wine-producing regions, the Granite Belt (GB), where the investigators have established links to local networks in the wine production sector, and whose support for the project was established.

The study is based on a customised survey of grape growers designed and administered by a University of Queensland (UQ) team, in consultation with key stakeholders in the region. Prior to this study there were no reliable data to assess the economic significance of the wine industry to the region or to Queensland's economy as a whole. This survey enabled the researchers to assemble a unique data set to model the value of the wine industry in terms of both the production of grapes and wine, and its interactions with and impacts on other sectors within the regional economy, especially the tourism sector. The study uses state-of-the-art economic modelling techniques to estimate both the direct contribution of the Granite Belt's Grapes and Wine industry (henceforth referred to as GBGW industry) to

the GB regional economy, and the strength of the linkages and flow-on effects with other sectors in the region.

With such information becoming publicly available it is intended that local representatives of the GB region will be better equipped to advocate for appropriate support when dealing with regional and state governments on behalf of the GBGW sector specifically, and the GB region generally.

On completion of this pilot study, it is the intention that the methodology developed here will serve as a 'template' to apply the same data collection and economic modelling processes and analysis to other regional areas of Queensland, including but not exclusively, other agricultural and wine-producing regions such as the South Burnett.

Two complementary studies of tourism in the GB region were undertaken for this project and are presented in separate reports. Information from the tourism studies and this GBGW industry study are also combined for discussion in the overall project report.[1]

[1] Tourism in the Granite Belt Destination Report, The Granite Belt Visitor Survey Report, Agriculture and Tourism – regional economic contributions and links. A case study of the wine and tourism industries in the Granite Belt region: Project Report.

2. Background to the GB Grape and Wine Industry

2.1. History

The wine industry in Queensland may to some seem in its infancy, however viticulture and wine production in the state date back to the mid-19th century, vines having been planted in the Granite Belt and near the town of Roma in the 1860s (Wine Australia Market Insights Queensland viewed 20/11/2021). The Granite Belt economy was initially based on tin mining and the area was offered as part of the Government Soldier Settlement Scheme (State Library of Queensland). Later it became a home to predominantly Italian migrants after both World wars and this heritage is still evident. It was then that table grape vineyards began to be turned to wine grape production (Granite Belt Grape and Wine viewed 20/11/21). The Granite Belt region is also home of the apple industry in Queensland (Parkes, Darbyshire et al. 2020) and is also an important producer of other pome and stone fruit and a number of other horticultural crops.

Robinson (2019) notes that it was from the 1970s that local family businesses began commercialising wine production for markets outside the region. In terms of wine grapes, the industry has in the past relied on production of wines from classic varieties. However, there has been a growing interest in alternative varieties (Sydney Morning Herald viewed 21/11/2021). The development of the Strangebird Wine Trail from the 2000's was reported by Robinson (2019) as a critical point in adoption of a differentiated marketing approach by local growers and wine makers. Strangebird wines are varietals produced from grape varieties grown in small quantities (less than 1 per cent of vines in Australia), and local producers who have diversified their crops and production feature these on the wine trail (Robinson 2019). The current Strangebird wine trail features 31 wineries.

2.2. Location and size of operations

Queensland hosts two official geographical indication (GI) wine growing areas – the Granite Belt (the larger of the two) and the South Burnett – with wines also being produced in a number of other smaller regions including the Scenic Rim, Somerset Valley, Gold Coast and

Sunshine Coast and Hinterlands, North Burnett, Darling Downs and Western Downs and Brisbane (Wickramasekera 2007).

Southernmost locales for quality wine grape production in Queensland are found in and around the Granite Belt at a latitude of 28°72' S and elevations ranging from 604 to 1,298 metres (Wine Australia Market Insights Queensland viewed 22/11/2021). A feature of these vineyards permitting production of quality wine grapes in Queensland's Granite Belt is their altitude.

The number of grape growers and wine makers was provided for this study by a database developed by the Queensland College of Wine Tourism at59 operators (unpublished data). The size of operations ranges from grape growing on 3 Ha and less land area (around half of the businesses) to only two businesses operating on greater than 9 Ha of land (see further details in Section 3.1).

2.3. Production and economic value

This study has the aim of gathering and reporting data on production and economic value at greater detail than is available from published data. Relevant published data which provide a ballpark estimate of production is produced by *Wine Australia* – the government statutory corporation whose role is to regulate and promote the Australian wine industry. *Wine Australia* publish an annual vintage report. The most recent of these reports summarising vintage 2021, although noting the Queensland crush (all Queensland regions) contributes less than 1 per cent to the total tonnage of wine grapes produced in Australia, lists the state's 2021 annual wine grape production at 365 tonnes (*Wine Australia National Vintage Report 2021*, viewed 19/11/2021).

The majority of wines produced in Queensland are destined for the domestic market however there is a growing demand for exports to Asian markets such as Japan, China and Taiwan and to the United Kingdom, Sweden and Canada (*Business Queensland*, viewed 23/11/2021).

2.4. Links with tourism

Many wine producers feature cellar doors which are visited by tourists. The current Granite Belt regional wine and tourism web site lists around 30 wineries advertising cellar doors and some with accommodation. A research study on collaboration amongst operators found that 63 per cent of wine industry respondents considered themselves to be in wine tourism (McGregor and Robinson, 2019). Our survey also reports (in Section 4) data on tourism facilities offered by GB wineries.

3. Data and Methodology

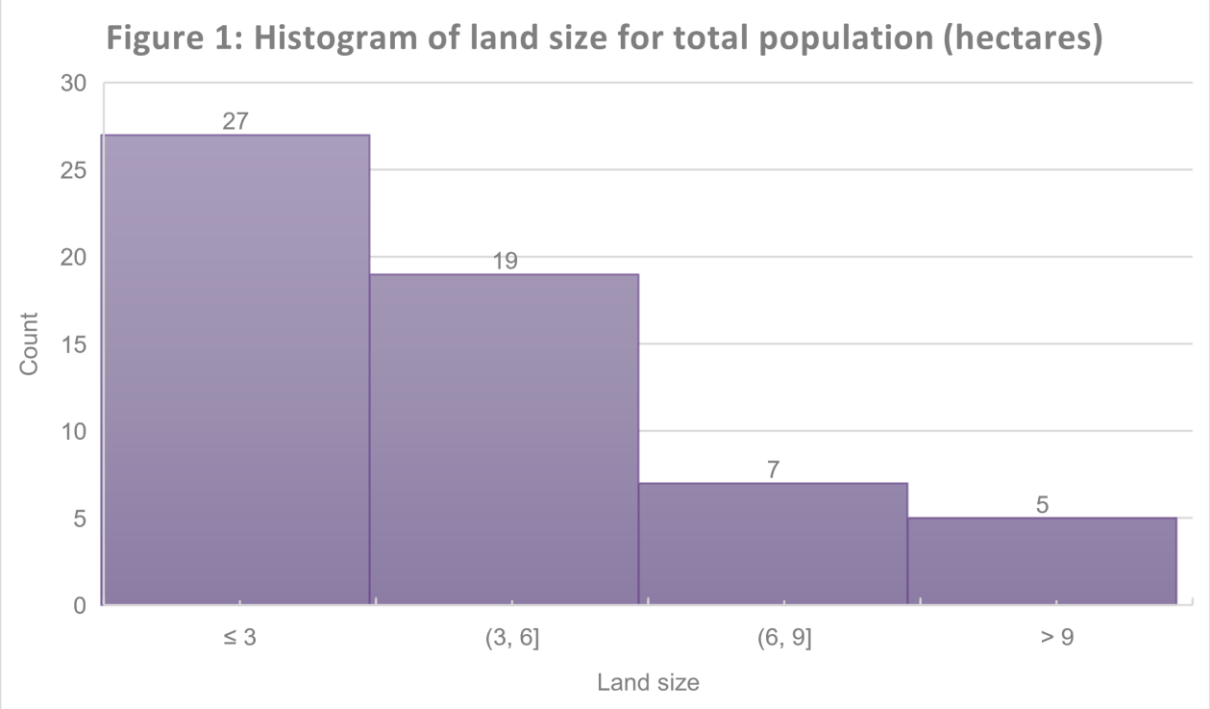
This section describes the data collection process and the methodology used for regional economic analysis in this study. Specifically, the following three key steps are covered: data collection and sampling; survey design; and economic modelling.

3.1. Data Availability and Sampling

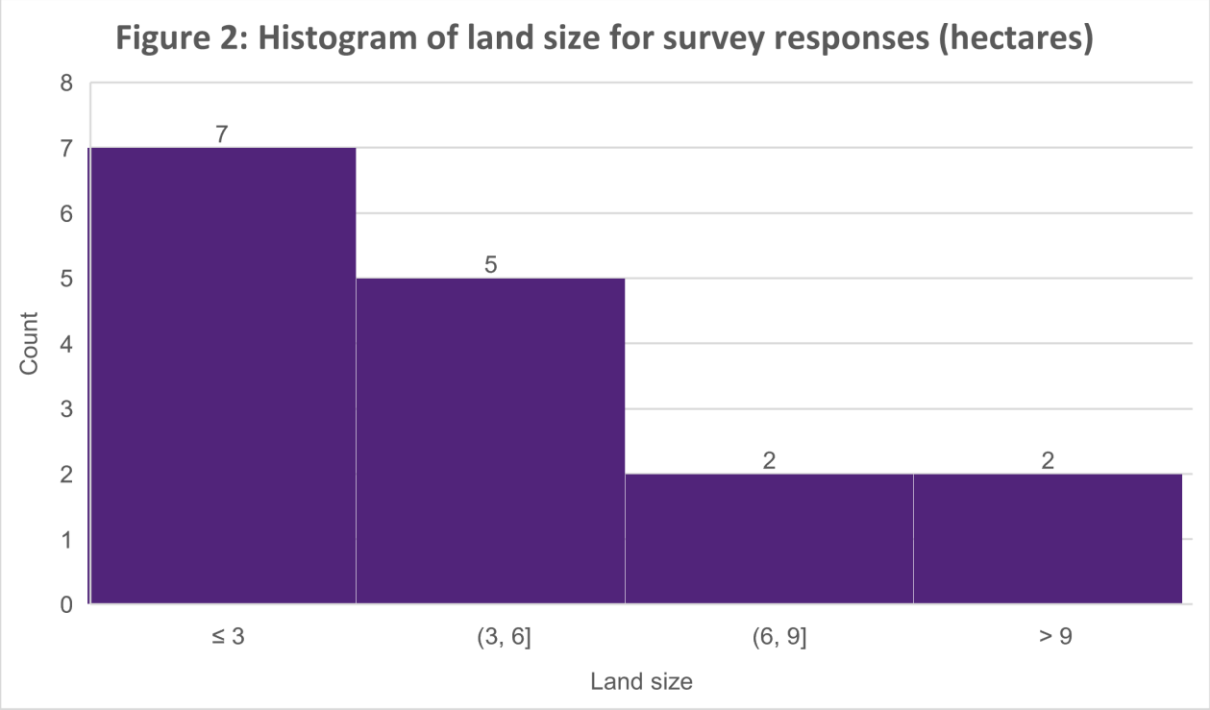
The primary data used in this study were collected through a survey of grape growing and wine making businesses within the GBGW industry during the second half of 2021. A list of 59 business contacts provided by the Queensland College of Wine Tourism was used to define the population of interest. The initial intention was to conduct a complete census of all 59 growers and wine makers, but a number of factors, most importantly the COVID-19 pandemic, affected the ability and willingness of growers to participate in the survey. For this reason, a quota sampling approach was employed to obtain a representative sample using a stratified sampling approach. This ensured that the population and the sample had the same distribution of a pre-determined character, with the population categorised into several strata, and from which a random selection of observations were then obtained within each stratum (Taherdoost 2016). Potential survey participants were classified into four groups based on the area of land under wine grape production.

As Figure 1 indicates, the total population consists of: 27 growers with land size equal to or less than 3 Ha; 19 growers with a land size between 3 and 6 Ha; 7 growers with a land size between 6 and 9 Ha; and 5 growers with more than 9 Ha.

Figure 2 summarises the distribution of the final sample, consisting of 16 respondents (11 were interviewed in person and 5 completed the survey online). The observations in each sub-group represent more than 25 per cent of the total population of the respective sub-group. The survey responses were recorded using the *Qualtrics* platform for the further statistical analysis discussed below.



Source: Self-made from QWCT contact list



Source: Self-made from survey data

3.2. Survey Design

A customised, comprehensive questionnaire was designed to collect the required data for the economic modelling. The survey was administered during the second half of 2021. The survey instrument consisted of 43 questions to gather the required quantitative information covering the following areas:

- Grape and wine production
- Components of total revenue
- Components of capital and operating costs
- Inter-regional and intra-regional trade in grapes and wine
- On farm tourism facilities

Additional open-ended questions to gather qualitative information on perceived opportunities for and obstacles to tourism and recommendations to develop the local tourism sector were also included.

It is worth noting that the questionnaire did not include direct questions on the dollar value of participants' revenues, for two reasons. First, as this information is normally considered commercially confidential it was acknowledged that participants would be reluctant to participate in the survey if pressed to provide such information, or they would possibly provide false information. In either case the reliability of the data collected would be compromised. Second, some data are publicly available from reliable secondary sources such as the prices of the different varieties of wines from wine producers' own websites, or data bases such as "Wine-Searcher.com". Accommodation prices are also available from on-line platforms such as "Booking.com" an "Wotif.com". For these reasons the survey questions were restricted to information on physical quantities of wine sales and provision of accommodation services, and not to the prices charged. Similarly, labour inputs were expressed as full-time equivalents (days, weeks, etc.) and not in terms of salaries or wages paid.

Due to the extreme variability in production in GB in recent years following a series of natural disasters, including severe droughts since 2017, bush fires in 2019, and the COVID-19 pandemic since 2020, respondents were asked to estimate average values for production,

sales, costs etc. over the preceding 3 to 5 years, rather than over the preceding 12 months which would be the more usual convention in surveys such as this.

Another key factor considered in this survey is the estimation of intra- and inter-regional trade for purchases of inputs, sales of grapes and wine, etc. given that one of the main objectives of this study is to gauge the importance of the GBGW sector in terms of its contribution to the local economy, both directly and indirectly, through the backward and forward linkages with other sectors in the local economy. To this end the economic analysis underlying this study relies heavily on the use of the analytical method of Input-Output (I-O) analysis, discussed in the following section.

3.3. Methodology and Economic Modelling

Input Output (I-O) analysis is conducted to show the linkages between sectors (industries) of an economy and what may happen if something changes, such as in increase in demand in one sector. I-O analysis uses a matrix (input-output table) to describe in dollar terms the outputs of each sector and where these intersect as inputs to other sectors or go to final demand sectors (household, government, private investment, and net export) and generate profits, wages and tax (Sun, Cadarso and Driml, 2020). Therefore, though I-O analysis, the inputs into the Grape and Wine industry from industries such as other agriculture, transport, manufacturing (machinery and equipment) can be quantified. In addition, the outputs of the Grape and Wine industry to other sectors such as food and beverage or accommodation can also be quantified. This allows a deeper understanding of the contribution of an industry to regional economic performance.

This study used a multi-regional input-output model (MRIO) to analyse the impact of the GBGW sector on the GB regional economy. In this section, we explain the steps involved in constructing a MRIO model and discuss the underlying assumptions and limitations of such modelling.

A MRIO model combines I-O tables for more than one region, each table representing the unique relationships in that region. The MRIO allows for trade between regions to be included in the analysis. In this study, the Granite Belt is one region, and the Rest of Queensland is represented as another region.

3.3.1. Overview of MRIO modelling

MRIO models estimate the contribution of a sector/industry to the economy through its trade with other sectors, within two or more regions. As the I-O tables present a 'static' description of an economy's intersectoral linkages during the recording period, a key challenge of I-O analysis is to estimate the 'dynamic' effects or 'impacts' caused by the introduction of change or 'external shock' to the local economy, for example, a boost or reduction in the production of one or more industries due to some real or hypothetical events.

The total economic impact in I-O analysis is measured in terms of the sum of both direct and indirect impacts. Direct impacts (also referred to as 'initial' impacts) gauge the change of total output, employment and value added, resulting directly from the shock to the sector in question. Indirect and induced impacts (also known as 'flow-on' impacts) capture the effects of the shock on other sectors. In this study, the focus is on the GBGW industry, primarily with respect to the strength of its direct and indirect impacts on the GB regional economy, but also in relation to the strength of these impacts beyond the local economy.

We explore these impacts based on the trade flow data collected from the survey and used in constructing I-O tables for the analysis of impacts across two regions: the GB region (Queensland Statistical Areas, level 3); and, the rest of Queensland. The initial step is to construct disaggregated I-O tables for the two regions from the *Australian National Accounts: Input-Output tables 2018-19*, based on some credible assumptions, as discussed in the following section.

3.3.2. Construction of Input-Output tables

Generally, there are three broad methods of constructing I-O tables; the survey method, the non-survey method and the hybrid method. Each has its own strengths and weaknesses. We adopt a hybrid method to create a new database for the GBGW industry, incorporated within an existing I-O table at a higher statistical level (state or national level). The advantages of using the hybrid method are twofold. First, it avoids the need for a costly data collection process for the whole population (which is almost impossible to capture), but at the same time allows for the use of original survey data under reasonable assumptions. Second, it helps to overcome problems resulting from the use of outdated data. In particular, the latest ABS data records 2018-19 financial year trade flows, which do not include any

adjustments or updates for any changes to economic relationships after this period. This study allows for an adjustment to intermediate interactions and exchanges between sectors based on the more recent five-year average (2017-2021) original survey data collected.

It is inevitable that some assumptions are required for the purpose of decomposing the national I-O table. The main assumption relied on here is that the GBGW industry follows the same technical relationships as in the grape and wine sectors of other regions or states in Australia. More specifically, inputs of the grape and wine industries captured by our survey questions include such items as labour, chemicals, water, farm equipment, glass bottles, caps, labels, energy, transportation costs, etc. It is very likely that grape growers and wine makers in other states will have the same categories and combinations of inputs to produce grapes and wine, regardless of the varieties. Of course, it is true that the varieties of wine grapes such as Shiraz, Verdelho, Chardonnay, etc. will result in different tastes of wine, and they may require different level of inputs, the 'recipe' (categories and combinations of inputs) can be expected to be very similar. And, it is most unlikely that the use of one or more inputs in the recipe will be absent in other regions; for instance, it would be virtually impossible to crush grapes without the aid of wine making machines, or to produce bottles of wine for the market without labels and caps. To this end it is reasonable to assume that the technical coefficients characteristic of wine production in the GB will be very similar to those in other Australian regions.

From the angle of economic estimation, it is also assumed that different varieties and types of wine are near perfect substitutes; we do not consider nor are aware of the existence of highly scarce or special wines in the GB region, such as, a 1982 Chateau Lafite. Having compiled a database based on average estimates over the last 3 to 5 years, the average prices of grapes and wine over this period can be assumed to representative for the whole industry.

To express this assumption in mathematical terms, we use the following equation:

$$a_{ij}^{GG} = a_{ij}^{QQ} = \frac{z_{ij}^{GG}}{x_j^G} \qquad (1)$$

where G and Q represent Granite Belt and the rest of Queensland respectively. This equation states that the ratio of inputs (denoted as z_{ij}^{GG}) sourced from sector *i,* over the production of output (denoted as x_j^G) in sector *j* are the same in both regions.

The discussion of the process of constructing I-O tables thus far has followed a non-survey method. The survey data collected through this study becomes important when the creation of a 'new' industry or sector within the I-O table is required: in this instance, a 'new' sector representing the GBGW industry.

According to the ABS's *Standard Industrial Classification* (2006), grape growing, and wine manufacturing are considered as vertically integrated units with the assumption that they are in the same production line, and often produced on the same site. However, our survey also captures the inter-regional and intra-regional flows between grape growers and wine makers, thus allowing us also to estimate the extent of trade between the grape growing and wine manufacturing industries. (Specifically, Grape Growing is coded as 0131 under the Agriculture, Forestry and Fishing sector while Wine Manufacturing is coded as 1552p under the Beverage and Tobacco Product Manufacturing sector.) We extract Grape Growing and Wine Manufacturing from their parent sectors and then combine them into a new sector in the MRIO model, using the survey data collected for this study.

A variant of a simple location quotient method (SLQ), the employment-based location quotient, is then used to decompose national accounts into regional accounts. This method uses employment data in different sectors as a proxy to disaggregate national accounts according to the relative industrial concentration of the target region as compared to the nation (Miller & Blair 2009). The expression for the SLQ method is as follows:

$$SLQ_i^G = \frac{e_i^G / e^G}{e_i^N / e^N} \qquad (2)$$

where the numerator represents the ratio of employment in sector *i* in the GB region over the aggregate employment in the GB region. The denominator is of same type but at the national level. Hence, this ratio can be used to measure the relative size of a sector within a region so that intermediate trades and outputs can be scaled accordingly. The input coefficients for the GB region can be described as:

$$a_{ij}^{GG} = \begin{cases} \left(SLQ_i^G\right) a_{ij}^N, \ if \ SLQ_i^G < 1 \\ a_{ij}^N, \ SLQ_i^G \geq 1 \end{cases} \quad (3)$$

When $SLQ_i^G \geq 1$, sector *i* is considered as more concentrated in this region than at the national level, which implies the input coefficients between the regional and the national levels are the same. On the other hand, if this ratio is less than 1, sector *i* is considered as less concentrated in this region than at the national level, so that the input coefficients of the region must be proportionate with respect to the relative concentration of sector *i*. Once this method is applied to all sectors within the region, a regional I-O table can be constructed.

The ABS national accounts have 114 sectors, but employment data are not always available for all sectors, we used the employment data (19 standard sectors) from *Queensland Regional Profiles* (Queensland Government Statistician's Office 2020) and estimated employment data from survey responses for the GBGW sector. The number of employed is expressed in Full-time Equivalent (FTE) and ABS defined FTE as full-time plus 0.5 part-time workers, while we added casual workers in measuring the employment impact in the MRIO model.

Since only a few sectors have interconnections with the grape and wine industries, it is unnecessary and less credible to use a detailed 114 sector I-O table for the GB region. A MRIO model was therefore constructed for the GB region and the rest of Queensland with 20 sectors (19 standard sectors plus the combined Grapes and Wine sector with estimates from the survey data).

4. Survey Data Results and Descriptive Statistics

As previously noted, the survey of wine growers consisted of 16 respondents in total, spread across the four categories of farm size as shown in Figure 2 above.

This section presents the summary statistics from the survey. Given the very small numbers of observations within the farm-size sub-groups, only the data for the whole sample are presented in the following tables. All sample mean values reported here are weighted across the land-size categories. Among the 16 respondents, two of the largest growers in the region were included. This meant that unweighted means would have resulted in strong upward biases, which therefore required the estimation of weighted means[2] The means reported here represent the weighted average for all GBGW growers and will be higher than the average production for the smallest growers (almost half the growers have a land area of 3 Ha or less) and lower than production for the two largest growers in particular.[3]

Table 1: Grape and Wine Production

Variable	Mean	Min	Max
Land Area for grape production (Ha)	4.1	1.5	36.5
Land Area for other agricultural uses (Ha)	0.4	0	4
Grape Production (tonnes/annum)	12.8	1	90
On-site Wine Making Facilities (% growers)	71.4%		
Sell wine (% growers)	85.7%		
Wine Production (litres/annum)	7,554	1,000	54,000
Grapes Crushed for Own Wine Labels (tonnes/annum)	11.9	1	90
Grapes Crushed for Other Wine Labels (tonnes/annum)	3.9	0	17

As shown in the first two rows of Table 1, most of the arable land area is dedicated to wine grape production (4.15 Ha on average) with a range from 1.5 to 36.5 Ha. Land used for other agricultural purposes is only 0.4 Ha on average, ranging from 0 to 4 Ha. The mean output of grape production is 12.8 tonnes/annum, ranging from 1 to 90 tonnes. For wineries with a

[2] To obtain 'weighted means' the following procedure was followed: mean values were calculated for the sample excluding the two large outliers. The mean values were then multiplied by a 57 to obtain aggregate values for the population, excluding the two outliers. The observed values for the two outliers were then added to obtain aggregate values for the whole population of 59 growers. The population means were then derived by dividing aggregate values by 59.

[3] For this reason, mean values for the smaller growers (vineyards of 3 Ha or less) are also reported, but readers should note that the sub-sample size is too small for these averages to be statistically robust.

land area of 3 Ha or less, their mean of grape production is 8.93 tonnes, ranging from 1.5 to 15 tonnes.

In terms of wine production, 71 per cent of survey respondents had on-site wine-making facilities, while a larger proportion, 86 per cent, sold wine from their vineyards – with approximately 14 per cent contracting-out the wine-making processes to other growers. The mean volume of wine produced was 7,554 litres per annum, ranging from 1,000 to 54,000 litres. For wineries with a land area of 3 Ha or less, the mean volume of wine produced was 5,780 litres per annum, ranging from 1,000 to 11,000 litres. The average tonnage of grapes crushed for wine was 11.9 tonnes/annum (ranging from 1 to 90 tonnes) and 8.9 tonnes for the small wineries with a land area of 3 Ha or less. As the average tonnage crushed is greater than the average tonnage grown, some wine producers would have been importing grapes from outside the GB region. Data on the trade in wine grapes and contracting of wine-making, both intra- and inter-regional, are shown in Table 2.

Over 70 per cent of respondents (71 per cent) sold grapes to other wine-makers; averaging 8.91 tonnes/annum, with range of 0.5 to 20.5 tonnes. By far the greatest share (95 per cent) consisted of intra-GB regional sales. On average, 50 per cent of respondents indicated that they had purchased grapes from other growers; 9.2 tonnes/annum on average, ranging from 5 to 14 tonnes. Of these sales, almost 70 per cent were within the GB region, while a surprising 20 per cent were sold outside of Queensland.

As not all wine-grape growers had on-site wine-making facilities, it follows that some send their grapes to other producers to make wine on their behalf, although this was true for just over 20 per cent of the sample, who contracted-out, on average 7.43 tonnes/annum (ranging from 0.8 to 20.5 tonnes). Most of these contracts (83 per cent) were with other growers within the GB region. Only 14 per cent contracted-in wine production on behalf of other grape growers. However, the average volume of such contracts was significantly greater (16 tonnes per annum) than the volume contracted-out by other GB grape growers. The reason for this is that a significant share of the contracted wine production came from grape growers outside the GB region (47 per cent from other Queensland regions, and 39 per cent from outside of Queensland).

Table 2: Intra- and Inter-regional Trade in Wine Grapes

Grapes Traded	Mean	Min	Max
Sell grapes (% growers)	71.40%		
Grapes sold (tonnes/annum)	8.91	0.5	20.5
Destination Grapes Sold (% breakdown)			
GB	95.22%		
Rest of QLD	4.78%		
Outside QLD	0.00%		
Buy grapes (% growers)	50.00%		
Grape bought (tonnes/annum)	9.2	5	14
Source Grapes Bought (% breakdown)			
GB	69.95%		
Rest of QLD	9.83%		
Outside QLD	20.22%		
Grapes Sent Elsewhere for Wine-Making (% growers)	21.43%		
Grapes Sent Elsewhere (tonnes/annum)	7.43	0.8	20.5
Destination Grapes Sent Elsewhere (% breakdown)			
GB	83.33%		
Rest of QLD	16.67%		
Outside QLD	0.00%		
Produce Wine for Others (% growers)	14.30%		
Grapes Received for Contract Wine-Making (tonnes/annum)	16	10	90
Source of Contracted Grapes Received (% breakdown)			
GB	46.68%		
Rest of QLD	14.01%		
Outside QLD	39.31%		

One point that is clear from these tables is that the GBGW sector involves significant trade in grapes and wine within and beyond the GB region itself. Table 3 provides information about the composition of sales of GB wine.

Table 3: Composition and Sources of GB Wine Sales

	(% total GB wine sales)
Direct Cellar Door	68.30
Retail in GB	10.25
Wholesale in GB	11.42
Total in GB	**89.97**
Retail outside GB	8.69
Wholesale outside GB	1.34
Total outside GB	**10.03**

Almost 90 per cent of GB wine is sold within the region itself, and more than two-thirds of wine sales are direct to the customer via the cellar door (68 per cent). Around 22 per cent of sales are to the retail and wholesale trade within the GB, and just over 10 per cent are to the retail and wholesale trade outside the GB region.[4]

Table 4 shows the contribution of grape and wine sales to farm revenue, relative to other income sources.

Table 4: Composition of Gross Farm Revenue

	(% total revenue)
Own Wine Sales	68.4
Wine Making & Grape Crushing for Others	10.4
Accommodation & Food	8.7
Other On-farm Activities	11.5
Other Non-farm Activities	1.0
Total Gross Farm Revenue	100.00

Together, wine sales and revenue from contracted grape crushing and wine making, amounted to almost four-fifths of total farm revenue (68 per cent and 10 per cent

[4] Club sales and on-line sales are included as part of the retail trade

respectively). On-site accommodation and food services, plus other on-farm activities accounted for the almost all other income (9 and 12per cent respectively.

Table 5 shows further details about growers' participation in tourism-related activities.

Table 5: Participation in Selected Tourism-Related Activities

Activities	Mean	Min	Max
Offer On-Site Accommodation (% growers)	28.60%		
Rooms Available (number/night)	4.2	1	11
Guest Capacity (number/night)	6	2	12
Room Nights Sold (number/annum)	359.4	100	700
Cellar Door/Restaurant/Café On-Site Facilities (% growers)	81.25		
Year-Round Operation (% all months in year)	75.00		
Frequency of Operation (%)			
Daily	46.15		
Weekends	30.77		
Occasional	23.08		
Facilities Available for Functions/Events (% growers)	37.50		
Participation in Festivals (% growers)	56.25		

Almost 30 per cent of respondents offered on-site accommodation, with an average capacity of 4.2 rooms (ranging from 1 to 11 rooms); or, 6 guests (ranging from 2 to 12). Over the preceding years, the average number of room nights sold was just under 360 (almost one per day of the year) with a range from 100 to 700 room nights.

Over 80 per cent of respondents offered on-site cellar door and/or restaurant/café facilities, with 75 per cent of these offering year-round operations. Almost one half (46 per cent) were open on a daily basis, with 31 per cent open over weekends only. The remainder opened only on an occasional basis.

Over one-third (38 per cent) of respondents also make their facilities available for functions and events. And, over half participate in off-site festivals.

Table 6 provides details of the respondents' costs – both capital and operating costs – in terms of their composition and the regional allocation of where these costs are incurred.

Table 6: Composition and Regional Allocation of Capital and Operating Costs

Capital and Operating Costs	Mean	Min	Max
Capital Costs			
Average ($ per annum)	$51,030	$500	$222,500
Composition (% breakdown)			
Vine stock	7.54		
Buildings	31.08		
Motor Vehicles	12.44		
Fencing	5.66		
Irrigation	2.22		
Wine processing machinery	9.47		
Accommodation facilities	24.68		
House durables	0.53		
Other	6.37		
Operating Costs			
Average ($ per annum)	$226,015	$15,100	$866,500
Composition (% breakdown)			
Paid Labour	56.00		
Chemicals	7.39		
Water	1.70		
Farm maintenance supplies	1.99		
Glass bottles	4.80		
Corks/caps	0.53		
Labelling	1.51		
Transportation	0.81		
Marketing & Sales	1.15		
Accommodation & Food	10.90		
Energy costs	5.86		
Other (including finance & insurance)	7.36		
Regional Source of Costs (% breakdown)			
Capital Costs			
GB	78.63		
Rest of QLD	15.51		
Outside QLD	5.86		
Operating Costs			
GB	83.14		
Rest of QLD	12.04		
Outside QLD	4.82		

Excluding the cost of the land itself, which this study did not estimate, the largest share of annualised capital costs is in buildings (other than accommodation) (31 per cent), approximately a quarter of capital costs are in accommodation facilities (25 per cent), and vehicles are a notable cost (12 per cent). Annual capital expenditure on vine stocks was 8 per cent, with wine-making equipment, accounting for just under 10 per cent.

Most worthy of note is that by far the greatest share of both capital and operating costs were incurred within the GB region (around 80 per cent in both cases). The balance was incurred mainly in other regions of Queensland with only 5 per cent incurred outside Queensland. This suggests that the GBGW sectors provides strong economic linkages to other sectors within the GB region.

The strength of such 'backward' and 'forward' linkages, and flow-on effects from the GBGW sectors are explored in some detail in Section 5.

By far the largest component of operating cost is labour (56 per cent). This includes all categories of labour. 'Paid labour' in Table 7 refers to employees who earn wages and salaries. 'Unpaid labour' refers to owners and family members who do not earn a wage or salary but share in returns after deduction of costs and tax. Where owners and family members provide their own labour 'unpaid' these are not included in estimates of total labour costs but are treated separately in the calculation of gross and net operating revenue in Table 8 below.

The breakdown of employment is provided in Table 7.

Table 7: Employment by Category of Labour (FTEs)

Labour Category	Sample Average	Total GBGW	% Total
Owners	1.72	101	23
Other Unpaid Labour	1.92	113	25.6
Total unpaid	**3.64**	**214**	**48.6**
Managers	0.52	31	7.0
Permanent Employees	1.31	77	17.5
Casual Labour	1.99	118	26.8
Total paid	**3.82**	**226**	51.3
Total Employment	**7.93**	**440**	**100.0**

The average grower utilises around 8 full-time equivalent (FTEs) employees per annum (including owners), however this figure includes some unpaid labour, including the owners themselves and family members. When only paid labour is included, the average is less than 4 FTEs per annum. If average labour utilisation is extrapolated across the entire sector it would amount to 440 FTE positions in the GB region, including the owners' and their families' unpaid labour.

Owners and other unpaid (family) labour provide approximately one-half of the total labour (23 per cent and 26 per cent respectively). In relation to paid employees, the largest category is Casual Labour, accounting for over 27 per cent of the total employees (or, 52 per cent of paid employees). Permanent employees account for a further 18 per cent (or, 34 per cent of paid employees) and Managers, 7 per cent (or, 14 per cent of paid employees).

Table 8 reports an estimate of Gross and Net Operating Revenues which provide an indication of net income to farm owners, before depreciation and tax. From the data reported on the percentage composition of gross revenues (see Table 4) and the total volume of wine sales (see Table 1) it is possible to estimate average farm gross and net operating revenue[5].

Table 8: Estimated Gross and Net Operating Revenue and Value Added

Gross Revenue from:	**$/grower**	**%**	**Aggregate GB ($)**
Own Wine Sales	176,258	68.4	
Wine Making & Grape Crushing for Others	26,836	10.4	
Accommodation & Food	22,327	8.7	
Other On-farm Activities	29,627	11.5	
Other Non-farm Activities	2,576	1.0	
Average Gross Revenue (total)	257,624	100.0	
less Operating Costs (incl. paid labour)	226,015		
Net Operating Revenues (before depreciation and tax)	31,609		
Total Gross Revenue in GB			**15,199,816**
Total Value added in GB **(Gross revenue - operating cost (excl. paid labour)**			**11,760,248** (or, 77.4% of Gross Revenue)

[5] This is based on our survey estimate of 12,700 litres per annum (Table 1) and using an average selling price of $20 per bottle. This price estimate draws on information from both on-line GB wine sites on selling prices (less GST), and discussions with key informants among the survey respondents regarding wine club discounts, promotional wine-tasting events, etc.

This gives an estimate of average gross revenue $257,624 per grower per annum.

Estimated average operating costs amounted to $226,015 per annum, giving an estimate for Net Operating Revenue (before depreciation and tax) of around $32 thousand per grower per annum. This represents only 12 per cent of average total revenue, which could be considered an indication of a relatively low profit margin in comparison with other sectors. Again, it should be noted that these revenue estimates are averages for all GBGW growers. The smaller growers, with a land area of 3 Ha or less, are likely to earn lower net revenues per hectare, and the two largest growers much more than this average.

In terms of aggregate revenue across all 59 growers, these per grower estimates amount to $15.2 million per annum in gross income terms and $11.8 million in terms of total value added. Although the profit margin appears low, total value added (including salaries and wages to paid labour) is over 77 per cent of gross revenue, making this amongst the highest value-adding industries in the region.[6]

[6] The results of the I-O analysis indicate that the average ratio of value added to gross output was around 35 per cent, or half that of the grapes and wine industry.

5. Results of Input-Output Analysis

In terms of overall size, the GBGW industry contributes approximately $15 million towards income generated by the local (regional GB) economy. The GBGW sector can be considered an important but not a major player in terms of its direct contribution to the local GB economy. However, it is evident from the preceding discussion of the survey data, and from the findings of the other studies on tourism in the region, that the GBGW also makes significant indirect contributions to the local GB economy in a number of respects.

First, through the tourism attractions it offers: our survey found that over 80 per cent of respondents offer on-site cellar door facilities (with 75 per cent of these open year-round), and 30 per cent offer on-site paid accommodation facilities for tourists. Thus, the grape and wine producers are a critical part of the infrastructure of the GB region tourism industry, Furthermore, the cellar doors and other facilities are key elements of the overall attraction for visitors to the GB region, who spend money at the wineries but also on other accommodation, food and beverage and attractions in the GB region.

Second, the production and sale of wine, and other services offered by the GBGW sector, contribute through the linkages and stimuli of their activities to local suppliers providing inputs (e.g. labour, transportation, agricultural suppliers, etc), and, to local businesses using their outputs (mainly wine, but also accommodation and event services) as essential supplies into their activities. These are referred to respectively as ‘backward and forward linkages’ in the analysis of a sector’s contribution to a local economy.

The overall importance of a sector’s contribution to the local economy therefore depends highly on the strength of these linkages. For instance, if all or most inputs into a local sector are sourced from outside the region, the local ‘backward linkages’ will be negligible or very weak and will make little in the way of additional indirect contributions to local economic activity. In the ideal world, we would like to see most inputs into a sector sourced locally, rather than imported.

Similarly, forward linkages measure the extent to which the output of one sector constitutes an important input into the economic activities of other sectors in the local economy. For instance, if all the wine produced in the GB were to be sold (exported) out of the region, it would have little or no forward linkages into other sectors within the GB economy. From a local, GB perspective, we would therefore also prefer to see strong forward linkages into other GB sectors, such as tourism and retail trade, purchasing GB wines. Of course, this is not to say that exporting wine from the GB region is not important to the regional economy; the greater the demand, irrespective of its source, the better from the industry's perspective. This analysis focusses mostly on the contributions, direct and indirect, of the GBGW sectors to the local GB economy. However, the strength of these linkages beyond the GB region are also discussed.

I-O analysis (as summarised in Section 3) allows us to gauge the strength of both backward and forward linkages. In this study we combined our primary, survey data with existing secondary data and I-O models to estimate the strength of the backward and forward linkages of the GBGW sector.

The results of our analysis as shown in Table 9 are most encouraging from a GB perspective, which compares the strength of the backward and forward linkages for each sector of the GB region.

In terms of total backward linkages, the GBGW sector is strong. For every $1 of wine produced, a further $1.23 in output is generated in other sectors of the GB economy supplying inputs into the industry. In comparison with other sectors: the strongest backward linkages are in Arts and Recreation ($1.83) followed by Information and Telecommunications ($1.58). The Grapes and Wine industry ranks 7th out of the 20 industries.

Table 9: Backward and Forward Linkages for the GB Regional Economy

Industry	Backward	Rank	Forward	Rank
Agriculture, Forestry & Fishing	1.30	6	1.49	4
Mining	1.20	10	1.00	19
Manufacturing	1.44	3	1.03	5
Electricity, Gas, Water, etc	1.22	8	1.01	8
Construction	1.06	17	1.01	7
Wholesale Trade	1.21	9	1.01	11
Retail Trade	1.04	18	1.00	14
Accommodation & Food Services	1.13	13	1.57	3
Transport, Postal & Warehousing	1.07	16	1.02	6
Information Media & Telcoms	1.58	2	1.00	15
Financial & Insurance Services	1.18	12	1.00	13
Rental, Hiring & Real Estate Services	1.33	5	1.01	10
Professional, Scientific & Technical Services	1.20	11	1.01	9
Administrative & Support Services	1.37	4	1.97	2
Public Administration & Safety	1.08	15	1.00	17
Education & Training	1.04	19	1.00	18
Health Care & Social Assistance	1.02	20	1.00	20
Arts & Recreation Services	1.83	1	1.00	16
Other Services	1.11	14	1.00	12
Grapes & Wine	**1.23**	**7**	**2.26**	**1**

The forward linkages column in the table shows that for every $1's worth of production in the Grapes and Wine sector, a further $2.26 of output was induced in other sectors of the GB regional economy. This shows that the GBGW sector has the strongest forward linkages of any sector in the local economy; the next strongest being Administrative and Support Services ($1.97) followed by Accommodation and Food Services ($1.57), and the rest of Agriculture etc. $1.49.

These results show that the GBGW industry is generally dependent on intermediate trade with other sectors in GB, in terms of both its inputs and outputs.

6. Summary and Conclusions

This survey-based case study of grape and wine producers in the GB region has revealed a number of important points about the role and significance of this sector in the local economy. These can be summarised as follows:

The GBGW industry contributes approximately $15 million per annum towards income generated by the GB regional economy.

The GBGW industry can also be considered a very high 'value-adding' sector, with value added accounting for over 77 per cent of gross revenues, compared with an average of around 35 per cent for the GB region as a whole. Most of value added in the GBGW industry consists of salaries and wages to paid employees, with owners' profit margins relatively low, estimated here at around 12 per cent of gross revenue on average. However, if owner-managers also draw salaries, which are included as operating costs, their combined earnings would be a greater percentage of gross revenue.

By far the greatest share of both capital and operating costs in the GBGW industry were incurred within the GB region (around 80 per cent). The balance was incurred mainly in other regions of Queensland with only 5 per cent incurred outside Queensland. This suggests that the GBGW industry provides strong economic linkages to other sectors within the GB region.

In terms of employment, the GBGW sector accounts directly for over 440 full-time equivalent jobs in the region per annum, including the labour of the owners of the grape growing and wine producing enterprises and their families.

Apart from its significance in terms of its *direct* contribution to the local economy, the grapes and wine industry makes a highly significant *indirect* contribution in a number of important respects:

the grape and wine industry offers a critical attraction for tourism to the GB region, with over 80 per cent offering on-site cellar door facilities (with 75 per cent of these open year-round), and 30 per cent offering on-site paid accommodation facilities for

tourists. (Further links to the tourism industry are discussed in detail in other reports from this research project.)

the GBGW sector displays strong backward and forward linkages into the local economy, indicating that other sectors are highly reliant on it both as a source of demand for their outputs, and, as inputs into their economic activities. It is estimated that the GBGW sector generates $2.26 worth of additional output in other sectors, for every $1 worth of gape/wine output, making it the sector with by far the strongest forward linkages in the GB regional economy. For every $1 of wine supplied, a further $1.23 in output is generated in other sectors of the GB economy supplying inputs, which also places it among the region's strongest sectors in terms of backward linkages.

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Appendix 1: Survey Questionnaire

Granite Belt Grape Growers/Wine Makers Survey

Questionnaire Number

Production

Part 1 (a). This section includes questions about the main characteristics of your grape and wine production and related activities. When answering these questions, please take an 'average year' perspective - over the past 3 to 5 years. This period covers the recent drought, bush fire and Covid-19 impacted years.

Q1. How long have you been operating your business?

years

Q2. Does your business grow wine grapes?

Q3. What is the total area (in hectares) of your land that is allocated to grape growing, on average over the last 3 to 5 years? What is the total area (in hectares) allocated to growing other crops?

Land allocated to growing grapes (hectares)

hectares

Land allocated to other crops (hectares)

hectares

Q4. What is the annual total tonnage of wine grapes you harvested, on average, over the past 3 to 5 years?

Wine grapes harvested (tonnes)

☐ tonnes

Q5. Does your business have a winery/wine making facilities?

☐ Yes ☐No

Q6. How many litres of wine did you produce annually, on average over the past 3 to 5 years?

☐ litres

Q7. What is the annual tonnage of wine grapes used for on-site wine making, on average over the past 3 to 5 years?

Wine grapes used for on-site wine making for own label(s) (tonnes)

☐ tonnes

Wine grapes used for on-site wine making for other labels (tonnes)

☐ tonnes

Q8. Do you sell wine?

☐ Yes ☐No

Q9. How much of your annual wine production is kept as stock at the end of each year, on average over the past 3 to 5 years?

litres / cases
(Please circle)

Q10. What is the annual breakdown (in percentages) of total revenue from wine sales from your winery, on average over the past 3 to 5 years?

On property sales (cellar door sales)	%
Off-property retail sales within Greater Granite Belt Region (including wine club members)	%
Off-property retail sales outside of the Greater Granite Belt Region (including wine club members)	%
Off-property retail sales outside of the Greater Granite Belt Region (including wine club members)	%

Q11. Please estimate and breakdown (in percentages) your gross annual revenue, on average over the past 3 to 5 years?

Gross value of revenue from wine produced under your own label and/or revenue from wine grapes grown on site	%
Gross value of contracted wine making and grape crushing	%
Gross value of accommodation and visitor revenue - non grape/wine related (e.g., cafes, events, etc.)	%
Gross value of other on-farm income (i.e., livestock or other agricultural produce)	%

Other Production Questions

Part 1 (b). Thanks for your responses so far. We will now ask for a few more details about your grape and wine production activities. The purpose of some of these questions is to ensure we don't double count grapes as they move around and in and out of the Granite Belt region.

Q12. Do you ever sell some or all your grapes to other wineries?

☐ Yes ☐No

Q13. What is the annual tonnage of wine grapes that you sell and what is the breakdown (in percentages) of where they go, on average over the past 3 to 5 years?

Total (tonnes)	**% Sold** in Greater Granite Belt Region	**% Sold** in rest of QLD (not Greater Granite Belt Region)	**% Sold** outside QLD
	%	%	%

Q14. Do you ever buy in grapes from other growers for your wine production?

☐ Yes ☐No

Q15. What is the annual tonnage of wine grapes you buy in, and what is the breakdown (in percentages) of where they come from, on average over the past 3 to 5 years?

Total (tonnes)	**% Bought** in Greater Granite Belt Region	**% Bought** in rest of QLD (not Greater Granite Belt Region)	**% Bought** outside QLD
	%	%	%

Q16. Do you ever send some or all of your grapes to other wineries to be made into wine on your behalf?

☐ Yes ☐No

Q17. What is the annual tonnage of wine grape you send to other wineries to be made into wine on your behalf and what is the breakdown (in percentages) of where they went, on average over the past 3 to 5 years?

Total (tonnes)	**% Sent** within Greater Granite Belt Region	**% Sent** to rest of QLD (not Greater Granite Belt Region)	**% Sent** outside QLD
	%	%	%

Q18. Do you ever produce wine on behalf of other grape growers?

☐ Yes ☐No

Q19. What is the annual tonnage of wine grapes that you bring in for wine-making contracts and what is the breakdown (in percentages) of where they come from, on average over the past 3 to 5 years?

Total (tonnes)	**% Contracted** from within Greater Granite Belt Region	**% Contracted** from rest of QLD (not Greater Granite Belt Region)	**% Contracted** from outside QLD
	%	%	%

Tourism Questions

Part 2. This section includes questions about the main characteristics of your tourism-related activities. When answering these questions, please take an 'average year' perspective - over the past 3 to 5 years.

Q20. Do you offer overnight accommodation for paying tourists?

☐ Yes ☐ No

Q21. What months do you provide overnight accommodation for paying tourists? (Please tick)

January	February	March	April	May	June
July	**August**	**September**	**October**	**November**	**December**

Q22. Regarding your overnight accommodation please provide the following:

Number of Rooms

☐ Rooms

Capacity (in persons)

☐ Persons

Q23. What is the annual number of room nights spent in your accommodation, on average over the past 3 to 5 years? (e.g., an average 2 rooms per night for 100 nights booked per year is 200 room nights.)

Room nights per annum

	Room nights per annum

Q24. Do you operate a cellar door and/or restaurant/cafe in the Granite Belt?

☐ Yes ☐ No

Q25. What days are your cellar door and/or restaurant/cafe open?

Cellar door

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

Restaurant/café

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

Q26. What months do you operate a cellar door and/or restaurant/cafe in the Granite belt?

Cellar door

January	February	March	April	May	June
July	**August**	**September**	**October**	**November**	**December**

Restaurant/café

January	February	March	April	May	June
July	**August**	**September**	**October**	**November**	**December**

Q27. Do you host functions or special events on your property (e.g., weddings, degustation dinners)?

☐ Yes ☐No

Q28. Does your business participate in events and festivals off your property to sell wine/provide wine experiences?

☐ Yes ☐No

Q29. Please provide examples of events and festivals off your property that you participate in, selling wine/providing wine experiences.

Costs/Investments

Part 3. This next section covers costs (of inputs, etc.) relating to your production activities as well as other living costs of your on-farm household.

Again, you are requested to provide your best estimate of the annual average costs over the past 3 to 5 years.

Q30. What is the number of people working in your business and worker weeks per annum for each category below, on average over the past 3 to 5 years? (Each full-time worker week contains 5 working days.)

	Number of people	Full time equivalent weeks per year
Owner's own labour		
Employed Managers		
Permanent/regular employees (employed 9-12 months of the year in ongoing roles)		
Casual/contract employees (employed for fewer than 9 months per year in seasonal roles)		
Family members (UNPAID)		

Q31. Where do your casual/contract employees come from (Granite Belt region, rest of Australia, or overseas)?

Granite Belt region	**%**
Rest of Australia (exclude QLD)	**%**
Rest of Queensland	**%**

Q32. What is your total annual labour cost (excluding any unpaid labour), on average over the past 3 to 5 years?

$ Total labour cost

Q33. This question is asking about annual capital costs excluding depreciation. The main purpose of this question is to understand how much capital spent on costs remains in the Granite Belt Region. If you have spent any capital costs in a specific year, please annualize them over the past 3 to 5 years.

Capital items	**Annual capital cost excluding depreciation $**
Vine stock	
Buildings	
Motor vehicles	
Fencing	
Irrigation	
Wine processing machinery	
Accommodation facilities	
House durables used in your home and cellar door, etc.	
Other capital costs	

Q34. This question is asking about annual operating costs. The main purpose of this question is to understand how much money spent on costs remains in the Granite Belt Region.

Annual items	Annual operating cost $
Chemicals	
Water	
Farm maintenance supplies	
Glass bottles	
Corks/caps	
Labelling	
Transportation	
Marketing and sales (cellar door, distribution, web site, advertising etc)	
Accommodation & hospitality (food, cafe/restaurant supplies, accommodation supplies, guest sundries, event items, other perishables, etc.)	
Energy costs (electricity, gas, petrol, diesel, renewables, etc.)	
Any other costs not included above (financial services, insurance services, tax returns, etc.)	

Q35. Please estimate where the money was spent on non-labour costs.

	% Spent in the Greater Granite Belt Region	% Spent in rest of QLD (not Greater Granite Belt Region)	% Spent outside of QLD
Capital costs	%	%	%
Operating costs	%	%	%

Q36. Please estimate the total annual depreciation on all items of capital equipment excluding your own home, but including all vehicles, vine stock, farm equipment, etc., on average over the past 3 to 5 years? If you are eligible for instant asset write-off during this period, please put them in the separate box.

Total annual depreciation

$ Total annual depreciation

Instant asset write-off

$ Instant asset write-off

Open questions

Part 4. Thank you for providing that information about your business. Finally, we have some more general questions about tourism in the Granite Belt Region. Any thoughts you have are appreciated, although we also appreciate that you might not have thoughts on these questions.

Q37. Would you like to increase tourism revenue in your business?

☐ Yes ☐No

Q38. What ways have you considered trying to increase tourism for your business? Could you please give an example of what you have tried in the past and/or what do you plan to do in the future?

Q39. How could the Granite Belt Region as a whole increase tourism?

Q40. Are there any obvious barriers to increasing tourism?

Q41. What positive or negative feedback have guests provided about their visits to the Granite Belt Region?

Q42. Please suggest up to three of the most useful government actions (possible policy interventions) to assist tourism to the Granite Belt Region. For example, government funded tourism-related infrastructure, travel vouchers, etc., any actions that can benefit the region as a whole.

Q43. Do you have any comments or thoughts that you'd like the project team to consider?

Thank you for completing the survey

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