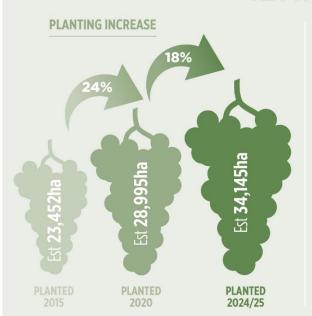


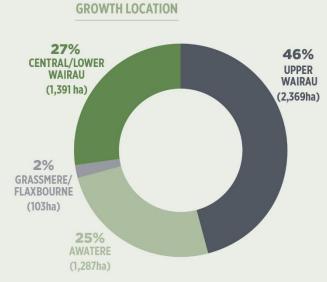




MARLBOROUGH WINE INDUSTRY GROWTH FORECAST 2020

KEY FACTS

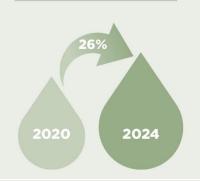




JOBS FROM 2016 TO 2020*

- Marlborough wine sector direct jobs +15%
- Jobs in sectors supporting the Marlborough wine sector +25%
- Total jobs associated with the Marlborough wine sector +20%
- Marlborough wine sector wages paid +24%

WATER STORAGE ON VINEYARD



TOTAL JOB GROWTH FORECAST

17% more jobs needed for marlborough wine industry overall by 2024/2025

8% growth in permanent roles

20% growth in seasonal roles





Increase in winter pruning jobs by 2024/25



Increase in summer vineyard work

initial

Increase in permanent jobs

IN WINERIES



Increase in seasonal jobs









^{*}Taken from NZIER contribution of wine to the Marlborough economy 2016 and 2020 - see following page for full chart

CONTRIBUTION OF WINE TO THE MARLBOROUGH ECONOMY 2016 VS 2020

KEY STATS	VALUE 2016	VALUE 2020	% DIFF
Marlborough wine sector GDP	\$477 million	\$571 million	16%
Marlborough wine sector direct jobs*	2,350	2,750	15%
Wine sector's share of total employment in Marlborough*	10%	13%	3%
Jobs in sectors supporting the Marlborough wine sector	2,500	3,338	25%
Total jobs associated with the Marlborough wine sector	4,850	6,088	20%
Marlborough wine sector wages*	\$130 million	\$171 million	24%
Marlborough wine sector purchases from supplying sectors	\$695 million	\$835 million	17%

2020 values except Wine GDP and Price of Inputs (2019 data)
* (excl seasonal workers) Source: NZIER, Statistics NZ, MBIE









Executive summary

The Marlborough wine region, New Zealand's largest wine region by a significant margin, is confident about its future growth, as the findings of this report indicate.

Confidence has underpinned investment in wine business and in the Marlborough region's vineyards for a number of years. Marlborough's producing vineyard area has grown by 24% in the five years to 2020, with the next largest region in New Zealand (Hawke's Bay) having declined by nearly 9%. The differences in scale and expansion are vast, with Marlborough's 24% growth equating to 5,543 additional hectares over the past five years against a decline of 430 hectares in Hawke's Bay.

It is clear that Marlborough drives the growth forecast for the New Zealand wine industry and has for many years.

This report has found that there is continued strong optimism in the Marlborough wine industry. Unsurprisingly, this is driven largely by strong international demand for New Zealand's flagship wine category, Marlborough Sauvignon Blanc.

While this confidence is tempered somewhat by the region's growers, due to significant labour concerns for winter pruning in 2021 and steeply rising labour costs, wineries are competing strongly for available grapes from the growers, which is fuelling planting intentions. Since the surveys for this report were completed in November and December 2020, the impact of a smaller than expected harvest for the 2021 vintage is only likely to reaffirm these planting and growth intentions.

With continued interest in growing the area under vines to bolster and secure supply and enhance the potential development of more market opportunities comes the benefit of significant job growth for the region.

The purpose of the Growth Survey was to gain insights into vineyard planting intentions and subsequent labour demand up until 2025.

Accommodation has once again come to the surface as a threat to the aspirations of the respondents, despite being out of scope for this 2020 Growth Survey. It demands continued focus from industry bodies and regional entities such as the Regional Skills Leadership Group, Marlborough District Council and Government.

The survey group was made up of 50 wine companies and growers, four winery-only businesses and 14 labour contractors (including two contractors who supply on-vineyard machinery services). Together this group represents a significant share of the region's workforce, vineyard area and wine production and gives added strengths to the conclusions of this report.

Forecast growth

- Growers and winegrowers¹ are intending to plant an additional 5,150 hectares by the 2024/25 season. This will lead to an estimated total planted area for Marlborough of 34,145ha.
- The majority (46%) of new planting is expected to be in the Upper Wairau area, with 91% of all new planting being done by large growers and winegrowers.
- Wineries are expecting to process 440,100 tonnes for vintage 2025, up 33% from vintage 2020.
- An additional 2.5 million m³ of water storage is currently planned in Marlborough, lifting the total water storage in the region by 26%.
- The ability of growers to achieve their intended planting of 5,150ha by 2024/25 will depend on their ability to secure land, grapevine cuttings, labour, accommodation for the new workforce and the required consents.
- In the last Labour Market Survey, the prediction was that 6,800ha would be planted by 2019/2020. This forecast was not fully met, with potential reasons being that the figures were

¹ Growers are defined as only having a vineyard. Winegrowers make wine from their own vineyards, while wineries produce wine but don't own vineyard land. The term wine company is also used for winegrowers.

aspirational, the land was not available where growers wanted to plant grapes, labour was not available for vineyard development or grapevine cuttings were not available. However, these factors may have only delayed development intentions as opposed to the developments not occurring at all.

There are some significant challenges to achieve this growth, the most pressing of which are the availability of labour and water for irrigation. All this growth is forecast from existing businesses and doesn't account for any possible new entrants.

Increased demand for workers

The intended growth in vineyard area and tonnes processed will result in an increase in demand of 1,515 workers (17%) for the Marlborough wine industry.

- Vineyard labour (growers, winegrowers and viticulture labour contractors) expect to require 1,510 permanent and 7,200 seasonal workers annually by 2024/25.
- Winter pruning will require 4,500 workers by 2024/25, up 24% from 2020.
- Summer vineyard work will require 3,360 workers by 2024/25 up 26% from 2020/21.
- Wineries are expecting to be able to process the increased volume with a 5% increase in winery workforce.
- There are approximately 650 permanent winery jobs in Marlborough. Wineries also have a seasonal peak at harvest of around 1,600 with 83% of seasonal staff usually sourced from overseas.

The growth in vineyard worker supply is expected to be sourced from additional Recognised Seasonal Employer (RSE) scheme workers. While growers, winegrowers and particularly viticulture labour contractors were using novel incentives to attract New Zealand workers, RSE workers (once borders reopen) are still considered to offer a stable, experienced and productive workforce.

Labour practices

In the 2016 Labour Market Survey, growers forecast a total vineyard labour requirement of 10,304 in 2019/20, while this year's survey estimates the current wine industry workforce at just under 9,000 workers. Workforce supply limitations has led to an increase in mechanisation on vineyard that is forecast to continue. Currently, 63% of vines are mechanically stripped after pruning, up 80% from 2016, and forecast to increase to 68% for 2024/25. In addition, the pruning season begins earlier and finishes later than it did in 2016, with many workers employed for a six-day working week.

Recruitment

All sectors reported the importance of returning workers as a highly valued recruitment method. Local referrals and online recruitment, particularly for winery workers, were also considered most useful. There was a general comment that there is a wide gap between the skills and attitude required by the industry and the suitability of worker that has historically been referred by Work and Income New Zealand (WINZ).

Location continues to be a significant barrier for employment mentioned by many growers, winegrowers, contractors and wineries. Marlborough is some distance from a major city population and, therefore, a labour force that could assist with the seasonal nature of vineyard and winery work. Several participants commented that there is also difficulty in getting existing Marlborough workers to outlying parts of the region for some tasks, especially the Upper Awatere for winter pruning.

Providing or assisting with accommodation, transport and other pastoral care functions are now considered standard practice by many, and increasingly important for others to recruit or retain staff. Some companies are also offering flexible working hours and in several cases this has helped fill worker shortages.

Viticulture labour contractor use

Viticulture labour contractors (called contractors for the remainder of this report) provide an invaluable labour service in Marlborough and a significant proportion of the total vineyard staff in Marlborough.

- Currently, 95% of vineyard pruning is completed by contractors and this is expected to remain similar in 2024/25.
- In 2020/21, 88% of summer work was completed by contractors.

Industry challenges

- There is a limited labour pool of experienced local workers.
- There is competition between employers to employ and retain staff.
- Many key seasonal tasks are heavily reliant on temporary and transient labour.
- The lack of residential accommodation and transport is seen as a challenge for both medium and large growers. This was particularly relevant for permanent and local casual workers.
- Minimum wage increases and ongoing recruitment challenges are adding costs that growers are struggling to absorb at current grape prices.
- Growers require innovation in mechanisation, an efficient and experienced workforce and/or improved grape prices to maintain the economic benefit for Marlborough.
- Many still report significant challenges in recruiting and retaining New Zealand Jobseekers from WINZ.
- A common theme reported by employers was that they would be more willing to take on New Zealand WINZ Jobseekers if there were employment subsidies, a 90-day trial period (or similar) and if there could be better alignment of candidates and the employers' requirements.

Incentives

Growers, winegrowers, contractors and wineries are particularly proactive in the use of incentives to recruit and retain staff. They largely recognise the importance of investing in people with a positive attitude and constructive work ethic and mindset. Most employers recognised the need for some form of ongoing training opportunities for employees.

The range of incentives includes:

- accommodation (provision or assistance), transport and relocation assistance
- training opportunities, including cadetships or apprenticeships
- flexible hours
- health insurance
- wine allowances
- competitive rates of pay (up to \$28/hour for piece rate work)
- guaranteed hours for casual staff
- high quality facilities, equipment and machinery to use
- allowing job share or positions in vineyard and winery to provide extended hours
- staff bonuses and trips.

Productivity

- Growers, winegrowers and contractors rate their permanent workers, RSE workers and essential skills workers as exceeding or meeting expectations.
- Wineries rate their permanent workers and essential skills workers as exceeding or meeting expectations.
- Seasonal workers from WINZ or backpackers are considered more variable and, in the case of WINZ workers, may be unproductive.

Summary

There is significant growth projected in the Marlborough Wine industry that continues to provide a significant economic benefit for Marlborough². Growers, winegrowers, contractors and wineries face ongoing challenges with labour supply, quality and cost (recruitment and wages) that will need to be overcome to maximise this economic opportunity.

 $^{^2} www.wine-marlborough.co.nz/workspace/uploads/nzier-contribution-of-winegrowing-to-the-marlborough-economy-2020-final_1.pdf$

Glossary

Permanent labour A permanent employee is employed for 12 months of the year.

Seasonal labour Those employees employed on a temporary basis for specific seasonal tasks.

This could include pruning, summer work and harvest of a combination of

various seasonal tasks.

Full time equivalent One full time equivalent was based on 40 hours per week, 52 weeks per year.

Employers were asked to estimate FTEs and used total hours employed to

guide this estimate.

Pruning Pruning included all manual labour required for pre pruning, cutting, stripping

and wrapping and typically occurred between mid-late April and late September.

Machine stripping Includes all types of machine assisted stripping of canes after cutting has

occurred.

Summer work Includes all types of manual vine work, typically occurring from October to

March and includes bud rubbing, wire lifting, shoot thinning, bunch thinning,

manual leaf plucking, etc.

Harvest Includes all labour related to the harvest of grapes.

Jobseeker A Work and Income (WINZ) Jobseeker is receiving the Jobseeker Support

benefit and available for work.

NZW Winery Category I - less than 200,000 litres of wine produced per year

Category II - 200,000-4,000,000 litres of wine produced per year

Category III - over 4 million litres of wine produced per year

Producing area The subset of the planted area that is producing grapes for the production of

wine, noting there is a 1.5 to 2.5-year time lag in bringing new plantings into

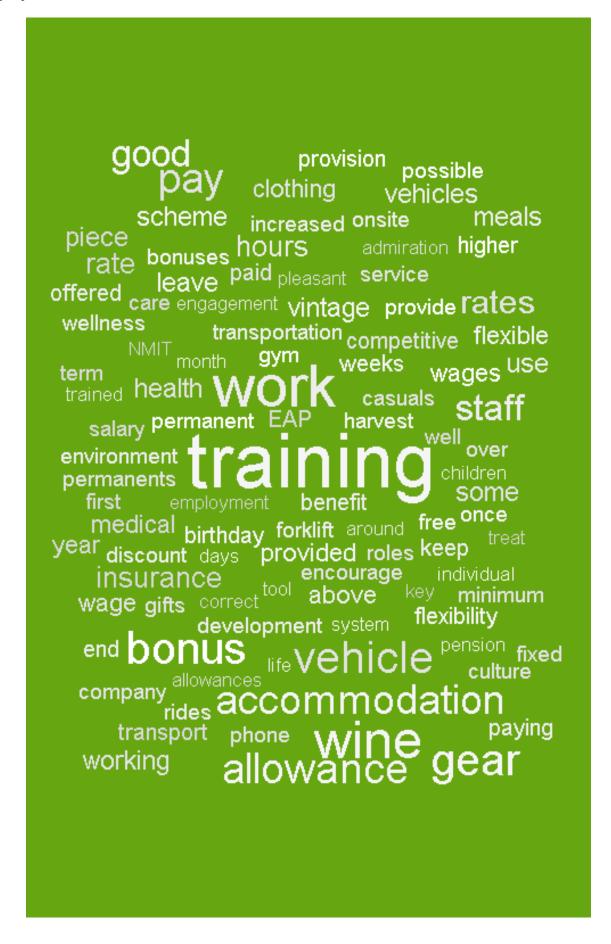
production.

Subregions Upper Wairau – west of the Narrows

Central/Lower Wairau - east of the Narrows

Awatere Valley/Blind River

Grassmere, Flaxbourne – including Ward/Kekerengu



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Statement of Ownership

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Background

Marlborough remains New Zealand's largest wine region, with Sauvignon Blanc dominating production and export wine volume. Since the previous Marlborough Labour Market Survey in 2016, total vineyard producing area has increased 14% from 24,365 hectares³ to 27,818ha in 2020.

Table 1 Marlborough total vineyard producing hectares.

	2016	2020	
Marlborough	24,365	27,818	
Proportion of national	67%	70%	

In 2020, Marlborough Sauvignon Blanc represented 22,363 producing hectares, or 87% of New Zealand's total Sauvignon Blanc producing area.

Total Marlborough grape production was 343,036 tonnes in 2020, up around 20,000 tonnes from 2016, mostly due to an increased planted area as opposed to higher yields per hectare.

Table 2 Marlborough grape production (tonnes).

	2016	2020	
Marlborough	323,390	343,036	
Proportion of national	77%	78%	

By volume, Marlborough produced 91% of New Zealand's Sauvignon Blanc crop in 2020⁴. Marlborough contributes \$1.4 billion in value added for both grape growing and wine production⁵.

The Marlborough plantings are located in four subregions, defined for the purposes of this report as Upper Wairau (west of The Narrows), Central/Lower Wairau (east of The Narrows), Awatere Valley/Blind River and Grassmere/Flaxbourne including Ward/Kekerengu (Appendix One). The greatest concentration of plantings is still the Central/Lower Wairau, but since 2016 the greatest area of new plantings has occurred in the Upper Wairau.

Since 2016 the number of wine companies (those that grow grapes and produce wine) has increased from 141 to 158 (Table 3) while the number of growers (those that just grow grapes) has decreased from 534 to 5146. The reduction in the number of growers reflects some consolidation of smaller growers and additional purchase or leasing of vineyards by wine companies since 2016.

Table 3 Number of Marlborough wine companies and growers 2016-2020.

	2016	2020	
Wine companies	141	158	

³ New Zealand Winegrowers Vineyard Register Report 2016-2019

⁴ New Zealand Winegrowers Vintage Survey 2020

⁵ Economic contribution of the New Zealand wine sector (2018) – NZIER

⁶ New Zealand Winegrowers Annual Report 2020

Growers	534	514	
Total entities	675	672	

Contractors are a critical component of the Marlborough wine industry. The 2016 survey interviewed eight vineyard contractors and noted the 17 RSE-accredited contractors at the time provided services to 75% of the producing area.

Covid-19 impacted significantly on the Marlborough wine industry labour market in 2020, particularly over the vineyard pruning season, and continued to create challenges during vintage 2021 and for winter pruning 2021. The New Zealand wine industry felt highly privileged to continue to operate as an 'essential business' during vintage 2020. Despite the challenges of the past 12 months, in the year ended 30 June 2020 the industry managed to achieve record exports totalling \$1.92b, up 6% on the previous year and domestic sales of around \$500 million⁷. However, as borders are expected to remain closed for at least the remainder of 2021, growers and wineries are facing ongoing labour supply and labour productivity challenges.

This Marlborough Wine Industry Growth Forecast follows on from the 2016 Marlborough Labour Market Survey. This report is modelled on that, and driven by the success and value of the initial survey in 2016. This initial survey provided reliable forecasts of vineyard growth, demand for workers, accommodation needs and some insights into skill shortages and pastoral care through to 2021. As the wine industry responds to the Covid-19 pandemic, reliable information on current and future labour needs is more important than ever. As such, Wine Marlborough sought support for a refresh of the survey to be conducted in 2020. Support has been provided with sponsorship from Wine Marlborough, Marlborough District Council, Marlborough Research Centre and New Zealand Winegrowers to conduct this survey in 2020.

The key objectives of this Wine Industry Growth Forecast were to:

- provide estimates for industry growth, both in vineyard area and winery capacity over the next five years
- describe the current profile of the industry and how it compares to 2016
- understand labour demand requirements over the next five years
- understand the seasonal demand of labour for vineyards, contractors and wineries
- understand key labour practices, in particular recruitment methods, challenges, retention, incentives and initiatives used by employers.

Methodology

The methodology for the 2020 survey was based strongly around the successful methods employed in 2016. Where possible, the same entities were surveyed along with an expansion in the number of contractors and wineries surveyed. The survey was conducted in November and December 2020 and included 50 wine companies and growers, four winery only businesses and 14 contractors (including two contractors who supply on-vineyard machinery services).

The method used face-to-face interviews which allowed for in-depth discussions on labour trends, issues, practices and challenges. Telephone and online survey methods were investigated and trialled and while they complemented some of the data collection, the depth

⁷ New Zealand Winegrowers Annual Report 2020.

and richness of data was only possible using the face-to-face survey method. Separate survey questionnaires were developed for each business type and are attached in Appendix Two.

Table 4 Number of business surveys classified by business type.

Business type8	2016	2020
Grower	35	22
Winegrower	16	22
Winery	0	4
Contractor	8	14

Of the 44 businesses with vineyards, 27 were considered large, with vineyards in excess of 50ha, eight were medium with vineyards between 20 and 50ha, and 10 were small, with vineyards less than 20ha.

Table 5 Producing area of vineyards surveyed.

Vineyard size	2016	2020
Large (>50ha)	12,252	13,883
Medium (20-50ha)	457	305
Small (<20ha)	95	89
Total	12,804	14,277
% of vineyard register	54%	51%

A similar proportion of the total vineyard area was represented in the 2020 survey (51%) as compared to the 2016 survey (54%) as shown in Table 5. This fantastic response allows comparison to the 2016 data set and provides confidence in the projections of this survey group. As with the 2016 survey, the number of small and medium sized vineyards contributing to the survey is low due to their lower total planted area. As such, limited conclusions could be directly attributed to the small and medium sized vineyards.

There were 25 winery businesses⁹ surveyed in 2020, receiving a total of 331,516 tonnes in 2020. While this would not be solely Marlborough fruit, the vast majority would be, and represents 96% of the reported Marlborough harvest in 2020¹⁰. Three of the wineries surveyed used contract facilities to process their wine, while three of the wineries provided contract winemaking services. The multiplier used to generate population data from the survey data was 1.04.

Table 6 Tonnes of grapes crushed for winery businesses surveyed.

Business size ¹¹	2020 (number)	2020 (total tonnes)
Total	25	331,516
% of region tonnes		96%

⁸ Growers are defined as only having a vineyard. Winegrowers make wine from their own vineyards, while wineries produce wine but don't own vineyard land. The term wine company is also used for winegrowers and was used in the 2016 Labour Market Survey report.

⁹ Excludes cellar door or associated restaurant workers

¹⁰ New Zealand Winegrowers Vintage Survey 2020

¹¹ Wineries are categorised using New Zealand Winegrowers category system

The survey included 14 contractors, 12 of which provided labour services to the Marlborough wine industry. These contractors were categorised based on the number of vines they would normally prune in a season. A small contractor prunes less than 1 million vines (approx. 450ha) while a large contractor prunes over 5 million. For the purposes of this survey, Seasonal Solutions Cooperative Limited have been included in the large contractor category. This is a variation from the 2016 survey where they were included in the vineyard group.

The 12 labour contractors are significant providers of labour to the Marlborough winegrowing industry. All vineyards surveyed indicated they use contractors for some tasks on their vineyard. Winter pruning requires the largest number of staff of any vineyard task and the surveyed contractors provided an estimate of the number of vines pruned. Two were unable to estimate the vine number but, using the average vine density (2,269 vines/ha), an estimate of their vines pruned was calculated. This suggests the survey group of contractors is responsible for over 26,000ha in 2020 (Table 7). Figure 1 shows the relative size of the contractor businesses surveyed based on their estimate of vines pruned.

Growers and winegrowers were also asked to estimate the area of their vineyards pruned by contractors. Their combined estimate, based on 2020 actual pruning, was just over 27,000ha. This information was used to determine the multiplier (1.03) to generate population statistics from the contractor survey group.

Table 7 Size of contractor businesses surveyed, based on the number of vines pruned.

Business size ¹²	2020 (number)	2020 (ha)
Large	6	21,927
Medium	4	4,127
Small	2	406
Machinery contractor	2	0
Total area pruned by survey	14	
group		26,459

14

¹² Contractors were categorised for the purposes of this survey based on the number of vines pruned in winter 2020, where large prune more than 5 million, medium 1-5 million and small less than 1 million.

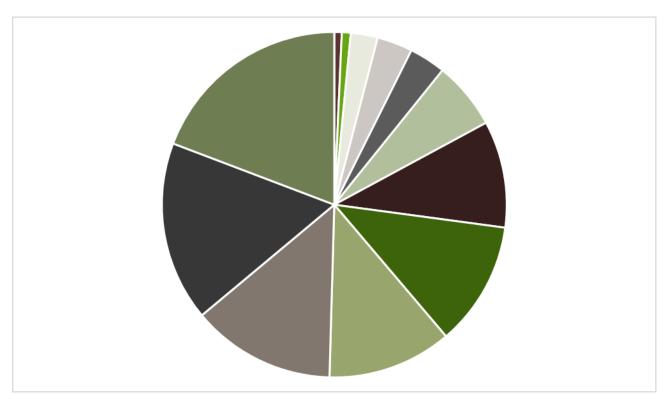


Figure 1 Relative size of vineyard contractors, based on vines pruned.

The survey for this report was conducted during a particularly uncertain period, with the potential ongoing impacts of Covid-19 in 2021 for vintage, winery labour and vineyard pruning incredibly hard to predict. As such, survey participants were asked to forecast demand in an average or anticipated normal season, and they also provided additional context to describe the difficulties they were encountering due to Covid-19.

Results

Marlborough Vineyard Plantings

Current hectares in production

New Zealand Winegrowers (NZW) surveys members annually on current producing area and expected area in production for the subsequent two years and reports this in the Biosecurity Vineyard Register Report. Marlborough District Council (MDC) also periodically gather aerial mapping data of current planted area.

The NZW register indicates there were 27,818 hectares in production in 2020, which was forecast to be 28,360 in 2021. This represents 70% of the total national production area for all grape varieties. Furthermore, 80% of the total production area in Marlborough is Sauvignon Blanc.

The most recent MDC aerial mapping survey was completed in January 2020 and indicated a planted vineyard area of 28,995ha. The majority of this planted area is on the Wairau Plains (Figure 2). However, there has been an increasing amount of planting in the Upper Wairau subregion, increasing from 1,200ha (5% of the Marlborough region) in 2014 to 2,537ha (9% of the region) in 2020.

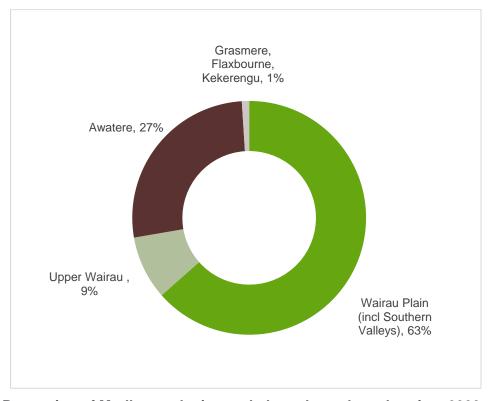


Figure 2 Proportion of Marlborough vineyard planted area by subregion, 2020.

The difference between the NZW 'producing area' and MDC 'vineyard coverage' is largely explained by the fact that not all planted hectares identified through the mapping process are

registered as 'producing' in the vineyard register yet, due to the 1.5 to 2.5-year time lag in bringing new plantings into production.

Projected vineyard growth

Those survey participants with vineyards were asked to indicate their planting intentions - both development and redevelopment - and their projected producing area for each year from 2021 to 2024 years.

Planting intentions

The majority of planting occurred within the large grower/winegrower group, with 13 of 26 intending to plant new vineyard area in the next five years. Using the NZW Vineyard Register, this large group was further categorised by 50-100ha, 100-200ha and more than 200ha. Within the survey group, 88% of new planting is being undertaken by those with more than 200ha. This information was used to determine multiplication factors for the three size subcategories of the large grower/winegrower group.

Within the survey group there was only one small and one medium sized grower intending to plant new vineyard area. As such, a multiplication factor method is not able to be used to estimate new planting area for this group. The 2016 survey showed a similar result, with no indication of planting within the small group and 205ha for the medium sized growers in the sample group. The same methodology was applied in 2020 with 1% new planting applied to the small group and 10% applied to the medium group over the five-year period, using the same pattern as the large vineyard group as shown in Table 8.

Table 8 Intended new vineyard planting Marlborough 2020-2024 (hectares).¹³

	2020/21	2021/22	2022/23	2023/24	2024/25	Total
Large	623	1,615	1,023	697	729	4,688
Medium	55	142	90	61	64	411
Small	4	11	7	5	5	33
Total	683	1,768	1,120	764	798	5,150

Using the MDC's 2020 planted area estimate of 28,995ha, this would suggest that by the end of 2024/25 planting season the total planted area would be 34,145ha, increasing by a total of 5,150ha. While some of this new planting is still in the traditional Central and Lower Wairau and Awatere subregion, almost half (46%) is forecast to occur in the Upper Wairau (west of The Narrows).

¹³ Unless stated, all tables in the results represent total calculated data for Marlborough based on the survey data collected and the multiplier methods described.

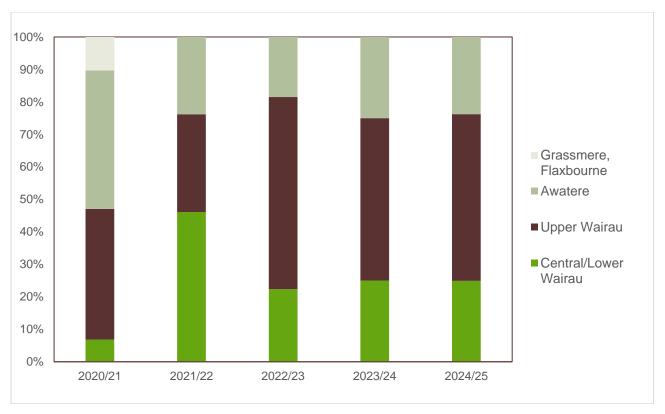


Figure 3 Proportion of annual new planting by Marlborough sub region.

Producing area projection

This project captured the planned growth in Marlborough vineyard producing area until vintage 2024. Growers provided data on their estimated producing area in each year. Producing area will always be lower than planted area partly due to the lag from planting to production of 1.5 to 2.5 years and an increasingly important practice of vineyard redevelopment (as discussed below). Using the growers' estimate and the same methodology as for planted area, the estimated producing area for vintage 2024 is 31,023ha, as shown in Table 9.

Table 9 All Marlborough vineyards current and projected hectares in production (hectares).

	2020	2021	2022	2023	2024	Change 2020-2024
Large	20,679	21,276	21,999	22,843	23,401	14%
Medium	3,947	4,045	4,157	4,287	4,374	10%
Small	3,192	3,222	3,231	3,241	3,248	1%
Total	27,818	28,542	29,386	30,372	31,023	12%
NZW register	27,818	28,360	28,583	28,628	-	

Table 9 includes the NZW producing hectare forecast generated from vineyard registration data and published in the biosecurity register. It is interesting that their estimate is lower than the estimate provided by growers in this Wine Industry Growth Forecast. The main reason suggested for this is that growers tend to wait until vineyards are actually producing before including that data in their registration to NZW.

Redevelopment

Vineyard redevelopment predominately occurs by way of replanting or reworking (either top grafting or re-trunking). As Marlborough vineyards age and trunk disease or virus increases, vine redevelopment is occurring. These practices will all affect the producing area in any particular year and will have some impact on the labour requirement. The survey requested information specifically on replanting, but subsequent follow-up of key respondents clarified the proportion of replanting and reworking. Subsequent surveys should focus specifically on this aspect as it becomes increasingly prevalent in Marlborough. Based on the survey response and subsequent follow-up, Table 10 shows the estimated area of redevelopment in Marlborough.

Table 10 Planned redevelopment in Marlborough 2020-2024 – All vineyards (hectares).

	2020/21	2021/22	2022/23	2023/24	2024/25	Total
Replanting	171	335	316	370	378	1,569
Reworking	162	364	364	364	364	1,618
Total	332	699	680	734	742	3,187

The effect this replanting and reworking has on the producing area can be estimated based on the data in Table 10. For vintage 2022, it is estimated approximately 1,000 existing hectares (in 2020) would be out of production. This rises to approximately 1,400ha for each subsequent year to 2025.

Nursery sales as an indicator of growth

NZW's most recent nursery survey indicates 2.18 million vines were ordered for 2020 planting in Marlborough. Based on an vine density of 2,315 (2.4mx1.8m), which is a density commonly used at this time, this would equate to 940ha. Some of this will include replacement vines which, based on the survey group, is estimated to have been approximately 170ha in 2020. This would suggest approximately 770ha were planted in 2020. Given this nursery survey data was orders not sales, and given Covid-19, it is possible some orders and planting were delayed and therefore it appears a reasonable corroboration of this survey's estimate of 687ha (Table 8) being planted in 2020.

Change in growing practices

The survey investigated the growing practices of vineyards, and how they have changed in response to mechanisation, since the previous survey in 2016, and future intentions (Table 11). The purpose was to highlight trends that may impact on future labour requirements.

Table 11 Key mechanisation changes in growing practices.

	2016	2020	2024	
Mechanical harvesting	94%	98%	98%	
Mechanical stripping	35%	63%	68%	
Vines per hectare	2,191	2,269	-	

Growers and winegrowers were surveyed on their mechanical harvesting practices and reported there had been an increase in the proportion of area that was machine harvested in 2016 and 2020. In 2020, 98% of all vineyard area was mechanically harvested.

Contractors were surveyed on the proportion of vines machine stripped in 2020. Several commented that, due to Covid-19, the amount of machine stripping had increased for 2020 and this was reflected in the significant change in practice from 2016, when 35% of vines were machine stripped. Interestingly, they now forecast this trend to continue, and 68% of vines expected to be mechanically stripped in 2024.

Water storage intentions

As highlighted by two recent droughts in 2019 and 2020, water storage is becoming increasingly important for growers. The survey group had a total of 73 dams in 2020, with the majority (71) being in the large vineyard category.

Table 12 Existing and planned water storage dams for the survey group.

	2020	existing	2021-20	024 planned	Change 2020 to 2021-2024
Vineyard size		Volume	Volume		
category	Number	(m^3)	Number		
Large	71	4,356,250	19	1,547,000	26%
Medium	2	394,000	1	20,000	5%
Small	0	0	0	0	-
Survey group overall	73	4,750,250	20	1,567,000	25%
Region estimate		9,980,000	2,570,000		26%

Using the same multiplier as used for the area and planting estimates for regional totals, this would suggest up to 2.5 million m³ of additional water storage is planned. While some of this will be to improve security of supply for existing vineyards, much is specifically for the new planting. This storage will generally provide backup for the primary water source - typically a river take - with the volume stored reflecting the type of existing and/or available consent, the location, and the growers' assessment of risk.

This highlights the importance of water for the intended new planting forecast by growers. The ability of growers to achieve their intended planting of 5,150ha by 2024/25 will depend on their ability to secure land with, or with availability, of a suitable consent.

Marlborough Winery Capacity

Current volume processed

NZW surveys wineries for volumes processed by region following each vintage. In 2020 this survey reported 343,036 tonnes of Marlborough fruit was processed. This accounted for 78% of New Zealand's production and included 90% of New Zealand's Sauvignon Blanc.

Projected growth in processing capacity

Wineries were asked how much Marlborough fruit they expect to process for each of the years 2021 to 2025 (Table 13). This shows a forecast 33% increase in tonnes processed for vintage 2025. This appears ambitious but achievable compared to the forecast increase in producing area and would require an increase in production from existing plantings also. For vintage 2024, based on growers' forecast producing area, the average yield expected would be 13.4 tonnes per hectare. This compares to the Marlborough Viticulture Benchmarking model¹⁴ which reported a 13.8t/ha average in 2020 and a long-term (10-year) average of 12.3t/ha.

Table 13 Expected volume of Marlborough fruit processed 2020-2025 (tonnes).

	2020	2021	2022	2023	2024	2025
Total	343,500	364,100 ¹⁵	389,600	403,400	414,900	440,100
Growth		32,600	58,100	71,900	83,400	108,600
% Growth		10%	18%	22%	25%	33%

Marlborough Wine Industry Labour Force – Sector Profiles

The 2020 Wine Industry Labour model has been created using the same methodology as the 2016 labour market model, where the model is a function of the size of each operation compared with the population. The methodology used in-depth interviews to establish a detailed picture of the trends within each sector and combined these five sectors to produce a combined labour market model for the total Marlborough wine industry labour force.

Profile of large vineyards

There were 53 winegrowers and 37 growers with greater than 50ha in production in Marlborough for vintage 2020. Together, this group represents 20,679ha (74%) of the producing hectares in the region. This project involved interviews with 27 winegrowers and growers in this category, representing 13,975 producing hectares. This group of survey participants represented approximately 67% of the total producing area in this large vineyard category and 50% of the total producing area in Marlborough.

This group has a large influence on the forecasts calculated in this report and drives many of the outcomes. As such, this group was further categorised by size and a multiplier for each subgroup was used to estimate population values from the survey data.

There continues to be significant growth underway and planned by these large vineyards, particularly by the winegrowers in this category. The vineyards are mainly owned by corporates with a number under overseas ownership.

¹⁴ Vineyard Benchmarking Report – Marlborough 2020.

¹⁵ Survey participants estimates in November/December appear to be optimistic based on late season (March 2021) industry estimates, but were their best estimate at the time of the survey.

This development is fuelled by continued strong international demand for Marlborough Sauvignon Blanc and supply shortage¹⁶. Sales of New Zealand wine exceeded the supply for the fourth year in a row in 2020, and 2021 is expected to produce a similar result. Most growers grow grapes for supply to wineries under contract, typically for a three to seven-year period. This limits the amount of fruit available for purchase by wine companies and, therefore, are planning many new vineyard planting to meet this demand.



Photo credit: Wine Marlborough.

Profile of medium sized vineyards

There were 124 growers and wine companies with plantings between 20ha and 50ha in Marlborough for vintage 2020. This is down from 140ha in 2016. These businesses collectively accounted for 3,947ha (or 14%) of the producing hectares in the region. This project involved interviews with seven winegrowers and growers in this category, representing 213 producing hectares or 5% of the vineyard area in this category.

There is a small amount of new planting occurring in this group, with just one of the seven surveyed growers intending to plant more vineyard in the next five years. There is some consolidation occurring in this sector, with some growers leasing or selling their vineyards, typically to larger growers or wine companies. Since the 2016 Labour Market Survey, the number of growers in this group is down by 16 and the area down 163ha.

This group has a lesser impact on the overall labour forecast due to the number of hectares in this group and generally low level of new planting.

Profile of small vineyards

There were 452 growers and wine companies with plantings less than 20ha in Marlborough for vintage 2020. This is also down, from 470 in 2016. These businesses collectively accounted for 3,192ha of the producing hectares in the region. This project involved interviews with 10 winegrowers and growers in this category, representing 89 producing hectares or just 3% of the vineyard area in this category.

Just one of the 10 surveyed growers intended to plant more vineyard, while still remaining in the less than 20ha category, in the next five years. As for medium-size vineyards, there is some consolidation occurring in this sector with some growers leasing or selling their vineyards,

¹⁶ New Zealand Winegrower. \$2b or not \$2b. Sophie Preece, December 2020.

typically to larger growers or wine companies. The number of growers is down by 18 and the area down 229ha since the 2016 Labour Market Survey.

This group has a very small impact on the overall labour forecasts due to the number of hectares and generally low level of new planting.

Overall, both small and medium vineyards account for 26% of the producing area in Marlborough, but survey participants in these categories only represented 2% of the total area of all survey participants. This is similar to the 2016 survey and is due to the fact growers in these groups typically use labour contractors (according to data collected from contractors) and are generally small contributors to new planting and, therefore, increased labour demand. However, this is a recognised limitation of this survey, and it is recommended future surveys should revise methods to capture better data on planting intentions and labour practices within these groups.

Profile of vineyard contractors

Viticultural contractors in Marlborough comprise of 19 registered Recognised Seasonal Employer (RSE) scheme employers, of which 16 are members of New Zealand Ethical Employers Incorporated (NZEEI). It is estimated there are four to five additional labour contractors¹⁷ who are neither RSE employers or members of NZEEI. The survey included 12 of the 16 NZEEI members, including all the large contractors¹⁸. For the 2016 Labour Market Survey, it was estimated as many as 40 smaller contractors were not RSE accredited.

As there is no one record of all contractors to determine the size of the contractor population, growers and winegrowers were asked to provide data on the area of their vineyards where contractors were used. This was estimated for pruning, summer work and harvest. The grower and winegrower data was used to estimate the total area serviced by contractors in Marlborough using the same multipliers used for the area forecasts.

Using grower and winegrower estimates and cross checking with contractors' estimates for vines pruned, it is clear contractors provide a significant proportion of the total vineyard labour in Marlborough. In 2020/21 it was estimated by growers and winegrowers that contractors provided labour for 95% of pruning and 88% of summer work (Table 14).

Table 14 Vineyard area serviced by contractors.

	Pruning	Summer work
Total area pruned by contractors (estimate – all)	27,417	25,548
% of estimated 2020 planted area pruned by contractors ¹⁹	95%	88%

Profile of wineries

¹⁷ Tanya Pouwhare, personal communication, December 2020.

¹⁸ Contractors were categorised based on the number of vines pruned in winter 2020, where large prune more than 5 million, medium 1 to 5 million and small less than 1 million.

¹⁹ Planted area as at January 2020. This assumes young vines are pruned by contractors in the same proportion as all other vines.

There are 158 wineries in Marlborough that processed a combined total of 343,036 tonnes in 2020²⁰. The survey included 21 winegrowers and four contract wineries which completed the winery survey. Contract wineries were those that made wine for a number of growers/wineries which may or may not also include their own fruit. One of the contract wineries was unable to complete all questions related to labour demand, but completed all other sections. Three of the winegrowers used a contract facility, while the remaining 18 winegrowers all directly employed staff in their own winery.

The 25 respondents in the survey group processed 331,550 tonnes in 2020, representing approximately 96% of the Marlborough industry. This high proportion reflects the large number of wineries that use the contract winery facilities. So, while only 25 respondents completed the survey, they represent a larger number of winery businesses.

Marlborough wine industry labour force

The following section presents the current and projected size of the Marlborough vineyard workforce, including workers employed by contractors, growers or winegrowers on vineyard, and secondly those employed by wineries. A summary of the total combined wine industry workforce in Marlborough is also provided.

Vineyard worker demand

Using the multipliers described above, Table 15 shows there are currently just over 1,400 permanent workers employed by growers and contractors. The seasonal vineyard labour force consists of over 5,800 workers²¹, of which just over 60% are part of the RSE scheme. Combined, there was an annual requirement for 7,253 workers in 2020/21.

Table 15 Annual Marlborough vineyard workforce – 2020/21.

	Permanent	RSE	Other seasonal	Total
Growers	1,127	149	523	1,799
Contractors	275	3,525	1,654	5,454
Total	1,401	3,675	2,177	7,253
	19%	51%	30%	

Table 16 shows the total annual requirement for vineyard staff as estimated by growers, winegrowers and contractors. This shows a 20% increase in the vineyard workforce by 2024/25. This estimate was cross-checked using average task rates (staff per hectare), as also provided in the survey and applied to the forecast increase in planted hectares. This produces a slightly lower (5%) total workforce requirement, likely due to some contractors expecting to provide services to the same growers. Accepting this, it would be reasonable to assume the Marlborough vineyard workforce annual demand will be between 1,100 and 1,450 higher in 2024/25 than it was in 2020/21.

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²⁰ New Zealand Winegrowers Vintage Survey 2020.

²¹ Full time equivalent.

Table 16 Forecast annual requirement for on-vineyard labour in Marlborough.

	2020/21	2021/22	2022/23	2023/24	2024/25	Change 2020/21 to 2024/25
Permanent	1,401	1,429	1,457	1,485	1,513	8%
Seasonal	5,852	6,101	6,534	6,891	7,173	23%
Total	7,253	7,530	7,991	8,377	8,687	20%

It is important to note that Table 15 and Table 16 show the total number of workers required on an annual basis and some workers will provide pruning, summer work and/or harvest roles. Table 17 shows the seasonal requirement for the main labour roles on the vineyard. As some workers will be completing multiple roles, these three tasks' total is higher than the annual requirement.

Table 17 Combined forecast labour requirements by seasonal task – includes both permanents and seasonal.

	2020/21	2021/22	2022/23	2023/24	2024/25	Change 2020/21 to 2024/25
Pruning	3,638	3,782	4,109	4,326	4,518	24%
Summer work	2,679	2,872	3,053	3,232	3,360	26%
Harvest	1,829	1,803	1,813	1,850	1,878	3%

Table 17 shows growers, winegrowers and contractors are forecasting a 24% increase in required workers for pruning and a 26% increase in summer work requirements, while harvest labour requirements are forecast to remain relatively similar to 2020/21 demand. This survey forecasts an 18% increase in planted area over this same time period.

Growers, winegrowers and contractors were also asked to estimate their labour demand by month for 2020/21. This is presented in Table 18 and shows a peak requirement of around 4,600 workers from June to August for pruning.

Table 18 Seasonal demand vineyard workforce 2021.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Growers				-					•			
	1,09	1,11	1,13	1,07	1,03	1,03	1,07	1,03	1,05	1,09	1,09	1,09
Permanent	8	2	0	5	9	9	5	9	7	8	3	3
Seasonal	150	83	154	155	34	287	357	356	137	229	268	359
	1,24	1,19	1,28	1,23	1,07	1,32	1,43	1,39	1,19	1,32	1,36	1,45
Total	8	5	4	0	3	6	2	5	4	6	1	2
Contractor												
S												
Permanent	306	306	310	318	294	302	312	312	312	306	315	315
	1,44	1,66	1,66	1,30	2,38	2,98	2,98	2,99	2,66	1,20	1,91	1,93
Seasonal	5	1	1	4	7	8	8	5	3	1	1	7
	1,75	1,96	1,97	1,62	2,68	3,29	3,30	3,30	2,97	1,50	2,22	2,25
Total	0	7	1	2	2	0	0	7	5	7	6	2
Overall												
	1,40	1,41	1,43	1,38	1,34	1,34	1,38	1,34	1,36	1,40	1,39	1,39
Permanent	3	8	5	1	5	5	1	5	3	3	9	9
	1,59	1,74	1,81	1,45	2,42	3,27	3,34	3,35	2,80	1,43	2,17	2,29
Seasonal	4	4	5	8	1	5	5	0	0	0	9	6
	2,99	3,16	3,25	2,83	3,76	4,62	4,72	4,69	4,16	2,83	3,57	3,69
Total	8	2	1	9	6	0	6	5	3	3	8	5

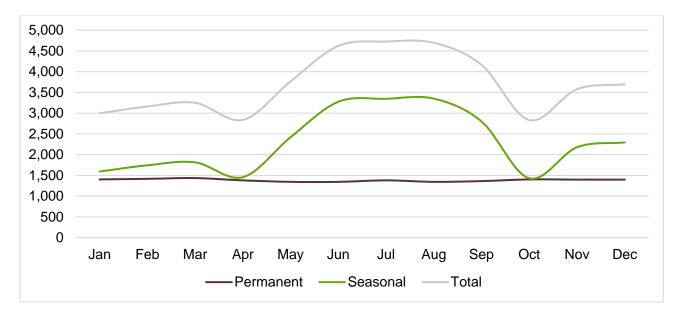


Figure 4 Monthly demand – vineyard workforce 2021.

Winery worker demand

Table 19 shows that in 2020 just over 600 permanent workers and just over 1,000 seasonal workers were employed by wineries in Marlborough. Winery worker demand was forecast by wineries to increase 5% by 2024/25.

Table 19 Forecast annual requirement for winery labour.

	2020/21	2021/22	2022/23	2023/24	2024/25	Change 2020/21 to 2024/25
Permanent	616	628	639	646	655	6%
Seasonal	1,028	1,045	1,057	1,061	1,069	4%
Total	1,644	1,673	1,695	1,707	1,724	5%

While the permanent winery labour force remains relatively constant throughout the year, the seasonal peak is over 1,600 in April for vintage, as shown in Figure 5. This peak is very short, typically only lasting four to six weeks and is historically provided largely by overseas workers. Wineries state that in an average season, 83% are either overseas backpackers or those on an Essential Skills Visa. The very limited season makes it very difficult to provide permanent employment in wineries, and worldwide vintage staff are often provided by travellers.

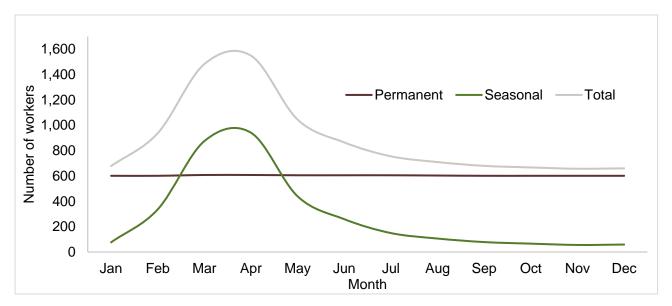


Figure 5 Monthly demand - Marlborough winery workforce.

Combined worker demand

Combining both the vineyard and winery workforce, Table 20 shows the total workforce in the Marlborough wine industry in 2020 was almost 9,000 workers which is expected to grow by 1,515 for the 2024/25 season.

Table 20 Forecast annual requirement for Marlborough wine industry labour.

	2020/21	2021/22	2022/23	2023/24	2024/25	Change 2020/21 to 2024/25
Permanent	2,017	2,057	2,096	2,131	2,168	8%
Seasonal	6,879	7,146	7,591	7,952	8,243	20%
Total	8,896	9,203	9,686	10,084	10,411	17%

It is interesting that the 2016 Labour Market Survey forecast a total vineyard labour force of 10,304 for 2019/20, but this year's survey reports an annual requirement of 8,986 for 2020/21 for the wine industry. Contractors have commented that the labour market is quite different now than what it was in 2016. In particular, in 2020/21 there were less contractors, a highly experienced (mostly RSE) workforce, longer seasons (pruning) and most were operating six-day working weeks.

The 2016 labour survey predicted the need for 4,544 casuals and RSE workers for winter pruning in 2019/20. This 2020 survey reports the 2020 winter season requires 3,616 workers, a reduction of 20% and similar to the 3,570 which the 2016 survey reported for 2015/16. The impact of Covid-19 may have created a 'new normal', where pruning starts in late April and continues to September with most contractors working six days a week and using weekends to make up rain days. In particular, contractors surveyed suggested this was likely to continue, as labour supply restrictions were leading to an ongoing increasing need to extend working hours.

Labour supply

Labour supply was severely abnormal in 2019/20 due to the impact of an Alert Level 4 lockdown implemented on March 25 2020, just as vintage got underway. Most had their harvest and vintage staff in the region and were able to operate as an essential service. However, growers, winegrowers and contractors were particularly short of workers at the start of the pruning season in late April as new arrivals of RSE workers were prevented from entering the country. Figure 6, Figure 7 and Figure 8 show the shortfall in workers experienced by growers, contractors and wineries from July 2019 to June 2020. These shortfalls are all higher than those experienced in 2016 and were particularly concerning when RSE workers for winter pruning were unable to enter the country as planned in April and May, creating a significant shortfall in workers for contractors. Contractors responded by commencing pruning early, relocating RSE workers who remained in New Zealand, extending work hours, employing more working holiday visa holders and relocating winery staff. However, contractors reported a shortfall of between 500 and 650 workers for April to June 2020. Also of particular concern was the high number of inexperienced pruners that were utilised in 2020. The led to much higher levels of training, greater supervision and less productivity, and many commented on a poorer quality of pruning which may have affected yield in 2021.

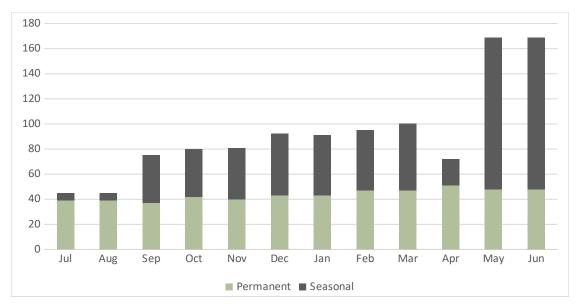


Figure 6 Grower and winegrower worker shortfall 2019-2020.

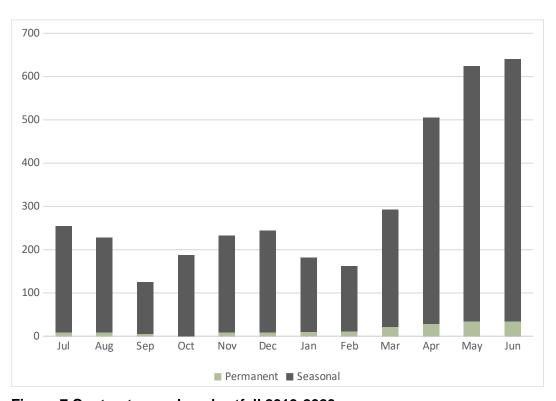


Figure 7 Contractor worker shortfall 2019-2020.

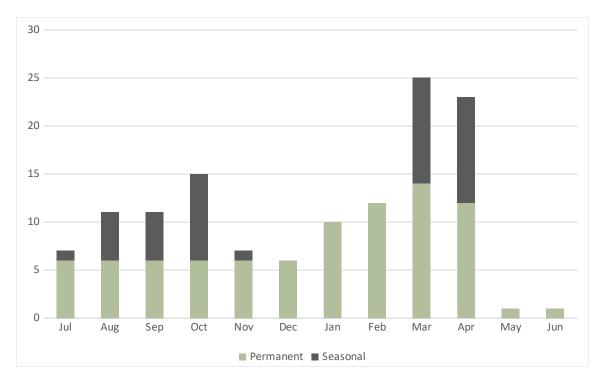


Figure 8 Winery worker shortfall 2019-2020.

Wineries generally all had sufficient staff for vintage, and created work bubbles to ensure a highly successful vintage under a Covid-19 Alert Level 4 lockdown. However, with borders remaining closed for vintage 2021, wineries were extremely concerned about being able to secure sufficient numbers and experienced staff. In a 'normal' season, wineries generally reported sufficient staff, supplemented by experienced overseas staff that visit Marlborough for vintage.

Labour Practices

Recruitment methods

Vineyards, contractors and wineries were asked to rank the recruitment methods they find most useful.

Growers and winegrowers consider local referrals as being the most useful method of recruitment (Table 21). Online recruitment, direct recruitment and previous returning workers were also considered significant in how growers recruit their workforce.

Table 21 Value of methods of recruitment of workers – vineyard (grower and winegrower).

Method of recruitment	1 = most useful, 10 = least useful	Number of responses
Local referrals	1	25
Online recruitment (e.g. Seek, Trade Me Jobs)	2	16
Direct recruitment	3	13
Previous workers returning	4	12
Advertising (e.g. newspapers)	5	9
Social media (e.g. Facebook)	6	8
Casual walk-ups	7	5
Use of recruitment agencies	8	3
WINZ	9	0

Contractors found the most useful methods to be a combination of returning workers from previous years, online recruitment, local referrals, and social media (Table 22). The use of advertising (e.g. in newspapers) was not considered useful by any of the contractors. This compares significantly to the 2016 survey, when online recruitment and social media were considered the least useful methods of recruitment, and Work and Income New Zealand (WINZ) referrals were considered more useful. Local referrals and returning workers from previous years have shown their importance in both surveys.

Table 22 Value of methods of recruitment of workers – contractors.

Method of recruitment	1 = most useful, 10 = least useful	Number of responses
Previous workers returning	1	10
Online recruitment (e.g. Seek, Trade Me jobs)	2	8
Local referrals	2	8
Direct recruitment	4	5
Social media (e.g. Facebook)	4	5
Casual walk-ups	6	1
Use of recruitment agencies	6	1
WINZ	6	1
Advertising (e.g. newspapers)	9	0

Wineries differ slightly to contractors in that their preferred methods of recruitment are strongly in favour of online recruitment such as Seek and Trade Me Jobs (Table 23). This is closely followed by returning workers from previous years, and to a lesser extent local referrals and direct recruitment. This difference could be due in part to wineries needing more specific labour skills, and use recruitment methods that target workers with these skills from outside the local area.

The use of WINZ was not ranked in the top three by any winery.

Table 23 Value of methods of recruitment of workers - wineries.

Method of recruitment	1 = most useful, 10 = least useful	Number of responses
Online recruitment (e.g. Seek, Trademe jobs)	1	18
Previous workers returning	2	16
Local referrals	3	10
Direct recruitment	4	8
Social media (e.g. Facebook)	5	6
Casual walk-ups	6	3
Advertising (e.g. newspapers)	6	3
Use of recruitment agencies	8	2
WINZ	-	0

The main methods considered useful by all three types of business surveyed were online recruitment and local referrals. Previous workers who were returning also featured significantly. Interestingly, only one contractor considered WINZ to be a useful method of recruitment, while neither growers nor wineries rated that channel, preferring to rely on their own methods of recruitment. This number has dropped since the previous survey. There was a general comment that there is a wide gap between the skills and attitude required by the industry and the suitability of workers that have historically been referred by WINZ.

Recruitment challenges

All three groups of respondents were asked how different factors have affected their ability to recruit or retain staff.

Growers were affected mainly by the availability of accommodation. This was cited by around half of the respondents as affecting their ability to recruit or retain staff (Figure 9). Approximately one third of growers cited location, availability of childcare and transport, visa issues and an RSE cap as affecting them in some way. Solutions suggested by the growers included providing transport, moving allowances and flexible working hours. Thirteen of the 44 growers specifically mentioned they offer flexible working hours. In particular, one medium-sized grower found they were able to recruit four times the number of locals by offering flexible working conditions.

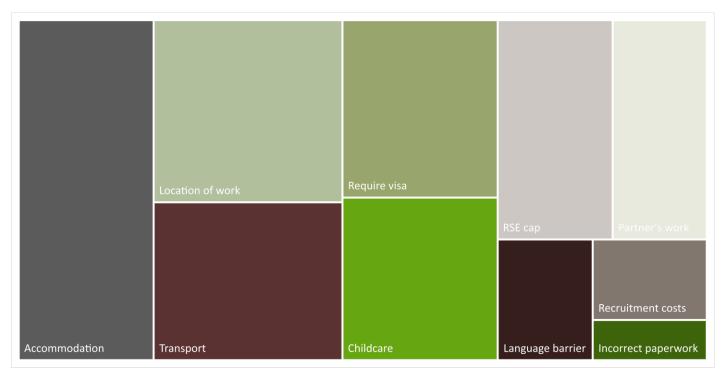


Figure 9 Key recruitment challenges for growers and winegrowers.

Approximately half the contractors surveyed suggested that availability of transport, accommodation, the work placement of partners, location, RSE work cap and visa issues all affected their ability to recruit or retain staff to varying degrees (Figure 10). To a lesser extent childcare availability, paperwork issues, language barrier and finance (cost of hiring staff) were affecting recruitment. There was not one specific factor that affected recruitment or retention; rather it was a combination of factors. These factors were counteracted by contractors offering transport options, flexible working hours and assistance with accommodation.



Figure 10 Key recruitment challenges for contractors.

Factors affecting recruitment or retention by wineries were different. The significant factors were availability of suitable accommodation, location of work, language barrier and visa requirements (Figure 11). Wineries offer assistance with finding accommodation, provide transport, assist with visas and channel additional human resources to assist interns with bank accounts, and so on, to enable the recruitment process.

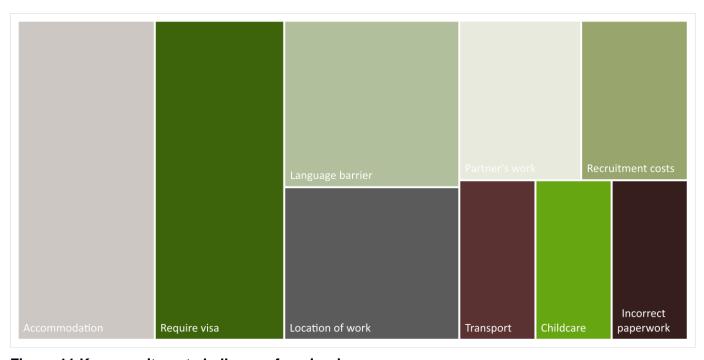


Figure 11 Key recruitment challenges for wineries.

Retention

Average retention of workers by worker type is presented in Table 24**Error!** Reference source n ot found. A New Zealand permanent worker stays with a winery or grower for on average, between six and seven years. This figure is slightly less for a contractor, at 4.9 years. This compares to 8.5 years and 5.4 years respectively in the 2016 survey. Although the figures are slightly less than in the previous survey, it still represents a stable permanent workforce. Contractors report that RSE workers stay on average five to six months. Many return each year, with the average amount of time employed by a contractor being reported as six years.

New Zealand seasonal (non-WINZ) staff generally stayed between 2.8 months and one year, and were generally students who may return for two seasons or other locals who may return for several years. As can be predicted, overseas backpackers stay the least amount of time – ranging from 1.6 months to three months – but may return in subsequent years, especially in the wineries.

The data is somewhat misleading for New Zealand Jobseeker employees. The number of New Zealand Jobseekers employed is very low and made it difficult to establish a valid average. However, results from New Zealand Jobseekers supplied by WINZ were highly variable, with contractors reporting retention of between three days and 12 months, with most between seven days and one month. Wineries generally reported better success with retention, between three days and five years, while only three growers reported employing New Zealand Jobseekers with retention of one to 12 months.

Table 24 Average Retention Period of Workers by Worker Type.

Average Amount of time employed	NZ Permanent	NZ Seasonal	Overseas seasonal Backpacker	RSE seasonal Worker	NZ seasonal Jobseeker/WINZ	Essential skills visa holder
Contractor	4.9 years	2.8 months	1.6 months	6 months/6 years	1.8 months	
Winery	6.1 years	4.4 months	2.9 months/2.3 years	N/A	1.2 years	2 months
Grower	7.2 years	1 year	2-3 months	5 months	5 months	

Casual worker pay rates

Growers and contractors were asked about typical hourly rates on piece rate for RSE and non-RSE workers, as presented in Table 25. All contractors were able to answer this question, while only eight of the 44 growers knew this information. Often, growers using contractors did not know the hourly rate the contract worker received while working on their property.

Table 25 Typical rates of pay for RSE and non-RSE workers when working on piece rates.

	RSE (/hr)	Non-RSE (/hr)
Growers	\$22.00-26.00	\$18.90 ²² -28.00
Contractors	\$23.10-27.00	\$18.90-25.00

Both growers and contractors typically reported RSE workers earn higher hourly rates than non-RSE workers when working on piece rate. However, one medium-sized grower reported a rate as high as \$28/hour for their non-RSE returning pruners. RSE workers typically earn above the minimum wage. One of the eight growers and four of the 12 contractors who answered the survey reported non-RSE workers typically earn the minimum wage when working on piece rate.

Twenty one of the 44 growers indicated that, on average, 76% of the work on their vineyard is done on piece rate, while the labour contractors reported an average of 85% of all tasks were completed on piece rate.

Wineries were not asked this pay rate question, as they had recently completed a detailed harvest renumeration survey for Wine Marlborough which reported casual rates as shown in Table 26. Pay rates are widely anticipated to have risen for harvest 2021, given labour shortages within the region's wine companies. This will be surveyed after harvest 2021.

Table 26 Wine Marlborough Harvest Renumeration Survey – 2020 actual pay rates.

Employee	Average rate (/hr)
No experience	\$19.14-19.50
Experience	\$20.10-21.20
Returnee	\$21.08-23.26
Supervisor	\$22.83-24.63

Skills and attributes challenges

This part of the interview process involved open ended discussions on the challenges businesses face in finding workers with the right skills and attributes. Common themes have been grouped together and actual responses from survey participants are presented in Table 27 to Table 30.

Vineyards

Small growers (3 to 20ha) indicated they had few issues with finding employees. These are usually small family-owned businesses who either manage the work themselves with the aid of casual local labour at certain times, or employ the services of a contractor. Some concern was expressed by the small growers about being able to secure the services of a contractor at the time requested, but generally, though long-term relationships, achieved adequate outcomes.

²² 2020 Marlborough Wine Industry Growth Forecast data collection was undertaken before the adult minimum wage rate increased to \$20.00 per hour on April 1 2021, and all adult hourly wages have been adjusted since.

Table 27 Challenges faced by medium growers in finding employees with the right skills and attributes.

Theme	Survey participant comments
Limited labour pool	Not enough workers available.
	Lack of suitable candidates.
	Competition between employers.
	Lack of interest in jobs from locals.
Accommodation	Limited supply of accommodation options.
	Many workers have no accommodation or
	transport.
Location of workplace	Workplace is located an hour out of Blenheim, need transport to get to work, no
	available housing close by.
	Some potential workers are not based in
	Marlborough.
No issues	No challenge to find two casual staff in
	summer.

Table 28 Challenges faced by large growers in finding employees with the right skills and attributes.

Theme	Survey participant comments
Limited labour pool	Competition between employers for staff – competitive labour market.
	Not enough younger people joining the industry.
	Increase in vineyard size requires more staff from a static labour pool.
	The need to promote Marlborough as a place to live and work to encourage permanent workers.
Accommodation	Lack of accommodation.
Skills shortage	Not enough practical experience.
	Time is spent training and retaining staff.
Motivation	The physical nature of work and climatic conditions will not appeal to some workers.
	Perceived lack of motivation and interest in jobs from the locals.

Contractors

Contractors face a number of challenges in securing suitable employees with the right skills and attributes (Table 29). Many cited the seasonal and physical nature of the work contributed to the challenge, however, those workers with the right attitude, training and perseverance generally did well.

Table 29 Challenges faced by contractors in finding employees with the right skills and attributes.

Theme	Survey participant comments
Seasonal nature of the work	The work and hours are not consistent throughout the year which can create uncertainty for those [employees] with regular costs and bills.
	Some only want to do seasonal work for a short period, knowing the physical nature of the work will not be ongoing [conditioning].
Nature of the work	Historical stigma and reputation of the viticulture industry.
	Can't dress up bud rubbing! Repetitive nature of tasks can be unattractive to some workers.
	The main challenge relates to the physical nature of the work, with many people giving up before their bodies have adjusted to hard work, which can take at least six weeks.
Attitude of workers	Reliability and work ethic is always a challenge, especially in the hard roles e.g. grape pruning.
	Hardest attribute is finding people with the right attitude toward the work and willingness to do the job.
	Staff need to be fit and motivated to work. The jobs can be hard, but the pay is good if you are prepared to do the work. It's hard to find Kiwis who will stick at the job long enough to really see the benefits of the good money that can be earned.
Competition for workforce	Competition within industry for the small available workforce – limited numbers in the local workforce.
	Kaikōura rebuild has been competing for workers.
Shortage of skilled staff	Shortage of skilled staff, so not many apply to an advertisement.
	Operations manager hard to find.

Wineries

There are a number of challenges for the wineries in finding workers. A common theme is the basic lack of New Zealand workers, skilled or unskilled. Attracting workers to Marlborough for a seasonal short-term role is a challenge and, appears to have been solved in the past by utilising backpackers and overseas workers. This then provides its own challenges in terms of arranging visas, coordinating travel and accommodation. With the current Covid-19 pandemic, there was a shortage of overseas workers available for the 2021 vintage. None of the wineries stated that the workers they did hire were lacking in motivation or a desire to work.

Table 30 Challenges faced by wineries in finding employees with the right skills and attributes.

Theme	Survey participant comments
Seasonal nature of the job	Hard to get [New Zealanders] to move to Marlborough for a seasonal role.
	No locals available for seasonal positions.
Lack of workers	There are not enough candidates available for the work.
	Sheer numbers of labour required, and the labour pool is small.
	Lots of competition for staff.
	Contract lengths are being extended to secure casual workers and backpackers.
Skill set	There are not enough skilled New Zealanders to fulfil our vintage positions.
	There is a shortage of experienced people.
	Getting applicants with the right skill sets to apply for positions.
	Supervisory and specialist roles are hard to fill.
	Lack of skilled staff.
	We [just] need low skilled people who have the work rights to do the cellar hand role, we get very few NZ applicants.
	Big challenge is finding New Zealanders, we can train anyone to do the job.
Immigration	In some cases it is hard to get visas for those from overseas who need them to work.
	Vintage immigration requirements.
	Overseas people cannot come into NZ [for 2021 harvest] (not enough skilled New Zealanders).
Pay	Pay rates are increasing.
	The market rate for pay keeps moving up.

A common theme from all survey groups is the limited labour pool of skilled local workers. This creates competition between employers to employ and retain staff. Combined with a suggested lack of younger people joining the industry, this results in a competitive labour market. As a result, some roles are heavily reliant on seasonal and transient labour. The lack of accommodation and transport is seen as a challenge for both medium and large growers.

Growers are well aware of increasing wages and the effect this is having on the overall cost of production. The NZW/Ministry of Primary Industries (MPI) Viticulture Benchmarking report for Marlborough estimated labour expenses had risen 35% and overall expenses 29% for the five year period to June 2020. The increase in labour is largely due to rising rates of pay, as commented by several survey participants.

Incentives and initiatives

From the responses received, it does appear large growers are being proactive at implementing positive initiatives to attract New Zealanders, including:

- working with WINZ and the Ministry of Social Development (MSD)
- targeting education establishments, developing and offering cadet schemes, partnering with local schools and offering apprentice schemes and a defined career pathway
- offering training schemes such as those delivered by Nelson Marlborough Institute of Technology (NMIT) and Primary ITO to employees
- providing decent facilities, good quality work gear, machinery and clothing, wine allowances, overtime rates and travel allowances.

Overall, large growers report that these initiatives have been successful to secure permanent New Zealanders. Some comments include:

- "Staff numbers are full in the vineyards for the first time in some years."
- "Since Covid-19, more New Zealanders applying for jobs so more to choose from."
- "Cadetship has been successful in attracting lots of applicants."
- "100% successful."
- "Very successful."
- "Great."

Specific roles, such as vineyard operators/cellar hand and vineyard managers are described by some respondents as hard to fill, and some believe their success in attracting permanent New Zealand workers is limited. A small number mentioned that machinery operators tended to regularly move between companies and that it could be challenging finding New Zealanders for fixed term roles.

Contractors have implemented a range of incentives to attract more New Zealanders into jobs. These include:

- Flexible hours (including only working school hours)
- provision of transport or help with fuel costs or obtaining a driver's license

- guaranteed minimum hours regardless of weather
- providing accommodation for seasonal and assisting permanents find accommodation
- free health and mental health check-ups
- training
- good quality and wellmaintained work gear and equipment
- good pay rates and bonuses.



Photo credit: Silver Secateurs, courtesy of Wine Marlborough

Some contractors worked with other local industries to provide employment for their New Zealand staff during the off season such as working on roading crews and in cool stores. Once contracting work was available again, the workers were re-employed.

When contractors were asked how successful they had been in securing permanent New Zealand workers, there was a range of responses. A number reported they had been successful, especially at taking employees on in supervisory and team leader roles and in full-time positions. One reported a shift of staff from corporate vineyards to contractors. On the other hand, some contractors felt that casual work was all that was wanted by some employees, with no career progression. One contractor offered their workers a permanent position with training through Primary ITO once they had worked for a month, while another had workers on fixed term contracts that they were hoping to make permanent.

Initiatives by wineries to encourage more New Zealanders into jobs include:

- engaging with MSD, tertiary institutions, NMIT and Lincoln University for staff
- on-the-job training with pay increases as training progresses
- offering apprenticeship roles that are full-time and permanent
- extended positions that are both in the winery and vineyard
- flexible working hours
- offering cadetships and showcasing the industry to Year 12 and 13 students
- working with WINZ and also offering packages including housing, transfer costs, meals and laundry
- recruitment agencies working with people out of work in other regions e.g.
 Queenstown, due to the Covid-19 pandemic.

Wineries reported some success with these initiatives, including the following comments:

"We have hired three New Zealanders [permanent] in the last 6 months."

- "Good success through online recruiting of unskilled but motivated workers, once employed they are upskilled internally."
- "We have 18 NZ candidates after extensive advertising." [30%, rest filled by Working Holiday Visa]
- "Moderate success."
- "Average."
- "Ok success, but getting people with experience is difficult."

Overall, growers, contractors and wineries report there is a shortage of skilled labour across all the business entities. Companies are recognising that investing in people with a positive work ethic and providing training opportunities is a way to start to address this shortage. Providing flexible but guaranteed work hours can be an attractive proposition for potential employees. The lack of a local labour pool sizeable enough to satisfy the demand is being addressed by thinking outside the square. This includes offering incentives for suitable applicants to relocate, such as providing accommodation (or assistance to find), transfer costs and provision of a vehicle. Retired workers, students and part-time workers are being encouraged into casual roles by good pay rates and flexibility.

Retaining Jobseekers

Interviewees were asked the question: "Do you think there is anything the Government can do to assist you to retain Jobseekers from Work and Income?"

Response from growers:

- pay for training to upskill workers top up wages while Jobseeker is undergoing onthe-job training or subsidise payments during training period
- reintroduce the 90-day trial so employers are more inclined to take the risk on a new employee
- provide more training, upskilling and incentives for the company to invest in these new employees
- provide pathways to learning
- provide accommodation assistance
- build more houses in Marlborough to address the shortage of accommodation
- remove the 12-week stand-down period as this penalises those on the benefit wanting to do seasonal work
- provide pastoral care
- increase the minimum wage so the benefit is less attractive
- assist in the relocation of motivated unemployed to Marlborough.

Response from contractors:

- ensure jobseekers are work ready
- help with pastoral care
- more help with budgeting advice for employees
- suspend the benefit if they do not turn up for work without a valid reason or abscond
- drug testing ensure people really want to work and are not just turning up to then go back on the benefit

- help with finding accommodation and a food grant to start them off
- provide additional worker subsidies if in employment rather than on the benefit
- alter the length of the stand-down period to encourage the uptake of short-term employment
- provide employer subsidies for training/pay for training
- reinstate the 90-day trial, as it was used to take a risk on new staff but now [employers are] not prepared to take that risk
- assist people to move to the district it makes it difficult if they are paying rent in two places
- get Jobseekers motivated and enthused to have the opportunity to work and make money
- assist with workers' training costs or top up wages until they can work at a minimum rate
- one contractor stated" "Top ups can weigh heavily on a worker's mind, and is one of the main reasons workers leave, they don't feel they can cut it. But it can take 6-12 weeks to get up to speed, if workers knew this was not a cost to the business, and the industry became more accepting of the time it takes new people to get up to speed, then I think more would stay on. After doing 12 weeks, most workers stay on, but getting them to that point has a very low success rate, as low as 5%".

The response from wineries was varied, and included:

- understand our needs and match suitable people to these needs, i.e. positive attitude, physically fit
- provide financial support for training programmes including free fees for apprentices and subsidies for study –courses such as NMIT cellar hand are an excellent initiative
- offer better incentives to get New Zealanders into jobs and upskill them.
- one on one support may help workers stay
- better communication between MSD/WINZ/INZ for a more streamlined process
- Government could help reinforce a positive image of winery work
- send vetted/motivated recruits who want to work
- hold workers accountable if they do not stay in the job especially after money is invested in their training.

In summary, a common theme across the board is that employers would be more willing to take on WINZ Jobseekers if:

- employers were supported with financial assistance for training either by subsidies or topping up wages
- the 90-day trial was reinstated and
- the Jobseekers were motivated and willing to work and be trained.

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Photo credit: Nautilus Estate, courtesy of New Zealand Winegrowers

Productivity of workers

Vineyards, contractors and wineries were asked to rate the productivity of their workers in their own opinions (Figure 5 to Figure 78). Growers considered permanent workers and seasonal workers under the RSE scheme as the most productive workers, together with locals and those on the Essential Skills Visa Scheme. WINZ workers and backpackers were considered less productive on the whole.

Contractors rated permanent workers, RSE workers and those on Essential Skills Visas highly, with WINZ workers and backpackers regarded as the least productive.

Wineries rated permanent workers, Essential Skills Visa workers and, to a lesser extent, locals and other casuals as the most productive. WINZ workers were again considered the least productive.

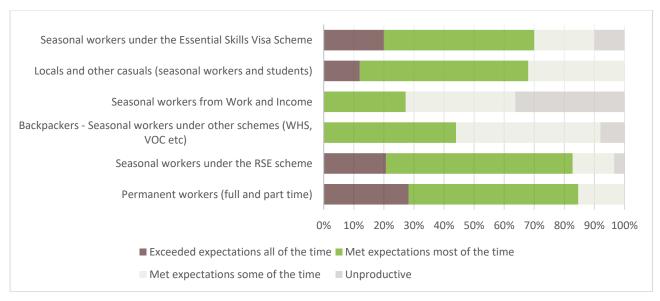


Figure 5 Productivity of workers as rated by growers and winegrowers.

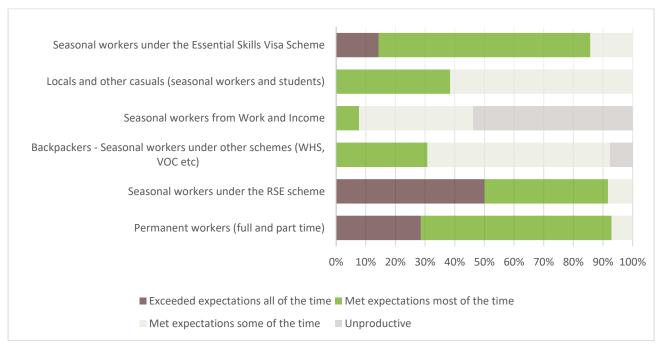


Figure 6 Productivity of workers as rated by contractors.

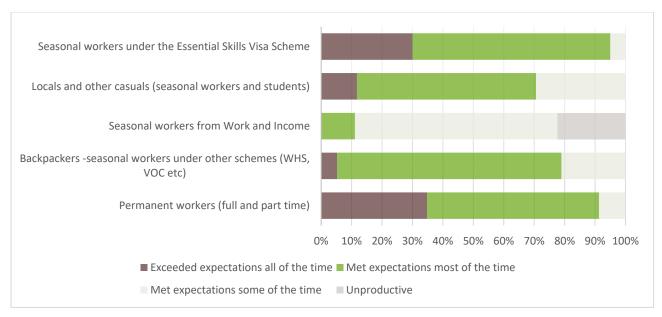


Figure 7 Productivity of workers as rated by wineries.

Barriers to productivity

The entities interviewed were asked what they believed their labour barriers to increasing productivity were. Growers indicated their biggest barrier was the shortage of labour when it was required, followed by a lack of trained staff. This pattern was echoed by the contractors, while the biggest barrier to productivity of the wineries was the lack of suitably trained staff.

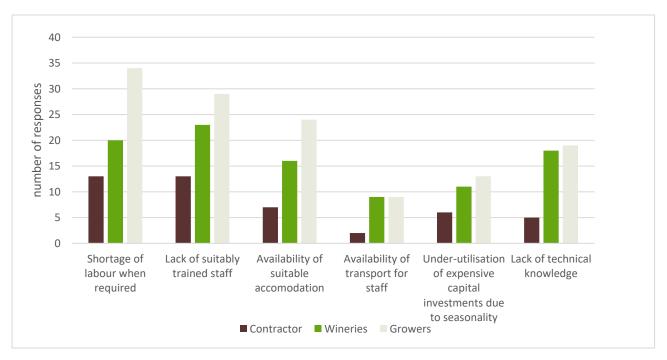


Figure 8 Labour barriers to productivity.

Covid-19

When the interviews were carried out in November/December 2020, there was still a great deal of uncertainty surrounding the future in terms of if or when borders would open and the availability of workers. The situation was changing from week to week with no predictability, hence there was some difficulty for the businesses surveyed to plan for the future with any real certainty. This needs to be factored into this project and is a distinct difference to the 2016 project.

Growers were asked what the impact of Covid-19 was on winter pruning in 2020. Some growers indicated it had little or no impact, whereas others were impacted significantly for various reasons:

- lack of experienced, trained staff meant lower quality of work and delayed completion
- more casuals and machinery were used
- contractors were under pressure due to uncertainty of labour availability
- cost of pruning increased by 15% to 35% in some cases due to the skills shortage and slower workers
- pruning was started earlier than normal to ensure its completion
- planning was less flexible
- low morale and unsettled, tired workers resulted in lower productivity
- concerns for 2021 pruning when the workers go home.

On the positive side, some growers were able to upskill existing vintage workers and university students to carry out pruning tasks. At the time of interviewing, growers anticipated less impact on the labour supply/demand for summer 2020/21. The main concern was uncertainty, which was addressed by contingency planning, booking contractors ahead, using mechanisation wherever possible and, in the case of some growers, doing more of the work themselves. Some growers were using contractors to cover staff shortfalls, but this added a layer of complexity to the work and impacted on budgets.

On the whole, growers appeared more confident of a minimal impact of Covid-19 on harvest 2021, given the positive handling of the situation during harvest 2020, of which majority was undertaken in lockdown and under the essential service status granted by MPI. Many stated they had contingency plans and expect to be able to confidently address any impact. The main concern was that there could be a shortage of hand pickers, which would impact on some growers significantly more than others. Additionally, if wineries had a shortfall in staff, this could delay harvest and result in slower processing times. There was also a concern that if there was not enough staff at harvest time, potential disease control could be affected. Uncertainty was still evident in the responses, but the labour supply was considered more critical for winter pruning than harvest. This is because 98% of the grapes in Marlborough were machine harvested in 2020 and forecast to be similar over the next five years.

The majority of contractors interviewed were significantly impacted by the supply and demand of labour over winter pruning 2020. In particular, they cited:

- inexperienced seasonal staff resulted in significant additional training and top-ups (hundreds of thousands of dollars in some cases)
- low motivation and productivity by staff

- stress on permanent staff and stress and anxiety for RSE workers who were due to return home
- limited RSE workers and WHV (Working Holiday Visa) holders available to work summer RSE workers had to be trained to prune and one commented 95% of their pruning workforce had not pruned before, therefore supervisors had to train a whole new workforce in limited time
- impact on compliance costs and efficiency
- some larger contractors had to subcontract to ensure pruning was completed in time significant financial impact of loss of revenue and increase in costs.

The impact on supply/demand for summer work 2020/2021, although problematic, did not appear to be considered as severe a problem as for winter pruning 2020 and winter 2021. Many contractors stated that if their RSE workers returned home this would leave a labour shortage which would cause problems if jobs could not be filled by New Zealand workers. The staff shortages would put more pressure on permanent workers. One contractor noted that top-ups for inexperienced summer staff was less than for winter staff due to the less skilled nature of the work.

For harvest work 2021, the impact mainly concerned a lack of staff available for hand picking. One contractor stated that reduced staff would mean a reduction in business, while another stated they had contingency plans to work closely with contractors of other crops. The belief was that there would not be enough RSE or WHV workers available. One contractor predicted that there would be less demand for hand harvesting for the 2021 harvest.

Wineries were asked what impact they expected Covid-19 to have on supply/demand of labour for their vintage in 2021. Almost every respondent said there would be a significant impact on their business. The main concern was a lack of experienced staff. Wineries planned to address this in different ways, for example by:

- changing processes in the winery to cope with less skilled staff
- employing staff earlier so they can be trained
- potentially redeploying office and vineyard staff.

Other concerns included:

- the high costs to train staff due to a higher proportion of unskilled workers
- potential errors due to inexperience
- pressure on permanent workers to supervise inexperienced staff
- potential health and safety issues with high numbers of inexperienced staff
- lack of key supervisors
- lack of trained equipment technicians, as those qualified are unable to enter the country
- the immigration process, which can be time consuming and costly, especially when addressing the visa restrictions of those workers already in the country
- the usual overseas interns employed for vintage cannot enter the country due to border restrictions.

When the interviews were taking place it was obvious companies were already planning ahead in detail and making contingency plans for the worst-case scenario of the borders remaining closed.

Across the board, the responses to the questions show a level of resilience, contingency planning and ability to problem solve. This indicates the industry has a high level of confidence in its ability to successfully navigate the challenges of the pandemic. New Zealand Winegrowers is actively communicating with members through monthly Seasonal Workforce Member Updates. The most recent update, in February 2021, reiterated that the New Zealand border was likely to remain closed for all of 2021, although NZW were continuing to seek a travel bubble with the Pacific Islands. Without a travel bubble, growers and contractors are facing significant challenges for winter pruning 2021.

Summary

The 2020 Wine Industry Growth Forecast forecasts an increase in planted vineyard area in Marlborough of 5,150 hectares in the five years to 2024. This compares with the 2016 Labour Market Survey which forecast an increase in the five years to 2020 of 6,800ha (actual increase 4,385ha). The majority of this forecast planting will occur in the Upper Wairau Valley, while in 2016 the forecast was predominately in the lower and central Wairau, with 26% in unknown locations.

This 2020 Growth Forecast found a 17% increase in the number of workers will be required to meet the labour demands of the existing and additional planting planned. This total, 1,515 workers, comprises an 8% increase in permanent and a 20% increase in seasonal labour. The majority of this increase is a forecast increase in seasonal labour for pruning (24%) and summer work (26%).

Some of the key labour and recruitment challenges outlined in the 2016 Labour Market Survey are still equally relevant in 2020. In 2016, survey participants reported that finding workers with the right attitude and work ethic was the biggest challenge. In 2020, this was reiterated by many, but many also outlined a number of new and successful initiatives to recruit and retain workers. These included flexible working hours, accommodation and transport assistance, extensive training opportunities and competitive rates of pay. However, many also still felt assistance was required to attract, recruit and retain New Zealand Jobseekers and see this as an ongoing challenge they, industry and Government need to continue to address.



Photo credit: Wine Marlborough.

This survey resulted in a comprehensive amount of information being collated about the Marlborough wine industry. Many themes within the survey could be explored more deeply outside the scope of this report. It gives an accurate and genuine account of the status of the industry at the time the survey was conducted in November and December 2020, looking forward to the 2024/25 growing season. There is no doubt that the industry has and will feel the effects of Covid-19 for some time, but this notwithstanding, the industry is in a strong position with positive future plans for expansion. Whilst the labour market will always have its challenges as it has done historically, the industry as a whole is well placed, well-coordinated and collaborative, which will help deal with the challenges outlined in this report.

Acknowledgements

We wish to acknowledge the following groups and individuals for their support and involvement throughout the project.

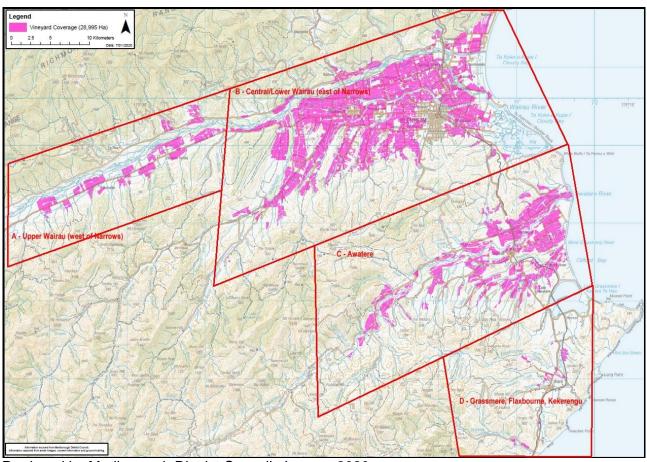
- Wine Marlborough, Marlborough District Council, Marlborough Research Centre and New Zealand Winegrowers.
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- Cover Photo: te Pā Wines, courtesy of New Zealand Winegrowers.



Photo credit: Nautilus Estate, courtesy of New Zealand Winegrowers.

Appendix

Marlborough subregions and planted vineyard area



Produced by Marlborough District Council, January 2020.