

Final Report

Avocado industry market data capture and analysis

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Project code:

AV20000

Project:

Avocado industry market data capture and analysis (AV20000)

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Summary

Avocados Australia has successfully facilitated and delivered *Avocado industry and market data capture and analysis*, a program conceived to support both short- and long-term business-level and industry-level planning and decision making across the Australian avocado industry. This has entailed provision of robust industry data to underpin effective supply chain management.

Much of the data that has been collected, collated, analysed, and reported through this project has been dependent on the contribution of data from individual businesses. One of the criteria for assessing the success of the project is the level of data contribution, which has continued to increase over time. Over the three years of the project, the average participation rate increased from 88.42% in FY2020-21 to 92.81% in FY2022-23, weighted by volumes produced by region.

Another success criteria was the alignment of avocado supply volumes that were reported through this program, compared to the levy receipt volumes reported by the Department of Agriculture, Fisheries and Forestry, Levies Revenue Service each quarter. For the three-year period, Infocado covered 92.25% of levied volume, on average, weighted by yearly volume produced. For more detail on these figures please refer to the 'Results and Discussion' section.

The suite of reports and insights that have been developed throughout this project have been provided to industry on a regular basis to assist with business and industry planning and management. For individual businesses and the broader industry, the data has provided:

- Weekly reports which show volumes of avocados supplied into the domestic market in the past week and the forecast volumes to be supplied in the next four weeks. This data has assisted suppliers and traders to monitor and moderate the flow of avocados through the supply chain to minimize the risk of over or under supply, therefore optimizing quality at a retail level and value to the supply chain.
- A rolling 12-month monthly forecast of avocado supply into the Australian market to assist with seasonal transitions, planning harvest, logistics, and marketing.
- Insights into export market opportunities and an understanding of global competitors.
- Information on current plantings and therefore likely future production levels by region/time of year.
- Long-term production forecasts to guide industry strategic plans, R&D, and marketing investments.
- Data to monitor industry performance and progress over time.

Keywords

Avocado, growers, packhouses, traders, data, reporting, dispatch, forecast, Infocado, OrchardInfo, export

Introduction

High quality industry data is essential for business and industry planning. Avocados Australia has long provided a service to industry to collect, analyse, and report industry data to assist with such planning.

Avocado is a unique crop that only begins to ripen once harvested. It is precisely this trait that enables the industry to utilise data to moderate the flow of fruit volumes through the supply chain. This creates great opportunities for the industry and consumers to benefit from consistent product quality due to more stable supply, and consistent prices which supports demand and optimises returns for growers.

The Australian avocado industry is continuing to experience rapid expansion which presents both opportunities and challenges. While domestic and global demand for avocados also continues to grow, Australian producers will continue to respond to this opportunity. However, the industry understands the important role that good data can play and has played in the industry's development thus far. The industry recognizes the value of both short-term and long-term forecast information in terms of supply to the Australian domestic market. However increasingly, data plays an important role as the industry plays a growing role in the global avocado market.

The industry has long recognized the importance of having access to timely and robust supply chain data. This project was built on the highly successful programs developed and implemented by Avocados Australia over the past 18 years and ensured the provision of industry data continued to remain relevant and front of mind for stakeholders.

With this project, Avocados Australia has sought to increase participation levels and data accuracy from suppliers and vendors, by devising and introducing improved means and instruments that capture industry data more effectively and reporting that better portrays the dynamics of the Australian avocado supply chain. This project has also given closer consideration to global trade dynamics and to support the burgeoning Australian avocado sector.

Methodology

1. Seasonal avocado throughput collection and forecast system

a. Infocado – Weekly Infocado Reports for short-term data.

Data on the volume of avocados dispatched in the previous week (Saturday to Friday) by size, variety (Hass, Shepard or Other), and pack type, as well as a forecast for the following 4 weeks were provided weekly by packhouses.

Due to the significance of the NZ industry in the Australian market, New Zealand imports to Australia were routinely captured, reported, and validated with ABS data.

Reports were compiled each week reporting the four-week forecast and prior week dispatch data, showing volume of fruit dispatched by region (including NZ), variety (Hass, Shepard, Other), fruit size, pack type, with exports, and processing quantities. The Weekly Infocado Report was emailed to all contributors and Hort Innovation each Tuesday and loaded to the Avocados Australia website on a six-week delay. This provides an incentive for contributors to participate.

A dynamic version of these weekly reports was made available online to contributors through our AvoData platform. In these dynamic reports, the user has the ability to filter and select different metrics and time spans. Contributing users have access to the latest short-term 'weekly' data, by logging in to AvoData.

b. Infocado – Quarterly Infocado Reports for medium term data.

Every three months all avocado packhouses (including NZ industry) provided seasonal forecast data for the coming 12 months through AvoData. This frequency of updating is necessary due to the wide range of growing regions and cropping cycles. Individual contributors log in to access and update their data during a specified window each month.

Participating packhouses contribute data online through the AvoData platform. To capture forecast data for those packhouses that do not contribute online, a call-around to key packers in each of the regions was undertaken at the appropriate timing, seeking estimates to complete the information for the quarter.

Regular follow up reminders and remote support for data entry was provided as required. Our experience over the years shows that personal engagement with participants is essential to maintain high participation levels.

Using available data and estimates, quarterly reports showing dispatch data for the past 12 month and forecast data for the following 12 months was produced. This report shows monthly volumes by variety (Hass, Shepard, Other) and region. An average monthly retail price (from the weekly on-line price monitoring) is overlayed on the historical dispatch data to show the relationship between volumes and retail price.

Packhouses are encouraged to use the crop forecasting case studies available on the Best Practice Resource to develop their seasonal crop forecasts.

The reports have been provided to the Marketing Manager at Horticulture Innovation Australia Limited, and the Industry Strategic Partner and have been used in AAL discussions with retail chains to assist with seasonal category management planning and promotion.

c. Stakeholder engagement drive.

Between August 2021 and March 2023, a total of 108 visits to 72 distinct packers in 5 growing regions took place. During these visits, many earlier non-participating packers were onboarded to the program, where training sessions on the usage of our new data system were provided, as well as how to read and interpret our reports, and collecting general feedback.

d. Infocado system review and improvement.

Earlier in this project, Avocados Australia's data system's development was completed and released for industry wide adoption. Monitoring of technology developments to determine options for improved data capture and reporting is ongoing. We recently completed a survey to identify possible improvements we could potentially incorporate to our system and reports, and ultimately provide our industry with the best data possible. We are currently incorporating features that will ease data entry process for some users, and considering other additions that will enhance efficacy of the data reported.

e. Data system rebuild – new challenges and features.

We have onboarded a number of new contributors throughout the project and provided support to all new and existing contributors to get them up to speed with the new system. The process was successfully and smoothly completed. All contributors currently submit their weekly and seasonal data with minimal support.

2. Avocado industry strategic information system

a. Maintain OrchardInfo – Annual Tree Census for medium to long-term data.

The Annual OrchardInfo Report has been collated and distributed to all contributors at the end of each year. The reports indicate Australia's production capacity, number of trees and area planted, year planted, variety and tree density. We validate tree census numbers with data from the Australian Bureau of Statistics, however the Australian tree crop map (ATCM), developed by the Applied Agricultural Remote Sensing Centre at the University of New England, is a more recent resource which now provides a fairly good representation of the geographical location and size of avocado orchards (and other crops) in Australia. We now use the ATCM as a secondary resource to validate our tree census numbers. The OrchardInfo report has been distributed to all contributing growers each year directly via email.

b. Monitor productivity change over time in different regions for medium- and long-term data.

Participation in our annual productivity survey was very poor, despite incentives and follow up engagement. The decision was made to abandon this component of the project as the data sets were inadequate for publication.

A new benchmarking project (AV22004: Avocado Industry Benchmarking) has been commissioned that will have the resource capacity to collect reliable productivity data.

c. Maintain and increase grower/stakeholder participation rates.

Growers have been well engaged with the OrchardInfo tree census, and response levels have been increasing. In the last couple of years, we have extended the period of data collection from 6 to 15 weeks to maximise the completeness of the dataset. Significant efforts have been made to ensure that most if not all growers' details have been recorded. Furthermore, the data capture has been streamlined to improve ease of use and has facilitated a higher participation rate from industry.

3. Industry data analysis

Analysis of Data on Retail Sales of Avocados

A study was carried out to estimate retail price elasticity of demand for avocados, by analysing data from consumer purchases. This work was completed by agricultural economist Mr Garry Goucher (Gary Goucher and Associates).

The data comprised 132,618 individual retail purchase transactions over a two-year period from December 2017 to November 2019. The transaction data was collected by the Nielsen Company from their 'Homescan' sample of consumer households across Australia. The sample comprised 8,606 households selected to be representative of Australian household consumption.

A range of analytical methods were compared in order to identify the combination of demand function, data format and regression type that would deliver the best estimate of the price elasticity of demand given the various constraints facing this type of analysis.

The analysis found estimates of the retail price elasticity demand mostly within the range from around -0.5 to -0.7. That is, a 10% rise in the retail price of avocados could be expected to result in between 5% and 7% decline the number of avocados purchased by consumers.

Although the study benefitted from analysing a large number of transactions, some reservations remain about the statistical reliability of the estimates of elasticity. The explanatory variables that were available for the analysis do not explain all of the factors that drive variation in individual consumer purchase decisions. For many consumers, avocados may be regarded as an optional purchase and subject to a degree of whim or impulse.

Other ad-hoc analyses and tailored reports

Other analyses reports have been prepared on request for governments. The content of these reports was prepared to inform departmental updates, such as Queensland's Department of Agriculture and Fisheries 'AgTrends' and The Horticulture Coalition of SA PIRSA Primary Industries / Food and Wine Scorecards which are published once a year. The reports included data captured through this project relevant to the particular States such as production volumes, Gross Value Product, average farmgate price, among other variables as was required.

4. Global trade data analysis

Specifically targeting current and potential exporters, a global trade data analysis framework was developed in Q2 of 2018. This framework provided the foundation for a series of reports that have been developed and provided to exporters and the broader industry to assist with developing export markets and understanding global competitors. Reports were compiled by Mr Wayne Prowse (Fresh Intelligence Consulting).

The current suite of global trade reports is comprised of:

- Weekly export update: 1-page weekly dashboard report based on DAFF data showing latest week and year to date exports comparison to the previous year, with commentary.
- Monthly export update: Latest month and year to date Australian exports comparison to the previous year and Moving Annual Total (MAT) by volume, value, and unit value. Latest months import update and market shares and CIF price points by competitor for 5 key markets of interest (Singapore, Hong Kong, Malaysia, Japan, and India). Latest Australian imports from New Zealand and Chile by month and season to date.
- Exports and imports – (June and December): twice yearly reports involving data tables, analytics, graphs covering exports by market and states, 10-year trends, volume, value and unit value, key export market competitive trade and basic commentary in PowerPoint format suitable for presentations, and in PDF for publishing on the industry website. Sourced from GTIS and ITC TradeMap.
- Global export markets and trade (yearly): A yearly report on market profiles for each of the global top 5 importing countries and 10 markets of interest in Asia and Middle East, showing 5-year import / export trade by volume, price, and consumption (to latest CY) with analytics and commentary – by 30 September each year.
- Producers / competitors (yearly): 2-page market profile report assessing global trade flows focussed on each of the leading 10 producing countries production and export trade by volume, price, over 5 years (to latest CY), including key Latin American suppliers Mexico, Peru and Chile with analytics and commentary – by 30 September each year.

5. Annual report of industry statistics

The statistics snapshot 'Facts at a Glance' report has been published annually around September on the Avocados Australia website at <http://www.avocado.org.au/news-publications/statistics/>. This is a comprehensive document for both public and industry, providing the latest statistics relating to the Australian avocado industry. The report draws

heavily on the Infocado-derived data, along with other data sources to provide a status report of the industry volume and value, as well as providing projections of future growth.

6. Communication (via AV21004) and regional forums (delivered by AV17005)

Regular updates on the project outputs as well as insights from the data analysis have been provided to industry through the industry communication project, particularly through the Talking Avocados magazine, but also through the website, Best Practice Resource and Guacamole e-newsletter. For more detail on the outputs of the project communicated through AV21004 please refer to appendix C 'Outputs Table'.

7. General Requirements

All data collection system databases are hosted and maintained appropriately on our online platform. Data has been collected in line with the platform's terms of use as stated on <https://avodata.avocado.org.au/app/ConditionsOfUses>, and reports have been emailed and disseminated through electronic means enabling participants to tailor data extraction and generate their own individual reports on-line to suit their specific needs.

8. Data verification

As part of this project, a data verification schedule was developed to cross check and verify collected data obtained through each system with suitable alternative information sources. The schedule was used throughout the project to ensure that the data collected was within the thresholds established, and in alignment with other relevant sources.

Dispatch data was verified against quarterly levy receipts provided by the Department of Agriculture, Water and Energy. The target was for Infocado dispatch data to represent at least 85% of the volumes attributed to levy receipts each quarter. During the life of the project this benchmark was consistently achieved. Seasonal forecast data by region was verified against the end of season regional dispatch totals. The target was for variations to be less than 20%. During the life of the project this benchmark was achieved with some exceptions that have been justified, usually unfavourable weather conditions during a season.

Orchard planting data was verified primarily against data from the Australian Bureau of Statistics. During the life of the project the benchmark was consistently achieved. We are also now using the Australian tree crop map (ATCM) as a secondary resource to validate our tree census numbers. It is to be noted that refining the map information is an ongoing effort and there is a portion of the grower population who does not want to disclose information about their orchards. Because of this there is a persistent gap between our records and the ATCM. It is also to be noted that we are in the process of linking both databases in the next couple of years.

For reference, the data verification schedule and schemas showing evidence that these benchmarks have been met, can be referred to in appendix A 'Data Verification'.

Results and discussion

1. End of project survey results.

As the project approached its end, we invited active program participants to have a say about the projects reports, specifically about Infocado and the AvoData system in general. The information gathered was aimed at gauging the reports' effectiveness and gaining insights into possible improvements we could potentially incorporate to our system and reports, and ultimately provide our industry with the best data possible.

The survey consisted of 4 statements with the option to rate each on a scale of 5 from 'strongly agree' to 'strongly disagree', plus one open question for participants to describe changes or improvements to the system and/or reports, they may deem necessary.

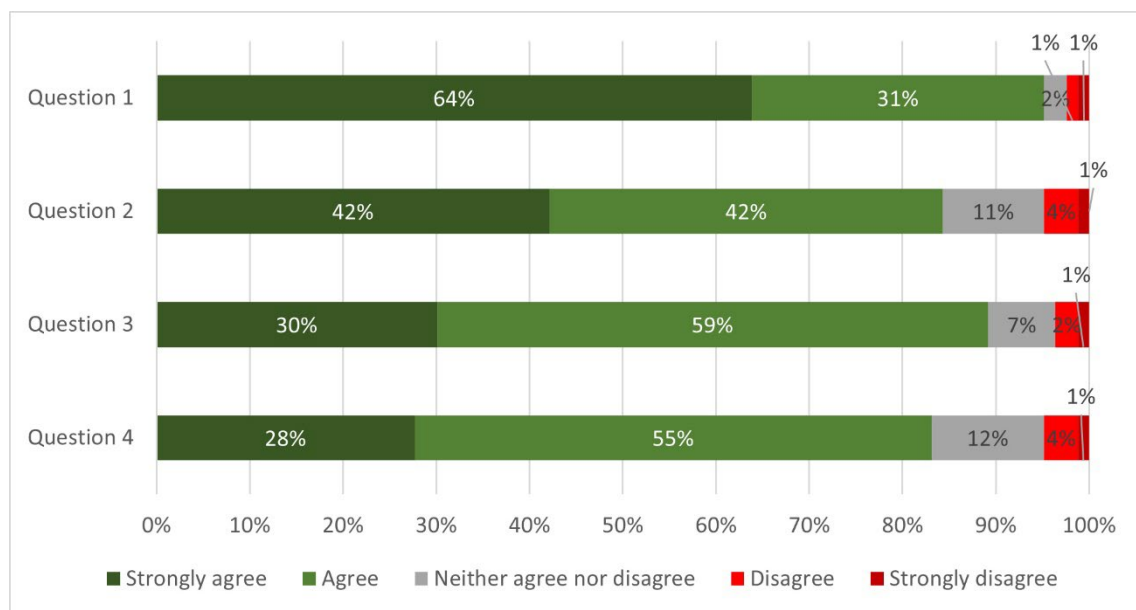
83 active participants responded the survey. All respondents are key decision makers that represent businesses responsible for over 70% of the volume produced by the avocado industry, ranging from the very small to the very large. The survey statements were:

Question 1: "A supply/demand balance is necessary to optimise returns for growers and deliver high quality avocados for consumers".

Question 2: "Infocado is a useful tool to help balance the supply and demand of avocados."

Question 3: "The information presented in Infocado provides a good representation of the supply status of the avocado industry."

Question 4: "The information presented in Infocado helps me make informed decisions in my business."



The survey aimed to explore how much value Infocado provides the participants that use the system and also to guide further potential improvements. The survey responses are summarised in the graph provided above.

These results clearly show the value of the data to participating businesses: 95% of them agree or strongly agree with the importance of a supply/demand balance to optimise returns for growers and deliver high quality avocados for consumers; 84% of responding businesses agree or strongly agree Infocado is a useful tool to help balance supply and demand; 89% agree or strongly agree that Infocado provides a good representation of the supply status, and 83% agree or strongly agree that the information helps with making informed business decisions.

The last question 'how would you change or improve the Infocado system or reports?' was an open question and, we

have received some good feedback as well as some interesting ideas which can be further explored. See appendix D 'Survey Feedback'. We look forward to running these ideas by industry to potentially incorporating some of them.

Accurate and verified supply volume data is essential to support a supply/demand balance, as it helps packers, distributors, retailers, and other industry stakeholders make informed decisions to respond to market dynamics which impact on prices and quality. The supply data presented weekly on Infocado represents around 92% of the volume of avocados produced in Australia and all imports from New Zealand and Chile (delayed). The data helps the industry manage its supply and thereby creating efficiencies throughout the supply chain. Active and engaged participation in Infocado by the majority of industry, is the main way we can ensure that the information gathered is reliable and useful.

2. Trends revealed by the data.

Our production forecast model is a projection that gives an indication of domestically produced avocado volumes we can anticipate in the coming years. The model is built considering 2 main factors: orchard census data and regional yield estimates.

Orchard census data provides detail of the number of trees and hectares currently planted, their age, where they are, and at what rate they are planted each year.

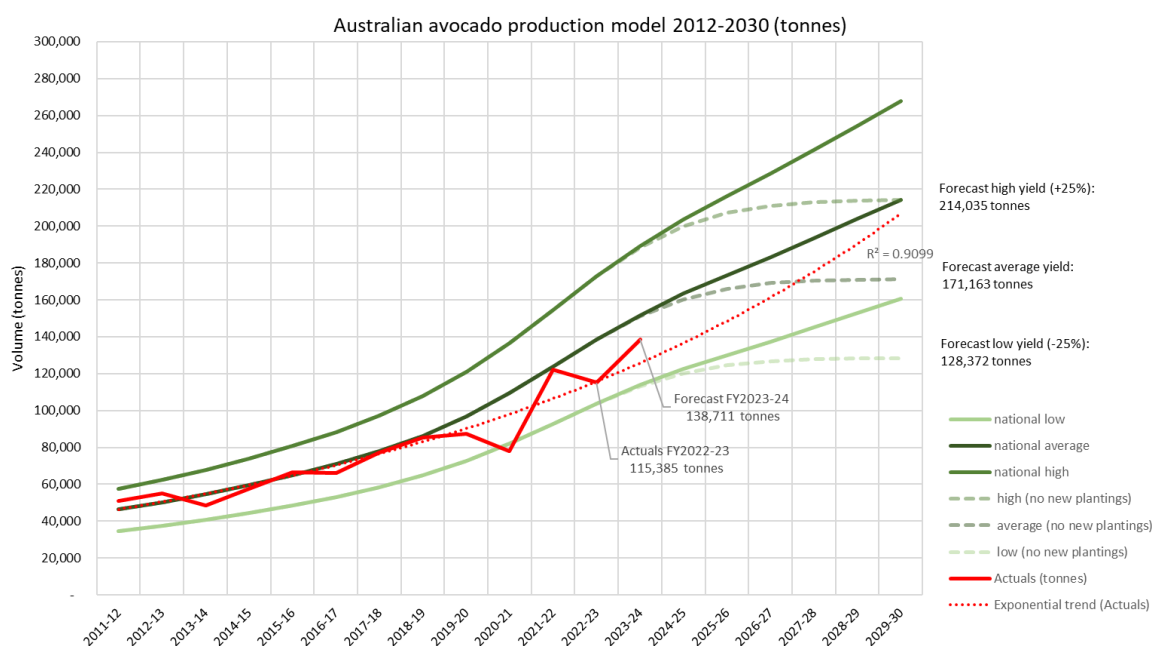
Regional yield estimates are developed based on typical yield per age of plantings for each of the main production regions. Yields curves have different productive thresholds and reach their maturity plateau differently in each region due to environmental factors. The data for each region is collated to provide a national long-term forecast.

From the estimates we derive possible lower and upper bounds ($\pm 25\%$) for how much fruit can be produced by hectare in each region. The projected yearly planting rate can be adjusted as well, to display the effect of new planting rates on the steepness of the projection.

The model starts from 2012 due to availability of more complete Infocado data to track against the model. Based on average yield estimates, the model predicts about 170,000t by 2025-26. This would mean a production volume 41% higher than the production volume of FY2021-22, back when Western Australia had its largest ever crop.

Understanding these trends allows industry to better plan for the future, it helps us to understand the rate at which the market must be expanded, both domestic and export.

Figure 1 - Australian avocado production model 2012-2030 (tonnes)



3. Packhouse participation rate.

One of the criteria for assessing the success of the project is the level of data contribution. The high rate of participation to date confirms the importance of data in decision making. Only packhouses who participate are provided with timely access to the data. The data has been particularly relevant during times of rapid increase in supply, such as the recent challenging season of FY2021-22, which highlights the importance and high value of this data for industry.

The table below shows the percentage of fruit volume that comes from participating packhouses, for each financial year, by region. The remaining percentage is captured indirectly (on a quarterly basis) through other means such as phone calls, and the full picture is presented in our Infocado Quarterly Reports. The average at the bottom of the table is weighted by the volume produced in each region.

Table 1 - Packhouse on-line participation rate over time and end of project participation figures

| Region | FY2020-21 | FY2021-22 | FY2022-23 | Number of businesses FY2022-23 | Volume for FY2022-23 |
|----------------------------------|---------------|---------------|---------------|--------------------------------|----------------------|
| North QLD | 77.59% | 85.08% | 91.82% | 30 | 7,417,266 |
| Central QLD | 93.38% | 93.74% | 93.37% | 11 | 4,974,295 |
| Sunshine Coast ² | 74.41% | 70.83% | 71.39% | 3 | 114,927 |
| South QLD | 80.31% | 85.15% | 87.72% | 8 | 1,102,490 |
| Tamborine/N. Rivers ² | 75.78% | 69.40% | 66.28% | 6 | 152,829 |
| Central NSW | 97.89% | 97.10% | 97.00% | 3 | 1,658,243 |
| Tristate ¹ | 69.04% | 69.32% | 66.92% | 11 | 1,780,443 |
| WA/NT | 97.16% | 97.84% | 98.24% | 13 | 3,778,569 |
| Weighted Average / Total | 88.42% | 90.89% | 92.81% | 86 | 20,979,062 |

¹ Tristate's representation rate declined from FY2021-22 to FY2022-23 because of new volume information of a large non-participating operation in the region that came to light that year.

² Tamborine / Northern Rivers and Sunshine Coast are regions in decline with few businesses, year-on-year fluctuations in supply reported are exacerbated by the low number of participating packhouses.

4. Data verification.

The data verification aspect of this project cross-checks and verifies collected data with suitable sources and/or techniques in a timely manner to ensure accurate, valid, consistent, and reliable reporting. This is a key to maintaining the trust and participation of our stakeholders, with regard to avocado industry and market data.

This project collects the following three types of data which are verified:

1. Avocado supply volumes into the Australian market.
2. Seasonal crop forecasts
3. Annual avocado orchard tree count.

Table 2 – Infocado dispatch volume verification against levied volume

| Financial Year | Levied Volume (Kg) | Infocado Volume (Kg) | % covered |
|----------------|--------------------|----------------------|-----------|
| FY2020-21 | 80,571,479 | 78,080,156 | 96.91% |
| FY2021-22 | 142,595,908 | 122,197,400 | 85.69% |
| FY2022-23* | 55,026,348 | 55,132,215 | 100.19% |

*Q1 & Q2

5. Viewership, click rates

All industry reporting to date has been delivered to satisfy quality, frequency, and timely requirements.

In addition to the number of industry participants who receive our reports directly, according to Google Analytics, the below are the number of visits made to reports published on our website between 1 September 2020 and 21 September 2023:

1. The weekly and quarterly Infocado reports (shared URL) (<https://avocado.org.au/our-programs/supply-chain-data/infocado/>) had 9,160 total page views.
2. The retail pricing report (<https://avocado.org.au/our-programs/supply-chain-data/retail-pricing/>) had 15,069 total page views.
3. The Facts at a Glance report (https://avocado.org.au/wp-content/uploads/2021/10/2020-21_AAL-Facts-at-a-glance3.pdf) had 7,252 total page views.
4. The OrchardInfo report is emailed annually directly to ~650 contributing growers exclusively.

Outputs

Table 3. Output summary

| Output | Description | Detail |
|--|--|---|
| Program logic and monitoring and evaluation plan. | A program logic and monitoring and evaluation plan with linkage to Hort Innovation and industry/fund objectives. Including minimum participation rates for each system, and targets to grow participation through the life of project | Delivered to Horticulture Innovation Australia Limited with milestone report MS102 in March of 2021. |
| Project risk register | A project risk register outlining every possible threat that could cause a failure in the project's delivery, and how each risk would be managed. | |
| Stakeholder engagement/communication plan | Stakeholder engagement/communication plan outlines who our stakeholders are, and reason, method, and timing of the engagement. | |
| Data verification schedule | <p>The schedule outlines the data sets to be verified, the appropriate verification source/s or techniques, the frequency and timing, and any verification reporting needs to ensure accurate, valid, consistent, and reliable reporting.</p> <p>The schedule developed during AV16006, provided a framework and methodology for verification activities appropriate to AV20000. Three types of data verified under this schedule:</p> <ul style="list-style-type: none"> • Avocado supply volumes into the Australian market. • Seasonal crop forecasts. • Annual avocado orchard tree census. | A data verification update has been provided with each milestone report as outlined in the schedule. |
| 6-monthly milestone status reports and a final report. | <p>Milestone reports informed Horticulture Innovation Australia Limited about the progress and achievements of the project for a 6-month period.</p> <p>A final report (this report) where the end of project outcomes and performance are communicated.</p> | 6-monthly milestone status reports MS102 – MS106 and a final report (MS190) have been satisfactorily delivered. |
| Weekly Infocado Reports | <p>These reports assist the industry to supply avocados more consistently throughout the year, thus helping optimise fruit quality at retail level and support a more stable market. The data also assists with planning industry marketing activities throughout the year. It includes:</p> <ul style="list-style-type: none"> • Weekly dispatches from packers by region or origin and variety. • Projected weekly dispatches for the following four weeks. | <p>Delivered to Horticulture Innovation Australia Limited, and around 250 industry recipients every Tuesday, except when public holidays fall on Mondays or Tuesdays, then it is delivered on Wednesdays.</p> <p>The reports are made publicly available on Avocados Australia's website with a 6-week lag: https://avocado.org.au/our-programs/supply-chain- </p> |

| | | |
|---|---|--|
| | <ul style="list-style-type: none"> • Pre-season, updated seasonal forecasts, and harvest progression by region. • Dispatch and forecast data out of New Zealand. • Graphs displaying trends 6-monthly trends by region or origin and variety. • Relevant commentary about the market for the week, and updates on current marketing activities. | data/infocado/#WeeklyReports |
| Weekly Retail Price Reports | Retail prices of avocados on stores in major capital cities, of single fruit, pre-packed, organics, etc. | <p>Delivered to Horticulture Innovation Australia Limited, and around 250 industry recipients every Wednesday.</p> <p>The reports are made publicly available on Avocados Australia's website with a 6-week lag: https://avocado.org.au/our-programs/supply-chain-data/retail-pricing/</p> |
| Quarterly Infocado Reports | Quarterly report represents complete and broader view of the industry, utilising monthly 'seasonal' data, and including data from packers not currently participating in the Weekly Infocado. They include dispatches and forecasts for twelve months past and forward by month, source region and variety including data from New Zealand. | <p>Delivered to Horticulture Innovation Australia Limited, and around 250 industry recipients at end of quarter in January, April, July, and October</p> <p>The reports are made publicly available on Avocados Australia's website with a 6-month lag: https://avocado.org.au/our-programs/supply-chain-data/infocado/#QuarterlyReports</p> |
| Annual OrchardInfo Reports | <p>The data collected on the annual industry tree census supports long-term industry and individual business planning. It includes the number of trees and area planted, year planted, variety and tree density.</p> <p>The report presents a picture of Australia's production capacity, the size profile of productive units across the country, varietal composition, among other details of interest to growers.</p> | Report delivered to Horticulture Innovation Australia Limited and emailed directly to around ~650 contributing growers at the end of each year. |
| Global trade reports | <p>This reporting system shows global avocado production and trade, regularly updated as new data becomes available:</p> <ul style="list-style-type: none"> • Global Markets and Trade reports produced each year around October. • 6 yearly export reports (3 calendar and 3 financial year). • 36 monthly reports - export, key market imports and Australian imports. • Ongoing weekly reports with analysis from DAFF data. | Reports made available on the Best Practice Resource (BPR) and promoted to industry. The data is also used to inform export strategies. Please refer to appendices I to M for examples of these reports. |
| 'Facts at a Glance' statistics snapshot | Facts at a Glance uses data sourced from Infocado, the Australian Bureau of Statistics, and contributing consultants to provide a snapshot of the industry's | Delivered to Horticulture Innovation Australia Limited, and published after the end of each financial year on |

| | | |
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| | <p>key statistics, showing production performance by region and long-term industry forecasts. The report Includes:</p> <ul style="list-style-type: none"> • National production figures by region, tonne, and trays. • Harvesting periods for Shepard and Hass. • Production by variety. • Avocado consumption. • Export markets. | <p>Avocados Australia Ltd.'s website on: https://avocado.org.au/news-publications/statistics/</p> |
| 'Talking Avocados' magazine articles, and | 1-2 articles each quarter | <p>Regular articles with key information have been disseminated through outputs of the Avocado Communication Program (AV21004). Please refer to appendix C 'Outputs Table' to see all articles published.</p> |

Outcomes

Table 4. Outcome summary

| Outcome | Alignment to fund outcome, strategy and KPI | Description | Evidence |
|--|--|---|--|
| Industry access to up-to-date, relevant, and scalable information concerning past, current and forecast seasonal product dispatch to inform in-season marketing and supply chain engagements for avocado growers and producers | Avocado SIP 2022-26 - Outcome 1: Demand creation Avocado SIP 2022-26 - Outcome 4: Business insights | Weekly and Quarterly Infocado Reports including dispatch and forecast information, emailed to participants, and published on Avocados Australia's website. The information contained in these reports is communicated to retailers by our Market Development Manager, to inform decisions that will smoothen seasonal transitions, making retail marketing campaigns more effective by anticipating changes in supply, increasing the throughput of fruit in periods when it is most needed. Key findings are disseminated on the appropriate channels through the Avocado industry communications program (AV21004). | https://avocado.org.au/our-programs/supply-chain-data/infocado/ |
| Industry informed of the medium/long-term outlook for production through annual forecast reports to support strategic planning | Avocado SIP 2022-26 - Outcome 2: Industry supply, productivity, and sustainability Avocado SIP 2022-26 - Outcome 4: Business insights | The long-term forecast model presented in our yearly statistics handbook 'Facts at a Glance' and presented at industry events, is a multiyear projection based on tree census data and typical yield curves for each growing region. The forecast informs the industry about the likely production outlook, a number of years into the future. | https://avocado.org.au/wp-content/uploads/2022/10/2021-22_AAL-Facts-at-a-glance.pdf |
| Industry participants are able to make more informed decisions with regards to export and import schedules through the availability and analysis of trade data and intelligence | Avocado SIP 2022-26 - Outcome 2: Industry supply, productivity, and sustainability Avocado SIP 2022-26 - Outcome 4: Business insights | A suite of weekly, monthly, and annual reports, communicating information about the status and trends of global trade are available on Avocados Australia's Best Practice Resource, emailed to the appropriate audiences, and key findings disseminated through the Avocado industry communications program (AV21004). | https://avocado.org.au/best-practice-resource/export/export-reports/ |
| A culture of data use and objective decision making by the avocado industry | Avocado SIP 2022-26 - Outcome 4: Business insights | Consistently high participation rate from industry stakeholders is evidence of the culture of data use and objective decision making by the avocado industry. For more detail on this please refer to 'participation rate' and 'data validation' sections above, as well as the results from our 2023 Infocado Survey found in the results and discussion section. | These end of project survey results clearly show the value of the data to participating businesses: 95% of them agree or strongly agree with the importance of a supply/demand balance to optimise returns for growers and deliver high quality avocados for consumers; 84% of |

| | | | |
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| | | | responding businesses agree or strongly agree Infocado is a useful tool to help balance supply and demand; 89% agree or strongly agree that Infocado provides a good representation of the supply status, and 83% agree or strongly agree that the information helps with making informed business decisions. |
| Access to reliable industry data to assess changes in supply and orchard productivity performance | Avocado SIP 2022-26 - Outcome 2: Industry supply, productivity, and sustainability Avocado SIP 2022-26 - Outcome 4: Business insights | We have attempted to collect, analyse, and report on productivity data, however the response has repeatedly been very poor. Note new benchmarking project (AV22004: Avocado Industry Benchmarking) has been commissioned that will have the resource capacity to collect reliable productivity data. | |
| A balanced domestic market where supply meets demand to provide optimum returns to the value chain and high quality for consumers. | Avocado SIP 2022-26 - Outcome 2: Industry supply, productivity, and sustainability Avocado SIP 2022-26 - Outcome 4: Business insights | Supply has exceeded demand, but industry is well informed of future supply projections. Planting data shows a sudden decline in new plantings in response to supply/demand dynamics. | OrchardInfo orchard census report (emailed to contributing growers and Hort Innovation) |

Monitoring and evaluation

Table 5. Key Evaluation Questions

| Key Evaluation Question | Project performance | Continuous improvement opportunities |
|---|---|--|
| 1. To what extent has the project achieved its expected outcomes? | The consistently high participation levels throughout the life of the project, in addition to the results from the end of project survey we carried out, are evidence that the project has supported industry and business planning through the provision of data that enables a balance in supply and demand. | We are currently exploring options for collection and reporting of additional datasets (as requested by industry) that will further complement the existing information and provide a more complete picture of the status of the market. |
| 2. How relevant was the project to the needs of intended beneficiaries? | <p>During the last few months of the project, we invited active program participants to have a say about the reports and the system in general. In total 83 active participants responded to the survey. All respondents are key decision makers that represent businesses responsible for over 70% of the volume produced by the avocado industry.</p> <p>The information gathered was aimed at gauging the participants perception on the reports' effectiveness and usefulness.</p> <p>The survey results clearly show the value of the data to participating businesses: 95% of them agree or strongly agree with the importance of a supply/demand balance to optimise returns for growers and deliver high quality avocados for consumers; 84% of responding businesses agree or strongly agree Infocado is a useful tool to help balance supply and demand; 89% believe that Infocado provides a good representation of the supply status, and 83% agree or strongly agree that the information helps with making informed business decisions.</p> | <p>The survey included one open question for participants to describe changes or improvements to the system and/or reports, they may deem necessary, this helped us gaining further insight on possible improvements to incorporate to our system and reports, and ultimately provide our industry with the best data possible.</p> <p>There were suggestions given in some of the responses that we are currently considering adopting.</p> <p>These suggestions will be explored further. See appendix D 'Survey Feedback'</p> |
| 3. How well have intended beneficiaries been engaged in the project? | <p>The intended beneficiaries have been very engaged in the project at various levels. As direct contributors, the growers, packers, consolidators, and wholesalers have been actively involved in providing data and receiving the reports on either a weekly, quarterly, and annual basis.</p> <p>The target engagement levels for data contribution have been achieved and, in many cases, exceeded.</p> <p>Overall, the national average participation rate in the Infocado program, weighted by the volume produced in each region, is around 90%. This can be taken as confirmation of the usefulness of the information and the industry's engagement with the project.</p> | Ongoing efforts are underway to further increase engagement levels for data contribution through regional visits. |

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| <p>4. To what extent were engagement processes appropriate to the target audiences of the project?</p> | <p>For the first year of the project lockdowns impeded travel and thus engagement was limited.</p> <p>For many avocado growers and packers, visits in person were the preferred form of engagement, this is due to the nature of their daily activities, many avocado growers and packers prefer face-to-face engagement and therefore remote sessions were largely disfavoured during the lockdown period of COVID-19, and plans were made for personal visits once state borders were reopened.</p> <p>Between August 2021 and March 2023, a total of 108 visits to 72 distinct packers in 5 growing regions took place. During these visits many earlier non-participating packers were onboarded to the program, where training sessions on the usage of our new data system were provided, as well as to how to read and interpret our reports, and collecting general feedback.</p> | <p>The current processes are working effectively. We will continue to monitor effectiveness.</p> |
| <p>5. What efforts did the project make to improve efficiency?</p> | <p>Opportunities to improve efficiencies throughout all aspects of the project, and to improve the ease and accuracy of data collection are ongoing priorities.</p> <p>The AvoData software renewal (software development funded by AAL) has been a fundamental precursor to improved efficiency of processes, user-friendliness, and accuracy of our data.</p> | <p>There are new features and refinements in the pipeline to be incorporated to the AvoData software soon, we expect that these will further enhance our reporting and increase efficiencies.</p> <p>These refinements include a mobile device application with the same functionality as the browser application, to be targeted to users on the move to enter their data and consult reports on the go.</p> |

Recommendations

1. As part of a continuous improvement effort, we recommend the reports to be reviewed and refined on an ongoing basis to ensure they are informative and user friendly.
2. We recommend maintaining the ongoing efforts to increase participation in the Weekly Infocado Report. While the participation level in the weekly Infocado Report is currently high, greater participation should remain a high priority.
3. There would be value in developing a method to estimate how reliable the published four-weekly forecasts are based on historical analysis.
4. Introducing sales data in our reports will help industry elucidate a clearer picture of the supply status of the market. There isn't yet a unified position on whether sales data should be reported, and therefore we will be seeking feedback from industry before we are able to proceed.
5. We recommend that extension activities should be implemented to help growers and packers improve their forecasting techniques. Further R&D is needed to assist with crop forecasting methodologies.
6. Industry has expressed strong interest in accessing weekly wholesale market price information. This should be incorporated in future reporting.
7. It has been noted that it would be useful to separate Hass and Shepard on the seasonal progress chart for both North and Central QLD.
8. It is recommended that providing individual packers with end of season summary reports may assist packers to improve forecasting and provide them with other useful data.

Refereed scientific publications.

None to report.

Intellectual property

IP and confidentiality arrangements remain as per the executed research agreement; there are no issues or developments to report.

Acknowledgements

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Packers:

60 Foot Orchards Pty Ltd, Adil Farming, Aussie Orchards Growers & Packers, Avocados with Altitudem, Avogreen Orchards, Avonova, Avorama Pty Ltd, Avowest, B & M Trousdell Enterprises, Balmoral Orchard, Barham Avocados, Battistin Orchards Pty Ltd, Bellview Orchards Pty Ltd, Bendotti Avocado, Blue Sky Produce, Bluegum Creek Produce Pty Ltd, Blushing Acres Pty Ltd, Cadorin Orchards Pty Ltd, Churinga Orchards, Cobra Hill Orchards, Costa Avocado, Cutri Fruit, D & L Smith, DBC Farming Pty Ltd, Delais Orchards Pty Ltd, Delroy Orchards, Donovan Family Investment Trust, Golden Hill Packing Pty Ltd, Golden Triangle Avocados, Goldup Farms, Googa Farms, Green Skin Avocados, Gunnado Farming Pty Ltd, Hinterland Avocados, In2avocados Pty Ltd, J.G. Loffler, Jennings Family Trust, Jirel Holdings, JL Trimarchi & PM Trimarchi, Kingston Avocado, Kureen Farming, Lava Valley Produce, Leadwood Pty Ltd, Licciardello & Son Orchards, Manbulloo Ltd, Mariners Rest, Marrbiz Pty Ltd, Mavco Pty Ltd, Merrinee Farm, Midcoast Avocados, Mildura Fruit Company, Minmore Fruits, Mountain Side Avocados, Natures Fruit Company, NJ & JK Donovan, NZ Avocado Ltd, Paradise Orchards, Parkes Lane Produce, R & S Bamess, RG Pegg, Rock Ridge Farming Pty Ltd, Rockley Partners, Rocky Creek Orchards Pty Ltd, Simpson Farms Pty Ltd, Summerland Farm, Sunny Bluff Produce Pty Ltd, Sunnyspot Packhouse Pty Ltd, T W Silver, The Avocado Collective, The Avocado Grove, Tinaroo Falls Avocado Trust, Touchwood Farming, Tropico Farms, Vitor Marketing Pty Ltd, West Aussie Avos, Willow Creek, WJ Row, Wodonga Park Fruit and Nuts.

Traders:

All Aussie Farmers [Melbourne], Australian Produce Partners Pty Ltd, Costa Avocado (National), Costa Farms [Adelaide], Costa Farms [Melbourne], Delroy Orchards, Deluca Banana Marketing [Brisbane], Etherington [Perth], Exotic Fruit Traders [Sydney], Fresh Choice WA Pty Ltd [Perth], Green Skin Avocados (National), J.H. Leavy & Co [Brisbane], LaManna Premier Group [Adelaide], LaManna Premier Group [Brisbane], LaManna Premier Group [Melbourne], LaManna Premier Group [Sydney], Mackays Marketing Co (National), Montague [Brisbane], Murray Bros [Brisbane], N & A Fruit Distributors Pty Ltd [Sydney], Natures Fruit Company (National), Rock Ridge Fresh (National), Simpson Farms Pty Ltd (National), Sinclair & Antico (Aust) Pty Ltd [Sydney], The Avocado Collective (National), United Fresh [Adelaide], WA Farm Direct [Perth], Watt Export (National)

We'd also like acknowledge all of the 650+ growers who have provided Tree Census data, Wayne Prowse (Fresh Intelligence Consulting) for producing the global trade report suite for this project, and Garry Goucher (Garry Goucher and Associates) for his work on estimating the price demand elasticity of avocados.

Appendices

- A. Data Verification
- B. Monitoring and Evaluation Plan
- C. Outputs Table
- D. Survey Feedback
- E. OrchardInfo Tree Census Report
- F. Infocado Weekly
- G. Retail Pricing Report
- H. Infocado Quarterly
- I. Weekly export update
- J. Monthly export update
- K. Exports and imports
- L. Global export markets and trade
- M. Producers / competitors

Appendix A - Data Verification

Table 1: Annual dispatch volume verification for each quarter.

| Quarter | 2020 Q3 | 2020 Q4 | 2021 Q1 | 2021 Q2 | 2021 Q3 | 2021 Q4 | 2022 Q1 | 2022 Q2 | 2022 Q3 | 2022 Q4 | 2023 Q1 | 2023 Q2 |
|-----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Period | Jul-Sep 2020 | Oct-Dec 2020 | Jan-Mar 2021 | Apr-Jun 2021 | Jul-Sep 2021 | Oct-Dec 2021 | Jan-Mar 2022 | Apr-Jun 2022 | Jul-Sep 2022 | Oct-Dec 2022 | Jan-Mar 2023 | Apr-Jun 2023 |
| Infocado (Kg) | 18,389,877 | 11,492,954 | 15,437,895 | 32,764,325 | 33,185,246 | 30,941,009 | 28,714,516 | 29,356,630 | 31,863,579 | 23,271,600 | 26,634,245 | 33,615,413 |
| DAFF Levied volume (Kg) | 21,376,649 | 12,853,575 | 13,204,401 | 31,382,989 | 38,222,013 | 36,162,914 | 33,619,265 | 35,551,201 | 29,125,192 | 25,883,524 | 24,254,229 | 34,673,915 |
| % Covered by Infocado | 86.03% | 89.41% | 116.91% | 104.40% | 86.82% | 85.56% | 85.41% | 82.58% | 109.40% | 89.91% | 109.81% | 96.95% |
| Year weighted average % | 99.70% | | | | 85.14% | | | | 101.61% | | | |
| Total weighted average % | 94.43% | | | | | | | | | | | |

Table 2: Annual dispatch volume verification for each quarter.

| January - December seasons | 2020 (Jan-Dec) | | % difference | 2021 (Jan-Dec) | | % difference | 2022 (Jan-Dec) | | % difference |
|--|----------------|-----------|--------------|----------------|-----------|--------------|----------------|-----------|--------------|
| | Forecast | Dispatch | | Forecast | Dispatch | | Forecast | Dispatch | |
| North Queensland | 3,717,308 | 4,174,294 | 12% | 5,182,969 | 6,790,473 | 31% | 5,819,890 | 5,775,121 | -1% |
| Central Queensland | 3,671,521 | 2,377,369 | -35% | 3,561,985 | 4,009,781 | 13% | 3,941,804 | 4,244,890 | 8% |
| Season's weighted average % difference | | | -5% | | | | 24% | 3% | |

| April - March seasons | 2020-21 (Apr-Mar) | | % difference | 2021-22 (Apr-Mar) | | % difference | 2022-23 (Apr-Mar) | | % difference |
|--|-------------------|-----------|--------------|-------------------|-----------|--------------|-------------------|-----------|--------------|
| | Forecast | Dispatch | | Forecast | Dispatch | | Forecast | Dispatch | |
| Sunshine Coast | 178,794 | 113,721 | -36% | 160,776 | 148,148 | -8% | 129,733 | 105,095 | -19% |
| Southern Queensland | 555,299 | 408,249 | -26% | 627,887 | 914,478 | 46% | 997,149 | 1,146,575 | 15% |
| Tamborine/Northern Rivers | 273,145 | 176,175 | -36% | 256,607 | 221,309 | -14% | 192,117 | 152,514 | -21% |
| Central NSW | 1,655,661 | 1,410,299 | -15% | 1,180,734 | 1,094,762 | -7% | 1,409,985 | 1,575,191 | 12% |
| Season's weighted average % difference | | | -20% | | | | 12% | 10% | |

| July - June seasons | 2020-21 (Jul-Jun) | | % difference | 2021-22 (Jul-Jun) | | % difference | 2022-23 (Jul-Jun) | | % difference |
|--|-------------------|-----------|--------------|-------------------|-----------|--------------|-------------------|-----------|--------------|
| | Forecast | Dispatch | | Forecast | Dispatch | | Forecast | Dispatch | |
| Tri State | 378,636 | 436,261 | 15% | 1,087,808 | 1,600,988 | 47% | 1,436,084 | 1,780,443 | 24% |
| WA | 3,000,805 | 2,463,135 | -18% | 8,979,080 | 8,602,890 | -4% | 4,406,995 | 3,778,569 | -14% |
| New Zealand | 3,230,548 | 4,255,227 | 32% | 3,202,004 | 2,342,460 | -27% | 2,677,250 | 1,832,300 | -32% |
| Season's weighted average % difference | | | 14% | | | | -2% | -11% | |

Appendix B – Monitoring and Evaluation Plan

Table 3: Project monitoring plan

| Logic level | What to monitor | Performance expectation (KPIs) and/or monitoring questions | Data collection – method (e.g. survey) and source | Timing of, and responsibility for, data collection | Progress to date |
|-------------------------|---|--|--|--|---|
| Foundational activities | Plan and manage project and budget | Project planning documents completed and sent to Hort, milestone deadlines are met, budget is adhered to. | Record keeping (Avocados Australia Ltd). | At MS102, and quarterly (project lead and data analyst). | Project planning documents included in the appendix of this report |
| Activities and outputs | Implement engagement plan. Percentage of industry representation improves or remains at milestone KPIs | Continued weekly, seasonal, quarterly and annual engagement, including reminders, to ensure continued or increased participation in the Infocado and OrchardInfo programs. Complete one visit to each major production region annually, with an additional visit, where indicated to larger producing areas. Regional visit schedules provide an opportunity for all local Infocado contributors to meet with project team; and at least one on-orchard visit per region where practical. Complete one visit per year to each of four central markets in major avocado trading cities Has industry stakeholder participation and engagement in the Infocado and OrchardInfo programs been maintained or increased above the milestone requirements? (Avocado supply data represents at least 85% of market & orchard planting data represents at least 85% of all plantings) | Record engagement feedback. Keep records of information gathered from growers and data contributors in the visits. Verify participation rates via ABS and levy receipts. | Engagement activities are continual and ongoing (data analyst). Regional visits: Intermittent (data analyst). Verification: quarterly and annual (data analyst). | Avocados Australia is active in its ongoing industry engagement with a participation rate that meets and exceeds requirements. For reference, please consult the data verification update in appendix A. Regional and market visits have been put on hold while COVID restrictions have been in effect, however as these are lifted, these visits will resume. |
| | Delivery of industry reporting. | Avocado industry reporting delivered on schedule to contributors and industry stakeholders as below: Infocado weekly reports distributed via email to contributors each working week and published to | Record keeping, and AAL website. | Data analyst is responsible; monitoring to occur quarterly, or annually | All industry reporting to date has been delivered to satisfy quality, frequency, and |

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| | | <p>the AAL website on a six-week delay.</p> <p>Infocado quarterly reports distributed via email to contributors each quarter and published to the AAL website on a six-month delay.</p> <p>OrchardInfo Tree Census is distributed annually via email to contributors only.</p> <p>Annual industry statistics are published to the AAL website each year for the previous year.</p> <p>Global avocado trade reporting in accordance with the Global trade data analysis framework developed under AV16006 (Q2 2018).</p> | | depending on timings at left. | timely requirements. |
| | Data verification. | <p>Infocado annual Australian market supply volumes are verified using levy receipts.</p> <p>Season forecast verification will be carried out at end of season, against supply volumes for the season.</p> <p>OrchardInfo Tree Census is annually verified against ABS data.</p> | Record keeping. DAWR levy receipts. ABS data. | Data analyst is responsible; monitoring to occur continuously as verification sources become available. | Data verification has been carried out as per schedule. For reference, please consult the data verification update in appendix A. |
| | Project communication to stakeholders. | <p>Project information and results are communicated through the Avocado Communication Program and increase stakeholder awareness of project value and outcomes:</p> <p>A minimum of two project related articles are published in each quarter in the avocado industry magazine Talking Avocados, at least one of these will be a report of industry data, the other will be ad hoc, or relating to project results or upcoming activities.</p> <p>Reminders and notification about project activities will be published in the fortnightly newsletter Guacamole, expected to be at least once a month.</p> | Communication outputs can be tracked in Guacamole and Talking Avocado editions. | Data analyst is responsible; monitoring to occur quarterly, or annually depending on timings at left. | Key results derived from industry reporting have been communicated to industry through products of the Avocado Industry Communications program AV18003 as required. |
| Intermediate outcomes. | Data collection and delivery mechanisms are | <p>Efficient data capture and reporting processes are implemented.</p> <p>Engagement and training are provided to</p> | Record keeping. | At end of project (project lead, data analyst) | Data system features are being incorporated to improve the efficacy |

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| | implemented which optimise data collection and reporting capacity, and which encourage a culture of data-driven decision making in the avocado industry. | contributors. | | | of data capture and reporting. |
| | The relevance of the data we collect, analyse and report, and whether it informs the industry's decision making. | Maintaining participation rate over 80% in Infocado and OrchardInfo. Ongoing voluntary participation is an indicator of the value of the data to individual business decision making. | Infocado / OrchardInfo Records. | Data analyst is responsible; monitoring is ongoing. | High rate of participation to date confirms the importance of data in decision making. Only those who contribute are provided with timely access to the data. |
| End-of-project outcomes. | Provide data which helps to support industry and business planning to enable a balance in supply and demand. This in turn will help to optimise returns for growers and deliver high quality avocados for consumers. | Analysis of supply and demand balance as indicated by price stability and quality over time. | Industry trend analysis. Wholesale market data reports showing trends in market prices. Results from retail quality monitoring (AV19003). | Data collected throughout the project (project lead, data analyst). | Evaluation to be carried out at end of project. |
| | | Seasonal supply data regularly informs SIAP decisions. | Feedback from HIA industry strategic partner. | Annual. | |
| | | Marketing campaigns are demonstrably in alignment with data reported. | Marketing annual reports. | Annual. | |
| | | Supply data assists retailers in seasonal transitions. | Feedback from Market Development | Biannual. | |

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| | | | Manager. | | |
| | | Data presented in the OrchardInfo informs industry and business planning. | Dissemination of reports and projections. | Ongoing. | |
| | | All our reports support the avocado industry's strategy outcomes as stated in the Avocado strategic investment plan 2022-26. | Data is referenced in Avocado SIP. | Ongoing. | |
| | | Global trade reports are utilised by the export reference group in planning and monitoring global trade | Feedback from project reference group. | Ongoing. | |

Appendix C – Outputs Table

Table 4: Outputs Table

| Output | Issue | Content | Delivered on | Available at |
|--------------------|---------------------------------------|--|-----------------------------|---|
| Infocado weekly | Week 33 of 2020 until week 39 of 2023 | Weekly dispatch & forecast figures | 18/08/2020 until 29/09/2023 | https://avocado.org.au/our-programs/supply-chain-data/infocado/ |
| Infocado quarterly | 2020 Q3 (October 2020) | Seasonal figures October 2019 - September 2021 | 23/10/2020 | https://avocado.org.au/our-programs/supply-chain-data/infocado/ |
| | 2020 Q4 (January 2021) | Seasonal figures January 2020 - December 2021 | 15/02/2021 | |

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|-------------|------------------------|--|------------|--|
| | 2021 Q1 (April 2021) | Seasonal figures April 2020 - March 2022 | 24/04/2021 | |
| | 2021 Q2 (July 2021) | Seasonal figures July 2020 - June 2022 | 24/07/2021 | |
| | 2021 Q3 (October 2021) | Seasonal figures October 2020 - September 2022 | 23/10/2021 | |
| | 2021 Q4 (January 2022) | Seasonal figures January 2021 - December 2022 | 25/01/2022 | |
| | 2022 Q1 (April 2022) | Seasonal figures April 2021 - March 2023 | 6/05/2022 | |
| | 2022 Q2 (July 2022) | Seasonal figures July 2021 - June 2023 | 5/08/2022 | |
| | 2022 Q3 (October 2022) | Seasonal figures October 2021 - September 2023 | 2/11/2022 | |
| | 2022 Q4 (January 2023) | Seasonal figures January 2022 - December 2023 | 10/02/2023 | |
| | 2023 Q1 (April 2023) | Seasonal figures April 2022 - March 2024 | 28/04/2023 | |
| | 2023 Q2 (July 2023) | Seasonal figures July 2022 - June 2024 | 20/07/2023 | |
| OrchardInfo | 2020 | Plantings data up until August 1 2020 | 4/12/2020 | |

| | | | | |
|-------------------|--|--|------------|---|
| | 2021 | Plantings data up until August 1 2021 | 17/12/2021 | Distributed to contributing growers and Hort Innovation |
| | 2022 | Plantings data up until August 1 2022 | 15/12/2022 | |
| Facts at a glance | 2020 | Figures for the financial year 2019-20 | 30/10/2020 | https://avocado.org.au/news-publications/statistics/ |
| | 2021 | Figures for the financial year 2020-21 | 30/09/2021 | |
| | 2022 | Figures for the financial year 2021-22 | 24/10/2022 | |
| Export Reports | Weekly Export/Import Update | 52 / year x 1-page reports showing weekly export information. | | https://avocado.org.au/best-practice-resource/export/export-reports/ |
| | Monthly Export/Import Update | 12/year x 1-page reports showing latest month and year to date exports comparison to the previous year and Moving Annual Total (MAT) by volume. | | |
| | 2020 Global market report avocado producers and market suppliers | 1-page market profile report for each of the leading 10 producing countries production and export trade by volume, price and consumption (to latest calendar year), including key Latin American suppliers Mexico, Peru and Chile with analytics and commentary. | 30/10/2020 | |
| | 2020 Global market report: avocado import markets | 2-page market profile report for each of the top 5 importing countries and the 10 countries listed in the export review AV16011 showing 5-year import / | 24/10/2020 | |

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|--|--|--|------------|--|
| | | export trade by volume, price, and consumption (to latest CY 2019) with analytics and commentary. | | |
| | 2021 Avocado Global Market Trends | 12-page reports involving data tables, analytics, graphs, and basic commentary in a Power Point format with supplementary excel sheets meeting the needs of section using supplied Hort Innovation graphics. | 3/11/2021 | |
| | 2021 Global Market Report - Avo Producers & Market Suppliers | 1-page market profile report for each of the leading 10 producing countries production and export trade by volume, price and consumption (to latest calendar year), including key Latin American suppliers Mexico, Peru and Chile with analytics and commentary. | 30/10/2021 | |
| | 2022 Avocado Global Market Trends | 12-page reports involving data tables, analytics, graphs, and basic commentary in a Power Point format with supplementary excel sheets meeting the needs of section using supplied Hort Innovation graphics. | 1/11/2022 | |
| | 2022 Global market report avocado producers and market suppliers | 1-page market profile report for each of the leading 10 producing countries production and export trade by volume, price and consumption (to latest calendar year), including key Latin American suppliers Mexico, Peru and Chile with analytics and commentary | 1/11/2022 | |

| | | | | |
|------------------|---|--|------------|--|
| | 2022 Global Trade Report - Australian avocado exports & imports | 12-page reports involving data tables, analytics, graphs, and basic commentary in a Power Point format with supplementary excel sheets meeting the needs of section using supplied Hort Innovation graphics. | 15/08/2022 | |
| | 2023 Global Trade report - Australian avocado exports & imports | 12-page reports involving data tables, analytics, graphs, and basic commentary in a Power Point format with supplementary excel sheets meeting the needs of section using supplied Hort Innovation graphics. | 15/02/2023 | |
| | Import & Export Report - January-December 2020 | 12-page reports involving data tables, analytics, graphs, and basic commentary in a Power Point format with supplementary excel sheets meeting the needs of section using supplied Hort Innovation graphics. | | |
| | Import & Export Report - July 2020-June 2021 | 12-page reports involving data tables, analytics, graphs, and basic commentary in a Power Point format with supplementary excel sheets meeting the needs of section using supplied Hort Innovation graphics. | | |
| Talking Avocados | Spring 2020 | Positive trends for the Australian avocado industry | 30/10/2020 | |

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|--|-------------|---|------------|--|
| | Spring 2020 | Where are all the missing trees? | 30/10/2020 | Distributed to members, all growers, other stakeholders, and Hort Innovation |
| | Summer 2021 | Avocados for India? | 29/01/2021 | |
| | Summer 2021 | National orchard continues to grow | 29/01/2021 | |
| | Autumn 2021 | 2020 export market analysis | 30/04/2021 | |
| | Autumn 2021 | Building confidence in industry data | 30/04/2021 | |
| | Winter 2021 | AvoData: tracking fruit flow | 30/07/2021 | |
| | Spring 2021 | Long-term production forecast | 29/10/2021 | |
| | Spring 2021 | Building a data driven culture for avocado export | 29/10/2021 | |
| | Spring 2021 | 2021 Export Market Analysis | 29/10/2021 | |
| | Summer 2022 | Orchard Census Update | 28/01/2022 | |
| | Autumn 2022 | AvoData welcomes new contributors! | 29/04/2022 | |
| | Winter 2022 | Global Avocado Trade Update | 29/07/2022 | |
| | Winter 2022 | Mapping trees - Why do we do it | 29/07/2022 | |

| | | | | |
|--|-------------|---|------------|--|
| | Spring 2022 | 2021-22 Australian Avocado Export/Imports Update | 28/10/2022 | |
| | Spring 2022 | Facts at a Glance 2021-22 | 28/10/2022 | |
| | Summer 2023 | 2022 Global Market Analysis | 27/01/2023 | |
| | Summer 2023 | Orchard Census Update | 27/01/2023 | |
| | Autumn 2023 | Export Market Analysis - India | 28/04/2023 | |
| | Autumn 2023 | End-of-season forecast verification for 2022 seasons. | 28/04/2023 | |
| | Autumn 2023 | Infocado Survey: Preliminary Results | 28/04/2023 | |
| | Winter 2023 | Export Market Analysis - Thailand | 08/2023 | |
| | Winter 2023 | Avocados Australia Export Report Suite | 08/2023 | |
| | Spring 2023 | 10 years of data verification | 11/2023 | |
| | Spring 2023 | Varroa Response in New South Wales | 11/2023 | |
| | Spring 2023 | AARSC update | 11/2023 | |
| | Spring 2023 | Global trade update | 11/2023 | |

Appendix D – Survey Feedback

“It has come to my attention that Infocado may need some tweaking when it comes to estimating not just overall numbers but Premium supermarket grade fruit. e.g. When fruit size is down or more damage than expected. Pricing seems to be going on this overall total number and not considering other factors. Also can this overall # can it be crossed checked with total area of production? Infocado can be a useful tool but when not giving out the correct information is actually more detrimental.”

“Maybe needs to be simplified for quick/easy viewing? With links to the more complex/detailed data instead. I find it hard to follow and interpret without setting aside time to really concentrate and interpret the data. Perhaps quality reports would also be interesting to see what's impacting the different regions? Some historical data about average prices received by growers from different regions for the previous season?”

“Good as it is now. The reality is that Infocado may influence when a grower may start harvest or when they might plan to end harvest. However, when a grower starts harvest heshe usually keeps going at a pace that continues the same worker hours from start to finish. It is almost impossible to ramp up harvest rate or slow down harvest rate once harvest starts. Worker availability governs harvest rate. Capiche”

“Cut the users down just to growers at the moment market agents are using the information for a justification of why the price needs to be putted down. We need to still get growers / packers to contribute information. I'm not use if any information is not 100% right or there are fudge factors in place but if so the data the might be not 100% trust worthy needs to be colour coded.”

“It may be beneficial to capture end of week stock on hand expressed as total tray figure and total number of 10kg cartons for each major trader, so it gives a clearer picture of what is being carried into the next week and a true status of volumes for a trading week.”

“Dispatch for this week total at the top should also include the non reported dispatch number as a total actual figure.”

“infocado should use agents to supply data for domestic, international, and major supermarkets supply, Tho not all fruit dispatched is going to be for domestic markets the weekly pricing is adjusted according to figures supplied”

“More has to be done to understand how a crop is forecasted. If the size profile of the crop is different to what was used when estimating then the actual crop will be impacted.”

“Market sales prices instead of major retailers price would be a much better tool to understand and compare for us growers, chain pricing doesn't mean much to us.”

“Spilt North Queensland shepherd and hass. Don't put it together with a total count like this year of 6 million? I think it is. Have 2 separate”

“I believe ta simplified data entry system, ie bins picked less reject rate might get better uptake and lead to more accurate reports”

“Infocado to be available to all AAL growers directly- not via packing sheds as this information can sometimes be passed on too slow.”

“Detailed summary of weekly packout, to get a picture of what our average size is and to have detailed summary at end of our season.”

“Add the previous year dispatch as a square or circle and n the top bars. “

“Give per tray market prices rather than per fruit retail prices.”

“Increase forecasts to 6 weeks.” “Others that were repeated: higher participation / accuracy, include wholesale prices, stock on hand (sales), volume by destination.”

2022 OrchardInfo Report - Avocados Australia's orchard census report - December 2022.

The OrchardInfo report is compiled using data contributed annually by avocado growers from all Australian growing regions.

| Region | Contribution summary | | | | Recorded | Number of trees | | | | Number of hectares | | | | Density (trees/hectare) | | |
|---------------------------|----------------------|--------------|-------------|-----------|------------|------------------|------------------|------------------|-------------|--------------------|-----------------|------------------|-------------|-------------------------|---------|-------------------|
| | Known Growers | Updated 2022 | Not Updated | No Record | | 0 to 5 yrs | 6 yrs + | Total | % | 0 to 5 yrs | 6 yrs + | Total | % | 0 to 5 yrs | 6 yrs + | Weighted averages |
| North QLD | 103 | 95 | 1 | 7 | 89 | 568,411 | 327,670 | 896,081 | 22.45% | 2,502.76 | 2,147.46 | 4,650.22 | 28.47% | 227 | 153 | 193 |
| WA/NT | 236 | 191 | 32 | 13 | 210 | 774,877 | 629,992 | 1,404,869 | 35.20% | 1,999.79 | 2,110.29 | 4,110.08 | 25.16% | 387 | 299 | 342 |
| Central QLD | 66 | 50 | 11 | 5 | 56 | 360,199 | 420,901 | 781,100 | 19.57% | 1,222.27 | 2,148.54 | 3,370.81 | 20.64% | 295 | 196 | 232 |
| Tristate | 98 | 71 | 21 | 6 | 86 | 142,149 | 188,443 | 330,592 | 8.28% | 474.79 | 786.05 | 1,260.84 | 7.72% | 299 | 240 | 262 |
| Central NSW | 107 | 81 | 17 | 9 | 89 | 66,856 | 177,254 | 244,110 | 6.12% | 279.32 | 904.83 | 1,184.15 | 7.25% | 239 | 196 | 206 |
| South QLD | 76 | 52 | 16 | 8 | 60 | 56,608 | 131,942 | 188,550 | 4.72% | 271.20 | 777.91 | 1,049.11 | 6.42% | 209 | 170 | 180 |
| Tamborine/Northern Rivers | 85 | 57 | 12 | 16 | 53 | 29,689 | 57,399 | 87,088 | 2.18% | 149.59 | 284.74 | 434.33 | 2.66% | 198 | 202 | 201 |
| Sunshine Coast | 44 | 30 | 10 | 4 | 36 | 11,454 | 47,205 | 58,659 | 1.47% | 35.05 | 239.24 | 274.29 | 1.68% | 327 | 197 | 214 |
| Region Total | 815 | 627 | 120 | 68 | 679 | 2,010,243 | 1,980,806 | 3,991,049 | 100% | 6,934.77 | 9,399.06 | 16,333.83 | 100% | Weighted averages | | |

REPORT NOTES:

An individual orchard is defined as a production unit that is associated to a single address in our records. A growing business may consist of one or multiple individual orchards at different addresses. To arrive at the total number of orchards in last year's census, we tallied the multiple individual orchards. For this year's however, we have grouped individual orchards that are relatively adjacent, and managed by the same people.

The source of data is Infocado, via the OrchardInfo tree census unless noted. This report is provided to OrchardInfo contributors and is not intended for wider distribution. The report is based on data provided voluntarily by 92% of all known avocado orchards.

This report has been produced by project AV20000 (Avocado industry and market data capture and analysis) funded by Hort Innovation using the avocado research and development levy and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.

Avocados Australia Ltd

ABS Stats 2019-20 764,516 2,429,829 3,194,345

288 211 244

The Australian Tree Crop Map, run by the Applied Agricultural Remote Sensing Centre (AARSC), is an effective tool in case of biosecurity incidents or natural disasters. The number of hectares recorded by the AARSC serve as a reference to compare and validate our own census results. The table below is a comparison between both sets of records by State.

| State | Hectares | | Difference | Diff. % |
|--------------------|---------------|------------------|-------------------|-------------|
| | AARSC ATCM | AAL OrchardInfo | | |
| Queensland | 10,852 | 9,441.15 | -1,410.85 | -13% |
| Western Australia | 4,709 | 4,094.82 | - 614.18 | -13% |
| New South Wales | 2,300 | 1,703.59 | - 596.41 | -26% |
| Victoria | 993 | 735.39 | - 257.61 | -26% |
| South Australia | 409 | 342.62 | - 66.38 | -16% |
| Tasmania | 18 | 15.00 | - 3.00 | -17% |
| Northern Territory | - | 1.26 | 1.26 | +100% |
| | 19,281 | 16,333.83 | - 2,947.17 | -15% |

2022 OrchardInfo Report - avocado hectares by regional tree maturity.

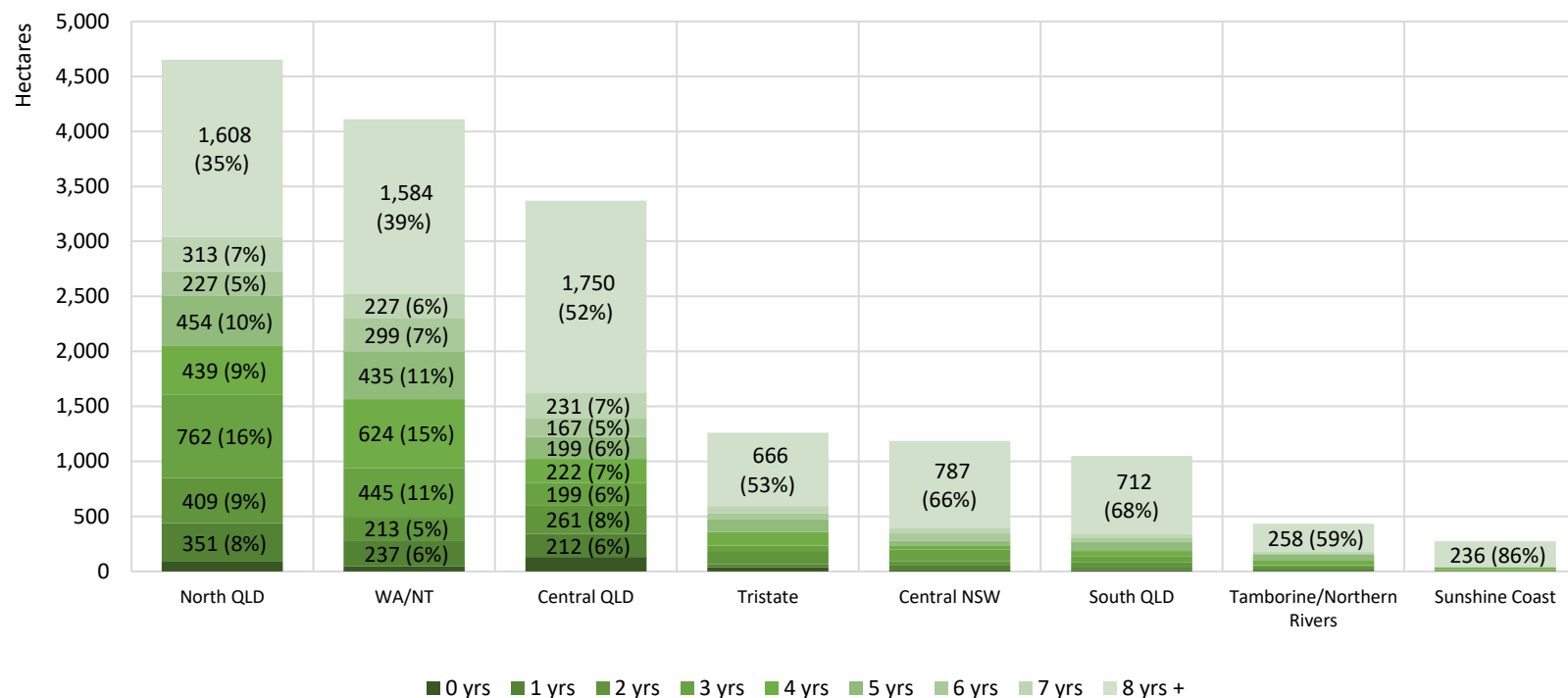
| Region | 0 yrs | 1 yrs | 2 yrs | 3 yrs | 4 yrs | 5 yrs | 6 yrs | 7 yrs | 8 yrs + | Grand Total | % of Total |
|----------------------------------|---------------|---------------|-----------------|-----------------|-----------------|-----------------|---------------|---------------|-----------------|------------------|-------------|
| North Queensland | 87.96 | 350.52 | 409.27 | 762.20 | 439.17 | 453.64 | 226.65 | 313.21 | 1,607.60 | 4,650.22 | 28.47% |
| Western Australia / N. Territory | 44.98 | 237.21 | 212.98 | 445.39 | 624.22 | 435.01 | 299.11 | 227.00 | 1,584.18 | 4,110.08 | 25.16% |
| Central Queensland | 129.30 | 212.17 | 260.85 | 199.27 | 221.65 | 199.03 | 167.20 | 231.01 | 1,750.33 | 3,370.81 | 20.64% |
| Tristate | 34.57 | 31.06 | 119.89 | 46.96 | 126.96 | 115.35 | 49.41 | 70.31 | 666.33 | 1,260.84 | 7.72% |
| Central New South Wales | 8.50 | 51.35 | 34.49 | 104.37 | 38.46 | 42.15 | 65.14 | 52.78 | 786.91 | 1,184.15 | 7.25% |
| South Queensland | 8.76 | 23.22 | 52.91 | 47.56 | 51.19 | 87.56 | 29.13 | 36.74 | 712.04 | 1,049.11 | 6.42% |
| Tamborine/Northern Rivers | 3.90 | 12.02 | 34.03 | 6.05 | 39.92 | 53.67 | 14.08 | 12.78 | 257.88 | 434.33 | 2.66% |
| Sunshine Coast | 1.15 | 2.60 | 6.97 | 7.80 | 16.05 | 0.48 | 3.03 | 0.11 | 236.10 | 274.29 | 1.68% |
| Age Group Total | 319.12 | 920.15 | 1,131.39 | 1,619.60 | 1,557.62 | 1,386.89 | 853.75 | 943.94 | 7,601.37 | 16,333.83 | 100% |
| Age Group as % of Total | 2% | 6% | 7% | 10% | 10% | 8% | 5% | 6% | 47% | 100% | |
| Age Group Cumulative Total | 319.12 | 1,239.27 | 2,370.66 | 3,990.26 | 5,547.88 | 6,934.77 | 7,788.52 | 8,732.46 | 16,333.83 | | |
| Age Group Cumulative Total % | 2% | 8% | 15% | 24% | 34% | 42% | 48% | 53% | 100% | | |

The result of this year's census shows that 42% of plantations in Australia are less than 6 years old. The remaining 58% of hectares are more than 6 years of age, with 47% of them being 8 years +.

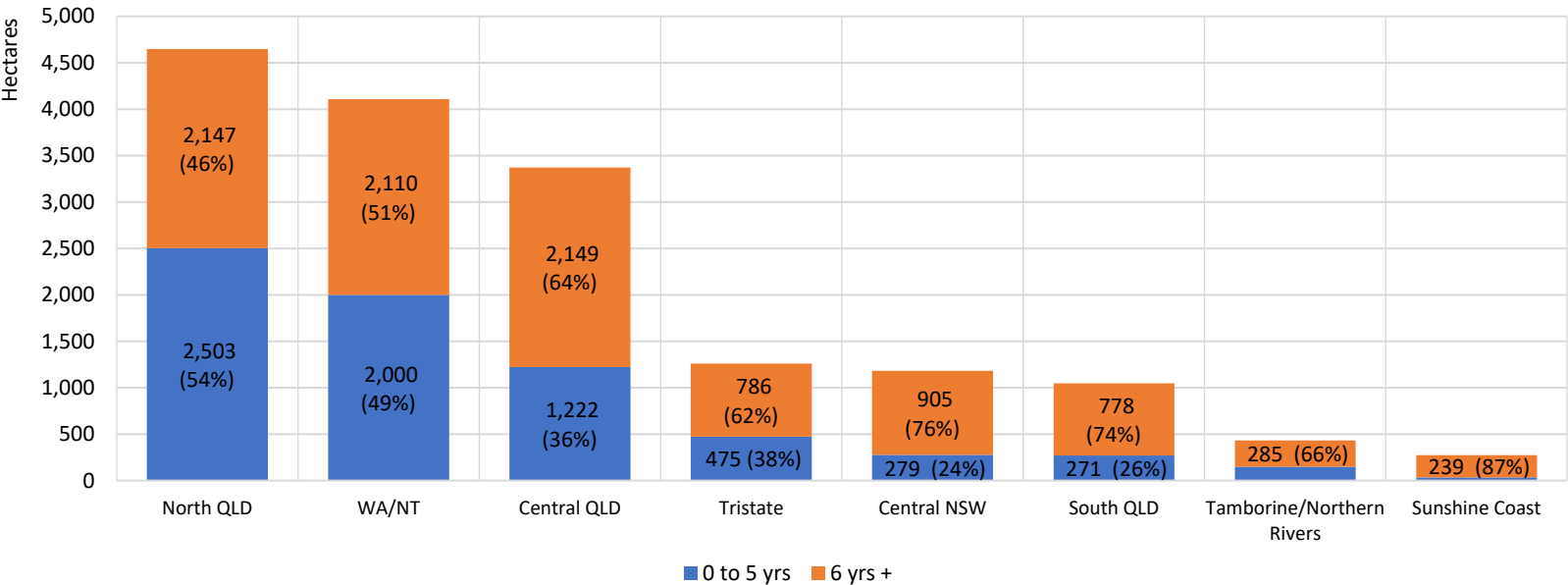
In 2019 North Queensland planted 762.2 hectares, and 1,619 were planted nationally, the largest number of hectares planted in a single year. These hectares are 3 years of age and will soon reach their production maturity.

For the past 8 years North QLD planted an average of 380 (8.2%) hectares per year, the highest of all, followed by WA at 315 (7.2%), and Central QLD at 202 (6%). The industry has planted an average of just over 1,000 hectares a year, representing a 7% YoY growth for that period.

Focusing on the younger group (Age group as % of Total) about 1/3 of total plantings are 2 to 5 years old. This corresponds with a planting peak that occurred in 2018-19, and since then new plantings have been in decline.

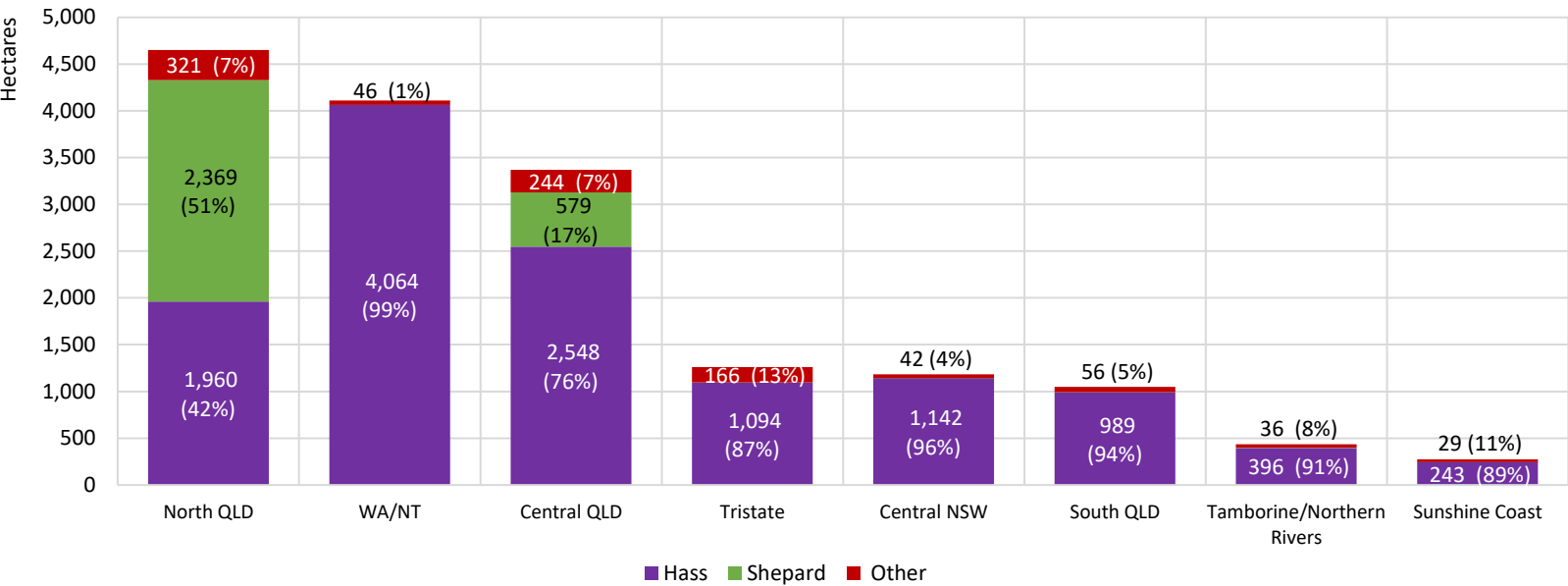


2022 OrchardInfo Report - avocado hectares by regional tree maturity and varieties.

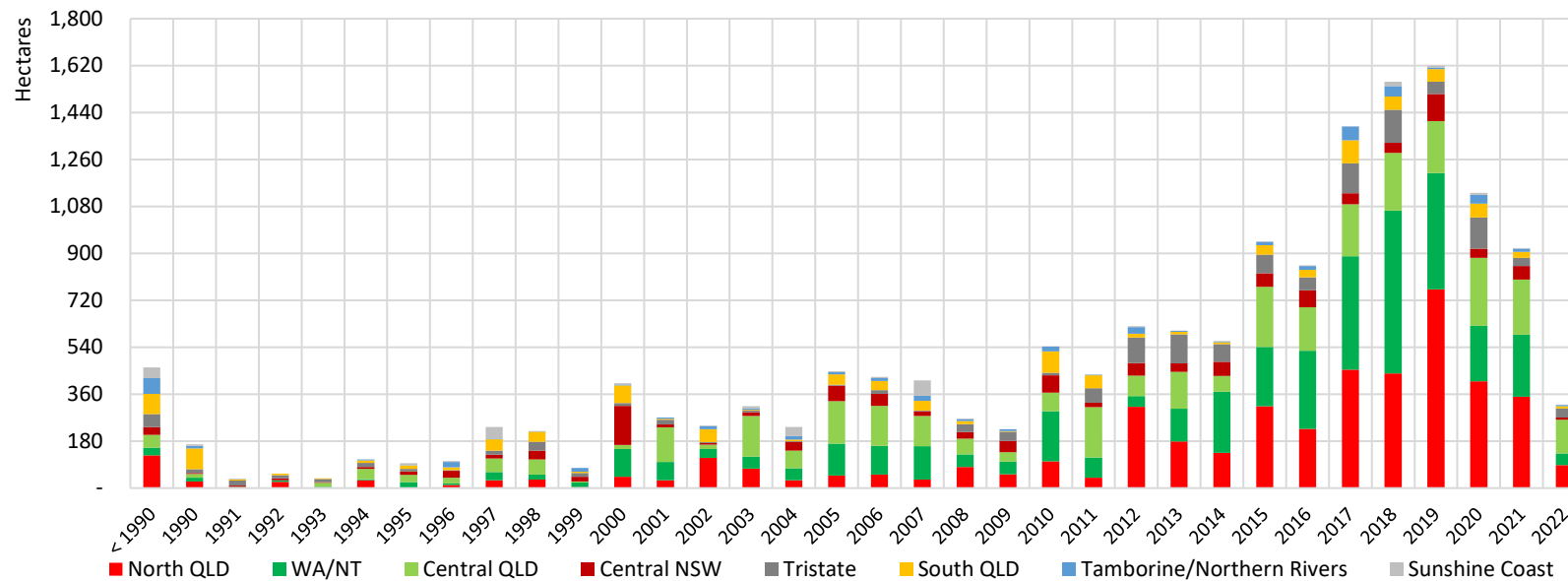


To enhance the contrast between young and more mature planting proportions, all hectares in every region are shown here in two groups: 0 to 5 years of age, and 6 years + of age. This chart shows the regional spread of young hectares which will come into production over the next few years.

Looking at hectares by variety and region this chart shows the regions with the highest proportion of Hass are WA (99%), Central NSW (96%), South QLD (94%), and Tamborine / N. Rivers (91%). The proportion is lower in North and Central QLD, mainly due to the large share of Shepard present in these regions (51% and 17% respectively). These proportions have slightly decreased relative to last year's census due to slightly higher proportions of 'Other' varieties.

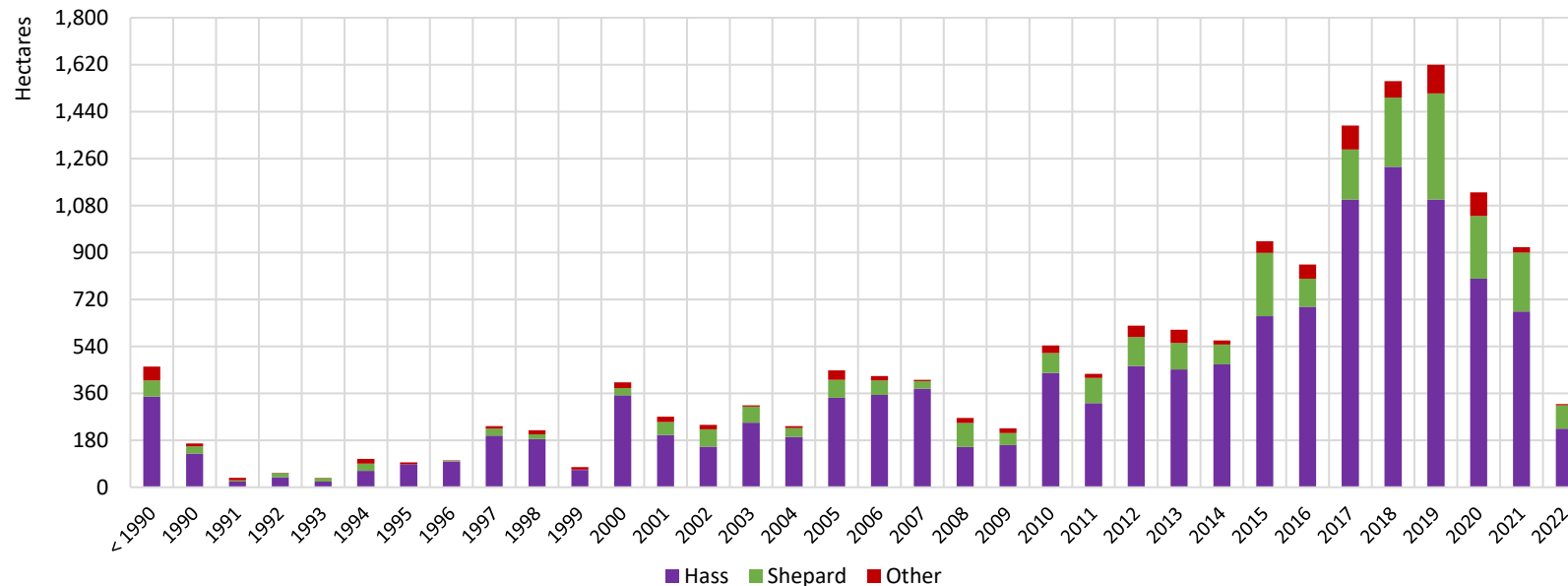


2022 OrchardInfo Report - yearly planting by region and variety (hectares).



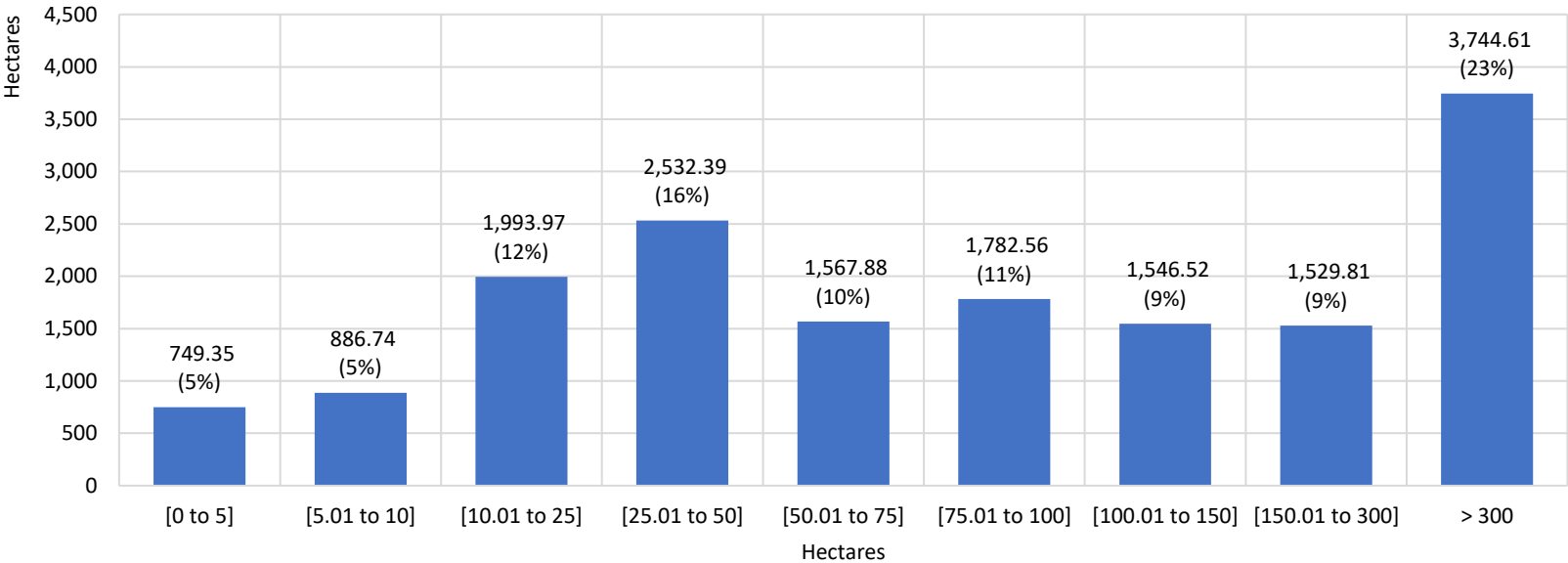
The rate of new plantings in Australia was relatively flat from 2000 until it began ramping up to become nearly exponential in the mid 2010's, to the extent that about half of all trees currently in the ground were planted since 2015. In 2019 plantings peaked (nearly 10% of all trees were planted in that year alone), after which the rate began dropping, and returning to pre-mid 2010's rates of new planting by 2022.

Looking at plantings by region, the data shows that the largest proportion of plantings over the past 10 years have been in North Queensland and Western Australia. These two regions together with Central QLD represent 3/4 of the total area planted.



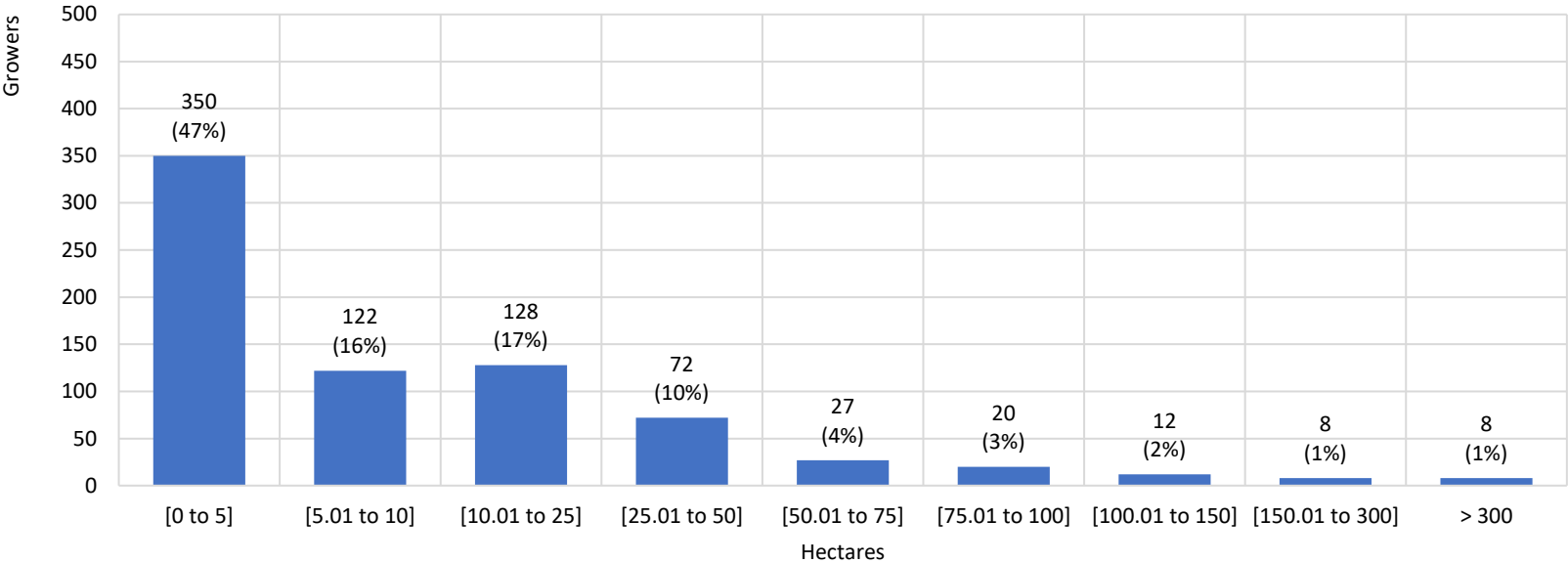
By variety, the data shows that the ratio of Hass to Shepard to Other has remained roughly constant over time, although Shepard has seen a greater proportion of plantings in the last 3 years, accounting for a lot of the growth in North Queensland.

2022 OrchardInfo Report - orchard size profile distribution.



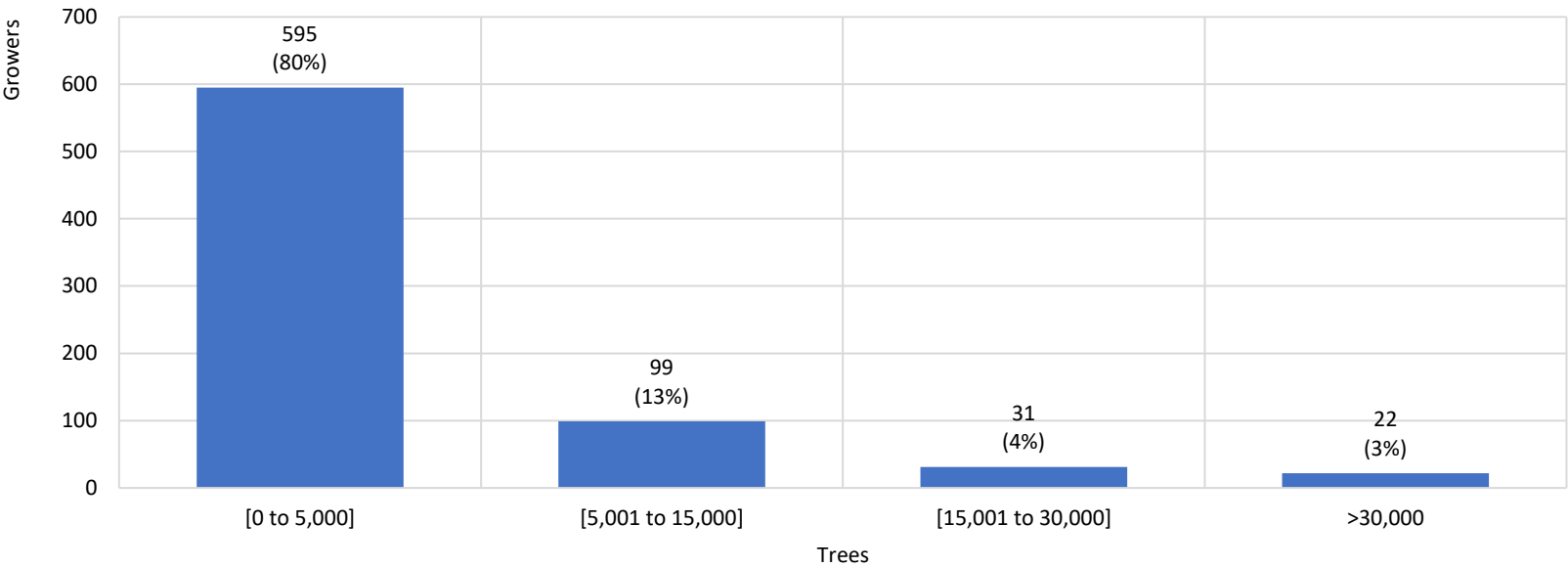
This data shows the size distribution of individual orchards in Australia, by expressing the number of individual orchards that fall within a size category, and how many hectares correspond to orchards that fall within that same size category.

Since we have grouped adjacent orchards managed by the same people, this year's orchard size histogram shows a higher concentration of land among the largest category group.



Of the 815 growers that are known to us 68 we have no records for and are excluded from this dataset. Of the remaining 747, nearly half (47%) are within the 0 to 5 hectare range but account only for 749 hectares (5% of total). Conversely, there is a very small number of comparatively very large growers, that account for the largest proportion of hectares of any single group.

2022 OrchardInfo Report - orchard size profile distribution.



Much like in the previous page, grouping adjacent individual orchards together, this histogram also shows a higher concentration of trees on the largest category group.

The grower size distribution based on number of trees. Shows:

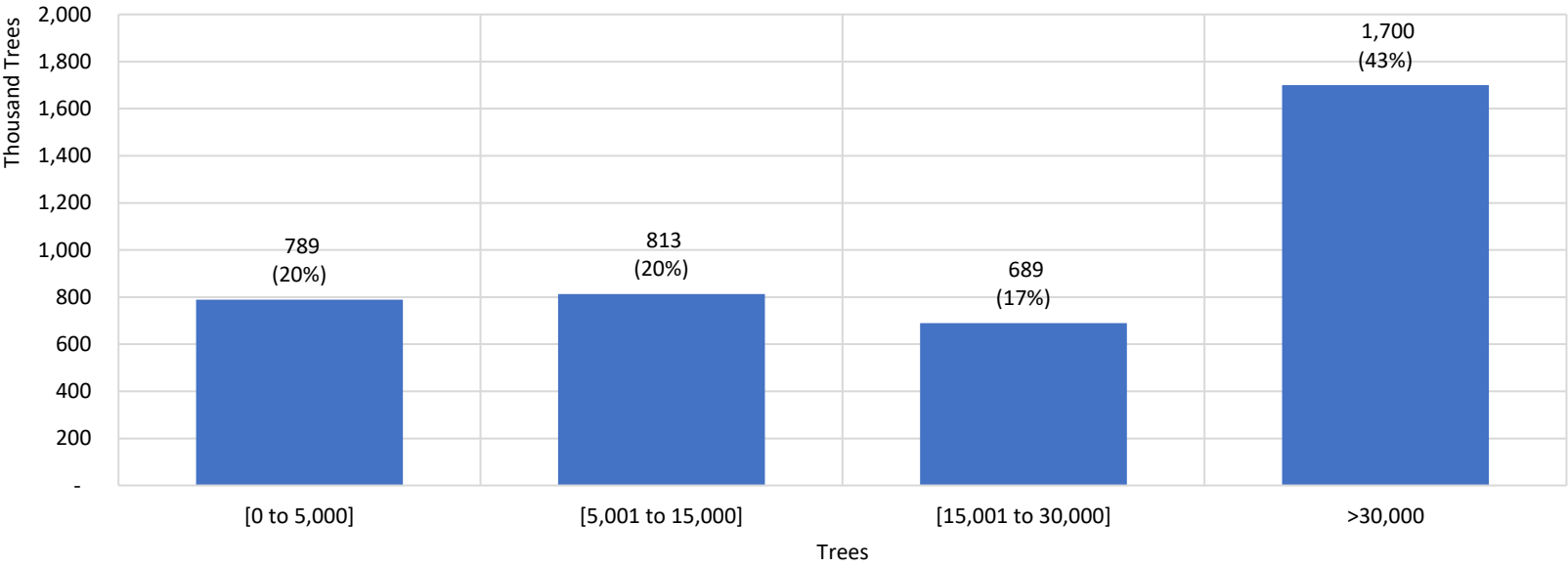
595 (80%) of all growers have 0 to 5,000 trees, accounting for 788,977 of the total trees (20%), averaging 1,326 trees per grower.

99 growers (13%) accounting for 812,872 trees (20%), averaging 8,211 trees per grower.

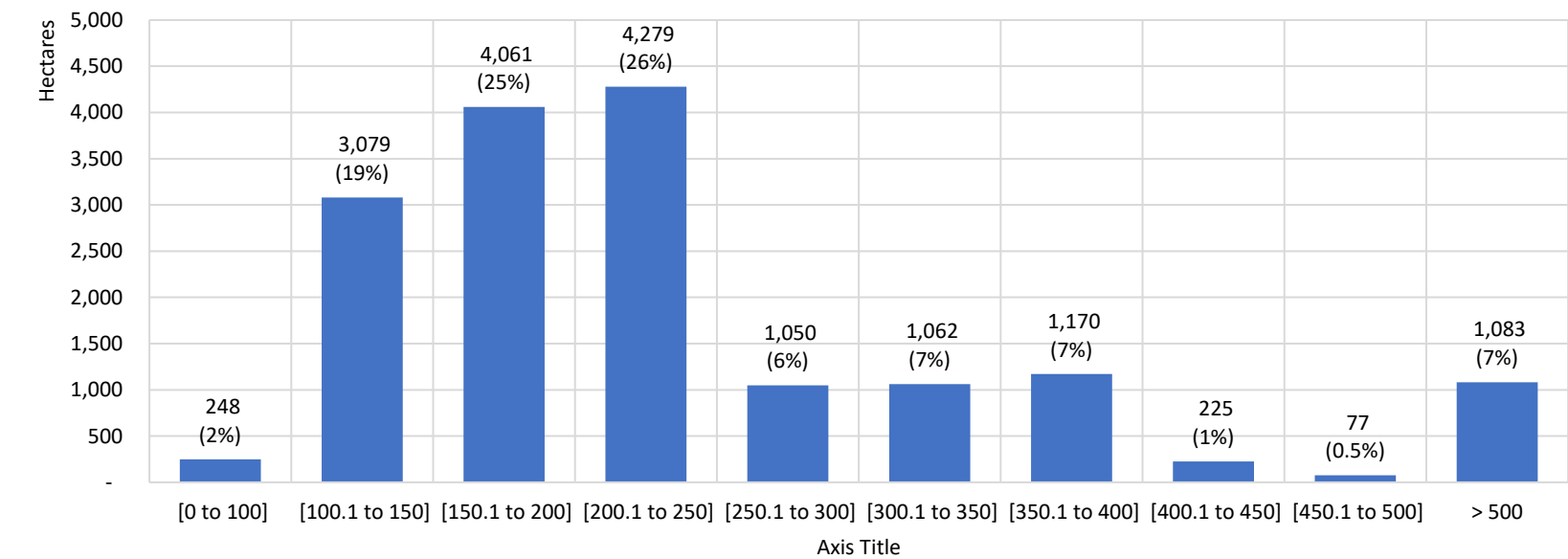
31 growers make up 17% of all trees (689,379), averaging 22,238 trees per grower.

Only 22 growers in the category of > 30,000 trees make up 43% of all trees (1,699,821), averaging 77,264.59 trees per grower.

Finally 152 growers (20%) account for 3,202,072 trees, 80% of the total.

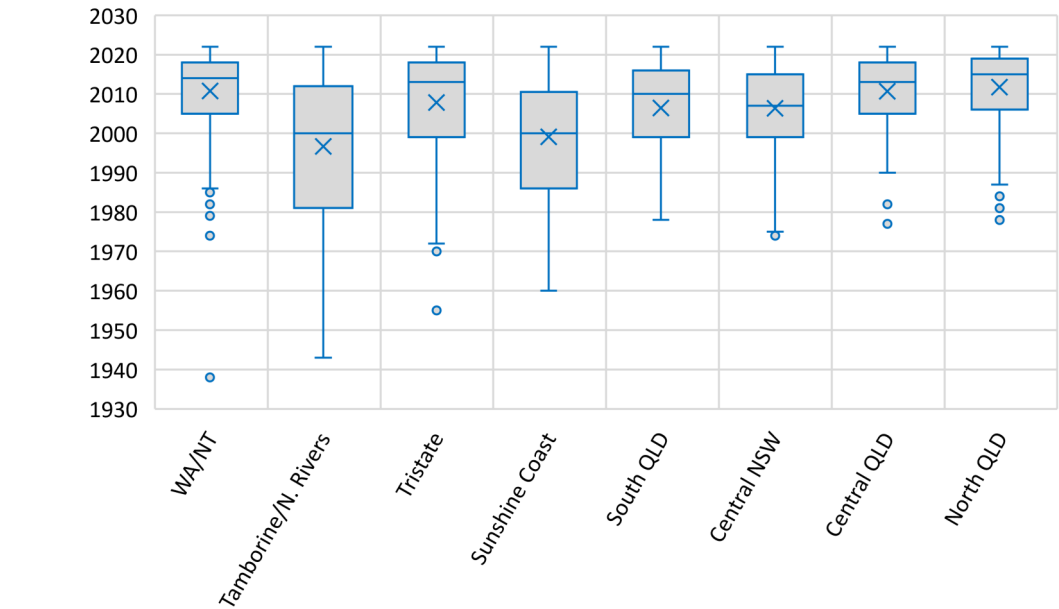


2022 OrchardInfo Report - planting density profile distribution.



This chart shows the distribution of planting densities. 11,418 hectares (70% of the total) are planted at densities ranging from 100 to 250 trees per hectare, most of which 4,278 (26% of the total) have a density between 200.1 and 250. The national weighted average density is 244 trees per hectare.

Planting age distribution.



The graph to the left provides a picture of the age distribution of the Australian avocado industry by region through quartiles. 50% of the observed data is between the lower and upper limit of the boxes, and the median is represented by the horizontal line which divides the box between the 2nd and 3rd quartile, and the 'X' represents the mean. The vertical lines extending from the boxes indicate variability outside the upper and lower quartiles. The individual dots represent outliers. From looking at the distributions of the Tamborine / Northern Rivers, and the Sunshine Coast regions, we see that these were where avocados began to be grown in Australia (aside from a couple outliers in Western Australia and Tristate), and that by contrast regions such as Western Australia, North and Central Queensland, by far the largest today, were the newcomers of the industry.

2022 OrchardInfo Report - plantings by variety table.

| Variety | Number of trees | | | | | | Hectares | | | | | | Trees/hectare | | |
|--------------|------------------|-------------|------------------|-------------|------------------|-------------|-----------------|-------------|-----------------|-------------|------------------|-------------|---------------|------------|------------------|
| | 0 to 5 yrs | % age group | 6 yrs + | % age group | Total | % total | 0 to 5 yrs | % age group | 6 yrs + | % age group | Total | % total | 0 to 5 yrs | 6 yrs + | Weighted average |
| Hass | 1,582,994 | 50% | 1,606,202 | 50% | 3,189,196 | 79.91% | 5,134.29 | 41% | 7,301.24 | 59% | 12,435.53 | 76.13% | 308 | 220 | 256 |
| Shepard | 241,709 | 49% | 246,766 | 51% | 488,475 | 12.24% | 1,418.99 | 48% | 1,539.71 | 52% | 2,958.70 | 18.11% | 170 | 160 | 165 |
| Maluma | 124,097 | 85% | 21,418 | 15% | 145,515 | 3.65% | 201.59 | 69% | 90.97 | 31% | 292.56 | 1.79% | 616 | 235 | 497 |
| Reed | 8,026 | 25% | 24,167 | 75% | 32,193 | 0.81% | 27.91 | 23% | 93.62 | 77% | 121.53 | 0.74% | 288 | 258 | 265 |
| Carmen | 13,676 | 64% | 7,718 | 36% | 21,394 | 0.54% | 59.64 | 59% | 42.21 | 41% | 101.85 | 0.62% | 229 | 183 | 210 |
| Lamb | 3,420 | 16% | 17,724 | 84% | 21,144 | 0.53% | 9.04 | 12% | 65.34 | 88% | 74.38 | 0.46% | 378 | 271 | 284 |
| Wurtz | 813 | 7% | 11,616 | 93% | 12,429 | 0.31% | 1.92 | 3% | 57.82 | 97% | 59.74 | 0.37% | 423 | 201 | 208 |
| Other* | 10,015 | 57% | 7,442 | 43% | 17,457 | 0.44% | 26.91 | 46% | 31.74 | 54% | 58.65 | 0.36% | 372 | 234 | 298 |
| Gem | 15,981 | 68% | 7,489 | 32% | 23,470 | 0.59% | 25.50 | 49% | 26.52 | 51% | 52.02 | 0.32% | 627 | 282 | 451 |
| Fuerte | 898 | 11% | 7,409 | 89% | 8,307 | 0.21% | 3.24 | 7% | 42.41 | 93% | 45.65 | 0.28% | 277 | 175 | 182 |
| Turner | | 0% | 6,528 | 100% | 6,528 | 0.16% | | 0% | 37.74 | 100% | 37.74 | 0.23% | - | 173 | 173 |
| Sharwil | 1,464 | 22% | 5,304 | 78% | 6,768 | 0.17% | 4.88 | 14% | 30.15 | 86% | 35.03 | 0.21% | 300 | 176 | 193 |
| Edrinol | 4,305 | 91% | 439 | 9% | 4,744 | 0.12% | 12.86 | 83% | 2.68 | 17% | 15.54 | 0.10% | 335 | 164 | 305 |
| Gwen | 635 | 13% | 4,176 | 87% | 4,811 | 0.12% | 1.02 | 7% | 12.88 | 93% | 13.90 | 0.09% | 623 | 324 | 346 |
| Pinkerton | 679 | 22% | 2,423 | 78% | 3,102 | 0.08% | 1.11 | 8% | 11.98 | 92% | 13.09 | 0.08% | 612 | 202 | 237 |
| Zutano | 360 | 14% | 2,162 | 86% | 2,522 | 0.06% | 0.53 | 10% | 4.93 | 90% | 5.46 | 0.03% | 679 | 439 | 462 |
| Hazzard | 635 | 77% | 192 | 23% | 827 | 0.02% | 4.02 | 81% | 0.92 | 19% | 4.94 | 0.03% | 158 | 209 | 167 |
| Bacon | 159 | 19% | 673 | 81% | 832 | 0.02% | 0.56 | 18% | 2.51 | 82% | 3.07 | 0.02% | 284 | 268 | 271 |
| Ryan | | 0% | 612 | 100% | 612 | 0.02% | | 0% | 2.14 | 100% | 2.14 | 0.01% | - | 286 | 286 |
| Ettinger | 367 | 74% | 127 | 26% | 494 | 0.01% | 0.72 | 55% | 0.58 | 45% | 1.30 | 0.01% | 510 | 219 | 380 |
| Rincon | | 0% | 56 | 100% | 56 | 0.00% | | 0% | 0.39 | 100% | 0.39 | 0.00% | - | 144 | 144 |
| Llanos | | 0% | 100 | 100% | 100 | 0.00% | | 0% | 0.37 | 100% | 0.37 | 0.00% | - | 270 | 270 |
| Santana | | 0% | 49 | 100% | 49 | 0.00% | | 0% | 0.16 | 100% | 0.16 | 0.00% | - | 306 | 306 |
| Linda | 10 | 56% | 8 | 44% | 18 | 0.00% | 0.04 | 50% | 0.04 | 50% | 0.08 | 0.00% | 250 | 200 | 225 |
| Nabal | | 0% | 6 | 100% | 6 | 0.00% | | 0% | 0.01 | 100% | 0.01 | 0.00% | - | 600 | 600 |
| Total | 2,010,243 | 50% | 1,980,806 | 50% | 3,991,049 | 100% | 6,934.77 | 42% | 9,399.06 | 58% | 16,333.83 | 100% | 290 | 210 | 244 |

*The category 'Other' is comprised of varieties not listed in this table.

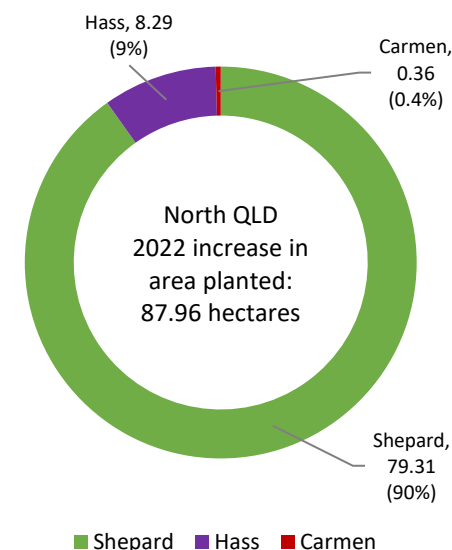
This table summarizes all varieties reported in this census. Hass remains by far the dominant variety with Shepard a distant second, followed by Maluma. Apart from these three largest, no other variety surpasses 1% of the total either by area planted or number of trees, and combined, they only add up to about 4% of trees and of all hectares.

Almost precisely half of all Hass and Shepard trees are up to 5 years of age. Proportionally, younger trees outnumber old ones for other varieties, such as Maluma, Gem, Carmen, and Edrinol.

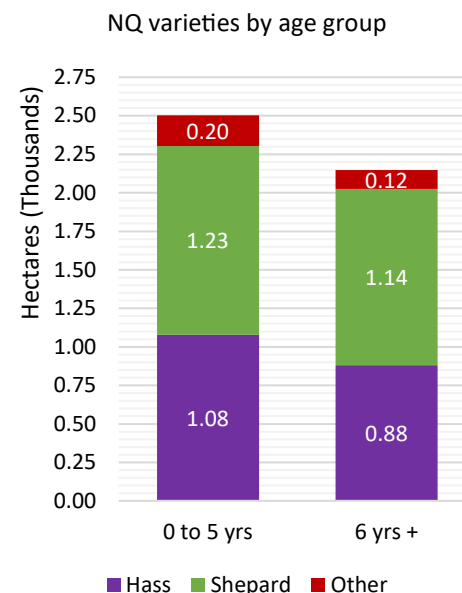
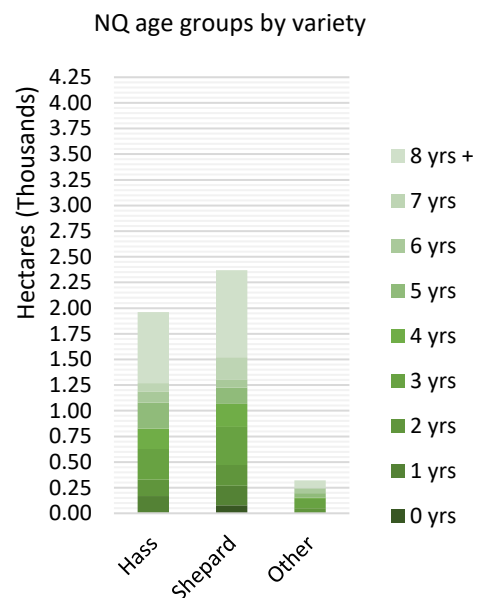
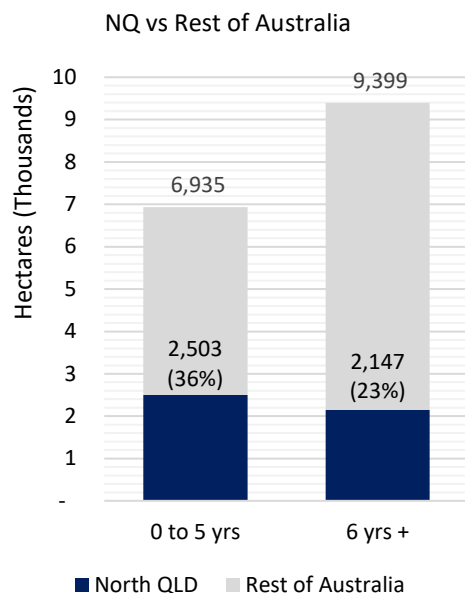
In terms of density, Hass is close to the total average of 244 trees/hectare. Shepard has one of the lowest densities (165) while Maluma has one of the highest (497).

2022 OrchardInfo Report - North Queensland.

| Variety | Number of trees | | | | Hectares | | | | Trees/hectare | | |
|--------------------------|------------------|------------------|------------------|-------------|-----------------|-----------------|------------------|-------------|---------------|------------|------------------|
| | 0 to 5 yrs | 6 yrs + | Total | % | 0 to 5 yrs | 6 yrs + | Total | % | 0 to 5 yrs | 6 yrs + | Weighted average |
| Shepard | 190,267 | 169,359 | 359,626 | 40.13% | 1,225.34 | 1,144.05 | 2,369.39 | 50.95% | 155 | 148 | 152 |
| Hass | 298,271 | 132,079 | 430,350 | 48.03% | 1079 | 880.88 | 1,959.88 | 42.15% | 276 | 150 | 220 |
| Maluma | 72,871 | 18,685 | 91,556 | 10.22% | 161.6 | 77.3 | 238.90 | 5.14% | 451 | 242 | 383 |
| Carmen | 6,985 | 3,581 | 10,566 | 1.18% | 36.74 | 21.83 | 58.57 | 1.26% | 190 | 164 | 180 |
| Lamb | | 1,052 | 1,052 | 0.12% | | 6.31 | 6.31 | 0.14% | - | 167 | 167 |
| Other | 5 | 1124 | 1129 | 0.13% | 0.04 | 6.25 | 6.29 | 0.14% | 125 | 180 | 179 |
| Turner | | 680 | 680 | 0.08% | | 4.08 | 4.08 | 0.09% | - | 167 | 167 |
| Sharwil | 6 | 420 | 426 | 0.05% | 0.02 | 2.62 | 2.64 | 0.06% | 300 | 160 | 161 |
| Gem | | 435 | 435 | 0.05% | | 2.61 | 2.61 | 0.06% | - | 167 | 167 |
| Reed | 6 | 255 | 261 | 0.03% | 0.02 | 1.53 | 1.55 | 0.03% | - | 167 | 165 |
| Region Total | 568,411 | 327,670 | 896,081 | 100% | 2,502.76 | 2,147.46 | 4,650.22 | 100% | 222 | 154 | 190 |
| Rest of Australia | 1,441,832 | 1,653,136 | 3,094,968 | | 4,432.01 | 7,251.60 | 11,683.61 | | | | |
| Region / Total | 28% | 17% | 22% | | 36% | 23% | 28% | | | | |



With 4,650 hectares, North Queensland has 28% of Australian total hectares of avocado plantings, making it the largest region in Australia by area.



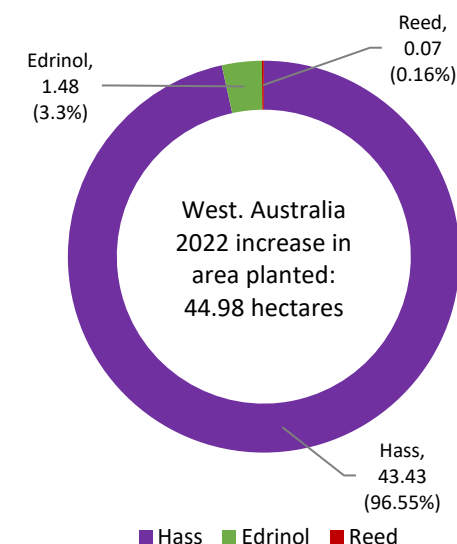
The number of trees in North Queensland is 896,081 representing 22% of all Australian trees, making it the second largest producing region by number of trees.

In 2022 North Queensland had a net increase of 13,144 trees across 87.96 hectares, which represents 1.89% of all NQ hectares, and 27.56% of new hectares planted nationally. In total, 53.82% of all NQ hectares were planted in the last five years, compared to the national proportion of 42.46%.

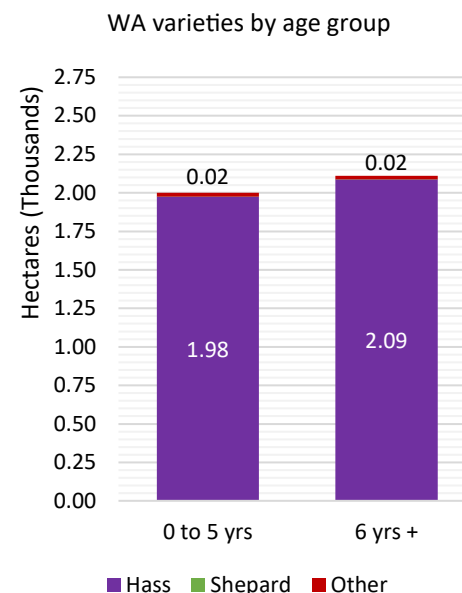
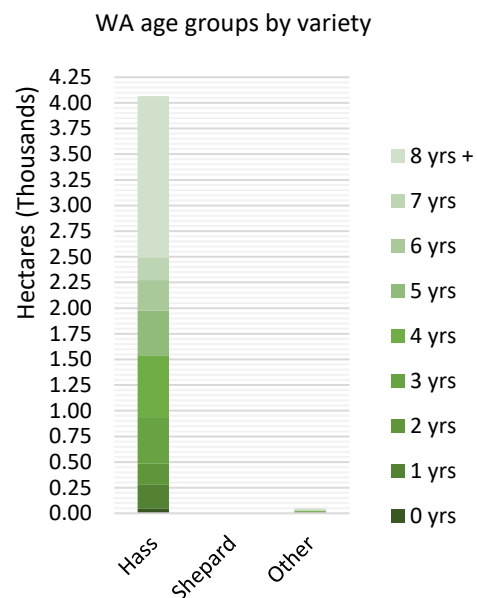
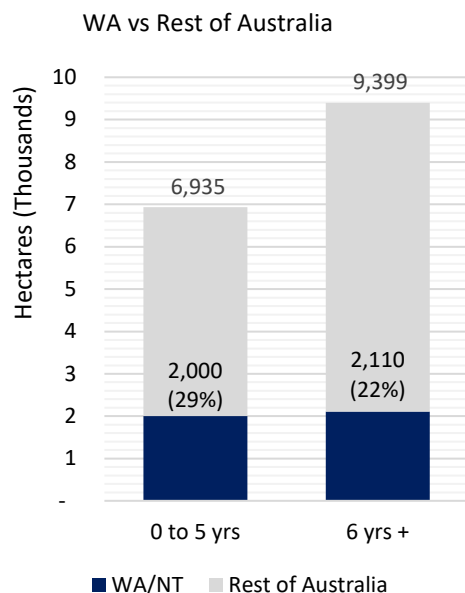
Shepard is the dominant variety in North QLD followed by Hass. Maluma now makes up over 5% of avocado plantings by area in North QLD.

2022 OrchardInfo Report - Western Australia.

| Variety | Number of trees | | | | Hectares | | | | Trees/hectare | | |
|--------------------------|------------------|------------------|------------------|-------------|-----------------|-----------------|------------------|-------------|---------------|------------|------------------|
| | 0 to 5 yrs | 6 yrs + | Total | % | 0 to 5 yrs | 6 yrs + | Total | % | 0 to 5 yrs | 6 yrs + | Weighted average |
| Hass | 765,032 | 621,881 | 1,386,913 | 98.72% | 1,975.54 | 2,087.98 | 4,063.52 | 98.87% | 387 | 298 | 341 |
| Lamb | 628 | 2,863 | 3,491 | 0.25% | 1.01 | 8.58 | 9.59 | 0.23% | 622 | 334 | 364 |
| Reed | 2,740 | 1,454 | 4,194 | 0.30% | 5.98 | 3.19 | 9.17 | 0.22% | 458 | 456 | 457 |
| Zutano | 60 | 2,039 | 2,099 | 0.15% | 0.21 | 4.32 | 4.53 | 0.11% | 286 | 472 | 463 |
| Sharwil | 1250 | 130 | 1,380 | 0.10% | 3.95 | 0.31 | 4.26 | 0.10% | 316 | 419 | 324 |
| Hazzard | 625 | 7 | 632 | 0.04% | 4 | 0.01 | 4.01 | 0.10% | 156 | 700 | 158 |
| Edrinol | 1453 | 145 | 1598 | 0.11% | 3.5 | 0.47 | 3.97 | 0.10% | - | 309 | 37 |
| Fuerte | 400 | 388 | 788 | 0.06% | 1.4 | 1.62 | 3.02 | 0.07% | 286 | 240 | 261 |
| Carmen | | 600 | 600 | 0.04% | | 2.1 | 2.10 | 0.05% | - | 286 | 286 |
| Other | 2689 | 485 | 3174 | 0.23% | 4.2 | 1.71 | 5.91 | 0.14% | 640 | 284 | 537 |
| Region Total | 774,877 | 629,992 | 1,404,869 | 100% | 1,999.79 | 2,110.29 | 4,110.08 | 100% | 387 | 299 | 342 |
| Rest of Australia | 1,235,366 | 1,350,814 | 2,586,180 | | 4,934.98 | 7,288.77 | 12,223.75 | | | | |
| Region / Total | 39% | 32% | 35% | | 29% | 22% | 25% | | | | |



With 4,110 hectares, Western Australia has 25% of Australian total hectares of avocado plantings, making it the second largest region in Australia by area.



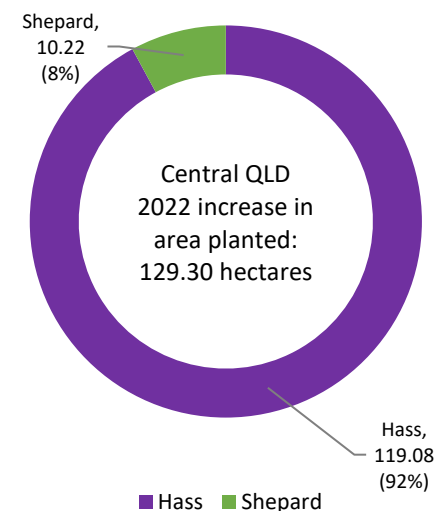
The number of trees in Western Australia is 1,404,869 representing 35% of all Australian trees, making it the largest producing region by number of trees after NQ.

In 2022 Western Australia had a net increase of 14,726 new trees across 44.98 hectares, which represents 1.09% of all WA hectares, and 14.1% of new hectares planted nationally. In total, 48.66% of all WA hectares were planted in the last five years, compared to the national proportion of 42.46%.

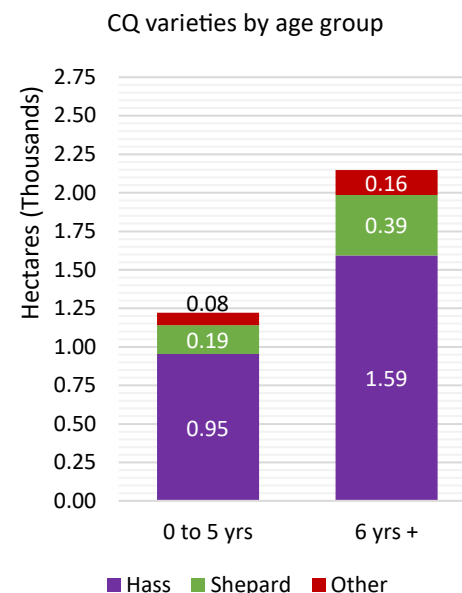
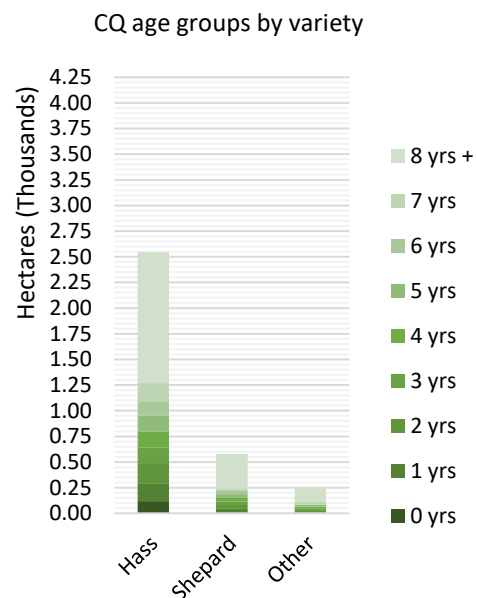
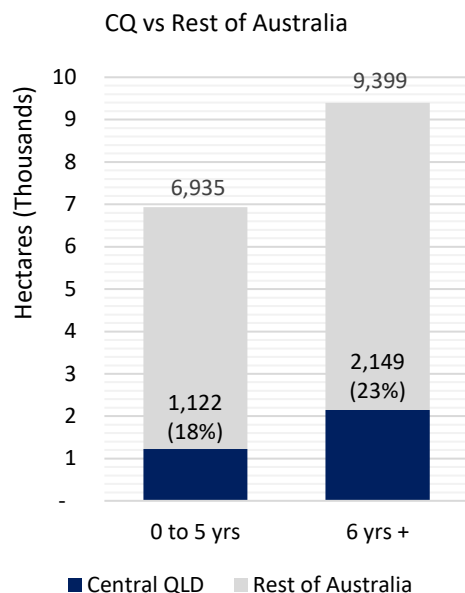
Hass is the dominant variety in Western Australia, making up nearly 99% of avocado plantings by area in the region.

2022 OrchardInfo Report - Central Queensland.

| Variety | Number of trees | | | | Hectares | | | | Trees/hectare | | |
|--------------------------|------------------|------------------|------------------|-------------|-----------------|-----------------|------------------|-------------|---------------|------------|------------------|
| | 0 to 5 yrs | 6 yrs + | Total | % | 0 to 5 yrs | 6 yrs + | Total | % | 0 to 5 yrs | 6 yrs + | Weighted average |
| Hass | 248,193 | 310,031 | 558,224 | 71.47% | 954.68 | 1,593.16 | 2,547.84 | 75.59% | 260 | 195 | 219 |
| Shepard | 49,596 | 76,626 | 126,222 | 16.16% | 186.88 | 392.37 | 579.25 | 17.18% | 265 | 195 | 218 |
| Maluma | 40,931 | 2,733 | 43,664 | 5.59% | 29.92 | 13.67 | 43.59 | 1.29% | 1368 | 200 | 1,002 |
| Carmen | 6,441 | 3,087 | 9,528 | 1.22% | 21.96 | 15.44 | 37.40 | 1.11% | 293 | 200 | 255 |
| Wurtz | 600 | 7,315 | 7,915 | 1.01% | 1.44 | 34.16 | 35.60 | 1.06% | 417 | 214 | 222 |
| Turner | | 5848 | 5848 | 0.75% | | 33.66 | 33.66 | 1.00% | - | 174 | 174 |
| Gem | 10302 | 3850 | 14152 | 1.81% | 14.34 | 10.78 | 25.12 | 0.75% | 718 | 357 | 563 |
| Reed | 2436 | 2223 | 4659 | 0.60% | 11.13 | 10.86 | 21.99 | 0.65% | 219 | 205 | 212 |
| Lamb | | 3482 | 3482 | 0.45% | | 11.51 | 11.51 | 0.34% | - | 303 | 303 |
| Other | 1700 | 5706 | 7406 | 0.95% | 1.92 | 32.93 | 34.85 | 1.03% | 885 | 173 | 213 |
| Region Total | 360,199 | 420,901 | 781,100 | 100% | 1,222.27 | 2,148.54 | 3,370.81 | 100% | 283 | 196 | 228 |
| Rest of Australia | 1,650,044 | 1,559,905 | 3,209,949 | | 5,712.50 | 7,250.52 | 12,963.02 | | | | |
| Region / Total | 18% | 21% | 20% | | 18% | 23% | 21% | | | | |



With 3,371 hectares, Central Queensland has 21% of Australian total hectares of avocado plantings. The number of trees in Central Queensland is 781,100 representing 20% of all Australian trees. By both number of trees and hectares, Central QLD is the 3rd largest region.

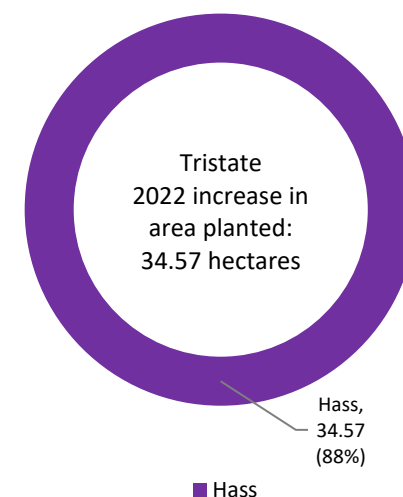


In 2022 Central Queensland had a net increase of 28,084 new trees across 129.30 hectares, which represents 3.84% of all CQ hectares, and 40.52% of new hectares planted nationally. In total, 36.26% of all CQ hectares were planted in the last five years, compared to the national proportion of 42.46%.

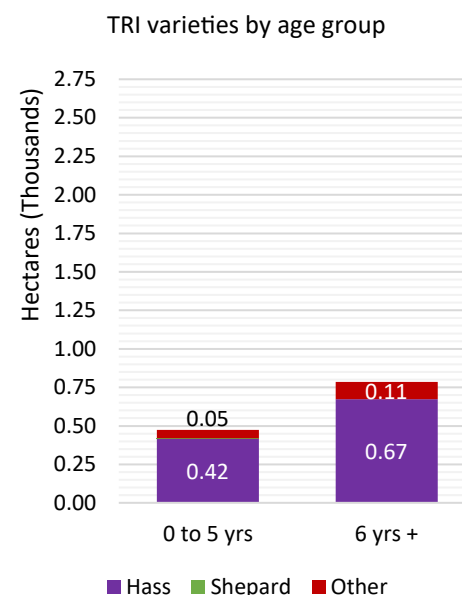
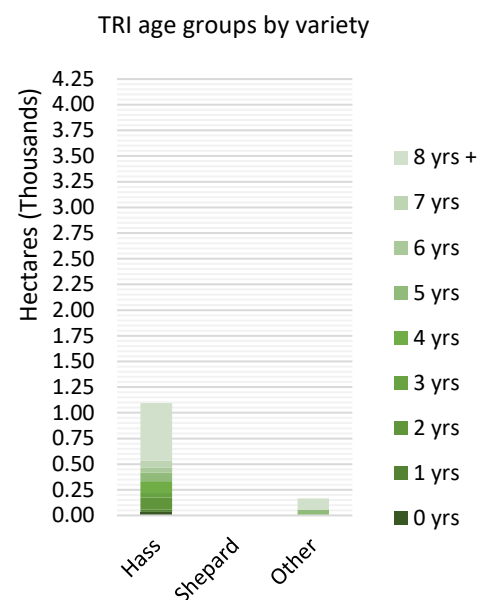
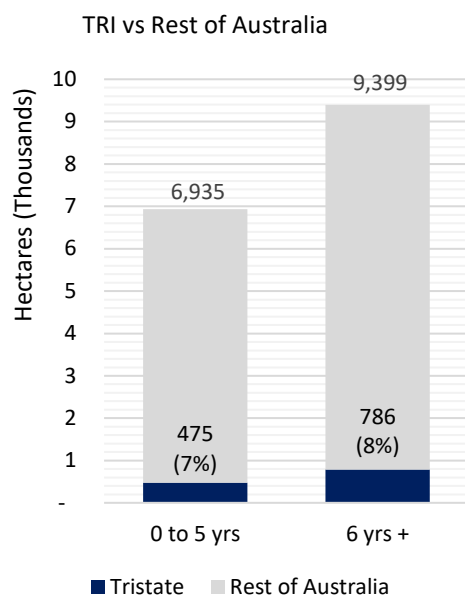
Hass is the dominant variety in Central QLD followed by Shepard. Maluma now makes up 1.3% of avocado planted hectares in Central QLD, but 5.59% by number of trees due to its high density.

2022 OrchardInfo Report - Tristate.

| Variety | Number of trees | | | | Hectares | | | | Trees/hectare | | |
|--------------------------|------------------|------------------|------------------|-------------|-----------------|-----------------|------------------|-------------|---------------|------------|------------------|
| | 0 to 5 yrs | 6 yrs + | Total | % | 0 to 5 yrs | 6 yrs + | Total | % | 0 to 5 yrs | 6 yrs + | Weighted average |
| Hass | 123,152 | 158,018 | 281,170 | 85.05% | 419.8 | 674.22 | 1,094.02 | 86.77% | 293 | 234 | 257 |
| Reed | 1,627 | 8,488 | 10,115 | 3.06% | 6.62 | 30.33 | 36.95 | 2.93% | 246 | 280 | 274 |
| Other | 7,984 | 4,208 | 12,192 | 3.69% | 25.16 | 15 | 40.16 | 3.19% | 317 | 281 | 304 |
| Lamb | 2,223 | 6,865 | 9,088 | 2.75% | 6.14 | 19.3 | 25.44 | 2.02% | 362 | 356 | 357 |
| Gem | 4555 | 2,314 | 6,869 | 2.08% | 8.63 | 10.51 | 19.14 | 1.52% | 528 | 220 | 359 |
| Fuerte | 66 | 2864 | 2930 | 0.89% | 0.17 | 15.01 | 15.18 | 1.20% | 388 | 191 | 193 |
| Gwen | 10 | 4019 | 4029 | 1.22% | 0.02 | 12.17 | 12.19 | 0.97% | 500 | 330 | 331 |
| Edrinol | 2323 | 160 | 2483 | 0.75% | 7.46 | 0.74 | 8.20 | 0.65% | 311 | 216 | 303 |
| Wurtz | 60 | 1120 | 1180 | 0.36% | 0.25 | 7.39 | 7.64 | 0.61% | 240 | 152 | 154 |
| Bacon | 149 | 387 | 536 | 0.16% | 0.54 | 1.38 | 1.92 | 0.15% | 276 | 280 | 279 |
| Region Total | 142,149 | 188,443 | 330,592 | 100% | 474.79 | 786.05 | 1,260.84 | 100% | 301 | 239 | 262 |
| Rest of Australia | 1,868,094 | 1,792,363 | 3,660,457 | | 6,459.98 | 8,613.01 | 15,072.99 | | | | |
| Region / Total | 7% | 10% | 8% | | 7% | 8% | 8% | | | | |



With 1,261 hectares, Tristate has 8% of Australian total hectares of avocado plantings. The number of trees in Tristate is 330,592 representing as well an 8% of all Australian trees.

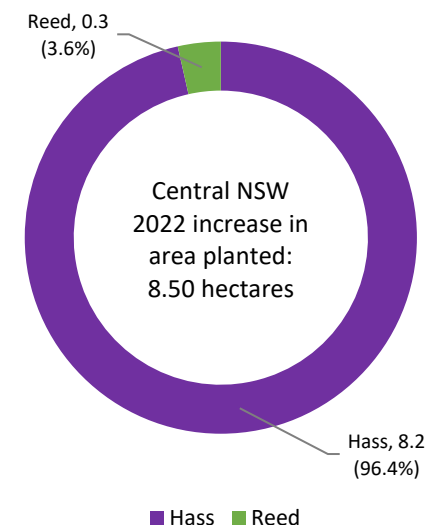


In 2022 Tristate had a net increase of 7,108 new trees across 34.57 hectares, which represents 2.74% of all Tristate hectares, and 10.83% of new hectares planted nationally. In total, 37.66% of all Tristate hectares were planted in the last five years, compared to the national proportion of 42.46%.

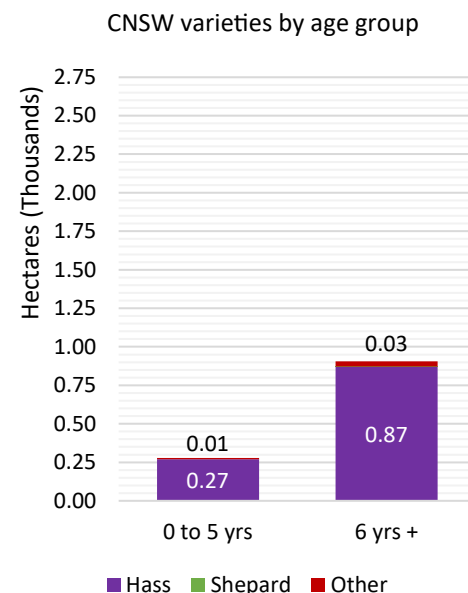
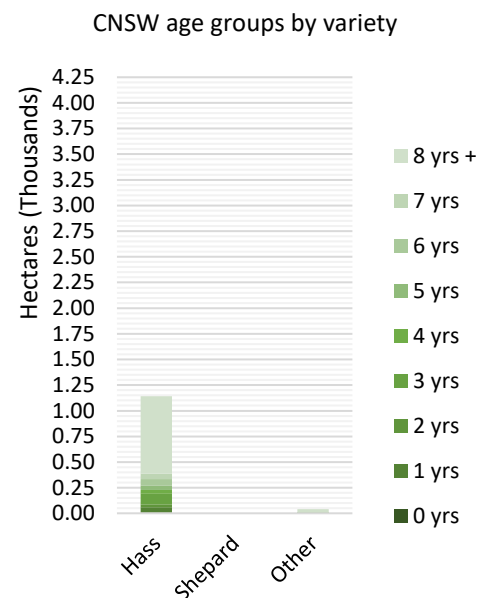
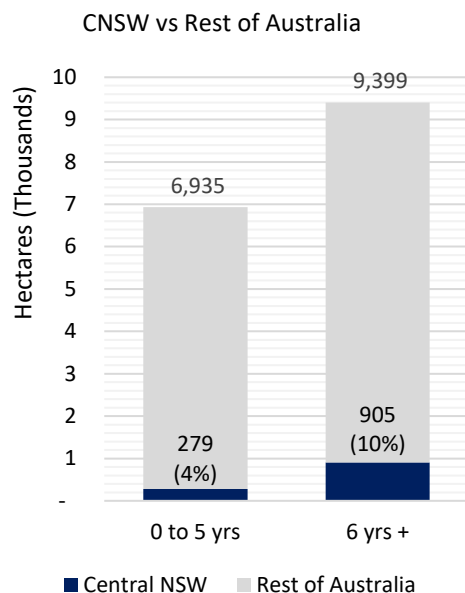
Hass is the dominant variety in Tristate making up 86.77% of avocado plantings by area in the region followed by Reed, making up 2.93% of plantings.

2022 OrchardInfo Report - Central New South Wales.

| Variety | Number of trees | | | | Hectares | | | | Trees/hectare | | |
|--------------------------|------------------|------------------|------------------|-------------|-----------------|-----------------|------------------|-------------|---------------|------------|------------------|
| | 0 to 5 yrs | 6 yrs + | Total | % | 0 to 5 yrs | 6 yrs + | Total | % | 0 to 5 yrs | 6 yrs + | Weighted average |
| Hass | 57,531 | 168,082 | 225,613 | 92.42% | 269.12 | 872.75 | 1,141.87 | 96.43% | 214 | 193 | 198 |
| Reed | 118 | 6,462 | 6,580 | 2.70% | 0.37 | 19.08 | 19.45 | 1.64% | 319 | 339 | 338 |
| Maluma | 8,740 | | 8,740 | 3.58% | 8.03 | | 8.03 | 0.68% | 1088 | - | 1,088 |
| Fuerte | 2 | 874 | 876 | 0.36% | 0.01 | 5.23 | 5.24 | 0.44% | 200 | 167 | 167 |
| Lamb | 100 | 990 | 1,090 | 0.45% | 0.75 | 3.52 | 4.27 | 0.36% | 133 | 281 | 255 |
| Sharwil | 6 | 564 | 570 | 0.23% | 0.04 | 3.16 | 3.20 | 0.27% | 150 | - | 2 |
| Carmen | 113 | | 113 | 0.05% | 0.68 | | 0.68 | 0.06% | 166 | - | 166 |
| Other | 16 | 193 | 209 | 0.09% | 0.04 | 0.77 | 0.81 | 0.07% | 400 | 251 | 258 |
| Shepard | | 89 | 89 | 0.04% | | 0.32 | 0.32 | 0.03% | - | 278 | 278 |
| Gem | 230 | | 230 | 0.09% | 0.28 | | 0.28 | 0.02% | 821 | - | 821 |
| Region Total | 66,856 | 177,254 | 244,110 | 100% | 279.32 | 904.83 | 1,184.15 | 100% | 221 | 193 | 200 |
| Rest of Australia | 1,943,387 | 1,803,552 | 3,746,939 | | 6,655.45 | 8,494.23 | 15,149.68 | | | | |
| Region / Total | 3% | 9% | 6% | | 4% | 10% | 7% | | | | |



With 1,184 hectares, CNSW has 7% of Australian total hectares of avocado plantings. The number of trees in CNSW is 244,110 representing 6% of all Australian trees.

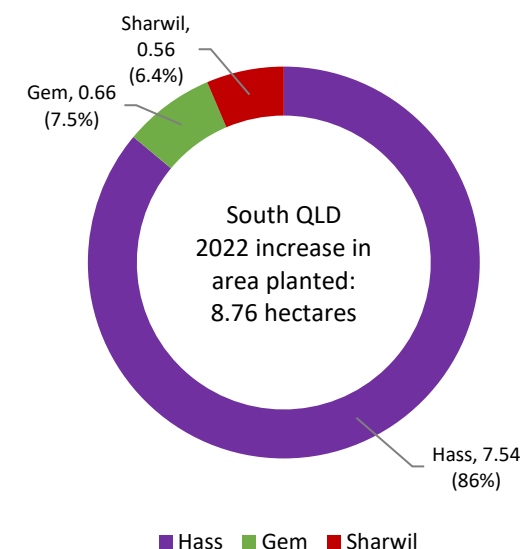


In 2022 CNSW growers had a net increase of 1,048 new trees across 8.5 hectares, which represents 0.72% of all of the region's hectares, and 2.66% of new hectares planted nationally. In total, 23.59% of all CNSW hectares were planted in the last five years, compared to the national proportion of 42.46%.

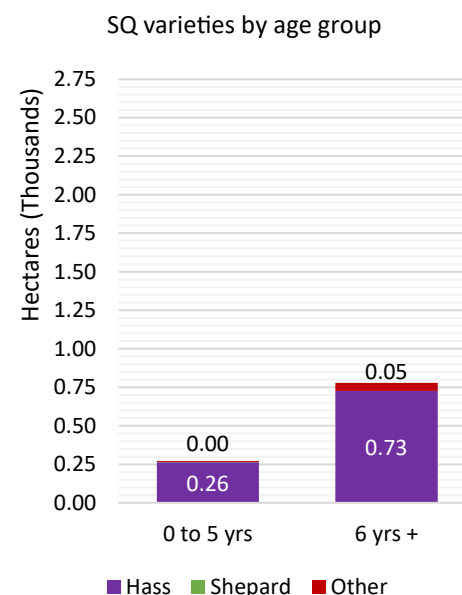
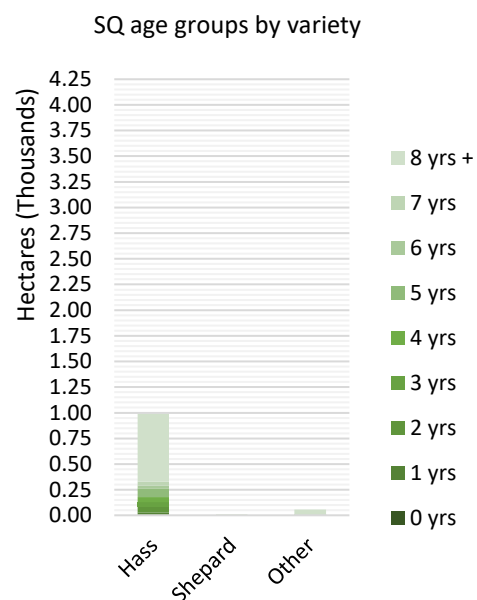
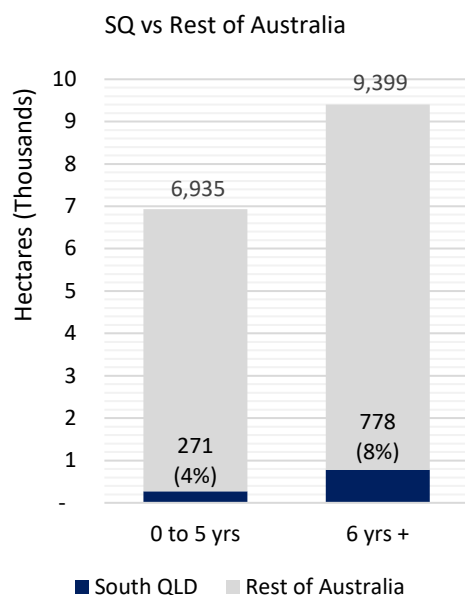
Hass is the dominant variety in CNSW making up 96.43% of avocado plantings by area in the region, followed by Reed, making up 1.64% of plantings.

2022 OrchardInfo Report - South Queensland.

| Variety | Number of trees | | | | Hectares | | | | Trees/hectare | | |
|--------------------------|------------------|------------------|------------------|-------------|-----------------|-----------------|------------------|-------------|---------------|------------|------------------|
| | 0 to 5 yrs | 6 yrs + | Total | % | 0 to 5 yrs | 6 yrs + | Total | % | 0 to 5 yrs | 6 yrs + | Weighted average |
| Hass | 53,899 | 124,443 | 178,342 | 94.59% | 262.91 | 726.21 | 989.12 | 94.28% | 205 | 171 | 180 |
| Reed | 553 | 3,367 | 3,920 | 2.08% | 1.22 | 20.58 | 21.80 | 2.08% | 453 | 164 | 180 |
| Lamb | 125 | 1,561 | 1,686 | 0.89% | 0.52 | 10.71 | 11.23 | 1.07% | 240 | 146 | 150 |
| Sharwil | 192 | 724 | 916 | 0.49% | 0.85 | 5.88 | 6.73 | 0.64% | 226 | 123 | 136 |
| Wurtz | | 483 | 483 | 0.26% | | 4.6 | 4.60 | 0.44% | - | 105 | 105 |
| Fuerte | 80 | 471 | 551 | 0.29% | 0.4 | 4.13 | 4.53 | 0.43% | - | 114 | 104 |
| Shepard | 646 | 16 | 662 | 0.35% | 3.6 | 0.09 | 3.69 | 0.35% | 179 | 178 | 179 |
| Carmen | 100 | 450 | 550 | 0.29% | 0.16 | 2.84 | 3.00 | 0.29% | 625 | 158 | 183 |
| Edrinol | 49 | 82 | 131 | 0.07% | 0.24 | 0.98 | 1.22 | 0.12% | 204 | 84 | 107 |
| Other | 964 | 345 | 1309 | 0.69% | 1.3 | 1.89 | 3.19 | 0.30% | - | 183 | 108 |
| Region Total | 56,608 | 131,942 | 188,550 | 100% | 271.20 | 777.91 | 1,049.11 | 100% | 209 | 170 | 180 |
| Rest of Australia | 1,953,635 | 1,848,864 | 3,802,499 | | 6,663.57 | 8,621.15 | 15,284.72 | | | | |
| Region / Total | 3% | 7% | 5% | | 4% | 8% | 6% | | | | |



With 1,049 hectares, South Queensland has 6% of Australian total hectares of avocado plantings. The number of trees in SQ is 188,550 representing 5% of all Australian trees.

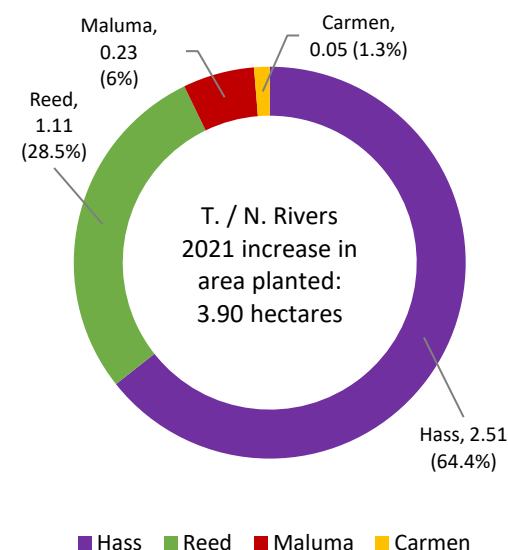


In 2022 SQ had a net increase of 2,525 new trees across 8.76 hectares, which represents 0.83% of all of the region's hectares, and 2.75% of new hectares planted nationally. In total, 25.85% of all SQ hectares were planted in the last five years, compared to the national proportion of 42.46%.

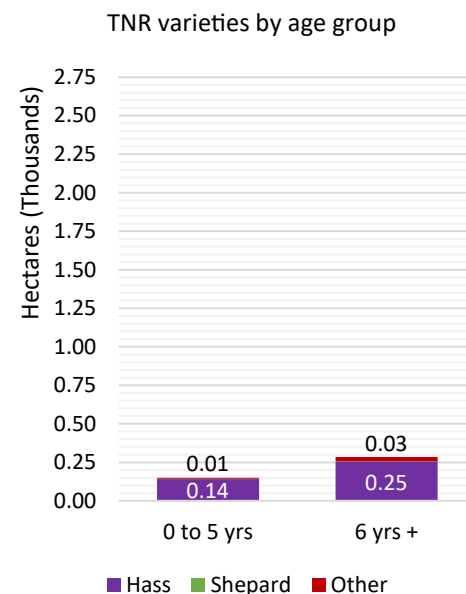
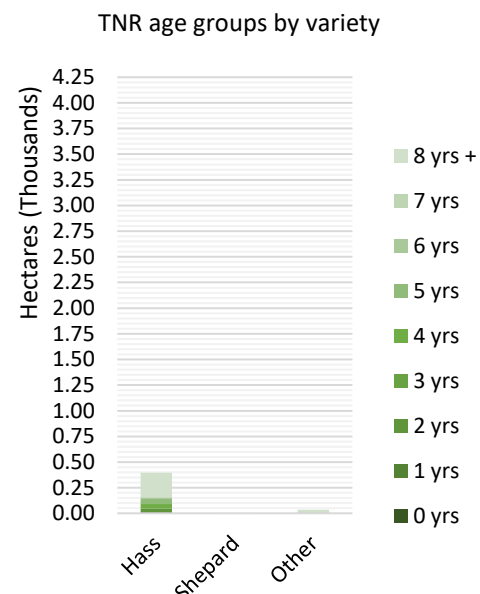
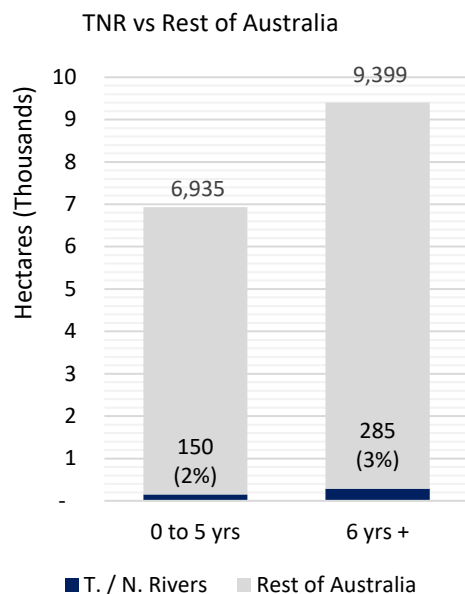
Hass is the dominant variety in SQ making up 94.28% of avocado plantings by area in the region.

2022 OrchardInfo Report - Tamborine / Northern Rivers.

| Variety | Number of trees | | | | Hectares | | | | Trees/hectare | | |
|--------------------------|------------------|------------------|------------------|-------------|-----------------|-----------------|------------------|-------------|---------------|------------|------------------|
| | 0 to 5 yrs | 6 yrs + | Total | % | 0 to 5 yrs | 6 yrs + | Total | % | 0 to 5 yrs | 6 yrs + | Weighted average |
| Hass | 26,327 | 51,376 | 77,703 | 89.22% | 141.49 | 254.46 | 395.95 | 91.16% | 186 | 202 | 196 |
| Fuerte | 350 | 1,356 | 1,706 | 1.96% | 1.26 | 7.73 | 8.99 | 2.07% | 278 | 175 | 190 |
| Reed | 546 | 1,523 | 2,069 | 2.38% | 2.57 | 6.29 | 8.86 | 2.04% | 212 | 242 | 234 |
| Other | 1,057 | 1,231 | 2,288 | 2.63% | 1.62 | 5.24 | 6.86 | 1.58% | 652 | 235 | 334 |
| Lamb | 344 | 476 | 820 | 0.94% | 0.62 | 3.22 | 3.84 | 0.88% | 555 | 148 | 214 |
| Wurtz | | 539 | 539 | 0.62% | | 3.17 | 3.17 | 0.73% | - | 170 | 170 |
| Sharwil | | 557 | 557 | 0.64% | | 2.67 | 2.67 | 0.61% | - | 209 | 209 |
| Shepard | 680 | 157 | 837 | 0.96% | 1.42 | 1.05 | 2.47 | 0.57% | 479 | 150 | 339 |
| Pinkerton | | 184 | 184 | 0.21% | | 0.91 | 0.91 | 0.21% | - | 202 | 202 |
| Maluma | 385 | | 385 | 0.44% | 0.61 | | 0.61 | 0.14% | 631 | - | 631 |
| Region Total | 29,689 | 57,399 | 87,088 | 100% | 149.59 | 284.74 | 434.33 | 100% | 199 | 201 | 200 |
| Rest of Australia | 1,980,554 | 1,923,407 | 3,903,961 | | 6,785.18 | 9,114.32 | 15,899.50 | | | | |
| Region / Total | 1% | 3% | 2% | | 2% | 3% | 3% | | | | |



With 434 hectares, Tamborine / Northern Rivers has 3% of Australian total hectares of avocado plantings. The number of trees in TNR is 87,088 representing 2% of all Australian trees.

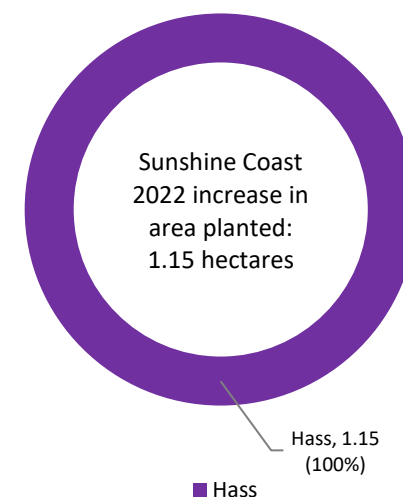


In 2022 TNR had a net increase of 1,330 new trees across 3.90 hectares, which represents 0.9% of all of the region's hectares, and 1.22% of new hectares planted nationally. In total, 34.44% of all TNR hectares were planted in the last five years, compared to the national proportion of 42.46%.

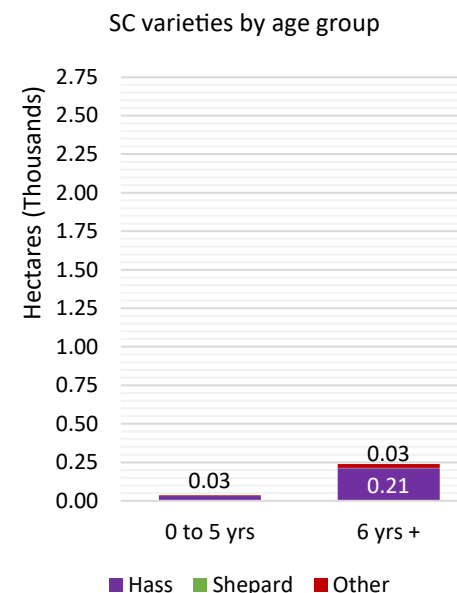
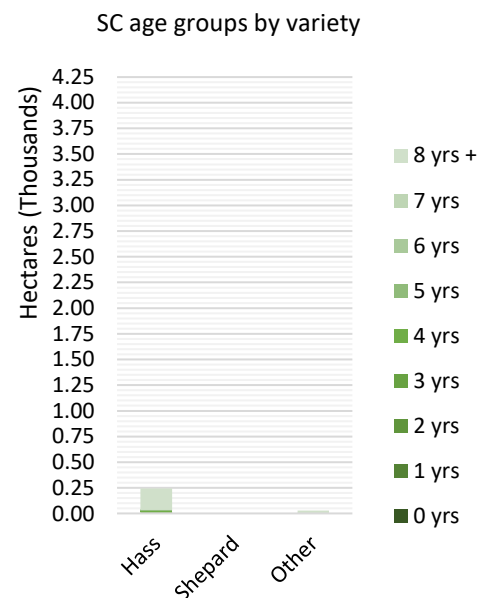
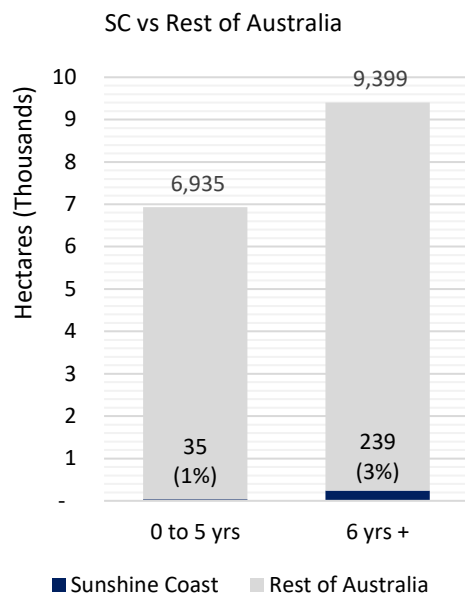
Hass is the dominant variety in TNR making up 91.16% of avocado plantings by area in the region.

2022 OrchardInfo Report - Sunshine Coast.

| Variety | Number of trees | | | | Hectares | | | | Trees/hectare | | |
|--------------------------|------------------|------------------|------------------|-------------|-----------------|-----------------|------------------|-------------|---------------|------------|------------------|
| | 0 to 5 yrs | 6 yrs + | Total | % | 0 to 5 yrs | 6 yrs + | Total | % | 0 to 5 yrs | 6 yrs + | Weighted average |
| Hass | 10,589 | 40,292 | 50,881 | 86.74% | 31.75 | 211.58 | 243.33 | 88.71% | 334 | 190 | 209 |
| Wurtz | | 2,116 | 2,116 | 3.61% | | 8.26 | 8.26 | 3.01% | - | 256 | 256 |
| Pinkerton | | 1,265 | 1,265 | 2.16% | | 4.92 | 4.92 | 1.79% | - | 257 | 257 |
| Gem | 530 | 860 | 1,390 | 2.37% | 1.59 | 2.58 | 4.17 | 1.52% | - | 333 | 206 |
| Sharwil | | 656 | 656 | 1.12% | | 3.64 | 3.64 | 1.33% | - | 180 | 180 |
| Lamb | | 435 | 435 | 0.74% | | 2.19 | 2.19 | 0.80% | - | 199 | 199 |
| Shepard | 120 | 517 | 637 | 1.09% | 0.29 | 1.82 | 2.11 | 0.77% | 414 | 284 | 302 |
| Fuerte | | 515 | 515 | 0.88% | | 1.82 | 1.82 | 0.66% | - | 283 | 283 |
| Reed | | 395 | 395 | 0.67% | | 1.76 | 1.76 | 0.64% | - | - | - |
| Other | 215 | 154 | 369 | 0.63% | 1.42 | 0.67 | 2.09 | 0.76% | 151 | 230 | 177 |
| Region Total | 11,454 | 47,205 | 58,659 | 100% | 35.05 | 239.24 | 274.29 | 100% | 300 | 196 | 209 |
| Rest of Australia | 1,998,789 | 1,933,601 | 3,932,390 | | 6,899.72 | 9,159.82 | 16,059.54 | | | | |
| Region / Total | 1% | 2% | 1% | | 1% | 3% | 2% | | | | |



With 274 hectares, Sunshine Coast has 2% of Australian total hectares of avocado plantings. The number of trees in SC is 58,659 representing 1% of all Australian trees.



In 2022 SC had a net increase of 385 new trees across 1.15 hectares, which represents 0.42% of all of the region's hectares, and 0.36% of new hectares planted nationally. In total, 12.78% of all SC hectares were planted in the last five years, compared to the national proportion of 42.46%.

Hass is the dominant variety in SC making up 88.71% of avocado plantings by area in the region.



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Strategic levy investment

**AVOCADO
FUND**

Weekly Infocado Report - week 37 of 2023 (09 - 15 September 2023)

| | Dispatch for this week: | Next week's forecast: | Dispatch this week last year: | Average retail price: |
|--------------------------|--|---|--|--|
| Forecast for this week: | 345,168 tray eqv. | 438,281 tray eqv. | 358,664 tray eqv. | \$ 1.18 / piece |
| 380,819 tray eqv. | -9.36% relative to forecast for this week | +26.98% relative to dis- patch for this week | +3.91% relative to dispatch for this week | -7.81% relative to last week more detail here |

Week 37 - 2023 Comments:

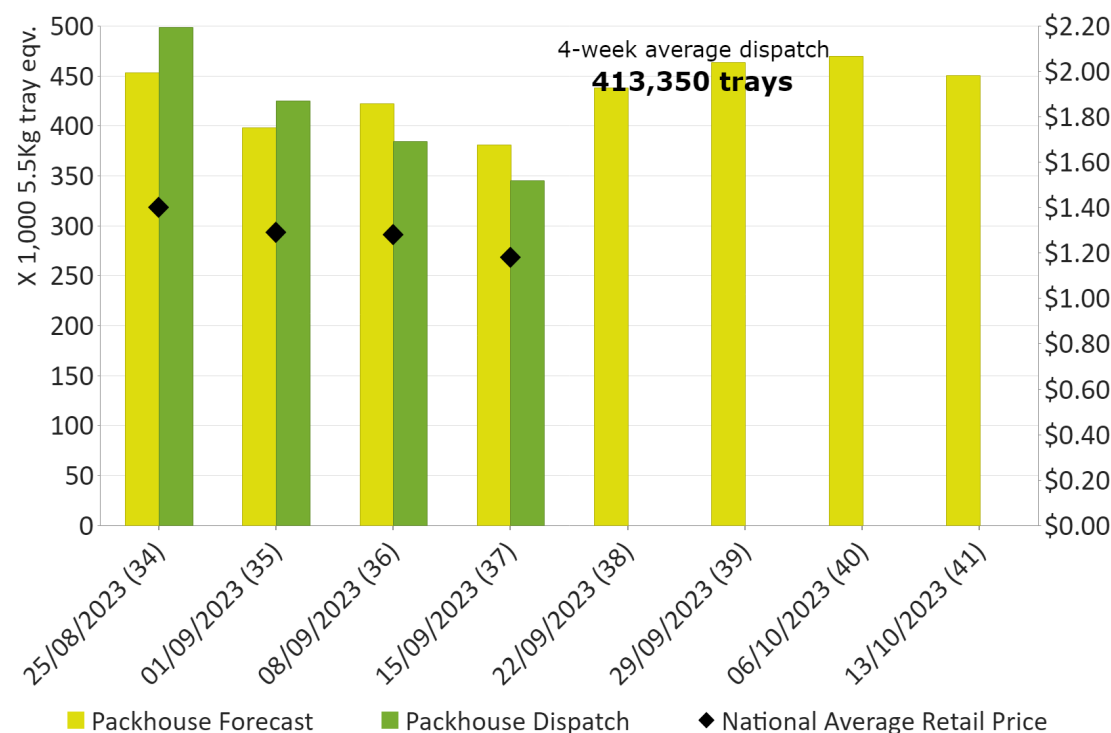
Are you staying up to date on current market conditions? More importantly, are you listening to the feedback from your agent on sizing and quality? Don't be caught out with unsaleable fruit, ask for feedback and take action to ensure your fruit is meeting the market demand.

Total recorded dispatch for week 37 was 345,168 tray equivalents, a – 10.18% decrease on the previous week (384,308 tray eqv.) and 9.36% lower than the forecasted 380,819 tray eqv. Western Australia supplied the majority of the fruit at 43.52%, followed by Tristate with 30.85%, South Qld with 11.98%, Central NSW with 10.37%, Tamborine / N.Rivers, New Zealand, and the Sunshine Coast supplied the remaining 3.28%.

If you are finishing your season, please remember to tick the 'final dispatch / forecast for the season' box on the dispatch and forecast forms.

[Using and interpreting Infocado](#)

Figure 1. Dispatch vs forecast (weeks 34 to 41 - 25/08/2023 - 13/10/2023)



Marketing Update: Australian Avocados - nutrient boosters!

We all know Avocado is well known for its healthy fats, but there is so much more nutrition packed inside every avocado. The Australian Avocados website provides this information to both consumers and health professionals. The nutrition hub on the website keeps health professionals up-to-date with all the latest health research and handy resources including meal plans, literature reviews and dietary advice. <https://australianavocados.com.au/health-professional/>

Latest avocado marketing news



CLICK HERE



Upcoming Public Holidays:

Monday 25th September: King's Birthday (WA)

Monday 2nd October: King's Birthday (QLD) & Labour Day (ACT, NSW & SA)

Report Index:

Cover: Weekly summary; Dispatch vs forecast

Page 2: Marketing brief; Upcoming public holidays; Index of contributors

Page 3: Dispatch data by variety and pack type; 4-weekly forecast data; Dispatch data by origin, fruit size, and pack type; Dispatch vs forecast; Dispatch vs weekly forecast by region

Page 4: Seasonal progress chart; Estimated total supply

Page 5: Packers dispatch by region of origin; New Zealand and Chile avocado exports

Page 6: Packers dispatch by variety; Packers dispatch by trade channel

Reports Notes:

The Weekly Infocado report is compiled using data contributed by avocado packhouses and traders through the AvoData system. Please note that Quarterly Infocado reports incorporate additional data (by region) which is not contributed directly into the system. Therefore it is not possible to extrapolate the figures from Weekly Infocado reports to those in Quarterly Infocado reports. Initially, this report is provided to contributors only, then publicly released six weeks later. Until public release, the report is confidential. This report has been funded by Hort Innovation, using the avocado research and development levy and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.

Disclaimer: Avocados Australia Limited (AAL) has taken all due care to ensure the accuracy of the data collected for this report. Contributors have been asked to participate in 'good faith' and provide accurate and complete data at all times. AAL takes no responsibility for the data that is entered. In no event shall AAL be liable for any special, direct, indirect, consequential, or incidental damages or any damages whatsoever, whether in an action of contract, negligence or other tort, arising out of or in connection with the use of the report or the contents of the report.

Week 37 - 2023 Contributors - Packhouses

| | | |
|---|--|--|
| NZ Avocado Ltd (NZ) | T W Silver (TNR) | Avowest (WA/NT) |
| B & M Trousdell Enterprises (SQ) | 60 Foot Orchards Pty Ltd (Tristate) | Bendotti Avocado (WA/NT) |
| Balmoral Orchard (SQ) | Barham Avocados (Tristate) | Delroy Orchards (WA/NT) |
| Cherry Creek Orchards Pty Ltd (SQ) | Churinga Orchards (Tristate) | Licciardello & Son Orchards (WA/NT) |
| Minmore Fruits (SQ) | Cutri Fruit (Tristate) | Newton Orchards (WA/NT) |
| Natures Fruit Company (SQ) | Golden Hill Packing Pty Ltd (Tristate) | R & S Bamess (WA/NT) |
| Sunnyspot Packhouse Pty Ltd (SQ) | Goldup Farms (Tristate) | The Avocado Collective (WA/NT) |
| Touchwood Farming (SQ) | J.G. Loffler (Tristate) | The Avocado Grove (WA/NT) |
| Wodonga Park Fruit and Nuts (SQ) | Marrbiz Pty Ltd (Tristate) | CNSW: Less than 3 packhouse contributors |
| Aussie Orchards Growers & Packers (TNR) | Parkes Lane Produce (Tristate) | SC: Less than 3 packhouse contributors |
| Jirel Holdings (TNR) | Vitor Marketing Pty Ltd (Tristate) | |
| Summerland Farm (TNR) | Avonova (WA/NT) | |

Week 37 - 2023 Contributors - Traders

| | |
|---|-----------------------------------|
| Sinclair & Antico Pty Ltd [Sydney] | Watt Export (National) |
| Costa Avocado (National) | Green Skin Avocados (National) |
| Costa Farms [Adelaide] | WA Farm Direct [Perth] |
| Fresh Choice WA Pty Ltd [Perth] | Natures Fruit Company (National) |
| N & A Fruit Distributors Pty Ltd [Sydney] | LaManna Premier Group [Adelaide] |
| Costa Farms [Melbourne] | LaManna Premier Group [Melbourne] |
| Murray Bros [Brisbane] | LaManna Premier Group [Sydney] |
| J.H.Leavy & Co [Brisbane] | Rock Ridge Fresh (National) |

Figure 2. Dispatch data by variety and pack type - Week Ending 15/09/2023 (37)

| Variety | 5.5 Kg Trays units | 10 Kg Bulks units | Pre-packed Kg | Processing Kg | Other Kg | 5.5Kg Tray Eqv |
|--------------|-----------------------|----------------------|------------------|------------------|--------------|-------------------|
| Hass | 265,863 | 39,193 | 6,358 | 26,276 | 2,642 | 343,540 |
| Shepard | - | - | - | - | - | - |
| Other | 877 | 281 | - | 1,318 | - | 1,628 |
| Total | 266,740 | 39,474 | 6,358 | 27,594 | 2,642 | 345,168 |

Figure 3. 4-weekly forecast data in 5.5 Kg tray eqv (date: week ending)

| Variety | 15/09/2023 (37) | 22/09/2023 (38) | 29/09/2023 (39) | 06/10/2023 (40) | 13/10/2023 (41) |
|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Hass | 380,819 | 438,281 | 463,845 | 469,542 | 450,617 |
| Shepard | - | - | - | - | - |
| Other | - | - | - | - | - |
| Week Total | 380,819 | 438,281 | 463,845 | 469,542 | 450,617 |

Figure 4. Dispatch Data By Origin, Fruit Size and Pack Type - Week Ending 15/09/2023 (37)

| | 5.5Kg trays (counts) | | | | | | | | | Total 5.5Kg | | Bulk 10kg | | Pre-packed | Proc | Other | Total 5.5Kg | |
|--------------------|----------------------|--------------|---------------|---------------|----------|---------------|---------------|---------------|---------------|----------------|--|---------------|--|--------------|---------------|--------------|----------------|--------------|
| | <16 | 16 | 18 | 20 | 22 | 23 | 25 | 28 | >28 | Trays | | cartons | | Kg | Kg | Kg | Tray Eqv | % |
| NQ | - | - | - | - | - | - | - | - | - | - | | - | | - | - | - | - | 0.00 % |
| CQ | - | - | - | - | - | - | - | - | - | - | | - | | - | - | - | - | 0.00 % |
| SC | - | 6 | 11 | 34 | - | 13 | 17 | - | - | 81 | | 41 | | - | - | - | 156 | 0.05 % |
| SQ | 91 | 711 | 2,741 | 6,044 | - | 6,836 | 6,052 | 4,981 | 1,513 | 28,969 | | 6,540 | | - | - | 2,642 | 41,341 | 11.98 % |
| TNR | - | 35 | 299 | 674 | - | 2,057 | 1,597 | 1,334 | 132 | 6,128 | | 389 | | 4,398 | - | - | 7,635 | 2.21 % |
| CNSW | 101 | 375 | 1,531 | 5,911 | - | 5,042 | 7,020 | 3,234 | 480 | 23,694 | | 4,890 | | 1,960 | 15,751 | - | 35,805 | 10.37 % |
| Tristate | - | 2,231 | 6,070 | 15,670 | - | 23,164 | 21,769 | 10,128 | 5,915 | 84,947 | | 10,659 | | - | 11,843 | - | 106,481 | 30.85 % |
| WA/NT | 34 | 506 | 5,742 | 18,725 | - | 32,245 | 29,050 | 24,750 | 8,348 | 119,400 | | 16,955 | | - | - | - | 150,229 | 43.52 % |
| NZ | - | 141 | 282 | 598 | - | 950 | 669 | 458 | 423 | 3,521 | | - | | - | - | - | 3,521 | 1.02 % |
| Grand Total | 226 | 4,005 | 16,676 | 47,656 | 0 | 70,307 | 66,174 | 44,885 | 16,811 | 266,740 | | 39,474 | | 6,358 | 27,594 | 2,642 | 345,168 | 100 % |

Figure 5. Dispatch vs forecast - 31/03/2023 - 13/10/2023 (weeks 13 to 41)

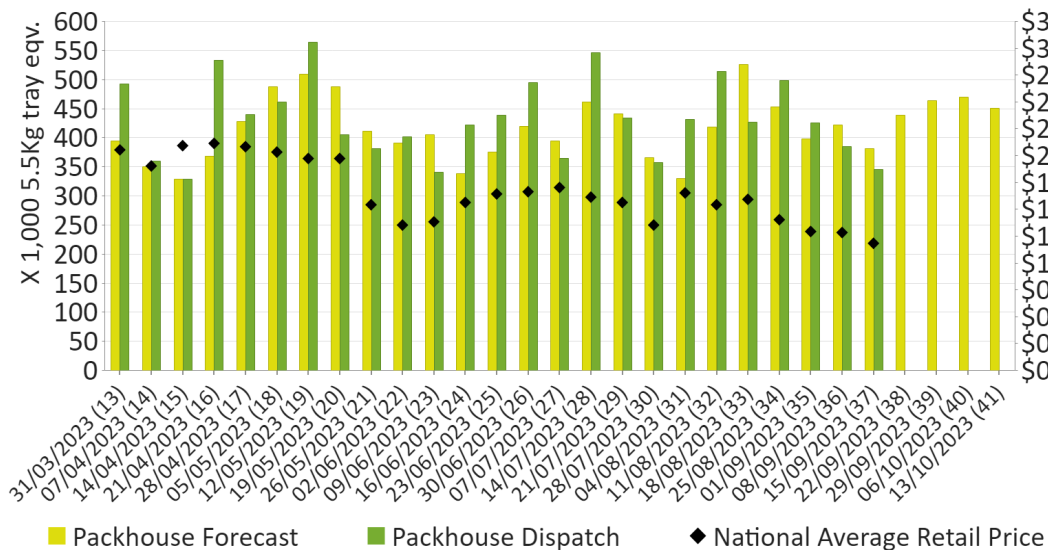


Figure 6. Dispatch vs weekly forecast by region - Week Ending 15/09/2023 (37)

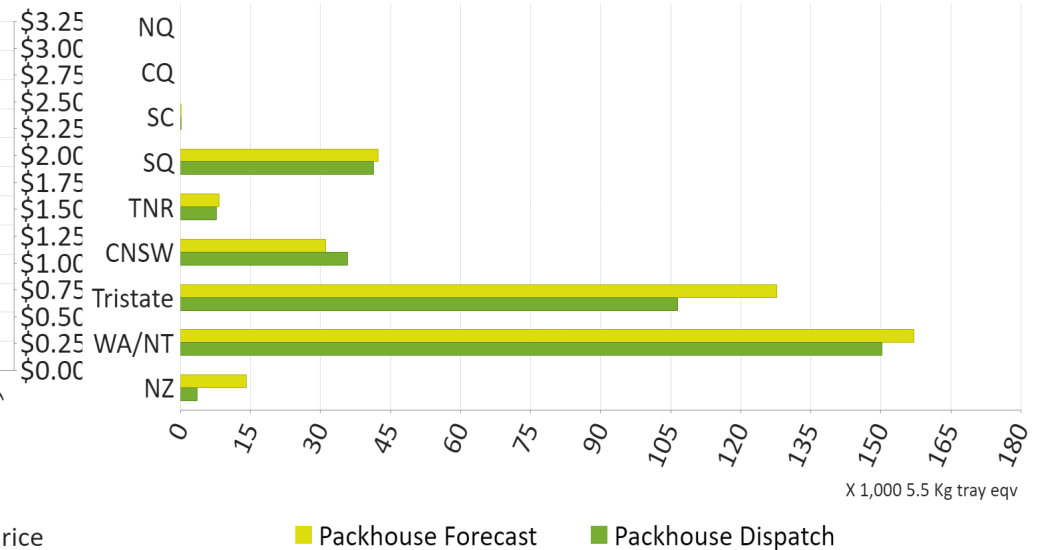
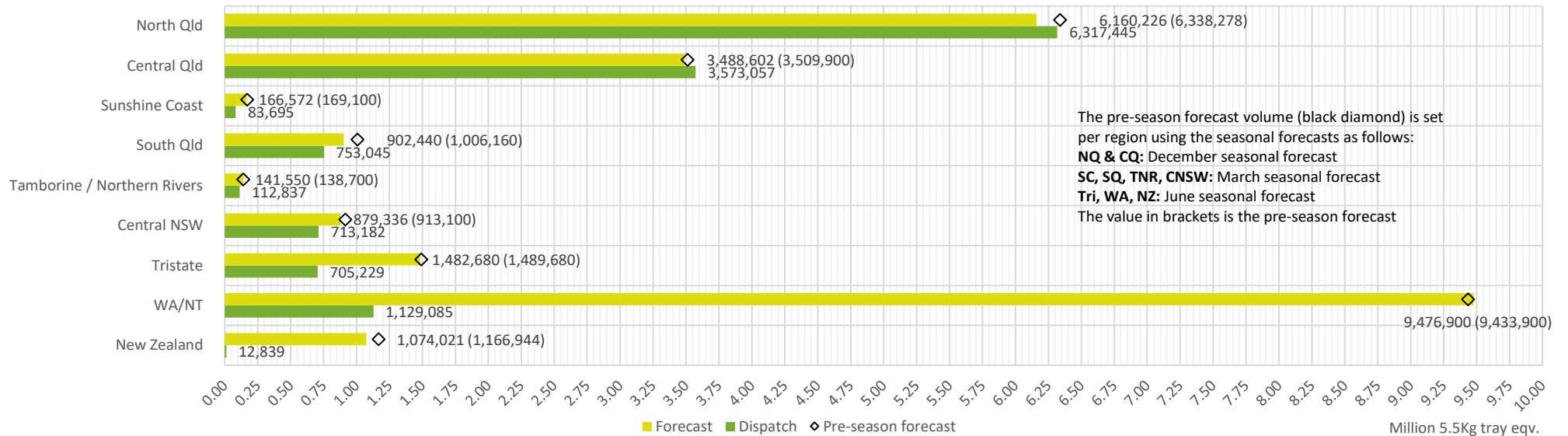


Figure 7. 2023-24 Season Progress (Million 5.5Kg trays) - Week Ending 15/09/2023 (37)

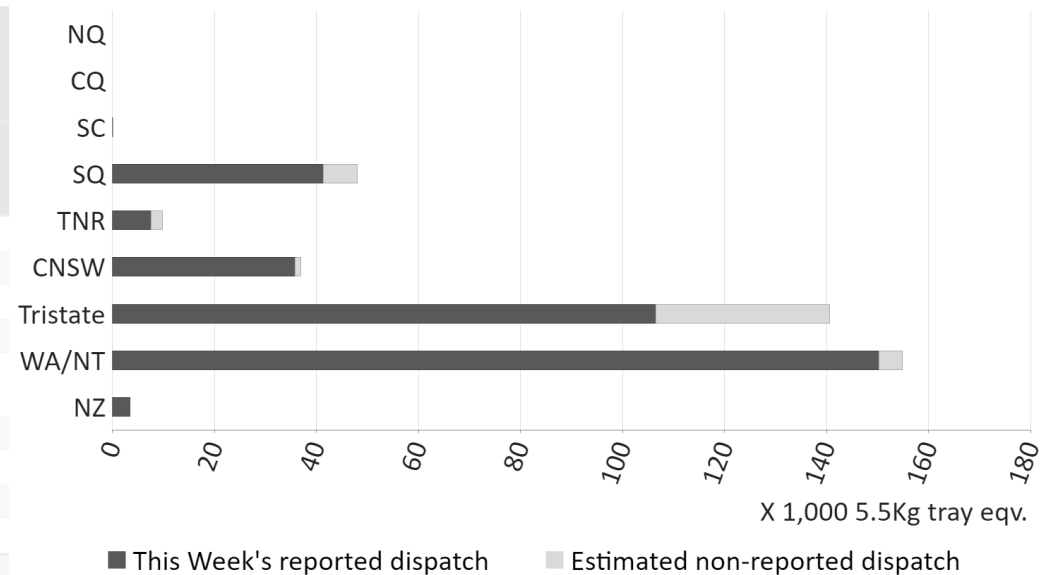


The **season progress graph** above uses seasonal forecast data from direct contributors, it does not include data from non-contributing packhouses. Therefore these figures may be lower than those shown on the Quarterly Infocado Report.

Figure 8. Estimated total supply - Week Ending 15/09/2023 (37)

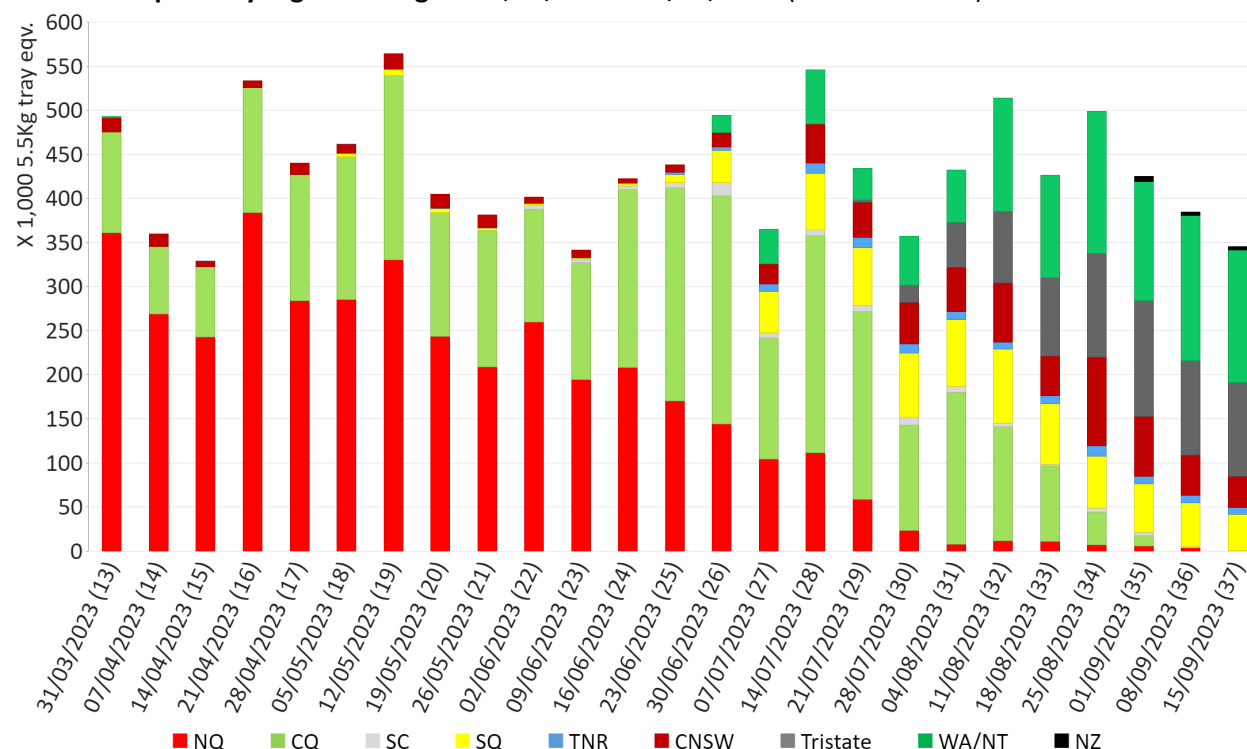
| Region | Percent of Estimated Total Supply * | This Week's Reported Dispatch | Estimated Non-reported Dispatch | Estimated Total Supply |
|---------------------------|-------------------------------------|-------------------------------|---------------------------------|------------------------|
| | % | 5.5 Kg tray eqv | 5.5 Kg tray eqv | 5.5 Kg tray eqv |
| North QLD | - | - | - | - |
| Central QLD | - | - | - | - |
| Sunshine Coast | 79 % | 156 | 33 | 189 |
| South QLD | 84 % | 41,341 | 6,615 | 47,956 |
| Tamborine/Northern Rivers | 71 % | 7,635 | 2,214 | 9,849 |
| Central NSW | 97 % | 35,805 | 1,074 | 36,879 |
| Tristate | 68 % | 106,481 | 34,074 | 140,555 |
| WA/NT | 97 % | 150,229 | 4,507 | 154,736 |
| New Zealand | 100 % | 3,521 | - | 3,521 |
| Grand Total | | 345,168 | 48,516 | 393,684 |

Figure 9. Estimated total supply - Week Ending 15/09/2023 (37)



All data in this report is provided by direct contributors only. The table and chart above provides an estimate of the total volume dispatch this week including data extrapolated from the Quarterly Infocado Report.

Figure 10. Packers dispatch by region of origin - 31/03/2023 - 15/09/2023 (weeks 13 to 37)



4-weekly forecast

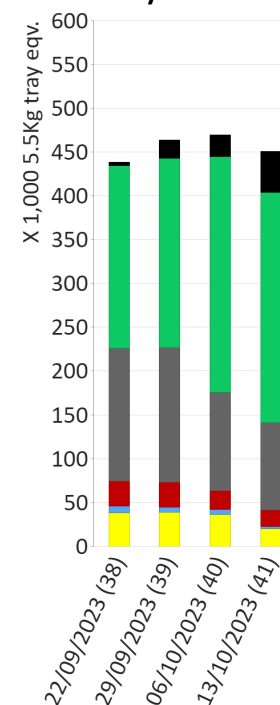


Figure 11. New Zealand and Chile avocado exports: forecast v dispatch (5.5kg eqv. trays) August 2023 - February 2024

| NZ export to Australia | | Aug-23 | Sep-23 | Oct-23 | Nov-23 | Dec-23 | Jan-24 | Feb-24 | Total |
|---|--------------|--------|---------|---------|---------|---------|---------|--------|-----------|
| Pre-Season Forecast (1) at 17/07/2023 | | 28,160 | 121,120 | 171,840 | 204,160 | 315,040 | 237,600 | 89,024 | 1,166,944 |
| Updated Season Forecast (1) at 29/08/2023 | | 5,797 | 56,320 | 194,080 | 192,904 | 288,320 | 226,080 | 78,840 | 1,042,341 |
| Dispatch volume Infocado (1) | | 5,797 | 7,041 | | | | | | 12,838 |
| Customs data: Australian imports from New Zealand [2] | | | | | | | | | |
| Customs data: NZ avocado exports - total non-Aus. [3] | Korea, South | | | | | | | | |
| | China | | | | | | | | |
| | Thailand | | | | | | | | |
| | Taiwan | | | | | | | | |
| | Other | | | | | | | | |
| Total | | | | | | | | | |
| Customs data: Australian imports from Chile [2] | | | | | | | | | |

[1] Source: Infocado

[2] Source: IHS Markit - Global Trade Atlas (Imports)

[3] Source: IHS Markit - Global Trade Atlas (Exports)

Grey cell Forecast is set and can no longer be updated

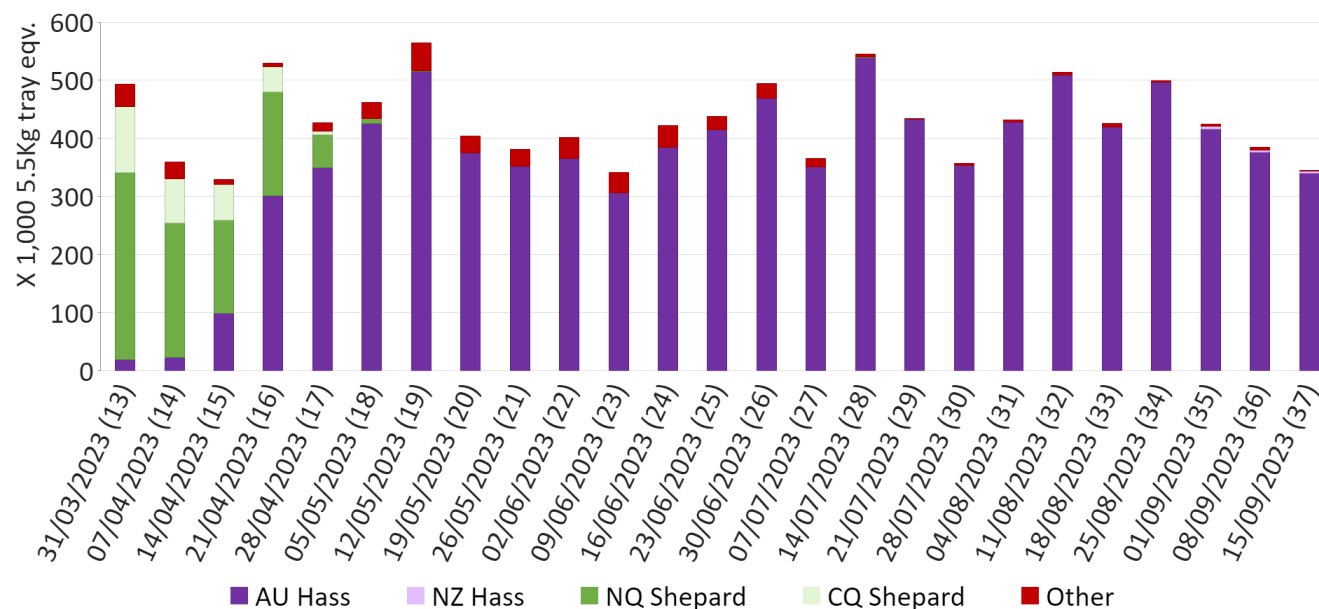
Green cell Actuals (dispatch)

Yellow cell Forecast can still be updated

black text Data complete for the month / season

Red text Data not yet complete for the month / season

Figure 12. Packers dispatch by variety - 31/03/2023 - 15/09/2023 (weeks 13 to 37)



4-weekly forecast

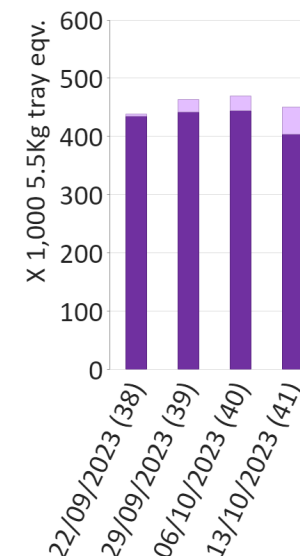
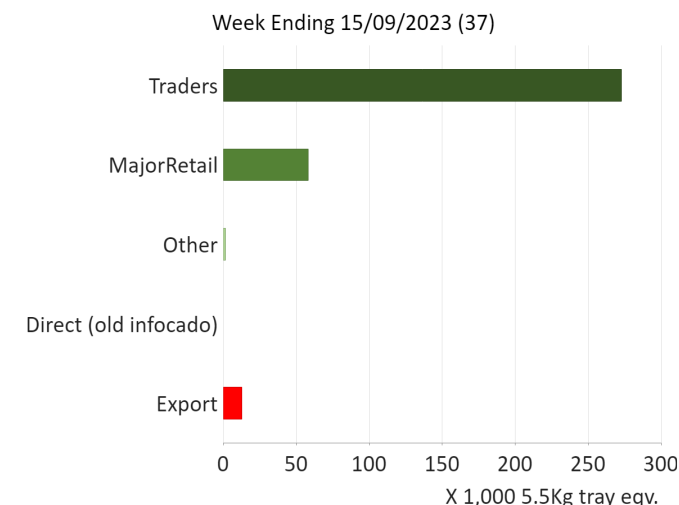
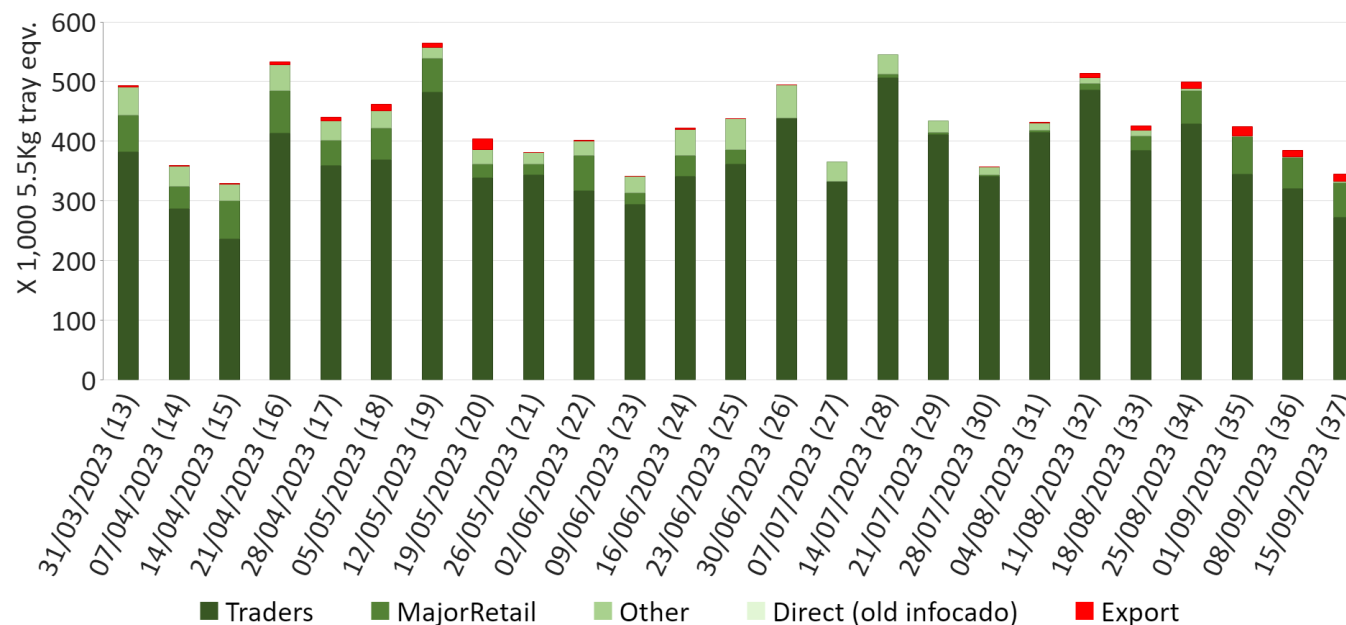
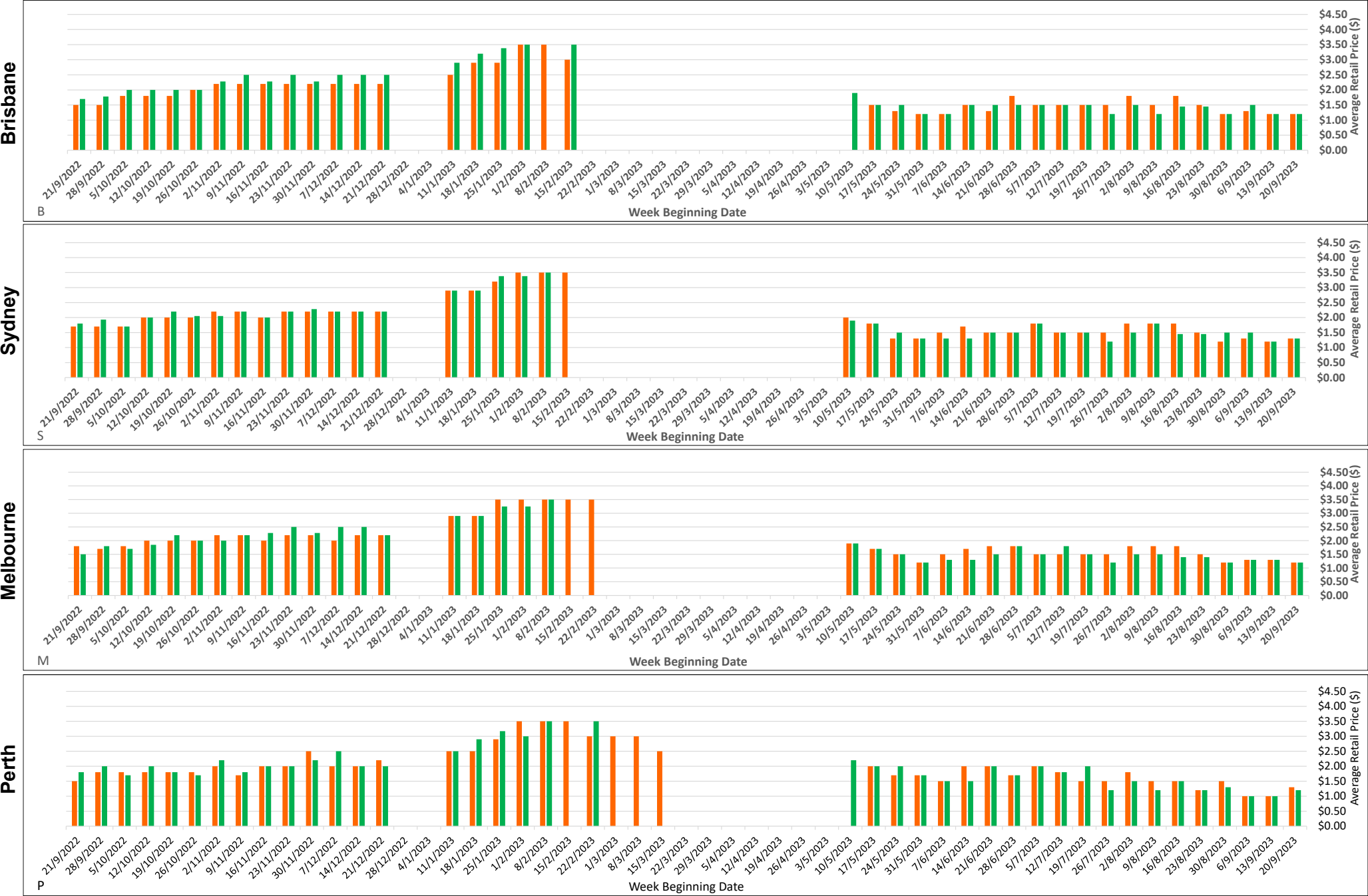


Figure 13. Packers dispatch by trade channel - 31/03/2023 - 15/09/2023 (weeks 13 to 37) **Trader:** a primary wholesaler, marketer, or consolidator. **Major Retail:** Woolworths, Coles, or Aldi. **Other:** any other outlet that is not a trader or major retail. The bar chart to the right shows the most recent week's data. **Note:** as most exports are via a Trader, the export volumes identified in this chart only represent exports direct from packhouse via freight forwarder.



Hass avocado single fruit online retail pricing over 12 months: Coles and Woolworths

Key: ■ Coles online ■ Woolworths online



Avocado online retail pricing for Coles and Woolworths

Reporting period: week 38-2023 (Wed 20/09/23 - Tue 26/09/23)

| | Pack Type | Variety | Description/ Origin | Brisbane | Sydney | Melbourne | Perth |
|--|-------------------------|---------------|------------------------|----------|----------|-----------|----------|
| Coles | Single fruit | Hass | Australian | \$1.20* | \$1.30↑* | \$1.20↓* | \$1.30↑* |
| | 5 pack | not indicated | Australian | \$5.00* | \$5.00↑* | \$5.00↑* | \$4.00↓* |
| | 1kg bag | not indicated | I'm Perfect | \$4.50↑* | \$4.50↑* | \$4.50↑* | \$4.50↑ |
| | Organic Single fruit | not indicated | Australian | \$3.90 | \$3.90 | \$3.90 | |
| Woolworths | Single fruit | Hass | Australian | \$1.20 | \$1.30↑ | \$1.20↓ | \$1.20↑ |
| | 5 pack | not indicated | Mini Avocados | \$4.90 | \$4.50↓ | \$4.50↓ | \$5.00↑ |
| | 1kg Prepacked | not indicated | Odd Bunch | \$4.00↓ | \$4.00↓ | \$4.50 | \$4.00 |
| | Organic Single fruit | not indicated | Australian | \$3.30↑ | \$3.50↑ | \$3.00 | |
| | 550g Organic mini fruit | not indicated | Australian | | | \$5.50 | |
| Single fruit average by city (Hass & Shepard, excluding organic) | | | | \$1.20 | \$1.30↑ | \$1.20↓ | \$1.25↑ |
| Single fruit average (Hass & Shepard, excluding organic) | | | \$1.24↑ | | | | |

Catalogue offers on avocados:

Coles - Brisbane & Perth: Australian unspecified variety 5 pack \$5 each

Coles - Sydney & Melbourne: Australian Hass \$1.30 each

Woolworths - Brisbane & Sydney: Australian Hass \$1.20 each

Woolworths - Perth: Australian unspecified variety 1kg Odd bunch bag \$4 each

Aldi - National: No catalogue offers

Foodworks - Sydney: Australian Hass \$1.29 each

Foodworks - Perth: Western Australian Hass 2 for \$3

IGA - Sydney: Australian Hass \$1.20 each

Key:

| | |
|-----------|---|
| * | advertised as a weekly and/or catalogue special |
| ↑ (green) | increase in price from previous week |
| (yellow) | same price as previous week |
| ↓ (red) | decrease in price from previous week |

Notes for graphs on previous page:

Online retail pricing for Hass & Shepard single fruit

24/05/23 to 26/09/23 (Weeks 21– 38)

Coles single Shepard price not available nationally
Woolworths single Shepard price not available nationally

17/05/23 (Week 20)

Coles single Shepard price not available nationally
Woolworths single Shepard price not available nationally

10/05/23 (Week 19)

Coles single Hass price not available Bris & Perth
Coles single Shepard price not available nationally
Woolworths single Shepard price not available nationally

03/05/23 (Week 18)

Coles single fruit price not available nationally
Woolworths single Hass price not available nationally
Woolworths single Shepard price not available in Melb

26/04/23 (Week 17)

Coles single Hass price not available nationally
Woolworths single Hass price not available nationally

19/04/23 (Week 16)

Coles single Hass price not available nationally
Woolworths single Hass price not available nationally

12/04/23 (Week 15)

Coles single Hass price not available nationally
Woolworths single Hass price not available nationally

05/04/23 (Week 14)

Coles single Hass price not available nationally
Woolworths single Hass price not available nationally

29/03/23 (Week 13)

Coles single Hass price not available nationally
Woolworths single Hass price not available nationally



Avocados Australia research the online shopping and catalogue prices for avocados on Wednesdays when major supermarkets usually publish their weekly prices. Advertised weekly, prices are valid for seven days, Wednesday to Tuesday.

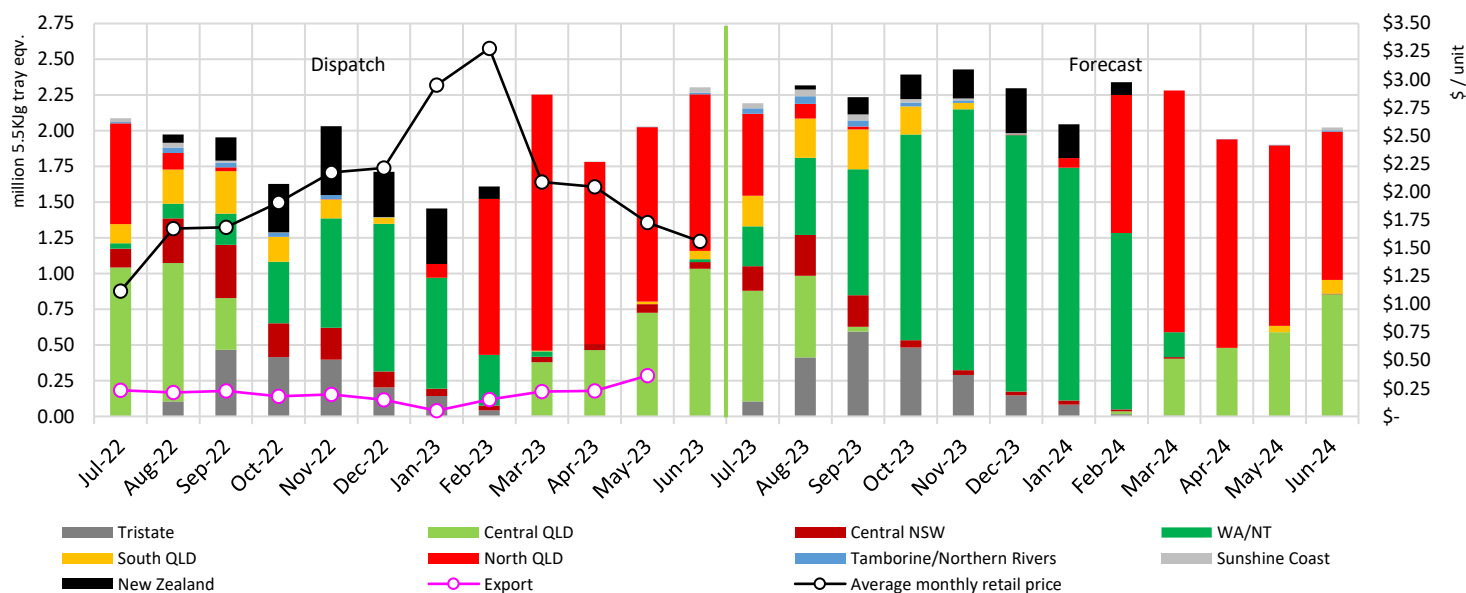
This project has been funded by Hort Innovation using the avocado research and development levy and funds from the Australian Government. For more information on the fund and strategic levy investment visit horticulture.com.au

Quarterly Infocado Report Crop Forecast - July 2023

Avocados Australia releases four quarterly Infocado crop forecast reports per year, in the months January, April, July and October.

| Australian Avocados Forecast July '22 to June '23 (5.5 kg tray eqv.) | | | | | | | | | | | | | |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|
| | Jul 22 | Aug 22 | Sep 22 | Oct 22 | Nov 22 | Dec 22 | Jan 23 | Feb 23 | Mar 23 | Apr 23 | May 23 | Jun 23 | Total |
| Hass | 1,837,190 | 1,834,754 | 1,541,494 | 1,385,085 | 1,391,637 | 1,184,341 | 736,393 | 393,651 | 92,837 | 695,716 | 1,780,356 | 2,092,050 | 14,965,504 |
| Shepard | - | - | - | - | - | - | 108,240 | 839,372 | 1,512,054 | 1,137,789 | 103,061 | - | 3,700,516 |
| Other | 22,854 | 11,751 | 23,753 | 15,271 | 42,576 | 64,079 | 31,392 | 19,266 | 76,531 | 123,743 | 178,303 | 135,147 | 744,666 |
| Total | 1,860,044 | 1,846,505 | 1,565,247 | 1,400,356 | 1,434,213 | 1,248,420 | 876,025 | 1,252,289 | 1,681,422 | 1,957,248 | 2,061,720 | 2,227,197 | 19,410,686 |
| Australian Avocados Dispatch July '22 to June '23 (5.5 kg tray eqv.) | | | | | | | | | | | | | |
| Hass | 2,039,347 | 1,889,134 | 1,753,820 | 1,265,991 | 1,510,278 | 1,337,399 | 863,930 | 394,886 | 81,071 | 822,735 | 1,859,210 | 2,122,223 | 15,940,024 |
| Shepard | - | - | - | - | - | - | 95,110 | 1,051,489 | 2,030,595 | 896,302 | 11,500 | - | 4,084,996 |
| Other | 47,018 | 26,817 | 37,242 | 21,972 | 38,158 | 57,402 | 108,783 | 76,279 | 140,447 | 61,397 | 157,190 | 181,336 | 954,041 |
| Total | 2,086,365 | 1,915,951 | 1,791,062 | 1,287,963 | 1,548,436 | 1,394,801 | 1,067,823 | 1,522,654 | 2,252,113 | 1,780,434 | 2,027,900 | 2,303,559 | 20,979,061 |
| Australian Avocados Forecast July '23 to June '24 (5.5 kg tray eqv.) | | | | | | | | | | | | | |
| | Jul 23 | Aug 23 | Sep 23 | Oct 23 | Nov 23 | Dec 23 | Jan 24 | Feb 24 | Mar 24 | Apr 24 | May 24 | Jun 24 | Total |
| Hass | 2,127,941 | 2,276,424 | 2,088,446 | 2,203,801 | 2,186,155 | 1,936,503 | 1,663,111 | 1,255,233 | 261,660 | 693,607 | 1,624,972 | 1,847,257 | 20,165,110 |
| Shepard | - | - | - | - | - | - | 65,811 | 955,703 | 1,847,587 | 1,112,496 | 82,077 | - | 4,063,674 |
| Other | 64,520 | 11,667 | 24,318 | 16,120 | 38,315 | 44,990 | 78,149 | 38,800 | 171,195 | 134,885 | 193,476 | 174,924 | 991,359 |
| Total | 2,192,461 | 2,288,091 | 2,112,764 | 2,219,921 | 2,224,470 | 1,981,493 | 1,807,071 | 2,249,736 | 2,280,442 | 1,940,988 | 1,900,525 | 2,022,181 | 25,220,144 |

Australian & New Zealand Avocados: July 22 to June 23 Dispatch / July 23 to June 24 Forecast



| Jul 22 to Jun 23 Dispatches & Jul 23 to Jun 24 Avocado Production Estimates 5.5kg eqv. Trays | | | |
|--|-------------------|-------------------|-------------|
| Region | Jul22 to Jun23 | Jul23 to Jun24 | % change |
| North Queensland | 7,417,266 | 7,185,860 | -3% |
| Central Queensland | 4,974,295 | 3,723,525 | -25% |
| Sunshine Coast | 114,927 | 190,109 | +65% |
| Southern Queensland | 1,102,490 | 1,152,945 | +5% |
| Tamborine/Northern Rivers | 152,829 | 188,702 | +23% |
| Central NSW | 1,658,243 | 845,763 | -49% |
| Tristate | 1,780,443 | 2,141,276 | +20% |
| WA | 3,778,569 | 9,791,964 | +159% |
| New Zealand | 1,832,300 | 1,166,944 | -36% |
| Total | 22,811,362 | 26,387,088 | +16% |

Avocado supply for April, May, & June (Q2) of 2023 was 2.15% lower than the forecast for the same period published back in April, with 6,111,893 5.5Kg trays dispatched compared with 6,246,165 5.5Kg trays forecast for the three months. When compared with the same period the previous year (April - June 2022: 5,337,569 5.5Kg trays), supply increased by 14.51%. The updated forecast for the coming quarter (Q3) of July, August, & September of 2023, is 6,742,596 5.5Kg trays, an increase of 10.32% compared with the previous quarter and 12.18% more than the volume dispatched the same period last year (6,010,721 5.5Kg trays).

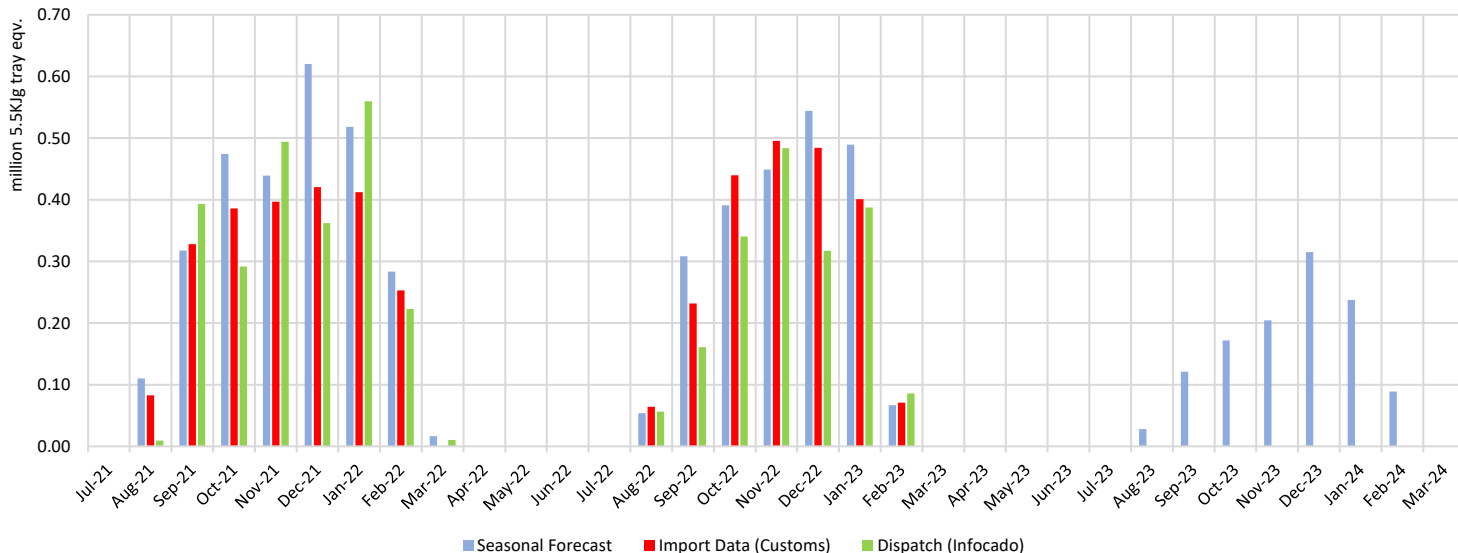
Compared with the past 12 months, the total volume forecast for the 12 months from July'23 to June'24 is expected to increase by 4,241,082 5.5Kg trays (+20.22%) for Australian fruit. The total forecast for the next 12 months including New Zealand is 26,387,088 5.5 Kgs trays. This is 3,575,726 5.5 Kg trays more (+15.68%) than the volumes dispatched in the previous 12 months (22,811,362 5.5Kg trays).

All regions are expected to be on the increase, apart from Central NSW, New Zealand, Central and North QLD which are expecting volumes to be down -49%, -36%, -25%, and -3% respectively for the next 12 months. We are expecting to see fruit volume out of Western Australia increase a remarkable +159% respective to last season.

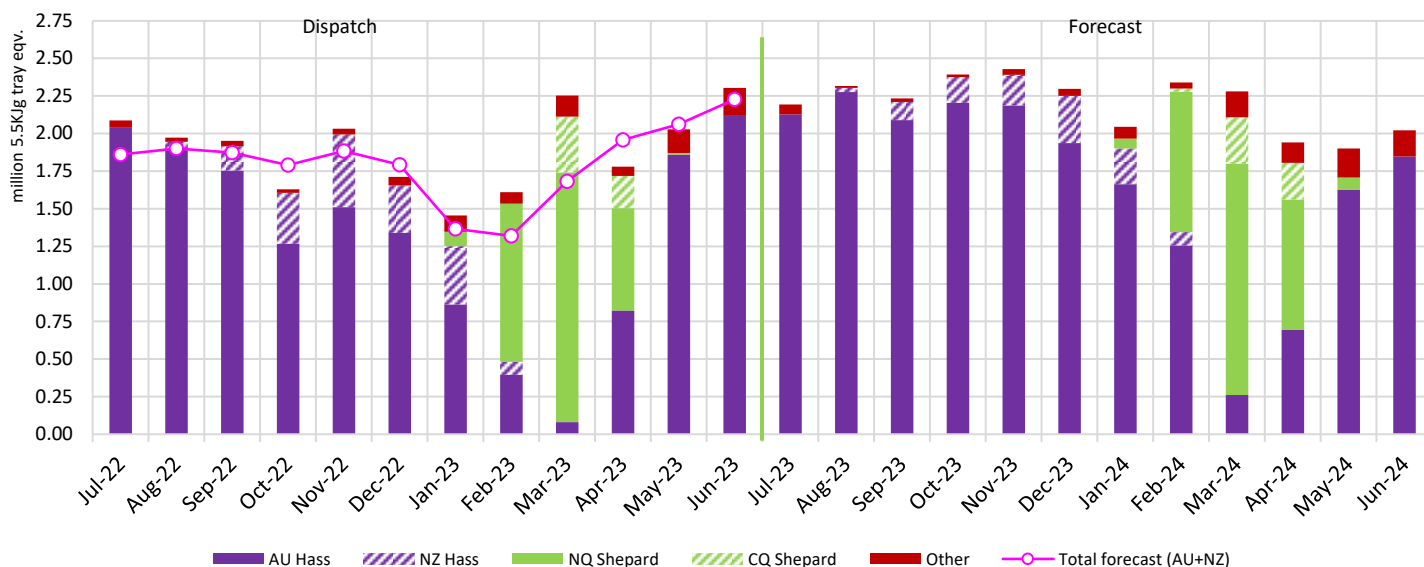
We have included the exported volume for the past 12 months in the figure above (source: IHS Global Trade Atlas, data for June'23 not yet available). The weighted average volume exported for the period is 9.34% of domestically produced volume.

Report notes: The Quarterly Infocado report is compiled using data collected through the Infocado system from an estimated 85+ % of industry packhouses, consolidators and wholesalers. Please note that the data in this report is slightly different from the weekly report you receive every Tuesday, as it includes additional data captured from sources other than direct online data entries. It is thus, not possible to extrapolate the figures from Weekly Infocado reports as a comparison. This report is provided initially to Infocado contributors only. Until public release, the report is confidential.

New Zealand Avocados: Dispatch and Forecast



Avocados by Variety: July 22 to June 23 Dispatch / July 23 to June 24 Forecast



Note: NZ dispatch figures in the above graph are from Infocado, the total forecast line (pink) indicates the most up to date forecasts.

Seasonal forecast direct contributors

| | | | |
|--|-------------------------------|---|-----------------------------|
| Central Qld | Delais Orchards Pty Ltd | Minmore Fruits | Goldup Farms |
| Costa Avocado/SuperPak | Golden Triangle Avocados | Natures Fruit Company (SQ) | J.G. Loffler |
| Donovan Family Investment Trust | Green Skin Avocados | Sunnyspot Packhouse Pty Ltd (SQ) | Kingston Avocado |
| Lava Valley Produce | Gunnado Farming Pty Ltd | Touchwood Farming | Marrbiz Pty Ltd |
| Natures Fruit Company (CQ) | Hinterland Avocados | Wodonga Park Fruit and Nuts | Mildura Fruit Company |
| Simpson Farms Pty Ltd | Jennings Family Trust | Sunshine Coast | Parkes Lane Produce |
| Sunny Bluff Produce Pty Ltd | JL Trimarchi & PM Trimarchi | Bluegum Creek Produce Pty Ltd | Vitor Marketing Pty Ltd |
| Sunnyspot Packhouse Pty Ltd (CQ) | Kurean Farming | Natures Fruit Company (SC) | WA/NT |
| New Zealand | Leadwood Pty Ltd | Sunnyspot Packhouse Pty Ltd (SC) | Applewood Orchard |
| NZ Avocado Ltd | Manbulloo Ltd | Tambrone/Northern Rivers | Avonova |
| North Qld | Mountain Side Avocados | Aussie Orchards Growers & Packers (TNR) | Avowest |
| Adil Farming | Rock Ridge Farming Pty Ltd | Jirel Holdings | Bendotti Avocado |
| Aussie Orchards Growers & Packers (NQ) | Rockley Partners | Merrine Farm | D & L Smith |
| Avocados with Altitude | Rocky Creek Orchards Pty Ltd | Summerland Farm | Delroy Orchards |
| Avogreen Orchards | Tinaroo Falls Avocado Trust | T W Silver | Licciardello & Son Orchards |
| Battistin Orchards Pty Ltd | Tropico Farms | WJ Row | Mariners Rest |
| Bellview Orchards Pty Ltd | South Qld | Tristate | Newton Orchards |
| Blue Sky Produce | B & M Trousdell Enterprises | 60 Foot Orchards Pty Ltd | R & S Bamess |
| Cadorin Orchards Pty Ltd | Balmoral Orchard | Barham Avocados | The Avocado Collective |
| Cobra Hill Orchards | Cherry Creek Orchards Pty Ltd | Churinga Orchards | The Avocado Grove |
| Costa Avocado/Avocado Estates | Googa Farms | Cutri Fruit | West Aussie Avos |
| DBC Farming Pty Ltd | In2avocados Pty Ltd | Golden Hill Packing Pty Ltd | Willow Creek |

CNSW less than 3 contributing packhouses

Infocado information is available at www.avocado.org.au/our-programs/supply-chain-data/infocado/ or contact us at infocado@avocado.org.au. This report has been funded by Hort Innovation, using the avocado research and development levy and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture. **Disclaimer:** Avocados Australia Limited (AAL) has taken all due care to ensure the accuracy of the data collected for this report. Contributors have been asked to participate in 'good faith' and provide accurate and complete data at all times. AAL takes no responsibility for the data that is entered. In no event shall AAL be liable for any special, direct, indirect, consequential, or incidental damages or any damages whatsoever, whether in an action of contract, negligence or other tort, arising out of or in connection with the use of the report or the contents of the report.



Market Intelligence Update Australian Avocado Exports Weekly to 27 August 2023

This report was developed for Avocados Australia Ltd from data of the Department of Agriculture Fisheries and Forestry (DAFF) Plant Export Operation for use by the Australian Avocado industry only. This report gives the Australian Avocado industry an insight on previous and current year export performance.

Australian Avocado until 27 August FY24 were 3,121 tonnes which was 55 per cent above the same period in 2022/23. Exports in the latest week were 492 tonnes. Hong Kong, Singapore, and Malaysia accounted for 96 per cent of all exports in FY23 and remain the largest destinations. **Japan has recorded 152 tonnes from WA for the 2023/24 over last 3 weeks.**

The ABS data for 12 months to June 2023 records 10,685 tonnes exported worth A\$58.82m with a unit value of A\$5.51 per kg (Table 3). If this was extrapolated to the 2023/24 YTD result the value would be \$17.18m for the period subject to final ABS data.

Table 1 : Avocados exported from Australia by week Exports by Week

| Week No | W/Ending | YTD to week | 27-Aug | Difference |
|----------------------------|---------------|---------------|--------------|--------------|
| | | 2022 | 2023 | |
| | | Tonnes | Tonnes | % |
| 26 | 2-Jul | 313 | 297 | -5% |
| 27 | 9-Jul | 207 | 346 | 68% |
| 28 | 16-Jul | 181 | 314 | 73% |
| 29 | 23-Jul | 247 | 339 | 37% |
| 30 | 30-Jul | 214 | 322 | 50% |
| 31 | 6-Aug | 200 | 318 | 59% |
| 32 | 13-Aug | 192 | 319 | 66% |
| 33 | 20-Aug | 222 | 373 | 68% |
| 34 | 27-Aug | 231 | 492 | 113% |
| 35 | 3-Sep | 311 | - | |
| 36 | 10-Sep | 156 | - | |
| 37 | 17-Sep | 207 | - | |
| 38 | 24-Sep | 216 | - | |
| 39 | 1-Oct | 197 | - | |
| 40 | 8-Oct | 196 | - | |
| 41 | 15-Oct | 144 | - | |
| 42 | 22-Oct | 182 | - | |
| 43 | 29-Oct | 163 | - | |
| 44 | 5-Nov | 131 | - | |
| 45 | 12-Nov | 202 | - | |
| 46 | 19-Nov | 238 | - | |
| 47 | 26-Nov | 192 | - | |
| 48 | 3-Dec | 173 | - | |
| 49 | 10-Dec | 195 | - | |
| 50 | 17-Dec | 158 | - | |
| 51 | 24-Dec | 135 | - | |
| 52 | 31-Dec | 72 | - | |
| 1 | 7-Jan | 38 | - | |
| 2 | 14-Jan | 77 | - | |
| FYTD | 27-Aug | 2,007 | 3,121 | 55.5% |
| Moving Annual Total | | 10,685 | | |

Source: DAFF; Fresh Intelligence analysis

YTD Week ending Sunday, 27 August 2023

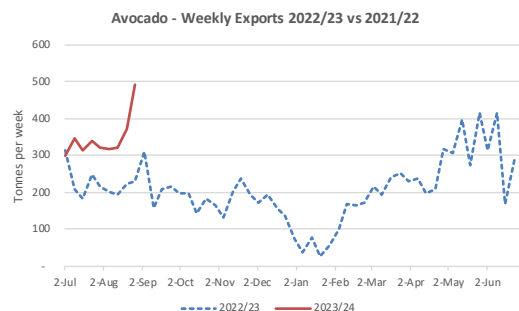


Table 3: Latest ABS Monthly

| | July to June | change | MAT |
|--------------------|--------------|--------|--------|
| Tonnes | 10,685 | -8% | 10,685 |
| Million AUD | 58.82 | 13% | 58.82 |
| A\$ per kg | \$5.51 | 23% | \$5.51 |

Source: ABS via IHS Global Trade Atlas; Fresh Intelligence analysis

| | |
|---------------------|---------------|
| July to date | 27-Aug |
| 2021/22 | 2,007 |
| 2022/23 | 3,121 |
| Change | 55% |

2023/24 est Value \$17.18 m

Table 4: FYTD Export by state*

| States | FYTD (Tonnes) | share |
|--------------|---------------|-------------|
| NSW | 1,263 | 40% |
| QLD | 1,132 | 36% |
| VIC | 170 | 5% |
| WA | 556 | 18% |
| Total | 3,121 | 100% |
| AIR | 1,658 | 53% |
| SEA | 1,463 | 47% |

* establishment state of exp

Table 2 : Avocado Exports by Market Year to Date, by latest week and previous 4 weeks

| Market | Last MAT | July to | Market | 27/8/2023 | 20/8/2023 | 13/8/2023 | 6/8/2023 | 30/7/2023 |
|---------------------|---------------|--------------|-------------|------------|------------|------------|------------|------------|
| | Jun - May | 27/8/2023 | share | 34 | 33 | 32 | 31 | 30 |
| | Tonnes | Tonnes | % | Tonnes | Tonnes | Tonnes | Tonnes | Tonnes |
| Hong Kong | 5,074 | 1,046 | 42% | 218 | 135 | 137 | 114 | 137 |
| Singapore | 3,403 | 701 | 28% | 125 | 100 | 62 | 130 | 104 |
| Malaysia | 1,752 | 544 | 22% | 60 | 117 | 66 | 70 | 77 |
| Japan | 277 | 152 | 6% | 82 | 18 | 50 | - | 1 |
| Indonesia | 48 | 5 | 0% | 2.1 | - | 0.7 | 0.6 | - |
| Brunei Daruss | 30 | 3 | 0% | 0.6 | 1.0 | - | - | - |
| United Arab E | 22 | 1 | 0% | 0.5 | - | - | - | - |
| New Caledoni | 22 | 4 | 0% | - | 1 | - | 1 | 2 |
| Fiji | 18 | 7 | 0% | 1.8 | - | 2 | 1 | 0 |
| Qatar | 10 | 4 | 0% | - | 2 | - | 1 | - |
| India | - | 3 | 0% | - | - | - | 1.5 | - |
| Kuwait | 0 | 7 | 0% | 2 | - | - | 2 | - |
| all other | 30 | - | 0% | 0 | (0) | 1 | (2) | 0 |
| Total Tonnes | 10,685 | 2,477 | 100% | 492 | 373 | 319 | 318 | 322 |

Source: IHS Global Trade Atlas (2023); DAFF, Fresh Intelligence analysis

(minor rounding errors may show negatives for low values)





EXPORTS

Monthly Export / Import Update

July 2023

In July 23, first month of the 2023/24 year, exports of avocados recorded **1,423** tonnes worth A\$6.29m and was **42 per cent** above the same month last year (Table 1). The overall value increased by 46 per cent. Unit values were 2 per cent higher at AU\$4.42 per kg (FOB). The MAT (Moving Annual Total) was 11,091 tonnes, up 3.8 per cent since the previous month's MAT showing increased momentum.

Table 1 : Avocado Key Measures

| EXPORTS | YTD (from July) | Chg LY | MAT |
|-----------------|-----------------|--------|--------|
| Volume (tonnes) | 1,423 | 42% | 11,091 |
| Value (M AUD) | 6.29 | 46% | 60.7 |
| \$ per kg (FOB) | \$4.42 | 2.9% | \$5.48 |

Source: IHS Global Trade Atlas; Fresh Intelligence analysis

Hong Kong was the lead market with 672 tonnes, up 24 per cent followed by Singapore +46%) and Malaysia (+100%). These markets accounted for 96 per cent of the annual exports to date.

There were 19 tonnes exported to Japan (+16%) from Western Australia in July, and small consignments to Indonesia and other markets (Table 3).

Table 3 : Avocado Exports by Market
July to July

| Market | 2021/22 | 2022/23 | Chg LY | share | MAT |
|-------------------------|--------------|--------------|------------|-------------|---------------|
| | Tonnes | Tonnes | % | % | Tonnes |
| Hong Kong | 541 | 672 | 24% | 47.2% | 5,205 |
| Singapore | 296 | 431 | 46% | 30.3% | 3,532 |
| Malaysia | 141 | 283 | 100% | 19.9% | 1,887 |
| Japan | 16 | 19 | 16% | 1.3% | 279 |
| Indonesia | 1 | 4 | 675% | 0.3% | 52 |
| Fiji | 4 | 4 | -4% | 0.3% | 17 |
| Qatar | 0 | 3 | 1961% | 0.2% | 13 |
| Brunei Darussalam | 3 | 3 | 1% | 0.2% | 30 |
| New Caledonia | 2 | 2 | -26% | 0.1% | 21 |
| India | - | 3 | | 0.2% | 9 |
| Saudi Arabia | - | 0 | | 0.0% | 16 |
| United Arab Emirates | 0 | 0 | | 0.0% | 22 |
| all other | 0 | 0 | | | 7 |
| Total YTD Tonnes | 1,004 | 1,423 | 42% | 100% | 11,091 |

Source: IHS Global Trade Atlas; Fresh Intelligence analysis

Table 2. Avocado By State

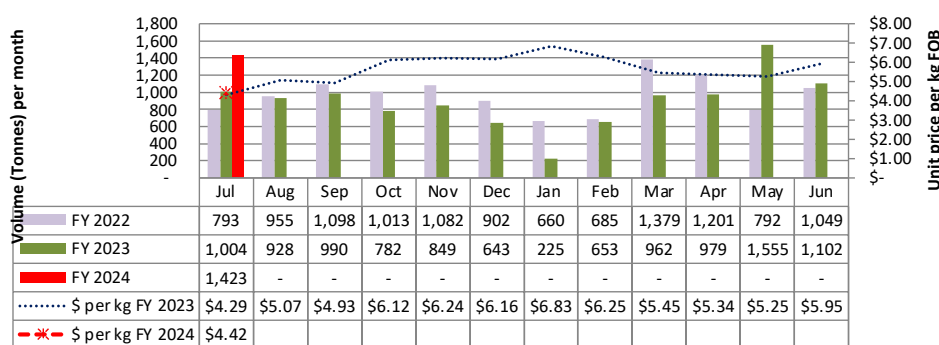
| | 2022/23 | 2023/24 | Chg LY | share | MAT |
|-------------------|--------------|--------------|------------|-------------|---------------|
| | Tonnes | Tonnes | % | % | Tonnes |
| Queensland | 807 | 1,120 | 39% | 79% | 7,517 |
| New South Wales | 131 | 140 | 7% | 10% | 1,536 |
| Western Australia | 17 | 140 | 715% | 10% | 1,333 |
| Victoria | 45 | 15 | -66% | 1% | 432 |
| South Australia | 4 | 7 | 76% | 0% | 270 |
| Other | - | 0 | | 0% | 3 |
| Total | 1,004 | 1,423 | 42% | 100% | 11,091 |

Source: IHS Global Trade Atlas; Fresh Intelligence analysis

Queensland was the largest export state for the month and 39 per cent higher to 1,120 tonnes. Western Australia was 7 x higher to 140 tonnes for the first month of the season (Table 2).

On a month to month basis the July exports were also 42 per cent higher at 1,423 tonnes compared to 1,004 tonnes a year ago and FOB prices were 2.9 per cent higher at A\$4.42 per kg (Figure 1).

Figure 1 Avocado Exports per month vs last 2 years



Source: IHS Global Trade Atlas; Fresh Intelligence analysis

Sea freight accounted for 41 per cent of avocado shipments in July lifting 67 per cent compared to July last year.

Table 4. Avocado By Transport Mode

| | 2022/23 | change | share |
|--------------|--------------|------------|-------------|
| | Tonnes | % | % |
| Air | 840 | 28% | 59% |
| Sea | 583 | 67% | 41% |
| Total | 1,423 | 42% | 100% |

Source: IHS Global Trade Atlas; Fresh Intelligence analysis



Monthly Export / Import Update

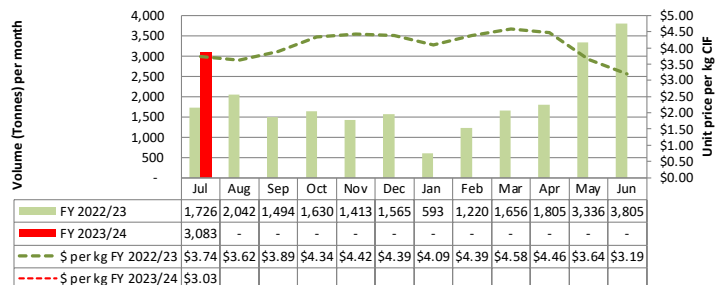
July 2023

MARKET INSIGHTS

Hong Kong (July 23)

Hong Kong imported 3,083 tonnes of avocados in **July 23**, which was 78 per cent more than the previous year. More than 60 per cent is re-exported to China. Australia supplied 532 tonnes or 2.3 per cent more. Peru is the largest supplier and was up 76 per cent to 2,342 tonnes where most of this is reexported to China. Mexico was 20 per cent higher to 192 tonnes.

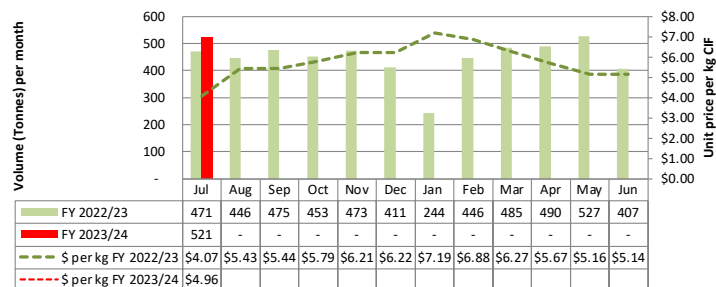
Figure 3 Hong Kong Avocado Imports



Singapore (July 23)

Singapore imported 521 tonnes of avocados in **July 23**, 10 per cent more than last year. Australia supplied 419 tonnes or 27 per cent more than a year ago accounting for 80 per cent market share. Kenya supplied 27 per cent less or 48 tonnes while Peru entered the market with 8 tonnes. Australia's recorded CIF prices were A\$5.34 in July compared to A\$4.96 average for all suppliers.

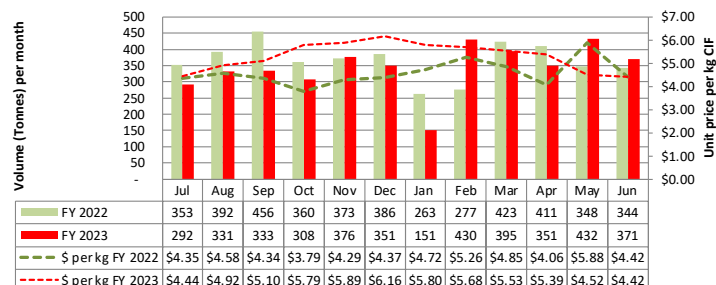
Figure 3 Singapore Avocado Imports



Malaysia (June 23)

Malaysia has imported 4,121 tonnes of avocados in **12 months to June 23**, which was 6.0 per cent less than last year. Australia supplied 2,369 tonnes or 16 per cent less than last year and holds 57 per cent market share. United States, Mexico and Philippines ramped up supplies again from low bases. Australian CIF prices were recorded A\$6.62 average for the year and dropped to \$5.45 in June (No later updates).

Figure 3 Malaysia Avocado Imports





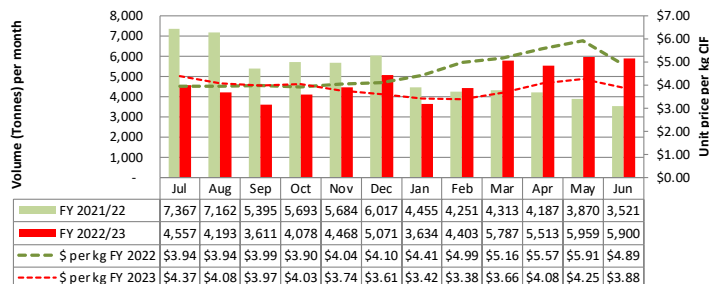
Monthly Export / Import Update

July 2023

Japan (Jun 23)

Japan imported 57,173 tonnes of avocados in **12 months to June 23** and is 4.9 per cent higher than last year. Australia supplied 293 tonnes. Mexico, the lead supplier, was 6.3 per cent lower to 42,773 tonnes though has lifted 32 per cent in the last 5 months. Peru increased 23 per cent to 10,367 tonnes. Australia's recorded average CIF price was A\$4.77 compared to average A\$3.88 from all sources, influenced by Mexico and Peru.

Figure 4 Japan Avocado Imports



India (June 23)

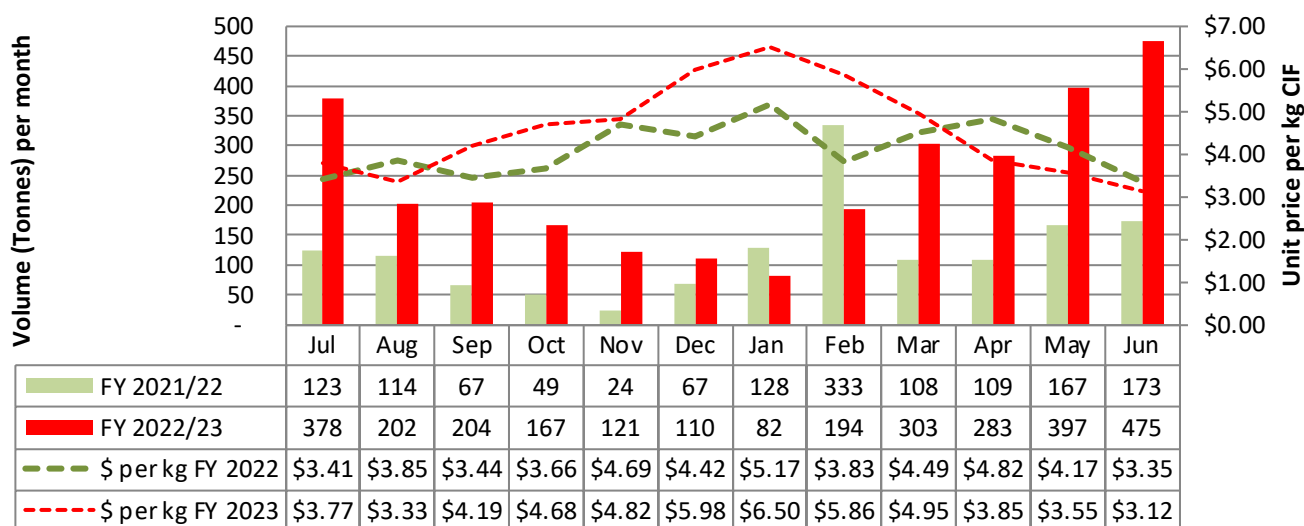
India imported 2,916 tonnes of avocados in **12 months to June 23** and is 159 per cent **above** last year. Tanzania supplied 2,222 tonnes is its first full year of access and now leads the trade with 76 per cent share. Netherlands (ex Peru) is 27 per cent lower and Peru is 95 per cent lower with just 11 tonnes. Australia's first consignments were recorded in these June figures with more to follow in July.

Table 9 : Avocado Imports by India

| Market | Jul to June | | share | Value | Year to date | Month of |
|-------------------------|--------------|---------------|-------------|-------------|----------------|----------------|
| | FY 2022/23 | Chg LY | | | Unit Value | June |
| | Tonnes | % | % YTD | A\$ Mill | A\$ per kg CIF | A\$ per kg CIF |
| Australia | 3 | ++ | 0% | 0.0 | \$2.91 | \$2.91 |
| Tanzania | 2,222 | 2908.2% | 76% | 8.6 | \$3.85 | \$3.12 |
| New Zealand | 277 | -34.5% | 10% | 1.7 | \$6.07 | |
| Netherlands | 312 | -27.2% | 11% | 1.6 | \$5.24 | \$3.66 |
| Peru | 11 | -94.6% | 0% | 0.0 | \$3.74 | |
| Other | 91 | | 3% | 0.3 | | |
| Total YTD Tonnes | 2,916 | 159.5% | 100% | 12.1 | \$4.16 | \$3.12 |

Source: IHS Global Trade Atlas; Fresh Intelligence analysis

India Avocado Imports



IMPORTS

The imports for the 2022/23 import season arrived mostly from New Zealand. Imports of avocados were **12,896** tonnes worth A\$54.7m or 2 per cent more than last year (Table 9). Unit values increased 33 per cent to A\$4.52 and has meant the overall value increased by 36 per cent for the period. The MAT (Moving Annual Total) was 12,896 tonnes easing 0.4 per cent in the month.

Table 10 : Import Key Measures

| IMPORTS | TD (from July | Chg LY | MAT |
|-----------------|---------------|--------|--------|
| Volume (tonnes) | 12,896 | 2% | 12,896 |
| Value (M AUD) | 58.35 | 35% | 58.4 |
| \$ per kg | \$4.52 | 28.7% | \$4.52 |

Source: IHS Global Trade Atlas; Fresh Intelligence analysis

Table 11 : Avocado Imports by Market
July to April

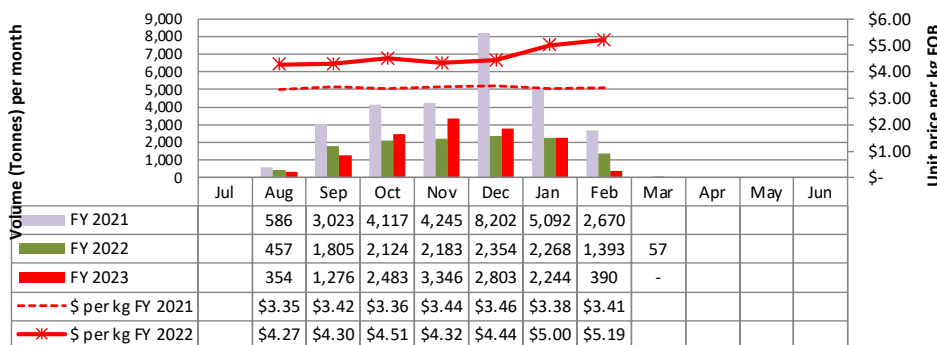
| Market | 2022/23 | Chg LY | Value | Unit Value |
|-------------------------|---------------|-----------|-------------|---------------|
| | Tonnes | % | A\$ Mill | A\$ per kg |
| New Zealand | 12,029 | -5% | 54.7 | \$4.54 |
| Chile | 868 | | 3.7 | \$4.26 |
| Total YTD Tonnes | 12,896 | 2% | 58.4 | \$4.52 |

Source: IHS Global Trade Atlas; Fresh Intelligence analysis

868 tonnes were recorded imported from Chile.

February imports recorded 390 tonnes, pulling up early compared to 1,393 tonnes for the same month last year (Figure 2), and considerably less than the 2,670 tonnes recorded in February 2021 when Australia had a supply shortage. No further imports are expected until August 2023.

Figure 2 Avocado Imports per month vs last 2 years



Source: IHS Global Trade Atlas; Fresh Intelligence analysis