PW19000 Australian Sweet Potato Market Insights

Market intelligence Report

PW19000

March 2021

Hort Innovation
Strategic levy investment

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Scope and Limitations

This report forms part of the project PW19000 – Australian Sweet Potato Market Insights. The overall project is seeking to provide targeted market intelligence and insights relating to high value potential export markets for Australian Sweet Potatoes.

This Market Insights Report has been created to detail the key insights and takeaways which resulted from sweet potato market intelligence reporting. The objective of these insights are to assist the Australian sweet potato industry in identifying potential export opportunities to improve trade performance and long term industry sustainability. The content of this report has been developed predominantly from two sources of information:

- Publicly available data (desktop analysis)
- Stakeholder consultation (Sweet Potato growers and in-market experts in identified high potential export markets)

A set methodology has been followed to achieve the intended outcomes, including selection of markets for investigation, research approach and key takeaways for each market. This is detailed further in the report.

Export markets and supply chains are rapidly changing in response to Covid-19 and geopolitical relations, which can impact the currency of recommendations in this report. The information provided in this report is current as of March 2021. Information has not been independently verified or cross-checked for accuracy. Reliance should not be placed upon data provided in this report, and individuals/organisations are accountable for any decisions made using the information provided.

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

Note: all price per kilogram figures mentioned in this report are FOB prices listed in AUD, calculated using the export data provided and are therefore exclusive of freight. For Australian sweet potato export figures this data is sourced from Hort Innovation, while for competitor analyses this is sourced from the UN Comtrade database.

The United Nations Commodity Trade Statistics Database (UN Comtrade) contains detailed imports and exports statistics reported by statistical authorities of close to 200 countries or areas. It concerns annual trade data from 1962 to the most recent year. UN Comtrade is considered the most comprehensive trade database available with more than 1 billion records. UN Comtrade is available to the general public and should be used with good knowledge of its limitations:

1. *The values of the reported detailed commodity data do not necessarily sum up to the total trade value for a given country dataset. Due to confidentiality, countries may not report some of its detailed trade.*
2. *Countries (or areas) do not necessarily report their trade statistics for each and every year. This means that aggregations of data into groups of countries may involve countries with no reported data for a specific year. UN Comtrade does not contain estimates for missing data. Therefore, trade of a country group could be understated due to unavailability of some country data.*

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Project snapshot

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Project Snapshot

Sweet Potatoes Market Insights Report: Introduction and methodology

This project (PW19000) followed a phased approach in order to ensure that targeted objectives were met at each phase, driven by the overarching project goals:

Identify Sweet Potato industry export opportunities through an understanding of current market performance and in-market consumer demands

Deliver key strategic market insights to upskill growers so they can target exports in an informed way.

PW19000 is intended to drive the following outcomes for industry, growers and supply chain stakeholders:

- ✓ **Increased knowledge of trade performance and factors driving trade performance in the Australian Sweet Potato Industry**
- ✓ **Increased global competitiveness through trade information that enables improved strategic trade and investment decisions; including strengthened global horticulture reputation and diversification of export markets**

Project methodology:

1. Select high potential markets and market intelligence criteria

2. Collect data and conduct market analysis

3. Validate findings with industry

4. Collate and report key market insights

Based on an initial market assessment exercise and discussion with the Project Reference Group and Hort Innovation, the following six markets below were selected for analysis.

The United Arab Emirates

- Largest existing sweet potato export market
- Strong demand for fresh product from high income earners and expats

Thailand

- Favourable demand and substantial increase in consumer spending over last two years[1]

Malaysia

- Increasing appetite for high quality, healthy foods however low average income ($8K per capita)[2]

Indonesia

- Large consumer population with high levels of starch in diet, low food security indicates reliance on imports; relative growth in income

The United Kingdom

- Significant existing demand due to growing popularity of sweet potato category, both at home and in food service outlets
- Potential for increasingly liberal trading relationship

The Netherlands

- Strong appetite for fresh foods and capability for re-export
- Growing domestic production has driven interest in the category

Source: (1) JP Morgan. 2019. E-commerce payments trends: Thailand. [online] Available at: <https://www.jpmorgan.com/europe/merchant-services/insights/reports/thailand#:~:text=Thailand> [Accessed 12 February 2021]. (2) JP Morgan. 2019. E-commerce payments trends: Malaysia. [online] Available at: <https://www.jpmorgan.com/merchant-services/insights/reports/malaysia> [Accessed 12 February 2021].

A summary of key insights resulting from analysis of the identified export markets

Focus area	Key message	Key insights
Consumers	Consumer preference for sweet potato variety and size vary between export markets, however appear to align with Australian production capacities.	▪ **Varieties:** There appears to be significant demand for the orange Beauregard variety within the majority of identified export markets, which aligns favourably with Australia's production capacities. Purple sweet potatoes also feature in consumer demand ▪ **Size:** Research indicated that Asian consumers tend to prefer small to medium-sized sweet potatoes (150-350g), while Europeans as well as consumers in the Gulf region prefer large-sized sweet potatoes (450-600g) ▪ **Demand:** Demand for sweet potatoes appears to be rising consistently worldwide, due to increasing knowledge of the product's health benefits and trending exposure through various media forums (particularly in food service contexts). Ample existing domestic production of sweet potatoes in many markets has also driven overall interest and demand for the product. While in some cases this may decrease demand for foreign imports, in many markets it has increased demand overall by widening access ▪ **Consumption channel:** Asian markets are seeing a shift away from traditional markets and growth in retail outlets such as supermarkets and hypermarkets, similar to Western shopping environments. On the other hand, many European consumers are starting to shift away from large retail consumption channels to smaller, more specialised produce retailers. Europeans are also consuming sweet potatoes increasingly through home delivery grocery services, as well as increasingly in food service outlets
Competitors	Frequent competing sweet potato exporting nations in the identified export markets include: China USA Egypt Singapore (re-export)	▪ **Top exporting nations:** The top competing sweet potato exporting nations shift according to each identified export market, however those that featured multiple times in the top three competitors for a given market include China, USA, Egypt and Singapore. (It should be noted that Singapore does not produce nor consume significant volumes of sweet potatoes given its small population, but rather re-exports them to several of the export markets identified. The presence of large global fruit and vegetable buyers based in Singapore may also influence this market's export figures) ▪ **Price:** The highest price per kilogram of Australian sweet potatoes received in 2019 amongst the identified target export markets (FOB prices) was $4.39/kg by Indonesia, while the lowest was $0.88/kg by the Netherlands. For comparison, the highest price received for Australian sweet potatoes amongst all export markets was $5.55/kg from Bahrain, albeit for only 1,326kg. Domestically, Hort Innovation production data shows an average price received of $0.78/kg in 2020 ▪ This reflects a general trend of higher price points received for sweet potatoes (from Australian and other exporting nations) in Asian markets, and lower price points in European markets. This is likely a product of greater overall competition in European markets. The average price point received by Australian exporters in the identified target markets was $2.70/kg ▪ **Seasonality:** The sweet potato cultivation/export season in the majority of export markets appears to take place in the latter half of the year, ranging anywhere from July-November. This excludes certain markets, for example Vietnam and the USA report the ability to produce sweet potatoes for export year-round ▪ **Varieties:** Orange and Purple sweet potato, or local variations of these varieties, appear to be the most widely produced amongst export competitors. Orange appears to be more prevalent across European consumer markets, particularly in food service channels, while purple sweet potatoes feature more heavily in Asian consumer markets

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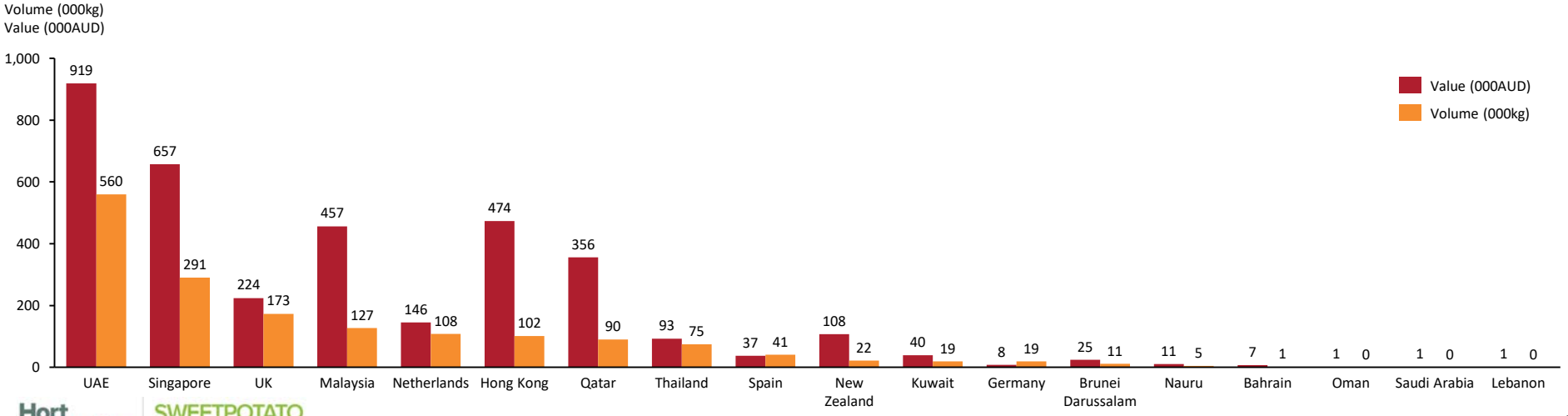
A summary of key insights resulting from analysis of the identified export markets

Focus area	Key message	Key insights
Market access and regulation	Australia enjoys liberal market access for sweet potatoes in most of the identified target markets, supported by strong infrastructure and logistics systems.	▪ **Supply chain:** All export markets analysed appear to have sufficient in-market supply chain and logistics infrastructure. While this ranges in sophistication according to country, all have strong capabilities for fresh fruit and vegetable imports ▪ **Tariffs:** Tariffs are imposed on Australian sweet potatoes in the UAE (5%), the UK (2%), and the Netherlands (3%). There are no tariffs imposed for Thailand, Malaysia, or Indonesia. Australia enjoys a Free Trade Agreement (FTA) with Thailand, Malaysia and Indonesia, while a FTA is still being negotiated with the EU and UK ▪ **COVID-19:** Unsurprisingly, increased consumer demand and global disruptions to supply chains around reefer container availability, extended lead times, and strengthened security measures have challenged sweet potato exports to all identified target markets ▪ **Establishing relationships:** as expected the optimal strategy for Australian exporters to embark on sweet potato exports is to foster relationships with a local export agents in-market. This is especially important in non-English speaking countries, in order to navigate localised customer preferences and nuances of the market ▪ **Distribution channel:** In most cases, sweet potatoes are sold directly to retailers through a local importer, distributor or agent, then sold on to wholesale and retail markets via a third party logistics provider. Larger supermarket chains may source sweet potatoes directly[1]

Value and volume of total Australian Sweet Potato Exports by market

2020

Hort Innovation



NOTE (1) HS6 Code 71420 *Sweet Potatoes, Fresh or Dried, whether or not sliced or n the form of pellets*

Source (1) Australian Trade and Investment Commission. 2021. *Food and Beverage to the United Arab Emirates*. [online] Available at: <https://www.austrade.gov.au/Australian/Export/Export-markets/Countries/United-Arab-Emirates/Industries/food-and-beverage> [Accessed 18 February 2021]. (2) Hort Innovation, 2021. Sweet Potato Export Data.

Executive summary

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March 2021

This report seeks to offer strategic market insights for the Australian Sweet Potato industry to consider in increasing exports

Project Objective and Scope

- **Identify Sweet Potato industry export opportunities through an understanding of current market performance and in-market consumer demands**
- **Deliver key strategic market insights to upskill growers so they can target exports in an informed way. PW19000 is intended to drive the following outcomes for industry, growers and supply chain stakeholders:**

1. **Increased knowledge of trade performance in the Australian Sweet Potato Industry**
   - Resulting from a comparative perspective of Australian sweet potato exports over time to target markets and their market share
2. **Increased knowledge of factors driving trade performance in the Australian Sweet Potato industry**
   - The project aims to ensure the sweet potato industry understands the range of strategic, operational, financial and practical considerations that impact trade performance
3. **Increased global competitiveness through trade information that enables improved strategic trade and investment decisions**
   - Enable more businesses to pursue export via insights into direct competitors in the international market, how they compare and what key factors they should consider moving forward to maximise returns

Fulfilment of these objectives will contribute to the industry's Strategic Investment Priority to:

'Position the industry to diversify into new markets that offer profitable opportunities'

Methodology

- **A four-staged approach has been followed, to provide insights on the export opportunities for the Table Grape category.**

Select high potential markets and market intelligence criteria:

- Agree with Hort Innovation six high potential markets to analyse in market intelligence report, as well as prioritised market intelligence criteria such as market access, consumer preferences, supply chains

Collect data and conduct market analysis:

- Undertake analysis of the identified target markets, including consideration of trade history, products and product perception, and market entry channels

Validate with industry:

- Validate research findings by engaging with industry as well as in-market experts to ensure market insights are accurate, practical and relevant. This includes experts in the UAE, UK, Netherlands, Malaysia and Indonesia

Collate and report key market insights:

- Compile practical market insights for industry to consider in a market intelligence report, enabling the industry to develop next steps to drive the future of the Australian sweet potato sector on the global stage

A number of differences in consumer preferences have arisen through an analysis of export markets

Focus Markets	Consumer insight/preferences
United Arab Emirates	• Preference for larger size sweet potatoes • Australian Gold sweet potatoes have been received favourably in the past • Demand for organic produce is growing
Thailand	• Customers will pay a premium for vegetables that are sustainably grown with low levels of chemicals in production
Malaysia	• Beauregard and purple sweet potatoes are produced on a domestic scale, which has driven demand for the category overall
Indonesia	• Sweet potatoes were previously viewed as a food for lower socio economic groups, regional island villages are typically the main consumers (domestic produce) [2], however emerging use of sweet potatoes supports higher value consumption • Purple sweet potatoes are produced in lower socioeconomic regions, however this does not appear to have an impact on consumption of exports due to a lack of access and affordability[3]
Asian consumers – general	• Consumers prefer small to medium-sized sweet potatoes between 150-350 grams, typically of red or purple varieties[1]
UK	• Consumers tend to prefer two types of sweet potatoes which are dominant in the market, the American Covington and the Spanish Beauregard, both orange varieties
Netherlands	• Dutch consumers are increasingly buying local and prefer smaller, single-portion sizes.[5] Sweet potatoes of orange varieties in particular are experiencing rapidly growing demand, due in part to growth in domestic production and national colour
European consumers – general	• Importers tend to prefer large, saffron-coloured sweet potatoes, and red sweet potatoes in the weight ranges of 300-450 grams and 450-600 grams, as well as the smaller purple sweet potato in the weight range of 150-300 grams[1] • The orange-skin American Covington and Spanish Beauregard are most common, accounting for 95% of the total market[4]

Source: (1) Fresh Plaza. 2020. "European consumers love large, saffron sweet potatoes". [online] Available at: <https://www.freshplaza.com/article/9257399/european-consumers-love-large-saffron-sweet-potatoes/> [Accessed 17 February 2021]. (2) Saliem, H., Simatupang, P., Illham, N., Friyatno, S., Suryani, E., Purwantini, T., Maulana, M. and Indraningsih, K., 2010. Production, Trade, and Consumption Linkages of Sweet Potato to Support Food Diversification and Nutrition. Research Report Yearly Fund. [online] Indonesian Centre for Agricultural Socioeconomic and Policy Studies. Available at: <http://pse.litbang.pertanian.go.id/eng/pdffiles/LHP_HPS_2010_EN.pdf> [Accessed 19 February 2021]. (3) 2020. 4. COVID-19 and Food Systems Indonesia. COVID-19 and food systems in the Indo-Pacific. [online] Australian Centre for International Agricultural Research. Available at: <https://aciar.gov.au/publication/covid19/4-covid-19-and-food-systems-indonesia> [Accessed 18 February 2021]. (4) CBI. 2019. Exporting fresh sweet potatoes to Europe. [online] Available at: <https://www.cbi.eu/market-information/fresh-fruit-vegetables/sweet-potatoes> [Accessed 24 February 2021]. (5) Pinckaers, M., 2019. The Dutch Food Retail Report 2019. Global Agricultural Information Network Report. [online] USDA Foreign Agricultural Service. Available at: <https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Retail%20Foods_The%20Hague_Netherlands_6-26-2019.pdf> [Accessed 24 February 2021].

Demand for value-added, processed sweet potato products is on the rise, particularly in Asian markets

Value-added sweet potato products include anything from convenience packed fresh sweet potatoes, to pre-cut, to sweet potato chips or purées.

The market for processed, value-added food products is a growing opportunity for sweet potato exporters, particularly in Asian markets. Growing consumption has been driven by rapid urbanisation, busy lifestyles and declining time available for food preparation.[4] The table below shows a number of region or country-specific insights relating to demand for value-added sweet potato products.

Insight	Explanation
Sweet potato chips and other snacks feature heavily in Asian countries	• Sweet potato chips and similar snack products feature heavily across most Asian online food and grocery consumption channels such as Tesco lotus, as well as within traditional consumption channels. Sweet potato purée for infants is also an item rising in popularity in both Asia and Europe • These products are processed and manufactured onshore, driving the demand for fresh sweet potato inputs
Rise of the pre-baked sweet potatoes	• For several years Asian countries have been seeing the widening of a popular trend for fresh baked sweet potatoes, for example in China, South Korea and Japan. These are sold pre-baked to then be finished in the oven or microwave • These are either sold fresh as street food or can be individually packed and sold in supermarket freezers, cafes, restaurants or other food service outlets.[1] This aligns with an overall trend across Asia and Europe for ready-to-cook sweet potato products, increasing demand for fresh or pre-processed imports
Sweet potato flour	• Some companies in the US are seeing success by processing non-marketable, second grade sweet potatoes into flour, a popular product for gluten-free and other allergen-free diets.[2] Bread baked using sweet potato flour is also seeing a rise in production, a trend also on the rise across East Asia and Europe, where it is estimated to experience annual growth of around 4.7% from 2019-2029[5]
Rise of trending sweet potato value-added products on social media	• Countries such as South Korea are seeing a rise in sweet potato demand due to a number of social media-worthy trending finished products such sweet potato cake, lattes pizzas, and smoothies[3] • Exposure of sweet potato consumption trends via social media channels has increased demand for the broader category across both Asia and Europe
Sweet potato in Malaysian and Indonesian cooking	• In Malaysia, a popular sweet dessert known as 'bubur cha char' is prepared by cutting sweet potato into small cubes and cooking with taro and coconut milk, a finished product consumed at home and also sold at retail outlets • Deep fried sweet potato slices in batter is a popular afternoon tea snack in Indonesia and Malaysia, often sold as street food[4] • These staple consumption habits drive demand for sweet potato imports, particularly in pre-cut or pre-sliced formats

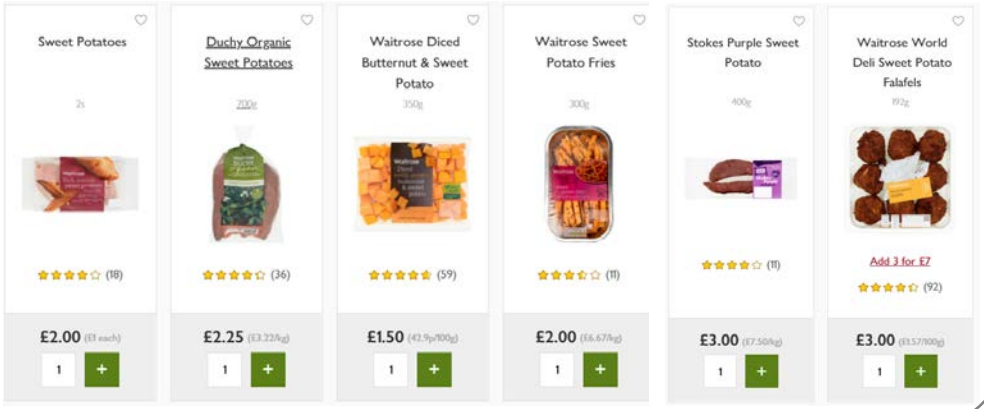
Overall the ways which consumers in target export markets consume sweet potatoes is diverse and constantly evolving, creating a range of value-added opportunities for sweet potatoes which can be exported in processed form or finished on-shore at a range of manufacturing facilities available across markets.

Source: (1) Fresh Plaza, 2016. Asia's hit snack – roasted sweet potatoes – now available in Europe. Online. Available at: <https://www.freshplaza.com/article/2168670/asia-s-hit-snack-roasted-sweet-potatoes-now-available-in-europe/> [Accessed 18 March 2021]. (2) Fresh Plaza, 2018. Value-added products increasing sweet potato demand. Online. Available at: <https://www.freshplaza.com/article/2193702/value-added-products-increasing-sweet-potato-demand/> [Accessed 18 March 2021]. (3) Fresh Plaza. 2020. Korean sweet potato keeps evolving. [online] Available at: <https://www.freshplaza.com/article/9248261/korean-sweet-potato-keeps-evolving/> [Accessed 18 February 2021]. (4) Nyonacooking.com, 2021. Bubur Cha Cha (Nyona Coconut Milk Dessert). Online. Available at: <https://www.nyonyacooking.com/recipes/bubur-cha-cha-nyonya-coconut-milk-dessert~rJ70DvivM9-X> [Accessed 12 March 2021]. (4) Meticulous Blog, 2020. *Top 10 Companies in Southeast Asia Food Processing Equipment Market*. Available at: <https://meticulousblog.org/top-10-companies-in-southeast-asia-food-processing-equipment-market/> Online. [Accessed 21 March 2021]. (5) Persistence Market Research, 2020. *Sweet Potato Flour Market*. Online. Available at: <https://www.persistencemarketresearch.com/market-research/sweet-potato-flour-market.asp> [Accessed 19 March 2021].

Examples of value-added, processed sweet potato products for sale online in target export markets

WAITROSE & PARTNERS

United Kingdom: High-end supermarket known for quality produce[1]

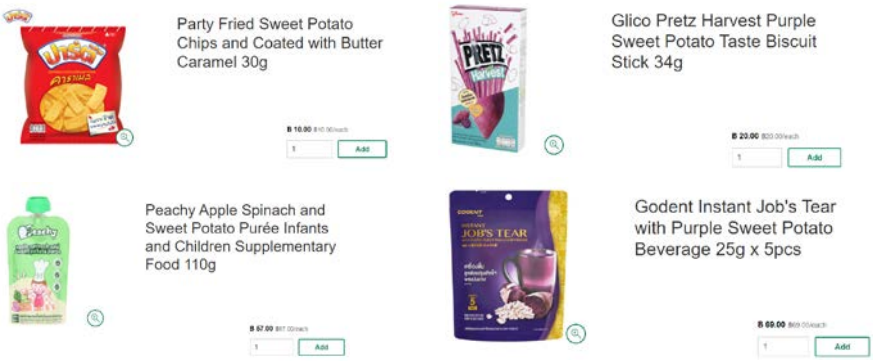


coop

Netherlands: Coop, a large supermarket chain with online and in-store channels[2]

TESCO Lotus

Thailand, Malaysia, Indonesia: Tesco Lotus: does not offer fresh sweet potatoes, only a range of value-added products[3]



LuLu Where the world comes to shop, safely!

UAE: Lulu (Hypermarket)[4]

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Source: (1) Waitrose, 2021. Sweet potatoes. <https://www.waitrose.com/ecom/shop/search?&searchTerm=sweet%20potato> [Accessed 15 March, 2021]. (2) Coop, 2021. Keuze uit de lekkerste producten <https://www.coop.nl/categorie/boodschappen.aardappelen_pasta_en_rijst.aardappelen> [Accessed 15 March, 2021]. (3) Tesco Lotus, 2021. Party Fried Sweet Potato Chips and Coated with Butter Caramel 30g. <https://shoponline.tescolotus.com/groceries/en-GB/products/6015516768> [Accessed 15 March, 2021]. (4) Lulu Hypermarket, 2021. Gerber Puffs Cereal Snak Sweet Potato 42g.<https://www.luluhypermarket.com/en-ae/gerber-puffs-cereal-snak-sweet-potato-42g/p/901193> [Accessed 15 March, 2021].

Competitor analysis in export markets revealed several points of comparison between exporting nations (1/2)

Below is a compilation of the considerations that resulted from an analysis of the major sweet potato exporting nations in each of the identified export markets.

Insight	Explanation
1. Exports from the Republic of Korea consistently receive a high price point	• Despite low export volumes, Republic of Korea saw an average price point of AUD $11.08/kg for sweet potato exports to the markets included in this report • Further analysis into why South Korea attracts a price premium can be fond on page 15
2. Economies within Southeast Asia appear to trade heavily, in some cases almost exclusively, with each other	• The competitive landscape for the Asian markets analysed in this report typically includes several other Southeast Asian or wider Asian exporting nations, such as Singapore, China, Japan, Lao, Vietnam • For example, Vietnam appears within the top 3 exporting nations for both Malaysia and Thailand
3. Australia maintains a position in the top ten sweet potato exporting nations for four out of the six identified markets:	• Australia was in the top three exporting nations in 2019 to the UAE, Thailand, Malaysia, Indonesia (barring 2019-20) • This is reflective of Australian sweet potato exports which are growing, however still maintain a relatively minor market share on a global scale
4. European markets have a vastly different competitor landscape	• Competitors in the EU include not just other EU economies, but also a large presence from USA, certain African nations, and even a small number of Central and South American exporters
5. The EU appears to generally offer low price points for sweet potatoes	• The average price per kilogram received by the top ten exporting nations into the Netherlands and UK was $1.39/kg. The Netherlands especially is a low price market, due in part to its significant re-export activity. • This may be due to more competition in those markets from high-volume low quality producers such as Africa and even certain nations across Central and South America, which drive overall market prices down
6. Southeast Asia appears to generally offer relatively higher price points for sweet potatoes	• The average price per kilogram received by the top ten exporting nations into Malaysian, Thai and Indonesian markets was $3.72/kg • This may be due to less competition in the area due to further distance from low-cost competing exporting nations such as the EU and the USA

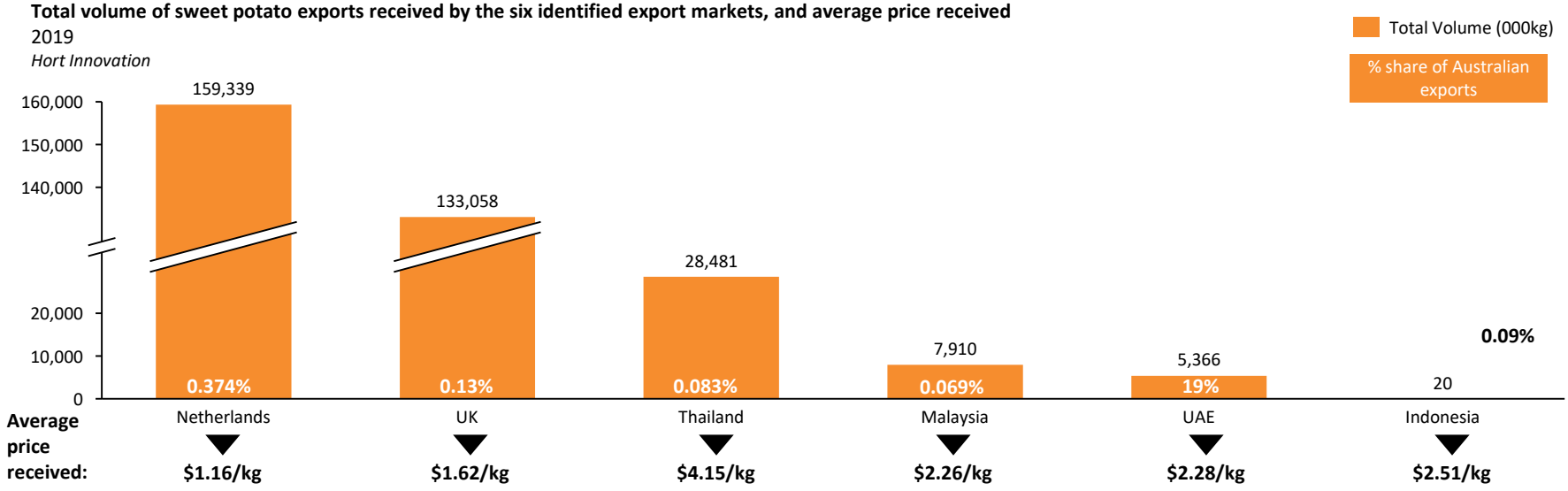
Source: (2) The Japan Agri News. 2020. Illicit cultivation and distribution of Japanese sweet potato variety Beniharuka spreading in South Korea | The Japan Agri News. [online] Available at: <http://english.agrinews.co.jp/?p=9813> [Accessed 17 February 2021]. (3) Fresh Plaza, 2020. Sweet potatoes now come in more colours than just orange. [online]. Available at: <https://www.freshplaza.com/article/9196996/sweet-potatoes-now-come-in-more-colors-than-just-orange/> [Accessed 10 March 2020].

Competitor analysis in export markets revealed several points of comparison between exporting nations (2/2)

Below is a compilation of the considerations that resulted from an analysis of the major sweet potato exporting nations in each of the identified export markets.

Insight	Explanation
7. Price points in Middle East are typically mid-range	• The average price per kilogram received by the top ten exporting nations into the UAE was $2.28/kg
8. Australia holds seasonality advantage over northern hemisphere markets	• Although the US is able to supply sweet potatoes year-round due to advanced storing facilities, Australian exporters can fill supply gaps in European markets. European production is risky in general due to colder climates, creating further opportunity for Australia in the event of failed European crops.
9. Quality ranges between competing exporting nations	• Egypt exports high volumes and is known as poor quality, however this is improving year-on-year. The US has a reputation for consistently good quality. Exports from Spain and other EU nations are known for inconsistent quality, most often not favoured by climatic conditions. Similar to Egypt, China is a significant volume producer not known for its quality but is improving year-on-year. However export certification for sweet potatoes in China is lacking[1]

Total volume of sweet potato exports received by the six identified export markets, and average price received
2019
Hort Innovation



**The Indonesian Australian export figure is from 2018 as Australia did not export sweet potatoes to Indonesia in 2019.

Source: (1) Fresh Plaza, 2020. Sweet potatoes now come in more colours than just orange. [online]. Available at: <https://www.freshplaza.com/article/9196996/sweet-potatoes-now-come-in-more-colors-than-just-orange/> [Accessed 10 March 2020].
(2) Hort Innovation, 2021. Sweet Potato Export Data. (3) UN Comtrade database. (3) UN Comtrade database

Case study: what attracts a price premium for sweet potatoes in South Korea?

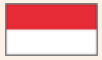
Below is a high-level analysis into South Korean sweet potato production and the reasons for which exports consistently receive a price premium. It can be assumed that at a high level, these considerations also apply to other countries which attract price premium such as Japan.

Insight	Explanation
Varieties produced	• 'Pumpkin' sweet potato 'hobak-goguma' (orange): are small in size, but water and sugar content is high so easily digestible. These are light brown on the outside and orange on the inside when uncooked, the flesh will turn dark yellow when cooked and tastes very sweet with a creamy soft texture • 'Chestnut' sweet potato 'bam-goguma' (dry texture and yellow flesh when cooked) : have a chestnut flavour, rich in vitamins A and E and has a long storage period given it less succulent compared to other varieties. Due to their high moisture content they are often referred to as 'water' sweet potatoes[3] • Purple sweet potato 'jasaek-goguma': actively used as a natural colouring in processed foods such as bread, snacks, ice cream and makgeolli (Korean rice wine) • In general all these varieties have a much sweeter taste than traditional Beauregard or equivalent staple varieties, which makes them suitable for dessert as well as savoury dishes
Domestic market demand for value-added products	• South Korea has seen major demand for sweet potatoes domestically, which are renowned for use in a diverse mix of trending, value-added, finished sweet potato products such as sweet potato cake, lattes, pizzas, and many more[1]
Advanced quality assurance in production	• Consistent efforts on quality assurance of sweet potato products have enabled access to European markets where customers are notoriously demanding • Standardised validation processes are performed on all products throughout cultivation and prior to shipment, as well as comparative analyses of geographical and environmental factors that could be impacting the quality of sweet potatoes. Industry bodies have developed quality standards based on the preferences of overseas consumers and provide growers with various follow-up services such as quality evaluation post-harvest and quality control planning for the next year[3] • There have also been reports of advanced technology centres in Republic of Korea which can rapidly produce low-price seedlings by performing tissue culture at pace, allowing a lower cost of sophisticated production with high quality outputs which drive a higher profit margin[2]
'Sterile-culture' production method	• This method increases sweet potatoes' resistance to viruses such as black spots, and also increases output per field compared to conventional growing methods.[3] Anecdotally, products grown using this method have been referred to as having superior taste and shape. Harvest in South Korea takes place from July until the end of November

Source: (1) Fresh Plaza. 2020. Korean sweet potato keeps evolving. [online] Available at: <https://www.freshplaza.com/article/9248261/korean-sweet-potato-keeps-evolving/> [Accessed 18 February 2021].
(2) The Japan Agri News. 2020. Illicit cultivation and distribution of Japanese sweet potato variety Beniharuka spreading in South Korea | The Japan Agri News. [online] Available at: <http://english.agrinews.co.jp/?p=9813> [Accessed 17 February 2021]. (3) Fresh Plaza, 2012. South Korea: Diet application developed for sweet potatoes. Online. Available at: <https://www.freshplaza.com/article/2094295/south-korea-diet-application-developed-for-sweet-potatoes/> [Accessed 12 March 2021].

Analysis of sweet potatoes for sale on e-commerce platforms revealed certain market-specific preferences

Sweet potato products for sale on e-commerce food and grocery platforms in each market were examined as part of the market profiling exercise. The table below shows key insights that resulted from this comparison.

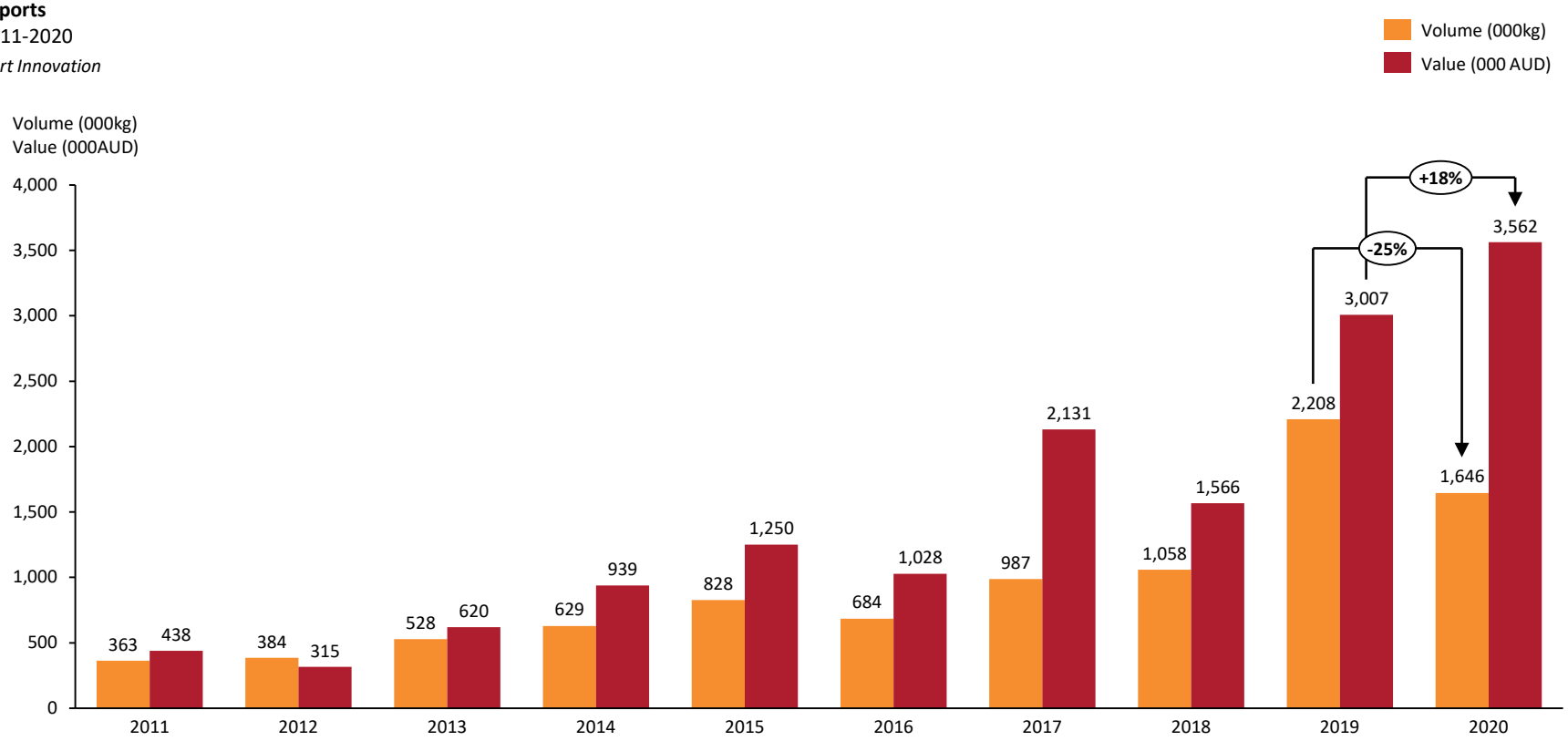
Insight	Explanation
UAE: Emphasis on country of origin	• Compared to other markets analysed, UAE food and grocery platforms appeared to have an emphasis on sweet potatoes' countries of origin • On the websites examined this included Egypt, Australia, Spain and the UAE itself
Thailand and Indonesia: Expat-focused 	• Sweet potatoes are not as easily accessible for purchase online in Thailand and Indonesia, featuring mostly on specialised platforms designed for expatriates which offer limited varieties • Mainstream online supermarkets typically only contain sweet potato value-added products such as chips
Malaysia: Largest range	• Of the Asian markets examined, Malaysia appears to have the largest range of varieties on offer: including predominantly purple, orange and 'Japanese'
UK & Netherlands: Emphasis on value-add	• Both the UK and Netherlands' online sales channels feature options for pre-cut sweet potatoes, as well as specialty products such as falafel or sweet potato patties. • This aligns with reports of growing trends toward pre-prepared ready-to-cook products
Organic products feature heavily	• At least one sales channel analysed for each market offers an organic variety of sweet potato
'Japanese' is a commonly referred to variety for sale	• Most online sales platforms refer to sweet potato SKUs as 'orange, purple, or Japanese.' Japanese sweet potatoes have purple or red skin and white flesh that turns yellow after cooking, similar to the Australian Northern Star variety.
The Asia Pacific value-added snack market is growing and evolving	• The APAC savoury snack market is valued at around ~$69B AUD and has undergone transformation in recent years to emphasise healthier options as well as localised flavours and ingredients.[4] This positions products such as pre-baked sweet potatoes or chips favourably as a common snack item rising in popularity, with the opportunity to use imported products as ingredients in local sweet potato specialties such as Malaysian/Indonesian 'bubur cha char' mentioned on page 11

Source: (1) Fresh Plaza. 2020. Korean sweet potato keeps evolving. [online] Available at: <https://www.freshplaza.com/article/9248261/korean-sweet-potato-keeps-evolving/> [Accessed 18 February 2021]. (2) The Japan Agri News. 2020. Illicit cultivation and distribution of Japanese sweet potato variety Beniharuka spreading in South Korea | The Japan Agri News. [online] Available at: <http://english.agrinews.co.jp/?p=9813> [Accessed 17 February 2021]. (3) Fresh Plaza, 2020. Sweet potatoes now come in more colours than just orange. [online]. Available at: <https://www.freshplaza.com/article/9196996/sweet-potatoes-now-come-in-more-:colors-than-just-orange/> [Accessed 10 March 2020]. (4) Food Navigator Asia, 2020. Biting back: Better-for-you options and localised flavours are 'the future' for APAC savoury snack industry. Online. Available at: <https://www.foodnavigator-asia.com/Article/2020/08/21/Biting-back-Better-for-you-options-and-localised-flavours-are-the-future-for-APAC-savoury-snack-industry> [Accessed 25 March 2021].

Australian sweet potato exports have grown significantly off a low base, reaching $3.6M and 1.6M kg in 2020

Australian Sweet Potatoes have been experiencing favourable growth in the global market following a consistent upward trend, barring a 25% reduction in volume between 2019-20. This reduction was likely due to disruption to global supply chains by COVID-19 and an overall volatile trading environment. 2020 exports reached a value of $3.6M, indicating a notable growth of 18% from 2019 levels.

Growth in value and volume of Australian sweet potato exports
2011-2020
Hort Innovation

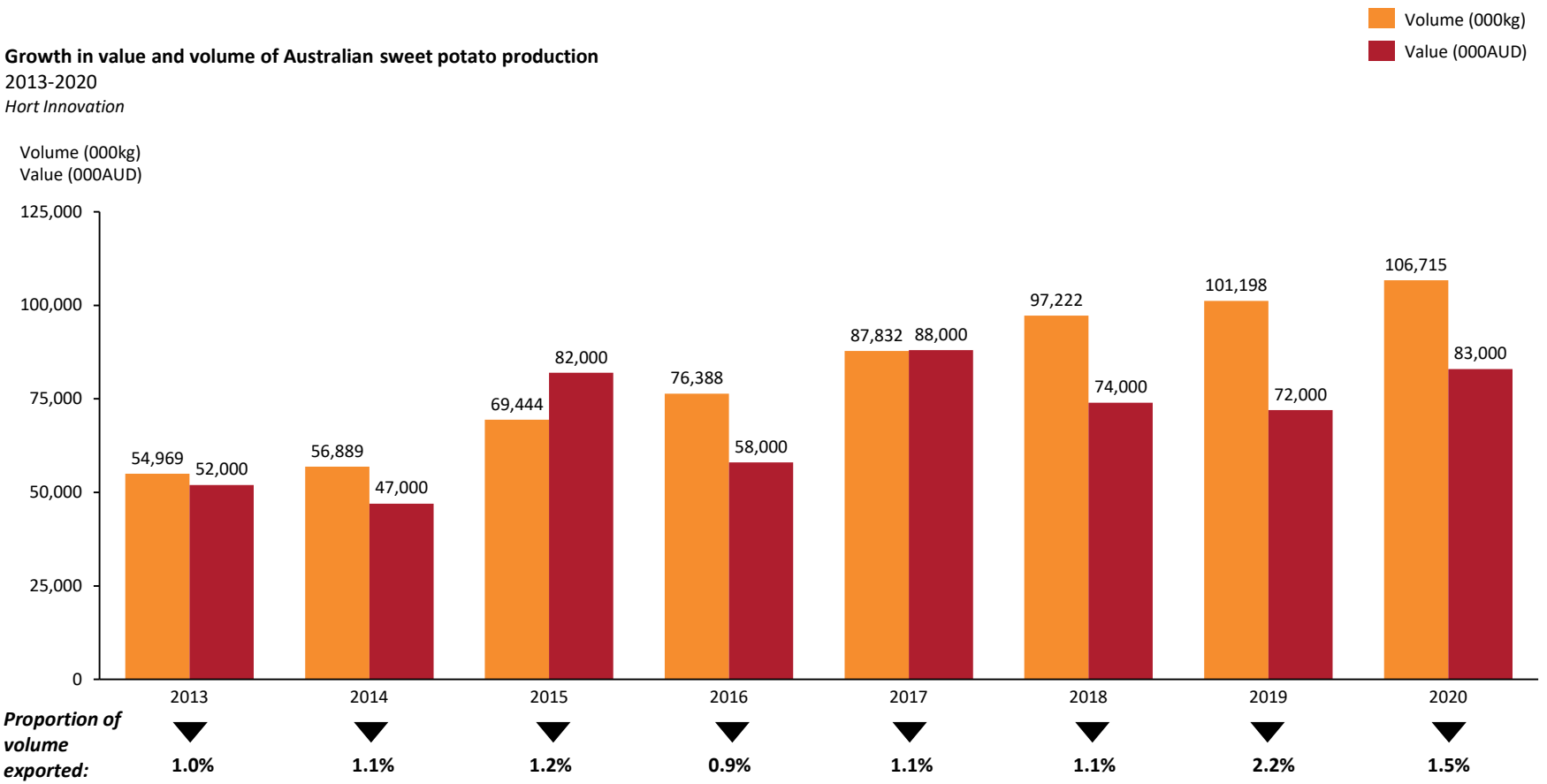


NOTE
(1) HS6 Code 71420 *Sweet Potatoes, Fresh or Dried, whether or not sliced or in the form of pellets*
Source: Hort Innovation, 2021. Sweet Potato Export Data.

In line with exports, domestic volume and value of sweet potatoes have been increasing consistently

High domestic sweet potato value and volumes compared to the value and volumes of exports suggests that exports make up only a small proportion of production. The scales are vastly different, for example in 2020 106K tonnes were produced and 1,646 tonnes were exported, making up 1.5%. This proportion remains between 1-2% from 2013-2020.

Growth in value and volume of Australian sweet potato production
2013-2020
Hort Innovation



NOTE
HS6 Code 71420 *Sweet Potatoes, Fresh or Dried, whether or not sliced or in the form of pellets*
Source: (1) Hort Innovation, 2021. Sweet Potato Export Data. (2) Hort Innovation, *Australian Horticulture Statistics Handbook 2019/20.* Online. Available at: <https://www.horticulture.com.au/growers/help-your-business-grow/research-reports-publications-fact-sheets-and-more/australian-horticulture-statistics-handbook/>

The United Arab Emirates trade hub has historically received Australian gold sweet potatoes favourably

1. **The UAE offers significant opportunity in opening up distribution and consumption channels to other markets in the Gulf Cooperation Council (GCC).**
2. **Sweet potatoes in the UAE are sourced locally from exclusive export agents, where main competitors are Egypt, South Africa, Netherlands and the USA**
3. **UAE consumers tend to prefer larger sweet potatoes, Australian gold varieties have seen success in the past and have been price competitive against other suppliers.**[7]

Quick facts about UAE market:

- **$3.9B** annual Australian food and agriculture exports to the UAE*[1]
- Significant imports per capita of **$24.1K**[2]
- In 2019-2020 the UAE accounted for **34%** of the total volume of Australian sweet potato exports[8]
- Population of **9.7M, 87%** of whom are expatriates[4]
- 2020 GDP annual growth rate of **-6.75%**[1]

UAE consumer preferences: quick facts	
Size	Large
Varietal/ colour	Orange
Average selling price	$2.28/kg

Key insights	
Market characteristics	• In 2019, sweet potato exports to the UAE were dominated largely by Egypt, Australia, South Africa, the Netherlands and the USA • The average price per kilogram received for sweet potatoes in 2019 by the top ten exporting nations was **$2.28/kg**[8] • UAE consumers tend to prefer larger sized sweet potatoes with demand for organic also on the rise, in line with increasing health-consciousness and Western-style diets • Some large supermarket chains import sweet potatoes directly from overseas suppliers
Market growth and development	• GDP growth is expected to reach 2.5% by 2022[3] • Food and beverage services is an identified market of interest for expansion in the country's planned diversification from oil. • Growth in food service creates opportunity for sweet potatoes[1]
Market demand	• In 2019 the UAE imported 6.36K tonnes of sweet potatoes, and exported 362.35 tonnes[2] • A lack of agriculture in the GCC indicates a heavy reliance on food imports, which form **70%** of all food requirements[1] • Around **50%** of all imported products are re-exported to other GCC countries, the Indian subcontinent and Africa. This is because the UAE is a trade hub, and many major trading companies consolidate product in the UAE due to its liberal trade environment

Source: (1) Australian Trade and Investment Commission. 2021. *Food and Beverage to the United Arab Emirates*. [online] Available at: <https://www.austrade.gov.au/Australian/Export/Export-markets/Countries/United-Arab-Emirates/Industries/food-and-beverage> [Accessed 18 February 2021]. *pre-Covid-19 data
(2) OEC. 2021. *United Arab Emirates (ARE) Exports, Imports, and Trade Partners*. [online] Available at: <https://oec.world/en/profile/country/are> [Accessed 12 February 2021].
(3) World Bank. 2020. *United Arab Emirates' Economic Update — October 2020*. [online] Available at: <https://www.worldbank.org/en/country/gcc/publication/economic-update-october-2020-uae>.
(4) International Trade Administration | Trade.gov. 2020. *United Arab Emirates - Market Overview*. [online] Available at: <https://www.trade.gov/knowledge-product/united-arab-emirates-market-overview> [Accessed 14 February 2021].
(5) Plecher, H., 2021. *United Arab Emirates - gross domestic product growth 2025 | Statista*. [online] Statista. Available at: <https://www.statista.com/statistics/297772/uae-gross-domestic-product-change-percent> [Accessed 15 February 2021].
(6) Tridge. 2021. *Sweet Potato | United Arab Emirates*. [online] Available at: <https://www.tridge.com/intelligences/sweet-potato/AE> [Accessed 8 February 2021].
(7) Mead, A., Stewart, L., Ainsworth, N., Noller, J. and Burnham, S., 2016. *Identify the export potential for Sweetpotatoes into ASEAN markets*. Agri-Science Queensland Innovation Opportunity. State of Queensland.
(8) Hort Innovation. 2021

Select Thai consumers demand quality imports and will pay a premium for sustainably produced foods

1. **Thailand offers an increasingly attractive market as the economy develops and fresh food supermarkets importing vegetables grows**
2. **While geographic proximity to Thailand is a competitive advantage, trade within ASEAN economies is strong with Vietnam and Lao PDR exporting large amounts of sweet potato to Thailand.**
3. **Australian produce is held in high regard, with consumers looking to diversify the origin of imported produce away from China.[1]**

Quick facts:

- **Around $5.24B** annual Australian food and agriculture exports to Thailand*[1]
- Ranks number **100** globally in imports per capita at **$3K**[6]
- In 2019-2020 Thailand accounted for **4.6%** of the total volume of Australian sweet potato exports[8]
- Population of **69M**[2]
- 2020 GDP annual growth rate of **-8.0%**[5]

Thai consumer preferences: quick facts	
Size	Small
Varietal/ colour	Purple, red
Average selling price	$4.15/kg

Key insights	
Market characteristics	• The average price per kilogram received for sweet potatoes in 2019 by the top ten exporting nations was **$4.15/kg**[8] • Australia maintains market perception of 'clean and green' as customers look to move away from Chinese-imported vegetables[1] • Sweet potatoes are sourced through a local import agent or distributor. Major retailers, however, are starting to source direct imports from overseas suppliers
Market growth and development	• GDP growth is expected to reach 4.5% by 2021[3] • The Thai economy has experienced significant decline in 2020 due to the severe downturn of global economy and trade, the decline in number and revenue from foreign tourists, the effects of the pandemic outbreak in Thailand, and drought conditions[2]
Market demand	• High growth in fresh produce market due to an increasing middle class attracted to saturated-colour displays of produce[1] • The majority of produce consumed is locally grown and sourced from local markets. Climate variance, however, presents opportunity for imports[1] • Thailand exported 143% more vegetable products than it imported, with China acting as its main trade partner[7]

Source: (1) International Trade Administration | Trade.gov. 2021. Thailand - Market Overview. [online] Available at: <https://www.trade.gov/knowledge-product/thailand-market-overview> [Accessed 9 February 2021].*pre-Covid-19 data
(2) International Trade Administration | Trade.gov. 2021. Thailand - Market Overview. [online] Available at: <https://www.trade.gov/knowledge-product/thailand-market-overview> [Accessed 9 February 2021].
(3) Asian Development Bank. 2020. Economic Indicators for Thailand. [online] Available at: <https://www.adb.org/countries/thailand/economy> [Accessed 10 February 2021].
(4) Tridge. 2021. Sweet Potato Export From Thailand. [online] Available at: <https://www.tridge.com/intelligences/sweet-potato/TH> [Accessed 12 February 2021].
(5) World Bank Group, 2021. Restoring Incomes and Recovering Jobs. Thailand Economic Monitor. [online] Bangkok. Available at: <http://documents1.worldbank.org/curated/en/236271611069996851/pdf/Thailand-Economic-Monitor-Restoring-Incomes-Recovering-Jobs.pdf> [Accessed 10 February 2021].
(6) OEC. 2018. Thailand (THA) Exports, Imports, and Trade Partners. [online] Available at: <https://oec.world/en/profile/country/tha> [Accessed 12 February 2021].
(7) OEC. 2018. Where does import from?. [online] Available at: <https://oec.world/en/visualize/tree_map/hs92/import/tha/all/2071420/2018/> [Accessed 11 February 2021].
(8) Hort Innovation, 2021

Orange and purple sweet potato production in Malaysia has driven demand for the category overall

1. **Malaysia is a rapidly growing market with demand for sweet potatoes stemming from ample domestic production, especially of the purple variety.**
2. **Malaysian in-market supply chains are still developing, with COVID-19 challenges slowing the growth in sophistication of some transport and logistics systems.**
3. **Sweet potato exports see competition from other producers in the ASEAN region such as Vietnam, Indonesia and Singapore, all of whom have received generally low prices for product in recent years.**

Quick facts:

- **$1.35B** annual Australian food and agriculture exports*[3]
- Ranks number **73**globally in imports per capita at **$6.47K**[2]
- In 2019-20 Malaysia accounted for 7.7**%** of the total volume of sweet potato exports[8]
- Population of **32.65M**[5]
- 2020 annual GDP growth rate of **-6%** [4]

Malaysian consumer preferences: quick facts	
Size	Small-Medium
Varietal/ colour	Orange
Average selling price	$2.26/kg

Key insights	
Market characteristics	• The average price per kilogram received for sweet potatoes in 2019 for the top ten exporting nations was **$2.26/kg** • Malaysia has developing existing supply chain capabilities for products equivalent to sweet potatoes such as cereals and pulses, and other raw produce items[3]
Market growth and development	• GDP growth is expected to reach 6.7% in 2021, showing strong signs of recovery after a 5.8% contraction in 2020[1] • Government intervention in the latter half of 2020 has significantly reduced household spending contractions from 18.2% in Q2 to 17.1% in Q3[1] • The Food market in Malaysia is expected to grow annually by 5.2% in 2021-2025[6] • Malaysia's relaxation of foreign ownership laws in the manufacturing sector in recent years has increased demand for exports and appetite for foreign business overall • Food and beverage services is one of the identified markets of interest for expansion. A growth in food service represents opportunity for sweet potatoes[1]
Market demand	• Despite growing domestic agriculture production, Malaysia imports over $1B Australian agricultural products annually • Malaysia's domestic production of sweet potatoes, particularly of the purple variety, indicates competition for exports however has equally contributed to rising demand for the product[7]

Source: (1) World Bank. 2020. Malaysian economy showing signs of recovery, projected to grow by 6.7 percent in 2021 following a contraction of 5.8 percent in 2020. [online] Available at: <https://www.worldbank.org/en/news/press-release/2020/12/17/malaysian-economy-showing-signs-of-recovery-projected-to-grow-by-67-percent-in-2021-following-a-contraction-of-58-percent-in-2020#:~:text=Malaysian%20economy%20showing%20signs%20of,of%205.8%20percent%20in%202020> [Accessed 15 February 2021]. (2) OEC. 2018. Malaysia (MYS) Exports, Imports, and Trade Partners. [online] Available at: <https://oec.world/en/profile/country/mys#:~:text=Overview%3A%20In%20September%202020%20Malaysia%20exported%20MYR88.&text=Between%20September%202019%20and%20September,7B%20to%20MYR88> [Accessed 15 February 2021]. (3) Australian Trade and Investment Commission. 2020. Agriculture - Malaysia - For Australian exporters. [online] Available at: <https://www.austrade.gov.au/Australian/Export/Export-markets/Countries/Malaysia/Industries/Agriculture> [Accessed 15 February 2021]. (4) Plecher, H., 2020. Malaysia - Gross domestic product (GDP) growth rate 2025 | Statista. [online] Statista. Available at: <https://www.statista.com/statistics/318977/gross-domestic-product-gdp-growth-rate-in-malaysia/> [Accessed 15 February 2021]. (5) Worldometer. 2021. Malaysia Population (2021). [online] Available at: <https://www.worldometers.info/world-population/malaysia-population/> [Accessed 16 February 2021]. (6) Statista. 2021. Food - Malaysia. [online] Available at: <https://www.statista.com/outlook/40000000/122/food/malaysia#:~:text=Revenue%20in%20the%20Food%20market,US%248%2C397m%20in%202021> [Accessed 15 February 2021]. (7) Mead, A., Stewart, L., Ainsworth, N., Noller, J. and Burnham, S., 2016. Identify the export potential for Sweetpotatoes into ASEAN markets. Agri-Science Queensland Innovation Opportunity. State of Queensland. (8) Hort Innovation, 2021

The Indonesian economy may be difficult for sweet potato exporters to enter due to negative perceptions

1. **Indonesia is a regional sweet potato exporter, with domestic consumption not typically prominent in most population segments.**
2. **Sweet potatoes are often viewed as food for lower socio economic segment, with regional island villages being the main consumers.[5]**
3. **Primary competing sweet potato exporting nations to Indonesia in recent years have been USA, Singapore and China, noting that Indonesia's importing from these nations is are generally low and inconsistent, owing to ample domestic production**

Quick facts:

- **$5.21B** annual Australian food and agriculture exports to Indonesia*[3]
- Ranks number 168 globally in imports per capita at **$612**[4]
- In 2019-2020 Indonesia accounted for 0**%** of total Australian sweet potato exports.[6] Australia did export sweet potatoes between 2013-2018, however this accounted for less than 1% of total Australian exports
- Population of **264.2M**[1]
- 2020 GDP annual growth rate of **-2.2%**[3]

Indonesian consumer preferences: quick facts	
Size	Small-Medium
Varietal/ colour	Purple
Average selling price	$2.51/kg

Key insights	
Market characteristics	• The average price per kilogram received for sweet potato exports to Indonesia from 2016-19 was **$4.75/kg,** and $2.51 for 2019 only • The health awareness of middle-class Indonesians is rising in line consumption of fresh fruits, vegetables and organics • Vegetables are sourced through exclusive import agents, who then pass them onto distributors. Retailers and supermarkets then source the vegetables from the distributor
Market growth and development	• GDP growth is expected to reach 4.8% by 2022; to be driven by private consumption and improved labour market outcomes[3] • Increasing agricultural productivity and capability is a strategic objective for the Ministry of Agriculture Republic of Indonesia, with a focus on self-sufficiency and produce diversification[2]
Market demand	• In 2018 Indonesia only imported $12.3K worth of sweet potatoes, but exported $9.6M[4] • From 2018 – 2023 there is forecasted to be a 22.5% increase in the value of sales through modern grocery retailers, broadening the opportunity for sweet potato exporters [1] • However, due to a protectionist agenda Indonesia only imported A$1.1M worth of vegetables in 2019[2]

Source: (1) Export.business.gov.au. n.d. Demand Trends | Horticulture to Indonesia. [online] Available at: <https://export.business.gov.au/market-profiles/briefs/horticulture/indonesia/demand-trends#market-size> [Accessed 18 February 2021]. *pre-Covid-19 data
(2) Australian Trade and Investment Commission. 2020. Agribusiness to Indonesia. [online] Available at: <https://www.austrade.gov.au/australian/export/export-markets/countries/indonesia/industries/agribusiness> [Accessed 18 February 2021].
(3) The World Bank, 2020. Towards a Secure and Fast Recovery. Indonesia Economic Prospects. [online] Jakarta. Available at: <https://openknowledge.worldbank.org/bitstream/handle/10986/34930/Indonesia-Economic-Prospects-Towards-a-Secure-and-Fast-Recovery.pdf?sequence=1&isAllowed=y> [Accessed 19 February 2021].
(4) OEC. 2018. Indonesia (IDN) Exports, Imports, and Trade Partners. [online] Available at: <https://oec.world/en/profile/country/idn> [Accessed 18 February 2021].
(5) Saliem, H., Simatupang, P., Illham, N., Friyatno, S., Suryani, E., Purwantini, T., Maulana, M. and Indraningsih, K., 2010. Production, Trade, and Consumption Linkages of Sweet Potato to Support Food Diversification and Nutrition. Research Report Yearly Fund. [online] Indonesian Centre for Agricultural Socioeconomic and Policy Studies. Available at: <http://pse.litbang.pertanian.go.id/eng/pdffiles/LHP_HPS_2010_EN.pdf> [Accessed 19 February 2021].
(6) Hort Innovation, 2021

Sweet potatoes in the UK have been experiencing substantial demand increases via multiple channels

1. **Sweet potatoes have become an everyday staple for many households, as well as seen significant growth in food service channels.**
2. **A potential FTA agreement that lowers protectionist barriers would increase the competitiveness of Australian exporters against major competing exporting nations like the USA, Egypt and Spain.**
3. **Vegetables are sourced via a sophisticated logistics network through independent importers, distributors and by the major retailers themselves**

Quick facts:

- **$570B** annual Australian food and agriculture exports to the UK[4]*
- Ranks number **28** globally in imports per capita at **$9.94K**[4]
- In 2019-2020 the UK accounted for 10.5**%** of total Australian sweet potato exports[6]
- Population of **66.5M**[1]
- 2020 GDP annual growth rate of **-9.9%**[3]

UK consumer preferences: quick facts	
Size	Medium-large
Varietal/ colour	Orange
Average selling price	$1.62/kg

Key insights	
Market characteristics	• The UK sees a different competitive landscape than other markets analysed, with exporting nations across Europe and Africa • The average price received for sweet potato exports within the top ten markets was **$1.62/kg** • As a developed economy, UK consumers have a high disposable income at $42,944 GDP per capita, ranked 22 of 196 nations[4]
Market growth and development	• GDP growth is expected to reach 5% by 2022; to be driven by an accelerated vaccination program and improved labour market outcomes[5] • The UK is looking to liberalise its trade market by decreasing tariffs and other EU-centric protectionist measures • These measures include introducing well-defined certification systems and assessment of imports on a case by case basis[2]
Market demand	• Demand for sweet potato is strong in the UK. In 2020 the UK was Europe's second largest sweet potato importer, only behind the Netherlands, importing ~$140M AUD worth of product[7] • While supermarkets continue to be the primary method of grocery shopping, consumers are exploring other channels such as online delivery[8]

Source: (1) Australian Trade and Investment Commission. 2020. Market profile – United Kingdom – For Australian exporters. [online] Available at: <https://www.austrade.gov.au/Australian/Export/Export-markets/Countries/United-Kingdom/Market-profile> [Accessed 22 February 2021].*pre-Covid-19 data
(2) The National Food Strategy, 2020. 1846 and All That – Food Security and Trade. The National Food Strategy: Part One – July 2020. [online] London. Available at: <https://www.nationalfoodstrategy.org/wp-content/uploads/2020/08/6_NFS_Report_spv_Ch5_SecurityTrade.pdf> [Accessed 20 February 2021].
(3) Armstrong, M., 2021. UK GDP suffers largest contraction on record. [online] Statista. Available at: <https://www.statista.com/chart/24177/uk-annual-gdp-change/> [Accessed 22 February 2021].
(4) OEC. 2021. United Kingdom (GBR) Exports, Imports, and Trade Partners. [online] Available at: <https://oec.world/en/profile/country/gbr> [Accessed 2 March 2021].
(5) International Monetary Fund, 2021. Policy Support and Vaccines Expected to Lift Activity. World Economic Outlook Update. [online] International Monetary Fund. Available at: <https://www.imf.org/en/Publications/WEO/Issues/2021/01/26/2021-world-economic-outlook-update> [Accessed 23 February 2021].
(6) Hort Innovation, 2021
(7) Tridge. 2021. Top Importing Countries of Sweet Potato. [online] Available at: <https://www.tridge.com/intelligences/sweet-potato/import> [Accessed 22 February 2021].
(8) d'Angelo, C., Gloinson, E., Draper, A. and Guthrie, S., 2020. Food consumption in the UK. [online] Cambridge: RAND Europe. Available at: <https://www.rand.org/content/dam/rand/pubs/research_reports/RR4300/RR4379/RAND_RR4379.pdf> [Accessed 22 February 2021].

The Netherlands is seeing major consumer and re-exporter demand for orange sweet potato varieties

1. **The Netherlands is a major importer of sweet potatoes, for both domestic consumption and re-export to the rest of the European market.[1]**
2. **The EU recently imposed 25% retaliatory tariffs on US sweet potato imports, presenting a major opportunity for Australian exporters to fill the incoming gaps in supply. Other major competitors include Canada and Egypt.**
3. **Health and sustainability-conscious Dutch consumers have high propensity to pay for premium, sustainable vegetables, advantageous qualities in a highly competitive market**

Quick facts:

- **$2.35B** annual Australian food and agriculture exports to the Netherlands*[2]
- Ranks number **8** globally in imports per capita at **$34.1K**[2]
- In 2019-2020 Australia accounted for **6.6%** of total Australian sweet potato exports[8]
- Population of **17.2M**[1]
- 2020 GDP annual growth rate of -4.6%[5]

Indonesian consumer preferences: quick facts	
Size	Medium-large
Varietal/ colour	Orange
Average selling price	$1.16/kg

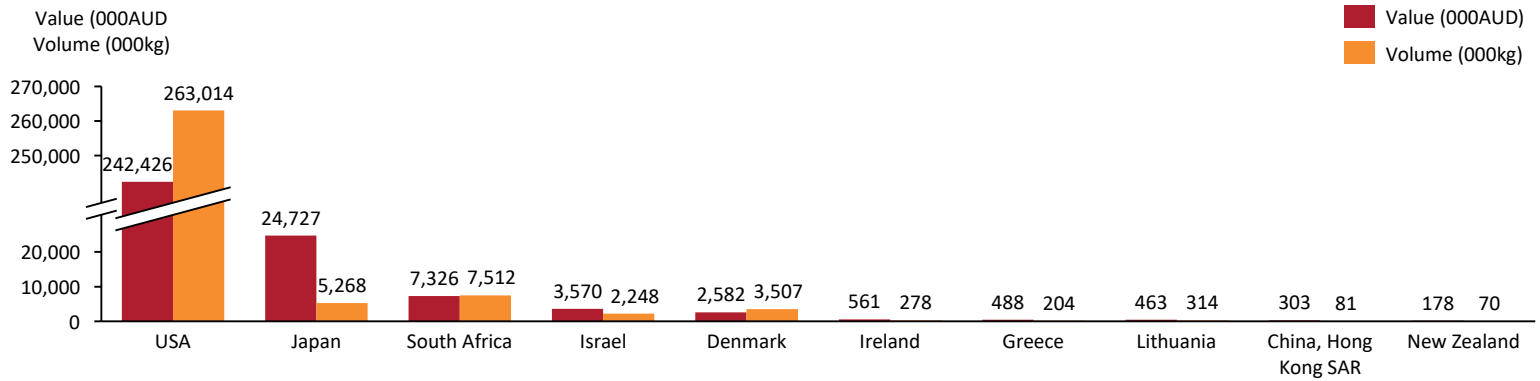
Key insights	
Market characteristics	• Like the UK, the Netherlands see a different competitive landscape than other markets, with exporting nations across Europe and Africa • The average price per kilogram received for sweet potato exports within the top ten markets in 2019 was **$1.16/kg** • The Dutch market is highly competitive, with high expectations for produce quality. However, Dutch consumers are willing to pay a premium, clean and sustainable products[6] • Sweet potatoes are sourced through a local import agent. Major retailers with strong private labels, however, prefer to work with a small number of preferred suppliers
Market growth and development	• Growth in 2020 contracted by 4.6% due to the fallout from COVID-19[5] • GDP growth is expected to reach 2.9% by 2022; supported by the government's generous fiscal support and assuming effective vaccinations are distributed by the end of 2021[5]
Market demand	• The Netherlands is the world's largest importer of sweet potatoes, with the vegetable becoming a staple in the Dutch diet, as also seen in the UK[3] • The majority of imports are re-exported throughout Europe[4] • The orange varieties (American Covington and Spanish Beauregard) remain Europe's most popular, comprising 95% of the market

Source: (1) Australian Trade and Investment Commission. 2020. Market profile – Netherlands – For Australian exporters. [online] Available at: <https://www.austrade.gov.au/Australian/Export/Export-markets/Countries/Netherlands/Market-profile> [Accessed 24 February 2021]. *pre-Covid-19 data
(2) OEC. 2018. Netherlands (NLD) Exports, Imports, and Trade Partners. [online] Available at: <https://oec.world/en/profile/country/nld> [Accessed 25 February 2021].
(3) Tridge. 2021. Top Importing Countries of Sweet Potato. [online] Available at: <https://www.tridge.com/intelligences/sweet-potato/import> [Accessed 22 February 2021].
(4) Tridge. 2021. Top Exporting Countries of Sweet Potato. [online] Available at: <https://www.tridge.com/intelligences/sweet-potato/export> [Accessed 22 February 2021].
(5) OECD. 2020. Economic Forecast Summary (December 2020. [online] Available at: <http://www.oecd.org/economy/netherlands-economic-snapshot/> [Accessed 24 February 2021].
(6) Pinckaers, M., 2019. The Dutch Food Retail Report 2019. Global Agricultural Information Network Report. [online] USDA Foreign Agricultural Service. Available at: <https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Retail%20Foods_The%20Hague_Netherlands_6-26-2019.pdf> [Accessed 24 February 2021].
(7) McGregor, N., 2020. EU tariffs on US sweet potatoes increase 25%. [online] Fresh Plaza. Available at: <https://www.freshplaza.com/article/9270332/eu-tariffs-on-us-sweet-potatoes-increase-25/> [Accessed 24 February 2021].
(8) CBI. 2019. Exporting fresh sweet potatoes to Europe. [online] Available at: <https://www.cbi.eu/market-information/fresh-fruit-vegetables/sweet-potatoes> [Accessed 24 February 2021].
(9) Hort Innovation, 2021

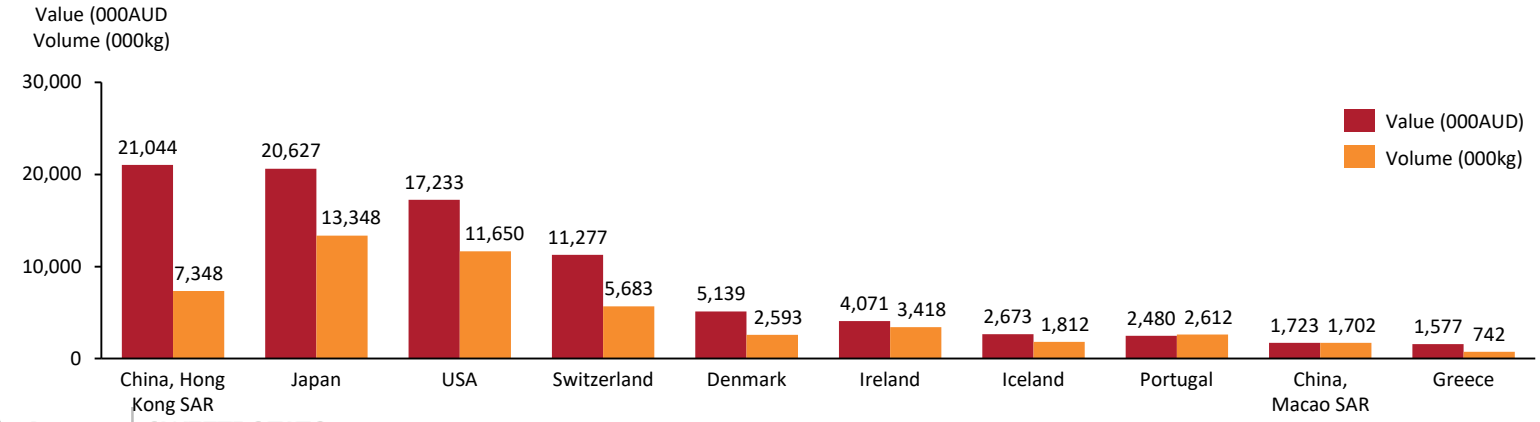
The USA, Japan and China appear to be leading global sweet potato trade, both by export and import

The graphs below show an overview of the top ten sweet potato exporting nations and importers worldwide. This is led by USA, Japan and Hong Kong.

Top Sweet Potato Exporting Nations globally, by value and volume
2020
UN Comtrade Database



Top Sweet Potato Importing Nations globally, by value and volume
2020
UN Comtrade Database



NOTE
(1) Export values are based on exchange rate **$1AUD=$1.28USD**
(2) Comtrade commodity code: '071420 – Vegetable roots and tubers; sweet potatoes, with high starch or inulin content, whether or not sliced or in the form of pellets, fresh or dried'

Introduction and methodology

Hort Innovation
Strategic levy investment

SWEETPOTATO FUND

March 2021

The project followed a strategic, collaborative approach with market research at its core

A structured approach to market selection and research was core to the project methodology, leveraging reliable data sources such as Hort Innovation, the UN Comtrade database, Australian Bureau of Statistics, The World Bank, and a number of other key data sources.

Select markets

- Discuss current export markets with project reference group in kick-off workshop as well as currently untouched potential export markets where they may be appetite to penetrate.
- Based on this discussion select 5-8 markets for analysis.

Collect data

- With Hort Innovation and the Project Reference Group, identify priority market intelligence components (e.g. market access, biosecurity).
- Conduct targeted analysis of these criteria for each market, compare and evaluate opportunities.

Validate data

- Validate and supplement insights identified in initial research through stakeholder consultation.
- This involves discussions with both the Project Reference Group and in-market subject matter experts to understand market-specific export opportunities and challenges.

Compile market insights

- Outline top market insights for consideration and prioritisation. This is based upon the sum of the research and validation from stakeholders.
- Use insights to discuss where exporting nations may be well placed to increase export activity, relevant supply chain and market access factors, amongst other considerations.
- Frame outputs of the report to stimulate sweet potato exports in a way that will enable a prosperous and sustainable industry.

Market selection exercise

KEY: High | Medium | Low

Open Market

Protocol Market

Closed Market

In the kick-off workshop, market access and changes in consumer demand were determined to priority considerations in selecting export markets for analysis. The tables below show a market assessment exercise on these criteria to inform the shortlisting of focus markets for the project.

Market	Market access[7]	Indicative market demand: Key insight	Priority
UAE		• Largest existing sweet potato export market • Strong demand for fresh product from high income earners and expatriates	↗
Hong Kong		• Strong existing consumer demand for consumption as well as for re-export across Asia, particularly to China and Japan • Large proportion of high income earners and expatriates who will pay more for fresh produce	→
Singapore		• High wealth consumers however limited market size; high demand from in-market re-exporters • Liberalised market creates significant competition, established exporters can dominate	→
Qatar		• Domestic unrest inhibits consumers' ability to consistently access imports and exposes exporters to risk; rerouting trade raises cost of imports	→
Malaysia		• Increasing appetite for high quality, healthy foods however low average income ($8K per capita) [3]	↗
Netherlands		• Australia's third largest export market within the EU, with A$2.6B in goods and services. • Highly competitive market, also has a significant domestic seed production capability which has grown the vegetable category	→
Thailand		• Favourable demand and substantial increase in consumer spending over last two years[4]	↗
New Zealand		• Limited market size, favourable returns for exporters • Strong competition with domestic production which increases consumer purchasing power	→
Kuwait		• Small, relatively open economy with large growth potential: plans to develop A$325B infrastructure are generating significant demand[5]	→

Market	Market access[7]	Indicative market demand: Key insight	Priority
India		• Significant population however low spending habits; general low access to foreign food imports. Foreign aid companies use sweet potato to fight poverty, encourage domestic production[6]	↘
China		• 1.4 billion total addressable consumers[1] • Rising income levels and health conscious consumers	↘
Saudi Arabia		• Fast-growing young population with stringent expectations for quick and convenient transactions (true of most Arab countries) • Strong domestic banking/trade systems boosts export consumption	↗
Vietnam		• Strong growth drivers via rapidly growing middle class with robust demand, and a favourable median age of 30	↗
Indonesia		• Large consumer population with high levels of starch in diet, low food security indicates reliance on imports; relative growth in income	↗
Japan		• Known for propensity to spend more on quality and reliable produce, average income per capita $32K[2]	→
Philippines		• Significant economic growth and rising business confidence are resulting in rising consumption of foreign imports	→
Africa (Region)		• Volatile consumer income and purchase behaviour • Foreign aid channels have strong demand for fresh product	↘

Source: (1) JP Morgan. 2019. E-commerce Payments Trends: China. [online] Available at: <https://www.jpmorgan.com/merchant-services/insights/reports/china> [Accessed 12 February 2021]. (2) JP Morgan. 2019. E-commerce payments trends: Japan. [online] Available at: <https://www.jpmorgan.com/merchant-services/insights/reports/japan> [Accessed 13 February 2021]. (3) JP Morgan. 2019. E-commerce payments trends: Malaysia. [online] Available at: <https://www.jpmorgan.com/merchant-services/insights/reports/malaysia> [Accessed 12 February 2021]. (4) JP Morgan. 2019. E-commerce payments trends: Thailand. [online] Available at: <https://www.jpmorgan.com/europe/merchant-services/insights/reports/thailand#:~:text=Thailand> [Accessed 12 February 2021]. (5) Australian Trade and Investment Commission. 2020. Market profile – Kuwait – For Australian exporters. [online] Available at: <https://www.austrade.gov.au/Australian/Export/Export-markets/Countries/Kuwait/Market-profile> [Accessed 10 February 2021]. (6) Manual of Importing Country Requirements. 2021. Plants | Micor | Department of Agriculture, Water and the Environment. [online] Available at: <https://micor.agriculture.gov.au/Plants/Pages/default.aspx> [Accessed 11 February 2021].

Six markets have been selected for analysis

Based on this initial market assessment exercise and further discussion with the Project Reference Group and Hort Innovation, the six markets below were selected for analysis.

Focus Markets		Rationale for inclusion
	United Arab Emirates	• Largest existing sweet potato export market for Australia • Strong demand for fresh product from high income earners and expats
	Thailand	• Favourable demand and substantial increase in consumer spending over last two years[1]
	Malaysia	• Increasing appetite for high quality, healthy foods however low average income ($8K per capita)[2]
	Indonesia	• Large consumer population with high levels of starch in diet, low food security indicates reliance on imports; relative growth in income
	UK	• Significant existing demand due to growing popularity of sweet potato category, both at home and in food service outlets • Potential for increasingly liberal trading relationship
	Netherlands	• Strong appetite for fresh foods and capability for re-export • Growing domestic production has driven interest in the category • Extensive focus on value add activities and food service channels

Source: (1) JP Morgan. 2019. E-commerce payments trends: Malaysia. [online] Available at: <https://www.jpmorgan.com/merchant-services/insights/reports/malaysia> [Accessed 12 February 2021]. (2) JP Morgan. 2019. E-commerce payments trends: Thailand. [online] Available at: <https://www.jpmorgan.com/europe/merchant-services/insights/reports/thailand#:~:text=Thailand> [Accessed 12 February 2021].

Overview of Australian Sweet Potato exports

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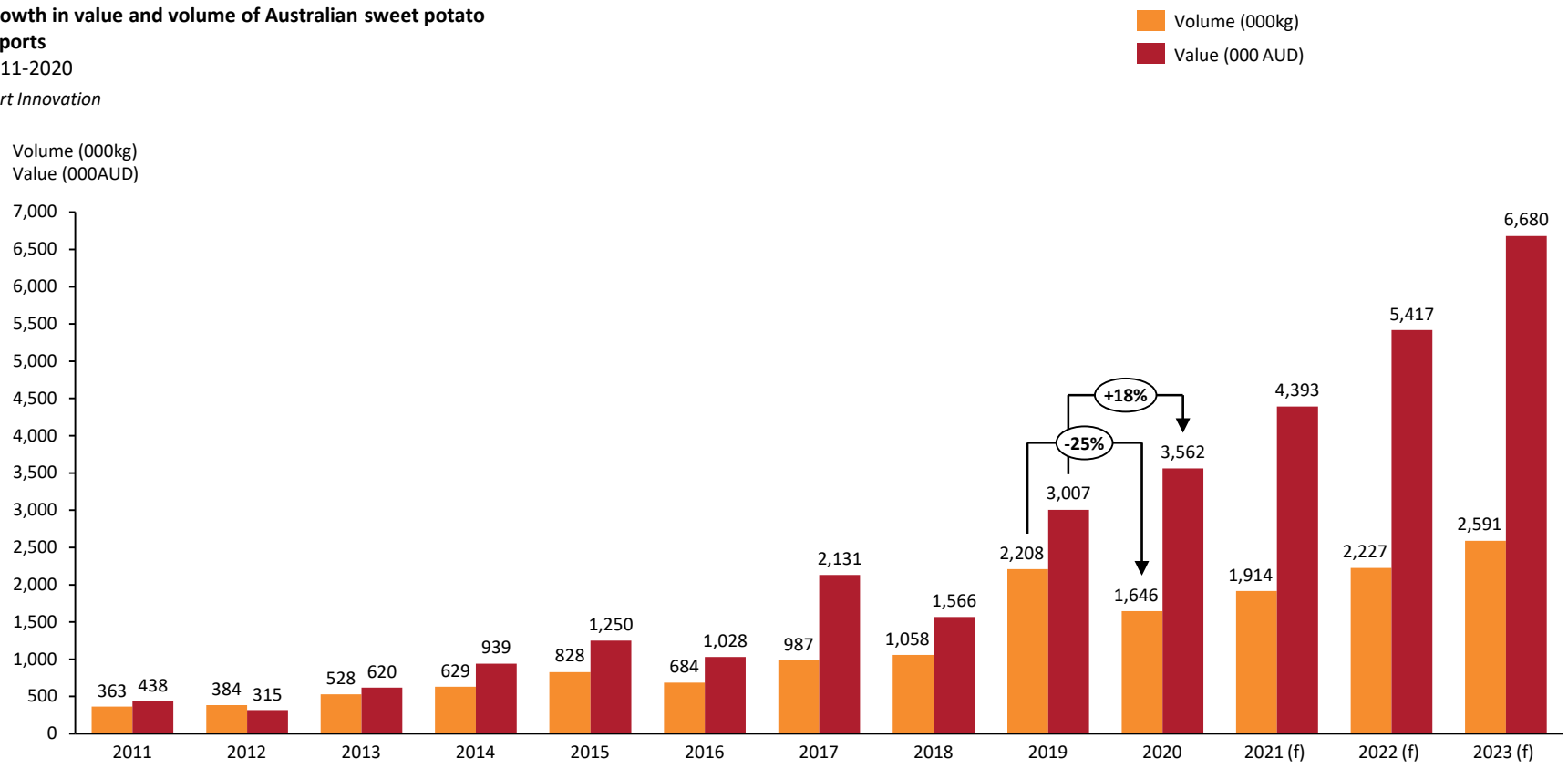
Australian sweet potato exports have grown significantly, reaching $3.6 Million and 1.6 Million kg in 2020

Australian Sweet Potatoes have been experiencing favourable growth in the global market, following a consistent upward trend barring a 25% reduction in volume between 2019-20. 2020 exports reached a value of $3.6M indicates a notable growth of 18% from 2019 levels.

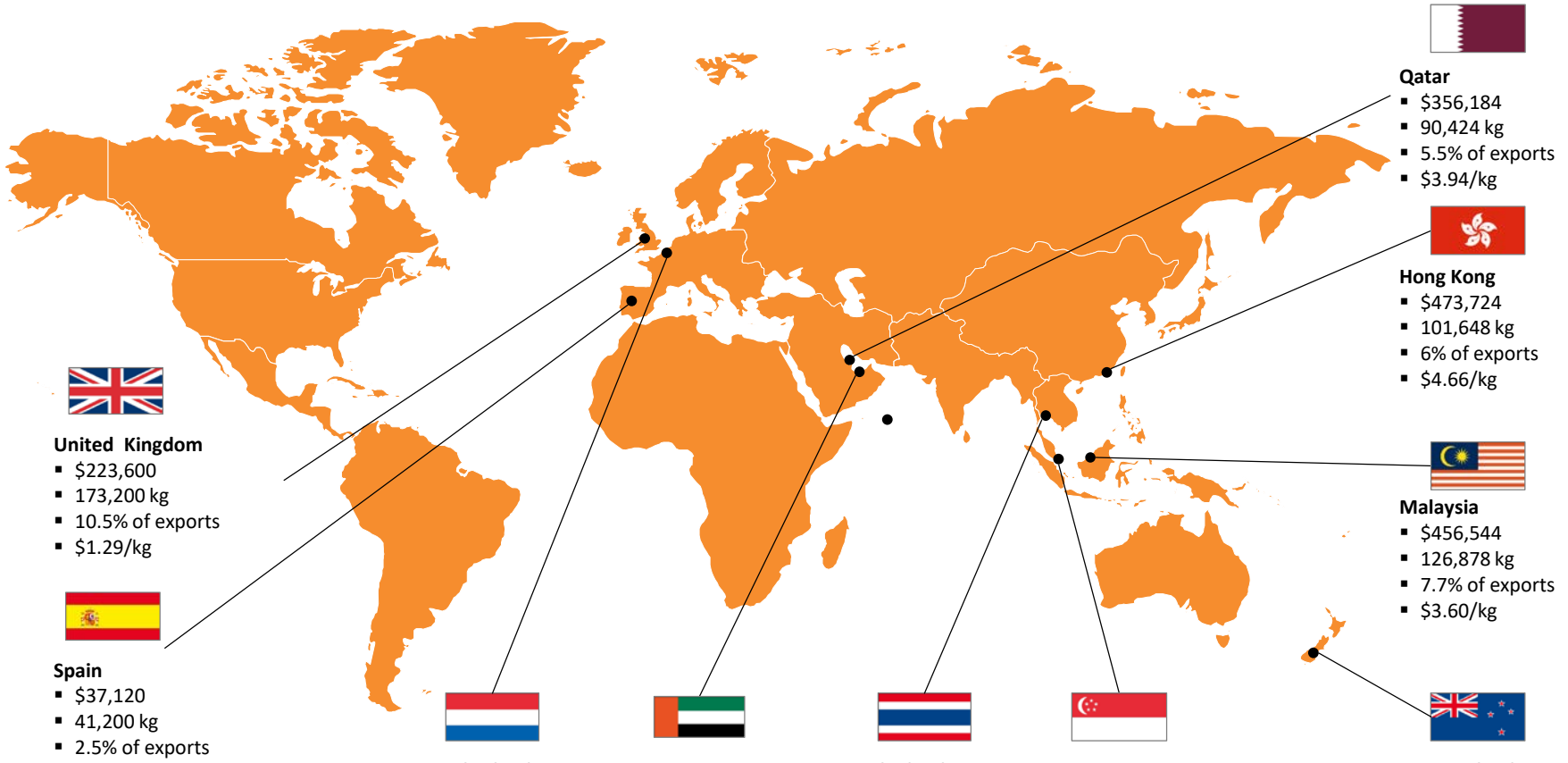
Growth in value and volume of Australian sweet potato exports
2011-2020
Hort Innovation



NOTE
(1) HS6 Code 71420 *Sweet Potatoes, Fresh or Dried, whether or not sliced or in the form of pellets*
Source: Hort Innovation, 2021. Sweet Potato Export Data.

Where were Australian sweet potatoes exported to in 2020? An overview of the top 10 export markets

The map below indicates the top ten destinations of Australian sweet potatoes in 2020, and their respective value (AUD), volume (kilograms), price per kilogram, and share of the total volume of Australian sweet potato exports.



Qatar
- $356,184
- 90,424 kg
- 5.5% of exports
- $3.94/kg

Hong Kong
- $473,724
- 101,648 kg
- 6% of exports
- $4.66/kg

Malaysia
- $456,544
- 126,878 kg
- 7.7% of exports
- $3.60/kg

New Zealand
- $107,682
- 22,302 kg
- 1.35% of exports
- $4.83/kg

United Kingdom
- $223,600
- 173,200 kg
- 10.5% of exports
- $1.29/kg

Spain
- $37,120
- 41,200 kg
- 2.5% of exports
- $0.90/kg

Netherlands
- $145,600
- 108,000 kg
- 6.6% of exports
- $1.35/kg

UAE
- $919,117
- 560,102 kg
- 34% of exports
- $1.64/kg

Thailand
- $92,593
- 74,914 kg
- 4.6% of exports
- $1.24/kg

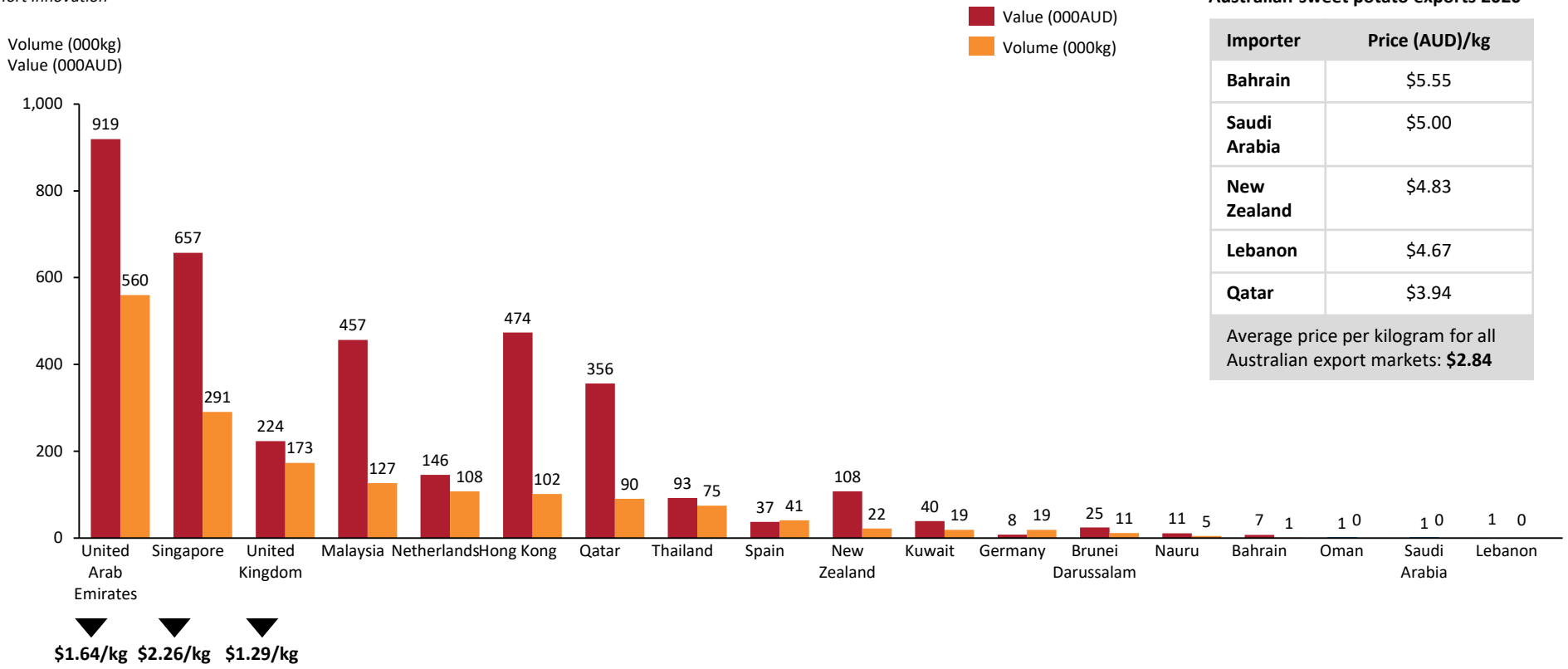
Singapore
- $656,960
- 290,685 kg
- 17.7% of exports
- $2.26/kg

NOTE
(1) the % of total export volumes does not total to 100% given the graphic displays only the top 10 export markets.
Source: Hort Innovation, 2021. Sweet Potato Export Data.

The UAE accounted for the largest amount of 2020 Australian sweet potato exports by value and volume

The graph below displays the value and volume of all Australian sweet potato exports by destination, the price points charged by the top 3 volume importers as well as the highest price points overall. Unsurprisingly, there appears to be a trend where price points decrease when export volumes increase.

Value and volume of total Australian Sweet Potato Exports by market
2020
Hort Innovation



Highest price points received for Australian sweet potato exports 2020

Importer	Price (AUD)/kg
Bahrain	$5.55
Saudi Arabia	$5.00
New Zealand	$4.83
Lebanon	$4.67
Qatar	$3.94

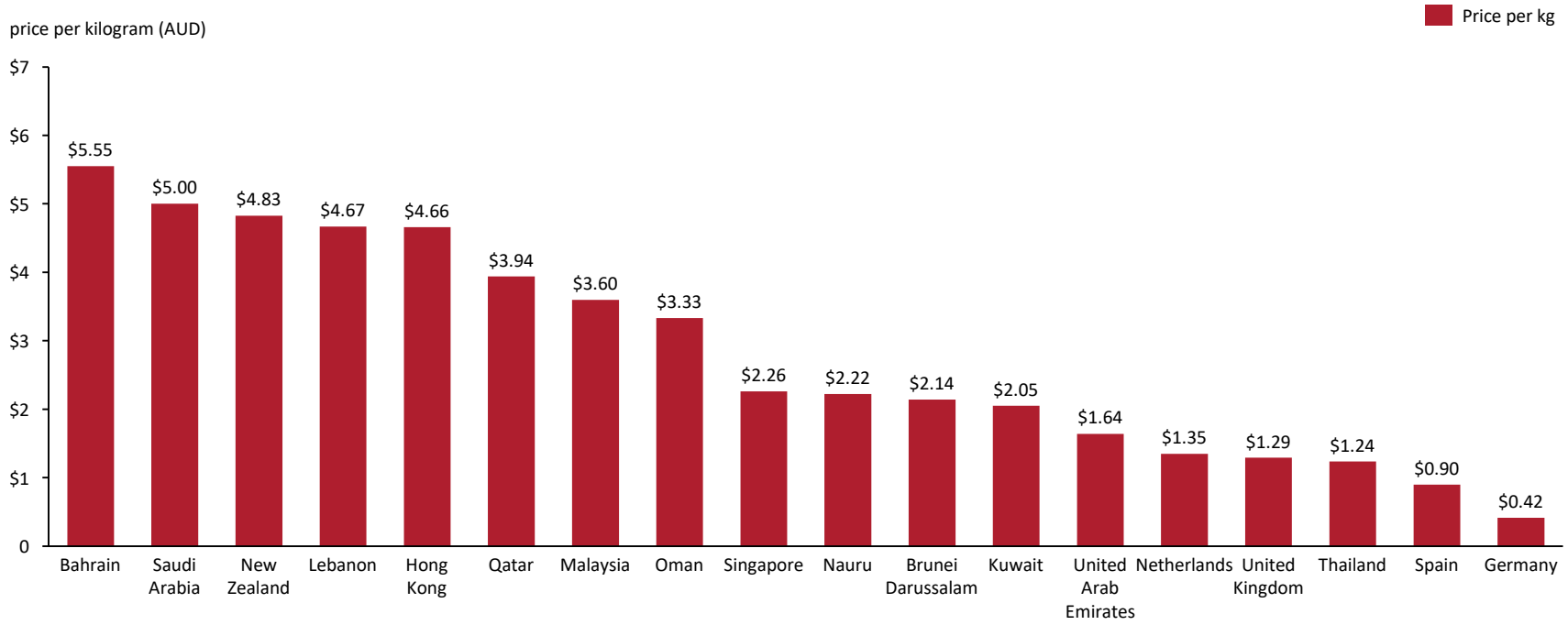
Average price per kilogram for all Australian export markets: **$2.84**

NOTE
(1) Markets listed as '0' for volume had volumes less than 1000kg.
(2) HS6 Code 71420 *Sweet Potatoes, Fresh or Dried, whether or not sliced or n the form of pellets*
Source: Hort Innovation, 2021. Sweet Potato Export Data.

Bahrain, Saudi Arabia and New Zealand appear to have paid the highest price for Australian sweet potatoes

The graph below displays the FOB price for Australian sweet potato exports received in all 2020 export markets. The markets which show the highest price point typically do not receive a large volume of products, as shown on P.13-14.

Price per kilogram received in all Australian sweet potato export markets
2020
Hort Innovation



It appears that in general, some Middle Eastern markets tend to offer higher price per kilogram for Australian sweet potatoes, while most European markets offer significantly low prices. Most Asian markets appear to sit somewhere in the middle.

NOTE
(1) Markets listed as '0' for volume had volumes less than 1000kg
(2) HS6 Code 71420 *Sweet Potatoes, Fresh or Dried, whether or not sliced or in the form of pellets*
Source: Hort Innovation, 2021. Sweet Potato Export Data.

There are a number of production considerations and respective export opportunities to consider

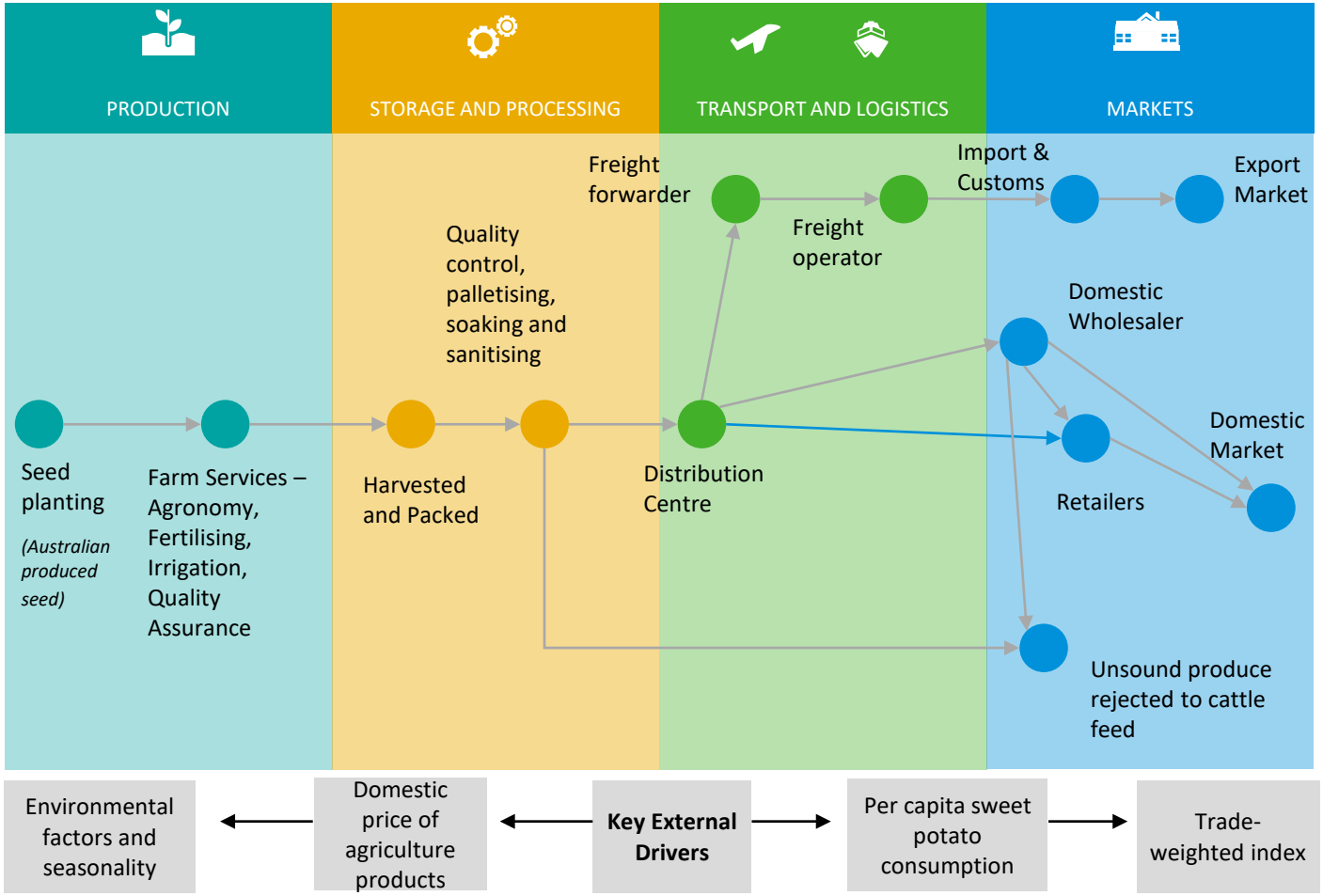
While Australian sweet potato export volumes are relatively small, there are still a number of key insights in the product's history to be acknowledged when considering the industry's next steps in developing export markets.

Grower challenges	Competitive landscape	Export opportunities
Consistency of supply, demand and price significantly fluctuates across the industry. • Weather volatility can decrease reliability of production, potentially creating insufficient volumes to warrant export • Volatility is evident in freshness of produce, as majority of farmers do not possess cool rooms which can regulate and preserve the quality of the product[1] **There is a risk that production may exceed demand in coming years.** • While Australian production has seen continued growth, production value can fluctuate due to oversupply and drive down the price received by growers[2]	**Lower production costs in competing export countries disadvantage Australian exporters.** • The US is a significant exporter, accounting for 70% of all sweet potato exports in the UK and Netherlands • Low cost imports domestically are also a challenge for Australian growers **Asia is a crowded export market where the ability for Australia to compete based on price is a challenge.** • Australia is unlikely to compete at bottom end of Asian export market given cheap imports from the USA and Netherlands, therefore should differentiate based on quality • These exporting countries possess critical mass and have developed trade systems which can result in products priced significantly lower than Australian products	**There is worldwide growing consumer demand and interest in fresh, quality products like sweet potatoes.** • This emphasises the need for greater control over the quality and consistency of Australian sweet potatoes • Imperative to ensure international transit can prevent spoilage **Sweet potato consumption is trending across Asian and Western markets** • In Asian countries, a general shift toward more Western-style diets has attributed to a large increase in sweet potato consumption • In markets such as the UK, Japan and Korea, experimental sweet potato 'fads' include products like sweet potato pizzas, loaded baked sweet potatoes, sweet potato smoothies, and so on. The exposure of such products on social media has driven immense interest in the category

Source: (1) CBI. 2019. Exporting fresh sweet potatoes to Europe. [online] Available at: <https://www.cbi.eu/market-information/fresh-fruit-vegetables/sweet-potatoes> [Accessed 24 February 2021].
(2) Fresh Plaza. 2020. OVERVIEW GLOBAL SWEET POTATO MARKET. [online] Available at: <https://www.freshplaza.com/article/9274188/overview-global-sweet-potato-market/> [Accessed 10 February 2021].

Sweet Potatoes follow a standard fresh export supply chai, benefitted by substantial shelf space

The graphic below displays a high level overview of the sweet potato supply chain, with an emphasis on the off-shore logistics and processes required to deliver product to market.



Market access for sweet potatoes in the identified target markets varies slightly, however is liberal overall

The table below shows an overview of key market access considerations for each of the identified export markets. Thailand, Malaysia and Indonesia offer tariff free entry for Australian sweet potatoes. The UAE imposes a 5% tariff, the United Kingdom 2%, and the Netherlands 3%.

Country	Market Access	Phytosanitary requirements	Import permit	Tariffs %	Notes
UAE		Y	N	5*	Free from pests, soil, weed seeds and extraneous material.
Thailand		Y	N	0	Free from pests, soil, weed seeds and extraneous material.
Malaysia		N	N	0	Free from pests, soil, weed seeds and extraneous material.
Indonesia		Y	N	0	Free from pests, soil, weed seeds and extraneous material.
United Kingdom		Y	N	2	Free from pests, soil, weed seeds and extraneous material.
Netherlands (EU)		Y	N	3	Free from pests, soil, weed seeds and extraneous material.

Open Market

Protocol Market

Closed Market

**NB: the UAE imposes a 5% tariff on sweet potato exports, however the majority of fresh fruit and vegetables are imported through a designated UAE 'Free Zone,' where the tariff is not incurred. The tariff is imposed once exports are moved onto 'mainland UAE', however Australian exporters do not usually bear this cost because UAE importers often acquire Australian sweet potatoes to re-export to other markets .*

Source: (1) Manual of Importing Country Requirements. 2021. Plants | Micor | Department of Agriculture, Water and the Environment. [online] Available at: <https://micor.agriculture.gov.au/Plants/Pages/default.aspx> [Accessed 11 February 2021].

Market profiles

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United Arab Emirates

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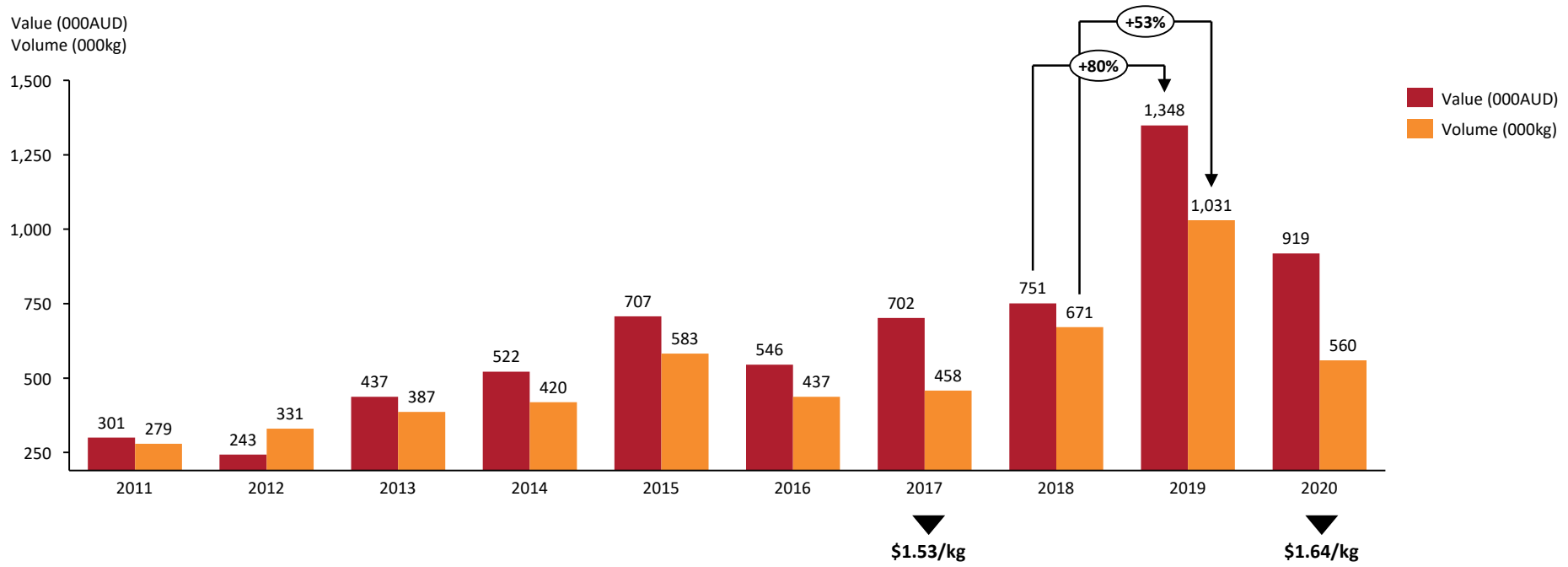
The UAE accounted for 34% of Australian sweet potato exports in 2020, experiencing growth since 2011

The chart below shows the growth in the value and volume of Australian sweet potato exports to the UAE over the past ten years, as well as indication of the years in which Australia received the highest price point for its products. The average price point received over the past ten years is AUD $1.22/kg. The drop in exports from 2018 to 2019 was likely due to disruption to global supply chains by COVID-19 and an overall volatile trading environment.

Growth in value and volume of Australian Sweet Potato Exports to the UAE
2011-2020
Hort Innovation



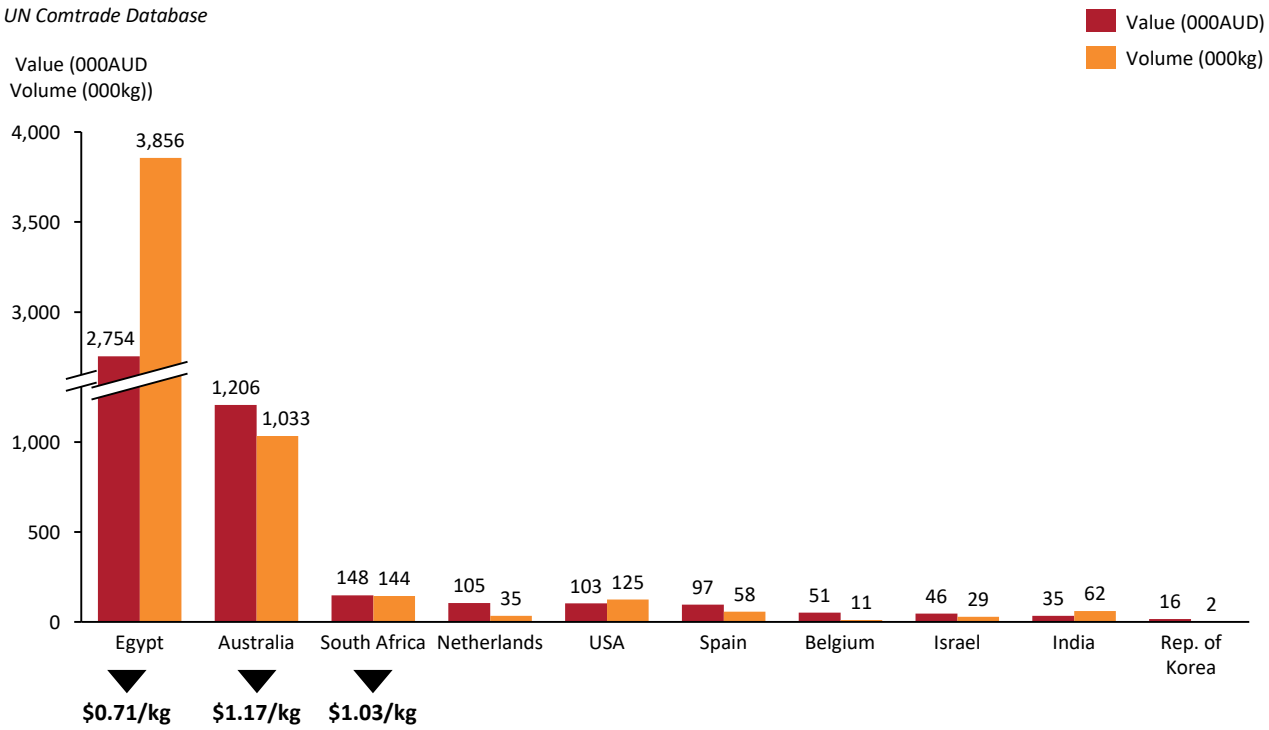
As expected Australian sweet potato exports saw the biggest jump in volume and value between 2018-19, which increased by 53% and 80%, respectively. This is likely due to increase in export activity by Sweet Potatoes Australia, which shows the ability to increase the Australian export footprint with the necessary dedicated resources and initiative.

NOTE
(1) HS6 Code 71420 *Sweet Potatoes, Fresh or Dried, whether or not sliced or in the form of pellets*
Source: Hort Innovation, 2021. Sweet Potato Export Data.

Competitors selling into the UAE: who are the major sweet potato exporting nations?

In 2019, sweet potato exports to the UAE were dominated largely by Egypt, Australia, South Africa, the Netherlands and the USA. The most favourable price per kilogram was received by Rep. of Korea at AUD $7.70/kg followed by Belgium at $4.40/kg, although this price was received for very small export volumes of around 2 and 11 tonnes, respectively. Other exporting nations with smaller volumes not listed include Vietnam, Poland, China, and Germany.

Top Sweet Potato Exporting Nations to the UAE, by value and volume
2019
UN Comtrade Database



Highest price point received for sweet potato exports to the UAE (2019) (all exporting nations)	
Exporter	**Price (AUD)/kg**
Rep. of Korea	**$7.70**
Belgium	**$4.40**
Netherlands	**$3.04**

Average $/kg 2019 for top ten exporting nations: **$2.28**

Australian price point received in past exporting years:	
2019	**$1.17**
2018	**$1.07**
2017	**$1.50**
2016	**$1.15**

Overall, Australia maintains a strong existing export footprint in the UAE, however does not consistently receive a favourable price per kilogram compared to other exporting nations. There is imperative to continue Australian sweet potato exports by leveraging a clearly established reputation, and increase promotion of product quality to demand a higher price point.

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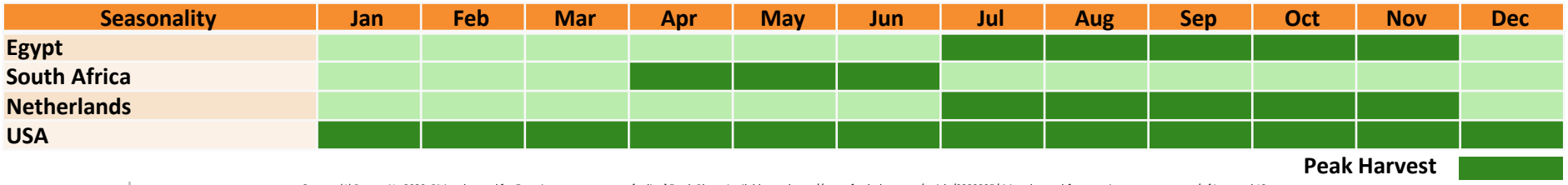
NOTE
(1) The price per kilogram analysis does not include exporting nations with export volumes **less than 100kg.**
(2) Export values are based on exchange rate **$1AUD=$1.28USD**
(3) Comtrade commodity code: '071420 – Vegetable roots and tubers; sweet potatoes, with high starch or inulin content, whether or not sliced or in the form of pellets, fresh or dried'

There are several points of difference in competing sweet potato exporting nations to the UAE

The UAE receives a large volume of exports from Egypt who offers a low price point, as well as a unique trading relationship with South Africa. Seeing as Egypt is the biggest volume exporter to the UAE but is counter seasonal, this offers opportunity for Australian exporters to fill any seasonal gaps in supply. The US can also export year-round and produces high volumes, meaning it will still be difficult for Australia to compete.

	Egypt	South Africa	Netherlands	USA
Varieties produced	Primarily Beauregard[1] Small amounts of white and Northern Star	Northern Star Beauregard Large 'Blesbok' cultivar (similar to WSPF)	Bureaugard Northern Star White[5]	Beauregard
Price point UAE 2019	$0.71	$1.03	$3.04*	$0.82
Primary (other) export markets	UK France Netherlands	Netherlands UK[3]	Germany France Sweden[4]	UK Netherlands Canada
Notes	• Quality is generally known as poor but has been improving year-on-year[7] • In general, lack of different varieties • Commonly low in price[1] • Strawberry cultivation over the last year has reduced space in containers to ship sweet potatoes[6]	• Production volume typically low, experiencing especially low volumes in 2020 • Small volumes of Beauregard are grown primarily for export[2]	• Large amount of re-export through Europe, it should not be assumed that all exports are a result of domestic production • Cultivating sweet potatoes is a challenge in Dutch clay. However, dense soil does result in better shelf life	• Production has been consistently increasing over the past decade • Experiences of oversupply in the last two years • Americans can harvest vegetables twice per year and have the facilities to store sweet potatoes for up to six months, meaning they can export year-round[7]



Source: (1) Peters, N., 2020. Rising demand for Egyptian sweet potatoes. [online] Fresh Plaza. Available at: <https://www.freshplaza.com/article/9223235/rising-demand-for-egyptian-sweet-potatoes/> [Accessed 12 February 2021]. (2) Fresh Plaza. 2020. South Africa: Low Sweet Potato Volumes support prices. Online. Available at: < https://www.freshplaza.com/article/9279561/south-africa-low-sweet-potato-volumes-support-prices/> [Accessed 12 February 2021]. (4) Garay & Company. n.d. Suppliers of Sweet Potato in Netherlands. [online] Available at: <https://www.garaycompany.com/food-beverage/suppliers-of-sweet-potato-in-netherlands> [Accessed 10 February 2021]. (5) Australian Sweet Potato Growers. 2021. Consumer Information. [online] Available at: <https://www.aspg.com.au/consumer-information/#:~:text=There%20are%20four%20types%20of,%2C%20Red%2C%20Purple%20and%20White.&text=Beauregard%20has%20a%20rose%2Fgold,sold%20in%20Australia%20are%20Beauregard> [Accessed 11 February 2021]. (6) Agri News Net Farming Portal. 2019. OVERVIEW GLOBAL SWEET POTATO MARKET- December 2019. [online] Available at: <https://www.farmingportal.co.za/index.php/agri-index/68-crops/3538-overview-global-sweet-potato-market-december-2019> [Accessed 12 February 2021]. (7) Fresh Plaza, 2020. Sweet potatoes now come in more colors than just orange. [online]. Available at: <https://www.freshplaza.com/article/9196996/sweet-potatoes-now-come-in-more-colors-than-just-orange/> [Accessed 10 March 2020].

Market access for food products into the UAE is liberal, enabled by sophisticated existing supply chains

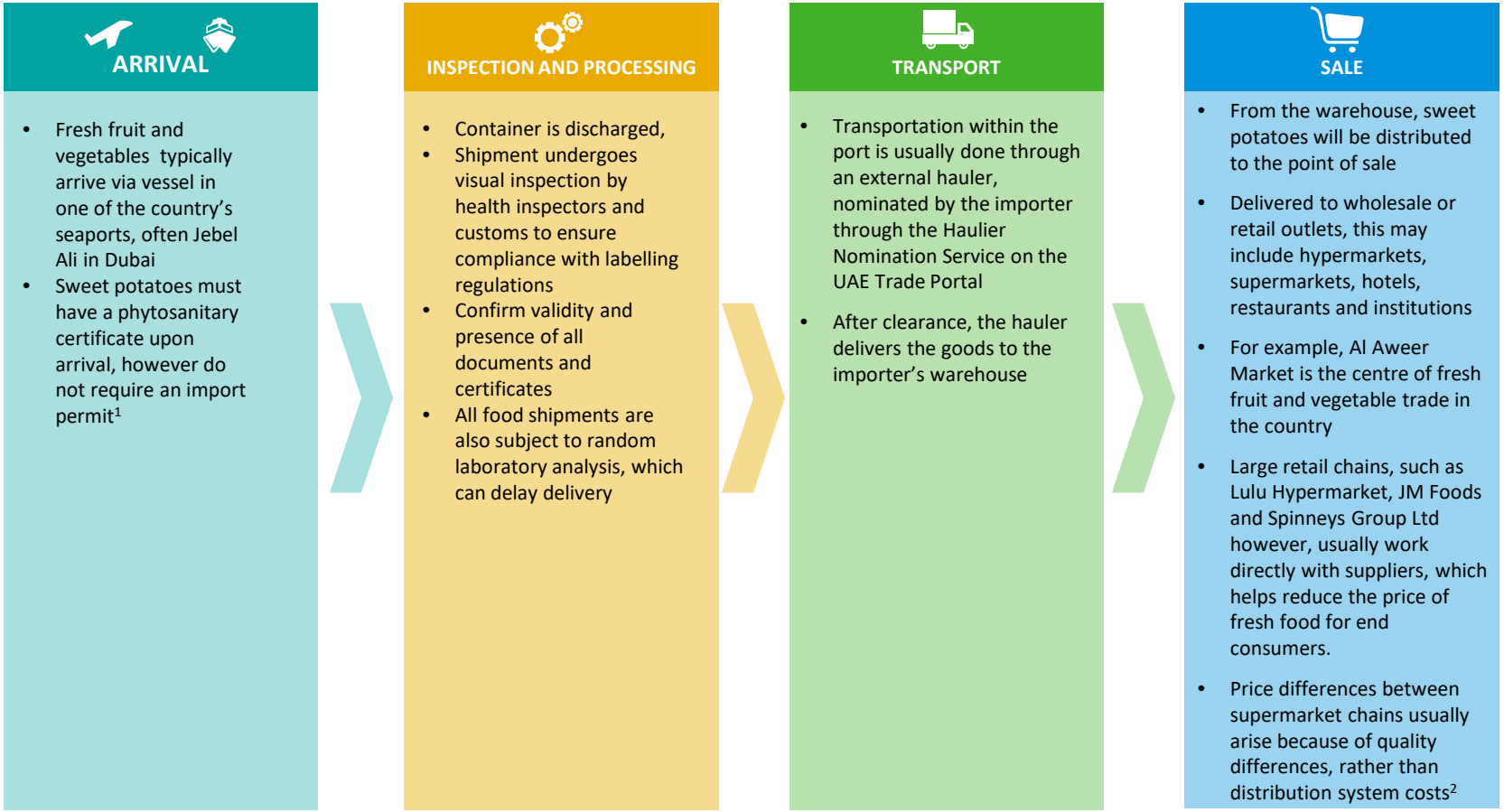
Focus area	Key message	Key insights	Current impact
Regulation/ Customs	Sweet potato exports are not regulated beyond the need for basic labelling and health standard declarations.	• The UAE and other members of the GCC are attempting to develop standardised laws regarding labelling, shelf life and food safety for the region, however individual regulations do remain for certain areas • Most food imports are subject to a **5% import** duty[1] • Products require a health certificate which indicates that the product is fit for human consumption, issued by the governmental health authorities of the country of origin • All food items are required to have at least half of their shelf life remaining at the time of import	→
Market access	The UAE provides relatively open market access and a valuable opportunity for re-export.	• Australia has access to economic 'free zones', where import duties are waived, providing a streamlined access for sweet potato imports[2] 90% of fruit and vegetables enter the UAE via the Free Zone at Jebel Ali port in Dubai. A 5% tariff and 5% VAT applies when produce is moved onto mainland UAE, exporters typically do not bear this cost[6] • UAE has emerged as a major re-exporting hub, supported by strong logistics, recognised standards and practices and well-established transport routes. The country boasts sophisticated warehousing and inventory systems • The market is highly competitive and in some instances consumption is small, therefore opportunities exist for consolidation of product to constitute volumes for re-export[3]	↗
COVID-19 Impact	The UAE has been seriously impacted by COVID-19 due to its effects on oil prices, which has influenced domestic spending.	• The COVID-19 global pandemic's impact on the UAE has been significant due to its impact on both oil prices and sectors such as tourism. This has significantly dimmed prospects for growth in the short term, reducing spending habits across business and consumer groups. Recovery is predicted to be imminent but slow[4] • Like most countries, the pandemic has impacted sweet potato exports through limited supply due to labour shortages in exporting countries, and extra quarantine measures limiting market access and therefore supply.[5] Given a strong reliance on imports, the UAE has been especially vulnerable to these impacts	↘
Supply chain and logistics	Fruit and vegetable imports in the UAE are supported by a robust logistics and infrastructure network.	• Sweet potatoes are sourced locally from exclusive export agents. Some major supermarket chains import sweet potatoes directly from overseas suppliers[1] • Large importers are often integrated with logistics and distribution companies, who supply wholesalers and retailers • The Jebel Ali port in Dubai, where the majority of produce is imported, is the world's largest man-made port and renowned for its expertise and precision in cargo handling.[1] Most fruit and vegetable re-exports are distributed via the Al Aweer fruit and vegetable market. Saudi Arabia is the largest recipient of these re-exports3 • Barring COVID-19 restrictions, building in-person relationships has been essential to exporting to the UAE. Regular visits, stopovers and attendance at exhibitions all key exposure opportunities to foster these relationships	↗

Source: (1) Australian Trade and Investment Commission. 2020. Food and beverage - United Arab Emirates - For Australian exporters. [online] Available at: <https://www.austrade.gov.au/Australian/Export/Export-markets/Countries/United-Arab-Emirates/Industries/food-and-beverage> [Accessed 10 February 2021]. (2) Australian Trade and Investment Commission. n.d. Doing business - Tariffs and regulations – United Arab Emirates – For Australian exporters. [online] Available at: <https://www.austrade.gov.au/Australian/Export/Export-markets/Countries/United-Arab-Emirates/Doing-business/Tariffs-and-regulations> [Accessed 11 February 2021]. (3) International Trade Administration | Trade.gov. 2019. United Arab Emirates - Market Overview. [online] Available at: <https://www.trade.gov/knowledge-product/united-arab-emirates-market-overview> [Accessed 12 February 2021]. (4) Lexology. 2020. Coronavirus and the food industry: The UAE's law to regulate the strategic stock of food commodities - what does it mean for food retailers? | Lexology. [online] Available at: <https://www.lexology.com/library/detail.aspx?g=aca6b99c-677f-4faf-bc43-36c6466fffb4> [Accessed 5 February 2021]. (5) World Bank. 2021. United Arab Emirates' Economic Update — October 2020. [online] Available at: <https://www.worldbank.org/en/country/gcc/publication/economic-update-october-2020-uae> [Accessed 4 February 2021]. (6) In-market stakeholder consultation, UAE>

KEY: Positive | Neutral | Negative

Case study: the Sweet potato supply chain in the UAE is supported by robust logistics infrastructure

The diagram below includes some detailed insights around the movements of sweet potato products once they have arrived in the UAE, as well as the processes they will undergo. As expected, there is a large range of retail channels available to reach the consumer, which results from Expatriates and Western-style shopping habits.



Source: (1) Manual of Importing Country Requirements. 2021. Plants | Micor | Department of Agriculture, Water and the Environment. [online] Available at: <https://micor.agriculture.gov.au/Plants/Pages/default.aspx> [Accessed 11 February 2021]. (2) PMA, 2019. Fresh Produce Industry: United Arab Emirates (UAE). Online. Available at <https://www.pma.com/-/media/pma-files/research-and-development/uaepresentationletter_v2_rev121919.pdf?la=en> [Accessed 12 February 2021].

UAE consumers have favourable consumption habits, with rising incomes and health conscious consumption

Barring detrimental COVID-19 economic impacts by COVID-19, the UAE population has seen a strong inclination toward high quality food imports driven by health consciousness and growth in new retail and distribution channels. Comtrade export data indicates that the major re-export destinations for sweet potatoes are other gulf nations Oman, Afghanistan, Saudi Arabia, Kuwait, and Bahrain. The consumer preferences below are largely reflective of generic Gulf consumer characteristics and can therefore be used when targeting these secondary markets using UAE as a re-export market.

Consumer preferences

Rising incomes and high dependence on imports present significant opportunity for Australian food exports.

- Preceding COVID-19 impacts, the UAE population is known for its aggressive spending habits and high import propensity. According to the World Bank the average GDP per capita is around $56K AUD (2019)[8]
- The typical middle-class UAE consumer is young, affluent, and demands high-value food items which are full of flavour and sustainably sourced[5]
- However given the majority of sweet potatoes exported to the UAE are re-exported, the lower average income levels of consumers in re-export destinations Oman, Saudi Arabia and Kuwait must be considered

A rapidly increasing tourist population and growing affluence has encouraged demand for high quality, organic and specialised foods.

- In recent years the population has seen a shift in from traditional to Western-style diets, particularly processed, pre-packaged, convenience food
- The UAE fruits and vegetables market is projected to grow at a CAGR of 9.93% from 2020-2025.[7] The fruit and vegetable market is also growing in re-export markets, in Oman it is projected to register a CAGR of 5.1% 2021-2026 [9], 5.2% for Saudi Arabia, 4% for Bahrain, 3.4% for Kuwait

In-market stakeholder consultation indicated preference for limited packaging on fresh products like sweet potatoes.

- It was reported that produce is sold loose in relatively small quantities
- Families tend to buy once or twice per week

Purchase behaviours

Gulf countries largely prefer larger sized sweet potatoes.[4]

- This aligns favourably with Australian sweet potato production which is more inclined toward large products
- Demand for organic sweet potatoes is also on the rise, in line with increasing health-consciousness and Western-style diets

Australian Gold sweet potatoes have been received favourably in the past.

- This variety is typically price competitive against other suppliers in-market
- Gold sweet potatoes are typically stocked in supermarkets in Dubai, available as loose bulk or more commonly as pre-packs
- Consumer preferences in UAE are reflective of the high-value re-export markets for sweet potatoes throughout the GCC

Open market access has intensified competition for consumers.

- This means UAE consumers as well as consumers in re-export markets expect to be able to purchase products in a convenient, timely and cost-effective manner[1]
- Re-export to other Gulf nations in the UAE is reflective of a unique open market, which can sometimes result in large volumes driving down prices

Growth in domestic potato production has driven interest in the category.

- Over the last ten years UAE farmers have pushed to increase domestic potato production, primarily as a means of ensuring food security and reducing reliance on imports[6]
- This has stimulated interest in similar products such as sweet potatoes, which are becoming increasingly common in everyday diets

Source: (1) Australian Trade and Investment Commission. n.d. Market profile – United Arab Emirates – For Australian exporters. [online] (2) Business Monitor International, 2017. UAE Food and Drink Report Q1. (3) Mead, A., Stewart, L., Ainsworth, N., Noller, J. and Burnham, S., 2016. Identify the export potential for Sweetpotatoes into ASEAN markets. Agri-Science Queensland Innovation Opportunity. [online] State of Queensland. (4) Fresh Plaza. 2020. OVERVIEW GLOBAL SWEET POTATO MARKET. [online] (5) Younes, K., 2018. Food export opportunities in the UAE. [online] Trade Victoria. (6) PotatoPro. 2011. United Arab Emirates turn to potatoes for food security. [online] (7) Mordor Intelligence. 2021. United Arab Emirates Fruits and Vegetables Market - Growth, Trends, and Forecast (2020 - 2025). [online] (8) World Bank. 2019. GDP per capita (current US$) - United Arab Emirates | Data. [online (9) Mordor Intelligence, 2021. *Oman Fruits and Vegetables Market – Growth, trends, COVID-19 Impact, and forecasts (2021-2026).* Online.

A rapidly developing retail environment in the UAE creates opportunities for quality Australian exports

Due to a sizeable expatriate population, the UAE has experienced rapid growth in non-traditional food retail channels. There are a number of opportunities to access these channels, including local partnerships, value-adding production, and the leveraging of unique UAE free trading zones.

Channels to reach consumer

While B2B and B2C e-commerce export channels are growing rapidly in the UAE, the majority of food and agriculture exports are marketed and sold through local commercial partners on the ground.[3]

- Reliance on location relationships is key in market entry, given these organisations can actively promote Australian products
- These relationships might be with a local agent or distributor with the relevant resources and domestic expertise to sell Australian products. Some exporters prefer to employ a different agent in each emirate

The introduction of hypermarkets and superstores is restructuring the retail sector, offering diverse foods to adhere to expatriate taste preferences.

- The Gulf retail market is becoming increasingly crowded and competitive, with a range of chains and global companies maintaining a strong footprint[2]
- Some large importers and distributors also run their own retail outlets
- Stakeholders reported that online channels are picking up significantly

The UAE retail market is becoming increasingly crowded and competitive, with a range of chains and global companies maintaining a strong footprint.

- Major players operating in the Gulf retail market are Lulu Group, Majid Al Futtaim, Landmark Group, Al Azizia Panda United, Azadea, EMKE Group[2]
- Some large importers and distributors also run their own retail outlets
- Stakeholders reported that online channels are picking up significantly

Export opportunities

A lack of domestic processing facilities creates opportunities in exporting value-added, finished sweet potato products.

- This includes growing consumer demand for fresh, ready-to-cook products, ready-made meals, pre-cut vegetables, canned/preserved and frozen food.[1] Key sector openings include: fast-food, health food and organic food
- Retail sales of packaged food in 2019 was US$5.7 billion and forecasted to be US$7.4 billion by 2024.[4] Frozen snacks is the largest market segment of the fast growing frozen foods category, with a CAGR of 4.87% 2016-2026[6]
- For example, among the number of sweet potato-themed food service trends which have penetrated the UAE, 'sweet potato toast' is popping up in cafes and restaurants across Dubai and Abu Dhabi[5]

Australian companies can face difficulty embarking on export.

- It should be noted that a crowded, competitive market, a lack of internet information and different business culture can challenge Australian companies in identifying key contacts and securing appointments for export[1]

'Free Zones' and Special Economic Zones (SEZs) are a strategic UAE economic construct which are conducive to some sweet potato exports.

- Free Zones are economic areas which are subject to reduced or eliminated trade barriers, tariffs and quotas
- SEZs offer investment incentives like reductions on infrastructure costs, administrative support, simplified approvals processes. These zones are a favourable channel to offshore processes like packaging or value-adding

Source: (1) Australian Trade and Investment Commission. n.d. Market profile – United Arab Emirates – For Australian exporters. [online]
(2) Nazir, S., 2020. Market Snapshot: United Arab Emirates - Retail Gazette. [online] Retail Gazette. (3) International Trade Administration | Trade.gov. 2021. United Arab Emirates - Distribution & Sales Channels. [online] (4) Export Connect, 2019. Australian Products Growing in Popularity in the UAE. [online]. (5) Live Healthy, 2018. Three is a trend: Sweet potato toast is popping up on Abu Dhabi and Dubai restaurant menus. [online]. (6) Mordor Intelligence, 2021. UAE Frozen Food market – Growth, Trends, COVID-19 Impact, and Forecasts (2021-2026). [online].

Sweet potatoes can be purchased in the UAE via multiple online and in-store channels

The images below show the display of sweet potatoes on a number of online sale platforms in the UAE, some of which also have physical stores. There appears to be an emphasis on product origins (highlighted), and in some cases the nutritional benefits of the product.

Online only:

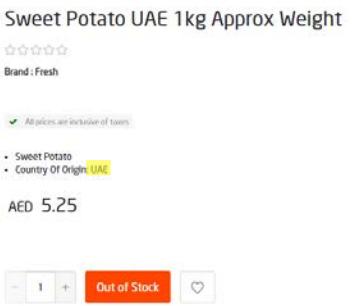
Dubai-based online produce delivery service

Dubai-based online delivery service, specialised in fine, organic foods

Online and physical stores:

Carrefour UAE

Lulu (Hypermarket)



Source: (1) Vegberry, 2021. Sweet Potato. <https://www.vegberry.com/products/vegetables-leaves/potatoes/potato-sweet > Accessed 12 March. (2) Carrefour UAE, 2021. Sweet Potato Purple White (Lowest Price). <https://www.carrefouruae.com/mafuae/en/root-maf-category/food-navigation-category/fresh-food/fruits-vegetables/vegetables/potato/ep-potato-sweet/p/447485> [Accessed 15 March, 2021]. (3) Lulu Hypermarket, 2021. Sweet Potatoes.<https://www.luluhypermarket.com/en-ae/aboutus> [Accessed 15 March, 2021].

Stakeholder consultation with specialists in the UAE resulted in a number of key takeaways

The team was fortunate to engage a number of UAE experts in-market to discuss fresh fruit and vegetable trade, consumption, and market dynamics in the UAE. The table below shows the key insights gained through these conversations. Stakeholders engaged included:

UAE Trade and Customs Specialists

Al Dahra Holding, an agribusiness firm specialising in the cultivation, production and trading of animal feed and human food commodities such as rice, flour, fruits and vegetables

Topic	Insight
Re-export dynamics	• The UAE is a hub for re-export due to the ability to send product through Free Zones where no tariffs in the UAE are incurred unless they pass through mainland UAE • The majority of fruit and vegetable re-exports are directed through the Al Aweer market in Dubai • Saudi Arabia is the largest destination market for re-export but holds the strictest customs duties, charging up to 15% VAT • A crowded market of importers also emphasises the need to establish trust-focused local partnerships to gain market entry
Consumption habits	• Europeans tend to shop on a daily basis, while Arab families tend to shop closer to weekly in a bulk-style approach • Sweet potatoes are typically purchased in-store as loose products, not pre-packaged. Some markets use paper instead of plastic • There has been significant growth in online sales channels for sweet potatoes, especially since COVID-19 to avoid exposure
Price-sensitive market	• Exporters must be aware of risk that the UAE's open nature makes it a highly crowded, price-sensitive market. 'Import dumping' of low-value produce often drives prices down and severely reduces consumers' willingness to pay a premium for quality produce. • A lack of regulation on quality control of imports creates a low standard for product quality and low prices • The ability for Australian produce to be differentiated based on quality is not as powerful or noticeable as what some may think
COVID-19 Impact	• Consumer purchasing power has been severely damaged through COVID-19 through a loss of jobs and income. Consumer propensity to pay a premium for certain products has declined significantly, for example, interest in organic is currently very low • Airlines and shipping lines have increased freight costs which has led to price increases, however (anecdotally) the market will not accept these prices which has driven down consumption in many product categories
Country of origin	• Consumers are very sensitive to products' country of origin, for example in the past Al Dahra has tried importing sweet potatoes produced in Israel for sale in the UAE however consumers would not purchase due to conflict of national interests. This aligns with the trend identified in sweet potatoes for sale online in the UAE where country of origin is consistently listed with the item

Source: (1) Stakeholder consultation

Thailand

Hort Innovation
Strategic levy investment

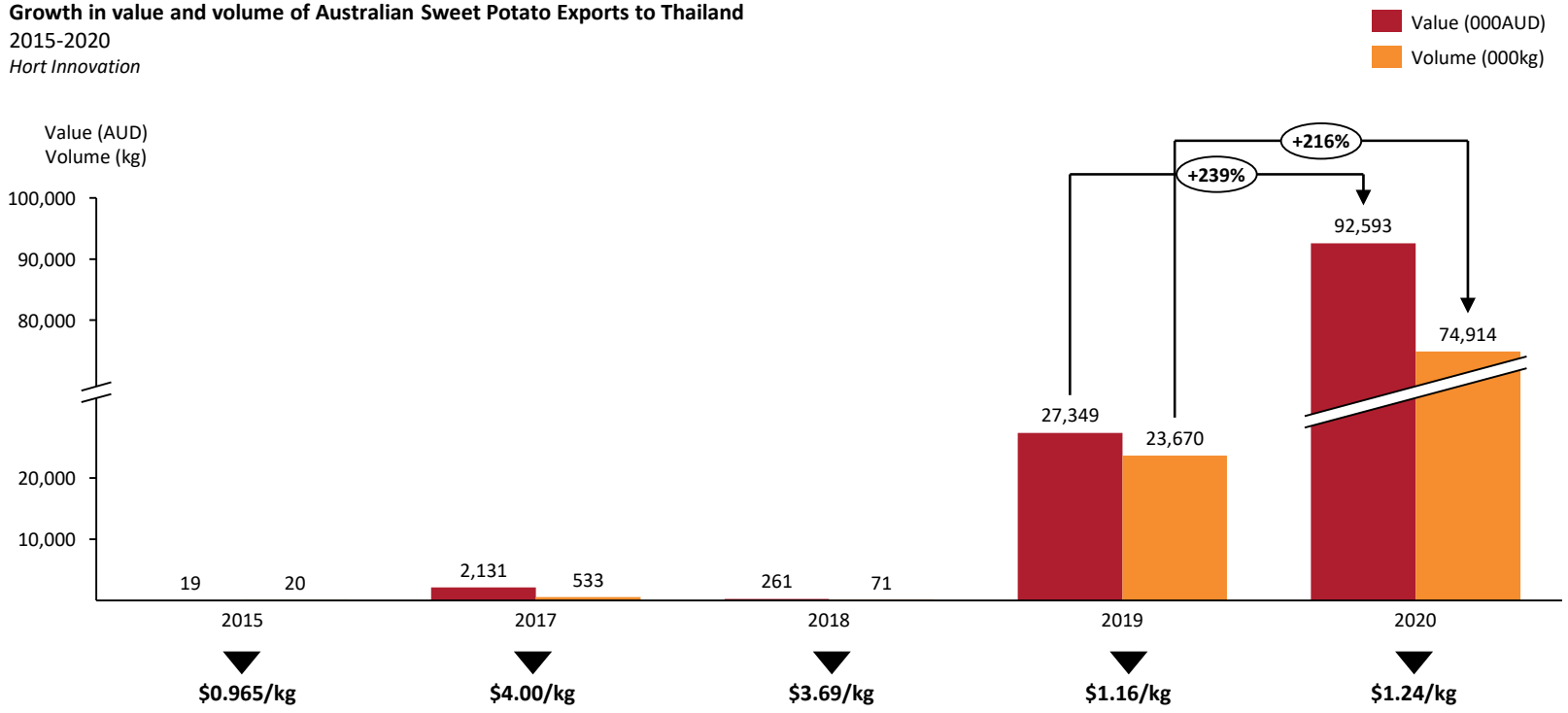
SWEETPOTATO FUND

March 2021

Thailand accounted for 4.6% of Australian sweet potato exports in 2020, with small volumes 2015-18

The chart below shows the growth in the value and volume of Australian sweet potato exports to Thailand from 2015-2020, noting a lack of Australian exports completely in 2016. as expected, Australian exports in 2015-2018 were virtually non-existent, however saw significant growth in 2019-2020. The graph also shows the price points received for Australian products, which vary significantly but appear to be relatively low compared to other export markets. The average price point received since 2015 is AUD $2.21/kg.

Growth in value and volume of Australian Sweet Potato Exports to Thailand
2015-2020
Hort Innovation



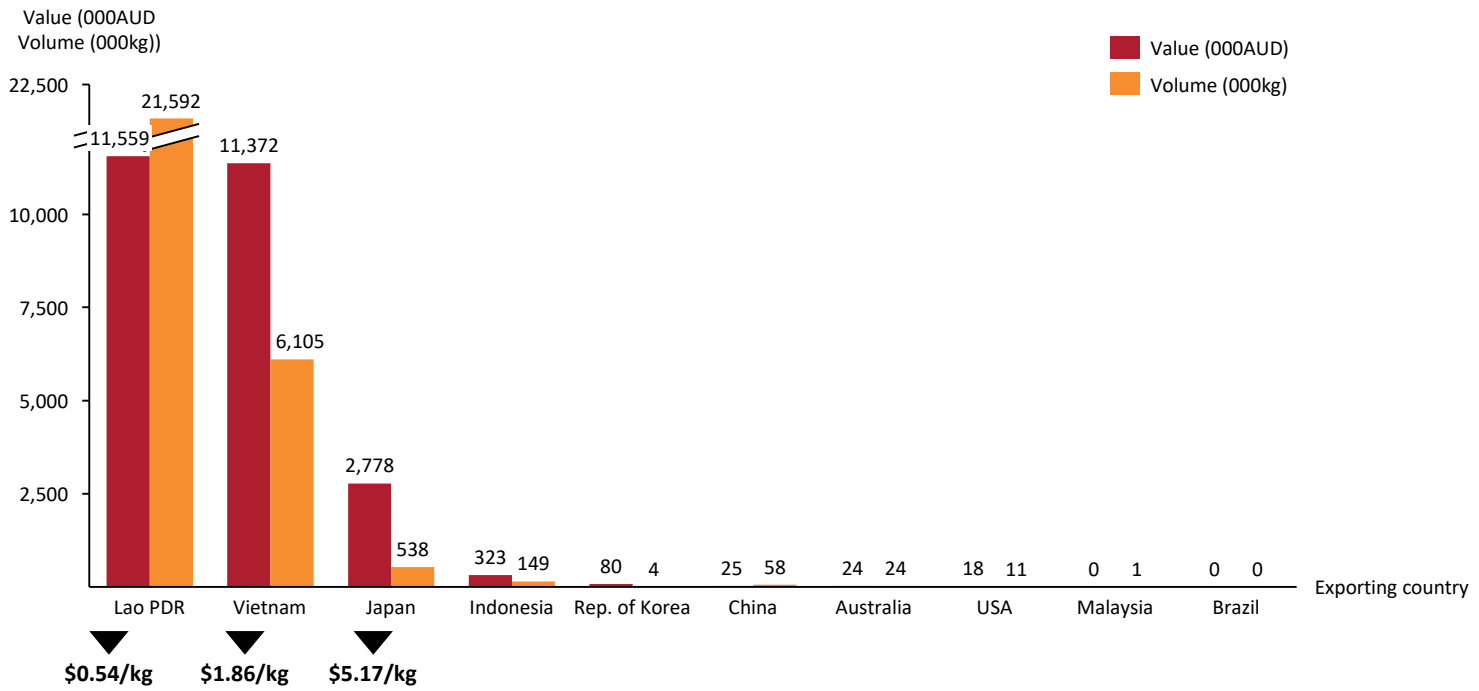
Overall, Australian exports' sudden increase over the last two years indicate reason to believe that Thailand is a high growth market where Australia's developing footprint has capacity to be further expanded. Relatively low price points, however, indicate that the market should be approached with caution.

NOTE
(1) HS6 Code 71420 *Sweet Potatoes, Fresh or Dried, whether or not sliced or in the form of pellets*
Source: Hort Innovation, 2021. Sweet Potato Export Data.

Competitors in Thailand: who are the major sweet potato exporting nations?

In 2019-2020, sweet potato exports to Thailand were dominated largely by Japan, USA, Lao PDR, and Vietnam. The most favourable price per kilogram was received by Republic of Korea at $21.83 AUD/kg, followed by Japan and the USA.

Top Sweet Potato Exporting Nations to Thailand, by value and volume
2019
UN Comtrade Database



Highest price point received for sweet potato exports to the UAE (2019) (all exporting nations)	
Exporter	**Price (AUD)/kg**
Rep. of Korea	**$21.83**
Japan	**$5.17**
USA	**$1.28**
Average $/kg 2019 for top ten exporting nations: **$4.15**	
Australian price point received in past exporting years:	
2019	$1.03
2018	$3.55
2017	$3.93

Overall, Australia's sweet potato exports to Thailand over the last two years have been relatively minimal. A favourable price per kilogram received in 2017-18 indicates potential to increase this footprint in the coming years. Competition from Lao and Vietnam is unique given the noted lack of competition with these countries in other export markets identified for analysis, which does suggest a risk of competing with strongly established and potentially exclusive trade arrangements.

NOTE
(1) The price per kilogram analysis does not include exporting nations with export volumes **less than 100kg.**
(2) Export values are based on exchange rate **$1AUD=$1.28USD**
(3) Comtrade commodity code: '071420 – Vegetable roots and tubers; sweet potatoes, with high starch or inulin content, whether or not sliced or in the form of pellets, fresh or dried'

There are several points of difference in competing sweet potato exporting nations to Thailand

Thailand receives a large volume of exports from other Southeast Asian economies with similar season cycles. Production by these competitors follow similar seasonality to Australia, with Vietnam also offering year-round production, however there are still supply gaps for Australia in the first half of the season.

	Lao PDR	Vietnam	Japan
Varieties produced	**Information not available**	Beauregard[1] WSPF Hybrid varietals	Beauregard WSPF Japanese unique varietals, e.g. purple skin, purple flesh ('Beniharuka' – considered one of Japanese agricultural products with highest export potential),[4] and yellow flesh ('Beniazuma')[5]
Price point Thailand 2019	$0.54/kg	$1.86/kg	$5.17/kg
Primary (other) export markets	China	China Japan Thailand[2]	Singapore Hong Kong Thailand
Notes	• Production has been steadily increasing over the past twenty years	• Tropical/monsoonal climate makes production possible almost all year-round	• Usually harvested in October, however products can be stored year-round through a strictly managed storage technique used only in Japan. This technique gives the products a rich sweetness and unique taste[6] • Japan has experienced what is colloquially referred to as the 'baked sweet potato boom', a popular winter snack trend that has driven demand in the category overall

Seasonality	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Lao PDR								■	■	■	■	
Vietnam	■	■	■	■	■	■	■	■	■	■	■	■
Japan									■	■		

Peak Harvest ■

Source: (1) Tridge. 2021. Vietnam Sweet Potato suppliers, wholesale prices, and market information. [online] Available at: <https://www.tridge.com/intelligences/sweet-potato/VN> [Accessed 8 February 2021].
(2) Garay & Company. 2021. Exporters of Sweet Potatoes in Vietnam. [online] Available at: <https://www.garaycompany.com/food-beverage/exporters-of-sweet-potatoes-in-vietnam#:~:text=In%202016%2C%20the%20main%20destinations,and%20Malaysia%20with%20a%206.5%25> [Accessed 10 February 2021].
(3) IBARAKI EXPORTS - Selection of Japanese Foods. n.d. Sweet Potato | Product information. [online] Available at: <https://exports.pref.ibaraki.jp/en/product/detail?id=714707#:~:text=Ibaraki%20Prefecture%20is%20Japan's%20major,place%20for%20growing%20sweet%20potatoes> [Accessed 6 February 2021].
(4) The Japan Agri News. 2020. Illicit cultivation and distribution of Japanese sweet potato variety Beniharuka spreading in South Korea. [online] Available at: <http://english.agrinews.co.jp/?p=9813> [Accessed 6 February 2021]. (5) TSUTSUI, S., SHIGA, Y. and MIKAMI, T., 2016. Japanese Sweetpotatoes: Production, Cultivars, and Possible Ancestry. Notulae Botanicae Horti Agrobotanici Cluj-Napoca, [online] 44(1), pp.1-5. Available at: <https://www.notulaebotanicae.ro/index.php/nbha/article/view/10400> [Accessed 15 February 2021]. (6) Fresh Plaza, 2020. South-East Asia has a high demand for Japanese fresh produce. Online. Available: <https://www.freshplaza.com/article/9194452/south-east-asia-has-a-high-demand-for-japanese-fresh-produce/> [Accessed 19 March 2021].

Market access for food products into Thailand is traditional, where relationships with locals are key

Focus area	Key message	Key insights	Current impact
Regulation/ Customs	Sweet potato exports require basic sanitation and food safety certification.	• Sweet potatoes have not been identified as a regulated product in Thailand's horticultural import review, so they will not be subject to Pest Risk Analysis (PRA) and import conditions • While sweet potatoes do not require an import permit, they must have a food safety scheme certification issued from bodies recognised by the Joint Accreditation System of Australia and New Zealand, in addition to basic phytosanitary export requirements	→
Market access	Thailand offers near-open market access for sweet potatoes, an Australian competitive advantage.	• The Thailand Australia Free Trade Agreement encompasses sweet potato trade amongst other fresh produce with no tariffs, reflecting a robust competitive advantage for Australia when compared to other nations facing tariffs of 10-40%[1] • As a dominant regional food manufacturing hub and a growing economy, demand is increasing for high quality raw produce as intermediary goods to satisfy increasing Thai exports internationally. Australian sweet potatoes meet the quality standards necessary to become an essential raw input in food manufacturing	↗
COVID-19 Impact	Thailand has been considerably impacted by COVID-19 due to closed international borders.	• Thailand was severely impacted by the COVID-19 global pandemic due to its reliance on international tourism and other service exports • The Thai response to COVID-19 was medically and fiscally better than most of its ASEAN neighbours, with targeted fiscal stimulus and a swift medical response[2] • While recovery is expected in 2021 and 2022, there is significant unemployment risk amongst young people who are key drivers of consumption	↘
Supply chain and logistics	Relationships with local importers and/or retailers will be crucial to optimise sweet potato distribution channels.	• Importers tend to act as wholesalers, linking the exporter to the retailer. This is typically the fastest channel for perishable goods • However, retailers are beginning to establish their own import capability as they look to directly source fresh fruit and vegetables worldwide as a supplement for local imports • Building relationships with buyers is crucial for successful exports. Buyers place particular emphasis on being kept informed of plans for market expansion, seasonal impacts and produce availability • Local importers, agents or distributors can assist in accessing the 8 main supermarkets, who allocate significant shelf space to imported fruits and vegetables[1]	→

KEY ↗ Positive → Neutral ↘ Negative

Hort Innovation Strategic levy investment | SWEETPOTATO FUND

Source: (1) Australian Trade and Investment Commission. 2021. Fruit and vegetables - Thailand - For Australian exporters. [online] Available at: <https://www.austrade.gov.au/Australian/Export/Export-markets/Countries/Thailand/Industries/Fruit-and-vegetables> [Accessed 15 February 2021].
(2) 2021. Restoring Incomes and Recovering Jobs. Thailand Economic Monitor. [online] Bangkok. Available at: <http://documents1.worldbank.org/curated/en/236271611069996851/pdf/Thailand-Economic-Monitor-Restoring-Incomes-Recovering-Jobs.pdf> [Accessed 16 February 2021].

Australian sweet potato exports are enjoyed by safety-conscious consumers with increasing income levels

As the Thai economy develops and becomes increasingly urban more consumers have access to Western-style supermarkets. These consumers' focus on safe, sustainable food presents an opportunity for Australian sweet potato exporters.

Consumer preferences

Thailand's increasingly urban population is creating demand for healthy, natural produce.

- Consumers are taking more care with imported vegetables from sources other than China e.g. Australian carrots maintain significant market share
- COVID-19 has acted as a catalyst for Thai consumers to focus on personal health and immunity, and has pushed consumers towards fresh produce over fast-food and takeaway

Higher disposable incomes amongst the younger Thai generation has driven the retail value of organic food to increase.

- According to the World Bank, Thailand's average GDP per capita is around $10K (AUD) (2019)[5]
- High-end supermarkets harbour an extensive supply of imported organic produce

Purple sweet potatoes are frequently used in Thai dessert dishes, while orange ones are used more commonly in curries and feature heavily on restaurant menus

- It is more likely that the purple variety will be sold old at fruit and vegetable stalls[4]

Purchase behaviours

Customers will pay a premium for vegetables that are sustainably grown with low levels of chemicals in production.

- High value consumers focus on quality and presentation when shopping for produce through retailers[3]
- Clear traceability and safety standards give Australian vegetables a comparative advantage over other exporting nations
- Major supermarkets are allocating greater shelf space for organic produce in response to consumer demand

Tourism as well as a large amount of expatriates has intensified the competition between fresh food supermarkets to attract consumers(pre COVID-19).

- During the months of April, May and June domestic produce is plentiful and cheap. From July to March, however, local produce does not outcompete imports on price to the same extent, presenting a seasonal opportunity for Australian sweet potato exporters[1]

Consumers have an openness to new flavours and dining experiences.

- The food service sector innovates with taste and experience, requiring high quality raw produce and often use of imported produce

COVID-19 saw around 80% of consumers allocate more time to understand food safety.[3]

- Australia's reputation for safe produce compared to other exporting nations presents a competitive advantage for sweet potato exporters

Source: (1) Australian Trade and Investment Commission. 2021. Fruit and vegetables - Thailand - For Australian exporters. [online] Available at: <https://www.austrade.gov.au/Australian/Export/Export-markets/Countries/Thailand/Industries/Fruit-and-vegetables> [Accessed 15 February 2021].
(3) Kuijpers, D., Wintels, S. and Yamakawa, N., 2019. Survey: Food retail in Thailand during the COVID-19 pandemic. [online] McKinsey. Available at: <https://www.mckinsey.com/industries/retail/our-insights/survey-food-retail-in-thailand-during-the-covid-19-pandemic#> [Accessed 18 February 2021].
(4)Thailand Life, 2021. Wild Sweet Potatoes. [online' Available at: <https://thailandlife.info/wild-sweet-potatoes/> Accessed 10 March 2021.

Diverse outlets such as quick service stores offering fresh food distinguish the Thai retail landscape

Australian exporters can access these channels by leveraging existing relationships with importers, a clean reputation, and geographic proximity to the market. These factors all prime Australian sweet potato exports with a competitive advantage over other exporting nations.

Channels to reach consumer

Modern supermarkets and hypermarkets are becoming an increasingly popular alternative to traditional fresh food markets.

- The major Thai retailors include Tesco Lotus, Makro, Big C, Foodland, The Mall Group, Villa Market among others, all are seen as premium operators[1]
- Convenience stores are a potential distribution channel due to intense competition driving product diversification. While not currently focused on fresh food, as consumer preferences are changing the fresh food offering in stores such as 7Eleven will increase[2]

Direct sales to retailers through a local importer, distributor or agent is the most efficient distribution channel for fresh food products.

- Some of these retailers are establishing their own import capability to decrease the time from farm or port to customer
- It is important to build relationships with a local contact to navigate localised customer preferences and nuances of the market
- Australians are perceived as satisfying trade partners, making it easier for exporters to establish a new relationship or harness an existing one

COVID-19 has seen a 41% increase in intent for purchasing food through grocery stores.[2]

- Wet markets have seen an 18% decrease in grocery spending during the pandemic, presenting an opportunity for sweet potato exporters with increased supermarket traffic

Export opportunities

Geographic proximity to Thailand presents an opportunity for Australia's sweet potato exports.

- Shorter lead times and established logistics routes will ensure produce maintains freshness and general condition of produce

Australia's substantial dairy exports to Thailand indicates potential to leverage existing relationships and supply chains.

- Australian sweet potato growers can harness the country's established reputation for whole and organic food supported by strong traceability systems and clean label ingredients

Australian companies can face difficulty embarking on export.

- Thailand is a highly competitive market that can be challenging to navigate for first-time exporters due to language, cultural and connectivity barriers
- It is important to note local growers in traditional fresh food markets have deep industry knowledge and insight into consumer food preferences; these may be difficult for Australian exporters to understand without developed relationships with local parties

Source: (1) Australian Trade and Investment Commission. 2021. Fruit and vegetables - Thailand - For Australian exporters. [online] Available at: <https://www.austrade.gov.au/Australian/Export/Export-markets/Countries/Thailand/Industries/Fruit-and-vegetables> [Accessed 15 February 2021].
(2) Thailand: The Impact of the COVID-19 Outbreak on the Thai Food Retail and Food Service Sector. 2020. <https://www.fas.usda.gov/data/thailand-impact-covid-19-outbreak-thai-food-retail-and-food-service-sector>

Sweet potatoes appear to feature mostly on specialised platforms designed for expatriates

The images below show the display of sweet potatoes on a number of online sale platforms in Thailand, some of which also have physical stores. Thailand stores appear to offer a number of varieties based on seasonal availability. Origin of product does not appear as prominently, and there is also a focus on value-added sweet potato products such as snacks and desserts.

Online only:

OrgBox THAILAND

Bangkok-based online produce delivery service[1]

FRESH ORGANIC VEGETABLES

Organic Sweet Potatoes (มันเทศ) 1,000 g.

150.00฿ - Subscription available

Organic Sweet Potatoes 1,000 g.

Potatoes are one of the most common foods in the world.It is an essential staple food for a lot of cultures meaning that they included in almost every meal. It is known to be versatile and can be cooked in many different ways such as frying, baking, boiling, and more. "Sweet potatoes has many different colors, you will receive the color that we have in season."

Choose a subscription plan:

None

Every week

happyfresh

Jakarta-based Southeast Asian online grocery company, delivers across Indonesia, Malaysia and Thailand[3]

Baked Japanese Sweet Potatoes

Baked Japanese Sweet Potatoes Estimated Weight of 300 g

฿57.00 / packet

Estimated weight: ~ 0.3 kg

฿19.00 / 100 g

Estimated price - will be updated after weighing

Online and physical stores:

TESCO Lotus

Tesco Lotus does not offer fresh sweet potatoes, only value-added products[2]

Party Fried Sweet Potato Chips and Coated with Butter Caramel 30g

฿ 10.00 ฿10.00/each

1 Add

VILLA MARKET

Fresh supermarket chain across Thailand which specialises in imports (appears to be designed for expatriatess), even offers Woolworths and Monoprix-branded items[4]

Ff Sweet Potatoes

Fruits & Vegetables | Local Fresh Fruit & Veg

SKU# 0223073

INSTOCK

Ff Sweet Potatoes

฿28.00 /200g

+Add to cart

Japanese Sweet Potato 500g

Fruits & Vegetables | Local Fresh Fruit & Veg

SKU# 0189951

INSTOCK

Japanese Sweet Potato

฿67.50 /500g

+Add to cart

Hort Innovation Strategic levy investment | SWEETPOTATO FUND

Source: (1) OrgBox Thailand, 2021. Organic Sweet Potatoes (d'ffff ě) 1,000 g. <https://orgboxthailand.com/product/sweet-potatoes-500-g/> [Accessed 15 March. 2021]. (2) Tesco Lotus, 2021. Party Fried Sweet Potato Chips and Coated with Butter Caramel 30g. <https://shoponline.tescolotus.com/groceries/en-GB/products/6015516768> [Accessed 15 March, 2021]. (3) Happy Fresh, 2021. Baked Japanese sweet potatoes. <https://www.happyfresh.co.th/en/gourmet-market-paragon/products/baked-japanese-sweet-potatoes-365720/> [Accessed 15 March, 2021]. (4) Shop online Villa Market, 2021. Japanese Sweet Potato 500g <https://shoponline.villamarket.com/0189951-japanese-sweet-potato>

Malaysia

Hort Innovation
Strategic levy investment

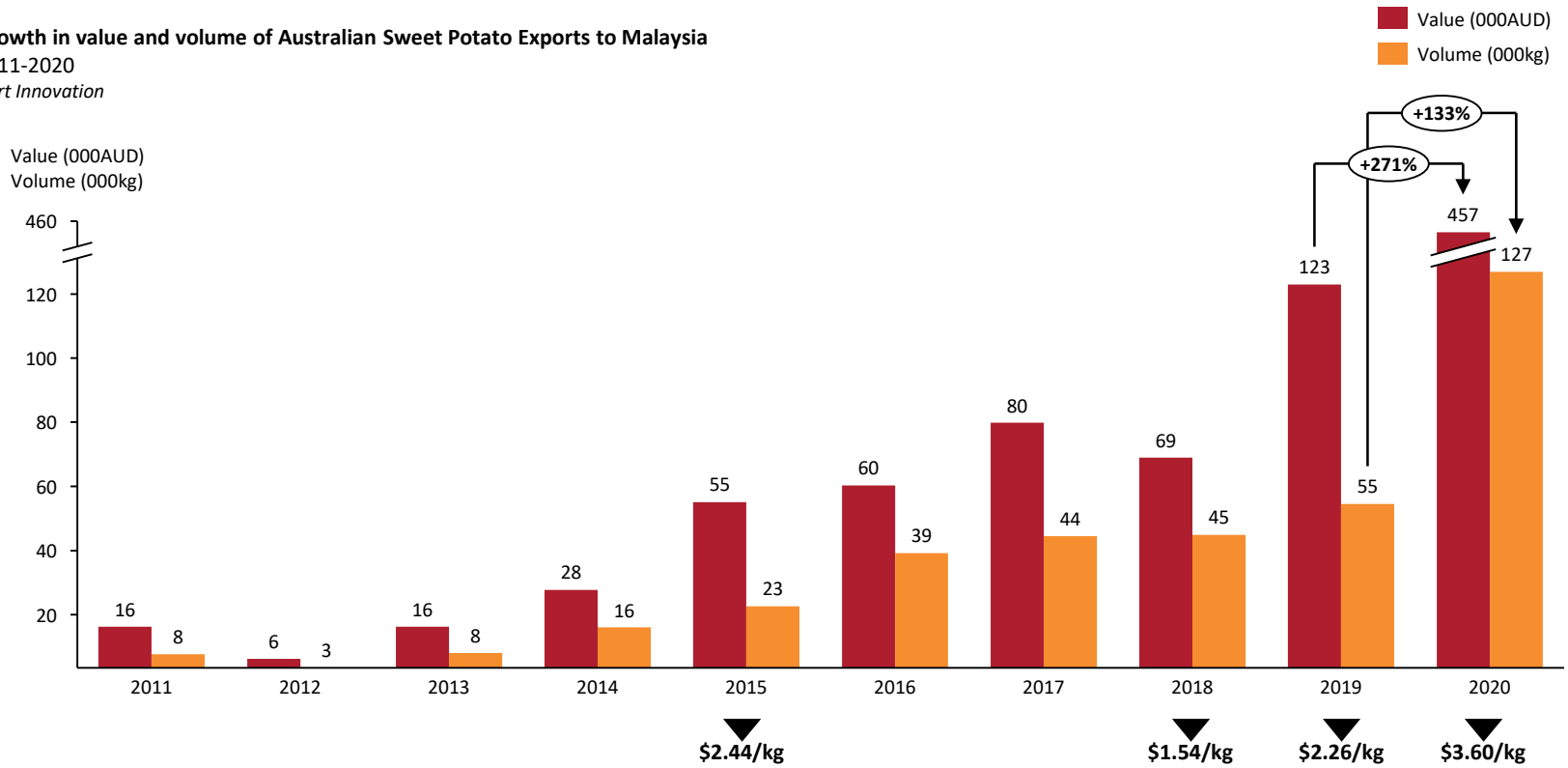
SWEETPOTATO FUND

March 2021

Malaysia accounted for 7.7% of 2020 Australian sweet potato exports, experiencing growth since 2011

The chart below shows the growth in the value and volume of Australian sweet potato exports to Malaysia from 2011-2020, which have seen notably consistent growth. The biggest jump in value and volume were experienced 2019-20, which increased by 271% and 133% respectively. The graph also shows the highest price points received over the last ten years, which appear to be relatively average however growing in the last two years. The average price point received over the past ten years is AUD $2.09/kg.

Growth in value and volume of Australian Sweet Potato Exports to Malaysia
2011-2020
Hort Innovation



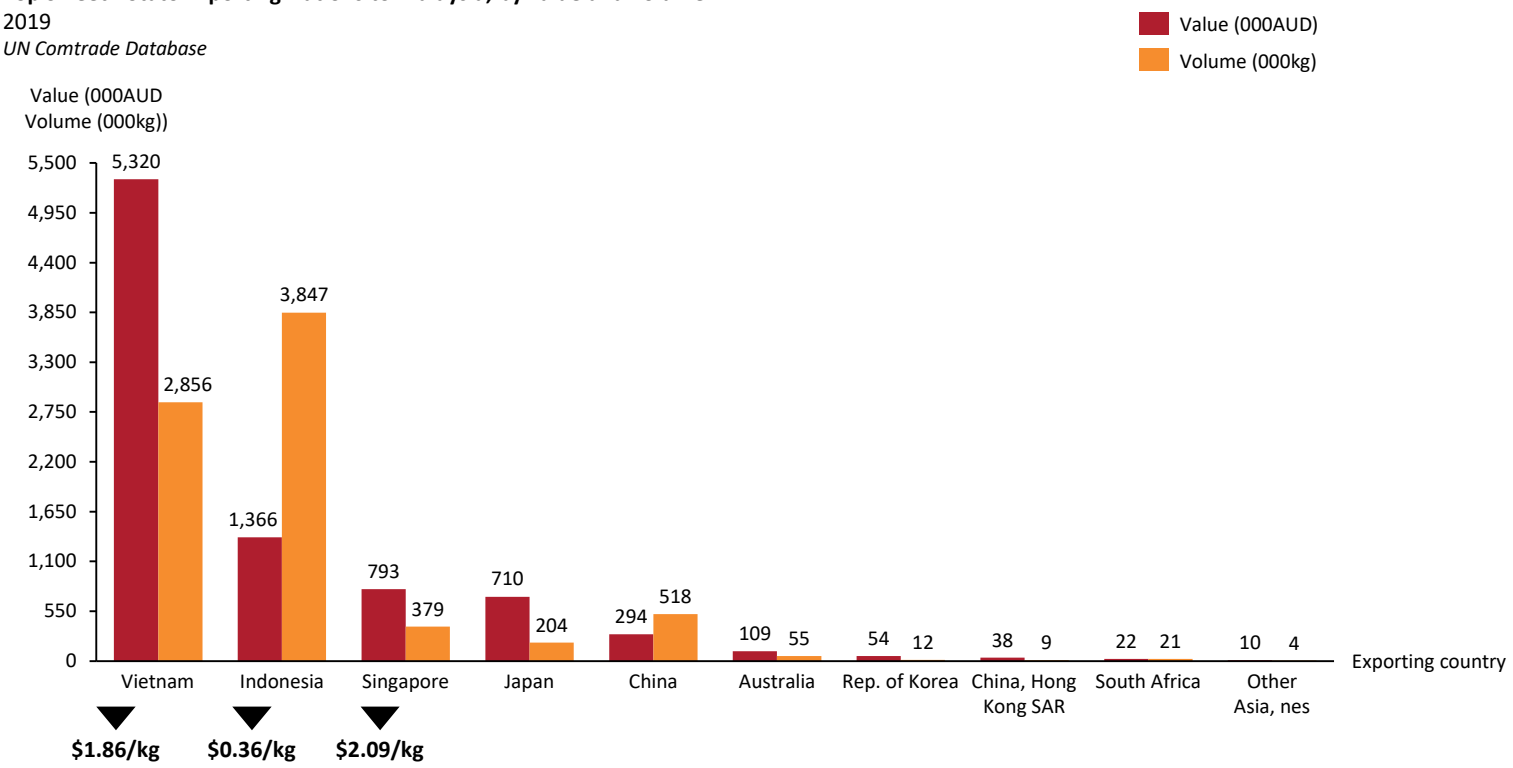
Overall, consistent increase in the volume and value of Australian exports over the last ten years indicate a growing trade relationship as well as growing demand for Australian sweet potatoes. Significant increase in the last two years in particular create opportunity to capitalise on a growing price point and consumption.

NOTE
(1) HS6 Code 71420 *Sweet Potatoes, Fresh or Dried, whether or not sliced or in the form of pellets*
Source: Hort Innovation, 2021. Sweet Potato Export Data.

Competitors in Malaysia: who are the major sweet potato exporting nations?

In 2019, sweet potato exports to Malaysia were dominated largely by Vietnam, Indonesia and Singapore. The most favourable price per kilogram was received by Republic of Korea at $4.71AUD/kg, followed by the USA and China.

Top Sweet Potato Exporting Nations to Malaysia, by value and volume
2019
UN Comtrade Database



Highest price point received for sweet potato exports to Malaysia (2019) (all exporting nations)	
Exporter	**Price (AUD)/kg**
Rep. of Korea	**$4.71**
USA	**$1.28**
China	**$4.44**
Average $/kg 2019 for top ten exporting nations: **$2.26**	
Australian price point received in past exporting years:	
2019	$2.01
2018	$1.47
2017	$1.76

Australia's sweet potato exports to Malaysia are relatively minor compared to major competitors. as expected there are number of exporting nations in the Asian and Southeast Asian regions with competitive products, the production of which likely follows similar seasonality trends. However, as demand from Malaysian consumers continues to rise, there is capacity for Australia to continue competing and to differentiate based on quality.

NOTE
(1) The price per kilogram analysis does not include exporting nations with export volumes **less than 100kg.**
(2) Export values are based on exchange rate **$1AUD=$1.28USD**
(3) Comtrade commodity code: '071420 – Vegetable roots and tubers; sweet potatoes, with high starch or inulin content, whether or not sliced or in the form of pellets, fresh or dried'

There are several points of difference in competing sweet potato exporting nations to Malaysia

The table below explores the production capacities of the top three sweet potato exporting nations to Malaysia. Malaysia receives a large volume of exports from other Southeast Asian economies with similar season cycles, all of whom grow a range of sweet potato varieties. Production by these competitors follow similar seasonality to Australia, with Vietnam also offering year-round production, however there are still supply gaps for Australia in the first half of the season.

	Vietnam	Indonesia	Singapore
Varieties produced	Beauregard[1] WSPF Hybrid varietals	WSPF (purple)	*Singapore is largely a re-export hub with minimal domestic sweet potato production*
Price point Malaysia 2019	$1.86/kg	$0.36/kg	$2.09/kg
Primary export markets	China Japan Thailand[2]	Singapore Japan Vietnam	Singapore is largely a re-export hub, to a range of economies across Asia and the Middle East, including Indonesia, Malaysia, Cambodia, China, Brunei.
Notes	• Tropical/monsoonal climate makes production possible all year-round in most regions	• Land cultivated for sweet potatoes is decreasing, due to low yield[2] • Past government subsidies, grants and protectionist policies supporting rice and other grain growing have put downward pressure on sweet potato consumption[3] • Majority of production is consumed domestically	

Seasonality	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Vietnam												
Indonesia												

Peak Harvest

Source: (1) Tridge. 2021. Vietnam Sweet Potato suppliers, wholesale prices, and market information. [online] Available at: <https://www.tridge.com/intelligences/sweet-potato/VN> [Accessed 8 February 2021].
(2) Saitama, A., Nugroho, A. and Widaryanto, E., 2017. Yield response of ten varieties of sweet potato (Ipomoea batatas L.) cultivated on dryland in rainy season. Journal of Degraded and Mining Lands Management, [online] 04(04), pp.919-926. Available at: <https://media.neliti.com/media/publications/71243-EN-yield-response-of-ten-varieties-of-sweet.pdf> [Accessed 22 February 2021].
(3) McCarthy, J., Winarto, Y., Sitorus, H., Kutanegara, P. and Budianto, V., 2020. COVID-19 and food systems in the Indo-Pacific. ACIAR Technical Report 96. [online] Australian Centre for International Agricultural Research, pp.41-92. Available at: <https://aciar.gov.au/sites/default/files/2020-11/covid-chapter4.pdf> [Accessed 22 February 2021].

Malaysia is a high growth nation, with some challenges in supply chains and COVID-19 impacts

Focus area	Key message	Key insights	Current impact
Regulation/ Customs	Australian exports are subject to standard food import regulations.	• The Malaysian Ministry of Health legislates on labelling, including the design and label content under the Food Act 1983 (Act 281) and Regulations • Sweet potatoes are subject to standard packaging and labelling requirements which must include certificate of origin and commercial invoice[1] • No import permit, halal or phytosanitary certificate is required for sweet potatoes	→
Market access	97.6% of Australian goods enjoy tariff-free entry into Malaysia through the MAFTA.	• Trade is supported by the Malaysia-Australia Free Trade Agreement (MAFTA) which has secured significant market access gains for Australian products. Through this arrangement Australia has a role to play in helping Malaysia progress initiatives around food security, which may involve increasing exports such as sweet potatoes • Sweet potatoes are subject to **0%** tariff under MAFTA[2] • Market access is supported by growing investment in Malaysian infrastructure, for example the government has invested significantly in recent years in road, rail and air freight systems to boost the country's trade[3] • Majority of food imports are received through Port Klang, the country's primary sea freight trading hub	↗
COVID-19 Impact	Food security and domestic spending have been significantly impacted by the pandemic.	• Similar to other ASEAN countries, COVID-19 has impacted Malaysia through reduced domestic spending and overall GDP due to a lack of tourism and trade • Food security has been especially compromised in Malaysia due to disruption to both domestic and international food supply chains. Given Malaysia currently imports 20-30% of its food supply to feed a rapidly growing population, the country has had to find alternative means to importing food[4] • As a result, domestic food prices across all categories have been driven up and consumers have had less willingness to spend on certain, non-essential items	↘
Supply chain and logistics	In-market supply chain for fresh food can present challenges.	• There have been reports of disconnects in the Malaysian agricultural supply chain, for example a lack of an integrated logistics system as well as shortages in the labour supply. While the private sector has invested in an integrated logistics system, this is still in development and has not yet directly benefited Malaysian trade • External logistics providers are hired to send produce to wholesale markets on a 'just-in-time' model. While the importer typically will bear this risk, it is important for exporters to be aware of such dynamics • Supply chain disconnects have been exacerbated by Malaysia's strict lockdown rules such as mandated traffic restrictions and operating hours. There have even been reports of vegetable farmers throwing away produce due to logistical issues. It is important to be aware of this risk if Australia is to increase exports to Malaysia while COVID-19 related supply chain disruptions persist[5]	→

KEY: Positive (↗) Neutral (→) Negative (↘)

Source: (1) Australian Trade and Investment Commission. 2021. Agriculture - Malaysia - For Australian exporters. [online] Available at: <https://www.austrade.gov.au/Australian/Export/Export-markets/Countries/Malaysia/Industries/Agriculture> [Accessed 21 February 2021]. (2) Free Trade Agreement Portral. 2021. HS Code: 0714.20.000. [online] Available at: <https://ftaportal.dfat.gov.au/MYS/AUS/MAFTA/product/071420000/tariff> [Accessed 22 February 2021]. (3) Australian Trade and Investment Commission. n.d. Infrastructure and transport - Malaysia - For Australian exporters. [online] Available at: <https://www.austrade.gov.au/australian/export/export-markets/countries/malaysia/industries/infrastructure-and-transport-to-malaysia> [Accessed 22 February 2021]. (4) Chin, C., 2020. The Impact of Food Supply Chain Disruptions amidst COVID-19 in Malaysia. Journal of Agriculture, Food Systems, and Community Development, [online] pp.1-3. Available at: <https://www.foodsystemsjournal.org/index.php/fsj/article/view/858> [Accessed 17 February 2021]. (5) Surendran, S., 2020. MCO casts spotlight on 'disconnect' in agribusiness supply chain. [online] The Edge Markets. Available at: <https://www.theedgemarkets.com/article/cover-story-mco-casts-spotlight-disconnect-agribusiness-supply-chain> [Accessed 14 February 2021].

Malaysian consumers have diverse consumption habits, with a growing appetite for fresh produce

Domestic sweet potato production has stimulated existing interest in the category. While income levels are rising, they are still low compared to other export markets.

Consumer preferences

A unique, multi-ethnic population consisting of Malay, Chinese, Indian, expatriate and Western communities creates a diverse consumer base and variety of demand for different fresh and processed foods.[1]

- A mixed culture means consumption of a diverse range of foods, as well as appetite to experiment with less well-known food imports like sweet potatoes
- According to the World Bank the average GDP per capita is around $14.7K (AUD) (2019)[4]

Growing consumer awareness of prioritising nutrition and healthy lifestyles has created the demand for functional, minimally processed, fresh, organic and natural foods.

- The country has seen a general consumer trend shifting away from commodities such as rice and fish toward higher value items such as organic foods
- However, compared to Western diets fruit and vegetable consumption remains low, especially in non metropolitan parts of the country[5]

Malaysia is known for its domestic production of sweet potatoes, which creates competition for exports however drives wider demand for the product.[2]

- The 'Chinese variety' or Beauregard, are popular among local Malaysian people, served boiled or fried[3]
- Sweet potato is widely grown by small farmers to be sold in fresh markets

Purchase behaviours

Despite growing domestic production, Malaysian consumers tend to be more inclined toward fresh fruit and vegetable imports.

- This is due to the fact that food import prices are often low in price
- Long lead times between domestic production and metropolitan areas often present supply chain challenges which can impeded on product quality, creating a preference for imports

Consumers are increasingly prioritising brands and the sources of products, tending to stick to brands they trust and know are quality.

- Australian agricultural products are recognised by Malaysia for their clean, safe and sustainable farming sources, particularly in regards to horticulture[3]

Orange sweet potato is preferred by consumers across Malaysia, and is also vastly more available

- Sweet potato puree is a popular food amongst both adults and children'
- Sweet potato flour (using mostly orange but sometimes purple varieties) is also commonly used as an ingredient in cooking and baking[6]

Value-added sweet potatoes are popular, for example 'deep fried sweet potato dough balls' or sweet potato doughnuts, are a known Malaysian snack[7]

- Like most markets, sweet potato fries are also growing in popularity across food service outlets

Source: (1) Australian Trade and Investment Commission. n.d. Food and beverage - Malaysia - For Australian exporters. [online] Available at: <https://www.austrade.gov.au/Australian/Export/Export-markets/Countries/Malaysia/Industries/Food-and-beverage> [Accessed 24 February 2021].
(2) Mead, A., Stewart, L., Ainsworth, N., Noller, J. and Burnham, S., 2016. Identify the export potential for Sweet potatoes into ASEAN markets. Agri-Science Queensland Innovation Opportunity. [online] State of Queensland. Available at: <https://core.ac.uk/download/pdf/77138891.pdf> [Accessed 11 March 2021].
(3) Department Of Agriculture Sarawak. n.d. Sweet Potato. [online] Available at: <https://doa.sarawak.gov.my/page-0-0-117-Keledek.html> [Accessed 23 February 2021].
(4) World Bank. 2019. GDP per capita (current US$) - Malaysia | Data. [online] Available at: <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=MY> [Accessed 24 February 2021].
(5) Yen, S. and Tan, A., 2011. Fruit and vegetable consumption in Malaysia: a count system approach. [online] Zurich: EAAE 2011 Congress. Available at: <https://core.ac.uk/download/pdf/6253653.pdf> [Accessed 25 February 2021]. (6) ScienceDirect, 2019. Orange sweet potato puree improved physicochemical properties and sensory acceptance of brownies. [online]. Available at: <https://www.sciencedirect.com/science/article/pii/S1658077X17302072> [Accessed 10 March 2021]. (7) New Malaysian Kitchen. 2021. Kuih Keria/Malaysian Sweet Potato Doughnuts – 5 Ingredients. [online]. Available at:

There are a range of distribution channels available for Australian sweet potato exports into Australia

Like most ASEAN countries, Malaysia is experiencing rapid growth in non-traditional retail outlets. The country also offers unique distribution opportunities through cultural festivals which involve fresh fruits and vegetables.

Channels to reach consumer

The Malaysian food retail sector in Malaysia is rapidly evolving as more consumers move from purchasing goods from wet markets to supermarkets.

- International mass grocery retailers are establishing a growing presence, allowing consumers a 'one-stop-shop'

Food service is increasingly popular amongst Malaysian consumers.

- For sweet potatoes this could be anything from fresh product to act as intermediary goods to processed, value-added, finished sweet potato products exported frozen into these channels[2]

Cultural festivals are a uniquely Malaysian fruit and vegetable consumption channel with high potential export demand.

- Some festivals feature fresh produce as gifts or offerings, which increases demand for exports as well as grows interest in the category overall2

E-commerce is rising, with Malaysia's approximate 20 million online consumers actively engaging in transactions for everything from finished to fresh goods.[1]

- As supply chains become more sophisticated, there may be capacity to pursue fresh fruit and vegetable exports through e-commerce

Major fruit and vegetable importers in Malaysia include 'khaishen trading', 'TY Import & Export'

- Dominant retailers include 7 Eleven, AEON Group, Tesco Lotus, Giant Hypermarket, Cold Storage, Presto Grocer

Export opportunities

Existing Australian exporters for products such as dairy and cereal products process in-market, indicating capacity to produce value-added goods offshore.[1]

- This aligns with a growth in food service channels and potentially demand for processed sweet potato products
- These products are also subject to fewer regulations and supply chain restrictions

Australian agricultural products are recognised by Malaysia for their clean, safe and sustainable farming sources, particularly in regards to horticulture.[3]

- Australia should look to emphasise its trusted brand in the market

General low price points for food imports should be kept in mind when assessing feasibility of exporting to Malaysia.

- Australian exporters have received an average price point of AUD $2.09 since they started exporting[4]
- A significant focus on increasing domestic food production should also be considered, especially given the country's existing sweet potato production habits. This may indicate that while food security in the short term is addressed by exporting products, this may decrease in the future

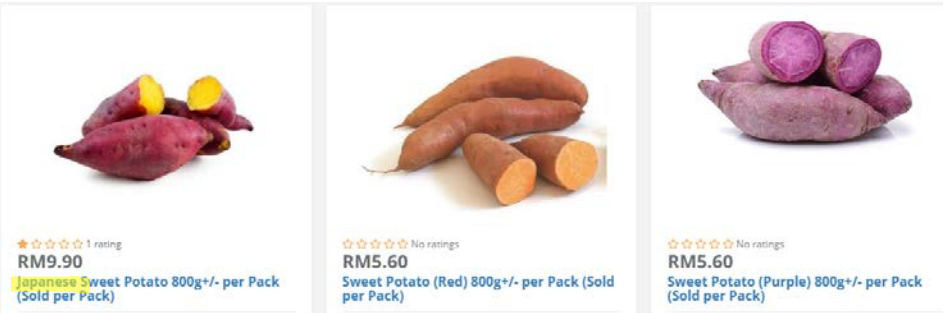
Source: (1) Australian Trade and Investment Commission. n.d. Market profile – Malaysia – For Australian exporters. [online] Available at: < https://www.austrade.gov.au/Australian/Export/Export-markets/Countries/Malaysia/Market-profile > [Accessed 22 February 2021].
(2) Australian Trade and Investment Commission. n.d. Food and beverage - Malaysia - For Australian exporters. [online] Available at: <https://www.austrade.gov.au/Australian/Export/Export-markets/Countries/Malaysia/Industries/Food-and-beverage> [Accessed 24 February 2021].
(3) Australian Trade and Investment Commission. 2021. Agriculture - Malaysia - For Australian exporters. [online] Available at: <https://www.austrade.gov.au/Australian/Export/Export-markets/Countries/Malaysia/Industries/Agriculture> [Accessed 21 February 2021].
(4) Hort Innovation, 2021

Malaysian retailers appear to offer a wide range of sweet potato varieties compare to other markets

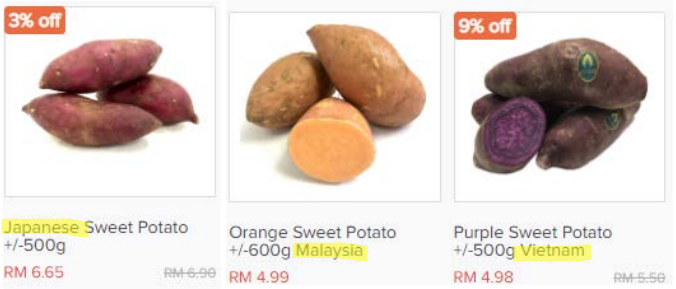
The images below show the display of sweet potatoes on a number of online sale platforms in Malaysia, some of which also have physical stores. Malaysian platforms appear to offer a significant range in varieties compared to other markets, with a strong focus on Japanese sweet potatoes.

Online only:

supply bunny.com — ***B2B wholesale platform for restaurants, cafes and bakeries[1]***

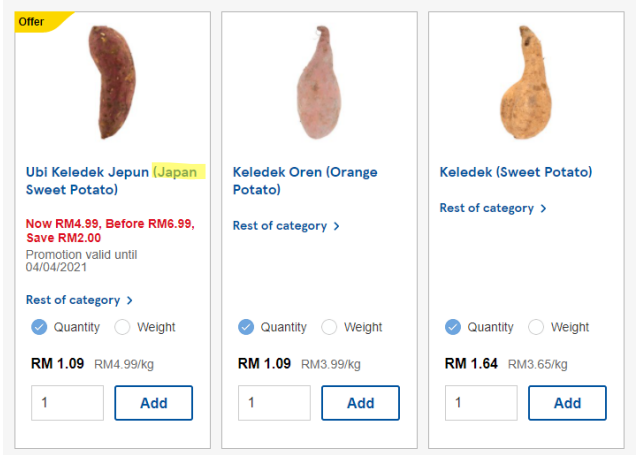


mygroser — ***Grocery delivery service[3]***



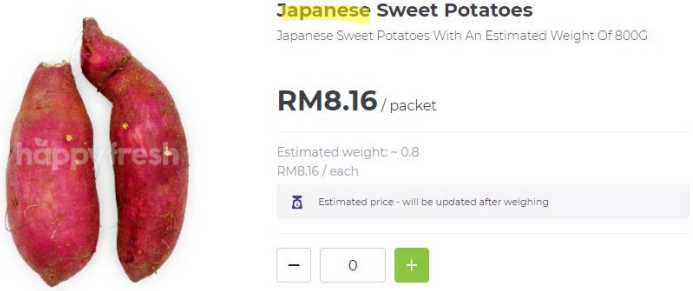
Online and physical stores:

TESCO Lotus



happyfresh / Giant / AEON

Jakarta-based Southeast Asian online grocery company, delivers across Indonesia, Malaysia and Thailand[4]
Happyfresh delivers for major Malaysian supermarkets AEON and Giant Hypermarket



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Source: (1) Supply Bunny. 2021. Local Sweet Potato (Orange) (Sold per Kg). < https://www.supplybunny.com/en/products/local-sweet-potato-orange-sold-per-kg> [Accessed 15 March, 2021]. (2)Tesco, 2021. Sweet potatoes. <https://eshop.tesco.com.my/groceries/en-GB/shop/fresh-food/fresh-vegetables/root-vegetables/sweet-potatoes> [Accessed 15 March, 2021]. (3) Mygroser, 2021. Potatoes, roots and tubers. <https://mygroser.com/en/category/Potatoes,%20Roots%20&%20Tubers> (4)Happy Fresh, 2021. Japanese sweet potatoes.<https://www.happyfresh.my/aeon-mid-valley/products/japanese-sweet-potatoes-428639/> [Accessed 15 March 2021].

Indonesia

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SWEETPOTATO FUND

March 2021

Australian sweet potato exports to Indonesia have been relatively inconsistent over the last decade

The chart below shows growth in the value and volume of Australian sweet potato exports to Indonesia from 2011-2018, noting that Australia did not export in 2019-20. Exports appear to be rather sporadic, with significant range between years in terms of value, volume, and price point. For example, exports dropped by 98% in both value and volume from 2015-16. The graph also shows the highest price points received since 2011 as well as the most recent price point. The average price point received over the past ten years is AUD $4.39/kg.

Growth in value and volume of Australian Sweet Potato Exports to Indonesia
2011-2018
Hort Innovation

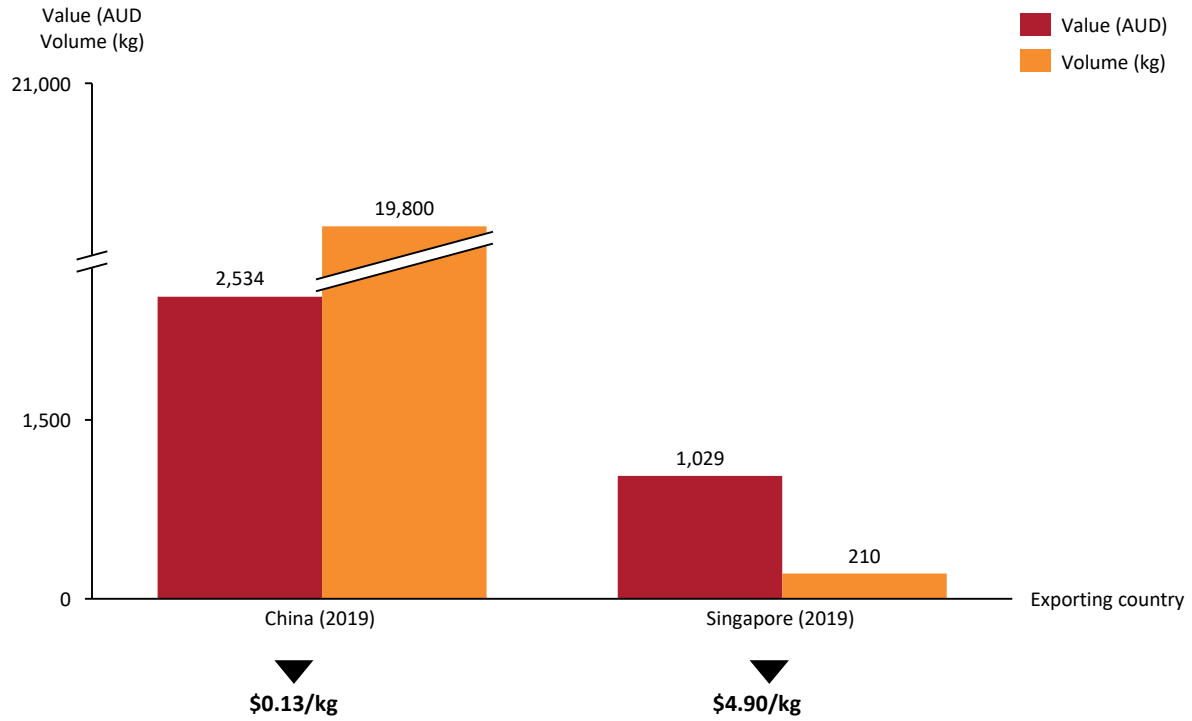
The outlier price point of $15.02/kg Australian exports received in 2017 is notable, and warrants further investigation into the circumstances of production and trade at this time. Overall a lack of exports in the last two years signals a seemingly sporadic relationship, and potentially the need for use of caution in approaching the market. However, favourable volumes and price points in certain years, geographic proximity, and a strong existing trade relationship argue against ruling out Indonesia as an option for export.

NOTE
(1) HS6 Code 71420 *Sweet Potatoes, Fresh or Dried, whether or not sliced or in the form of pellets*
Source: Hort Innovation, 2021. Sweet Potato Export Data.

Competitors in Indonesia: who are the major sweet potato exporting nations?

2019 Comtrade data only reports two exporting nations to have delivered sweet potatoes to Indonesia in 2019. These were from China and Singapore. The average price received between these two was $2.51/kg. Australia exported sweet potatoes to Indonesia in 2016-2018, however not in 2019.

Sweet Potato Exporting Nations to Indonesia, by value and volume
2019
UN Comtrade Database-



Price point received for sweet potato exports to Indonesia(2019) (all exporting nations)	
Exporter	**Price (AUD)/kg**
China	**$0.13**
Singapore	**$4.90**

Despite low export volumes, exports to Indonesia appear to offer uniquely high price points for some countries yet drastically low price points for others. Prices appear to decrease as volume increases. This creates an intriguing case to investigate capacity to further increase Australia's existing prominent export market share.

NOTE
(1) The price per kilogram analysis does not include exporting nations with export volumes **less than 100kg.**
(2) Export values are based on exchange rate **$1AUD=$1.28USD**
(3) Comtrade commodity code: '071420 – Vegetable roots and tubers; sweet potatoes, with high starch or inulin content, whether or not sliced or in the form of pellets, fresh or dried'

There are several points of difference in competing sweet potato exporting nations to Indonesia

The table below explores the production capacities of the top three sweet potato exporting nations to Indonesia. Indonesia receives a large volume of exports from other Southeast Asian economies as well as the USA, all of whom have seen significant growth in scale as commercial suppliers in recent years. It may prove difficult for Australia to compete with China and the US on a seasonal basis given they are able to supply sweet potatoes year-round.

	USA	Singapore	China
Varieties produced	Beauregard	*Singapore is largely a re-export hub with minimal domestic sweet potato production*	'Chinese varieties: Red peeled with white flesh (Northern Star) Red both on outside and inside' WSPF
Price point Indonesia 2019	$1.02	$4.90	$0.13
Primary export markets	UK Netherlands Canada	Largely a re-export hub to a range of economies including Indonesia, Malaysia, Cambodia, China, Brunei.	Middle East EU USA
Notes	• Production has been consistently increasing over the past decade • There have been some experiences of oversupply in the last two years • The US is the primary sweet potato supplier for Europe • Americans can harvest vegetables twice per year and have the facilities to store sweet potatoes for up to six moths, meaning they can export year-round[4]	**China** • Reputation of Chinese sweet potatoes has advanced over the last ten years. Previously the only customers were Chinese individuals living overseas, but with improvements to Chinese varieties the exported product now appeals to a wider scope of Western consumers[1] • Chinese sweet potatoes are increasingly sold overseas through e-commerce channels like Alibaba • Some companies are working towards the achievement of year-round production[3] • There has been growth in sophisticated production and treatment facilities, such as high-temperature treatments, saccharification technology used to convert starch into maltose to increase sugar content, and advanced cleaning technologies[2]	

Seasonality	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
USA												
China (North)												
China (South)												

Peak Harvest

Source: (1) Zhang, H., 2017. Chinese sweet potatoes gain popularity overseas. [online] Fresh Plaza. Available at: <https://www.freshplaza.com/article/2009841/chinese-sweet-potatoes-gain-popularity-overseas/> [Accessed 22 February 2021].
(2) Fresh Plaza. 2020. "Europe, America, Japan, and South Korea are our main focus for quality sweet potato export". [online] Available at: <https://www.freshplaza.com/article/9177382/europe-america-japan-and-south-korea-are-our-main-focus-for-quality-sweet-potato-export/> [Accessed 23 February 2021]. (4) Fresh Plaza, 2020. Sweet potatoes now come in more colors than just orange. [online]. Available at: <https://www.freshplaza.com/article/9196996/sweet-potatoes-now-come-in-more-colors-than-just-orange/> [Accessed 10 March 2020].

Indonesia is a challenging market for horticultural exporters due to uncertainty and protectionist policies

Focus area	Key message	Key insights	Current impact
Regulation/ Customs	Sweet potato exports are not regulated beyond the need for basic labelling and health standard declarations.	• Under the ASEAN-Australia-New Zealand Free Trade Area (AANZFTA) and the Indonesia-Australia Comprehensive Economic Partnership Agreement (IACEPA) there are **no tariffs** for sweet potato • A phytosanitary certification is required for all sweet potato exports, specifying the produce does not have a fruit fly infestation. If it does, the certificate requires that the produce has been treated, otherwise a cold treatment will be imposed[1]	↗
Market access	Indonesia currently offers open market access for sweet potatoes, however quotas (as for potatoes) can be easily imposed.	• Horticultural imports are closely observed by the government, with high policy volatility and exporters subject to import policy changes without notice • Exporters must go through a registered importer (IT-Produk Hortikultura). A close relationship with an importer is extremely helpful in navigating abrupt policy changes • As the consumption of fruit and vegetables increases, the nation uses imports to meet demand that outgrows domestic supply. However, if the government believes a vegetable can be grown locally it may be subject to an import restriction or ban e.g. potatoes are currently subject to a 10,000 tonne per year quota[2]	↗
COVID-19 Impact	Food insecurity is exacerbated by COVID-19, reducing the population's purchasing power.	• COVID-19 has highlighted structural issues with Indonesia's food security. Due to past protectionist policies, many Indonesians suffered from food shortages after COVID-induced income loss, as food prices are some of the highest in the region[3] • Reduced purchasing power and household income will see many Indonesians either cementing or shifting back to a diet without relatively expensive fresh produce, sweet potatoes included. • A renewed focus, however, on food security may cause Indonesia to start to lift protectionist policies and red tape surrounding horticultural imports	↘
Supply chain and logistics	Indonesian logistics networks are still developing however, geographic proximity does advantage Australian sweet potato exports.	• High costs can occur in horticultural distribution due to certain administrative barriers and developing infrastructure, limited port and methods of entry as well as comparatively high costs associated with transport and warehousing. Local regulations also restrict transport carrying containers[3] • Five to eight days are required to import products by sea, while air freight can be delivered on the same day • Indonesia's geographic proximity provides Australia with a competitive advantage compared to other exporting nations[4]	→

KEY: ↗ Positive → Neutral ↘ Negative

Source: (1) Export.business.gov.au. 2021. Laws and Regulations. [online] Available at: <https://export.business.gov.au/market-profiles/briefs/horticulture/indonesia/laws-and-regulations#market-size> [Accessed 24 February 2021].
(2) Department of Agricultre, Water and Environment. 2021. Quota Usage Reports. [online] Available at: <https://www.agriculture.gov.au/export/from-australia/quota/usage#2021-quota-position-for-iacepa-commodities-as-at-12-february-2021> [Accessed 25 February 2021].
(3) 2020. Towards a Secure and Fast Recovery. Indonesia Economic Prospects. [online] Available at: <https://openknowledge.worldbank.org/bitstream/handle/10986/34930/Indonesia-Economic-Prospects-Towards-a-Secure-and-Fast-Recovery.pdf?sequence=1&isAllowed=y> [Accessed 24 February 2021].
(4) Export.business.gov.au. 2021. Competitive Environment. [online] Available at: <https://export.business.gov.au/market-profiles/briefs/horticulture/indonesia/competitive-environment#key-distribution-channels> [Accessed 24 February 2021].

Sweet potato can be perceived by some Indonesians as an inferior food for low socioeconomic groups

Many consumers who value the safe, clean nature of Australian exports still view sweet potato as food of the poor. Despite a growing, increasingly health conscious middle class, Indonesia does not present extensive opportunity for Australian sweet potato exports.

Consumer preferences

Health awareness among the growing Indonesian middle class is rising.

- Roughly 52 million middle-class Indonesians demand high quality produce, averaging a spend of 46% of their income on groceries
- This group, who is growing by 10% each year and has a higher awareness of the impacts of food on health, is driving increased consumption of organic produce, more 'ready-to-eat' salads and products from healthy food chains
- Australia's reputation for clean, sustainable and high quality products ensures recognition from both upper income and middle income consumers[3]

In the remote regions of the Papuan provinces, recent government initiatives are focused on cultivating sweet potato for community consumption for vulnerable groups.[4]

- Purple sweet potato is popular in the West Muna Regency, which is seen as a substitute for rice with considerable year to year increases in demand[2]
- While this domestic production drives demand for the wider sweet potato category, citizens from these regions do not contribute to export consumption due to lack of access and affordability

Perceptions among the middle class around sweet potato as an 'inferior food' persist, despite its nutritional value compared to rice.[5]

- It is rarely included in household diets, only consumed as a processed snack[6]
- There has been limited educational campaigning about the nutritional benefits of sweet potato for most of the population

Purchase behaviours

Past government subsidies, grants and protectionist policies supporting rice and other grain production have put downward pressure on sweet potato consumption.

- Low socioeconomic, regional communities that traditionally consume and currently grow sweet potato for export are turning to rice due to its more accessible price point
- Reduction in purchasing power due to COVID-19 has exacerbated the situation

With a high Muslim population, purchase of processed sweet potato compote spikes during the month of fasting.

- Processed sweet potato in the form of snacks has in the past been consumed almost daily as a 'food takjil' (opener fasting) in Indo-Muslim households[5]

Indonesian consumers tend to respond to attention-seeking advertisement campaigns for products which promote health benefits.

- Eye-catching marketing campaigns are trending through channels like colourful flyers, local newspaper advertisements and brochures. These forms of communication have proven effective for exporters in gaining market share and customer loyalty[3]

Source: (1) Australian Trade and Investment Commission. n.d. Agribusiness - Indonesia - For Australian exporters. [online] Available at: <https://www.austrade.gov.au/australian/export/export-markets/countries/indonesia/industries/agribusiness> [Accessed 24 February 2021]. (2) Rianse, I., Baka, W., Syarni, P. and Sadimantara, F., 2021. Development Strategy For Sustainable Farming Of Purple Sweet Potatoes In West Muna Regency Indonesia. International Journal of Scientific & Technology Research, [online] 9(02), pp.1993-1996. Available at: <http://www.ijstr.org/final-print/feb2020/Development-Strategy-For-Sustainable-Farming-Of-Purple-Sweet-Potatoes-In-West-Muna-Regency-Indonesia.pdf> [Accessed 4 February 2021]. (3) Export.business.gov.au. 2021. Competitive Environment. [online] Available at: <https://export.business.gov.au/market-profiles/briefs/horticulture/indonesia/competitive-environment#challenges> [Accessed 24 February 2021]. (4) https://aciar.gov.au/publication/covid19/4-covid-19-and-food-systems-indonesia . (5) Saliem, H., Simatupang, P., Illham, N., Friyatno, S., Suryani, E., Purwantini, T., Maulana, M. and Indraningsih, K., 2010. Production, Trade, and Consumption Linkages of Sweet Potato to Support Food Diversification and Nutrition. Research Report Yearly Fund. [online] Indonesian Centre for Agricultural Socioeconomic and Policy Studies. Available at: <http://pse.litbang.pertanian.go.id/eng/pdffiles/LHP_HPS_2010_EN.pdf> [Accessed 19 February 2021]. (6) Rianse, I., Baka, W., Syarni, P. and Sadimantara, F., 2021. Development Strategy For Sustainable Farming Of Purple Sweet Potatoes In West Muna Regency Indonesia. International Journal of Scientific & Technology Research, [online] 9(02), pp.1993-1996. Available at: <http://www.ijstr.org/final-print/feb2020/Development-Strategy-For-Sustainable-Farming-Of-Purple-Sweet-Potatoes-In-West-Muna-Regency-Indonesia.pdf> [Accessed 4 February 2021].

Sweet potato exporters typically go through traditional importer distribution channel to reach consumers

Building relationships with government-approved importers is critical in navigating import policy volatility and capitalising on the nation's continuing urbanisation.

Channels to reach consumer

To enter the Indonesia market, Australian sweet potato exporters must build a relationship with established importers.

- These importers are usually the exclusive bodies who source, procure and distribute vegetables throughout Indonesia. There is usually a ten percent mark-up on transfer of goods from importation to distribution, which Australian exporters should consider when pricing products[1]
- Regular face-to-face interactions are critical to selecting the right business partner
- Participation in major exhibitions such as the Food Hotel Asia, Food, and Hotel Indonesia will assist in promotion and establishing consistent engagement. Australian producer engagement to date has been limited, leading to low awareness of Australian produce[2]

Indonesia has seen growth of the hypermarket, supermarket and convenience store due to the country's continuing urbanisation.

- Major food and grocery retailers include AEON, Bromo Swalayan, Transmart (formerly Carrefour), Giant Hypermarket
- As a larger percentage of the population live in urban centres, the distribution opportunity for sweet potatoes grows with the expansion of Western-style retailers
- In order to reach regional communities and smaller cities, sweet potato exporters will have to go through retailers and traditional grocery stores

Export opportunities

Indonesia may prove challenging for Australian sweet potato exporters to navigate due to import policy volatility and close monitoring of horticultural imports

- The government changes import requirements relatively frequently, with quotas existing on several other fruit and vegetable exports
- These quotas, or sometimes outright bans, are imposed when the government believes that produce can or should be grown domestically[1]

Australian sweet potato exporters will face challenges when attempting to introduce new varieties to market, as importers focus on 'fast moving', known varieties

- This risk can be mitigated by providing substantial information packets that detail product specification (particularly in terms of sustainability and health benefits), company information, terms and pricing[1]

Geographic proximity and reputation is an Australian competitive advantage

- Relatively shorter shipping times ensures produce stays fresh for longer
- Exporting is also cheaper from Australia, as the logistical costs of navigating the archipelago are cheaper than other major exporting nations such as the USA or China[3]

Source: (1) Australian Trade and Investment Commission. n.d. Agribusiness - Indonesia - For Australian exporters. [online] Available at: <https://www.austrade.gov.au/Australian/Export/Export-markets/Countries/Malaysia/Industries/Food-and-beverage> [Accessed 24 February 2021].
(2) Export.business.gov.au. 2021. Competitive Environment. [online] Available at: <https://export.business.gov.au/market-profiles/briefs/horticulture/indonesia/competitive-environment#challenges> [Accessed 24 February 2021].
(3) Export.business.gov.au. 2021. Competitive Environment. [online] Available at: <https://export.business.gov.au/market-profiles/briefs/horticulture/indonesia/competitive-environment#opportunities> [Accessed 24 February 2021].

Sweet potatoes are not as immediately accessible for purchase on Indonesian platforms

The images below show the display of sweet potatoes on a number of online sale platforms in Indonesia, some of which also have physical stores. Outside of specialist imported food platforms like LuxoFood below, there does not appear to be many retailers which sell sweet potatoes, nor a range of varieties.

Online only:

LUXOFOOD INDONESIA

Premium Grocery & Fine Food Marketplace[1]

Red Sweet Potato / Ubi Merah (1kg)

Indonesia

Rp26,000

Red Sweet Potato / Ubi Merah

In stock

Delivery Tomorrow, last order 23:59

1

Buy

Add to Wishlist

Orange Sweet Potato / Ubi Orange (1kg)

Indonesia

Rp0

Orange Sweet Potato / Ubi Orange

Out of stock

Add to Wishlist

happyfresh

AEON Giant

Jakarta-based Southeast Asian online grocery company, delivers across Indonesia, Malaysia and Thailand[2] Happyfresh delivers for major Indonesian supermarkets AEON and Giant Hypermarket

FreshBox Purple Sweet Potato

1 packet

Rp13,800

Rp1,200 / 100 g

100% fresh and original product

Online and physical stores:

TRANSmart ***(formerly Carrefour)[3]***

CILEMBU SWEET POTATO

Product Code: 20000075001

Show More Items: Ready to Eat

Stock: 1000

~~Rp. 3,000~~

Rp. 2,990/ 100 gram

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Source: (1) LuxoFood Indonesia, 2021. Other Vegetables. <https://m.happyfresh.id/en/fresh-box-mall-of-indonesia/products/freshbox-purple-sweet-potato-380207> [Accessed 15 March, 2021]. (2) HappyFresh Indonesia, 2021, FreshBox Purple Sweet Potato. < https://m.happyfresh.id/en/fresh-box-mall-of-indonesia/products/freshbox-purple-sweet-potato-380207> [Accessed 15 March, 2021]. (3) Transmart, 2021, CILEMBU SWEET POTATO <https://10011.transmartdelivery.com/CILEMBU-SWEET-POTATO-075001> [Accessed 15 March, 2021].

United Kingdom

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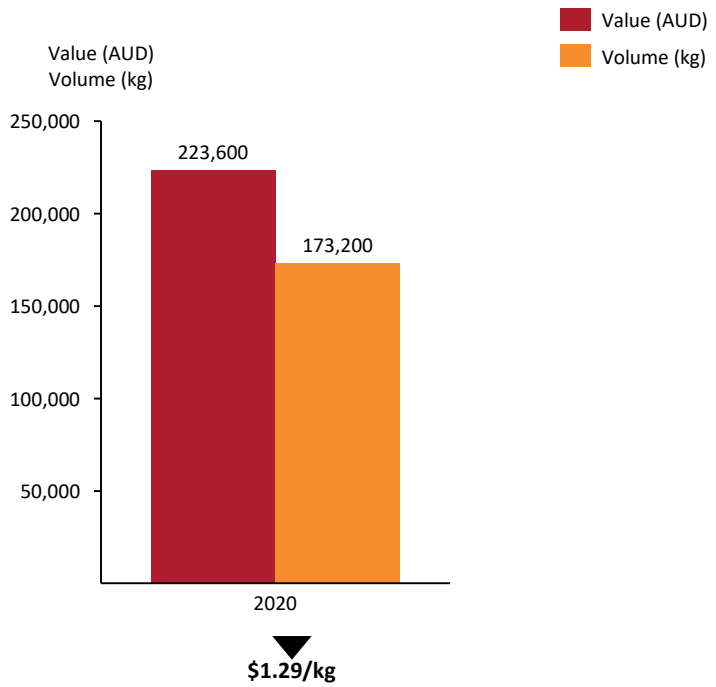
March 2021

Australia did not export sweet potatoes to the UK pre-2020, when the UK received 10.5% of exports

The chart below shows the value and volume of Australia's first sweet potato exports to the UK in 2020, noting that Australia did not export sweet potatoes prior to this time. Australia appears to have delivered a large amount in its first year, accounting for 10.5% of total sweet potato export volumes. The price point received, however, was relatively low compared to other markets ($1.29/kg).

Value and volume of Australian Sweet Potato Exports to the UK
2020
Hort Innovation



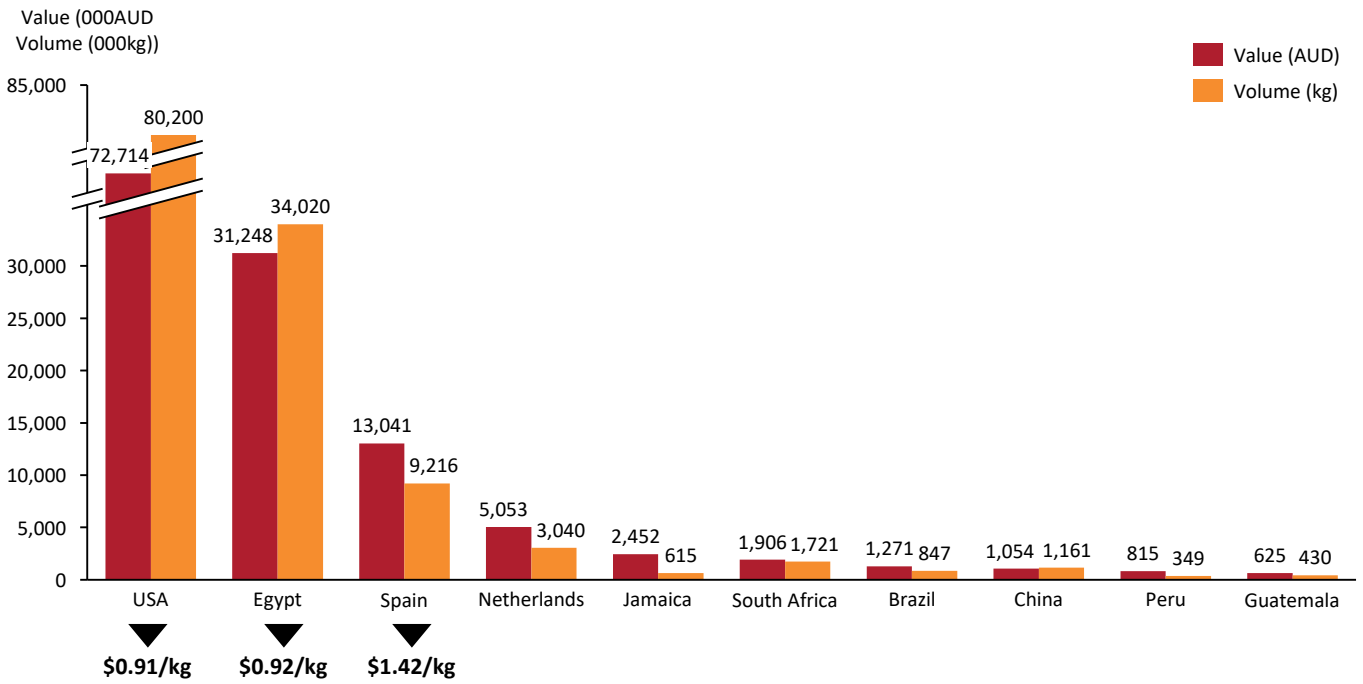
Australia's first sweet potato exports in 2020 may be a product of a growing Australia-UK trade relationship, where there may be further potential to leverage in coming years.

NOTE
(1) HS6 Code 71420 *Sweet Potatoes, Fresh or Dried, whether or not sliced or in the form of pellets*
Source: Hort Innovation, 2021. Sweet Potato Export Data.

Competitors in the UK: who are the major sweet potato exporting nations?

The graph below shows the top 10 exports in 2019, with the majority of products sourced from USA, Egypt, Spain and the Netherlands. The highest price per kilogram was again received by Rep. of Korea at $10.03/kg, despite exclusion from the top 10 exporting countries. Australia did not export in 2019.

Top Sweet Potato Exporting Nations to the UK, by value and volume
2019
UN Comtrade Database



Highest price point received for sweet potato exports to the UK (2019) (all exporting nations)	
Exporter	**Price (AUD)/kg**
Rep. of Korea	**$10.03**
Saint Lucia	**$7.21**
China, HK SAR	**$5.49**
Average $/kg 2019 for top ten exporting nations: **$1.62**	

***Note: Rep. of Korea and Saint Lucia were not in the top ten exporting nations and are therefore not included in the graph.**

The UK appears to be an intriguing market for sweet potatoes, with high levels of demand as well as imports from a number of niche countries which have not appeared in other competitor analyses. While Australia only just started exporting sweet potatoes to the UK in 2020, there is reason to believe there is an opportunity to expand market share due to an evolving trade relationship in the wake of Brexit.

There are several points of difference amongst competing sweet potato exporting nations to the UK

The table below explores the production capacities of the top three sweet potato exporting nations to the UK. The UK has a vastly different competitor landscape to other identified Australian export markets, including low-value, high-volume commodities imported from Egypt and other African economies. Australia is counter-seasonal to northern hemisphere production and can supply fresh fruit and vegetables during the northern hemisphere 'off season'.

	USA	Egypt	Spain
Varieties produced	Beauregard	Primarily Beauregard[1] Small amounts of white and Northern Star	Beauregard[2]
Price point UK 2019	$0.91	$0.92	$1.42
Primary export markets	UK Netherlands Canada	UK France Netherlands	France Netherlands Belgium
Notes	• Production has been consistently increasing over the past decade • Sweet potatoes are primarily grown on large commercial scale in the Southern region • There have been some experiences of oversupply in the last two years • The US is the primary sweet potato supplier for Europe	• Quality is generally known as poor but has been improving year-on-year[4] • High domestic logistics costs • In general, lack of different varieties • Commonly low in price[1] • Strawberry cultivation over the last year has reduced space in containers to ship sweet potatoes[3]	• Production has been booming in recent years, with many nurseries doubling plantings • Season is short, inability to supply year-round. Known that quality is good in first half of season, then tends to decline in second half[4] • Harvest is starting earlier due to growing demand. Prior to this boom, 80% of sweet potatoes were sold domestically, while now the EU export markets account for a large share[2]

Seasonality	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
USA	■	■	■	■	■	■	■	■	■	■	■	■
Egypt							■	■	■	■	■	
Spain								■	■	■	■	

Peak Harvest ■

Source: (1) Peters, N., 2019. Rising demand for Egyptian sweet potatoes. [online] Fresh Plaza. Available at: <https://www.freshplaza.com/article/9223235/rising-demand-for-egyptian-sweet-potatoes/> [Accessed 23 February 2021].
(2) Fresh Plaza. 2019. Spain: "In five years, we have doubled the production of sweet potatoes". [online] Available at: <https://www.freshplaza.com/article/9134458/spain-in-five-years-we-have-doubled-the-production-of-sweet-potatoes/> [Accessed 23 February 2021].
(3) Agri News Net Farming Portal. 2019. OVERVIEW GLOBAL SWEET POTATO MARKET- December 2019. [online] Available at: <https://www.farmingportal.co.za/index.php/agri-index/68-crops/3538-overview-global-sweet-potato-market-december-2019> [Accessed 12 February 2021].

The UK is a developed nation with strong demand for sweet potatoes with potential to increasingly liberalise

Focus area	Key message	Key insights	Current impact
Regulation/ Customs	Sweet potato imports from non-EU countries are regulated, requiring notification of entry and tariff payment.	• The United Kingdom requires a Phytosanitary certificate to be issued for sweet potatoes within 14 days of export, aligning with the departure date in the Request for Permit. The sweet potatoes must not have pests, soil, weed seeds and other elements on them • Exporters will have to register as importers on the DEFRA PEACH system, giving at least four working hours' notice before sweet potatoes land in the UK via airfreight, and at least one working day for all other freight[1] • As of April 2021, exporters will have to pay a £10.50 document and identity check fee, a £205.04 inspection fee and **2% tariff** on fresh sweet potatoes or £5.30 / 100kg for frozen, dried and other forms[2,3]	→
Market access	The UK currently offers a regulated market, although Brexit and FTA negotiations indicate a potential shift to a liberalised market.	• In 2018 demand for sweet potato was strong in the UK, not deterred by high prices (£7+ for a 'large box') or the typical summer decline suffered by regular potatoes. Demand is inclined towards the Honduran Evangeline, an orange variety, seen as a quality product in the marketplace[9] • The UK, in leaving the EU, is still in the process of establishing FTAs with its major trading partners. An independent review of UK's food system was commissioned by the government which strongly argues for reducing tariffs for countries that would adhere to trading standards set out by the regulator, presenting a potentially extensive opportunity for Australian sweet potato exporters[4]	→
COVID-19 Impact	COVID-19 has been devastating for the UK's economy and has seen sharp increases in grocery spending.	• The UK has been adversely affected by COVID-19, with a large contraction in GDP and a 55% reduction in community mobility[5] • The UK's extended lockdowns have seen the volume of groceries purchased at least 17.1% higher than the same time in 2019, with home cooking increasing by 26.2%.[6] Sweet potatoes have certainly not been excluded from this growth in grocery purchase, and feature in the top 18 food items in the grocery basket according to Jamie Oliver • Food prices have stayed largely the same through COVID due to offsets in the usual drivers of inflation for food[7]	↘
Supply chain and logistics	Sophisticated logistics are heavily dependant on the Dover Strait. Brexit may increase market access for Australian exporters.	• Currently, the majority of fresh food imports in the UK come through the strait between Dover and Calais, either by purpose-built ferry or via the Channel's Freight Shuttle trains, with some accompanying road trailers • Logistics in the UK are heavily based on lean sourcing and just-in-time logistics where supermarkets place an order to a third-party supplier in one day, and finds the order delivered the next. This system, however, is dependant on frictionless trade characteristic of the EU. With Brexit, there will be potential for larger imports from non-EU locations, as the UK has a 'dangerous' dependence Spanish and Dutch fresh produce which may decrease as Brexit progresses[8]	→

Source: (1) GOV.UK. 2020. Import plants and plant products from non-EU countries to Great Britain and Northern Ireland. [online] Available at: <https://www.gov.uk/guidance/importing-plants-fruit-vegetables-or-plant-material-to-the-uk#import-from-non-eu-third-countries-to-gb> [Accessed 26 February 2021]. (2) Legislation.gov.uk. 2018. The Plant Health etc. (Fees) (England) Regulations 2018. [online] Available at: <https://www.legislation.gov.uk/uksi/2018/289> [Accessed 26 February 2021]. (3) UK Global Online Tariff. 2021. Manioc, arrowroot, salep, Jerusalem artichokes, sweet potatoes and similar roots and tubers with high starch or inulin content, fresh, chilled, frozen or dried, whether or not sliced or in the form of pellets; sago pith. [online] Available at: <https://www.trade-tariff.service.gov.uk/headings/0714> [Accessed 26 February 2021]. (4) The National Food Strategy, 2020. 1846 and All That – Food Security and Trade. The National Food Strategy: Part One – July 2020. [online] London. Available at: <https://www.nationalfoodstrategy.org/wp-content/uploads/2020/08/6_NFS_Report_spv_Ch5_SecurityTrade.pdf> [Accessed 20 February 2021]. (5) Bloomberg. 2021. The Covid Resilience Ranking: The Best and Worst Places to Be in Covid. [online] Available at: <https://www.bloomberg.com/graphics/covid-resilience-ranking/> [Accessed 26 February 2021]. (6) Public Health England, 2020. Impact of COVID-19 pandemic on grocery shopping behaviours. [online] London. Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/932350/Grocery_Purchasing_Report.pdf> [Accessed 26 February 2021]. (7) Lin, H., Lloyd, T. and McCorriston, S., 2020. An Odd Crisis: Covid-19 and UK Food Prices. EuroChoices, [online] 19(3), pp.42-48. Available at: <https://onlinelibrary.wiley.com/doi/full/10.1111/1746-692X.12291> [Accessed 26 February 2021]. (8) Garnett, P., Doherty, B. and Heron, T., 2020. Vulnerability of the United Kingdom's food supply chains exposed by COVID-19. Nature Food, [online] 1(6), pp.315-318. Available at: <https://www.nature.com/articles/s43016-020-0097-7#Tab1> [Accessed 24 February 2021]. (9) McGregor, N., 2019. UK: Sweet potato prices expected to remain high until September. [online] Fresh plaza. Available at: <https://www.freshplaza.com/article/9065901/uk-sweet-potato-prices-expected-to-remain-high-until-september/> [Accessed 23 February 2021].

KEY: Positive | Neutral | Negative

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Orange sweet potato varieties are an everyday food staple for a number of British consumers

Consistently increasing sales of sweet potato in the UK are dominated by orange varieties, which aligns favourably with Australia's production capacities. Australia's year-round season offers a point of advantage to serve the UK market during production gaps of key competitors.

Consumer preferences

UK consumers have an appetite for sweet potatoes, a rising consumption trend for which consumers are becoming increasingly price insensitive.

- Sweet potato is quickly becoming an everyday food staple for British consumers, with the vegetable no longer considered exotic, and consumed throughout the whole year[1]
- Major supermarket Sainsbury's claims consumption of sweet potatoes is 90% higher today than it was 5 years ago[2]
- Consumers' increasing awareness of healthy and ethnic food has fuelled the demand for sweet potato

British sweet potatoes are seeing particular popularity in food service outlets

- Britain's home cooks have been preparing sweet potatoes using a variety of creative, diverse methods, for example 'spiralising' them into colourful curls and noodles[5]

There are two types of sweet potato that dominate the market – the American Covington and the Spanish Beauregard, both orange varieties.[3]

- Growth in popularity of orange varieties align with rising trends for brightly coloured sweet potato-based dishes offered by a range of food service outlets
- Such is its popularity, in 2015 the UK started producing small volumes of a British-variety sweet potato, a significant innovation given incompatible climates. The variety is red-skinned, orange-fleshed[5]

Purchase behaviours

Sweet potatoes are purchased through a variety of circumstances including at food stores, via home delivery, and through food service channels.

- While there is currently 45% household penetration, sweet potatoes are only 5% of all potato purchases in the UK as of December 2018
- As the volume of sweet potato purchases increases, Australian growers can export their supply to match consumer demand[1]
- The popularity of sweet potato is also reflected in meal kit services (HelloFresh, Mindful Chef), as well as restaurants and cafes offering an ever increasing number of sweet potato-based dishes

'Socially-responsible' produce continues to become an important factor in purchasing decisions for many UK consumers

- The number of plant-based meals consumed grew by 37% from 2015-2019[4]
- Food provenance and sustainability of production are steadily becoming important factors in the purchasing decisions of UK consumers

Source: (1) McShane, G., 2019. American sweet potatoes target greater UK consumption via health and usage campaign. [online] Produce Business UK. Available at: <https://www.producebusinessuk.com/insight/insight-stories/2019/04/22/american-sweet-potatoes-target-greater-uk-consumption-via-health-and-usage-campaign> [Accessed 22 February 2021].
(2) Sainsbury's Magazine. 2021. The health benefits of sweet potato. [online] Available at: <https://www.sainsburysmagazine.co.uk/lifestyle/health/the-health-benefits-of-sweet-potato> [Accessed 26 February 2021].
(3) CBI. 2019. Exporting fresh sweet potatoes to Europe. [online] Available at: <https://www.cbi.eu/market-information/fresh-fruit-vegetables/sweet-potatoes> [Accessed 24 February 2021].
(4) d'Angelo, C., Gloinson, E., Draper, A. and Guthrie, S., 2020. Food consumption in the UK. [online] Cambridge: RAND Europe. Available at: <https://www.rand.org/content/dam/rand/pubs/research_reports/RR4300/RR4379/RAND_RR4379.pdf> [Accessed 22 February 2021].
(5) The Guardian. 2021. British farmers crack the sweet potato. [online] Available at: <https://www.theguardian.com/business/2015/oct/18/british-farmers-crack-the-sweet-potato> [Accessed 24 February 2021].

Australian sweet potato exporters can find strong demand for quality sweet potatoes in the UK market

A potential Free Trade Agreement between Australia and the UK will allow Australian sweet potato exporters to increase exports by capitalising on a variety of different distribution channels in the UK.

Channels to reach consumer

The UK has more than 1300 independent importers and distributors of fruit and vegetables, while some retailers also source their own imports[2]

- For example, Sainsbury's alone sources produce from 60 different countries[3]
- Considering the big four supermarkets (Tesco, Sainsbury's ASDA, and Morrisons) maintain 70% market share on groceries, Australian exporters can work with retailers directly, bypassing importers and distributors

There is increasing variety in distribution channels, with consumers diversifying from large supermarkets

- While the big four supermarkets remain dominant, mini, more specialised style of food stores are gaining traction
- Various forms of home delivery are also becoming increasingly popular, with a forecasted increase of online grocery shopping market share to 23.4% by 2024, from 18.6% in 2019[1]
- These channels include:
    - Meal kit delivery services (Hello Fresh, Mindful Chef),
    - Online grocery retailers (Amazon Fresh), and
    - Delivered out-of-home food (Uber Eats, Deliveroo)

Exposure of sweet potatoes through media channels such as Jamie Oliver's '19 hero foods in the UK grocery basket' have driven consumption

- This epitomises the role of sweet potatoes as a staple to many diets

Export opportunities

The Australia-UK Free Trade Agreement, which is still being negotiated as of March 2021, will likely result in opportunities for Australian sweet potato exports

- An independent national food strategy commissioned by the government has strongly recommended a reduction in trade-distorting measures, such as the tariffs and government-subsidies present in the EU. Australian sweet potato exporters could capitalise on a reduction/elimination in these trade barriers to sweet potatoes[4]

In diversifying its supply chain, the UK may look to increase the share of non-US sweet potato imports

- In February 2019 when a major hurricane hit North Carolina, the UK saw sweet potato shortages that lasted through the year. Australian exporters can take advantage of shocks like these to service the UK's demand for sweet potato, especially considering Australia's ability to provide quality sweet potato exports year-round[5]

Australian exporters face geographic disadvantages when compared to other major exporters.

- The average time taken to ship freight via sea from Australia to the UK is 40-45 days, freight sent from the US to the UK is delivered in 6-11 days[6]
- Higher costs of shipping are reflected by low average prices received for Australian sweet potato exports in the UK, and the risks of reduced freshness/quality is notably higher than most competitors

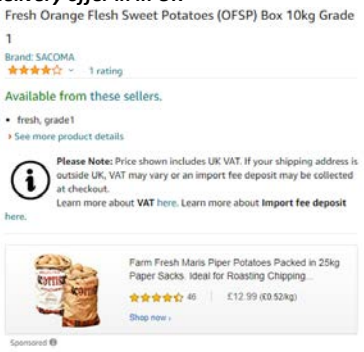
Source: (1) d'Angelo, C., Gloinson, E., Draper, A. and Guthrie, S., 2020. Food consumption in the UK. [online] Cambridge: RAND Europe. Available at: <https://www.rand.org/content/dam/rand/pubs/research_reports/RR4300/RR4379/RAND_RR4379.pdf> [Accessed 22 February 2021].
(2) Best Food Importers. 2019. Food Importers in the UK – BestFoodImporters. [online] Available at: <https://bestfoodimporters.com/food-importers-in-the-uk-bestfoodimporters/> [Accessed 25 February 2021].
(3) Sainsbury's. n.d. Suppliers. [online] Available at: <https://about.sainsburys.co.uk/suppliers> [Accessed 24 February 2021].
(4) The National Food Strategy, 2020. 1846 and All That – Food Security and Trade. The National Food Strategy: Part One – July 2020. [online] London. Available at: <https://www.nationalfoodstrategy.org/wp-content/uploads/2020/08/6_NFS_Report_spv_Ch5_SecurityTrade.pdf> [Accessed 20 February 2021].
(5) https://www.freshplaza.com/article/9137010/sweet-potato-shortage-hits-uk-many-supermarkets-out-of-stock/
(6) https://www.searates.com/services/distances-time/

Online grocery stores in the UK offer a wide range of sweet potato varieties and value-added products

Below is a sample of sweet potato products displayed on a number of online sale platforms in the UK, some of which also have physical stores. Most platforms offer a wide range of product SKUs, with an emphasis on pre-chopped products as well as country of origin. Supply appears more susceptible to seasonality.

Online only:

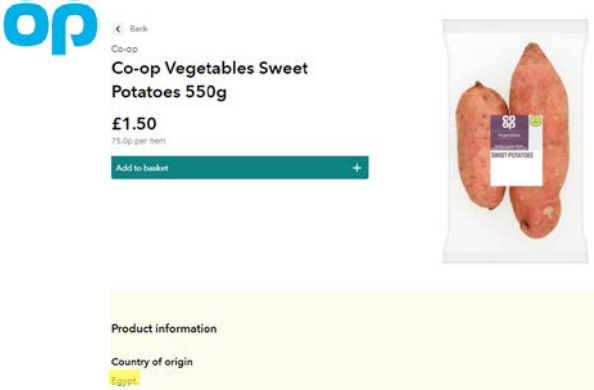
amazonfresh ***Fastest grocery delivery offer in in UK[3]***



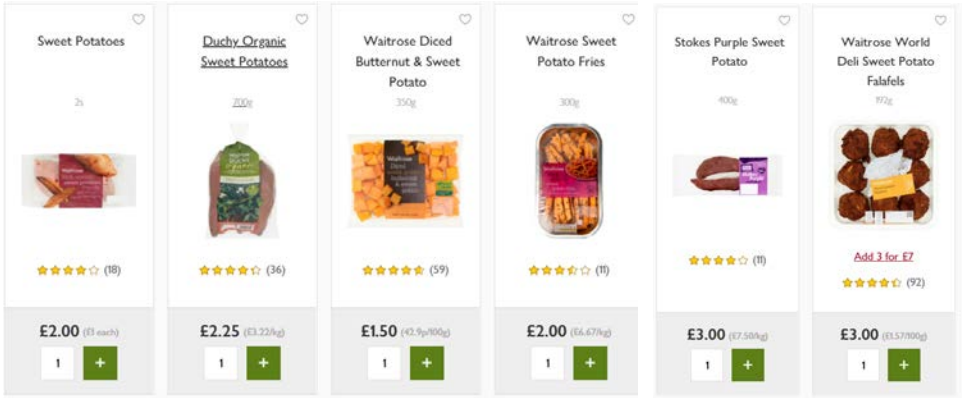
ocado ***Online supermarket retailer[4]***

Online and physical stores:

Co-op: convenience store chain[1]



WAITROSE & PARTNERS ***High-end supermarket known for quality produce[2]***



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Source: (1) Co-Op, 2021. Co-op Vegetables Sweet Potatoes 550g. < https://shop.coop.co.uk/product/013cbde2-b868-49ae-9c06-dbf973318aa4> (2) Waitrose, 2021. Sweet potatoes. <https://www.waitrose.com/ecom/shop/search?&searchTerm=sweet%20potato> [Accessed 15 March, 2021]. (3) Amazon.co.uk. 2021. Potatoes (OFSP) Box 10kg Grade 1. <https://www.amazon.co.uk/Fresh-Orange-Flesh-Sweet-Potatoes/dp/B07Z5BN5YT/ref=sr_1_1?c=ts&dchild=1&keywords=Fresh+Sweet+Potatoes&qid=1615433405&s=grocery&sr=1-1&ts_id=6860253031> [Accessed 15 March, 2021]. (4) Ocado, 2021. Results for sweet potato. <https://www.ocado.com/search?entry=sweet%20potato>

UK Case Study: Differences in Sweet Potatoes for sale across a range of retail outlets

In-market stakeholder consultation allowed investigation into the display of sweet potatoes for sale across a number of different retail outlets. Interestingly all products reported were imported from the USA and show a range of pricing for different varieties.

Co-Op

- Convenience Store Chain
- Medium-sized orange variety

Waitrose

- Higher-end supermarket known for quality produce
- Smaller sized, orange variety
- £1.20/pound (~$4 AUD/kg)

Morrisons

- Standard supermarket chain known for value
- Medium-larger-sized orange variety
- £99p/pound (~$3.30 AUD/kg)

Local fresh produce store

- Independent retailer
- **organic**
- Large-sized orange variety, unique shapes
- £2.79/kg (~$5.05 AUD/kg)

Despite a shared country of origin, imported sweet potatoes in the UK appear to see a range in size, price points, and the way products are displayed in-store. This is an important consideration for the Australian industry as it may look to increase exports to the UK, whose consumers appear to have an appetite for products of a number of different sizes and appearance. Exporters will need to target a particular channel and consumer preference based on aligning production capabilities.

Source: (1) In-market stakeholder consultation.

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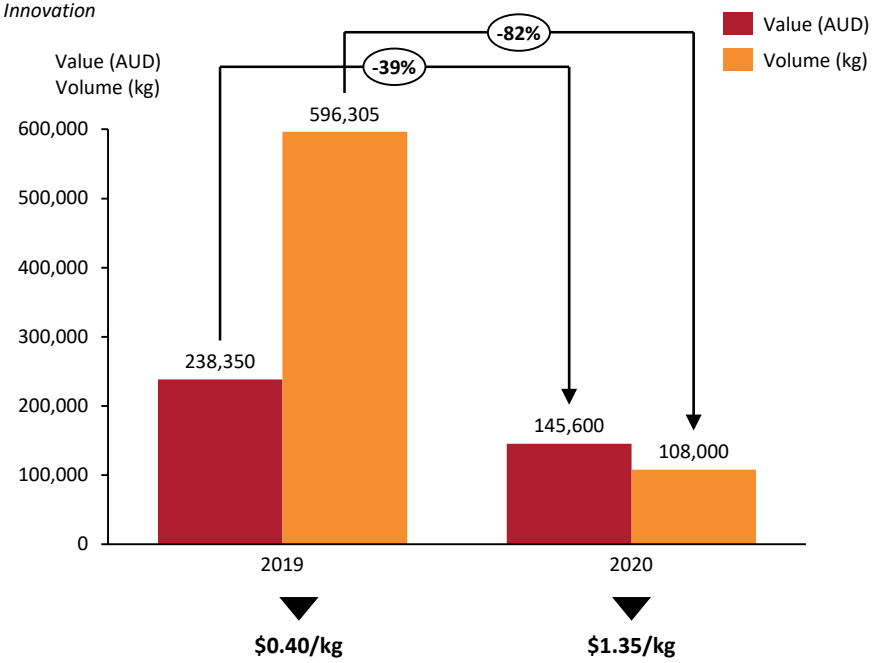
Australia has only exported sweet potatoes to the Netherlands in the past two years, likely for re-export

The chart below shows the value and volume of Australia's first sweet potato exports to the Netherlands in 2019 and 2020, noting that Australia did not export sweet potatoes to the Netherlands prior to this time. Australia appears to have delivered a large amount in its first year, accounting for 6.6% of total Australian sweet potato export volumes. Volumes suggest that this was a one-off deal to move Australian produce. The price point received, however, is drastically low, which appears to be a recurring trend in European export markets (average $0.88/kg in the Netherlands). The Netherlands is a low price market for sweet potatoes, due in part to the large amount of re-export activity that takes place there.

Value and volume of Australian Sweet Potato Exports to the Netherlands
2020
Hort Innovation



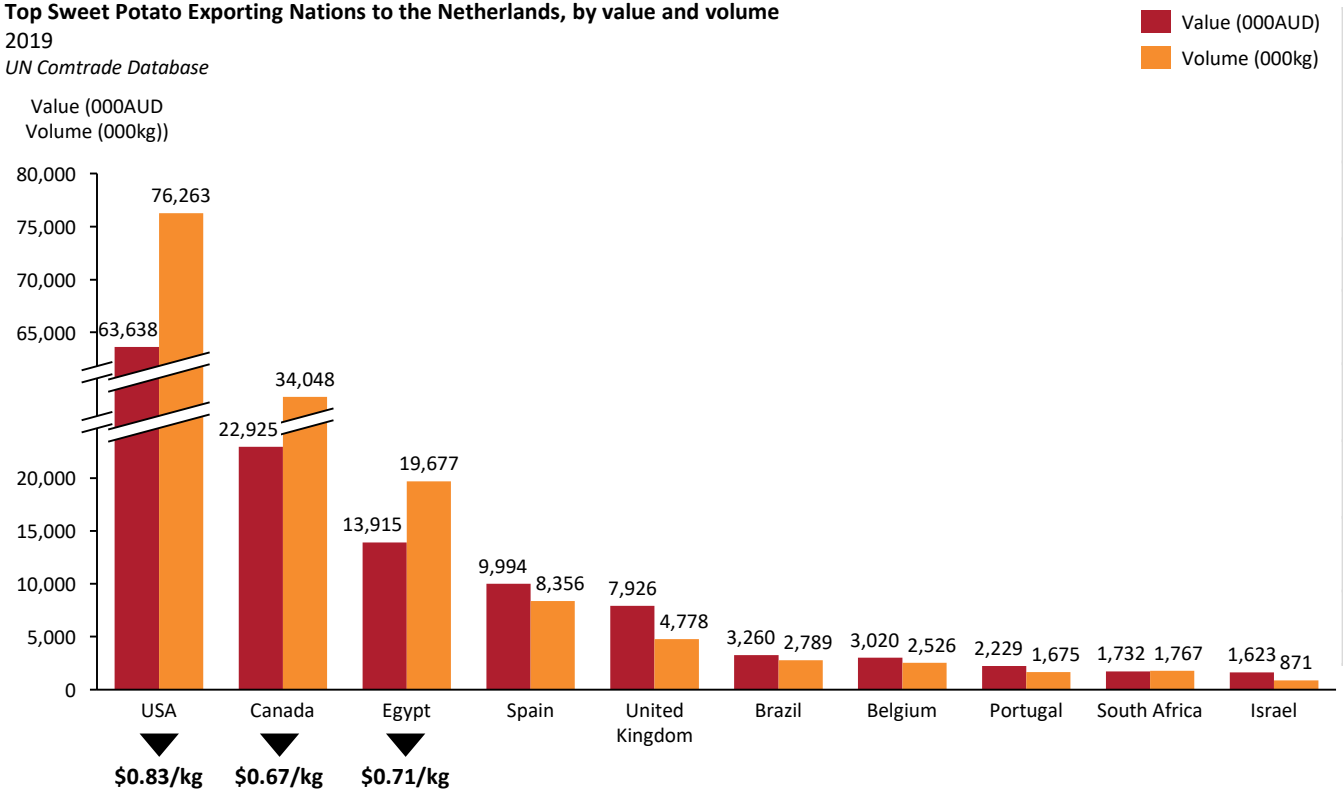
Prices received for the significant volume of Australian sweet potatoes exported to the Netherlands over the past two years have been disadvantageous. These export volumes warrant maintenance of what appears to be a strong trade relationship, however there is capacity to improve this partnership from a cost perspective.

NOTE
(1) HS6 Code 71420 *Sweet Potatoes, Fresh or Dried, whether or not sliced or in the form of pellets*
Source: Hort Innovation, 2021. Sweet Potato Export Data.

Competitors in the Netherlands: who are the major sweet potato exporting nations?

In 2019 the top sweet potato exporting nations to the Netherlands were USA, Canada, Egypt and Spain. Australia does not fall in the top ten exporting nations. Exporting nations to the Netherlands appear to receive notably low price points, with the highest in 2019 at $3.53 for China (not in the top 10 exporters).

Top Sweet Potato Exporting Nations to the Netherlands, by value and volume
2019
UN Comtrade Database



Highest price point received for sweet potato exports to the Netherlands (2019) (all exporting nations)	
Exporter	**Price (AUD)/kg**
China HK SAR	**$3.53**
Italy	**$3.03**
Slovenia	**$2.34**
Average $/kg 2019 for top ten exporting nations: $1.16	
Australian price point received in past exporting years:	
2019	**$0.36**
2017	**$2.60**

The Netherlands is a crowded market for sweet potatoes, likely due to the country's role as a dominant re-exporter within the region. Exporting nations appear to have received notably low price points compared to other markets, with Australian prices toward the bottom of the price range in some years.

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NOTE
(1) The price per kilogram analysis does not include exporting nations with export volumes **less than 100kg.**
(2) Export values are based on exchange rate **$1AUD=$1.28USD**
(3) Comtrade commodity code: '071420 – Vegetable roots and tubers; sweet potatoes, with high starch or inulin content, whether or not sliced or in the form of pellets, fresh or dried'

There are several points of difference in competing sweet potato exporting nations to the Netherlands

The Netherlands is a major re-exporter of sweet potatoes, a large majority of which are unsurprisingly sourced from mass producing countries with low price point offerings. Based on the seasonality of competitors, Australian exporters would be best placed to target the Netherlands throughout November-February.

	USA	Canada	Egypt
Varieties produced	Beauregard	Climate-adapted tailored orange variety[7]	Primarily Beauregard[1] Small amounts of white and Northern Star
Price point Netherlands 2019	$0.83	$0.67	$0.71
Primary export markets	UK Netherlands Canada	Netherlands, little evidence of any other major export destinations	UK France Netherlands
Notes	• Production has been consistently increasing over the past decade • Sweet potatoes are primarily grown on large commercial scale in the Southern region • There have been some experiences of oversupply in the last two years • Primary sweet potato supplier for Europe	• Cold climate makes production risky and potentially volatile • Once concentrated in Ontario, production has spread across other provinces • Short growing season with lack of adapted varieties, products are grown in slips[6]	• Exceptional recent seasons • High domestic logistics costs • In general, lack of different varieties • Commonly low in price[1] • Strawberry cultivation over the last year has reduced space in containers to ship sweet potatoes

Seasonality	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
USA	■	■	■	■	■	■	■	■	■	■	■	■
Canada			■	■	■	■		■	■	■		
Egypt							■	■	■	■	■	

Peak Harvest

Source: (1) Peters, N., 2020. Rising demand for Egyptian sweet potatoes. [online] Fresh Plaza. Available at: <https://www.freshplaza.com/article/9223235/rising-demand-for-egyptian-sweet-potatoes/> [Accessed 12 February 2021].
(2) Agricultural Research Council. n.d. Sweet Potatoes. [online] Available at: <https://www.arc.agric.za/arc-vopi/Pages/Plant%20Breeding/Sweet-Potatoes.aspx> [Accessed 8 February 2021].
(4) Garay & Company. n.d. Suppliers of Sweet Potato in Netherlands-Garay. [online] Available at: <https://www.garaycompany.com/food-beverage/suppliers-of-sweet-potato-in-netherlands> [Accessed 15 April 2021].
(5) Australian Sweet Potato Growers. n.d. Consumer Information. [online] Available at: <https://www.aspg.com.au/consumer-information/#:~:text=There%20are%20four%20types%20of,%2C%20Red%2C%20Purple%20and%20White.&text=Beauregard%20has%20a%20rose%2Fgold,sold%20in%20Australia%20are%20Beauregard.> [Accessed 18 February 2021].
(6) Fresh Plaza. 2020. Sweet potato slip production in Canadian greenhouses. [online] Available at: https://www.freshplaza.com/article/9212407/sweet-potato-slip-production-in-canadian-greenhouses/ [Accessed 11 March 2021].

Despite strict import regulations, the Netherlands presents opportunity through re-export

Focus area	Key message	Key insights	Current impact
Regulation/ Customs	The Netherlands imposes strict regulations on sweet potato exports with significant tariffs.	• As a part of the EU trading block, the Netherlands requires Australian sweet potato exporters to pay a 3% third-country duty, at 105.59 EU per 100kg and 9% Value-Added Tax (VAT) • The Netherlands has strict policies surrounding pesticides, genetic modification and traceability of products. For example, vegetable imports follow strict limits on metal content when compared to other countries. Sweet potato exporters would need to take extreme care in ensuring their products do not exceed the maximum residue levels (MRLs), as many Dutch supermarkets require MRLs to be **50% lower** than the legal limit[1,7]	
Market access	The 25% tariff on US and a potential Free Trade Agreement with Europe encourages market access for Australian sweet potato exports.	• The EU implements a Common Agriculture Policy (CAP) that is widely considered to distort international trade in agricultural produce. However, Australia is in the process of negotiating a Free Trade Agreement that has the potential to lower these barriers to entry for sweet potato exporters[2] • At the end of 2020, the EU imposed retaliatory tariffs of 25% on US sweet potatoes, presenting an opportunity for Australian exporters to fill a potential gap in Dutch demand[3] • As a one of the largest and most sophisticated trading hubs in the world, the Netherlands is often an access hub to the rest of Europe. The Netherlands re-exported approximately 80% of sweet potato imports in 2018[4]	
COVID-19 Impact	The COVID-19 pandemic affected the Netherland's exports and initially saw increased consumer spend on groceries.	• The Netherlands experienced relatively relaxed COVID-19 measures when compared to other Europeans countries such as Italy or Spain, resulting in less severe impacts on discretionary income. At the start of the pandemic, consumer spending on groceries was 34% higher than the same time in 2019[5] • As the world's largest agricultural exporter after the USA, the Netherlands had challenges distributing some produce with fractured logistic networks and seasonal labour shortages. However, these challenges appear to not have extended to the re-export of agricultural products from the Netherlands, which grew by 5.1% in 2020 when compared to 2019[8]	
Supply chain and logistics	The Netherlands has a sophisticated distribution network including sea, inland rivers and air freight.	• The Netherlands is one of the most sophisticated logistics hubs in the world with highly developed transport infrastructure, access to a significant population (244 million) within 1000 kms, and relatively lower supply chain costs[6] • The Dutch fruit and vegetable supply chain involves importers, wholesalers, supermarkets and distributors. Dutch importers of fruit and vegetables frequent trade fairs across Europe, for example Fruit Logistica, which are the preferred method of building relationships with exporters • Companies that work with retail supply programs are mostly located in the south-west Netherlands and near wholesale markets, offering a variety of pre-packaging solutions[7]	

Source: (1) Access2Markets. 2021. Results for product code 0714.20.10 from Australia to Netherlands. [online] Available at: <https://trade.ec.europa.eu/access-to-markets/en/results?product=07142010&origin=AU&destination=NL#> [Accessed 2 March 2021]. (2) Matthews, A., Salvatici, L. and Scoppola, M., 2017. Trade Impacts of Agricultural Support in the EU. EU's Common Agricultural Policy and development. [online] International Agricultural Trade Research Consortium. Available at: <https://www.researchgate.net/publication/312591218_Trade_Impacts_of_Agricultural_Support_in_the_EU> [Accessed 25 February 2021]. (3) McGregor, N., 2020. EU tariffs on US sweet potatoes increase 25%. [online] Fresh Plaza. Available at: <https://www.freshplaza.com/article/9270332/eu-tariffs-on-us-sweet-potatoes-increase-25/> [Accessed 24 February 2021]. (4) OEC. 2018. Netherlands (NLD) Exports, Imports, and Trade Partners. [online] Available at: <https://oec.world/en/profile/country/nld> [Accessed 25 February 2021]. (5) Statista. 2021. Netherlands: consumer spending food coronavirus 2020 | Statista. [online] Available at: <https://www.statista.com/statistics/1113815/dutch-consumer-spending-food-coronavirus/> [Accessed 5 February 2021]. (6) Holland International Distribution Council, 2021. The Netherlands as a logistics hotspot. Benchmark. [online] Available at: <https://hollandinternationaldistributioncouncil.com/cms/wp-content/uploads/2018/01/NL_The-Netherlands-as-a-logistics-hotspot.pdf> [Accessed 9 February 2021]. (7) CBI. 2018. Exporting fresh fruit and vegetables to the Netherlands. [online] Available at: <https://www.cbi.eu/market-information/fresh-fruit-vegetables/netherlands> [Accessed 22 February 2021]. (8) Wageningen University & Research. 2021. Value of agricultural exports increases slightly. [online] Available at: <https://www.wur.nl/en/Research-Results/Research-Institutes/Economic-Research/show-wecr/Value-of-agricultural-exports-increases-slightly.htm> [Accessed 5 March 2021].

The Dutch consume sweet potato year-round, with a preference for orange varieties

Healthy, sustainable produce is a focus for Dutch consumers, who are willing to pay premiums for vegetables with clear food provenance and health benefits.

Consumer preferences

The popularity of sweet potatoes has increased enormously in the Netherlands over the last few years.

- Sweet potatoes are in high demand, also driven by domestic production: the Netherlands is conducting many tests with sweet potato cultivation[5]

Dutch consumers are increasingly focused on the health and well-being impacts of their food.[1]

- This translates into willingness to pay a premium for products that will support a healthier, more sustainable life style

The market expects a sustainable product, with consumers more aware of social and environmental issues.[2]

- Clear food provenance and supply chain traceability may also command a higher premium
- Certifications that pass the Global Social Compliance Programme standards are expected in the Netherlands.

In Europe, the orange-skin American Covington and Spanish Beauregard are most common, accounting for 95% of the total market.[2]

- Dutch consumers typically fall into these consumption preferences
- Other varieties do exist, red and yellow are most common after orange
- Purple sweet potato is still rare, interest in the product in the Netherlands is relatively low compared with Asian markets

Purchase behaviours

The Netherlands, while re-exporting most of its sweet potato imports, maintains a healthy demand for the vegetable.[4]

- The country of 17 million people consumed 55 thousand metric tonnes in 2019, equating to little over 3kg per capita every year

Dutch consumers are open minded and interested in trying new products and new flavours.[1]

- The market is open to vegetables that have unusual flavourings and/or are high quality

The Netherlands is seeing a move towards buying local and in smaller, single-portion sizes.

- Australian sweet potato exporters will need to consider packaging needs and the best way to export produce to align with Dutch consumers' expectations, who enjoy single-portion but are environmentally conscious
- Healthy snack food is becoming more popular in the Netherlands, with key phrases such as 'rich in' or 'low in' proving successful[1]

European customers are purchasing sweet potatoes all year round.

- Despite potatoes seen traditionally as a winter food, the demand for sweet potatoes is sustained throughout the year[3]

Source: (1) Pinckaers, M., 2019. The Dutch Food Retail Report 2019. Global Agricultural Information Network Report. [online] USDA Foreign Agricultural Service. Available at: <https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Retail%20Foods_The%20Hague_Netherlands_6-26-2019.pdf> [Accessed 24 February 2021].
(2) CBI. 2021. Exporting fresh sweet potatoes to Europe. [online] Available at: <https://www.cbi.eu/market-information/fresh-fruit-vegetables/sweet-potatoes> [Accessed 24 February 2021].
(3) Selby, G., 2017. Sweet potatoes from Central America to sustain Europe's growing appetite. [online] Produce Business UK. Available at: <https://www.producebusinessuk.com/purchasing/stories/2017/05/18/sweet-potatoes-from-central-america-to-sustain-europe-s-growing-appetite> [Accessed 9 February 2021].
(4) Tridge. 2021. Sweet Potato import from Netherlands. [online] Available at: <https://www.tridge.com/intelligences/sweet-potato/NL/import> [Accessed 25 February 2021].
(5) Agri News Net Farming Portal. 2019. OVERVIEW GLOBAL SWEET POTATO MARKET- December 2019. [online] Available at: <https://www.farmingportal.co.za/index.php/agri-index/68-crops/3538-overview-global-sweet-potato-market-december-2019> [Accessed 12 February 2021].

Australian sweet potato exporters can capitalise on the opportunity created by high tariffs on US

The new tariffs on US sweet potatoes offer a chance for Australian sweet potato exporters to provide Dutch retailers and re-exporters with high quality produce.

Channels to reach consumer

Stakeholder consultation confirmed that sweet potatoes are a growing product in food service and offer valuable opportunity for exporters.

- Consult with a major Dutch potato processor indicated that sweet potato specialty products such as fries, mash, wedges, gratin, baby and pet food are growing 6-7% per year
- Sweet potato fries have approximately four times higher value per kilogram sold than normal fries

The two major retailers, Albert Heijn and Jumbo dominate the market with a combined market share of almost 54%.[1]

- 80% of all food retail outlets are supermarkets, with the remaining 20% made up of convenience stores, a few wholesalers and superstores located in industrial parks
- Online shopping offers potential, with 2.4% of all Dutch households already signed up to 'Picnic', an exclusively online supermarket with free delivery
- Other supermarkets include Lidl, Aldi, Plus, Coop and Spar

Retailers (both supermarkets and super stores) usually work with specialised importers for international-specialty products.

- These products are pre-packaged and ready for sale. The importers are then responsible for distribution to the select stores
- These importers often have re-export capabilities to other European markets

Export opportunities

The Netherlands was the world's largest importer of sweet potato in 2020, most of which came from US suppliers. However, the EU introduced a 25% tariff on these US exports.[3]

- Australian sweet potato exports can look to fill the gap in US supply, with Australia's combined 12% import duty (tariff and VAT) and weight-based tariff serving as far more competitive than a 25% tariff the US experience

As the trading gateway to Europe, the Netherlands provides swift access to France, Germany and other major European markets.

- Sophisticated distribution networks and robust existing re-exporting capabilities means a larger addressable market for Australian sweet potato exporters[2]

Private label products, where the retailer sells a third-party product under their own label (including healthy, organic, sustainable lines), have 30% market share in the Netherlands.[1]

- This may create opportunity for Australian sweet potato exporters to position their clean and sustainable produce for private labelling by retailers

Source: (1) Pinckaers, M., 2019. The Dutch Food Retail Report 2019. Global Agricultural Information Network Report. [online] USDA Foreign Agricultural Service. Available at: <https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Retail%20Foods_The%20Hague_Netherlands_6-26-2019.pdf> [Accessed 24 February 2021].
(2) Bruins, M. and Zienkiewicz, M., 2018. A New Sweet Potato Variety has Arrived on the Market | EuropeanSeed. [online] EuropeanSeed. Available at: <https://european-seed.com/2018/12/a-new-sweet-potato-variety-has-arrived-on-the-market/> [Accessed 23 February 2021].
(3) McGregor, N., 2020. EU tariffs on US sweet potatoes increase 25%. [online] Fresh Plaza. Available at: <https://www.freshplaza.com/article/9270332/eu-tariffs-on-us-sweet-potatoes-increase-25/> [Accessed 24 February 2021].

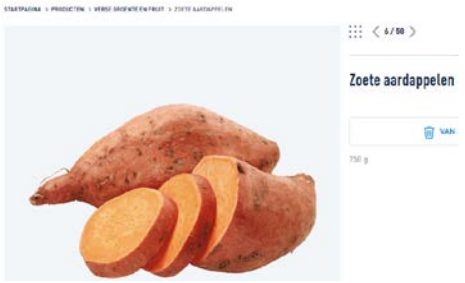
Most Dutch supermarkets offer online purchase channels, and appear to emphasise value-add

The images below show the display of sweet potatoes on a number of stores in the Netherlands, most of which also offer both online and physical stores. Varieties offered are limited to only Beauregard, and pre-cut, ready-to-cook products feature more heavily than in other markets.

Online and physical stores:

Coop, a large supermarket chain with online and in-store channels[1]

Aldi is predominantly an in-store channel[3]



Albert Heijn is the leading supermarket chain in the Netherlands[2]

Pre-cut, read-to-cook fresh sweet potato

Source: (1) Coop, 2021. Keuze uit de lekkerste producten <https://www.coop.nl/categorie/boodschappen.aardappelen_pasta_en_rijst.aardappelen> [Accessed 15 March, 2021]. (2) Albert Heijn Online, 2021. AH Kilo'tje zoete aardappel. <https://www.ah.nl/producten/product/wi164358/ah-kilo-tje-zoete-aardappel> [Accessed 15 March, 2021]. (3) Aldi NL, 2021. Zoete aardappelen. <https://www.aldi.nl/onze-producten/verse-groente-fruit/zoete-aardappelen-2000165-1-0.article.html> [Accessed 15 March, 2021].

Stakeholder consultation with specialists in the Netherlands resulted in a number of key takeaways

The team was fortunate to engage a number of Dutch experts in-market to discuss fresh the growth of the sweet potato market in the Netherlands and across the EU. The table below shows the key insights gained through these conversations. Stakeholders engaged included:

Cosun

- **Cosun is a modern, forward looking horticulture cooperative with a global presence, working with thousands of growers to produce plant based materials**
- **Cosun has a major interest in sweet potatoes, particularly value-added products such as fries**

Aviko

- **Aviko is a Dutch specialist food service supplier partnering with Cosun**
- **Aviko is one of Europe's leading potato processors and accounts for the largest sweet potato market outside the US. Aviko was the first to market sweet fries in the UK and also has a growing presence in Oceania**

Topic	Insight
Sweet potatoes are a rapidly growing market in the EU	• Cosun has been producing sweet potatoes for nine seasons and has experienced double digit growth in sweet potatoes annually • Aviko is a 75% food service business whose specialty items are growing 6-7% per year. This is a growing portfolio which also includes sweet potato mash, wedges, gratin and spices, as well as pet and baby food which have all experienced successful sales • Aviko has found sweet potato fries, which currently account for around 1-2% of the European fries market, have approximately four times higher value per kilogram sold than normal fries • Cosun has tried to meet growing demand in the EU by cultivating sweet potatoes domestically however the Dutch climate is challenging, therefore some supply is imported from Spain
Value-adding sweet potatoes offers valuable opportunity	• For value-adding, Aviko has found that sorted and smaller varieties of sweet potatoes are preferred given smaller, consistent volumes are easier to cut and process compared to the large bulk products exported by the US • Aviko prides itself on highly particular quality assurance in its value-adding processes for fries, including blanching and steaming in ways that optimally preserve products' natural sugar content. This gives Aviko sweet potato products a competitive advantage over similar products produced in bulk in the US
Consumer health perceptions	• Sweet potatoes have experienced substantial growth in the EU due to consumer perceptions that they have a lower carbohydrate content than normal potatoes • This is true particularly of young and female consumers, creating an attractive target market segment
National variety preferences	• Consults validated confirmations that orange varieties such as Beauregard and Covington are more popular in Western markets, while white and purple sweet potato varieties are more commonly consumed in Asian markets • Within the EU, Aviko and Cosun have found that sweet potatoes have more heavily penetrated Northern European markets such as the UK, Germany and Sweden. Sweet potatoes hold a premium niche in these markets and consumers have higher propensity to pay for them in both fresh and food service contexts. Growth in markets such as Italy, Spain, and Portugal has been slower

Source: (1) Stakeholder consultation

Conclusion and next steps

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Several key export opportunities for sweet potatoes are worth investigating as part of industry's next steps

The key action for the sweet potato industry to take into account as it moves forward from this project is to develop an export strategy. This will be pivotal in planning industry-wide actions to equip the widest scope of producers with the knowledge and capability they need to pursue export.

1. Review data and key insights as collective SIAP

- SIAP to review market insights report and pull out most relevant takeaways to assist the group in decisions around further investment in developing an export strategy/action plan

2. Develop an industry export strategy

- Use the learnings from this market analysis to develop a plan for the industry to strengthen export capability
- This strategy will map out actions for the industry to enable producers to pursue export by leveraging knowledge gained through this study

3. Implement the strategy

- Implement the export strategy through industry-wide initiatives such as marketing and communications, training and education programs and other forms of industry engagement

At the forefront of the sweet potato industry's next steps should be three priorities, knowledge of which is enhanced by this market insights report:

- ✓ **Increasing international demand**
- ✓ **Diversification in export markets**
- ✓ **Strengthening global horticulture reputation**

Appendix 1: Supplementary markets for consideration

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Analysis has been undertaken for supplementary markets in addition to the identified target markets

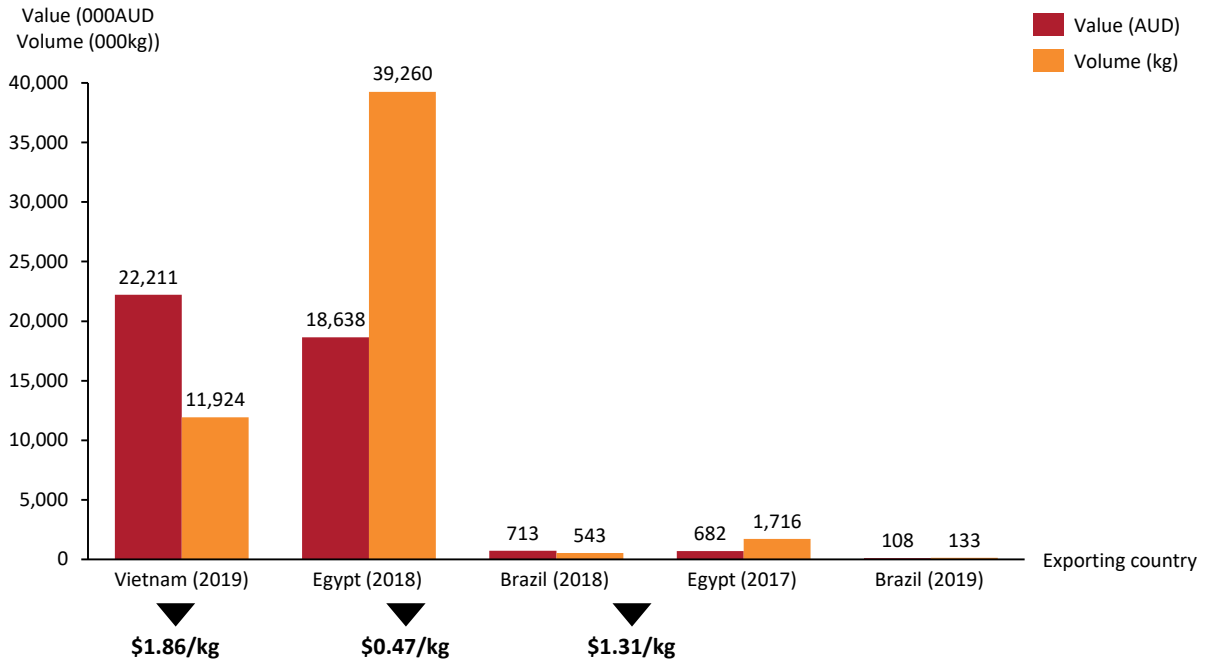
Competitor analyses have been completed for two additional markets discussed in the initial kick-off workshop. While Australia has not exported to these markets before, they may serve as a long term opportunity for Australian sweet potato exports.

Market	Key insight
India	• Overall import volumes as well as price points appear to be notably low, which suggests robust domestic production and/or lack of consumption overall. Export values and prices per kilogram appear to range significantly, the 2019 average price per kilogram was AUD $5.27
USA	• Despite significant domestic production, import volumes are overall relatively high. Export values and prices per kg appear to range significantly, the 2019 average price per kilogram was AUD $5.27 • Given that the US is a major sweet potato exporter and year-round produce like Australia, there is likely not a large opportunity for Australian sweet potato exporters in this market

Competitors in India: who are the major sweet potato exporting nations?

In 2017-19 the top sweet potato exporting nations to India were Vietnam, Egypt and Brazil. Australia has not yet exported sweet potatoes to India. Overall import volumes appear to be low, suggesting robust domestic production and/or lack of consumption overall. Price points received are also low.

Top Sweet Potato Exporting Nations to India, by value and volume
2017-19
UN Comtrade Database



Highest price point received for sweet potato exports to India (2017-19) (all exporting nations)

Exporter	Price (AUD)/kg
Vietnam (2019)	**$1.86**
Brazil (2018)	**$1.31**
Brazil (2019)	**$0.81**
Average $/kg 2017-19: $0.97	

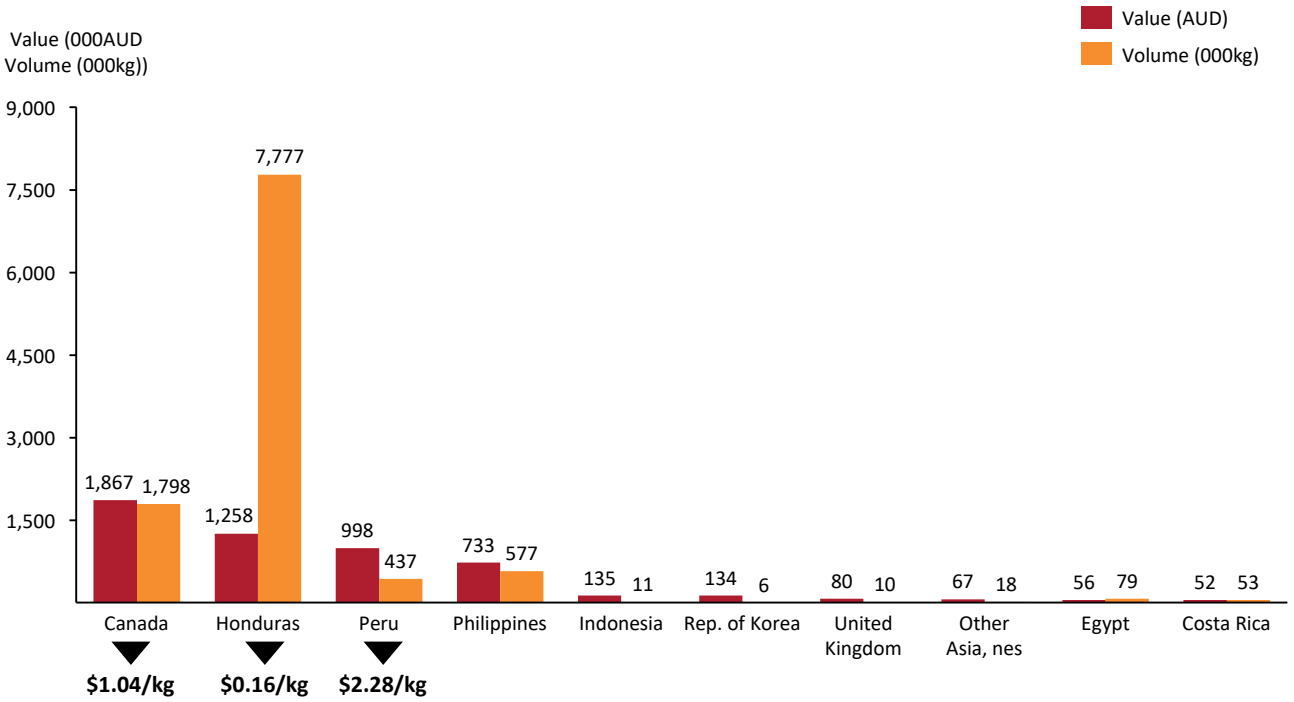
Note, given significantly minimal sweet potato import volumes in 2019, the graph above shows sweet potato exports to India from 2017-2019.
Based on this initial competitor analysis, India does not appear to be an attractive market for Australian sweet potato exports due to low price points and import volumes overall. However, India's rapid growth and development as a market should not be discounted, and should be kept in mind for potential exports in the long term.

NOTE
(1) The price per kilogram analysis does not include exporting nations with export volumes **less than 100kg.**
(2) Export values are based on exchange rate $1AUD=$1.28USD
(3) Comtrade commodity code: '071420 – Vegetable roots and tubers; sweet potatoes, with high starch or inulin content, whether or not sliced or in the form of pellets, fresh or dried'

Competitors in the USA: who are the major sweet potato exporting nations?

In 2019 the top sweet potato exporting nations to the USA were Canada, Honduras and Peru. Australia has not yet exported sweet potatoes to the USA. Despite significant domestic production, import volume are overall relatively high. Export values and prices per kg appear to range significantly, the 2019 average was $5.27/kg

Top Sweet Potato Exporting Nations to the USA, by value and volume
2019
UN Comtrade Database



Highest price point received for sweet potato exports to USA (2019) (all exporting nations)

Exporter	Price (AUD)/kg
Japan	**$39.19**
Rep. of Korea	**$21.85**
Indonesia	**$12.05**
Average $/kg 2019: $5.27	

Exporting nations not included in this list (volumes/values below top 10:

- China
- Germany
- Israel
- Vietnam
- Jamaica
- Japan
- India
- Antigua and Barbuda
- Portugal
- Kenya
- Guyana
- Saint Vincent and the Grenadines

There is a wide range of exporting nations sending sweet potatoes to the USA, notably a number of markets unique markets across Central America and Africa. A range in price points suggests reason to approach the market with caution, especially in reference to cases such as Honduras which exported significant volumes for drastically low value.

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NOTE
(1) The price per kilogram analysis does not include exporting nations with export volumes **less than 100kg.**
Export values are based on exchange rate $1AUD=$1.28USD

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March 2021