Riverland citrus industry value chain analysis

Andrew Green
South Australian Citrus Industry Development Board

Project Number: CT10029

CT10029

This report is published by Horticulture Australia Ltd to pass on information concerning horticultural research and development undertaken for the citrus industry.

The research contained in this report was funded by Horticulture Australia Ltd with the financial support of The Citrus Board of SA.

All expressions of opinion are not to be regarded as expressing the opinion of Horticulture Australia Ltd or any authority of the Australian Government.

The Company and the Australian Government accept no responsibility for any of the opinions or the accuracy of the information contained in this report and readers should rely upon their own enquiries in making decisions concerning their own interests.

ISBN 0 7341 2686 7

Published and distributed by:
Horticulture Australia Ltd
Level 7
179 Elizabeth Street
Sydney NSW 2000
Telephone: (02) 8295 2300
Fax: (02) 8295 2399

© Copyright 2011

HAL

Horticulture Australia

Riverland Citrus Industry Value Chain Analysis

An analysis of two navel orange supply chains

INDUSTRY REPORT

29 July 2011

Denise Little, Primary Industries and Resources SA

Casey Work, Primary Industries and Resources SA

Kym Thiel, Citrus Australia

Elizabeth Gunner, Elizabeth Gunner Consulting

Karen Shepherd, Elizabeth Gunner Consulting

Jack Langberg, Primary Industries and Resources SA

Dr Jackie Venning, University of Adelaide

John Fennell, Primary Industries and Resources SA

Ben Hebart, Primary Industries and Resources SA

Sonia Gallasch, Primary Industries and Resources SA

Dr Peter Fisher, Victoria Department of Primary Industries

HAL Project Number: CT10029

Final Version (Updated 9 September 2011).

HAL Project Number: CT10029

Key contacts:

Andrew Green
CEO, SA Citrus Board
Ph: 08 8162 5183
E: andrew.green@adelaide.on.net

Denise Little
Project Manager
Ph: 08 8226 0303
E: denise.little@sa.gov.au

Casey Work
Research Team Leader
Ph: 08 8226 0420
E: casey.work@sa.gov.au

Date of report: 29 July 2011

Acknowledgments

Domestic and Export Chains and Businesses Studied
We gratefully acknowledge the domestic and export supply chains and businesses who participated in this project. Without their commitment and willingness to participate, this project and the outcomes gained for industry would not have been possible.

In particular, we acknowledge the growers, packing shed and distribution centre involved in contributing their data for the lifecycle assessment.

Project Research Team
Thanks to the Project Research Team members Denise Little, Casey Work, Kym Thiel, Jack Langberg, Jackie Venning, Ben Hebart, Sonia Gallasch, John Fennell, Elizabeth Gunner and Karen Shepherd for the significant time they have contributed in data collection, analysis and report writing in particular.

Victorian Department of Primary Industries - Lifecycle Assessment

State Government Victoria Department of Primary Industries

Primary Industries and Resources SA gratefully acknowledge the Victorian Department of Primary Industries, in particular Peter Fisher, Keith Reynard, Richard Williams, and Aimee McCutcheon, for their collaboration in the completing the lifecycle assessment component of this project. Their expertise in developing the models and conducting the analysis has been crucial to this component of the project.

Project Funding Bodies
This project was jointly funded by the Riverland Citrus Industry in the form of the SA Citrus Industry Development Board, Citrus Growers of SA and the Riverland Futures Taskforce. This industry funding was used to leverage funding from Horticulture Australia Limited. Citrus Australia also contributed in-kind funding of the project through the SA Value Chain Coordinator project.

Primary Industries and Resources SA are the other significant funder contributing cash, in kind and specialist expertise to the value chain analysis.

SA Citrus Board
South Australian Citrus Industry Development Board

Citrus Growers of South Australia

Riverland Futures Taskforce

Government of South Australia
Primary Industries and Resources SA

Citrus Australia

HAL
Know-how for Horticulture™

Any recommendations contained in this publication do not necessarily represent current HAL policy. No person should act on the basis of the contents of this publication, whether as to matters of fact or opinion or other content, without first obtaining specific, independent professional advice in respect of the matters set out in this publication.

CONTENTS

Executive Summary

Using value chain analysis to identify potential inefficiencies and opportunities for a more consumer focused, profitable citrus industry

Project purpose

A **'Value Chain Analysis for the Riverland Citrus Industry'** examined two navel orange 'supply' chains, one domestic and one export, and was undertaken to better understand consumer preferences, attitudes and purchasing behaviour towards navels. It aimed to identify potential opportunities for differentiation and competitive advantage in the chains, in order to guide the development of a demand-driven industry for the future.

Key Activities

The methodology used for this project was broadly based on Sustainable Value Chain Analysis (SVCA) methodology as detailed by Bonney *et al* (2009)[1]. A flexible approach was taken where necessary to meet industry requirements and timelines. It comprised a combination of consumer research, data collection and analysis, a carbon and water life cycle analysis and value chain analysis.

Key Outcomes

The two chains studied are currently dominated by a supply or push approach, with the production end of the chain driving the main activities. Instead, rather than consumer demand creating a pull-through effect in the chain, the production of fruit and its disposal or sale dominates the chain's actions.

Currently in the chains observed fruit is graded for size, colour and blemish as directed by the specifications of retailers, rather than by eating quality as preferred by consumers**.** A value chain that is driven by market demand responds to consumer preferences, generating a positive eating experience which results in repeat purchases and product loyalty.

In the retail marketplace observed, both in Australia and Japan, citrus displays are not highly visible and the product receives little promotion in-store compared with seasonal fruits competing for the same consumer dollar. There is real and immediate potential for navels to be differentiated from other varieties, and given more prominence at the retail point-of-sale, raising the profile of the product in consumers' eyes and highlighting the freshness and seasonal qualities.

In Japan, consumers are sophisticated and knowledgeable when it comes to food, making very informed choices. In the research Japanese consumers stated directly that they would like more product information at point-of-sale, specifically stating they would be encouraged to buy more navels if given more information about their sweetness levels and clearing up confusion about when Australian citrus is in season. In addition, all oranges are instinctively thought to be valencias, delivering a clear opportunity for developing differentiation. Activities around these issues, both in the domestic market and in Japan, present very achievable first steps in moving toward an effective value chain and delivering on consumer expectations.

Within both chains there is currently limited evidence that the consumer plays an influencing role in decisions and business activities around navels, but rather is acknowledged in the background. By better understanding and focusing on what consumers want, the chains can become more responsive, and improve their target marketing and engagement with consumers.

[1] Bonney, L., Clark, R., Collins, R., Dent, B., Fearne, A. (2009). Sustainable Value Chain Analysis: An agri-food chain diagnosis. *Unpublished.*

A navel chain that understands and delivers what markets and consumers require by:

- **responding to consumer preferences,**
- **differentiating their product in the market place**
- **adding value from orchard to eating experience**

will be better able to:

- **win market share from competitors,**
- **achieve premium prices for their product, and**
- **have a more sustainable, profitable future.**

Improvement projects of benefit to the Australian Citrus Industry

The following broad areas for improvement have been suggested as projects for industry to consider, in moving toward a more consumer and value-driven approach to business:

- Futuristic scenario planning to assist industry to better prepare for its future
- Identify opportunities for differentiation of navel varieties by developing a seasonal map linked to sensory analysis to highlight when navels are at their peak and to counter the consumer research response that 'an orange is an orange'.
- Invest in further LCA research across both domestic and export value chains studied to Refine the model and expand the dataset.
- Improve point of sale communication to spark consumer interest and allow them to make more informed purchase decisions.
- Investigate ways of grading for eating quality to be better able to deliver to consumer expectations
- Review business models in the fresh category that demonstrate collaboration, co-innovation, cooperation, where the consumer drives the business.
- Economic analysis to evaluate the opportunity and costs of operating as a value chain
- Provide Nielsen consumer research to improve the focus of the navel industry's domestic marketing campaign to improve consumer focus.
- Improve management of stock systems and fruit handling by retailers in the domestic market as part of improving displays and the eating experience by always providing the freshest fruit.
- Foster a value chain culture in the citrus industry
- Continue exploring innovative product development to overcome the "messiness" associated with eating navels.

Shifting from a supply chain focus to a value chain one can demand significant change. **It requires businesses in the chain to work more collaboratively with one another: emphasis must change from pushing product into the marketplace, to taking direction from the marketplace itself and ensuring production meets consumer expectations.** By taking a value chain approach, product attributes valued by the consumer are underpinned by a common strategy, effective information flow and positive relationships within the chain.

For agricultural chains in Australia, where there has commonly been a culture of suspicion and competition between chain participants and where commodity-style supply dominates many of the larger industries, the shift to value chain thinking is particularly challenging. However, every step taken to increase consumer understanding, foster collaboration between chain participants and put an emphasis on adding consumer value can create a more sustainable future with better returns.

PART 1: INTRODUCTION

What is a value chain and how does it function?

Key messages:

- Traditionally, the citrus industry has had a supply chain focus.
- A value chain approach involves focusing on the consumer, identifying what they value and working together as a chain towards meeting consumer demands.
- Applying a value chain approach can create a sustainable competitive advantage for the chain.

Emphasis has been on what the industry can produce and pushing it out to consumers through as many distribution channels as required, rather than allowing the pull of demand to drive the business. In supply chains:

- Efficiency is key and costs are cut wherever possible.
- Information shared between businesses is at a transactional level.
- Relationships between businesses in the chain are often weak and lack trust and commitment (Fearne, 2009a).

A value chain approach places the focus on the consumer, exploring what it is they value and identifying ways for the chain to work together toward the common goal of meeting those consumer demands. In value chains:

- Costs are only cut in areas where value for the consumer will not be diminished.
- The effective flow of information through the chain is critical to its success.
- Relationships are strong and underpinned by trust and commitment.
- The chain communicates effectively to make better decisions about how to increase consumer value (Fearne 2009a).

Consumer insight is fundamental to the supply of product that people want. Understanding the consumer gives insight for making better decisions about how to allocate resources by focusing on the areas that create consumer value. It also allows the value chain to anticipate and respond to change in a timely manner. A flexible, adaptable and strong value chain has a sustainable competitive advantage over other supply chains (Mugford, 2009a).

Fearne (2009b) lists four key success factors in building sustainable value chains:

1. Consumer insight.
2. Strategic alignment – all businesses in the chain working towards a common goal.
3. Transparency – effective and efficient flow of relevant information throughout the value chain.
4. Relationship integrity – trust, commitment and inter-dependence between businesses in the chain.

In addition, a sustainable value chain also understands the environmental impact of its product and works towards becoming more environmentally sustainable. It combines environmental sustainability with consideration for the attributes consumers value and how these will be perceived if changes are made to production processes and product attributes (Mugford, 2009b).

Shifting from a supply chain focus to a value chain focus requires businesses in the chain to work more collaboratively with one another. This is not something that can happen overnight and requires a change in culture away from an approach which has served businesses well in the past (Fearne, 2009a). However, by taking a value chain approach, product attributes valued by the consumer are underpinned by common strategy, information flow and relationships within the chain. These components that are critical to success but can be hard to replicate. They can therefore give the chain a sustainable competitive advantage over other supply chains.

How the project came about

The Riverland Citrus Industry Value Chain Analysis Project was jointly initiated by the Riverland Futures Taskforce (RFT), South Australian Citrus Industry Development Board (SACIDB), Citrus Growers of South Australia (CGSA) and Primary Industries and Resources SA (PIRSA).

These bodies formed a project steering group with the role of:

- Sourcing funding required to carry out the project
- Providing broad direction regarding the value chains to be studied

Funding (cash and in-kind) contributions to the Project included:

- SACIDB
- CGSA
- RFT
- PIRSA
- Horticulture Australia Limited
- Citrus Australia

Why a Value Chain Analysis?

A Value Chain Analysis was identified as a way to assess whether the industry is effective and efficient at maximising opportunities for adding value in the eyes of the consumer. Through the use of consumer and customer intelligence, Value Chain Analysis was also used to identify opportunities for the industry.

Thinker in Residence Andrew Fearne's work on Sustainable Food and Wine Value Chains was also a catalyst for this project. Further information about Fearne's residency can be found in his final report *Sustainable Food and Wine Value Chains* (2009).

Why navel oranges?

Based on existing market intelligence, the steering group decided upon the analysis of navel oranges. The market intelligence presented was:

- Navel oranges are the largest horticultural export from South Australia. A large proportion of total production is consumer overseas.
- Exports to USA, Hong Kong and Japan are important high value markets for the SA citrus industry
- Despite challenges in production, Australian navel export growth has been strong over the last five years.
- In recent years, the total trade in fresh mandarins is showing faster growth than oranges
- Despite the faster growth in total trade and consumption for fresh mandarins, there is still a large number of navel oranges planted in the Riverland (Palmer *et al.,* 2009) creating potential oversupply in some growing seasons.

Supply chains to be studied

1. Domestic supply chain – navel oranges supplied to a major metropolitan retailer, east coast of Australia.
2. Export supply chain – navel oranges supplied to a major metropolitan retailer, Japan.

A domestic and export supply chain were chosen as a general representation of the SA navel industry. Both supply chains represent significant markets for navel oranges. The Japanese market has potential to grow while the domestic market study was more about determining opportunities to create value for consumers. It was also recognised that most potential growth in the domestic market is likely to occur on the Eastern Seaboard.

Context of the research

The South Australian Citrus Industry
In 2008, South Australia produced approximately 162,000 tonnes of citrus per annum, accounting for around 28% of Australia's crop. At that time, navels made up the majority of production at 48%, valencias 36% and mandarins 9%, with other varieties such as lemons, grapefruit and tangelos making up the balance (SA Citrus Board, 2011).

Participating in the South Australian citrus industry in 2008 were some 450 growers, 26 packers, six processors and 18 wholesalers. Three of the packers were of significant size, handling over 15,000 tonnes of fruit per annum; there were two other large-scale packers handling 5,000 – 15,000 tonnes; three medium-sized handling 1,000 – 5,000 tonnes and 18 small packers handling less than 1,000 tonnes per annum (SA Citrus Board, 2011).

This production comes from three million trees on 7,315 hectares. In recent times there has been a trend towards planting a range of early, mid and late maturing navels specifically to extend the period during which the export market can be supplied with fresh oranges. 48% of the navel crop is exported, making it South Australia's single largest fresh citrus export variety. The SA citrus industry sends 30% of its fresh citrus to over 25 different countries, with 17% of this is exported to a number of Asian markets, including Japan which is one of the SA citrus industry's largest export markets on a volume basis. Other major export markets include New Zealand and USA (SA Citrus Board, 2011).

In recent seasons, the Riverland has experienced below average water availability with enforced restrictions necessitating the adoption of water reduction strategies and more efficient growing practices. While water remains an ongoing challenge, it was not found to be a topic of major concern during the interviews with growers.

The Citrus Value Chain Project
This project is an analysis of two navel orange supply chains, one domestic and one export, and was undertaken to better understand consumer preferences, attitudes and purchasing behaviour towards navels. It aimed to identify potential inefficiencies and opportunities for differentiation and competitive advantage in the chains, in order to guide the development of a demand-driven industry for the future.

A large Australian-owned grower/packer joined the project as a partner, and within this arrangement, two of its operational chains were reviewed:

- a domestic chain supplying a major supermarket in the Eastern states,
- an export chain supplying an importer in Japan with links through to a retailer.

In the domestic chain, it is significant that the retailer was not willing to participate. This has resulted in gaps in the findings, with the need to draw on indirect sources. Such gaps may need to be addressed in future work beyond this project. Engaging the retailer as part of the overall chain may achieve better integration of the chain, improve the flow of information and promote common objectives.

In Japan, the grower/packer relationship of the chain studied was effectively with the importer, with little knowledge and direct engagement with parties beyond that part of the chain. This is a complex chain that appears to be built on a multitude of relationships. How these relationships have evolved is not fully understood and may be based on cultural factors. A different methodology was used for the export research component in Japan, given the cost and logistical difficulties of conducting such research in another country with a very different culture. So while the research undertaken along the various parts of the chain by third parties in Japan has provided some useful insights, the information gathered was sometimes limited and often (necessarily) filtered by the grower/packer's Japan-based facilitator.

The 2009/10 Season

The Riverland-focused Citrus Value Chain Analysis Project was conducted during the 2009/10 navel season. This particular season was characterised by extra large fruit resulting from a November 2009 heatwave, which caused excessive flower drop. The volumes of fruit that were harvested were lower by fruit number than average, and the extra large size proved too large for a number of markets. As a result, the project may not have identified areas of potential improvement that would be evident during more typical seasons or in times of high volume.

PART 2: METHODOLOGY

This project was based on Sustainable Value Chain Analysis (SVCA) methodology as detailed by Bonney *et al* (2009). A flexible approach was taken where necessary, to meet industry requirements and timelines and account for cultural factors.

The Sustainable Value Chain Analysis (SVCA) methodology:

- Defines value creation in terms of the product attributes which affect consumer behaviour (willingness to pay and frequency of purchase).
- Identifies which activities add this value, from inputs for agricultural production to consumption/disposal of the final product.
- Evaluates the preparedness of the chain to create, realise and distribute value effectively.
- Compares the environmental impact of different activities along the chain.
- Assesses the scope for the chain to act collaboratively to create competitive advantage through both product and process innovation and improved environmental management.

The Sustainable Value Chain Analysis methodology comprises a combination of consumer research, a carbon and water life cycle analysis and a value chain analysis. The methodology focuses on five key themes:

1. What product attributes do consumers value in the product?
2. Where in the chain is this value created?
3. What are the main environmental impacts of the chain, and through which activities do these impacts arise?
4. How is information generated, shared and used, from final consumption/disposal up to primary production and inputs and back again?
5. Do the relationships in the chain enhance strategic alignment? How much trust and commitment exists?

The following describes the methodology used in more detail.

Engaging the Chain

This project required a high level of engagement from the chains. A number of businesses and chains were identified as meeting the criteria for the chains outlined by the Project Steering Group as:

- Domestic chain: South Australian navel oranges supplied to a major metropolitan retailer on the east coast of Australia
- Export chain: South Australian navel oranges supplied to a major retailer, Japan.

Given the requirement for the oranges to be produced in South Australia, it was decided that grower, packer and marketer businesses based in South Australia would be first approached to participate in the Project with the rest of the chain approached later.

Relevant businesses were invited to participate at the end of July 2010. Commitment from a grower, packer, and marketer to participate as part of both the domestic and export chains was gained during September and an agreement confirming commitment was signed.

Domestic chain

Multiple attempts were made to engage a distribution centre and retailer. Given a number of factors, including the end of the navel season drawing closer, the research team decided to commence the project and data collection in September, while at the same time continuing to try and engage a retailer.

At the end of October, the 'fresh' category distribution centre for a major retailer located in Melbourne, Victoria agreed to participate. Despite a number of different approaches, a retailer could not be engaged to participate in the project. The project was carried out focusing on a retail store in Melbourne, Victoria to which the chain was supplying; however it must made clear that the retailer did not contribute directly to this study.

Export chain

The participating company's representative in Japan:

- agreed to participate as a key part of the supply chain,
- provided input on the research methodology intended for Japan
- coordinated participation and engagement from Japanese businesses.

The participating company and their Japanese representative nominated the chain in Japan to participate in this Project.

The chains engaged to participate in the projects were as shown in the diagram below (figure 1). This diagram highlights the common grower, packer and marketer to each chain.

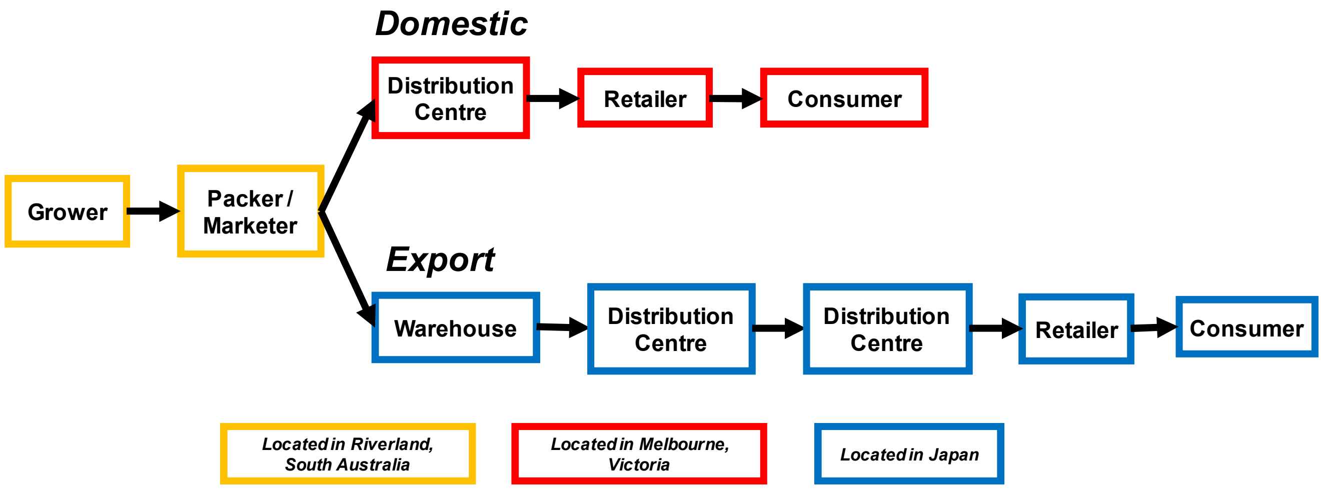


Figure 1 Diagram of the domestic and export chains studied showing businesses in each chain, their location and also highlighting the common grower and packer/marketer components of both chains.

Consumer Research

The Nielsen Company was contracted in September 2010 to conduct the consumer research for the domestic and export chains on the behalf of the South Australian Citrus Board and its project partners.

Domestic

The objective of this research was to gain an understanding of shopper purchasing behaviour for navel oranges in order to develop strategies to enhance profitability and value to the consumer value and profitability.

The context for this research and its findings relate to understanding:

- How shoppers decide when to buy oranges, which variety, brand and type.
- What value consumers attach to navel oranges and why.
- What influence the attributes of navel oranges have on these purchase decisions.
- Ways to stimulate consumption and increase purchasing.
- The opportunity to build South Australia or Riverland as a brand.
- What factors deter purchase and what they mean for marketing decisions.

The domestic research program used three sources of information on consumer behaviour; Nielsen Homescan data, qualitative focus groups and a quantitative online survey.

The qualitative focus groups were based around a target audience of Melbourne-based female shoppers that were main grocery buyers that purchased from a range of stores. Three focus groups were conducted with approximately six members in each. The composition of these groups is shown in table 1.

Table 1. Focus group composition (category, age and user group) of the domestic market consumer research (Nielsen, 2011)

Group	Category	Age	User Group
1	Empty Nesters	46 years+	• Heavy purchasers of oranges • Buying 12+ times/ year
2	Young singles & couples	25-35 years	• Light purchasers of oranges • Buying 1-4 times/ year
3	Mothers with children aged 6-18 years at home	35-45 years	• Medium purchasers of oranges • Buying 5-11 times/ year

The quantitative online survey of Nielsen's own online panel reached a target audience of 600 people. These respondents had bought fruit in the previous seven days from a variety of retail outlets.

Export

The Japanese research program was conducted by Nielsen's office in Japan which provided the benefits of using Japanese consultants. It was done with the overall aim of gaining understanding of Japanese consumers' perceptions of navel oranges and their purchase behaviour.

Specifically the objectives were to:

- Understand Japanese consumers' awareness and perception of navel oranges.
- Understand the factors that influence purchase decisions.
- Identify how these purchase decisions are influenced by the attributes of navel oranges.
- Explore potential marketing strategies for South Australian navel oranges.

Focus group interviews were conducted in Tokyo with four groups of six respondents per group, all married females aged 30 – 49, with at least one third of all respondents working. These people were the brand decision makers, purchasers and consumers of fruit. Three of the groups were navel orange purchasers and consumers who bought oranges at least twice a month on average and who had bought navel oranges at least once within the previous 12 months. The fourth group were non-purchasers/consumers who buy citrus fruit at least twice a month on average, but who hadn't purchased navel oranges within the previous 12 months. Each group included two respondents who purchased oranges at the value chain's retail store.

Life Cycle Assessment

Primary Industries & Resources SA (PIRSA) collaborated with Department of Primary Industries Victoria (DPI VIC) to conduct the analysis of the carbon and water foot print of the value chain. A full record of the Life cycle Assessment can be found in "Life cycle assessment case study series: Navel Oranges (Riverland District) Technical Report" (Fisher *et al,*. 2011).

The Life Cycle Assessment (LCA) was based on the carbon and blue water footprint for the production and distribution of one kilogram of fresh navel oranges to the point of consumption in Melbourne, Victoria and Tokyo, Japan.

The calculations were based on data collected by PIRSA and provided by chain participants. Due to the lack of engagement of a retailer in both chains, assumptions have been made regarding their contributions to the carbon and water footprint of the chain. Data collection commenced in December 2010.

Information was obtained from navel orange farms involved in the project, all being located in the Riverland district of South Australia. Property size ranged between 20 and 1200 ha, and the growers varied considerably in their production system and area of their property planted to navel oranges.

Data for the packing shed were from a major company in the Riverland district that packs the oranges from the five farms in this study. Data for the domestic distribution centre (DC) were from a major company in Melbourne that handles the oranges from the Riverland packing shed. This DC supplies fresh fruit and vegetables from a number of different suppliers to retail stores around Victoria. Data at the retail and consumption levels were constructed based on the assumptions that:

- the warehouse and DCs in the export chain operate with a similar electricity and fuel requirement as the DC studied in Australia (export chain)
- navel oranges spend up to 24 hours at the retail store at ambient temperature and therefore their emissions were negligible (both chains)
- consumers make a 5km round trip to buy oranges as part of a 25kg shopping basket (both chains).

Construction of the citrus LCA model was undertaken using SimaPro 7® (Pré Consultants, 2008). The total global warming impact was calculated using the Australian Indicator Set 2.0 (Centre for Design at RMIT and Life Cycle Strategies Pty Ltd, 2010). Emissions from farm inputs included electricity generation, water supply, fuel production and fertiliser and chemical manufacture. Emissions from farm practices included fertiliser and fuel use. Post-farm emissions included transport, chemical and packaging manufacture and electricity use.

The water footprint was calculated using only the 'blue water' consumption. This is withdrawal of water from aquifers, lakes, rivers and dams (Falkenmark, 2003). Rainfall used was not included, although it can indirectly impact on the water footprint by altering the quantity of blue water required. The domestic chain water footprint included all water used throughout the supply chain as well as water used in the manufacture of fertilisers and electricity. For the export chain, the water footprint was calculated for pre farmgate water use only.

It is important to note that the purpose of the exercise was to provide strategic insights relevant to the Sustainable Value Chain Analysis (SVCA); however the input data may not be adequate to support labelling and marketing claims without further refinement.

Mapping the Chain

The data collection process for mapping the chain involved two main steps:

- Chain walk – physically visiting each business in the Australian component of the chain to gain an overview of the flow of navel oranges through the chain (material flow) and insight into the relationships and information flow that exist;
- Face-to-face interviews – One hour interviews with key representatives from each Australian business in the chain to build a picture of material flow, information flow, relationships, innovation and sustainability within individual businesses and across the chain.

The majority of the chain walk was completed on October 13 and 14, 2010 when research team members travelled to the Riverland to see the growers and packing shed operations. Visits were also made to the Distribution Centre and retail stores in Melbourne, Victoria on November 11, 2010.

Face-to-face interviews commenced on October 12 and were completed on December 21, 2010. Businesses along the chain nominated appropriate staff for the research team to interview. In total, 17 people were interviewed across the two supply chains studied. These interviews were designed to collect data on the individual's view of the operation of the chain from the point of view of their own business. Each interview was conducted by two people from the research team. Where necessary, further questions were asked at a later stage to fill gaps in information identified during the data analysis.

Export chain
Structured interviews based around a written questionnaire were conducted with the Japanese businesses in the chain. This questionnaire touched on themes of information flow, relationships and use of consumer insight. The Project Research Team believed this would be a more appropriate way of gathering information from these businesses given language and cultural factors. The written survey was conducted on behalf of the Project Research Team by the participating company's Japan-based representative during December 2010.

Data analysis

Data analysis was carried out between January and March 2011.

Thematic content analysis (Bonney et al. 2009) was used to analyse the data collected from the face-to-face interviews. Thematic content analysis involves the searching in a systematic manner across the data set, in this case the interviews. The process used in this analysis was:

1. Reading of interview transcripts.
2. Coding of the data into key themes of material flow, information flow, relationships, consumer insight, innovation, and sustainability and general notes.
3. Reviewing of the data coded to each theme.
4. Summarising themes at each part of the supply chain.

The consumer research was also included in this analysis. Activities and inputs were assessed as 'adding value', 'necessary' or 'wasteful', in the eyes of the consumer. This analysis aided in the development of improvement projects for the chain and industry.

Improvement projects were developed and reports composed between April and July 2011. During this time the findings were also "ground-truthed" with the chains studied to verify the information collected was accurate.

Project Research Team

The Project Research Team, led by PIRSA, carried out the research including development of the methodology, data collection, data analysis and development of improvement projects. Members of the Project Research Team are listed in the table below.

Table 2. Project Research Team members, their role on the research team and their full time position and organisation.

Name	Role on Research Team	Position
Denise Little	*Project Manager and Research Team Member*	Manager – Horticulture Industry Development, PIRSA
Casey Work	*Research Team Leader*	Research Officer Value Chain – Horticulture Industry Development, PIRSA
Kym Thiel	*Industry Funded Research Team Member*	Value Chain Coordinator – Export Market Liaison, Citrus Australia Limited
Elizabeth Gunner	*Industry Funded Research Team Member: data analysis*	Consultant, Elizabeth Gunner Consulting
Karen Shepherd	*Industry Funded Research Team Member: data analysis*	Consultant, Elizabeth Gunner Consulting
Jack Langberg	*Economic Analyst and Research Team Member*	Manager – Industry Strategy and Performance, Agriculture, Food, Wine and Forestry, PIRSA
Dr Jackie Venning	*Sustainability Analyst and Research Team Member*	Joint position with: School of Earth & Environmental Sciences, The University of Adelaide and Agriculture, Food, Wine and Forestry, PIRSA
John Fennell	*Research Team Member and Report Writing*	Principal Officer, Agriculture, Food, Wine and Forestry, PIRSA
Ben Hebart	*Research Team Member*	Project Manager – Value Chain Development, PIRSA
Sonia Gallasch	*Research Team Member*	Project Officer – Value Chain Development, PIRSA
Dr Peter Fisher	*Life Cycle Assessment Researcher*	Section Leader Soil Physics, Victoria Department of Primary Industries

PART 3: INDUSTRY LEARNINGS FROM THE DOMESTIC AND EXPORT CHAINS STUDIED

Currently both chains use a 'supply push' approach

The chains studied are characterised by a commodity focus, with emphasis on supply pushing product through rather than a demand driven pull. This is unsurprising considering the orange is a relatively low value commodity product with little currently to differentiate it in the marketplace and minimal opportunities to extract a premium. Industries like this are not unusual in horticulture and the broader agricultural sector in Australia. They typically have a spot marketing approach, where long-term goals are over-shadowed by the pursuit of short-term, opportunistic sales. This leaves the primary producers in these chains as price-takers, unable to exert influence on the chain over where their products go and for what value. Spot marketing becomes the most attractive means of minimising risk and securing an immediate return to cover production and processing costs with the hope of also securing a small profit.

In the supply chains studied, the packing shed generally makes sales/marketing decisions on behalf of the chain. The packing shed has an imperative to move as much fruit to market as possible to gain high volume through-put therefore maximising returns to both the shed and growers.

The packing shed studied exhibited a sophisticated operation that is both mature and efficient in handling and moving fruit. While this is positive for both the domestic and export chains, it makes it more difficult to recognise the imperative for change.

The implication of the differing objectives of the packing shed and marketing activities

It appears that both the pack-house and marketing functions of the chains have differing objectives. As illustrated above, the packing shed has a focus on through-put however the marketing function has a requirement to meet customer specifications, providing a consistent product in response to market expectations. This seems to present a challenge with the two different agendas coming together in the middle of the chain. In a more demand driven value chain, the objective is the same for the whole chain, with the market creating and driving a pull effect and the chain responding with product to specification from the production level upwards.

Fruit graded for size, colour and blemish rather than eating quality

The packing shed uses grading machinery to sort fruit into size categories as well as colour and blemish grades, which is overseen by QA staff who monitor and check the grading. The retailers set specifications that the packing shed must meet in the supply of orders. This will often require interpretation of grades to deliver the required fruit. Sometimes this will be a composite of grades.

In the supply chains studied, fruit is not currently being graded across the packing line for eating quality. Fruit is graded on size, colour and blemish alone after passing a minimum maturity level test (comprising measurements of juiciness, brix and brix:acid ratio). In this system, the different considerations and opportunities of palate preferences in the numerous global markets are not capitalised upon.

While harvesting and grading fruit for markets based on taste is the preferred system for a truly market oriented chain, it is recognised that this would require significant change in the navel chains studied and industry as a whole. For example, a market that prefers more tart fruit may provide an opportunity to supply earlier varieties or specific varieties that have more acidic characteristics. Developing a market driven value chain like this would require fruit to be differentiated in the marketplace by way of eating quality and growers to be rewarded for providing fruit that suits that market. While this would require a major change to the existing chain, it would provide consumers with a more reliable, consistent and enjoyable eating experience.

Navels have little prominence or differentiation at a retail level

At the retail level the commodity focus is continued, with navels often displayed with no prominence, and with limited promotion or point-of-sale information for shoppers to support sales.

Domestically, oranges are sold year-round, an impact of global availability and the competitive nature of doing business with Australian supermarkets. Interestingly, the consumer research has highlighted that for some consumers this takes the excitement out of purchasing oranges, with seasonal fruit considered to be more appealing because of its limited availability, among other things. It could be that the industry and retail sector's drive to provide year-round availability has detracted from the appeal of navels. It may also have clouded consumers' understanding of growing regions, countries of origin and when Australian navels are in season.

In the Japanese market, the research highlighted that Tokyo consumers don't differentiate between navel and valencia varieties due to the fact that the retailers label all varieties simply 'oranges'. The Japanese research also indicated that consumers were quite sophisticated in their expectations of products. In particular, Japanese consumers identified they would be more inclined to purchase if there was more product information available, such as sweetness level identifiers, seasonal and varietal information, branding and country of origin.

For both chains therefore, there is enormous opportunity to engage shoppers at the point of purchase with more information and education around navel orange consumption. The domestic consumer research conducted indicates the majority of consumers have not made up their minds about which fruit to buy before they enter the supermarket. This shows there is a valuable opportunity to grab shoppers' attention and influence their purchase decisions. However, this will require investment from industry and a partnership approach with the retailers both in Australia and in Japan. A resulting increase in sales would benefit all parties.

It is worth noting that the chain in Japan is far more complex than it is domestically, with numerous entities involved and complex relationships, with this chain also depending on an intermediary to facilitate those relationships. Despite the complexities and cultural differences when doing business in Japan, investigating opportunities to grow the market for South Australian navels is well worth the investment, with sophisticated consumers who have in this research clearly identified what needs to be done to gain their interest and loyalty.

The need to better understand consumers before attempting to engage them

That being said, the research team has also observed that currently there is a lack of genuine consumer and market understanding by the chain as a whole. For instance, there is little evidence of consumer information and taste preferences driving the chain's activities, which is typical of a supply-focused chain, whether domestic or export.

To take advantage of opportunities to engage consumers, the chain must firstly make the effort to better understand them, their purchasing behaviour and their consumption patterns. Without this, any attempt to capitalise on these opportunities could be detrimental to both the chain and the industry. For instance, it is harmful to develop a brand or promote a product that does not deliver on its stated expectations or is being directed at the wrong target market.

Parts of the chains studied as well as the wider industry have the belief that consumers simply need to be educated to eat navels as they are, rather than understand what it is the consumer wants and attempting to grow and provide to that expectation. This is a simplistic supply driven view. A true value chain would have a good understanding of its consumers, current and future levels of demand for its product, and where it sits with its competitors in the eyes of the consumer, and be continually developing strategies to drive growth across the chain.

For long term sustainability, a value-chain invests in understanding what consumers want and how this differs from market to market and within the different demographic groups. This enables products to be differentiated to meet specific consumer expectations and may result in increased premiums by doing so. Differentiation can occur in a number of ways: specific varieties for different taste preferences; alternative packaging options for different customer uses; or a strategic marketing approach to engage a new set of consumers.

The challenge for the navel chains and the industry at large

Overall, the navel supply chains studied, both domestic and export, are functioning efficiently and effectively as supply driven commodity chains.

The lack of participation from a retailer in the domestic supply chain was a major limiting factor for this study. It is evident that there is significant opportunity to build relationships and opportunities for collaboration with the retailer.

Another major hindrance appeared to be the differing objectives where supply meets demand and the challenges this presents to the packing and marketing functions of the chain. These issues however, have not prevented the chain from operating effectively in an opportunistic sales environment.

If the individual chains and the industry at large want to increase consumption and potential value of their product, thereby securing a more sustainable future, a value chain approach must be adopted where consumers drive demand. This will require significant changes to be made to the overall business focus of the whole chain as well as the citrus industry. However there are smaller, more manageable steps that can be taken and opportunities to be pursued that will make a difference in the short to medium term. These are outlined in Part 6: Industry Improvement Projects.

PART 4: DOMESTIC SUPPLY CHAIN

Consumer Research

The consumer research was conducted by The Nielsen Company. A full record of the domestic chain consumer research can be found in Appendix 1.

Domestic Research Summary

Nielsen Company Homescan data has been used to provide an introduction into the Australian fruit market and how consumers shop within the marketplace. Across Australia, seven in ten households are purchasing oranges approximately six times per year, with an average annual purchase of 9.5kg and an average annual spend of $19. This compares with other fruit where nine in ten households purchase bananas and apples, spending approximately $58 and $45 each year, respectively.

Orange buyers were segmented in the research into three categories of heavy, medium and light buyers (figure 2):

- **Heavy orange buyers** represent only 15.8% of total buyers, purchasing oranges 12 times a year or more, with a value of 55.3% of total value spent on oranges. This category is dominated by people over 35 years of age without children at home and senior couples.
- **Medium category buyers** represent 46.3% of buyers, purchasing oranges 3 – 11 times a year and accounting for 37.7% of value. This category is made up of families with children aged 6 – 17 years. Nielsen believes this segment is performing under its potential because of the number of people in the household.
- **Light category buyers** represent 37.9% of orange buyers, purchasing oranges 1-2 times per year, accounting for only 7% of value. This category is not defined by any demographic profile and is a wide representation of the population.

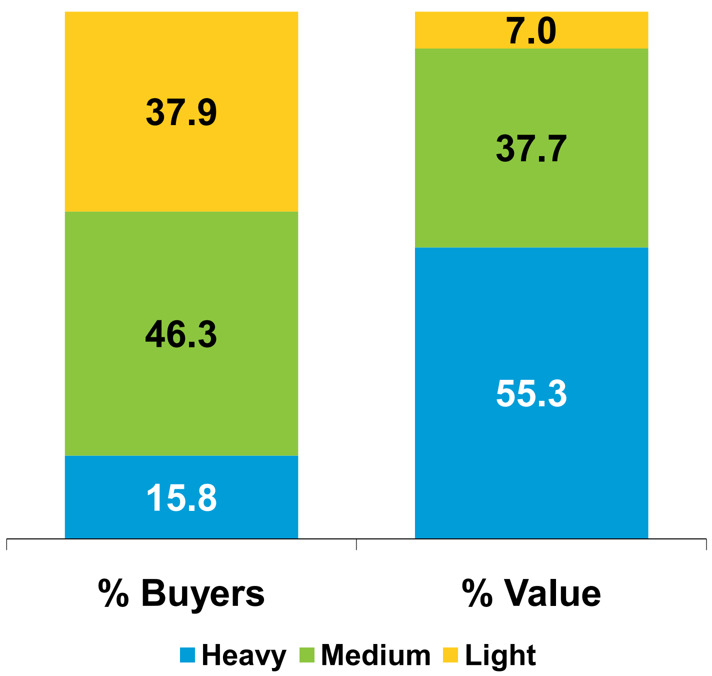


Figure 2. Percentage of heavy, medium and light buyers and the associated value they contribute to the orange value chain. Based on raw occasions for period 52 week ending 4/9/2010. Heavy orange buyers = purchase 12+ times per year. Medium orange buyers = purchase 3-11 times per year. Light orange buyers = purchase 1-2 times per year.

These heavy, medium and light orange purchasers also buy other popular fruits such as bananas (19.8% of value spent on fruit), apples (16.1%) and stone fruit (10.8%), compared with oranges at 6.1% of value, making them the sixth most popular fruit purchased by all three categories. However, within the heavy orange buyers category, oranges are actually displacing apples and bananas as the most popular fruit.

Heavy orange buyers are already buying oranges frequently, as their preferred staple fruit choice. Nielsen suggests that the medium category represents the greatest capacity for growth in orange purchases because there is greater potential sales return per purchaser, compared with other buyers. Light users, being hard to define given their wide-spread representation of the population and their infrequent usage are not being put forward by Nielsen as a desirable category to focus on for growth.

South Australia and Victoria seem to lag behind other states in how often they purchase oranges and how much they spend on each occasion. There is an opportunity to increase purchase of oranges in these states in particular.

Consumer attitudes towards oranges

Oranges are a low involvement purchase, with shoppers believing that "*an orange is an orange…"* Purchase tends to be out of habit and there is low awareness of orange varieties, brands and growing regions. Shoppers are aware of navels and valencias, but limited in their understanding of what differentiates these varieties from each other. Navel buyers appear more loyal and valencia buyers are more likely to switch to other varieties. Most assume that oranges in supermarkets are Australian by origin and are reassured through stickers or country of origin information on the shelf. There is little knowledge, however, regarding orange growing regions of Australia. Around four in five shoppers cannot identify when the best tasting oranges are in season.

This would suggest there are opportunities to provide shoppers with additional information about orange varieties and navels in particular, when they are in season and where they are grown, potentially lifting the fruit from a low involvement purchase to a more informed and engaged purchase.

"With apples, I can tell a Fuji from a Red Delicious and I have an expectation of how they are different."

- *Focus group participant.*

Consumers perceive oranges as being fresh, juicy, sweet and healthy. Awareness of high vitamin C levels remains strong, but is more relevant at times of illness. Factors such as high fibre content, aiding digestion, and providing anti-oxidants make oranges appealing, particularly to older women, and generate positive feelings towards general well-being and counter-acting the effects of ageing. Additional attitudes to oranges include its role as a staple, of having a 'sporty' connotation and staying fresh for longer.

Despite these positive attitudes, oranges are considered messy and difficult to eat, with preparation and clean-up required when eating them. This means they are usually consumed in the home, despite being seen as more portable than many other fruits. Because oranges are available all-year-round, they lack the excitement of other seasonal fruit, such as mangoes, strawberries and watermelon. They are considered to be sensible and reliable, rather than fun and different. As oranges are ever-present, there is no sense of urgency to purchase. However, overall, Nielsen believes these are not barriers to purchase and shoppers are still buying oranges, though they appear to be unexcited by the product and it remains a low involvement purchase.

Consumer purchase drivers, triggers and barriers

Being on special or cheaper than other fruit is the most important element in the purchase decision for oranges. Shoppers will also assess the individual characteristics of the orange, such as firmness, colour, seasonality, smell and variety, indicating the level of freshness. The orange must not be too soft or wrinkly as this suggests to the consumer an old and bitter taste and the colour must be bright and vibrant.

The positive connotations consumers have with oranges exist beyond the product's characteristics and extend to fond childhood memories, suggesting a sense of safety, stability and homeliness. This could be leveraged for triggering purchase and generating loyalty. While consumers might be attracted to more exciting, seasonal alternatives, there are no overwhelmingly negative perceptions of the orange: provided the price is not a barrier, oranges are being purchased, but in the broad offering available to consumers, they are somewhat lost in the mix.

Why shoppers are purchasing oranges

Oranges are bought for the household as a healthy snack alternative and kept as a staple in the fruit bowl. Oranges are eaten with breakfast, after dinner and sometimes taken to work as an after lunch snack. Unlike bananas, mangoes and strawberries, they are not necessarily considered a favourite in the household, but provide a healthy and refreshing alternative. An analysis of purchase drivers revealed that the elements of excitement and convenience are most important to shoppers when deciding what their favourite fruit is. Heavy orange buyers are less price sensitive with regard to orange purchases, with variety and region being more important. Medium buyers are more likely to state seasonality is important than heavy buyers.

Bananas are considered to be great for cooking and apples have varieties that are instantly recognisable, with multiple uses. Mandarins seem to be competing more directly with as favourites with apples and bananas. Oranges on the other hand, are the only fruit that are seen to be 'sporty' and stay fresh longer, which gives them a potential point of difference over the more popular staple fruits. Oranges are the only fruit with above average portability and below average ease of eating. This presents the challenge of providing easy to eat solutions for consumers.

In summary, the Nielsen research identified the following purchase drivers in priority order, as used by the research team in their value chain analysis:

- Price relative to other fruit
- Indicators of quality/ freshness:
    - Firmness
    - The colour (bright/vibrant)
    - The smell
    - Skin thickness & shininess
    - Seasonality
- Pack type

Overall purchase experience

- Taste (juicy, refreshing and sweet)
- Health benefits (fibre, antioxidants)
- Shelf life (stays fresh for longer compared to other fruit)

Purchase decisions

Most orange buyers are buying their oranges loose rather than pre-packaged. There is a perception among some consumers that pre-packaged oranges are of lower quality than fruit sold individually.

"…There is likely to be one or two bad oranges in there."

- *Focus Group participant.*

Consumers have also indicated it is easier to store loose oranges, as large packs are too cumbersome to carry home and store in pantries. This may have negatively impacted on some consumers' perceptions and expectations of oranges.

Supermarkets account for over 60% of national orange sales, compared to 40% via green grocers. There are negligible differences between the demographics of consumers across all retail channels. The research, which was focused on Melbourne, found that orange shoppers are generally happy with the quality of the oranges offered and the convenience supermarket shopping provides, compared with green grocers and fresh markets. Nielsen suggests that consumer expectations of quality in the fruit section of supermarkets have been met and now they desire choice of varieties as offered by green grocers and fresh markets.

"Supermarkets can't afford to have bad quality produce anymore…We all expect a lot more."
- *Focus Group Participant.*

Shoppers are not familiar or confident with cues for freshness or sweetness when buying oranges. Orange purchases are often based on impulse compared to other staples like bread and milk. Shoppers plan as far as 'fruit' or 'oranges', but base their decisions in-store on what's on special, at a good price, looks freshest or is in season. This makes in-store factors like display and 'activation' very important.

There is also a degree of uncertainty when buying oranges: buying just a few at a time minimises the risk of purchasing oranges that lack taste and sweetness. An opportunity exists to boost consumer confidence at the point of purchase by exploring strategies for assuring eating quality.

The role of in-store specials

Offering competitive pricing and specials to orange shoppers is an important tool to drive sales. Shoppers notice price variations across the year, but do not associate oranges with strong calls-to-action in-store, indicating more could be done to drive a sense of urgency at key seasonal periods. Most consumers go into the store with little to no information or planning, relying on in-store displays and tickets for pricing and promotion, making a decision in-store on which fruit and what variety to buy. Shoppers are heavily influenced by prominent displays which indicate an abundance of in-season fruit, suggesting an urgency to buy now while at its peak. This provides an opportunity to utilise promotional techniques both in and outside the store to increase sales of navels. Over a quarter of all fruit shopping trips are spur-of-the-moment. In-store display and promotion strategies could be utilised to capture more impulse purchases.

Key Findings by Nielsen that might direct future marketing strategies include:

- It's not that oranges are boring; it is that there are more attractive fruit options that are easier to eat.
- There is potential for increased sales of oranges, in comparison with other staple fruits such as apples and bananas.
- Nielsen has divided the market into heavy, medium and light orange buyers, with senior couples defining the heavy purchases and families defining the medium.
- It is suggested the best strategy is to increase the frequency of purchases amongst the medium/family buyers. This is a strategy based on boosting sales through increased volume rather than elevating the price to try and increase value.

Chain Insights

The following is a list of the key insights as drawn out by the research team on each part of the chain. These insights have been loosely grouped under themed headings for context. Note that the first part of the chain (grower and packer) is common to both the domestic and export chains studied.

Grower insights

Fruit production activities

- Navel oranges for the chains being studied are either supplied through:
    - Farms managed by the packing shed company (vertically integrated)
    - Independent growers:
        - growers who supply 100% of their navel oranges to the packing shed studied
        - growers who supply the packing shed studied as well as other packing sheds
- Vertically integrated farms:
    - have economies of scale
    - have greater leverage when accessing capital for development
    - have opportunities to share skills, knowledge and ideas across their farms
    - are in a better position to innovate
    - have guarantee of supply
    - have greater ability to respond to market information
- All growers demonstrate sophisticated on-farm activities. They are very aware of their growing environment, orchard management and water saving options. Many also use the services of consultants. In saying this, little on farm innovation is driven by the consumer.
- All growers aim to produce a high yield of large, well-formed, well-coloured fruit that is blemish free. It is believed that this fruit meets consumer needs.

Harvest practices

- Maturity and harvest time of oranges is affected by variety and location but can also be managed with the use of chemicals (eg. gibberellic acid).
- Harvest of oranges is only allowed once the packing shed's Grower Liaison Officer (GLO) has assessed that a minimum maturity standard has been met.
- During the season studied, growers used a strip picking method where all oranges (regardless of size and quality) are picked and sent to the packing shed.

The flow of information

- Growers maintain contact with the packing shed through the GLO. The GLO is in regular contact with all growers supplying the packing shed.
- Feedback from the packing shed is received formally via a packout sheet. This sheet provides estimated returns per tonne by packout grade, but does not necessarily identify the market fruit has been sold to (with the exception of USA). Some growers experience delays in receiving their packout advice.
- Growers rely on the packing shed and their marketing team to achieve the best returns for them.

Payment to independent growers

- Growers respond to the prices they receive from the packing shed. Prices are highest for the grower either early or late in the navel orange season. As a result, the smaller independent growers are more likely to grow the earlier and later varieties to capitalise on the better prices.
- The option of cold storage of oranges destined for the domestic market only also provides a means of capitalising on higher prices later in the season. The decision to put oranges into cold storage is made by the grower and they accept any risk associated with doing so.

- Smaller-scale independent growers' fruit may be mixed together at the packing shed. If there is a fault identified in the fruit, traceability back to an individual grower is difficult which increases the risk of rejection for small growers.

Market and consumer understanding

- Growers state that easy peels (mandarins) are increasing in popularity with the consumer based on the higher prices and increased sales that mandarins are achieving. Some growers are reluctant to produce easy peel varieties because of the additional labour and technical management required. There is also concern over the market's ability to absorb the volume of easy peels that are expected to come onto the market over the next few years.
- Growers vary in their understanding of market requirements and have a desire to receive more information about consumers.

Packing shed insights

The business management of the packing shed

- The packing shed business studied has 3 packing sheds in the Riverland. Only 2 of these located at Murtho and Renmark pack navel oranges, with Murtho packing the majority of navels. Relationships between all 3 packing sheds are strong; they work to the same grading standards and often share expertise and materials if needed.
- The packing shed has two key drivers:
    1. Optimising packout and financial returns for the grower
    2. Optimising their returns by maximising throughput

Market and consumer requirements

- There is limited differentiation of navel orange varieties at the packing shed, depending on the variety and destination.
- For the domestic chain studied here, navels are not differentiated.
- Packing shed staff believe consumers want large-sized (but not jumbo) fruit that is easy to peel. There was no mention of eating quality in what consumers want.
- Specific domestic chain insights:
    - The retailer requests grade 1 fruit
    - The retailer's fruit is packed in black plastic crates but they will also occasionally take fruit packed in cardboard cartons

Grading standards of fruit

- Grading standards at the packing shed are based on size and visual quality (blemish level and colour). Beyond the minimum industry Brix:Acid ratio (or minimum Brix:Acid ratio for specific varieties) for the harvesting of navels, there is no grading at the packing shed for eating quality.
- The packing shed have 4 grades with up to 10 different sizes per grade.
- Grading standards are determined by the packing shed and the mix supplied depends on the specifications of markets being supplied.

Auditing of grades & traceability

- Quality control monitors the quality of navel oranges in comparison to the grading standards. These staff report to the packing shed manager.

Communication and expectations up and down the chain

- Internal formal communications within the packing shed appear to be well established, with numerous regular meetings.
- There is an indication of some issues with informal communication between the packing shed and marketers. This appears to be exacerbated by the fact that the packing shed is the point where the different objectives of a supply driven chain (throughput) and a market driven chain (market

requirements) come together. There is a challenge at the packing shed in keeping both growers and customers happy.
- The GLO is the critical intermediary between the growers and packing shed for all production and supply information and requirements.

Packing shed operations
- The GLO initiates grower harvesting operations. Fruit will only be accepted by the packing shed once it has passed a minimum maturity test which the shed undertakes.
- The operation of the packing shed is driven by a daily running sheet which programs product flow and packing requirements.
- The packing sheds appear to be sophisticated in their operational activities and savvy regarding sustainability such as re-use of water and packaging materials.

Innovation in the packing shed
- Past seasonal issues tend to drive innovation in the packing shed. There are frequent overseas field trips which also provide impetus for innovation, though it is heavily focused on technical operations. However, there are numerous obstacles to the adoption of innovation, such as the amount of capital required and the small scale of packing in Australia relative to countries like the US. There has been some trial work undertaken looking at innovations observed overseas, but viability problems have prevented adoption.

Marketer based insights

The flow of information
- Information flow and relationships are key to the role of the marketer.
- The marketer receives daily stock levels and forecasts from the packing shed. In return, the marketer advises the packing shed of fruit requirements (quantity and specifications) based upon market conditions and trends.
- The marketer recognises that the consumer is important and that information about the consumer should be flowing back to the packing shed and the growers.

Customer/retailer specifications
- The packing shed studied is one of a number of suppliers to the retailer. Each week, the retailer tenders their citrus requirements and each of the suppliers submits their quote.
- While the retailer's specifications are set at the start of the season, variations may be negotiated should the season dictate.
- The retailer specifications for the navel oranges in this value chain align with the packing shed's Grade 1 fruit.

Distribution based insights

The business function of the Distribution Centre
- The Distribution Centre (DC) is a logistics-based business with a clear focus on accurately filling store orders.
- The DC consolidates all fresh fruit and vegetables (i.e. not only produce from the packing shed studied) for the Victorian stores of the retailer being studied.
- It is important to note that the DCs speciality is temperature control and logistics. These skills could be transferred to other products.
- Fruit passing through the DC is owned by the retailer, making the DC custodians while the fruit is under their management.

Key business drivers

- The commercial relationship between the DC and the retailer has been put under additional pressure with a change of retail ownership and the subsequent increase in expectations of its shareholders. This has meant there is continual pressure on the DC to achieve increased cost/benefit savings through operational efficiency and innovation.
- The operation of the DC is sophisticated, based upon computer-aided order picking technology
- The DC has a closed-book arrangement with the retailer. No financial information is disclosed to the retailer, in order to maintain their competitive edge.
- A key performance indicator of the DC is to deliver to stores accurately and in a timely manner.
- The DC has made large investments in monitoring accuracy, such as closed circuit TV and daily inventory checks, to maintain a success rate of 99.8% in regard to accuracy of order delivery.
- Increasing accuracy of orders and a strong focus on workplace safety drives innovation in the DC.

Relationships up and down the chain

- The DC has no need for direct communication with the packing shed specifically, and any communications required are done through the marketer.
- The retailer has quality assurance (QA) staff based at the DC who inspect all fruit on arrival, including navel oranges, and have the authority to reject out of specification fruit.
- The DC has a direct relationship with a transport company which is used to deliver fresh fruit and vegetables to the retailer's stores. This is a one-off, historical arrangement that doesn't exist in other states, where typically the retailer holds the relationship with the transport company.

Retailer insights

As the retailer was not engaged in this project, the following observations at the retail level were contributed by other members of the chain:

- It appears navel oranges are not refrigerated once merchandised and available for purchase.
- There would also appear to be a great variation in the skills of retail floor staff in the handling of product to maximise its shelf life and saleability.
- Individual retail stores are unable to order navel oranges from a specific supplier, with all orders being placed through the DC and retail head office.
- There would appear to be an opportunity to improve point-of-sale information in-store for consumers. For example, better communication on the quality attributes of navels in a way consumers can relate to; improvement in the prominence of in-store displays; and training of staff to better handle the product and educate and inform consumers.

Domestic Chain Material Flow Summary

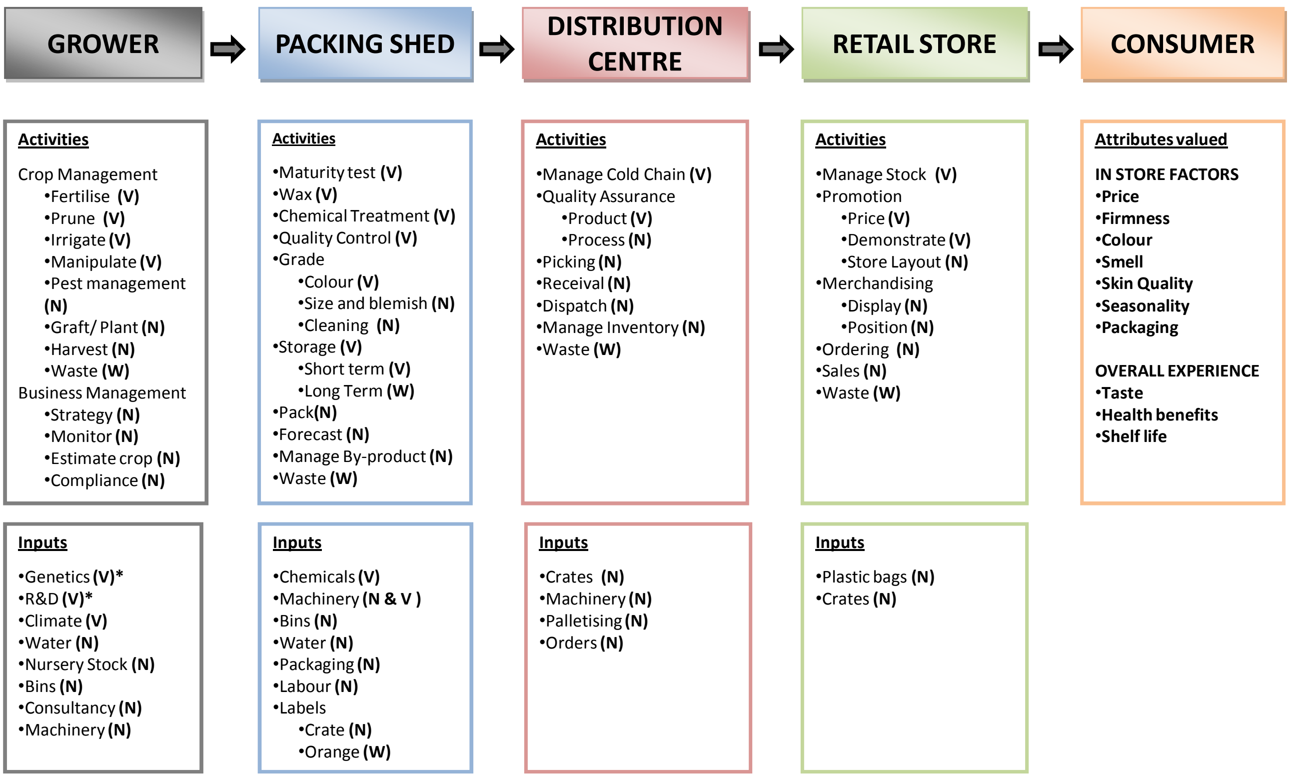
The Material Flow describes the flow of navel oranges through the supply chain and the various activities and inputs at each stage of the chain.

The material flow for the domestic supply chain is presented in Figure 3. In this chain oranges are produced by the grower then transported to the packing shed to be processed and packed for various markets. Crates of navels are then transported to the distribution centre to be consolidated and then re-distributed to the retail stores. Finally, the consumer buys navel oranges and transports them home or to their place of consumption. Attributes valued by the consumer, as identified in the consumer research component of the project, are listed in the far right box.

Each activity and input has been assessed against the attributes valued by the consumer and classified as either:

- V = activities or inputs that meet or exceed the attributes valued by the consumer.
- N = activities or inputs that are necessary but do not make the product more valuable in the eyes of the final consumer. These activities and inputs are necessary unless the existing supply process is radically changed. Efficiency and reduction of waste are essential to these activities, which in the longer term should be targeted for radical change or even elimination.
- W = unnecessary activities and inputs. Activities and inputs that do not make the product more valuable in the eyes of the final consumer and are unnecessary. These activities should be targeted for elimination.

DOMESTIC Supply Chain – Material Flow



Labour, Energy & Transport are inputs required along the whole chain

Figure 3. Domestic supply chain material flow showing activities and inputs at various steps along the chain and the attributes valued by the consumer. Each activity and input has been described as either: contributing to attributes valued by the consumer (V), necessary (N) or wasteful (W). A full page landscape of this figure can be found in Appendix 4.

Retail Store
Stock management, price promotions and demonstrations were all considered important in influencing attributes valued by the consumer. For example, poor management of navel oranges on display could influence firmness and shelf life. Price promotions in terms of their development and timing are important as being on special or cheaper than other fruit is an important factor consumers look for when buying oranges. Depending on the focus of the promotion, in-store demonstrations could influence any of the attributes valued by the consumer.

The processes of store layout, merchandising, ordering and sales were all considered necessary activities. Plastic bags and crates of oranges were classified as necessary inputs.

Waste such as spoilt oranges due to incorrect stock management or ordering in excess of demand was considered unnecessary and should be targeted for elimination.

Distribution Centre
Many of the activities and inputs at the distribution centre level are considered necessary in order to efficiently distribute fresh products to individual retail stores.

However, management of the cold chain and quality assurance of the product both add value in the eyes of the consumer. Maintenance of the cold chain can influence firmness and shelf life in particular, while quality assurance (testing navels against the specifications of the retailer) ensures the product meets some of the quality attributes, including taste, that are valued by the consumer.

Packing Shed
There are many opportunities to influence attributes the consumer values in the packing shed. Various treatments such as testing for maturity, waxing, chemical treatment, grading, quality control and short-term cold storage affect shelf life in particular.

In the supply chain studied any long-term cold storage of navels was considered to be wasteful in the eyes of the consumer. The attributes valued by the consumer in terms of firmness, smell, taste and shelf life can all be negatively influenced by long-term cold storage. In addition, labels on the orange were also considered wasteful in the eyes of the consumer as they fail to communicate any information related to the attributes consumers value. All other activities and inputs at the packing shed were considered necessary just to get the navel orange to the consumer.

Grower
There are also many opportunities to add value to the consumer at the production level. Firmness, colour, skin quality and taste can all be influenced by elements of crop management such as fertilising, pruning, irrigation and crop manipulation eg. thinning or application of gibberellic acid. Other activities and inputs on farm were considered necessary.

Summary
While there are many opportunities to add consumer value at the production level, it would appear that this area has been well researched and as such, growers are already implementing best practice methods.

There is some opportunity at the packing shed to enhance elements of maturity testing and grading machinery in order to better meet consumer requirements or minimise time spent in cold storage.

To date there has been a high level of investment in research and development of production practices without a similar investment in other parts of the chain. Therefore, one of the greatest areas for improvement in the domestic supply chain studied is at the retail level in terms of management of stock and in-store promotions.

These observations are reflected in the improvement projects recommended to both the chain and industry.

Life Cycle Assessment

Primary Industries & Resources SA (PIRSA) collaborated with Department of Primary Industries Victoria (DPI VIC) to conduct the analysis of the carbon and water footprints of the value chain. The following description of results has been taken from the full record of the Life Cycle Assessment, "Life cycle assessment case study series: Navel Oranges (Riverland District) Technical Report" (Fisher *et al,*. 2011).

Carbon and water footprints have been calculated for the functional unit of one kilogram of loose navel oranges produced and packed in the Riverland of South Australia and distributed to the point of consumption in Melbourne, Victoria.

The functional unit is a reference point to which all inputs and outputs are related. In this study, the functional unit was one kilogram of packed fruit at the production level. Some juice grade fruit may also be produced depending mainly on the proportion of young trees. Allocation of any emissions to this co-product has not been included in this initial study as the data was not available and the value of juice grade fruit is only a tenth of packed fruit. Inclusion of juice fruit as a co-product would reduce the carbon and water footprints of those growers with significant amounts of juice grade fruit.

Carbon footprint

The carbon footprint comprises upstream emissions (pre farmgate) and downstream emissions (post farmgate), as well as emissions due to electricity and fuel inputs along the supply chain (figure 4).

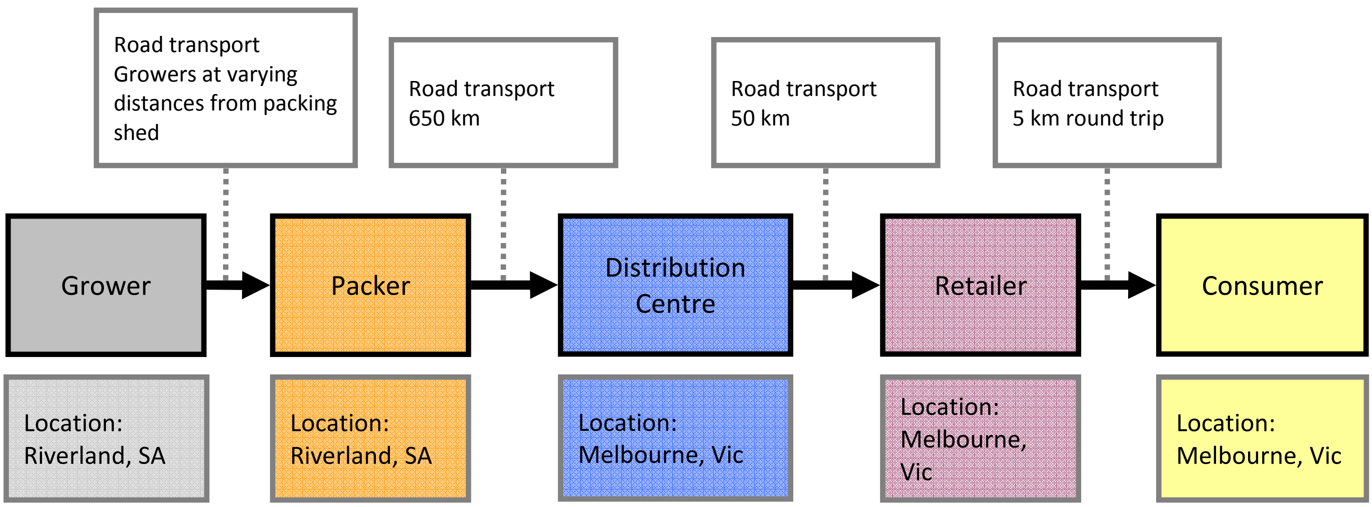


Figure 4. Schematic of the domestic supply chain

Pre farmgate

Pre farmgate emissions varied from 0.172 to 0.386 kg CO_2e per kilogram of packed navels between the five farms studied (table 3). This analysis provides a snapshot in time of the farm operations and can be used to better understand differences between the farm management systems. The farm management systems can vary for a range of different reasons, such as scale, maturity of trees and fertilisers used. Greater confidence in the weighted average emissions would require an expanded dataset[2].

[2] Refer to Part 6: Improvement Projects, 3. Invest in further LCA research to refine the model and expand the dataset, page 50

Table 3. Pre farmgate greenhouse gas (GHG) emissions (kg CO_2e/kg packed navels) for the five grower properties studied. The representative volume (%) of navels supplied to the packing shed studied is also shown.

Grower number	GHG emissions (kg CO_2e/kg)	Representative volume
1	0.197	8%
2	0.247	8%
3	0.172	4%
4	0.386	40%
5	0.198	40%

The property with the highest emissions (grower 4) however has been identified as an outlier. Its relatively high emissions can be attributed to the following factors:

- Low yield per hectare due to a high proportion of young trees (50%) not yet yielding at full capacity
- High electricity use associated with pumping water directly from the river as opposed to water delivered through an irrigation trust (the water delivery method used by all other growers in this study).

The property in this study with the lowest carbon footprint per kilogram navels (grower 3) used a large amount of organic inputs (compost) however emissions from the organic inputs were not included in the emissions from fertiliser applications. The amount of emissions that organic inputs might add depends on the extent of recycled waste used and the energy used in the collection and recycling system

As expected there was a strong relationship found between the pre farmgate carbon footprint per kilogram of navels (packed fruit) produced and the amount of nitrogen fertiliser used per kilogram of fruit. This is because the use and manufacture of nitrogen fertilisers is carbon intensive. Other significant contributors to the pre farmgate carbon footprint were diesel use and manufacture, electricity production and pesticide manufacture.

Based on a weighted average for the five properties studied (representative of each grower's proportion of navels delivered to the packing shed in this study, table 3), the pre farmgate emissions for this supply chain are 0.276 kg CO_2e/kg of packed navels. Treating the highest emitting property as an outlier, the weighted average emissions for this supply chain would be reduced to 0.201 kg CO_2e/kg of packed navels. This may be a more appropriate figure to use as a benchmark at the production level to measure the effectiveness of future improvement projects related to reducing the carbon footprint for this packing shed.

Pre farmgate emissions for this navel orange supply chain are comparable with studies in Spain, which range between 0.22 and 0.33 kg CO_2e/kg, but are double those for studies in Italy (0.10 kg CO_2e/kg) and Brazil (0.08 kg CO_2e/kg) (Mordini et al 2009). However, it must be cautioned that individual studies can include or exclude different components of the value chain when calculating the carbon footprint of food crops and food products and as yet there is no international agreement on the single best method. Therefore, care is needed when comparing studies as differences in values for carbon footprint calculations may reflect different system boundaries rather than differences *per se*.

Post farmgate

The post farmgate to retailer emissions included processing (grading), packaging and distribution. These parts of the supply chain generated a total of 0.41 kg CO_2e/kg. The greatest single contributor was from electricity use at the DC. The second largest contributor was from the road transport of navels from the packing shed in South Australia to the DC in Victoria.

Emissions associated with transport from the retail store to the point of consumption are approximations as they are influenced by many variables including length of journey to the retail store, purpose of the trip (single purpose or multipurpose) and type of vehicle. When emissions were calculated for a single purpose 5 kilometre round trip to purchase oranges as part of a 25kg shopping basket, the emissions were found to total 0.085 kg CO_2e/kg.

Based on the information presented above, the approximate carbon footprint of one kilogram of loose navel oranges produced and packed at this specific packing shed in the Riverland of South Australia and distributed to the point of consumption in Melbourne, Victoria was 0.695 kg CO_2e/kg of packed navels (figure 5).

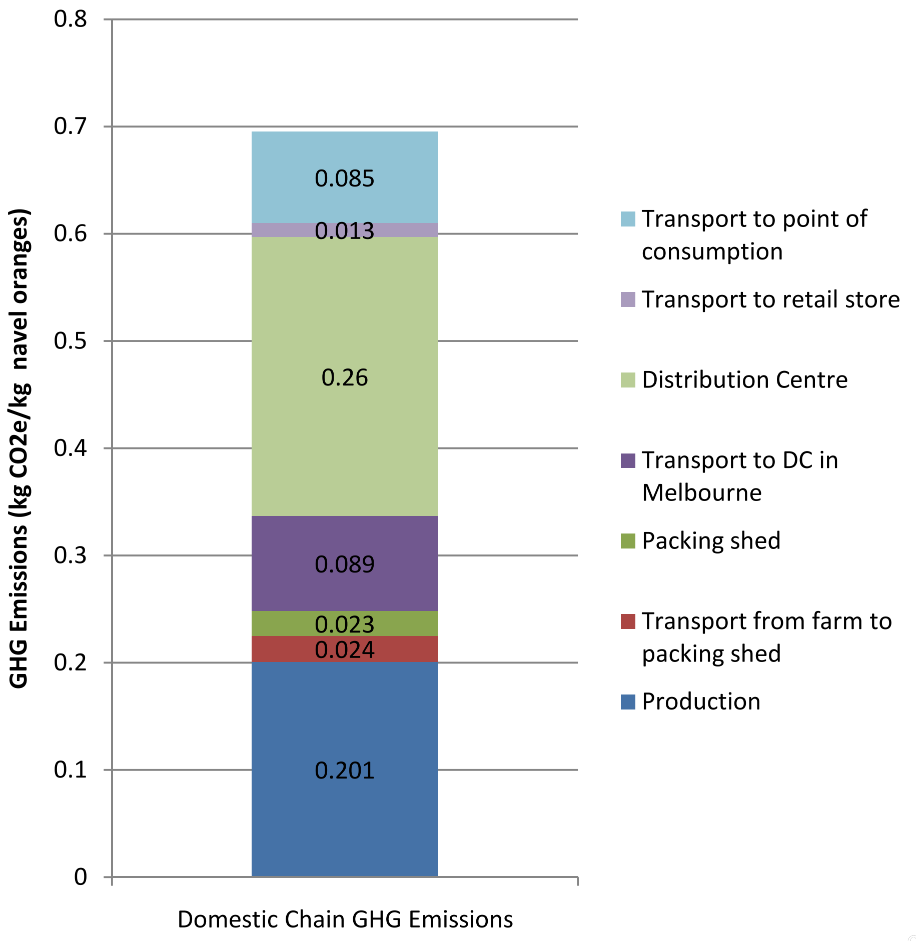


Figure 5. Sources of greenhouse gas (GHG) emissions for the domestic supply chain from production (weighted average for the specific packing shed in this study and excluding grower 4) in the Riverland district to consumption in Melbourne, Victoria. The total carbon footprint for the domestic chain up to the point of consumption is 0.695kg CO_2e/kg packed navels.

Blue water footprint

The blue water footprint of one kilogram of loose navel oranges packed at a Riverland packing shed and consumed in Melbourne, Victoria was 268.74 L H_2O/kg of packed navels.

Table 4. Blue water use – Domestic chain

	Blue water use (L/kg)	Blue water use (% of total)
Post farmgate		
Retailer *(incl. transport to retailer)*	0.000	0.00%
Distribution Centre *(incl. electricity, packaging, transport to DC)*	0.62	0.23%
Packing Shed	0.03	0.01%
Other	0.02	0.01%
Post farmgate subtotal	**0.67**	**0.25%**
Pre farmgate		
Irrigation water applied (weighted average)	267.55	99.56%
Water required in fertiliser manufacture	0.45	0.17%
Water required in electricity generation	0.08	0.03%
Pre farmgate subtotal	**268.08**	**99.75%**
Total blue water use (L/kg navels)	**268.74**	**100.00%**

The majority of water is used pre farmgate for crop production (99.56 %) with only small quantities used post farmgate for processing (0.01 %) and distribution (0.23 %) (table 4). Irrigation water used at the pre farmgate level was based on a weighted average for the five properties studied (representative of each grower's proportion of navels delivered to the packing shed in this study).

The blue water footprint for the five properties studied is dominated by water use for irrigation. There is wide variation in water use across these properties; those with the greatest proportion of non-productive trees having the highest blue water use per kg navels.

The average pre farmgate water use of 268.08 L H_2O/kg recorded in this study is much higher than the global average of 110 L H_2O/kg and the Australian average of 186 L H_2O/kg (Mekonnen and Hoekstra 2010) (Table 5). It must be cautioned that these studies have used differing methodology to derive the blue water footprint for navel oranges. Care is needed when comparing studies as differences in water footprint calculations may reflect different methodologies rather than differences *per se*.

Table 5. State average blue water footprint to farm-gate (Litres of H_20 per kg of fresh oranges packed) (Mekonnen and Hoekstra, 2010).

New South Wales	Queensland	South Australia	Victoria	Western Australia	Australia Average
229	**220**	**164**	**180**	**214**	**186**

This relatively high blue water footprint may be attributed to:

- the functional unit including only packed fruit at the production level as opposed to also accounting for juice grade fruit
- the low reliance on rainfall in this region
- the inclusion of non productive areas or areas with a high proportion of young trees not yet yielding at full capacity which would increase the water use per kilogram of navels produced.

PART 5: EXPORT SUPPLY CHAIN

Consumer Research

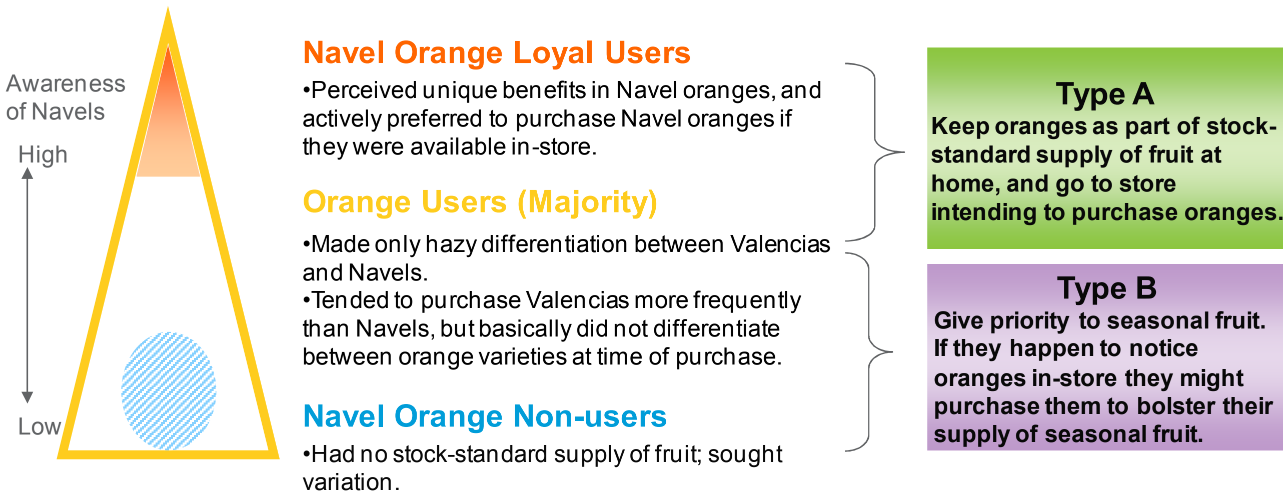
The consumer research was conducted by The Nielsen Company's Japan office. A full record of the export chain consumer research can be found in Appendix 2. The Japanese translation for the export supply chain consumer research report can be found in Appendix 3.

Key Insights by Nielsen

- Japanese consumers give priority to seasonal fruits due to the perceptions that they are delicious, high in nutritional value and inexpensive. They also tend to be the fruits that are most prominently displayed in-store. Because oranges are regarded as a year-round fruit they have little prominence in-store and no seasonal value.
- In Tokyo, all oranges are instinctively thought of as valencias, despite the juiciness and sweetness of navel oranges suiting Japanese consumer tastes. Differentiation between varieties is muddled.
- There is a small minority of orange users who are loyal and actively seek out navel oranges and appreciate the convenience of their attributes of ease of peeling, lack of seeds/pips, and the ability to leave thin inner skin still on.
- Purchase of navel oranges appears to be random and consumers think of simply buying oranges. They don't make selection based on variety.
- Two different purchase patterns for oranges emerged in this research (figure 6):
  - Type A: **Consumers who always keep a stock-standard supply of fruit in the house, including oranges and actively seek them out when shopping for fruit, even if they are not prominently displayed.** These consumers buy whatever is on offer, provided that price and quality are acceptable. Loyal navel users fitting this Type A profile will look for the navel label and the familiar appearance of navels when they are in-store.

  - Type B: **Consumers that enjoy variation in their fruit diet and who give priority to seasonal fruits when buying.** They mainly purchase seasonal fruits that are prominently displayed and promoted. Oranges tend to be outside their usual shopping route and they are unlikely to detour to find them. They are only purchased if these consumers cannot find any seasonal fruit that they want and oranges happen to catch their attention as they move through the store. For Type B navel non-users, who buy valencias without being conscious of variety, the main barrier to purchase of navels is a lack of in-store presence as a seasonal fruit.

Figure 6. Visual representation of Type A and Type B navel orange consumers. (Nielsen 2011)



Usage of Fruit by Japanese Consumers

In this research, all family members liked and ate fruit, almost every day. In some households fruit was mainly eaten for breakfast or snacks and in others fruit was regularly eaten as dessert. Consumers showed strong interest in the functional benefits and nutritional value of fruits. In households with young children, mothers were keen to feed children healthy fruit rather than sugary snacks and treats. Young children mainly preferred sweeter fruits and became more accepting of sour or tangy fruits as they got older. This is possibly relevant for South Australian navels. However, for childrens' snacks, there was a preference for fruit that they can peel themselves though in packed lunches fruit is frequently cut up rather than presented whole.

Fruit that required peeling or cutting, tended to be used after evening meals when people have more time to spend on the preparation. Respondents in this research indicated that family members tended not to eat them because having to peel and cut was too much hassle. Oranges needed to be made easy to eat by being served cut. An advantage of citrus over other fruits such as apples and bananas, is that it did not spoil after cutting and was not filling, therefore fitting as something to eat after a meal. Citrus lasts longer than many other fruits and there is little worry in having extra oranges sitting in the fruit bowl. A small minority of respondents used oranges for juicing and/or cooking.

In the research the following drivers came into play in the respondents' purchase decision when considering oranges:

- **Seasonality** (Prominent in-store displays, promotions, inexpensive)
- **Taste** (rich, sweet, juicy, reliable.) *For other types of fruit, consumers look at the sugar content labelling to determine taste, but this information was not available for oranges.*
- **Colour** (dark orange)
- **Freshness** (lustre of skin, not bruised or spoiled)
- **Quality** (safe, reassuring, stickers, brands, country of origin.)
- **Thin smooth outer skin**, easy to peel
- **Price** (loose < ¥100 per orange, bagged = ¥350 - ¥399 per bag of 5 oranges)
- **No pips/seeds**
- **Shelf life** (longer compared to other fruit)
- **Size** (larger oranges preferred for loose, smaller for bagged) *Note that the respondents in this research lived in Tokyo metro area, so visited the supermarket on foot or bicycle, and therefore preferred to keep the total weight of their purchases down, so chose loose oranges rather than bagged.*

Nielsen's Findings

The following is a summary of the recommendations of Nielsen's consumer research conducted in the Japanese market. A full record of these including suggested strategies can be found in Appendix 2 and 3.

1. **Increase the presence of navel oranges in-store and arm shoppers with information that enables them to make an informed product choice.**

   1a) The Nielsen study has indicated that seasonality is a major issue for Japanese fruit users. Where and how products are displayed in store and pricing are key indicators to consumers of seasonality. There is a need to educate consumers about country of origin and the influence of this on seasonality. Currently Japanese consumers perceive Australian oranges to be out of season because they don't understand that the Australian season is the opposite of the Japanese one.

   1b) There is little awareness among Japanese consumers that oranges contain more vitamin C than lemons and grapefruit. While Japanese consumers are very conscious of vitamin C content of citrus fruits and consumed with that in mind, they were not aware of the specific health benefits of oranges.

2. **Make orange users aware of the differences between valencia's and navels and emphasise the benefits of navels.** Introduce the broader marketplace to the attributes of the navel orange, already appreciated by loyal users.

3. **Ensure sales are not lost among the loyal navel users by highlighting navels and ensuring they are differentiated from valencias.**

   Given the weak presence of navel oranges in stores, and little information about them, there is likelihood that navels may go unnoticed, even among loyal users who prefer to buy them. During the research period, even loyal navel users had difficulty recognising the Australian navel when shown, as it was larger than their image of navels and the skin more pebbly.

4. **Trigger Japanese consumers' emotional interest and fuel expectations about delicious taste by branding South Australian navels.**

   A key advantage for South Australian navels is that they are seasonal in the Japanese summer. This means that they are in-store at a time of year when navels from Northern hemisphere countries are not available. This creates significant scope for creating impact with country of origin and branding. In this study, while consumers did not recognise the sticker of the brand being studied, they did support the presence of stickers to clarify country of origin.

South Australian navels are well positioned to meet Japanese consumer needs.

To boost the awareness, positive perceptions and purchase intent of South Australian navels by Japanese consumers, the following market expectations and in-store activities should be pursued.

1. Japanese consumer expectations include:
   - Price of less than 100 Yen per orange or 350 – 399 Yen per bag (of five or six oranges.)
   - Taste should be rich, sweet and juicy.
   - Appearance needs to be dark orange in colour with thin outer skin that is easy to peel.
   - Size: bags should contain smaller oranges with loose offering larger oranges. Some consumers prefer to buy loose as they are concerned about the additional weight of buying in bulk.

2. Japanese consumers in this research indicated specifically that the following factors will influence their purchase decision:
   - A large prominent, seasonal display indicating Australian oranges are now in season and available for a limited time in-store.
   - In-store promotions with sampling, along with small video panels and animations.
   - Point-of-sale material that conveys the delicious taste, for example sweet, along with a sweetness level indicator which is numerical and visual.
   - Information that communicates nutritional value and country/region of origin.

Chain Insights

The following is a list of the key insights as drawn out by the research team on each part of the chain. These insights have been loosely grouped under themed headings for context.

Note that the first part of the chain (grower and packer) is common to both the domestic and export chains studied. For this reason, the insights associated with these parts of the chain are similar with only some subtle differences as outlined below.

Grower insights

Please refer to Part 4: Domestic Supply Chain, Chain Insights page 24 for a full record of grower insights.

In addition to these insights, the following point is relevant for the export supply chain:

Preparing for export

- Another key driver for the grower is meeting export market requirements on farm to ensure market access.

Packing shed insights

Please refer to Part 4: Domestic Supply Chain, Chain Insights page 25 for a full record of packing shed insights.

In addition to these insights, the following points are relevant for the export supply chain:

Market and consumer requirements

- There is limited differentiation of navel orange varieties at the packing shed, depending on the variety and destination.
- For the Japanese market, there is only limited differentiation with navelinas packed separately.
- Packing shed staff believe consumers want large-sized (but not jumbo) fruit that is easy to peel. There was no mention of eating quality in what consumers want.
- Specific export chain insights:
    - The retailer studied requires a composite grade fruit, size 72 and 88
    - Fruit destined for the Japan must be inspected by AQIS and the container sealed at Renmark.

Marketer based insights

Market access

- Navel oranges are usually exported to the Japanese market between June and November each year. Outside of these times (December to May) there is a period of additional tariff, payable by the importer, that comes into effect.

Flow of information

- Sales to the Japanese market studied are planned with the importer at the start of the navel orange season. Orders are monitored and adjusted weekly and even daily.
- The packing shed require 7-10 days from order confirmation to consolidate the order and have it ready to leave the packing shed.
- The export marketer maintains close contact with the packing shed.

Retailer specifications and consumer insights

- The retailer for this chain requires composite grade (combination of grade 1 and 2) or grade one navel oranges of size 72 or 88. The packing shed need to sell more than just these limited sizes to Japan in order to make the export viable. Therefore, the role of the importer/distributor is critical in being able to take more than just the one size.
- There has been little consumer research completed in the Japanese market that the marketer is aware of. The perception is that Japanese consumers in Tokyo want oranges that are easy to peel, sweet, juicy and seedless. It is known that the Tokyo market does not differentiate between navel and valencia oranges.

Distribution based insights

Research has been undertaken along the various parts of the chain in Japan by third parties in Japan. Information was gathered via a structured interview and questionnaire and is therefore limited in comparison to the information collected through face to face interviews. This information was also often necessarily filtered by the grower/packer's Japan-based facilitator.

The Japanese chain participants

- The first stage of the chain – the company comprising production, packhouse and marketing functions – is common to the domestic chain, so the focus here is on the members of the chain once the fruit arrives in Japan.
- There are a large number of businesses involved in the supply of navels in Japan, some with duplicated roles; for example, there is both an importer and importer/distributor who could do the same function, but in this chain perform separate function because of an existing business relationship.
- In the chain being studied, once the fruit reaches Tokyo navel oranges can be held at one of three locations; the warehouse (arranged by importer), distributor's distribution centre or retailer's distribution centre. Once in Tokyo, fruit also changes ownership three times; importer, distributor and retailer. The comparison between material flow and ownership is demonstrated below (figure 7). The chain participants are described further below.

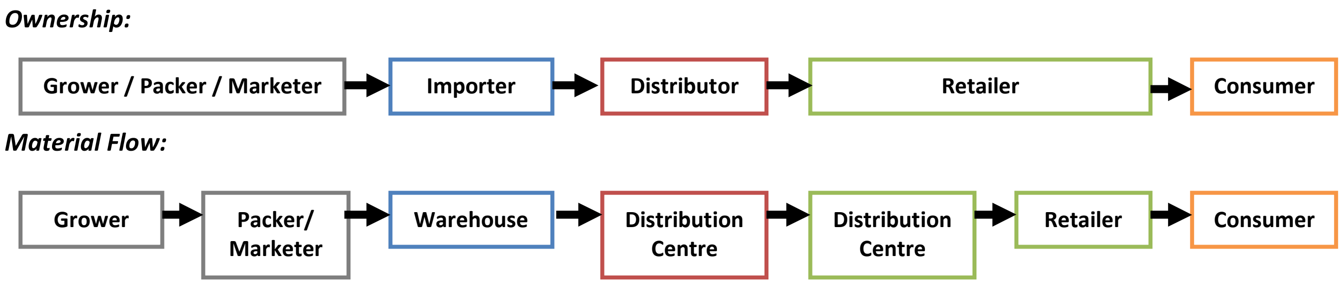


Figure 7. Comparison between export supply chain ownership changes and material flow. Common colours represent an association. For example, the importer subcontracts the warehouse and the retailer owns both a distribution centre and retail store.

The role of the importer

- On arrival of the fruit, the importer contracts a bonded warehouse and arranges for customs and quarantine clearance. Oranges may be stored here for up to a month and in some rare cases this can be up to six months. The importer also monitors orange quality at the warehouse. The warehouse will also re-package navels into bags if the distributor's distribution centre is too busy.
- The importer pays the packing shed for the fruit once it has successfully cleared customs, and so bears the cost and responsibility for the fruit until it passes to the distributor's operations.

The role of the distributor

- The distributor in this chain is one of the largest importer/distributor companies in Japan, but only acts as the distributor for this chain because of existing relationship it has with the retailer, and that the importer has with the packer/marketer.
- The distributor contracts a Distribution Centre (DC) to arrange the pick-up of the navels from importer's warehouse, and movement across to the DC.
- This sub-contracted distribution centre is the main location where navels are re-packaged into bags (of five or six pieces). (Note that bagged/packaged fruit equates to <50% of navels sold in Japan for this chain).

The role of the retailer

- The retailer has indicated a preference for Australian navel oranges of size 72 or 88 and requests a composite grade in terms of colour and blemish to meet their requirements.

Doing business in Japan

- All members of this chain believed the navel attributes of price, pack size, country of origin, appearance, taste, freshness and packaging design, are all important factors to the consumer in their purchase decisions.
- Due to the long travel time and distance associated with supplying fruit to Japan, any issues identified, particularly relating to quality, can take additional time to resolve. For example, a quality issue identified in Japan by one of the chain partners is difficult to remedy in any further fruit that may already be en-route.
- Most business is agreed to verbally. The lack of written contracts between businesses is not uncommon in the Japanese culture.

Export Chain Material Flow Summary

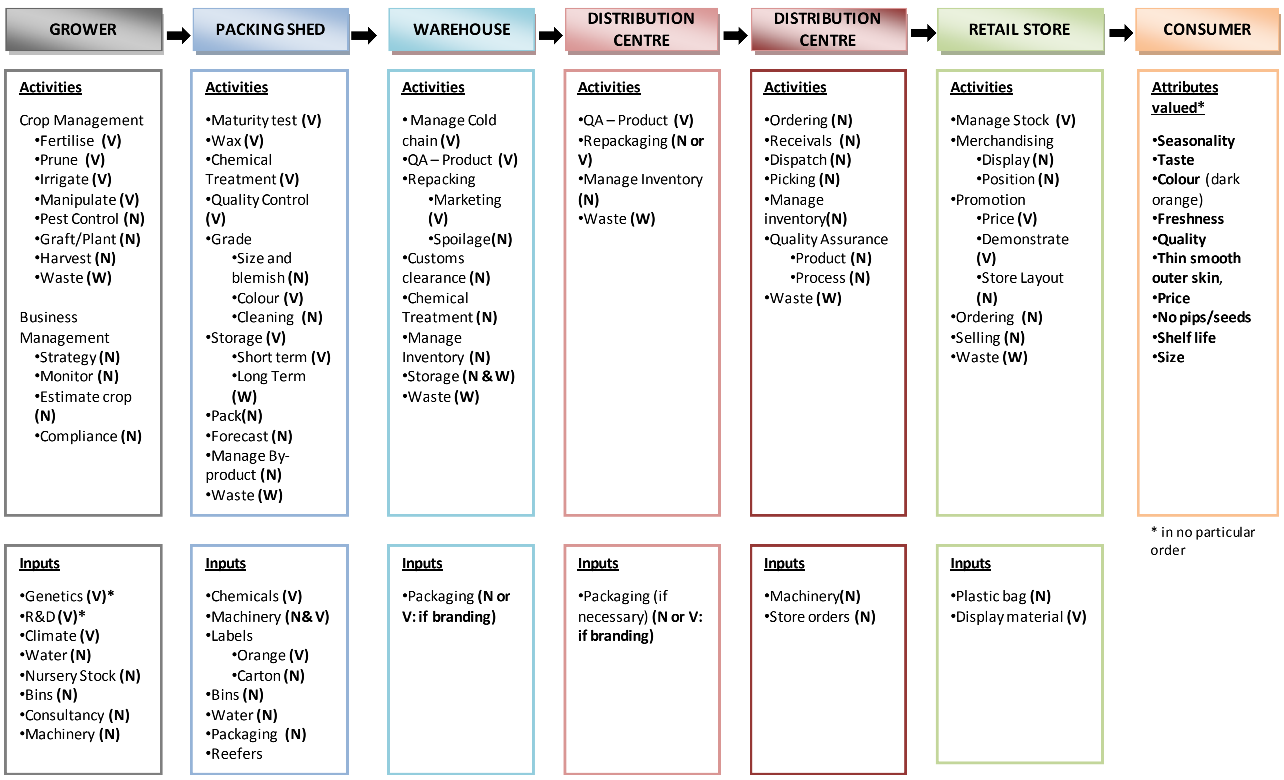
The Material Flow describes the flow of navel oranges through the supply chain and the various activities and inputs at each stage of the chain.

The material flow for the export supply chain is presented in Figure 8. In this chain oranges are produced by the grower then transported to the packing shed to be processed and packed for various markets. Boxes of navels are then transported to the warehouse in Japan firstly by road to Adelaide, then rail to Melbourne, ship to Japan and finally road to the warehouse. In this supply chain, navels then pass through two distribution centres before reaching the retail store. Finally, the consumer buys navel oranges and transports them home or to their place of consumption. Attributes valued by the consumer, as identified in the consumer research component of the project, are listed in the far right box.

Each activity and input has been assessed against the attributes valued by the consumer and classified as either:

- V = activities or inputs that meet or exceed the attributes valued by the consumer.
- N = activities or inputs that are necessary but do not make the product more valuable in the eyes of the final consumer. These activities and inputs are necessary unless the existing supply process is radically changed. Efficiency and reduction of waste are essential to these activities, which in the longer term should be targeted for radical change or even elimination.
- W = unnecessary activities and inputs. Activities and inputs that do not make the product more valuable in the eyes of the final consumer and are unnecessary. These activities should be targeted for elimination.

EXPORT Supply Chain – Material Flow



Labour, Energy & Transport are inputs required along the whole chain

Figure 8. Export supply chain material flow showing activities and inputs at various steps along the chain and the attributes valued by the consumer. Each activity and input has been described as either: contributing to attributes valued by the consumer (V), necessary (N) or wasteful (W). A full page landscape of this figure can be found in Appendix 5.

Retail Store
Stock management, price promotions, demonstrations and display materials were all considered important in influencing attributes valued by the consumer. For example, poor management of navel oranges on display could influence firmness and shelf life. Price promotions in terms of their development and timing are important as being on special or cheaper than other fruit is an important factor consumers look for when buying oranges. Depending on the focus of the promotion, in-store demonstrations and display materials could influence any of the attributes valued by the consumer.

Store layout, merchandising, ordering and sales were all considered necessary activities. Plastic bags were classified as necessary inputs for consumers to carry loose navel oranges.

Waste such as spoilt oranges due to incorrect stock management or ordering in excess of demand was considered unnecessary and should be targeted for elimination.

Distribution Centres
All of the activities and inputs at second distribution centre were considered necessary in this chain to efficiently distribute fresh products to individual retail stores.

Quality assurance of the product and repackaging at the first distribution centre both add value in the eyes of the consumer. Quality assurance ensures the product meets some of the quality attributes, including taste, that are valued by the consumer. Depending on the branding and design, packaging could influence elements of quality that are important to the consumer.

Warehouse
Maintenance of the cold chain can influence firmness and shelf life in particular. Quality Assurance of the product monitors some of the attributes valued by the consumer. Repackaging for marketing reasons was seen to contribute to the attributes of 'quality' as defined by the consumer giving the packaging itself can communicate the brand and country of origin.

Long-term cold storage of navels at the warehouse was considered to be wasteful as it can negatively impact attributes valued by the consumer such as taste, freshness and shelf life.

Packing Shed
There are many opportunities to influence attributes the consumer values in the packing shed. Various treatments such as testing for maturity, waxing, chemical treatment, grading, quality control and short-term cold storage affect shelf life in particular.

In the supply chain studied any long-term cold storage of navels was considered to be wasteful in the eyes of the consumer. The attributes valued by the consumer in terms of firmness, smell, taste and shelf life can all be negatively influenced by long-term cold storage. In addition, labels on the orange were also considered wasteful in the eyes of the consumer as they fail to communicate any information related to the attributes consumers value.

All other activities and inputs at the packing shed were considered necessary just to get the navel orange to the consumer.

Grower
There are also many opportunities to add value to the consumer at the production level. Firmness, colour, skin quality and taste can all be influenced by elements of crop management such as fertilising, pruning, irrigation and crop manipulation eg. thinning or application of gibberellic acid.

Other activities and inputs on farm were considered necessary.

Summary

While there are many opportunities to add consumer value at the production level, it would appear that this area has been well researched and as such growers are already implementing best practice methods.

There is some opportunity at the packing shed to enhance elements of maturity testing and grading machinery in order to better meet consumer requirements.

To date there has been a high level of investment in research and development of production practices without a similar investment in other parts of the chain. Therefore, one of the greatest areas for improvement in the supply chain studied is at the retail level in terms of in-store promotions.

These observations are reflected in the improvement projects recommended to both the chain and industry.

Life Cycle Assessment

Primary Industries & Resources SA (PIRSA) collaborated with Department of Primary Industries Victoria (DPI VIC) to conduct the analysis of the carbon and water footprint of the value chain. The following description of results has been taken from the full record of the Life Cycle Assessment, "Life cycle assessment case study series: Navel Oranges (Riverland District) Technical Report" (Fisher *et al,*. 2011).

Carbon and water footprints have been calculated for the functional unit of one kilogram of loose navel oranges produced and packed in the Riverland of South Australia and distributed to the point of consumption in Melbourne, Victoria.

The functional unit is a reference point to which all inputs and outputs are related. In this study, the functional unit was one kilogram of packed fruit at the production level. Some juice grade fruit may also be produced depending mainly on the proportion of young trees. Allocation of any emissions to this co-product has not been included in this initial study as the data was not available and the value of juice grade fruit is only a tenth of packed fruit. Inclusion of juice fruit as a co-product would reduce the carbon and water footprints of those growers with significant amounts of juice grade fruit.

Carbon footprint

The carbon footprint comprises upstream emissions (pre farmgate) and downstream emissions (post farmgate), as well as emissions due to electricity and fuel inputs along the supply chain (figure 9).

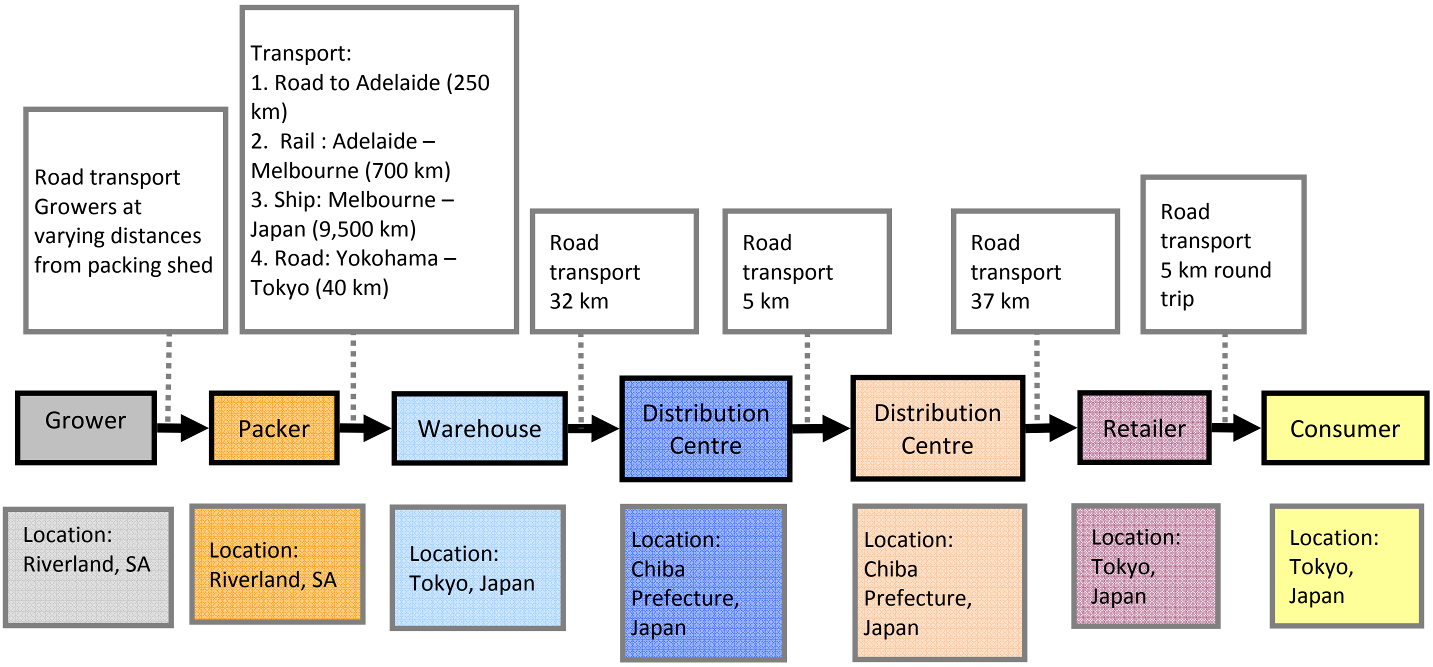


Figure 9. Schematic of the export supply chain

Pre farmgate

The pre farmgate LCA results are the same for both the domestic and export chains studied.

Please refer to **page 30-31**, Pre farmgate, Carbon Footprint, Life Cycle Assessment, Part 4: Domestic Supply Chain.

Post farmgate

The post farmgate to retailer emissions included processing (grading), packaging and distribution. Post farmgate to retailer emissions are 0.62 kg CO_2e/kg. The greatest cause of GHG emissions from the post farm-gate supply chain was from electricity use at the warehouse and distribution centres.

No data was available for the electricity use at the warehouse and distribution centres in Japan, so the assumption was made that each has the same power consumption as that used by the Australian distribution centre studied within the domestic chain. In effect this meant that the supply chain in Japan utilised three times the amount of electricity compared to the domestic supply chain. Despite this greater electricity consumption in the export distribution centres, the total GHG emissions from electricity are only 0.016 kg CO_2e/kg greater than the domestic supply chain as the electricity used in Japan, is less carbon intensive (due to the mix of generation sources, including nuclear). As emissions for the export warehouse and DCs have been calculated using raw data from their Australian equivalent, it is recommended that these emissions be further evaluated to more carefully identify the contribution of the additional handling facilities in particular[3].

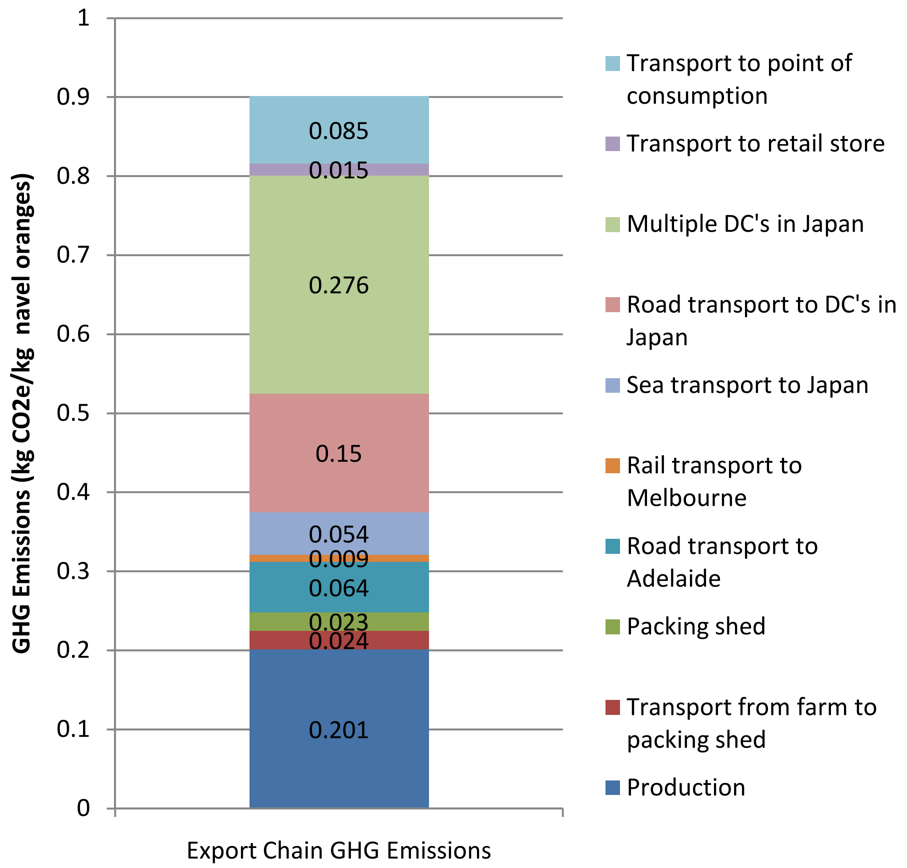


Figure 10. Sources of greenhouse gas (GHG) emissions for the export supply chain from production (weighted average) in the Riverland district to consumption in Tokyo, Japan. The total carbon footprint for the export chain up to the point of consumption is 0.901kg CO_2e/kg.

Emissions associated with transport from the retail store to the point of consumption are approximate only as they are influenced by many variables including length of journey to the retail store, single purpose or multipurpose trip and type of vehicle. When emissions were calculated for a single purpose 5 kilometre round trip to purchase oranges as part of a 25kg shopping basket, the emissions were found to total 0.085 kg CO_2e/kg.

[3] Refer to Part 6: Improvement Projects, 3. Invest in further LCA research to refine the model and expand the dataset, page 50

Based on the information presented above, the approximate carbon footprint of one kilogram of loose navel oranges packed at this specific packing shed in the Riverland of South Australia and distributed to the point of consumption in Tokyo, Japan was 0.901 CO_2e/kg of packed navels (figure 10).

This compares with an approximate carbon footprint of 0.695 kg CO_2e/kg for the export supply chain studied.

Blue water footprint

The blue water footprint for the export supply chain was calculated for the pre farmgate only due to the unavailability of data from Japan.

Based on a weighted average for the five properties studied (representative of each growers' proportion of navels delivered to the packing shed in this study) the blue water footprint of one kilogram of loose navel oranges produced in the Riverland of South Australia was 268.075 L H_2O/kg of packed navels (table 7).

The blue water footprint for the five properties studied is dominated by water use for irrigation. There is wide variation in water use across these properties; those with the greatest proportion of non-productive trees having the highest blue water use per kg navels.

Table 7. Blue water use – Export chain, pre farmgate

	Blue water use (L/kg)	Blue water use (% of total)
Pre farmgate		
Irrigation water applied (weighted average)	267.55	99.80%
Water required in fertiliser manufacture	0.45	0.17%
Water required in electricity generation	0.08	0.03%
Total blue water use (L/kg navels)	**268.08**	**100.00%**

The average water use of 268.08 L H_2O/kg recorded in this study is much higher than the global average of 110 L H_2O/kg and the Australian average of 186 L H_2O/kg (Mekonnen and Hoekstra 2010) (Table 8). It must be cautioned that these studies have used differing methodology to derive the blue water footprint for navel oranges. Care is needed when comparing studies as differences in water footprint calculations may reflect different methodologies rather than differences *per se*.

Table 8. State average blue water footprint to farm-gate (Litres of H_20 per kg of fresh oranges packed) (Mekonnen and Hoekstra, 2010).

New South Wales	Queensland	South Australia	Victoria	Western Australia	Australia Average
229	**220**	**164**	**180**	**214**	**186**

This relatively high blue water footprint may be attributed to:

- the functional unit including only packed fruit at the production level as opposed to also accounting for juice grade fruit
- the low reliance on rainfall in this region
- the inclusion of non productive areas or areas with a high proportion of young trees not yet yielding at full capacity which would increase the water use per kilogram of navels produced.

Although post farmgate blue water use has not been calculated for the entire export supply chain, water used to wash oranges at the packing shed and generate production and fuel used throughout the rest of the chain is unlikely to significantly contribute to total blue water use.

PART 6: INDUSTRY IMPROVEMENT PROJECTS

There are four key success factors in building sustainable value chains:
1. Consumer insight
2. Strategic alignment between businesses in the chain where each adds value to the chain
3. Effective flow of communication and information from the consumer all the way through the value chain
4. Trust and commitment to the common objective between businesses in the chain

Consumer insight is fundamental to be able to supply product that people want. Without consumer insight, even strategies that are aligned might fail, and information flow and the trust are of no value if ultimately consumers don't purchase.

A navel chain that understands and delivers what markets and consumers require by:
- **responding to consumer preferences,**
- **differentiating their product in the market place**
- **adding value from orchard to eating experience**

will be better able to:
- **win market share from competitors,**
- **achieve premium prices for their product,**
- **and have a more sustainable, profitable future.**

Improvement project summary

The following improvement projects have been suggested for industry to consider in moving toward a more consumer and value-driven approach to business:

1. Futuristic scenario planning to better prepare for the future
2. Identify opportunities by developing a seasonal map linked to sensory analysis
3. Invest in further LCA research to refine the model and expand the dataset
4. Improve point of sale communication to the consumer
5. Investigate more efficient ways of grading for eating quality
6. Review business models in the fresh category that demonstrate collaboration, co-innovation, cooperation and consumer drivers
7. Economic Analysis to evaluate the opportunity and costs of operating as a value chain
8. Provide Nielsen consumer research as input into domestic industry marketing campaign
9. Improving management of stock systems and fruit handling by domestic retailers
10. Foster a value chain culture in the citrus industry
11. Innovative product development to overcome 'messiness' in eating

1. Futuristic scenario planning to better prepare for the future

Recommended Actions	There are a number of ways to conduct scenario planning and one option may include: 1. A brief review of the citrus industry developments to date, 2. A review of factors that are likely to shape its future over the next 20 or 30 years, 3. Describe four future scenarios, 4. Conduct an analysis of each scenario, 5. Identify what each scenario means for industry participants; and 6. Identify what industry needs to do to ensure a sustainable future. Some examples of potential scenarios could include: • **Environmental war economy:** stringent measures are used to combat climate change pushing markets to the very limit of what they can deliver • **A high tech and highly regulated world:** The family farm has almost disappeared and corporate farms reign supreme. The latest technology and innovations are adopted at every step of the value chain. • **Consumers are king:** Society is very individualistic, and social media and the internet are held in high regard. Consumers are increasingly unpredictable and demanding. Large established businesses need to innovate continually to maintain or grow their share of the pie. • **A protectionist world:** globalisation is retreating and countries focus on security and access to food and water resources at any cost.
Brief description and rationale	There are a lot of uncertainties in the world. We do not know definitively how the citrus industry will develop in the long term any more than we can predict the future trends. Scenario planning is a tool that can assist industry to better prepare for an uncertain future. The aim of scenario planning is to: • Describe credible and robust futures that are relevant to the citrus industry • Test potential new ideas, policies, products and formats • Stimulate a progressive and far sighted response to challenges and opportunities facing the industry today

2. Identify opportunities by developing a seasonal map linked to sensory descriptions to provide consumers with more product information and incentive to purchase.

Recommended Actions	The following steps are proposed for the development of a seasonal map: 1. Review of current materials and research relating to the differences in eating quality experience and product attributes of the different varieties of navels grown by the industry. 2. If required, conduct further sensory analysis to determine the specific taste parameters of the different varieties and seasonal times. 3. Map the navel variety season, documenting eating quality at different stages of maturity and in terms of varietal differences and seasonal variations Once the map has been developed, opportunities may emerge for producing point-of-sale material, possibly in partnership with major supermarkets, to provide customers with information to encourage and assist their orange purchases. A joint approach with the retailer, not only means that they are on board with the idea, but presents an opportunity to educate their staff, who ultimately can have an influence on consumer purchases. Opportunities to create a marketing campaign based around the seasonal guide for navels should also be explored. This may be as simple as offering tastings of each variety in-store, at its seasonal peak, or communications material describing the particular characteristics and uses of each new seasonal variety.
Brief description and rationale	In a retail environment where choice abounds, consumers are seeking more and more information about the food products they are purchasing and looking for 'guarantees' of quality and a positive eating experience. To meet these needs with navel oranges, the industry must focus on eating quality by firstly identifying the 'taste experience' of navel oranges and the varietal differences and seasonal variations that occur; and secondly by communicating these attributes to consumers. Whilst the packing shed studied currently measures fruit for maturity by way of brix:acid testing in particular, this ceases once fruit reaches the minimum maturity defined for harvesting. Going further to measure taste at different stages of maturity and in terms of varietal differences and seasonal variations, will provide an opportunity to better understand the taste experience throughout the season, whilst building a library of data for industry. The opportunity here is to provide consumers with this information about taste and possible uses of navels to encourage purchase at each variety's peak, by use of a seasonal map. Simplified versions of this are already used in-store for apple and potato varieties. The challenge here is that currently all navels are merchandised together, regardless of variety or the time of season, so this will need to be taken into account when developing a strategy with the retailer and the point of sale material.

The juiciness, brix:acid and brix levels for each variety will need to be tested and monitored over the season to communicate the marketable attributes with consumers. This seasonal map will help consumers make informed choices about what they purchase when, and takes some of the guesswork out of the eating experience of a fruit that's difficult to judge from the outside.

An in-store example might be:
'X' Navels are the first navels to ripen in the orchard and have a refreshing tartness and easy-peel nature that makes them ideal for a pick-me-up snack. Y Navels peak mid Winter and have a sweetness that makes them a winner with the kids cut up in a lunch box or handed around at half-time of the footy match etc.

In order to develop information communication that targets consumers' interest and product usage, the seasonal map should link to consumer sensory analysis within each market. As consumers have identified taste as an attribute they value, sensory analysis is crucial to identifying the exact parameters of 'taste' and how these can be related back to measurable and communicable attributes of the orange. Conducting the sensory research to make this improvement project possible will also help the citrus industry identify varieties by best-fit-for-market, both here and overseas.

The map may also be an important resource in identifying opportunities for branding. It may identify and quantify varieties with superior or variable eating quality. Once these varieties are identified, further work can commence into developing specific uses, along with supporting marketing communications, based on eating quality.

The benefits of applying this recommendation may include:

- The seasonal map will provide consumers with product information on which to make more informed choices around varieties and uses, based on the eating experience.
- It will help create a point of difference for consumers based on varietal and seasonal factors. This could present a strong platform for brand development and differentiation.
- Using a joint approach with a supermarket to develop this tool will provide an opportunity to educate their staff as well as increase the profile of the orange category in-store through the pull-effect of meeting consumer requirements. Ultimately it will be a relatively simple, but important, communication tool to boost awareness, sales and consumption, build product and brand loyalty, and gain satisfied customers.

3. Invest in further LCA research to refine the model and expand the dataset	
Recommended Actions	It is recommended that industry further invest in mapping the carbon and water footprint of the domestic and export supply chains. Further work is required to refine the model and expand the dataset to include more properties and packing sheds in addition to incorporating successive years of production data. Further clarification and development of assumptions used to calculate carbon and water footprints is also required at: • the distribution centre (DC), retail and consumption levels of the domestic supply chain • the distribution network, retail store and consumption levels of the export supply chain. Specifically, the following should be investigated: • Emissions and water use associated with organic fertilisers such as compost • Inclusion of juicing grade fruit in yield calculations at the production level • The affect of tree maturity on carbon and water footprint and how this should be best accounted for in the model • Standardised studies of Australian and Japanese retail store carbon and water footprints • Emissions and water use associated with consumption
Brief description and rationale	Lifecycle Assessment provides a way to determine the potential environmental impacts of navel oranges from 'cradle to grave'. This concept estimates all greenhouse gas (GHG) emissions emitted through a product's entire supply chain including sourcing of raw materials, production, distribution, use and disposal of the product. With the proposed carbon tax and countries such as Japan introducing voluntary carbon labelling it is becoming more important for industries to understand the carbon and water footprints of the products they produce. Understanding the carbon and water footprint helps prepare the Australian citrus industry to actively mitigate the risk of GHG quantification as a potential market access barrier, market requirement, or source of competitive advantage. The information it provides can inform the development of mitigation strategies and could lead to the identification of potential marketing opportunities. The LCA study conducted to date is indicative only. Its purpose was to provide strategic insights relevant to the Sustainable Value Chain Analysis (SVCA), however it is not adequate to support labelling and marketing claims without further refinement and should not be compared to other LCA studies conducted globally at this stage. This is the first LCA study on citrus conducted in Australia and there is still considerable work required in refining the model and expanding the dataset.

4. Improve point of sale communication to the consumer

Recommended Actions	Investigate ways of improving point of sale communication to the consumer by: • Further investing in more regular consumer research in target markets • Exploration of ways that consumer research can be practically incorporated into in-store activities designed to meet consumer expectations and increase purchase and consumption of navel oranges • Continuing the current industry focus on marketing campaigns • Evaluating current point of sale communication • Working with key retailers to explore communication opportunities
Brief description and rationale	Research tells us most Australian consumers make their purchase decisions in store. There is currently limited point-of-sale material explaining the attributes, benefits and uses of navels, encouraging consumers to buy them. Where navels are purchased as a low-involvement, fruit-bowl staple, more could be done to engage consumers and compete with the more exciting and appealing seasonal fruits that are vying for the same dollar. Given the current way the two major retailers source their citrus, industry has the opportunity to develop and implement point of sale material at a general level. One coordinated approach nationally would improve return on marketing investment and could have a positive impact on the entire Australian citrus industry. Examples of possible point of sale material/activities include: • Wobblers • In-store demonstrations • Fresh cut oranges on display for consumers to smell and taste. The consumer research found that most shoppers make judgements on price and orange characteristics (quality judged by firmness, colour, smell) in-store, so it's important that stores and outlets display fruit in ways that deliver positive perceptions of these characteristics in order to drive oranges sales. Shoppers are unable to differentiate between varieties of oranges, understand where they come from or identify the season when they have the best flavour. The research indicates that about 4 in 5 shoppers are unable to identify when the best tasting oranges are in season. Consumers don't know a lot about oranges and purchase is to some degree out of habit. Oranges may be a staple purchase for many but there is also low awareness of orange varieties, brands and growing regions, presenting a real opportunity to explore options for differentiation and adding value. Oranges are always available and in-season so they may lack the perceived excitement that other fruit offers. While being considered a fruit-bowl staple is quite positive, not enough is being done to promote the characteristics that set oranges apart and may generate additional sales.

Similarly in the export chain studied, Japanese consumers have indicated that more information will make a difference to their purchase behaviour. Improving point of sale communication to Japanese consumers should be a relatively simple, but highly effective strategy to put in place.

In contrast to the domestic chain, industry has a role in the marketing of citrus in general. However there is opportunity at an individual chain level for chains to further develop their point of sale communication.

5. Investigate more efficient ways of grading for eating quality

Recommended Actions	Review existing and emerging technologies for the measurement of eating quality (e.g. NIR), based on the taste attributes identified in the consumer research as a minimum. The review should include: • Each method's effectiveness in determining eating quality accurately and efficiently. • Cost/benefit of each method to the packing shed and to the whole supply chain. Investigate the feasibility of applying the technologies within the Australian citrus industry.
Brief description and rationale	In the chain studied, eating quality is currently measured once by the packing shed for each grower for each variety. This ceases once fruit reaches the minimum maturity defined for harvesting. Although this means the fruit must meet a minimum taste profile as set by industry standards, it may not necessarily capitalise on all the taste expectations of consumers. There is therefore opportunity in further developing more efficient methods for measuring eating quality within the packing process to better meet consumer expectations. If eating quality measures such as brix, brix:acid and juiciness are to be further developed and incorporated into grading standards, a review will firstly need to determine if the current measurement methods are the most effective and efficient means of grading for eating quality. This is particularly necessary in light of the taste attributes identified in the consumer research. Other existing and emerging measurement methods, such as NIR, should be explored.

6. Review business models in the fresh category that demonstrate collaboration, co-innovation, cooperation and consumer drivers

Recommended Actions	A project should be conducted to explore business models that encourage value chain collaboration, co-innovation, cooperation and incorporation of consumer drivers in all business activities. Possible models to consider include: • Sunkist: Branding in citrus category. • Nature's pride: Consumer focus, collaboration along the chain • OneHarvest: A vertically integrated value chain model. • Houstons: Effective collaboration with supermarkets. • Meat Standards Australia (MSA): A national, independent eating quality grading system, based on consumer research.
Brief description and rationale	There are a number of industries and enterprises making use of value chain thinking that may provide the citrus industry with alternative business models and ways of conducting business that could be worth considering. A review of these examples, evaluating their worth, relevance and value to the citrus industry should be conducted. Current business models in industry (both domestic and export) are supply driven and demonstrate limited understanding of the consumer. However, businesses that collaborate, co-innovate, cooperate and use the consumer to drive their decision making, will be more sustainable into the future. There are examples in the fresh category of industries and businesses that are successfully demonstrating these elements. The citrus industry may find value in understanding what makes these business models successful and whether or not their own industry would benefit from making changes.

7. *Economic Analysis to evaluate the opportunity and costs of operating as a value chain*

Recommended Actions	It is essential to evaluate the feasibility of implementing change within a business or value chain. The following steps are proposed to conduct the economic analysis: 1. Engage a consultant to: a. Assist in deciding what chain or part of industry is to be assessed b. Develop a base scenario on the current state. c. Assess the impact of applying various improvement projects d. Conduct analyses applying those impacts e. Compare with the base scenario f. Report on findings. 2. Use the model as a tool for assisting in making decisions on applying changes to activities along the value chain.
Brief description and rationale	The analyses implemented will basically be a quantitative assessment of the impact that suggested changes will have on the profitability or viability of the value chain and the businesses within that chain. It can be applied either at a single chain level or to the industry as a part or a whole. The analysis will need to compare the impact of change with the current state of the chain or industry and also assess the impact over time The citrus industry is characterised by a supply chain culture where the emphasis is on supply and pushing product through the chain. A number of incremental changes will be required to implement a value chain culture where product is pulled through the chain to meet consumer preference. The Economic Analysis will assist in providing justification and prioritisation for proposed incremental changes. It will also assess which parts of the chain will gain the most benefit from the proposed changes,

8. Provide Nielsen consumer research as input into industry marketing campaign	
Recommended Actions	Note this has been completed.
Brief description and rationale	Citrus Australia has a role in developing more effective domestic promotion programs. Associated with this is the current promotional activity through the 'Aussie Oranges' website (www.oranges.com.au) including the appointment of Kim McCosker as the official Aussie Oranges Ambassador, a new advertising campaign, recipes and various media releases regarding the use of oranges in cooking, cocktails and in the household. Consumer research conducted for the Citrus Value Chain Analysis (VCA) Project provides specific insights into the attitudes and behaviours of Melbourne consumers of navel oranges. This information is relevant to the current Aussie Oranges marketing campaign and may provide useful insights to inform further developments of the campaign. The Citrus VCA Project Consumer Research was released to the citrus industry in April for use in their industry marketing campaign.

9. Improving management of stock systems and fruit handling by retailers

Recommended Actions	Further research is required to determine the extent of best practice handling of citrus, both on display and in storage, at the retail level. Having implemented this research, strategies need to be developed to identify and implement best practice more consistently across all stores. For example, some strategies may include working with retailers to develop: • tools to encourage best practice handling • training modules for retail staff to adopt best practice
Brief description and rationale	Throughout the project a number of retail stores (supermarkets and fruit and veg stores) were visited across Victoria and South Australia. There were observations made of inconsistent handling and presentation of navel oranges in these stores, though not in the specific chain studied. As consumers make their purchase decisions in store, it would beneficial to both industry and the retailers themselves to understand how best to manage and handle their navel oranges, to boost shelf-life and encourage sales by presenting the best offer possible to the consumer.

10. Foster a value chain culture in the citrus industry	
Recommended Actions	Four steps are proposed to begin the process of fostering a value chain culture in the citrus industry: 1. **Citrus industry value chain knowledge, skills and application audit:** to determine the current level of expertise in value chains is at in the citrus industry and who holds expertise in value chains 2. **Value chain resources audit:** to identify current resources and programs relating to value chains 3. **Identify available programs that may suit the needs of the citrus industry** 4. **Develop specific citrus industry programs if required**
Brief description and rationale	The citrus industry is characterised by a commodity focus, with emphasis on supply and pushing product through the chain rather than demand and pulling product through the chain. The study also identified a lack of genuine consumer and market understanding. Instead of consumers being used to drive decision making for the chain, it is often thought that consumers need to be educated to eat navels. While the industry has been functioning efficiently and effectively as a supply driven commodity chain, this needs to change in order to be sustainable into the future. The citrus industry has a role in actively encouraging industry participants to consider new business models, including value chain thinking and principles, which may be more sustainable into the future. Before any specific programs or tools can be developed to foster a value chain culture in the industry, the current level of knowledge, skills and application of value chain thinking and principles needs to be identified. There is also a number of value chain resources available that may be suited to the needs of the citrus industry. These should be explored and any potential gaps requiring the development of specific citrus industry programs should be identified and programs developed accordingly.

11. Innovative product development to overcome the 'messiness' factor when eating a navel

Recommended Actions	The following steps may be taken to investigate product development options: 1. Conduct research into packaging and product innovations. 2. Establish the feasibility and cost/benefit of pursuing outcomes from research in new product/packaging development. 3. Develop the project brief for the work required. 4. Explore partnership opportunities with retailers and packaging suppliers and possible funding initiatives for new product development. 5. Develop prototype and test packaging options with consumers. Make refinements and develop a strategy for commercialisation. 6. Develop marketing strategy to launch and promote new packaging option. Note: This may not be a high priority project for the industry at the moment, but with new technologies continually being developed (particularly in the packaging field), it should not be dismissed outright. Keeping an open mind to this potential improvement project is recommended for the advantage it might provide.
Brief description and rationale	It has long been known by industry that consumers generally consider oranges to be messy and difficult to eat. While strategies have been explored in the past, the lift in sales of mandarins and competition from other easier-to-eat fruit is increasing. Research should be conducted into possible innovations in product development, packaging, value adding and alternative uses to counter-act this negative aspect in the eyes of consumers. This was again raised in the domestic consumer research study as a barrier to purchase and consumption, and the recommendation was made to develop new innovative products. This could mean exploring packaging options that overcome the messiness barrier, delivering a 'new' product that is easy to eat cleanly and at any time. This might encourage people who wouldn't normally buy oranges to consider them, as well as encourage people who do buy oranges as a staple, to buy them on other occasions, and at times they wouldn't normally consider eating an orange. While this wasn't raised as a recommendation in the export consumer research, it still may be applicable for the Japanese market, depending on the product development initiative. Japanese consumers did highlight that their main consumption occurred at breakfast and after dinner, highlighting the fact that oranges required preparation, and this was better done in the home. A separate element of consumer research would be required to test any innovative packaging options in the Japanese market.

PART 7: WALKING THE CHAIN

Background

Traditionally the food and wine industries operate within a silo context, where businesses within a supply chain only focus on what they are doing and push (or supply) their product or service onto the next business in the chain hoping they will buy it. In this system, the only real way to increase margin (and profit) is to focus on reducing costs. However, where supply chains adopt a value chain approach, the focus shifts to the end consumer and identifying what it is that they are willing to pay for and why. It can then be quickly identified that to achieve what the consumer wants (or does not want) the businesses in the chain need to work together or collaborate.

The Walking the Chain activity is one component of the Riverland Citrus Industry Value Chain Analysis Project aimed at identifying opportunities to use consumer insight to value add and sustainably increase the profitability of businesses in the supply chains being analysed.

Project Description

The Walking the Chain activity was a two day event and provided chain participants the opportunity to explore value chain thinking and concepts. It involved the participants (1) walking their own chain from paddock to retail outlet and then (2) visiting a number of agrifood businesses that use consumer insight as a key driver for their business, helping the value-add and do business differently.

Over a two day period chain participants had the opportunity to:

- Gain a greater understanding of the roles and expectations of other businesses in the navel orange supply chain, increasing the opportunity for;
    - Effective information flow between businesses in the chain
    - Establishing and strengthening relationships to build a foundation of trust and commitment
    - Aligning business strategies
- Explore the use of consumer insight including how to obtain, interpret and use it effectively within the chain
- Explore new methods and tools for establishing a consumer demand (value) approach within their chain

Itinerary Overview

Participants commenced the walk in Renmark, South Australia.

On Day One participants visited:

- a citrus grower
- a citrus packer/marketer
- a selection of retail outlets in Adelaide ranging from small independent fruit grocers to major supermarkets.

Day One concluded with a dinner and guest speaker.

On Day Two participants visited the following businesses:

- Adelaide Produce Markets, Pooraka, South Australia
- Major Retail Distribution Centre
- Lenswood Apples, Adelaide Hills, South Australia
- Adelaide Mushrooms, Monarto, South Australia
- Swanport Harvest, Murray Bridge, South Australia

Walking the citrus chain

During the walking the chain activity, participants visited businesses along the South Australian navel orange supply chain from production and packing in the Riverland through to retail in the Adelaide metro area.

Walking the navel orange chain provided an opportunity for participants to:

- Understand at a practical level, the flow of navel oranges from production through to retail.
- Understand the challenges of operating under a value chain model in the context of the navel orange chain.
- Identify where good relationships exist along the chain.
- Identify where there may be some potential areas for improvement in information flow and relationships available.

Most participants were familiar with navel orange production and/or packing shed operations but less so with the distribution and retail components of the chain.

Of particular highlight were visits to the Adelaide Produce Markets, Pooraka, the major retail distribution centre and the retail outlets

Adelaide Produce Market, Pooraka, South Australia
The Adelaide Produce Market is South Australia's centre for the exchange and sale of fresh fruit and vegetables between growers, wholesalers, supermarkets, greengrocers, food processors, exporters and providores.

The Adelaide Produce Market is also active in educating and inspiring consumers to increase consumption of fresh fruit and vegetables. The Burst of Freshness program is an example. South Australian independent retailers can join as partners that provide them with access to recipe cards, media advertising (television, radio, and print), and point of sale material, in-store competitions and Crunch Bunch store appearances. In collaboration with local suppliers, a number of Burst of Freshness vending machines have been installed which carry products such as fresh pasta, potato salad and cut up fruit bowls.

Major Retail Distribution Centre
The distribution centre (DC) provided an insight into the logistics of receiving and distributing fresh produce to retail stores. Quality control processes were demonstrated to participants including fruit testing and rejection procedures.

Retail outlets
Participants visited a small fruit and veg store, large specialty fruit and veg store and a major supermarket. The retailers differed in their range of products, volume of navel oranges handled, quality specifications and means for sourcing fruit.

All outlets were focused on providing their customers with a good shopping and eating experience. They also placed a great importance on informal interaction with their customers.

Fruit and vegetable wholesalers were an important source of product information for the small independent fruit grocers.

Agrifood businesses visited

Visiting businesses demonstrating sound application of value chain principles provided an opportunity for participants to:

- Gain an insight into the operation of a successful value chain with the aim of applying key elements where appropriate to the navel orange supply chain
- Understand the challenges associated with building a value chain and operating using value chain principles
- Identify where good relationships and information flow exist along the chain
- See evidence of co-innovation along a chain
- See evidence of how consumer insight can be used to value add

Lenswood Cold Stores, Adelaide Hills, South Australia
The visit to Lenswood Cold Stores gave participants an opportunity to see an alternative packing system and business model while still within the fruit sector.

Lenswood Cold Stores is a community organisation founded by Adelaide Hills apple growers in 1933 and is probably one of the most successful fruit co-operatives in Australia. The Co-op aims to provide local growers with subsidised communal facilities for the storage, packing and marketing of apples. In addition they aim to keep ahead of technology to ensure the fruit stored and packed at the facility is done so to the highest possible quality.

Lenswood Cold Stores also apply strict quality specifications which have been designed around customers' needs to ensure the consistency of their product quality and value for money for consumers.

Adelaide Mushrooms, Monarto, South Australia
The Australian mushroom industry is unique in the way it works together and uses consumer insights as part of their sales and marketing program.

Adelaide Mushrooms is Australia's second-largest mushroom producer, supplying South Australia, Victoria, Tasmania, Western Australia and the Northern Territory. It also has Tasmanian production operations at Spreyton and in the Huon Valley.

Their production program is very intensive with approximately 160 tonnes of fresh mushrooms produced each week. Adelaide Mushrooms are very aware of the need to supply a consistent quality product when the market wants it. As such, production is based around holiday and festive needs.

Consumer insight is considered critical to success and is used to forecast consumer demands and design promotion campaigns. Currently Adelaide Mushrooms are moving to pre-packing mushrooms in whole and sliced form and also ready-to-use packs.

In addition to the site visit at Monarto, Doug Schirripa, owner of Adelaide Mushrooms and President of Australian Mushroom Growers Assosciation, was the dinner guest speaker. During the dinner Doug challenged the citrus industry to work more collaboratively.

Swanport Harvest, Murray Bridge, South Australia
Swanport Harvest is an innovative company. Its primary focus is their key brand, Staycrisp Lettuce.

Stay Crisp Lettuce demonstrates a branded and differentiated product, underpinned by consumer research, in a category that has traditionally been characterised by a lack of differentiation (similar to citrus). Their branded lettuce encourages buyer loyalty.

Stay Crisp Lettuce are fresh-cut iceberg lettuces, packed and vacuum-chilled within minutes of harvest. The snap-cooling process and packaging, dramatically increases the product's crispness, freshness and shelf-life. In addition, lettuces can be harvested and delivered to the market within twenty-four hours.

The company concentrates on the South Australian and Northern Territory markets as these markets can be comfortably supplied. They also strictly adhere to their quality specification to maintain their brand image.

REFERENCES

Bonney, L., Clark, R., Collins, R., Dent, B., Fearne, A. (2009). Sustainable Value Chain Analysis: An agri-food chain diagnosis. *Unpublished.*

Centre for Design at RMIT and Life Cycle Strategies Pty Ltd (2010). Australian LCI database version 2010.5, data released in SimaPro LCA Software. Melbourne, Life Cycle Strategies.

Falkenmark, M. (2003). Water Cycle and People: Water for Feeding Humanity. *Land Use and Water Resources Research*, **3**, pp. 3.1-3.4.

Fearne, A., (2009a). Sustainable Food and Wine Value Chains.

Fearne, A., (2009b). Andrew Fearne on Value Chains DVD.

Fisher, P., Reynard, K., Williams, R., and McCutcheon, A., (2011). Life cycle assessment case study series: Navel Oranges (Riverland District) Technical Report. *Unpublished*

Nielsen (2011). Driving Growth in Consumer Value for Navel Oranges. Conducted on behalf of the SA Citrus Industry Development Board and its partners.

Mekonnen, M.M. and Hoekstra, A.Y. (2010). The green, blue and grey water footprint of crops and derived crop products, Value of Water Research Report Series No. 47, UNESCO-IHE, Delft, the Netherlands.

Mordini, M., Nemecek, T., Gaillard, G. (2009). Carbon and Water Footprint of Oranges and Strawberries: A Literature Review. Federal Department of Economic Affairs, Switzerland. .76 pp.

Mugford, A., (2009a). Consumer, customer insight opens doors. Grape Growers and Vignerons. June 2009

Mugford, A., (2009b). 'Clean and green' – a growing trend. Grape Growers and Vignerons. August 2009

Palmer, M., Huczko, T. and Ross, J., (2009). SA Fruit, Vegetables and Nuts Market Overview.

Pré Consultants (2008). SimaPro 7.1.7 Multi user.

SA Citrus Board, 2011 . SA Industry Overview. Website: http://www.citrus.org.au/SAIndustyOverview.aspx [Accessed: 28 July 2011]

APPENDICES

Summary of appendices

Appendix 1: Consumer Research: Domestic

Appendix 2: Consumer Research: Export

Appendix 3: Consumer Research: Export (Japanese translation)

Appendix 4: Domestic Chain Material Flow Summary, Figure 3

Appendix 5: Export Chain Material Flow Summary, Figure 8

Appendix 1: Consumer Research: Domestic

Appendix 2: Consumer Research: Export

Appendix 3: Consumer Research: Export (Japanese translation)

Appendix 4: Domestic Chain Material Flow Summary, Figure 3

GROWER ⇨ **PACKING SHED** ⇨ **DISTRIBUTION CENTRE** ⇨ **RETAIL STORE** ⇨ **CONSUMER**

GROWER

Activities

Crop Management
- Fertilise **(V)**
- Prune **(V)**
- Irrigate **(V)**
- Manipulate **(V)**
- Pest management **(N)**
- Graft/ Plant **(N)**
- Harvest **(N)**
- Waste **(W)**

Business Management
- Strategy **(N)**
- Monitor **(N)**
- Estimate crop **(N)**
- Compliance **(N)**

Inputs

- Genetics **(V)***
- R&D **(V)***
- Climate **(V)**
- Water **(N)**
- Nursery Stock **(N)**
- Bins **(N)**
- Consultancy **(N)**
- Machinery **(N)**

PACKING SHED

Activities

- Maturity test **(V)**
- Wax **(V)**
- Chemical Treatment **(V)**
- Quality Control **(V)**
- Grade
  - Colour **(V)**
  - Size and blemish **(N)**
  - Cleaning **(N)**
- Storage **(V)**
  - Short term **(V)**
  - Long Term **(W)**
- Pack **(N)**
- Forecast **(N)**
- Manage By-product **(N)**
- Waste **(W)**

Inputs

- Chemicals **(V)**
- Machinery **(N & V)**
- Bins **(N)**
- Water **(N)**
- Packaging **(N)**
- Labour **(N)**
- Labels
  - Crate **(N)**
  - Orange **(W)**

DISTRIBUTION CENTRE

Activities

- Manage Cold Chain **(V)**
- Quality Assurance
  - Product **(V)**
  - Process **(N)**
- Picking **(N)**
- Receival **(N)**
- Dispatch **(N)**
- Manage Inventory **(N)**
- Waste **(W)**

Inputs

- Crates **(N)**
- Machinery **(N)**
- Palletising **(N)**
- Orders **(N)**

RETAIL STORE

Activities

- Manage Stock **(V)**
- Promotion
  - Price **(V)**
  - Demonstrate **(V)**
  - Store Layout **(N)**
- Merchandising
  - Display **(N)**
  - Position **(N)**
- Ordering **(N)**
- Sales **(N)**
- Waste **(W)**

Inputs

- Plastic bags **(N)**
- Crates **(N)**

CONSUMER

Attributes valued

IN STORE FACTORS
- **Price**
- **Firmness**
- **Colour**
- **Smell**
- **Skin Quality**
- **Seasonality**
- **Packaging**

OVERALL EXPERIENCE
- **Taste**
- **Health benefits**
- **Shelf life**

Labour, Energy & Transport are inputs required along the whole chain

Figure 3. Domestic supply chain material flow showing activities and inputs at various steps along the chain and the attributes valued by the consumer. Each activity and input has been described as either: contributing to attributes valued by the consumer (V), necessary (N) or wasteful (W).

Appendix 5: Export Chain Material Flow Summary, Figure 8

GROWER	PACKING SHED	WAREHOUSE	DISTRIBUTION CENTRE	DISTRIBUTION CENTRE	RETAIL STORE	CONSUMER
Activities Crop Management •Fertilise (V) •Prune (V) •Irrigate (V) •Manipulate (V) •Pest Control (N) •Graft/Plant (N) •Harvest (N) •Waste (W) Business Management •Strategy (N) •Monitor (N) •Estimate crop (N) •Compliance (N)	**Activities** •Maturity test (V) •Wax (V) •Chemical Treatment (V) •Quality Control (V) •Grade •Size and blemish (N) •Colour (V) •Cleaning (N) •Storage (V) •Short term (V) •Long Term (W) •Pack(N) •Forecast (N) •Manage By-product (N) •Waste (W)	**Activities** • Manage Cold chain (V) •QA – Product (V) •Repacking •Marketing (V) •Spoilage(N) •Customs clearance (N) •Chemical Treatment (N) •Manage Inventory (N) •Storage (N & W) •Waste (W)	**Activities** •QA – Product (V) •Repackaging (N or V) •Manage Inventory (N) •Waste (W)	**Activities** •Ordering (N) •Receivals (N) •Dispatch (N) •Picking (N) •Manage inventory(N) •Quality Assurance •Product (N) •Process (N) •Waste (W)	**Activities** •Manage Stock (V) •Merchandising •Display (N) •Position (N) •Promotion •Price (V) •Demonstrate (V) •Store Layout (N) •Ordering (N) •Selling (N) •Waste (W)	**Attributes valued*** •Seasonality •Taste •Colour (dark orange) •Freshness •Quality •Thin smooth outer skin, •Price •No pips/seeds •Shelf life •Size
Inputs •Genetics (V)* •R&D (V)* •Climate (V) •Water (N) •Nursery Stock (N) •Bins (N) •Consultancy (N) •Machinery (N)	**Inputs** •Chemicals (V) •Machinery (N& V) •Labels •Orange (V) •Carton (N) •Bins (N) •Water (N) •Packaging (N) •Reefers	**Inputs** •Packaging (N or V: if branding)	**Inputs** •Packaging (if necessary) (N or V: if branding)	**Inputs** •Machinery(N) •Store orders (N)	**Inputs** •Plastic bag (N) •Display material (V)	* in no particular order

Labour, Energy & Transport are inputs required along the whole chain

Figure 8. Export supply chain material flow showing activities and inputs at various steps along the chain and the attributes valued by the consumer. Each activity and input has been described as either: contributing to attributes valued by the consumer (V), necessary (N) or wasteful (W).

Driving Growth in Consumer Value for Navel Oranges

Conducted on behalf of the SA Citrus Industry Development Board and partners

Industry Report
18 February 2011

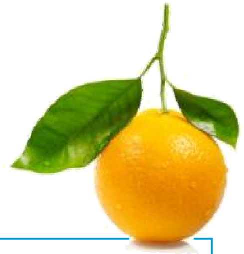
Nielsen Ref: AU002923/2773

Table of contents

nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

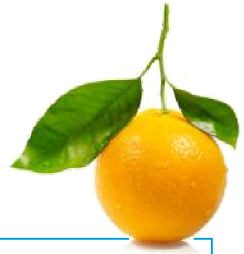
Strategy and tactics



- Oranges play a key role in the homes of Australians as a kitchen staple that sits in the fruit bowl and offers the household a fresh and healthy snack option. Despite this close connection to the home, the orange market is underperforming in its potential especially when compared with other fruit staples.
- Apples and bananas, orange's main competitors, are being sold in greater volumes with an average higher spend per households.
- There are a number of elements that drive this lower performance, including :
  - Oranges are generally messy and more difficult to eat when compared with bananas and apples. There is an element of avoidance to eating oranges in public places or being self conscious when eaten outside the home.
  - There is a lack of excitement within the category when compared with other fruit. Seasonality and limited availability of some fruit create an element of excitement for shoppers which is not present with the year-round availability of oranges. This means that other seasonal fruits are more attractive to shoppers. Apples have been particularly successful in this area by creating multiple brands/varieties that peak at different times over the season, providing choice of flavours, textures and colours under the apple brand.
  - When shopping for oranges, the purchase is a generally a habitual one, with low involvement. Shoppers are unfamiliar with brands, varieties and growing regions of oranges. There is also an element of doubt about what the best-tasting orange is and when they are available in the year.
  - Competitive pricing is an essential element of the marketing mix. Price (along with quality) is one of the most important attributes driving choice in-store. There appears little room to pursue a strategy of increasing prices across the board. Specials and promotions in-store are influencing decisions when shoppers are faced with competitively priced staple fruit, particularly apples and bananas.

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

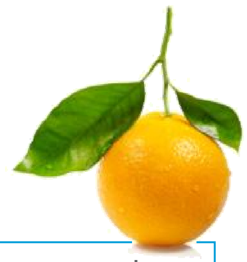
Strategy and tactics, continued



- Driving up prices across the board doesn't appear to be a viable strategy for a number of reasons. Firstly, being on promotion or at a cheaper price than other fruit is the most important factor that shoppers consider when buying oranges (followed by the quality of oranges). This means that if the price isn't competitive or considered of value, a purchase is less likely to take place.
- The best option to increase sales and drive up value is to improve household penetration and frequency of purchase. The three approaches proposed below have been prioritised from short-term to long-term.
  - **Positioning:** Introduce a brand that is differentiated from 'staple' oranges – we see this a 'just arrived, new in season' SA Riverland orange. A strong marketing campaign and in-store promotions would be used to create excitement around the availability of the sweetest flavoured oranges, available for only a short time, early in the orange season.
  - **Merchandising:** Introducing a SA Riverland branded packaged product that consistently delivers to high quality standards and clearly differentiate it from the poorer quality packaged options currently available. Quality is a key consideration when stocking the fruit bowl; increasing consideration and penetration can only be achieved by consistently meeting the highest quality standards.
  - **Product development:** Introduce packaging options that overcome the messiness barrier, delivering a product that is easy to eat cleanly at any time. We see this as a product development option, a carefully packaged product, not a free give-away of an orange peeler or a packet of moist wipes at every display. This is about offering a new product that encourages people who wouldn't normally buy oranges to consider them, as well as encourages people who do buy oranges as a staple, to buy them on other occasions, and at times they wouldn't normally consider an orange.

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Strategy and tactics, continued



- The development and execution of each strategy proposed is beyond the scope of this study and further research would be required to determine the best approach for implementation in the marketplace.
- Shoppers are unable to differentiate between varieties of oranges, where they come from or even correctly identify the season when they have the best flavour. Oranges may be top-of-mind for many but it appears that in almost all consumers' minds, 'an orange is just an orange'. This is an opportunity that needs to be investigated in terms of launching differentiated sub-brands into the market.
- Most shoppers make judgements on price and orange characteristics (quality judged by firmness, colour, smell) in-store, so it's important that stores and outlets display fruit in ways that deliver positive perceptions of these characteristics in order to drive oranges sales.

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Research background

- South Australia's 580 orange growers produce 159,000 tonnes of oranges from about 1.6 million trees. The annual farm gate value of oranges in South Australia is $87 million.
- Citrus grows well in South Australia because of the Mediterranean climate (cool winter, warm summer without excessive rainfall) and irrigation water supply from the Murray River.
- Value-adding is mainly through expert grading and packaging systems with central desk export marketing. Citrus juice for fresh and concentrate, and organically grown citrus for domestic and export markets are also produced.
- Main industry issues include: water supply, bio-security, adoption of new varieties and accessing alternative markets for fresh fruit (which are higher value than juicing).
- The SA Citrus Industry Development Board and its partners have commissioned a Value Chain Analysis (VCA), which will identify opportunities for the industry to better match supply to consumer requirements.
- Findings of this research provide a consumer perspective in the wider understanding of the VCA.
- This report details the findings of the consumer requirements, preferences, attitudes and behaviours that drive demand; in this case, the quality, size, taste, colour and other specifications of Navel oranges.

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Research objectives

- The overall objective of this research is to obtain a comprehensive understanding of shopper purchase behaviour for Navel oranges in order to develop effective measures and strategies to enhance consumer value and profitability.
- The specific objectives of this research are to:
  - Identify the factors that influence shoppers' purchase decisions. That is, how do shoppers decide when to buy oranges, which variety, brand and type to buy?
  - Determine the importance, relative and absolute, of different product attributes. What value do consumers attach to Navel oranges and why? Quantify the degree of influence that each product attribute has on behaviour.
  - Explore the marketing mix in terms of what changes are required to it - i.e. what additions or extensions to the existing range would be most likely to stimulate consumption or increase expenditure on Navel oranges?
  - Determine if there is the opportunity to build "South Australia" or "Riverland" as a brand.
  - Identify factors that deter purchase and the implications these have in the market mix.

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Research design

- The research programme involved a mixed methodology approach, using consumer behaviour database analysis, Nielsen Homescan, qualitative focus groups, and a quantitative online survey.
- Qualitative Focus Groups:
  - Target audience: Melbourne female residents, main grocery buyer, purchase frequency, and purchase from a range of stores.
  - Each focus group (3) contained approximately n=6 respondents and each focus group was conducted for a duration of 1 ½ hours.
  - Dates of Fieldwork: 10 and 11 November 2010.

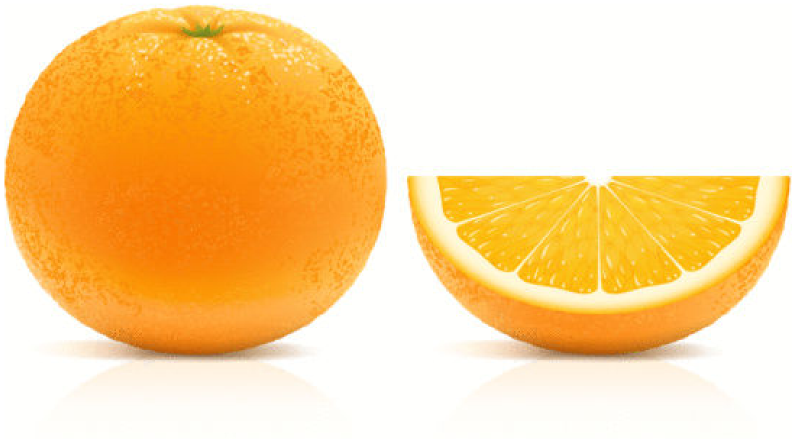
Group	Category	Age	User Group
1	Empty Nesters	46 years+	• Heavy purchasers of oranges • Buying 12+ times/ year
2	Young singles & couples	25-35 years	• Light purchasers of oranges • Buying 1-4 times/ year
3	Mothers with children aged 6-18 years at home	35-45 years	• Medium purchasers of oranges • Buying 5-11 times/ year

- Quantitative Online survey
  - Target audience: Those who had bought fruit in the past 7 days, whose last shop was at Coles. Woolworths/Safeway, a Green Grocer, or a Fresh Market.
  - Sample size: n=600 with quotas set on last store visited, region and for those that planned, considered, bought oranges in the past 7 days.
  - Fieldwork was conducted from 8 to 15 December 2010.
  - Average interview length: 20 minutes.

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Reporting notes

- The report has been structured into two parts. The first part examines the behaviour of shoppers (market profile) and the second part (consumer profile onwards), their attitudes and perceptions towards oranges and the wider shopping context.
- Significant differences between these target groups and other sub-groups have been noted through out the report where appropriate. All significant differences are highlighted using the following symbol



Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Research Findings

- Market profile
- Attitudes towards oranges
- Drivers for purchase
- Specials in-store
- Level of planning and how decisions are made
- Consumer profile

Market profile – summary findings

How many households are buying oranges and what are they spending?

- Across Australia, 7 in 10 households are purchasing oranges, with the average spend per year approximately $19 and an average purchase of 9.5kg per year. Australian shoppers buy oranges about 6 times a year (about once every 2 months) and there is opportunity to increase this further.
- Compared with other fruit, oranges have a lower household penetration and average spend with over 9 in 10 households purchasing bananas and apples and spending approximately $58 and $45 per year, respectively.
- Despite this, citrus value sales are growing at a very healthy 8.9% nationally versus a year ago. Apples and bananas are declining during the same period. Oranges represent 44% of total Citrus sales.
- Relatively, New South Wales households purchase more oranges than any other state (71.3%) and households in Victoria (68.5%) and South Australia (incl NT) (63.4%) purchase slightly less. There is potential to increase household penetration of oranges within these markets.
- In addition to lower household penetration, Victoria has the lowest average household spend, at approximately $18, although this is not very different from the national average spend of $19.
- Nielsen's view is that driving penetration will be a better strategy than trying to increase prices for the basic 'orange' product.

How are oranges purchased?

- Most are buying oranges loose rather than pre-packaged. However, oranges are better at pre-packaged than apples, since 17% of orange sales are for pre-packaged, compared with only 10% of sales for apples.
- While shoppers may be purchasing more pre-packed oranges (than apples) the adverse effect is that it's keeping shoppers away from the orange shelf, with only 3 purchase occasions per year (compared with almost 6 for loose purchases). This means they are less exposed to in-store sales and specials.
- In addition, pre-packed oranges are generally perceived to be of lower quality compared to those sold individually – *'there is likely to be one or two bad oranges in there'*. This means there is a small group of shoppers that may have experienced poorer quality oranges, which may impact perceptions and expectations of oranges overall.

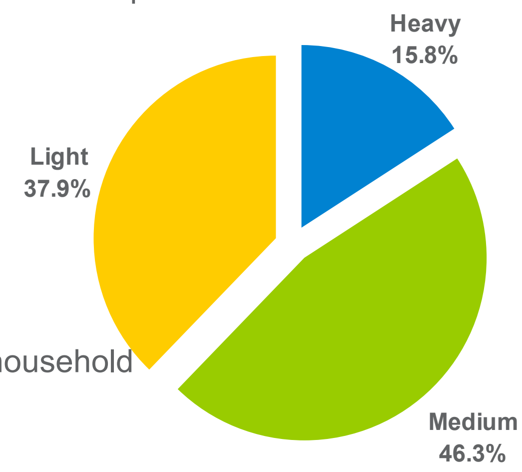
nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Market profile – summary findings, continued

Who are the heavy, medium and light orange purchasers?

- In order to obtain a better understanding of the orange market and who best to target for the future, orange buyers were segmented into three categories of heavy, medium, and light buyers. Detailed below is a profile of each.



- **Heavy** orange buyers (purchase oranges 12 times per year or more)
  - They represent 15.8% of buyers and account for 55.3% of value
  - They are: those over 35 years old without children at home and Senior Couples
- **Medium** orange buyers (purchase oranges 3-11 times per year)
  - They represent 46.3% of buyers and account for 37.7% of value
  - They are families with children aged 6-17 years old
  - This segment is performing under its potential given the number of people in the household
- **Light** orange buyers (purchase oranges 1-2 times per year)
  - They represent 37.9% of buyers and account for only 7% of value
  - They are not defined by any demographic profile and as such, are widely represented in the population

What else do heavy, medium and light orange purchasers buy?

- Overall, oranges are the sixth most popular fruit purchased (6.1% of value), which is substantially lower than the most popular fruits of bananas (19.8%), apples (16.1%), and stone fruit (10.8%).
- Amongst heavy orange buyers, oranges are displacing apples and bananas - the more common staples for other groups.

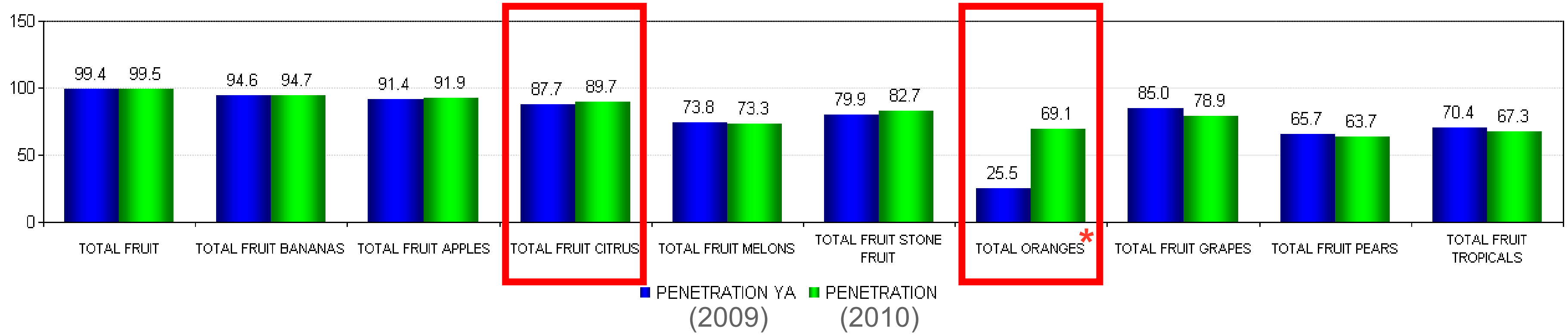
nielsen

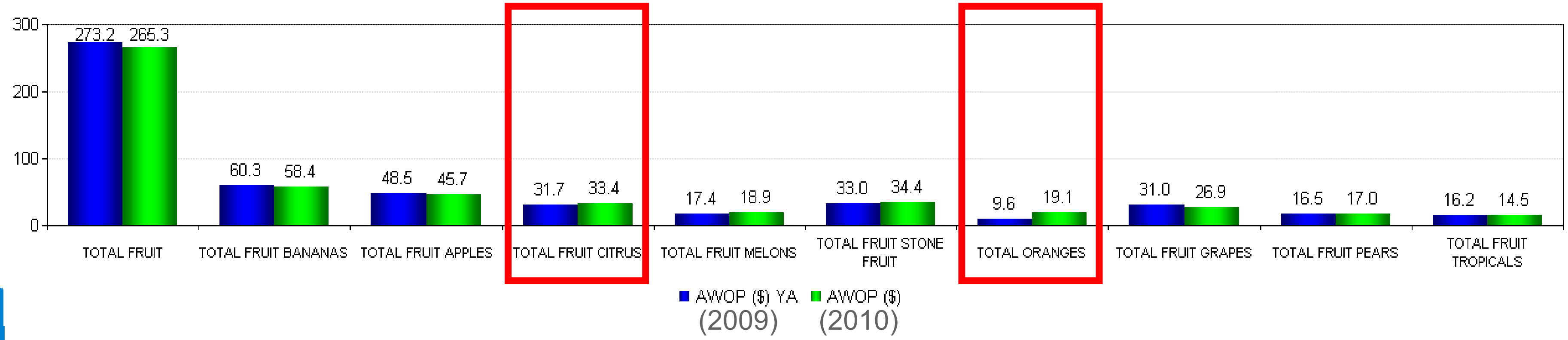
Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Household penetration and average spend on oranges could be performing better when compared with other popular fruit options like bananas and apples, and citrus generally

Australian market by fruit categories

What are the key consumer drivers of sales? - Brand Health - Value
ALL SHOPPERS - AUS - MAT TO 04/09/2010 - BASED ON VALUE ($000'S)/1000





Source : ACNielsen Homescan Australia

nielsen

Penetration YA = Penetration Year Ago (% of households purchased in last year)
AWOP = Average Weight of Purchase (i.e. avg. household spend per year)
*Note: Change in orange penetration from '09 to '10 is due to changes in database collection process and is not an actual increase in household penetration

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

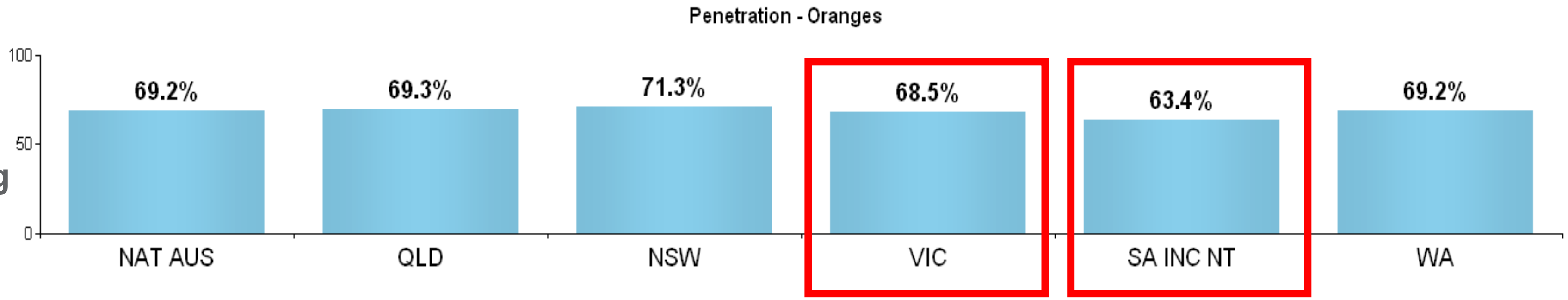
There is an opportunity to increase household penetration oranges in Victoria and South Australia, in particular

Australian vs. state markets for oranges only

What are the key consumer drivers of sales? - Brand Health - Value

Source: Nielsen Homescan | For Period MAT To 04/09/2010 | Based on AUS Total Fruit I NAT AUS

% Buying HHs



$ AWOP

Source: Nielsen I Homescan Australia Issue# 438617

Penetration YA = Penetration Year Ago
AWOP = Average Weight of Purchase (i.e. avg. household spend)

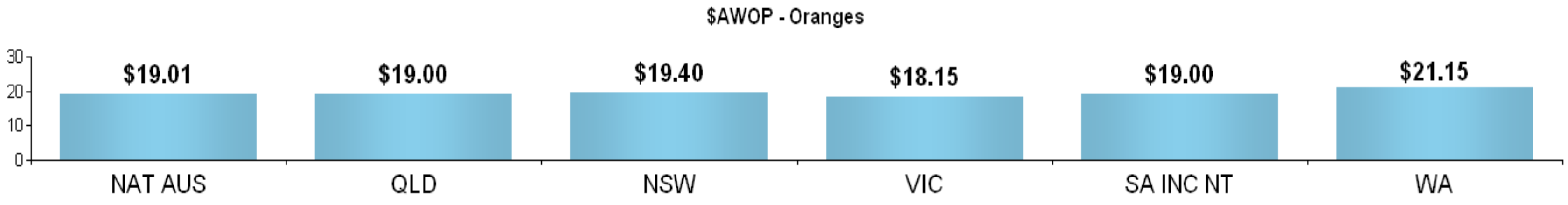
Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Orange buyers in Victoria seem to lag behind other states in how often they purchase oranges and how much they spend on each occasion

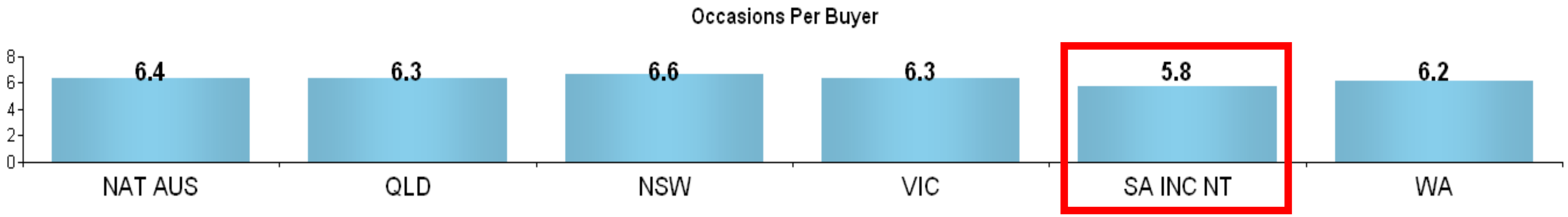
What are the key consumer drivers of sales? - Brand Health - Value

Source: Nielsen Homescan | For Period MAT To 04/09/2010 | Based on AUS Total Fruit I NAT AUS

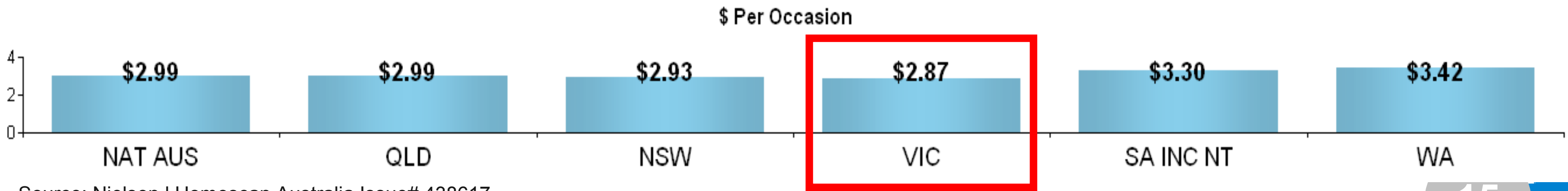
$ AWOP



Occasions Per Buyer



Value per Occasion



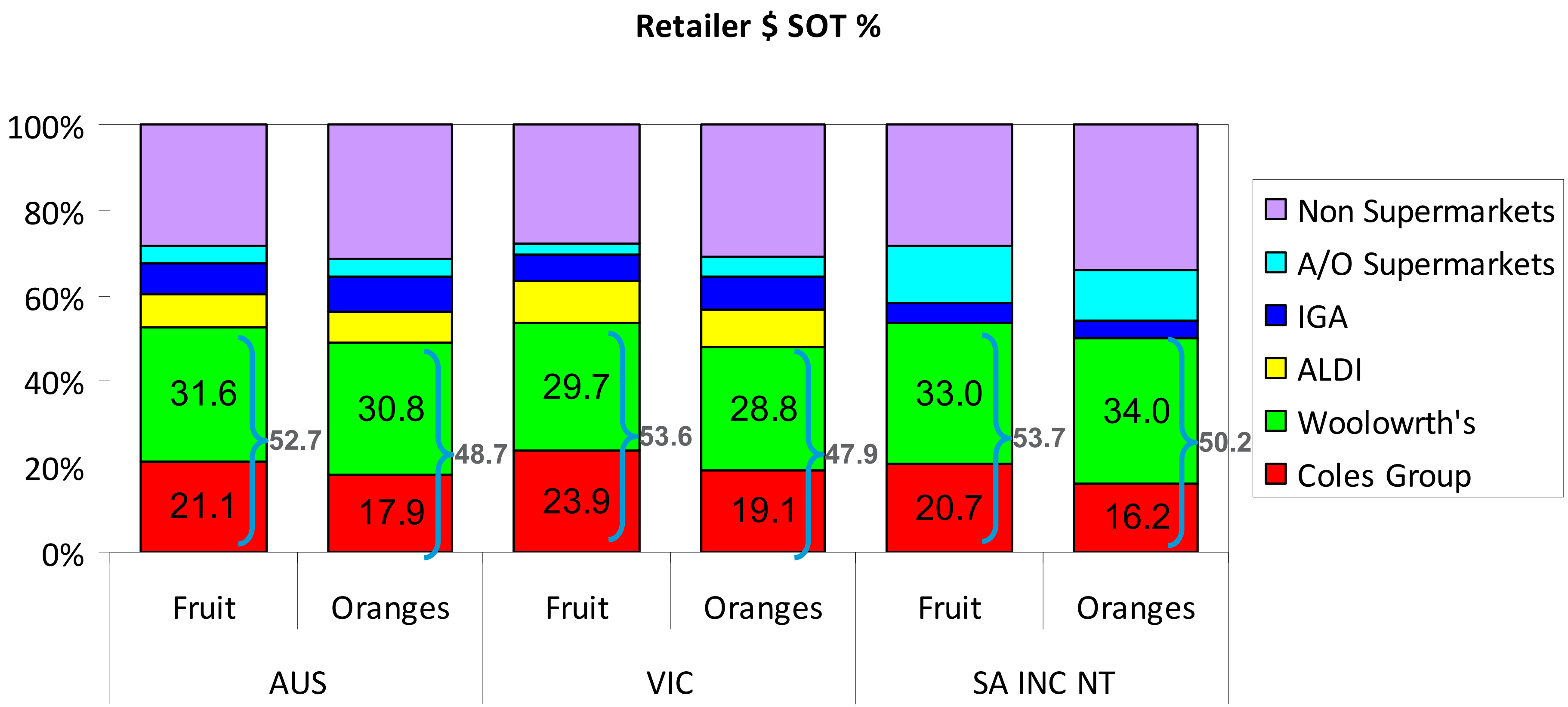
Source: Nielsen I Homescan Australia Issue# 438617

AWOP = Average Weight of Purchase (i.e. avg. household spend)

nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Supermarkets appear to be underperforming in sales of oranges compared with non Supermarkets (e.g. Green Grocers and convenience stores)



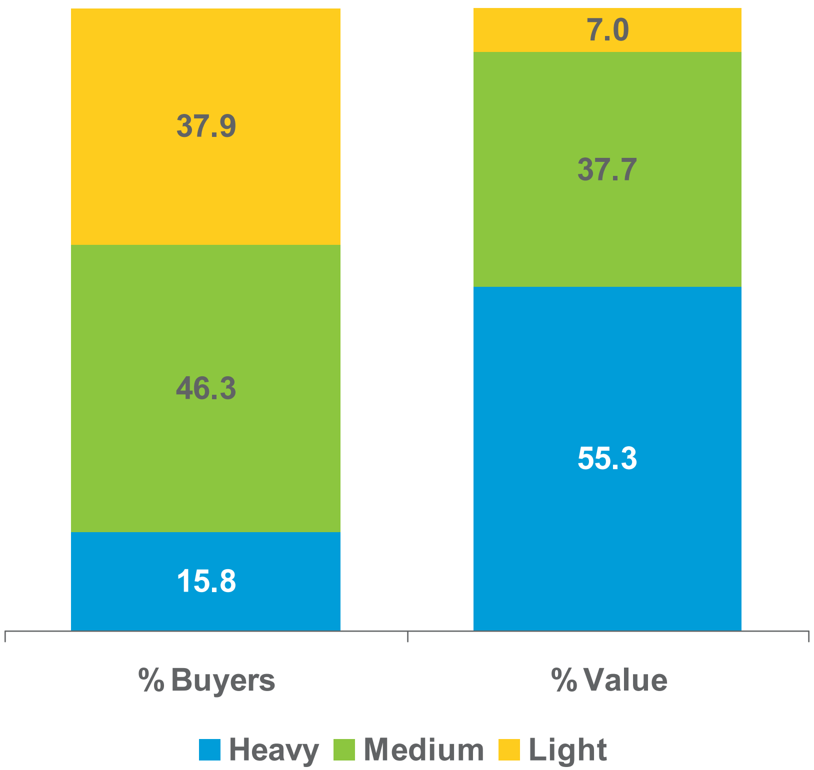
nielsen

SOT = Share of Trade
A/O = All Other supermarkets
Non Supermarkets, for example Farmer Jacks, Franklins, Spar, Food for Less, Foodworks, Costco (not extensive list)

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

The best strategy is to target the medium orange buyers – driving frequency of purchase

Oranges Heavy, Medium, Light Definitions | Based on Raw Occasions
For Period 52 w/e 04/09/2010 | Relative to Total Oranges| TI Australia



- Whilst heavy buyers represent a small proportion of buyers, they account for over half of all sales and are therefore a very valuable market.
- Converting medium buyers to heavy buyers is the best strategy for a number of reasons:
  - Light buyers only offer 7% of value and converting them to medium buyers does not offer the same return in value compared with converting medium buyers (the leverage in terms of value per purchaser is higher for medium buyers).
  - Light buyers are not defined by any demographic group and are therefore harder to target than medium buyers who are largely defined as family groups.
  - It is easier to increase frequency of purchase of oranges than value.
- Given the lower value the light buyers offer, this segment is not the best market to target.

nielsen

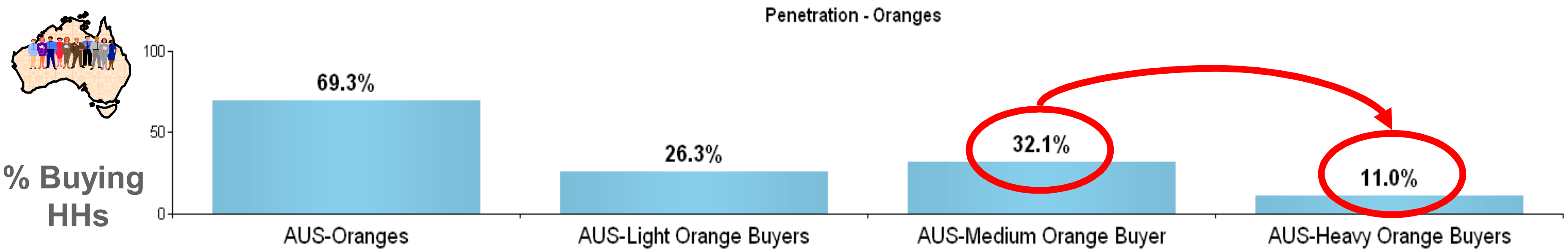
Heavy orange buyers = purchase 12+ times per year
Medium orange buyers = purchase 3-11 times per year
Light orange buyers = purchase 1-2 times per year

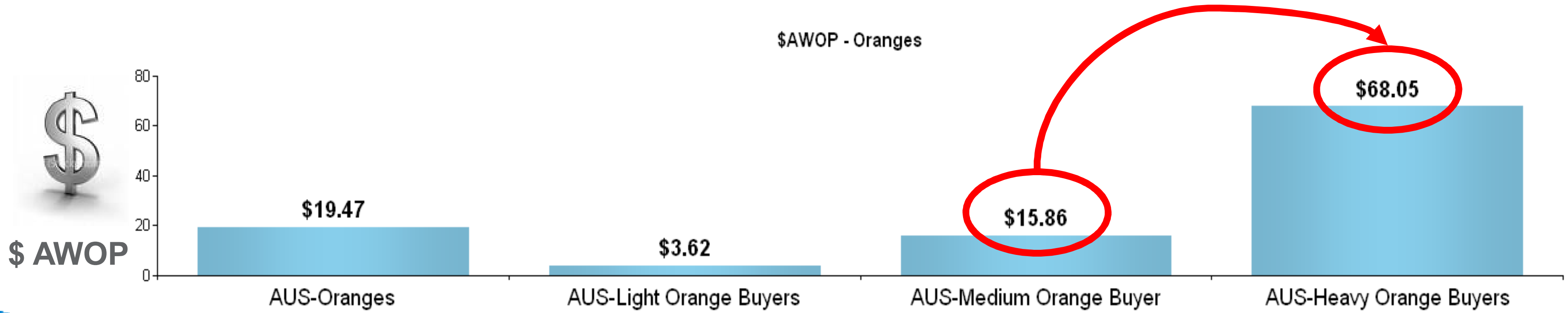
Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Nearly a third of households are medium orange buyers and moving them to heavy buyers will create a significantly higher average spend

What are the key consumer drivers of sales? - Brand Health - Value

Source: Nielsen Homescan | For Period MAT To 04/09/2010 | Based on AUS Total Fruit I NAT AUS





Source: Nielsen I Homescan Australia Issue# 438617

nielsen

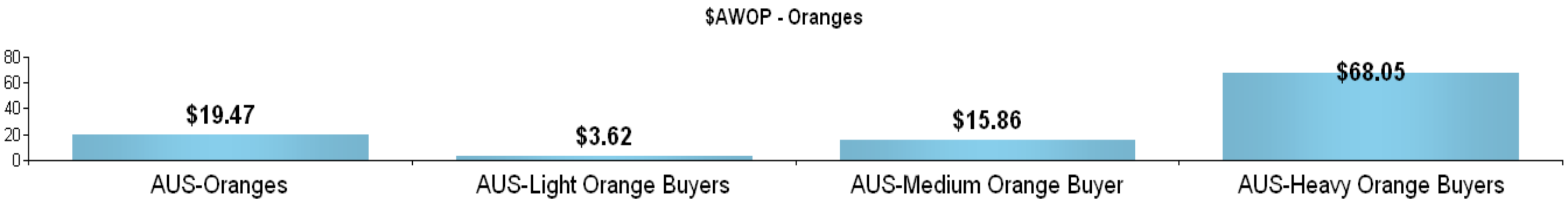
Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Value per occasion is similar across light and medium buyers, whilst heavy buyers spend approx 50c extra per occasion

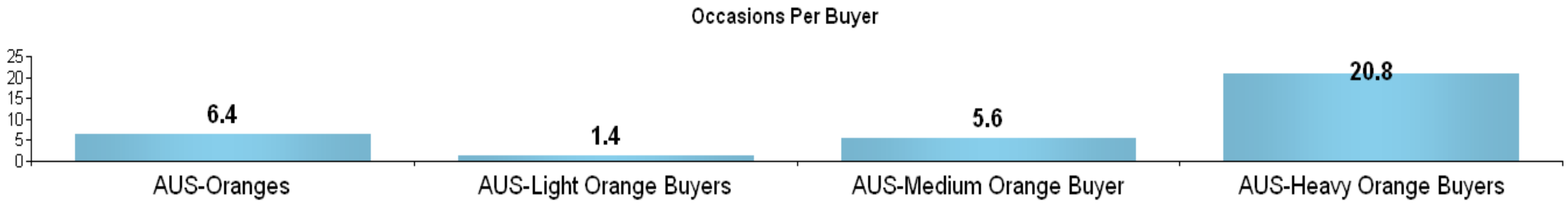
What are the key consumer drivers of sales? - Brand Health - Value

Source: Nielsen Homescan | For Period MAT To 04/09/2010 | Based on AUS Total Fruit I NAT AUS

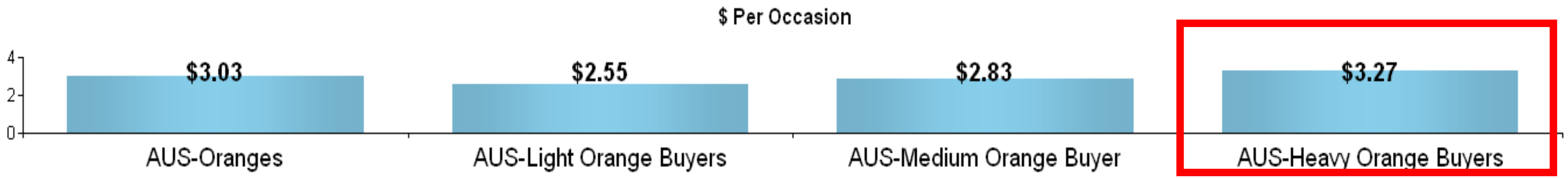
$ AWOP



Occasions Per Buyer



Value per Occasion



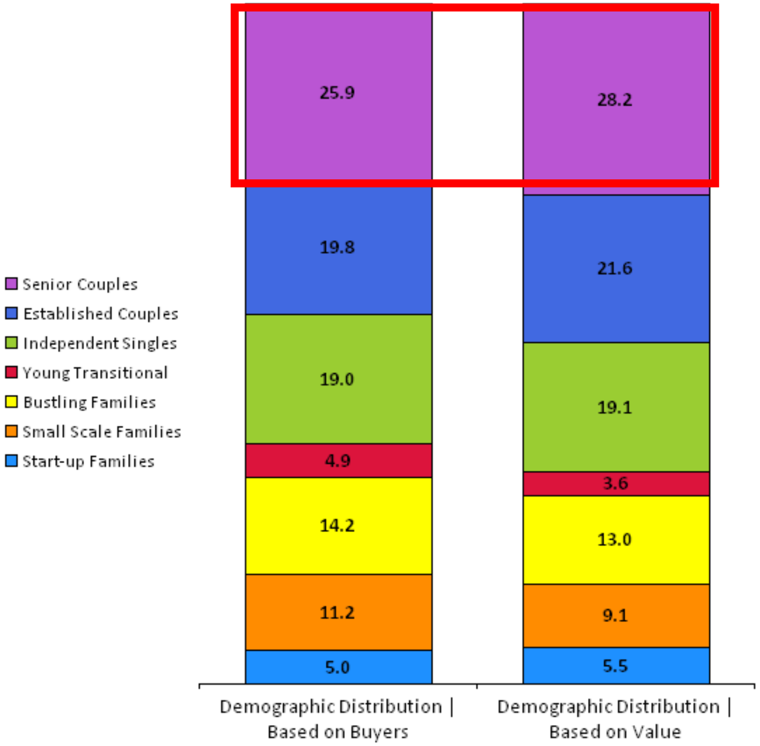
Source: Nielsen I Homescan Australia Issue# 438617

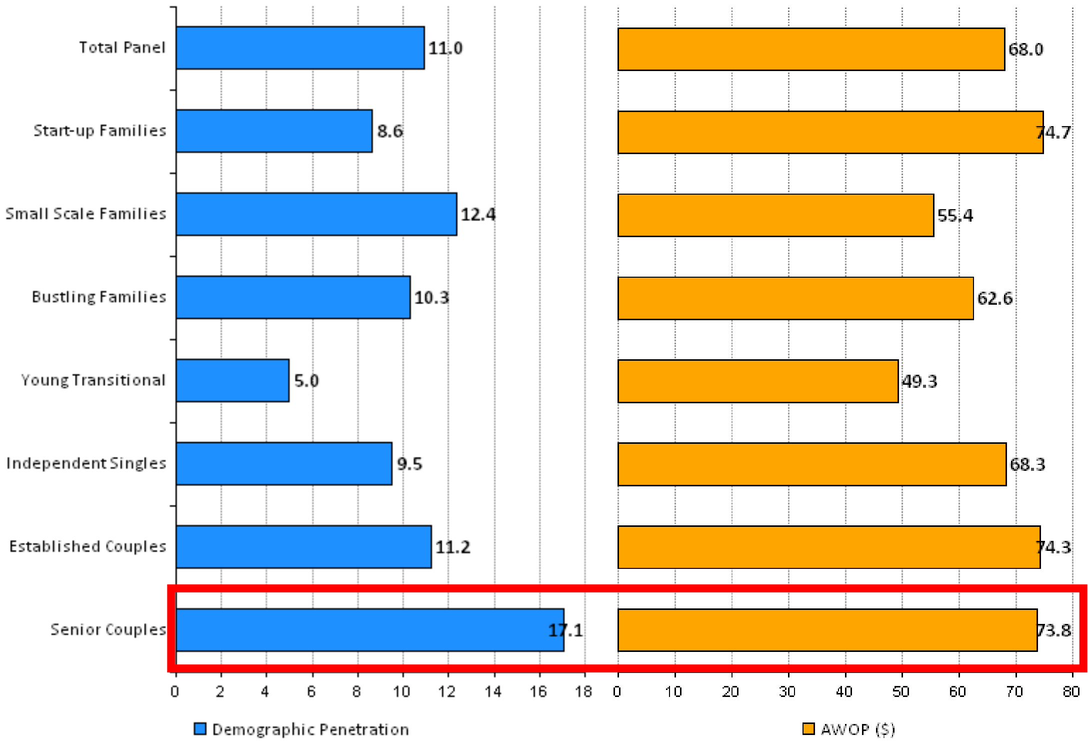
nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Heavy orange buyers are skewed to older age groups

AUS-Heavy Orange Buyers
For Period 52 w/e 04/09/2010 TI Australia





nielsen

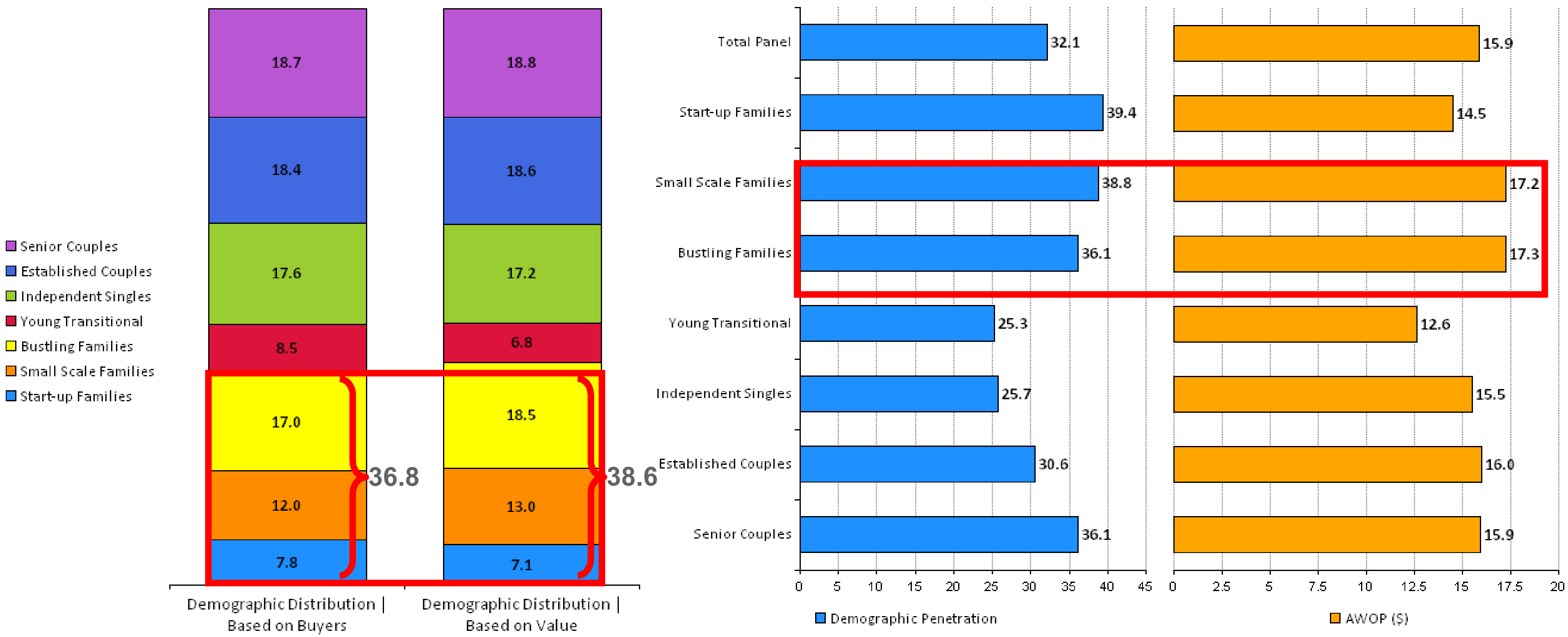
Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Medium

Families are slightly over-represented amongst medium buyers compared with the national population, but their value is higher given number of mouths in the household (based on value contribution). Senior couples are also significant players as medium orange buyers

AUS-Medium Orange Buyer

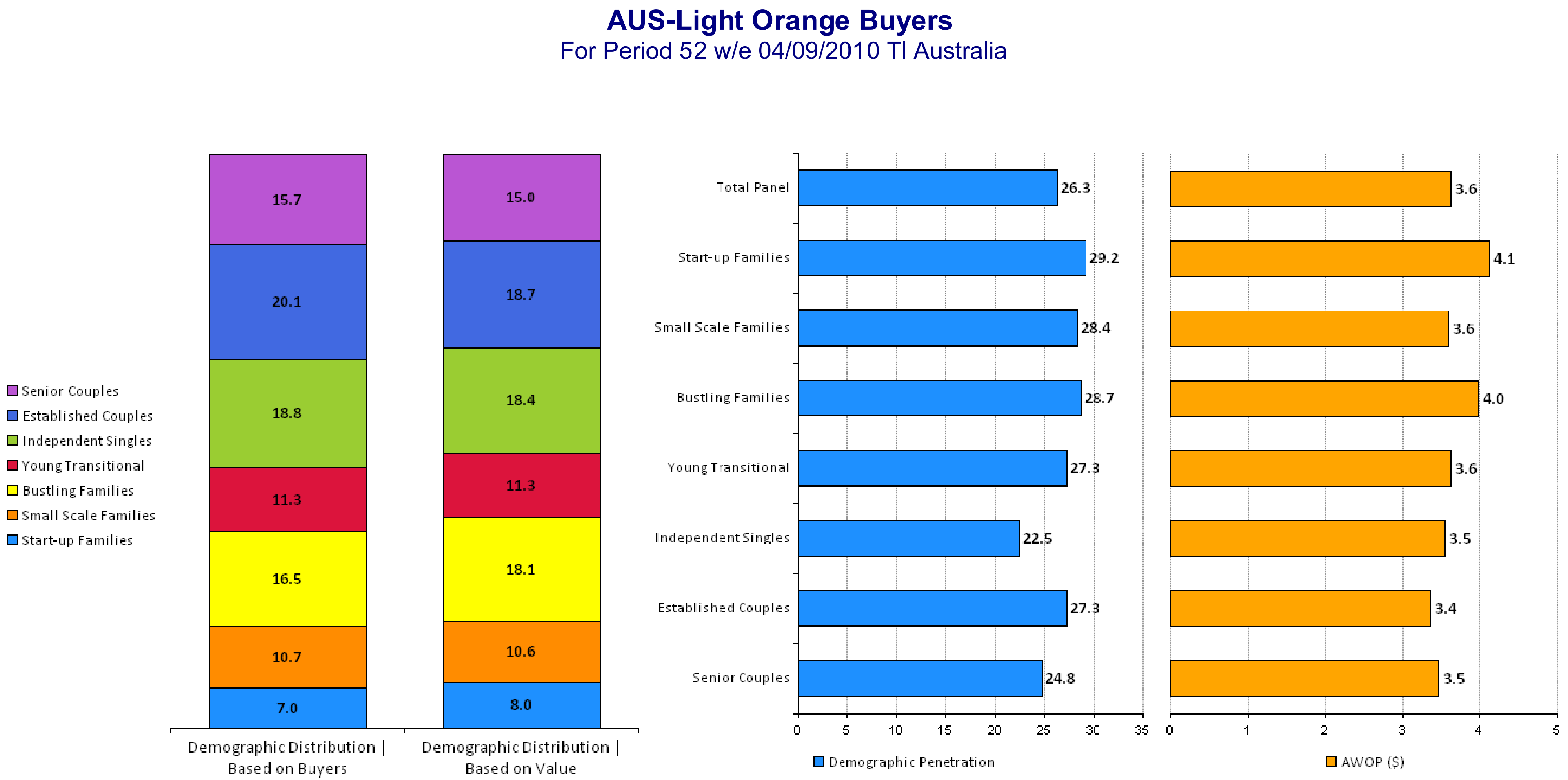
For Period 52 w/e 04/09/2010 TI Australia



nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Light buyers can be found in all household types



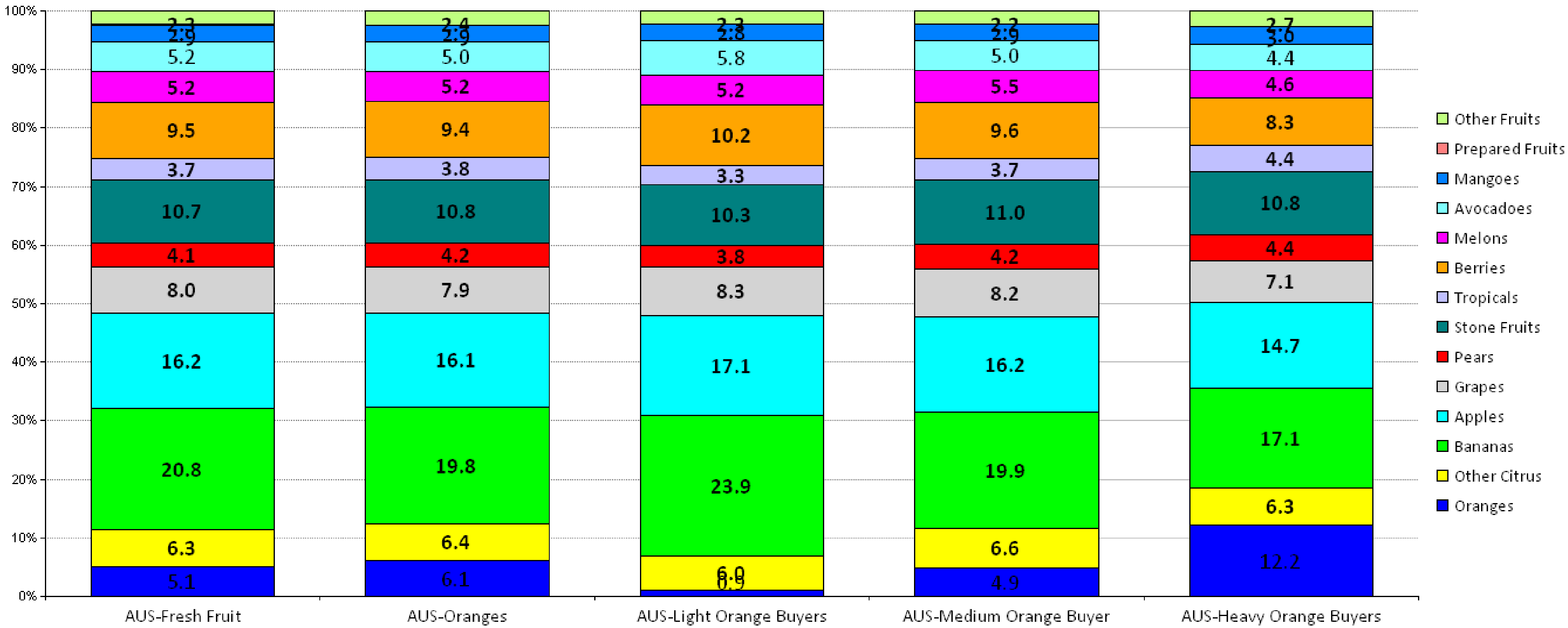
nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Amongst heavy orange buyers, oranges and citrus in general displace other popular fruits like bananas and apples

Share of Repertoire (Value)

For Period 52 w/e 04/09/2010 AUSTRALIA | Based on Total Fresh Fruit



nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

What we've learnt so far

- This Homescan research has provided an introduction into the Australian fruit market and how consumers shop within the marketplace.
- This research methodology has demonstrated shoppers behaviour and in particular:
  – That sales of oranges are not as high as they could be, compared with the sales of bananas and apples
  – There is lower household penetration in Victoria and South Australia/ Northern Territory, and
  – The market can be divided into heavy, medium and light orange buyers, with senior couples defining the heavy purchasers and families defining the medium buyers.
- It is suggested that the best strategy is to increase the frequency of purchases amongst the medium or family buyers.
- The remainder of the report examines the attitudes and perceptions of fruit shoppers to further explore and understand the orange market in the eye's of the consumer.

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Research Findings

- Market profile
- Attitudes towards oranges
- Drivers for purchase
- Specials in-store
- Level of planning and how decisions are made
- Consumer profile

Attitudes towards oranges – summary findings

What do shoppers think of oranges?

- Shoppers don't really 'think' about oranges as it is a low involvement fruit. Shoppers believe that 'an orange is an orange'.
- They don't know a lot about oranges and purchase is to some degree out of habit. Oranges may be top-of-mind for many but there is also low awareness of orange varieties, brands and growing regions.
- The main varieties shoppers are aware of are Navels and Valencia's but there is still limited understanding of what differentiates these. Navel buyers appear more loyal to their variety than Valencia buyers who are higher switchers (to other varieties).
- Most assume that the oranges in supermarkets are Australian and they take some reassurance through stickers or country-of-origin information at the shelf. However, there is little knowledge and consensus regarding orange growing regions within Australia.
- About 4 in 5 shoppers are not able to identify when the best tasting oranges are in season.

How do shoppers buy oranges?

- Shoppers are not particularly discerning when it comes to oranges, as they are uncertain how to differentiate varieties in the store. They are also not overly familiar or confident with any concrete cues for freshness or sweetness. This lack of understanding indicates that consumers' perceptions of oranges are that it's a fairly bland choice and therefore they lack imagination when shopping for them.
- There tends to be a fair bit of impulse around the category when compared to other staples like bread and milk. Shoppers plan as far as 'fruit' or 'oranges' but will wait till they get to store to see what is on special, at a good price, looks the freshest or is in season, making in-store factors like display and activation very important.

"With apples I can tell a Fuji from a Red delicious and I have an expectation of how they are different"

"With potatoes they even tell you on some of the packs now that certain types are better for boiling or mashing and others are better for roasting…. I don't know if some oranges are better for juicing or eating"

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Attitudes towards oranges – summary findings, continued

Why do shoppers purchase oranges?

- Oranges are bought to provide the household with a healthy snack alternative and kept as a staple within the household fruit bowl.
- They are not necessarily a favourite within the household (unlike bananas, mangoes and strawberries) but provide a healthy and refreshing alternative.
- Mothers purchase oranges to feel they are providing the household with healthy options and the fruit bowl plays a key role in providing a choice and variety when snacks are wanted.
- This does not mean that mothers will only purchase oranges as a snacking option. Both the purchaser and the consumer need to prefer oranges in order to warrant their purchase.
- Oranges are eaten as a snack with breakfast, after dinner, and sometimes are taken to work to eat after lunch each day.

What are the benefits of eating oranges?

- Orange are seen as fresh, juicy, sweet and healthy. Oranges offer the following health benefits to shoppers:
  - They add more fibre into consumers' diet, women in particular tend to look for as they age
  - They are easy to digest and aid with digestion so they don't leave you feeling bloated
  - They provide anti-oxidants which is particularly appealing to older women
  - They generate positive feelings towards ageing and wellbeing by complimenting the desire for healthy living.
- Apart from these health benefits, oranges are also considered a kitchen staple with a sporty connotation and they also stay fresh for longer.

nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

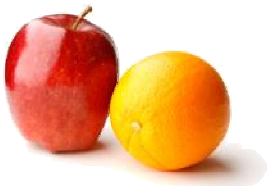
Attitudes towards oranges – summary findings, continued

What are the limitations of oranges?

- Oranges are seen as messy and difficult to eat, because of this they require preparation to eat and hands need to be washed afterwards.
- This means oranges are usually consumed in-home rather than out-of-home (despite being seen as more portable that other fruit).
- They are also not as exciting or exclusive as other fruit like mangoes, strawberries and watermelon. This is particularly due to the fact that they are available all year-round and therefore lack the excitement that other more seasonal fruit has to offer.
- Overall these limitations are minimal and don’t necessarily prevent purchases for most shoppers. Encouragingly, there are no overbearing gripes or negatives towards oranges which will be hard to change in consumer’s minds.

What do oranges have that other fruit don’t?

- Oranges are a household staple that require some form of preparation before eating. Their point of differentiation is that it stays fresh for longer and is considered a sporty fruit.
- It is also viewed as a kitchen staple along with apples and bananas.
- Oranges’ key competitors, apples and bananas, are seen as more functional and easy to eat. More specifically, they are great for cooking, have many uses, great for kids and have varieties that are instantly recognisable.
- Mandarins also appear to be competing within the orange and banana space (on these dimensions).
- Oranges are not seen as exclusive or hard to find which often drives excitement for purchase.

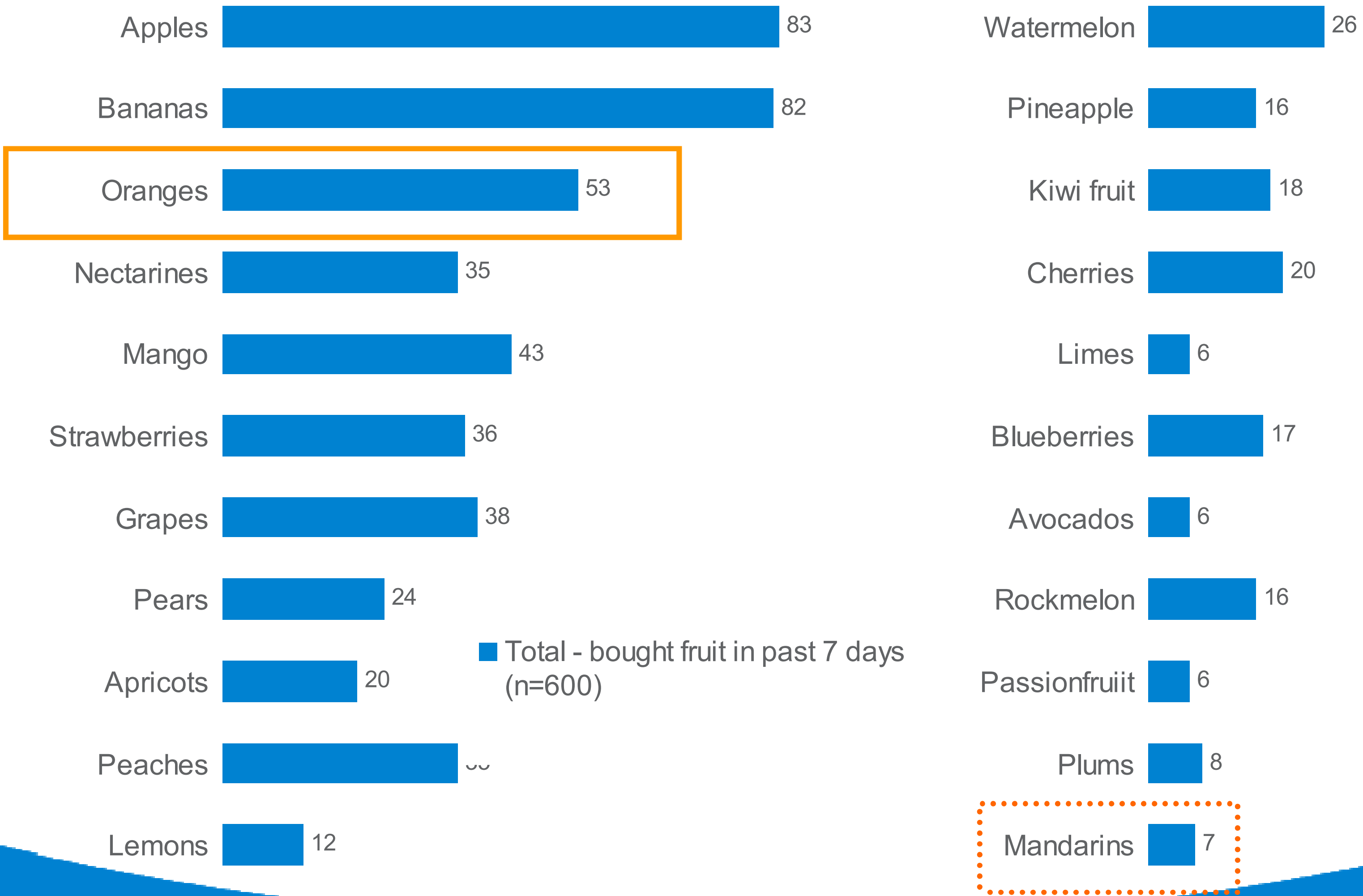


nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Apples and bananas are top-of-mind for most which reflects the higher household purchase behaviour

- Oranges are more ‘top-of-mind’ than Mandarins despite being easier to eat.



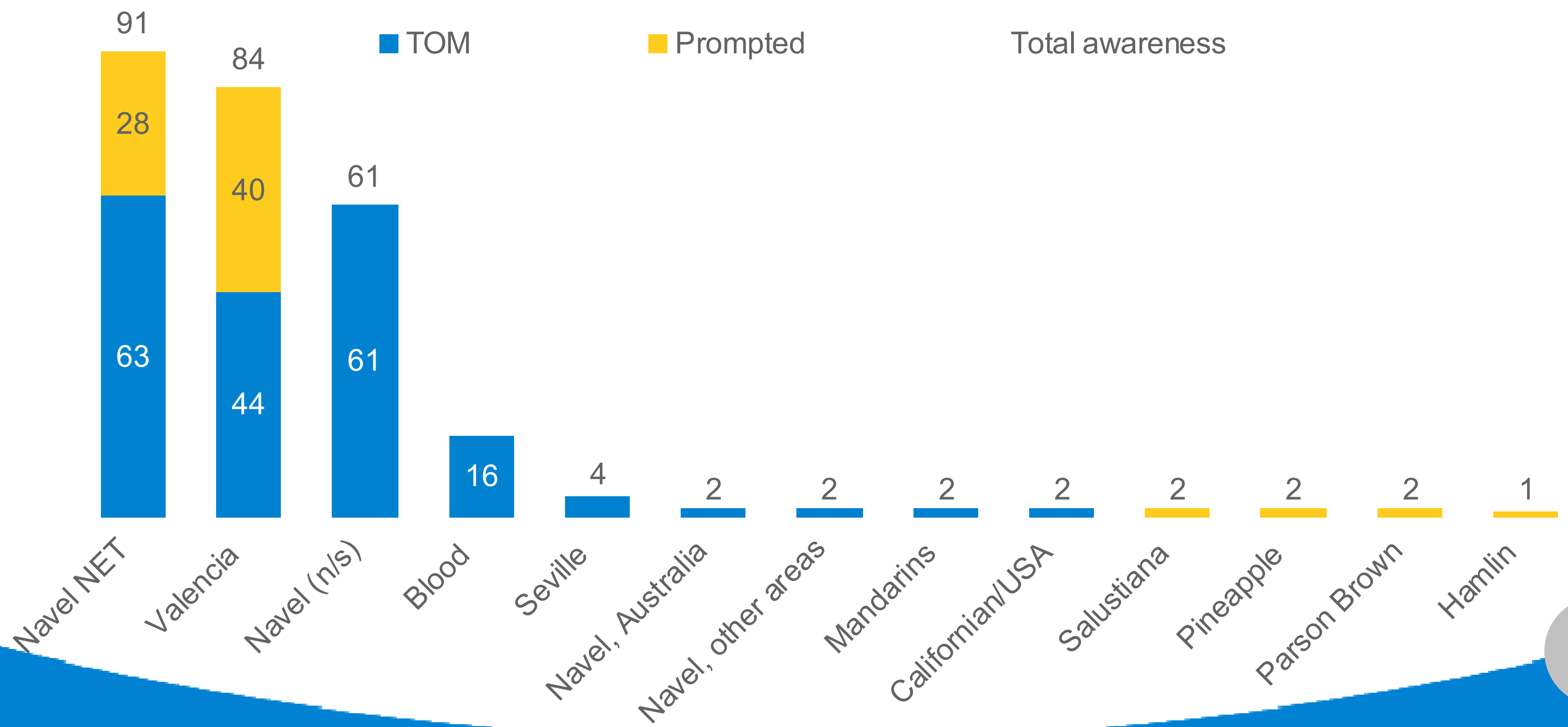
Q7. Which types of fruit do you remember seeing in store when you were shopping for fruit? [Coded open ended question]
Note: Responses <7% not shown. See Appendix for full list of fruit recalled

nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Navels and Valencia's are the main orange varieties that shoppers are aware of however they are not top-of-mind for most

- Navels are more top-of-mind for senior couples than families most likely because they are frequent orange buyers.
- Those living in a household with 2 adults where the oldest is at least 35+ years are more likely to be aware of Navels (73% unprompted) than those living in a family household (57%). Again, this may be because they are frequent orange buyers and are more familiar with Navels.



nielsen

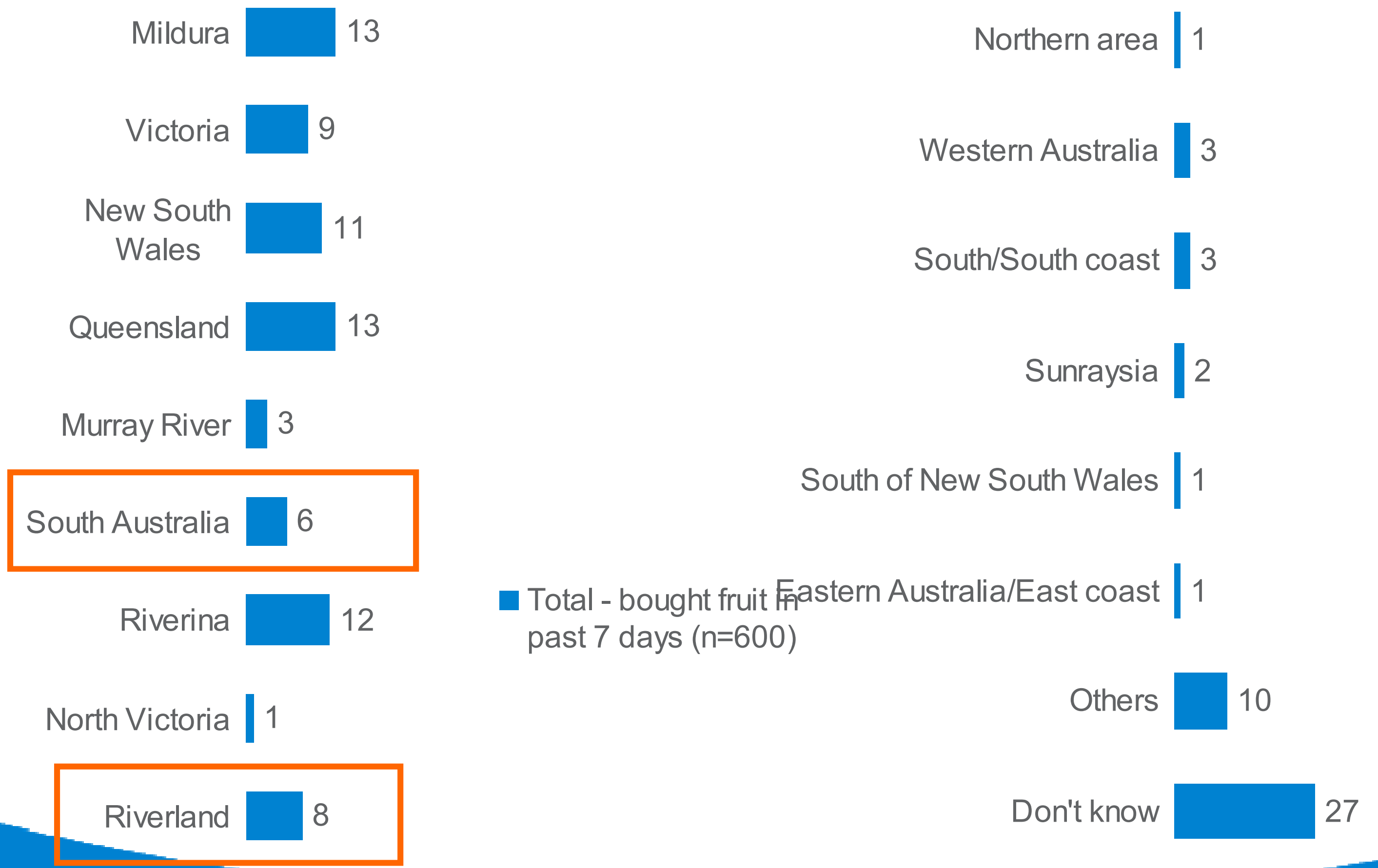
Q10. What variety of oranges are you aware of? (coded) / Q11. Which of the following orange varieties are you aware of?
Base: Those who bought fruit in the past 7 days
TOM = Top of mind / (n/s) = Not Specified i.e. no region or area was specified
NET = Combination of 'Navel (n/s)', 'Navel Australia', and 'Navel other areas'

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

While oranges may be top-of-mind, most are not familiar with the growing regions. There is an opportunity to increase awareness of the South Australia and Riverland brands

- Just over 1 in 4 fruit shoppers cannot recall which Australian regions oranges grow.

Awareness of orange growing regions



Q42. In which areas/regions in Australia do oranges mainly grow? [Coded open ended question]

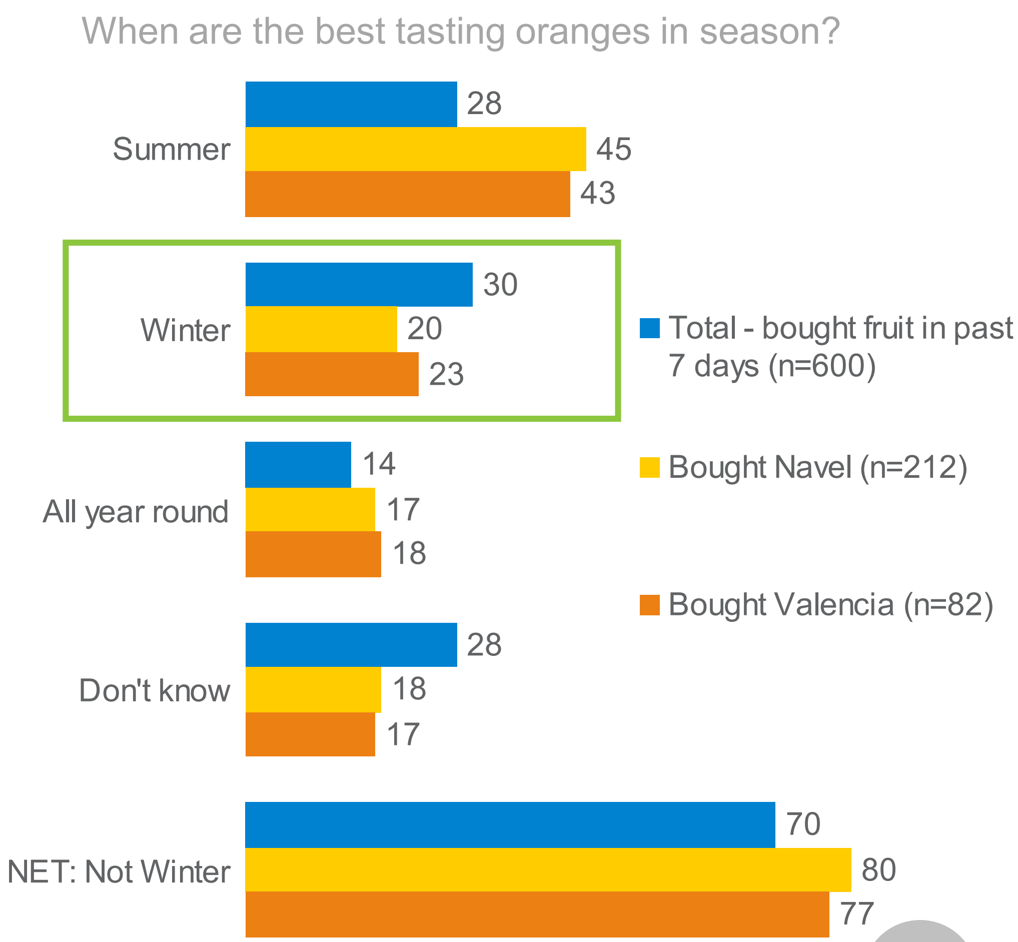
Copyright © 2011 The Nielsen Company. Confidential and proprietary.

There is a lot of confusion around the Navel vs. Valencia season

- 7 in 10 fruit shoppers are not aware that the best tasting oranges (Navels) are in season in winter.
- Heavy orange buyers i.e. those who purchase oranges fortnightly or more often are more likely to say the best tasting oranges are in season in summer (42% than medium buyers, 23%).
- Medium buyers i.e. those who purchase oranges 1-3 times a month are more likely to say the best tasting oranges are in season in winter (41% than heavy buyers, 26%).
- Other sub-group analysis revealed some minor differences but there is still an opportunity to increase awareness and understanding of the Navel season.

AVAILABILITY OF AUSTRALIAN CITRUS

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
VALENCIA	●	●	●	○					○	●	●	●
NAVEL					○	●	●	●	●	●	○	
MANDARIN			○	○	●	●	●	●	●	○		
LEMON		○	○	○	○	●	●	●	○	○		
LIME	○	○	○	○	○				○	○	○	○
GRAPEFRUIT		○	○	○	○	○	○	○	○	○	○	○



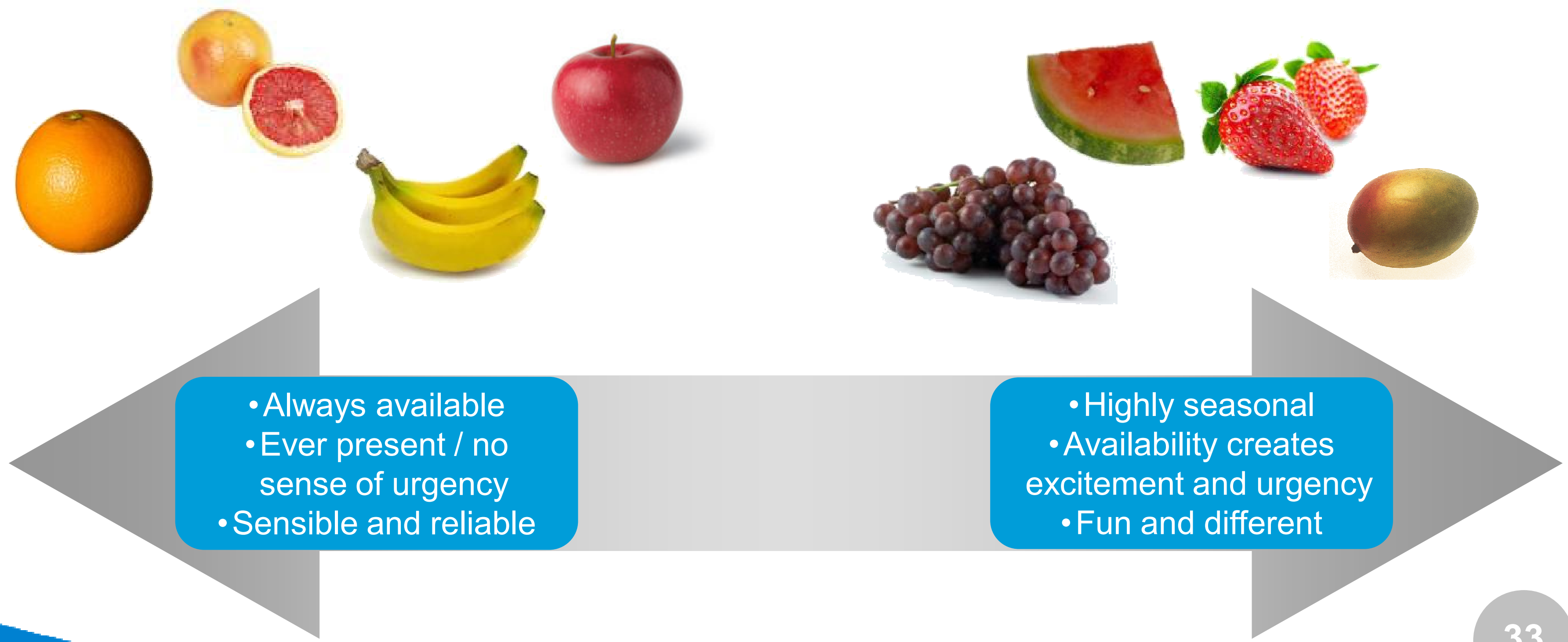
Q41. When are the best tasting oranges in season?
NET: Not Winter = Combination of ‘Summer’, ‘All year round’, and ‘Don’t know’

nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Oranges are always available and in-season so they lack the excitement that other fruit offers

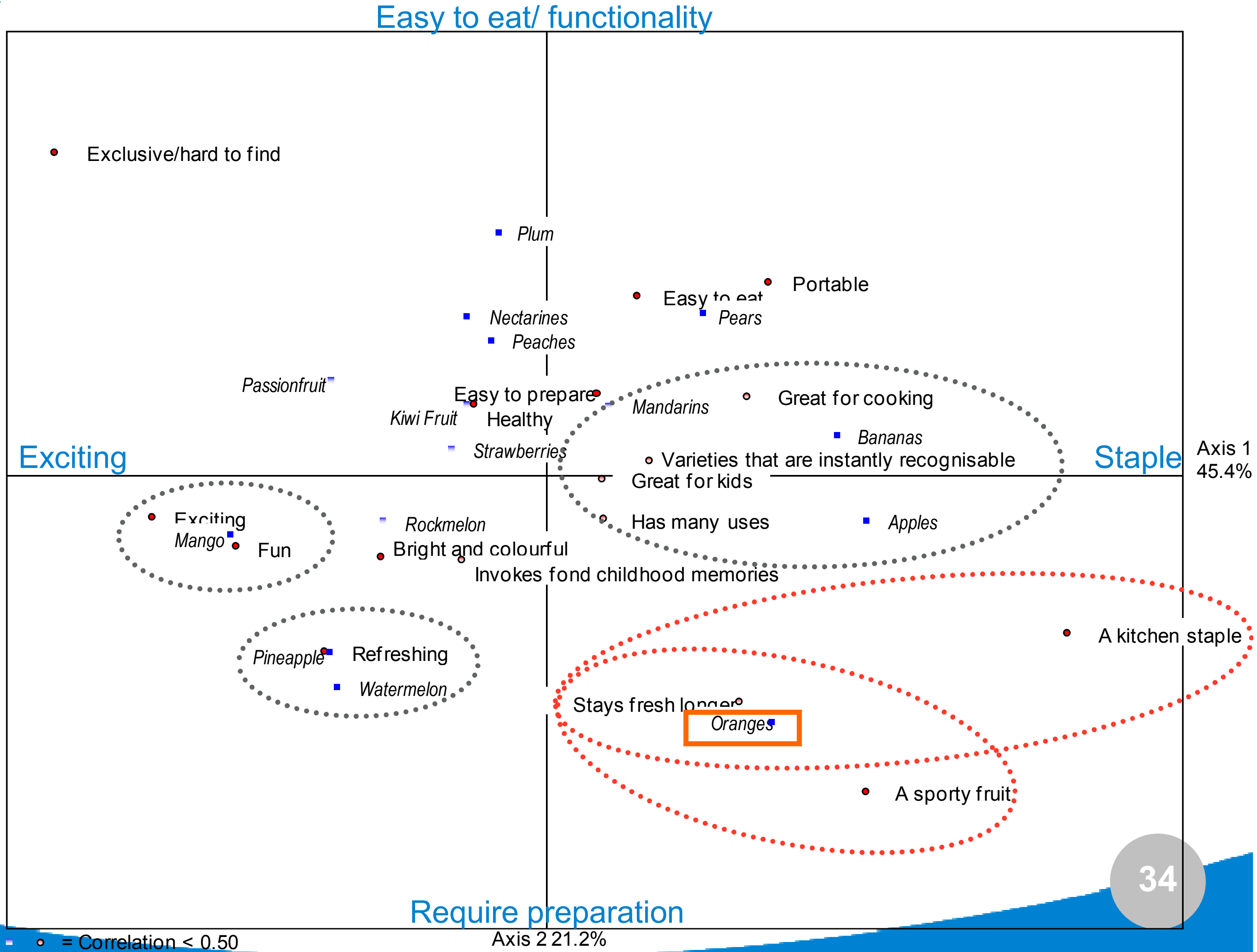
- Consumers view the overall fruit market on the dimensions of availability of fruit and seasonality.
- Within this, oranges are seen as always available and in-season and therefore lack the excitement that other more seasonal/ periodically available fruit offer like mangoes and strawberries.



Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Oranges are a sporty fruit, stay fresh for longer, and are considered a kitchen staple

- Oranges are not seen as exclusive or hard to find.
- Bananas are great for cooking, and similarly with apples, have varieties that are instantly recognisable, great for kids, and have many uses.
- Mandarins seem to be competing more directly with apples and bananas than oranges.



nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Navel oranges must be ‘exciting’ and offer ‘convenience’ to become a favourite household fruit

- A driver analysis reveals that the elements of exciting and convenience are most important to shoppers when deciding what their favourite fruit is.
- ‘Exciting’ is a key aspect to aim for as it drives consumers preference and loyalty.

Exciting
48%

- Exciting
- Fun
- Invokes fond childhood memories
- Exclusive

Convenience
43%

- Great for kids
- Healthy
- Easy to eat
- Easy to prepare
- Bright & colourful
- Portable
- Refreshing

Versatile
6%

- Great for cooking
- Has many uses
- Varieties that are instantly recognisable

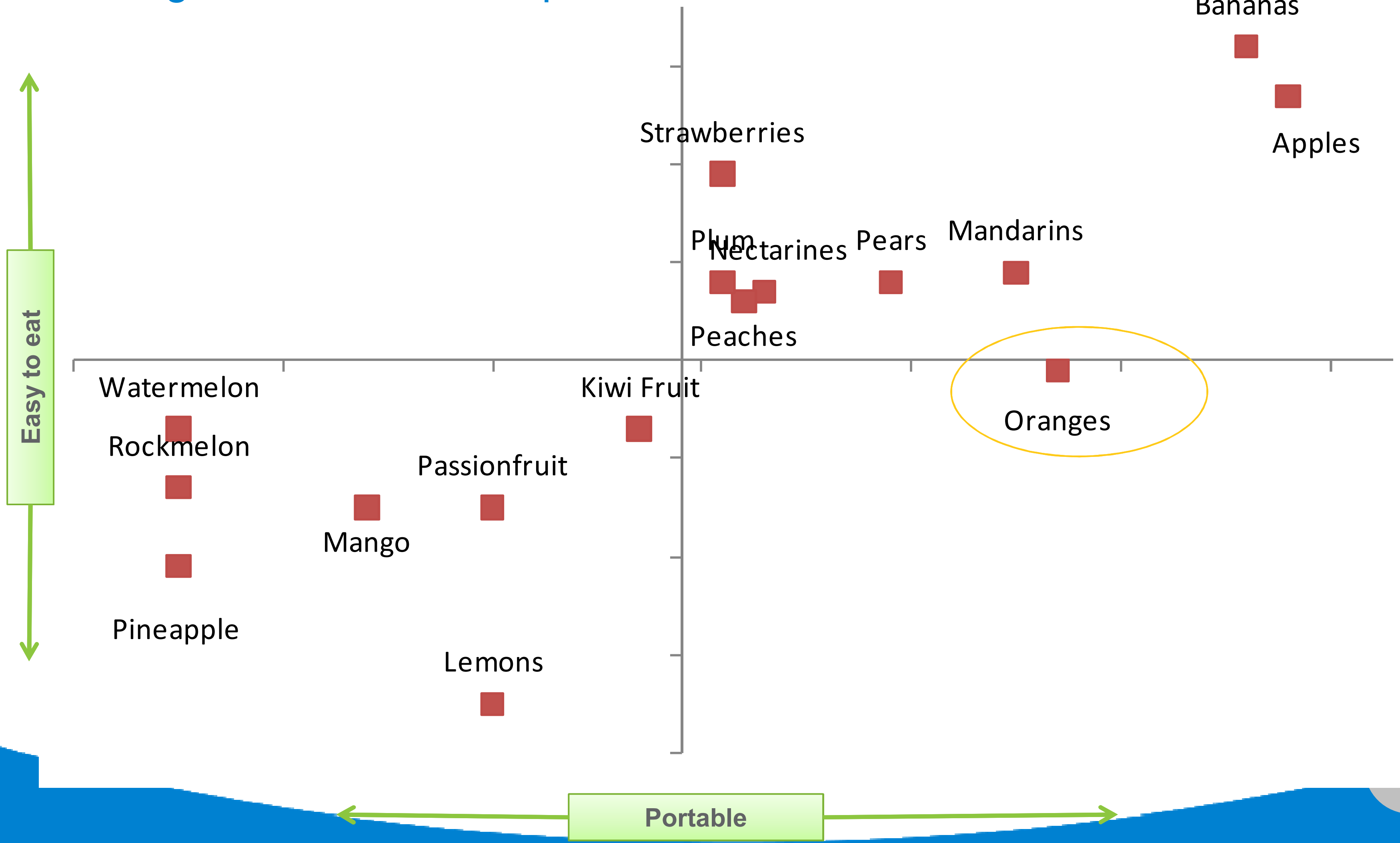
Staple
4%

- A sporty fruit
- A kitchen staple
- Stays fresh longer

nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

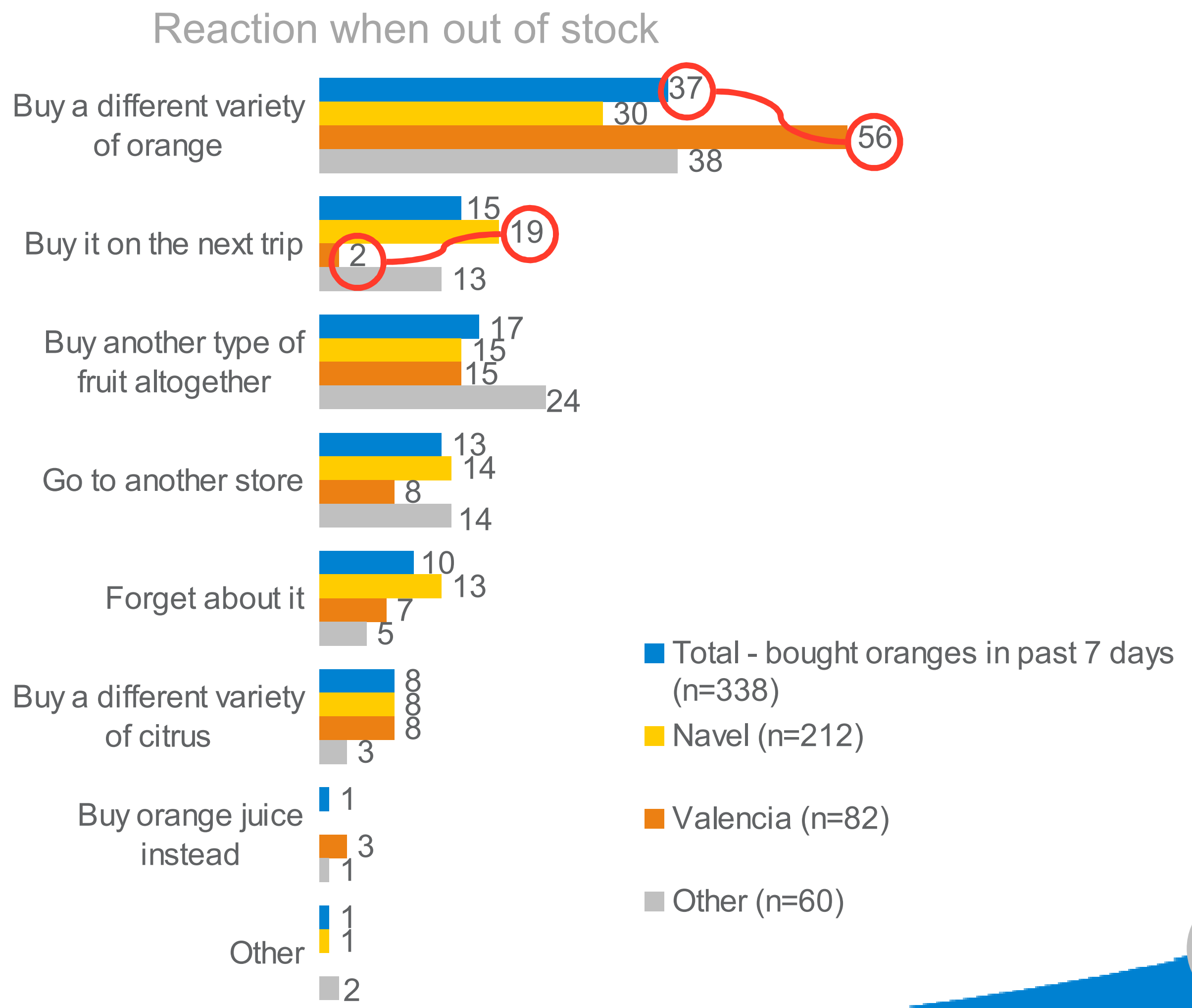
Oranges are the only fruit with above average portability and below average ease of eating. Providing easy to eat solutions will allow oranges to be more competitive



nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Encouragingly, Navel shoppers appear more loyal than Valencia buyers but a third of Navel buyers would still switch to another variety if unavailable



nielsen

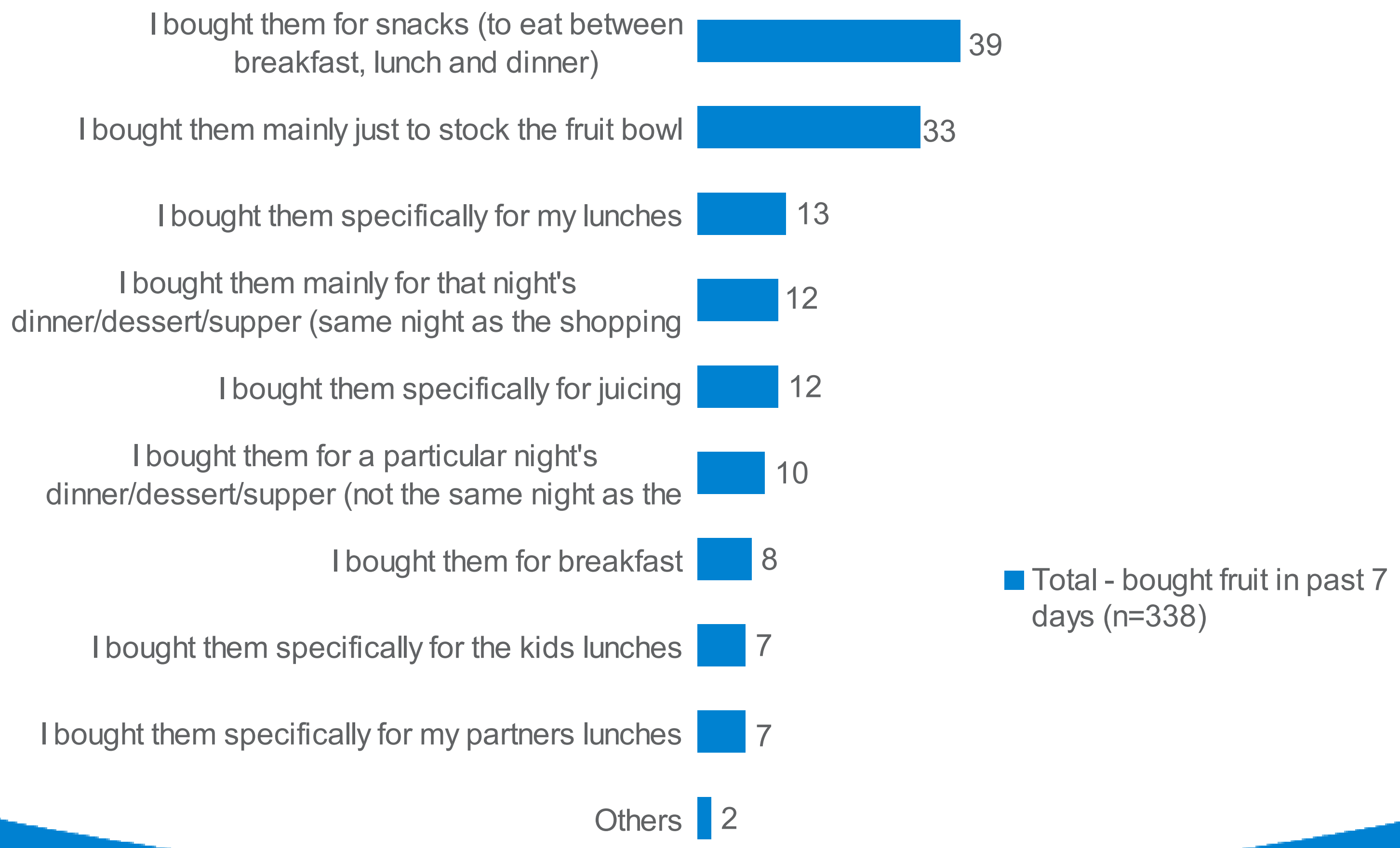
Q29. What would you usually do if the oranges that you bought on that occasion weren't available? Would you be more likely to...

Base: Those who bought oranges P7D

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Oranges are most commonly eaten as snacks for the household and used to stock the fruit bowl

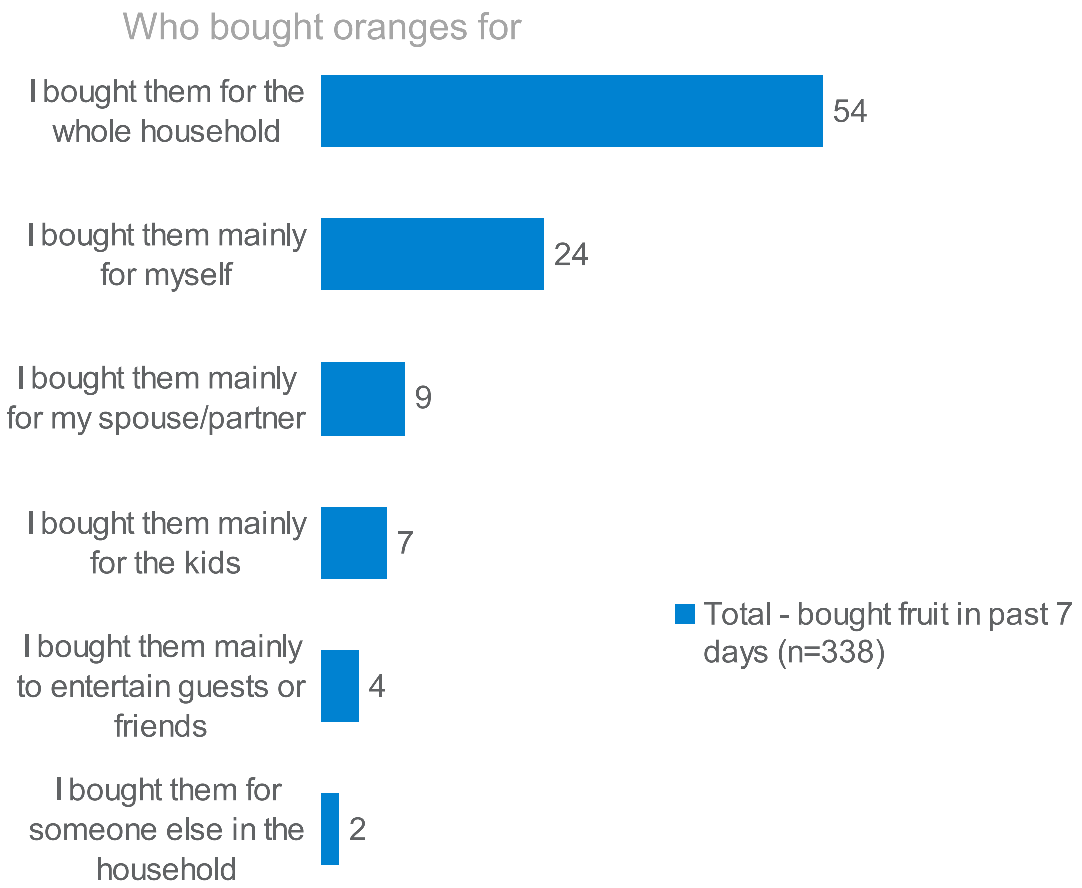
- Those that live in a family household with kids are more likely to purchase oranges to stack the fruit bowl and for juicing.



Q23a. From the list below, please choose the statement/s which best describe the occasion/s you bought oranges for on this most recent occasion?

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Oranges are a fruit for the whole household – the fruit bowl plays a key role in providing fresh and healthy eating options



nielsen

Q22a. Which of the following best describes who you bought oranges for?

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Research Findings

- Market profile
- Perceptions and awareness of oranges
- Drivers of purchase
- Specials in-store
- Level of planning and how decisions are made
- Consumer profile

nielsen

Drivers of purchase – summary findings

What are shoppers looking for in an orange?

- Being on special or cheaper than other fruit is the most important element that shoppers look for when buying oranges.
- Other important aspects involve assessing the individual characteristics of the orange such as the firmness, colour, seasonality, smell and variety. These elements indicate the level of freshness of the orange.
- The orange must not be too soft or wrinkly (as this suggest an old and bitter taste) and the colour must be bright and vibrant.
- Interestingly, all these element are more important to shoppers when shopping oranges in-store (as opposed to at home).

What are the triggers for purchase?

- Overall, the drivers for purchase relate to the attributes of oranges, consumer preference and habit.
- More specifically, the oranges need to look fresh in-store and fresher than other alternatives when buying an orange.
- While they are not a favourite fruit, shoppers do prefer them and purchase them because they know that others in the household prefer them too.
- Having a constantly 'healthy' (i.e. full and colourful) fruit bowl plays a role in driving the habitual purchase of oranges.

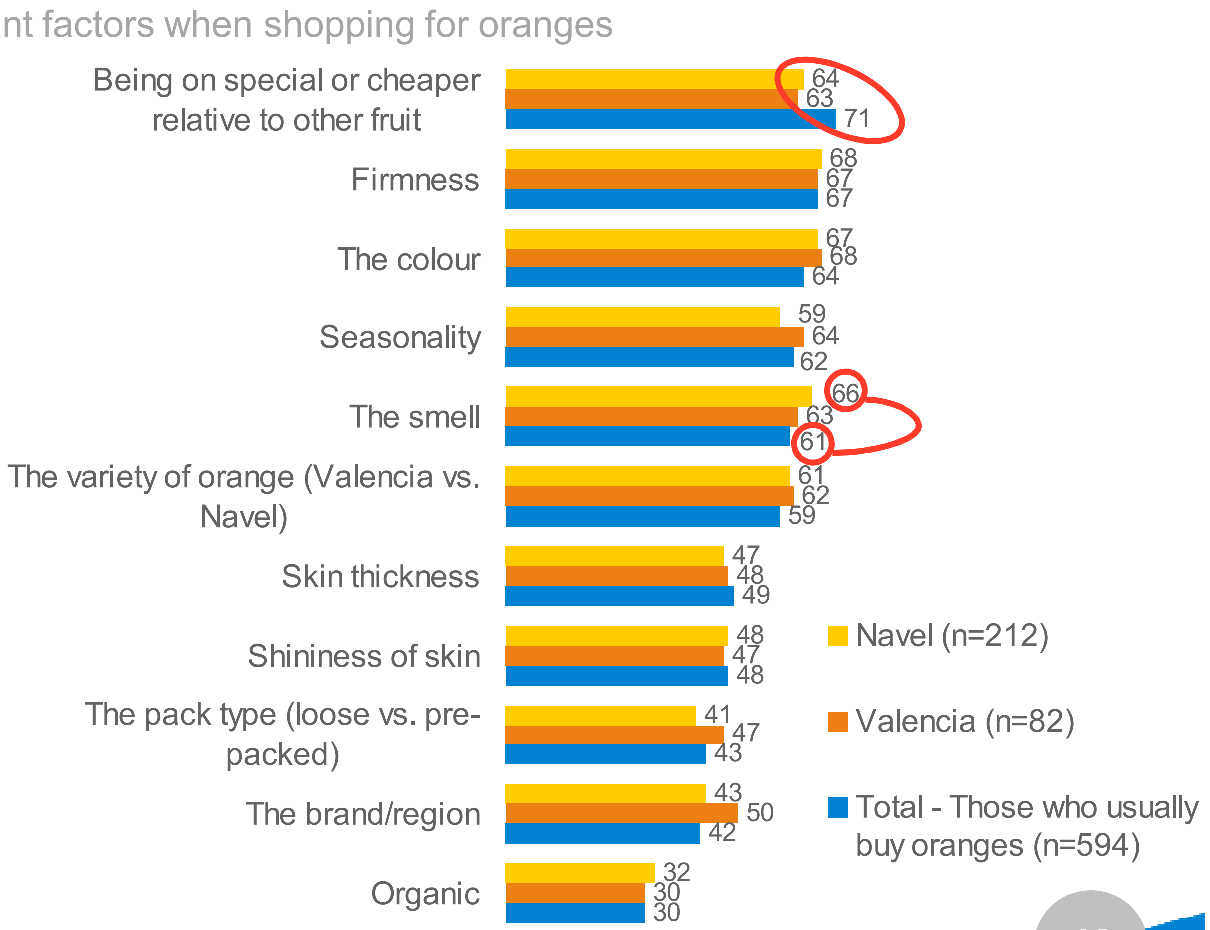
What are the barriers for purchase?

- The primary barriers to purchasing oranges are price and the fact that there are other more attractive fruits available which potentially offer more excitement than oranges.
- Shoppers, through their overseas travels, have been exposed to new and different fruits which create more exciting and exotic alternatives to the humble orange.
- Despite these barriers, there is nothing overly negative in consumers' perception of oranges that push people away – its just that the selection and choice is so great, oranges are lost in the mix.

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Being on special/cheaper than other fruit is the most important factor that consumers look for when shopping oranges

- Other important aspects can be defined by the characteristics of the orange such as the firmness, colour, seasonality, smell and variety.
- Organic oranges are less important to orange shoppers.
- Heavy orange buyers i.e. those who purchase oranges fortnightly or more often are more likely to state that the variety of orange (65%) and the region (49%) is important than orange buyers on average (59% and 42%, respectively). They are also less likely to state that being on special/ the price relative to other fruits is important (67%) than those on average (71%).
- Medium buyers are more likely to state seasonality is important (64%) than heavy buyers (59%).



nielsen

Q39. Listed below are some factors that other people have said are important to them when shopping for oranges on their last occasion. Please click and drag the one factor that is most important to you when purchasing oranges and place the least important factor at the bottom. This does not necessarily mean it is not important, just that it is the least important.

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

In-store presence is key to making a sale

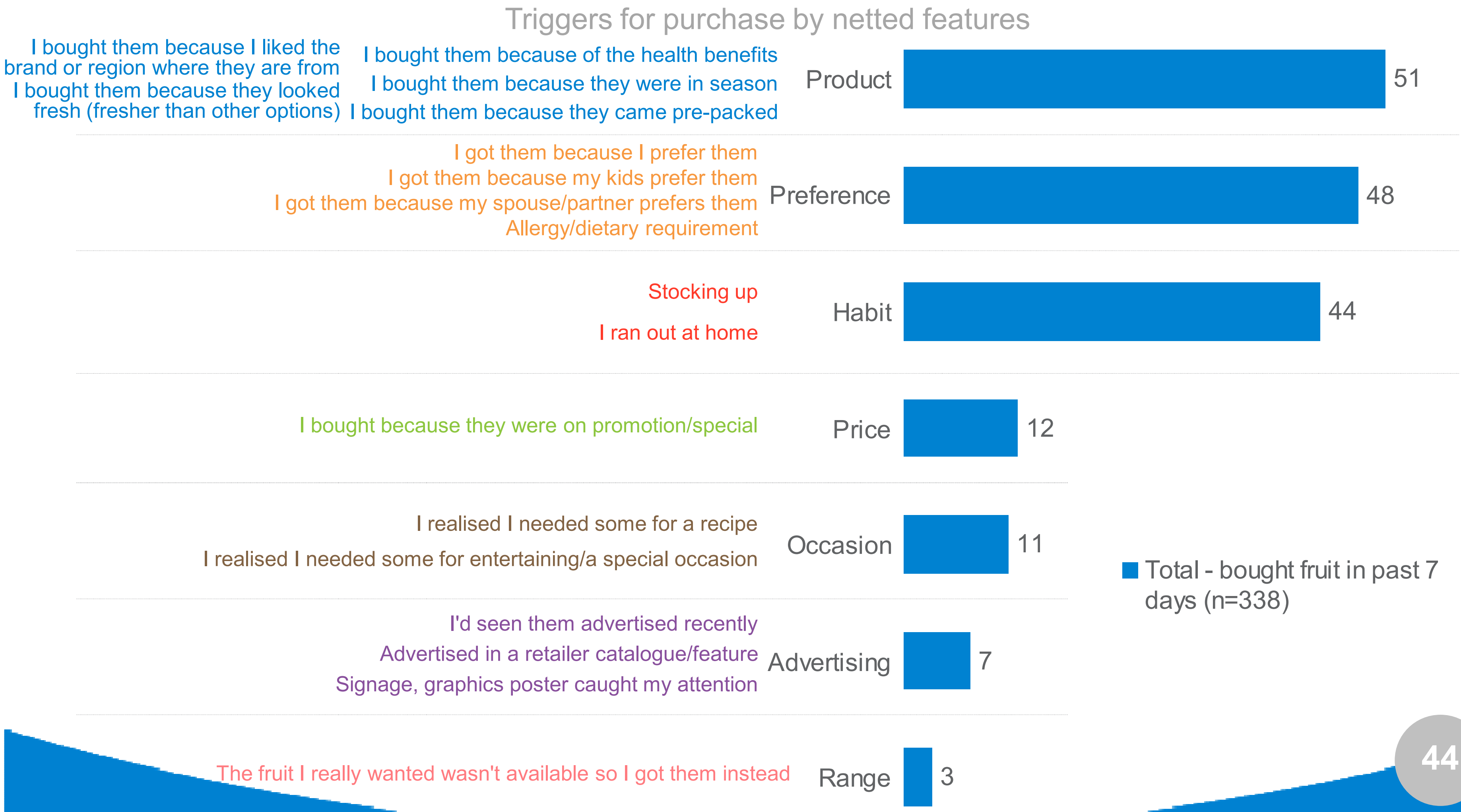
	Total - bought fruit in past 7 days (n=600)	
	At home	In store
The price (on special or relative to other fruit)	6%	85%
Firmness	8%	82%
The colour	7%	81%
Seasonality	19%	63%
The smell	7%	82%
The variety of orange (Valencia vs. Navel)	32%	56%
Skin thickness	7%	76%
Shininess of skin	3%	83%
The pack type (loose vs. pre-packed)	38%	55%
The brand/region	16%	61%
Organic	18%	59%

nielsen

Q40a. Below are the factors you said were important to you when shopping for oranges on the occasion that you did. Could you please indicate for each if it was decided/considered at home or in the store?

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Once purchased, product quality, preference, or habit are used to validate the purchase

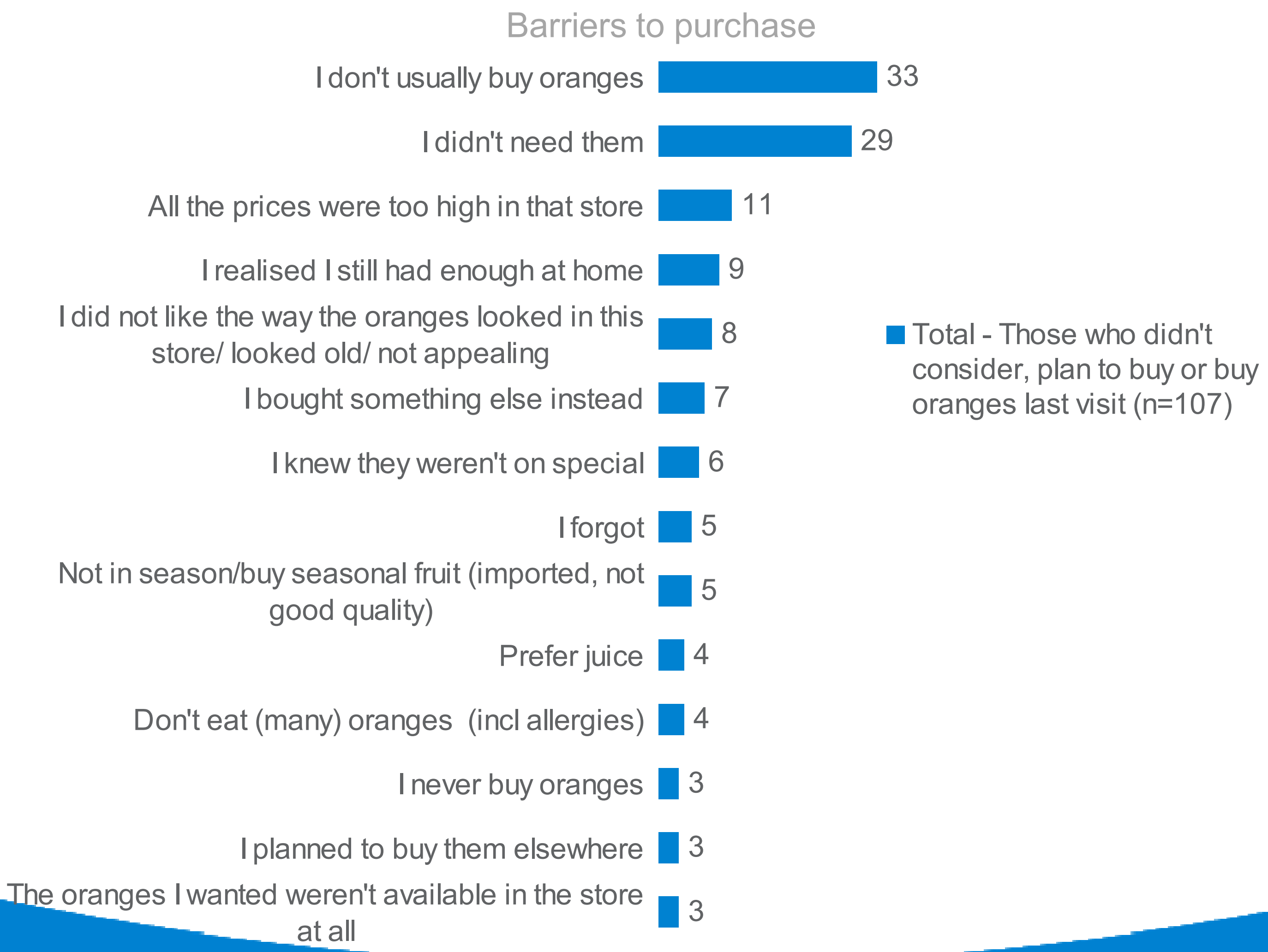


nielsen

Q20a. Why did you buy the oranges that you bought on that occasion?
See Appendix for Triggers for purchase by individual feature

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

There are no overwhelmingly negative aspects of oranges to overcome



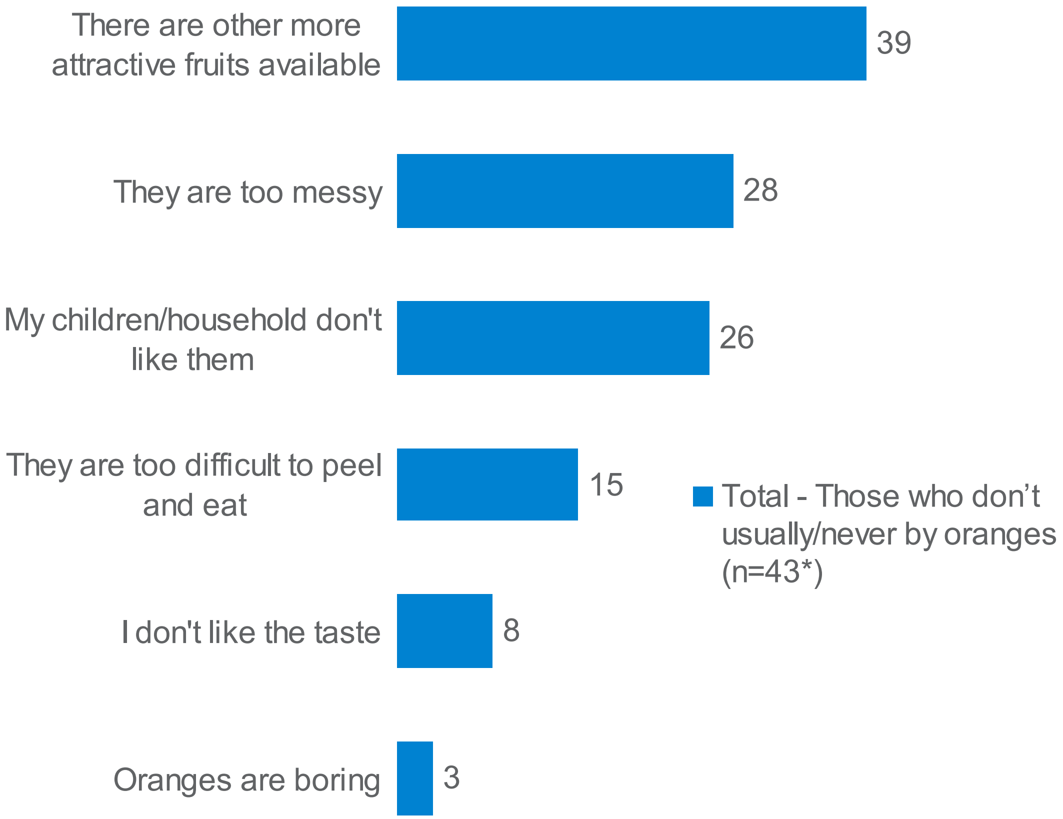
Q12. You didn't shop for, consider, plan to buy or buy any oranges on the last occasion, why is that?

nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

The main barriers to overcome to win new trialists are to make oranges more attractive than other fruits and provide solutions to make oranges less messy and easier to eat

Why don't you usually buy oranges?
(of those who don't usually buy oranges)



nielsen

Q13. Why don't you usually buy oranges?
Note: *Small sample size. Caution when interpreting results

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Competitive pricing is a key factor in converting intentions into sales

Reasons for lost sale and opportunity (netted)

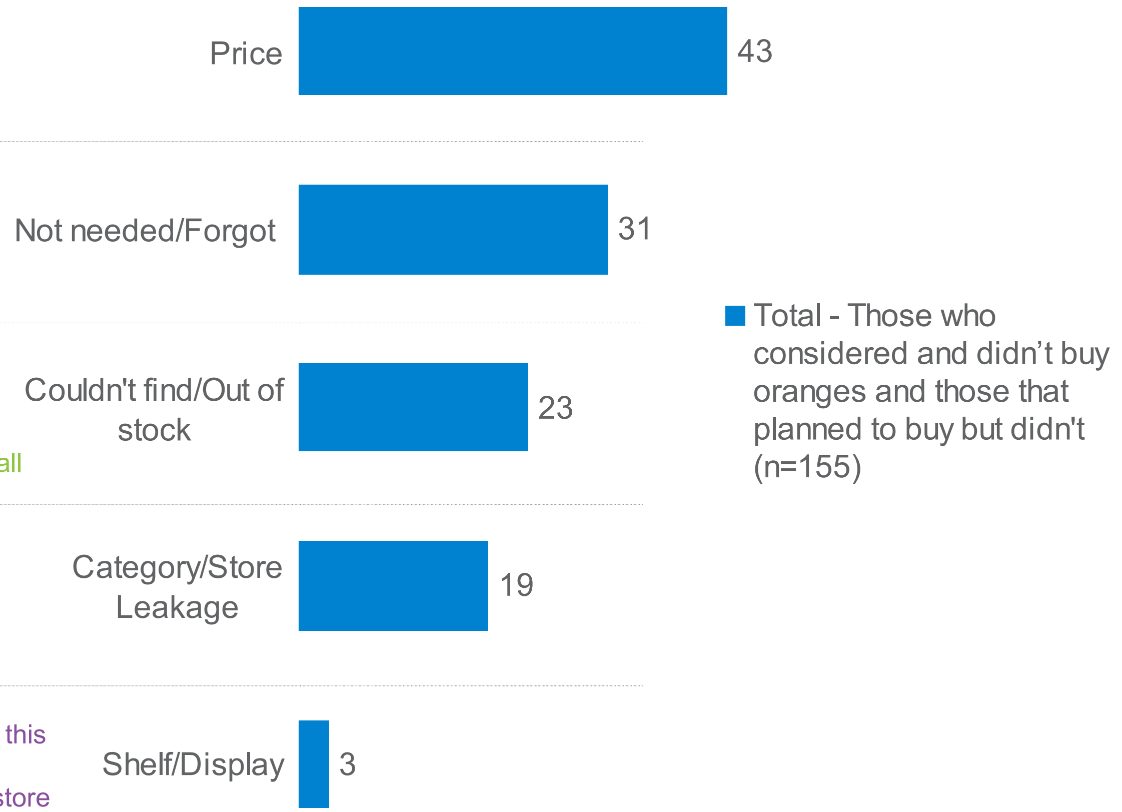
They weren't on special
All the prices were too high in that store
I was just checking prices

I realised I still had enough at home
I didn't need them
I forgot
I don't usually buy oranges

I just did not find any oranges I was interested in
I couldn't find the oranges I wanted
The oranges I wanted weren't available in the store at all

I bought something else instead
I planned to buy them elsewhere

I found it too hard or unpleasant to shop for oranges in this store
I did not like the way the oranges are arranged in this store



Q34b. You visited and considered buying oranges but didn't end up buying them, why not?
See Appendix for reason for lost opportunity by individual features

Q34a. You planned to buy oranges before you entered the store on that occasion but didn't, why not?
See Appendix for reason for lost sale by individual features

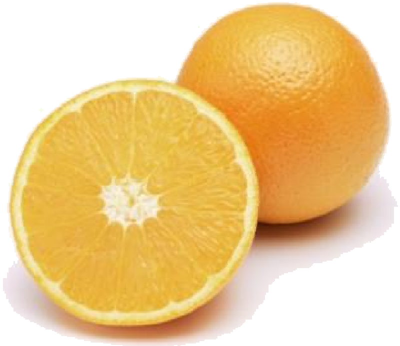
Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Research Findings

- Market profile
- Attitudes towards oranges
- Drivers for purchase
- Specials in-store
- Level of planning and how decisions are made
- Consumer profile

In-store specials– summary findings

- Offering competitive pricing and specials to orange shoppers is an important tool to drive sales as 1 in 5 orange buyers bought on special.
- In addition, about three quarters of those who bought on special state that the competitive price had a role to play in their decision to buy oranges.
- Only 2 in 5 Navel buyers knew they were on special before entering the store. Most found out about the competitive price through in-store displays and tickets. This suggests that there is potential to increase sales by further promoting Navel oranges outside the store.
- Consumers are heavily influenced by the layout within stores as prominent displays indicate an abundance of 'in season' fruit which suggests a sense of urgency to 'buy now' while it is at its best.
- Shoppers also notice price variations across the year which highlights the variation in the season that they should consider.
- Shoppers do not associate oranges with strong 'calls to action' within the supermarket and more must be done to heighten the urgency to buy at key periods in the year.

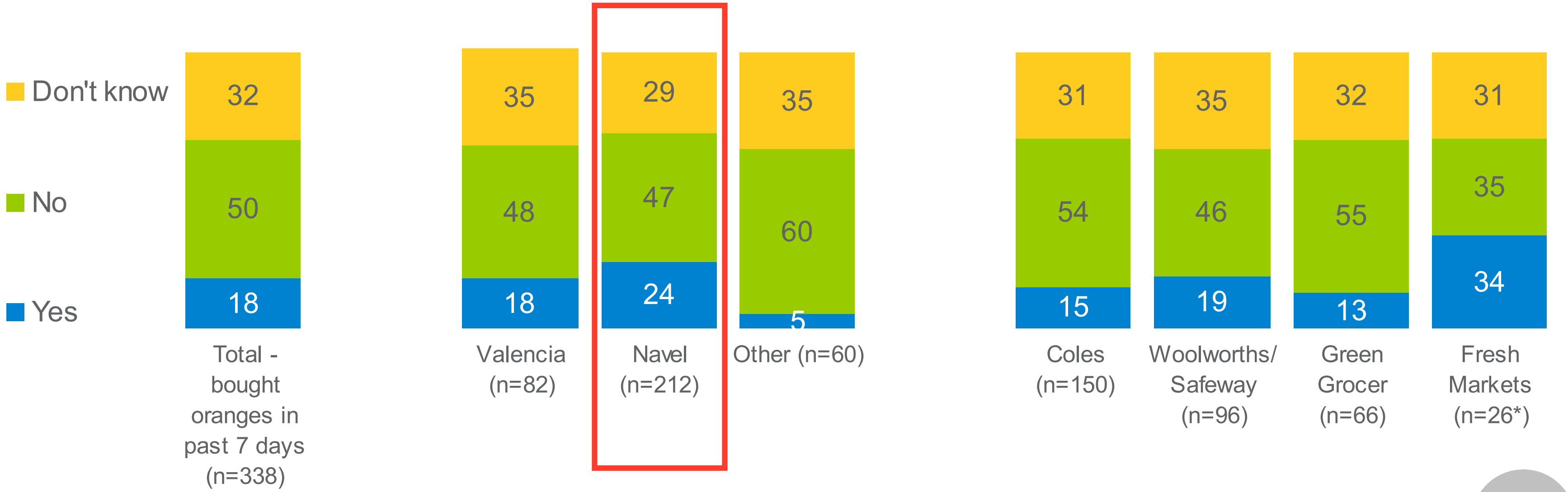


Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Specials drive sales for about a quarter of Navel shoppers despite being at the end of the Navel season

- There are no differences in the prevalence of oranges on special between stores or markets (cities).
- Of those who bought Navels on special, nearly 2 in 5 knew they were on special before entering the store. This can be compared with a third of orange buyers in general.
- It is feasible to increase awareness of specials in order to further drive sales.

Thinking about the oranges that you bought, were any of them on special (e.g. price discount / multibuys / competition)?



nielsen

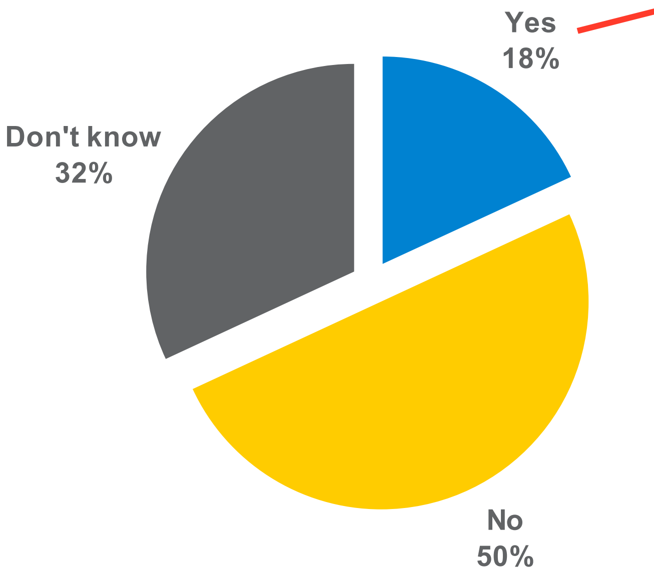
Q24. Thinking about the oranges that you bought, were any of them on special (e.g. price discount / multibuys / competition)? Base: Those who bought oranges in the past 7 days
Q25. Did you know they were on special before going to the store? Base: Those who bought Navels on special (n=52). Those who bought oranges on special (n=69). *Caution when interpreting small sample sizes. Results are indicative only.

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

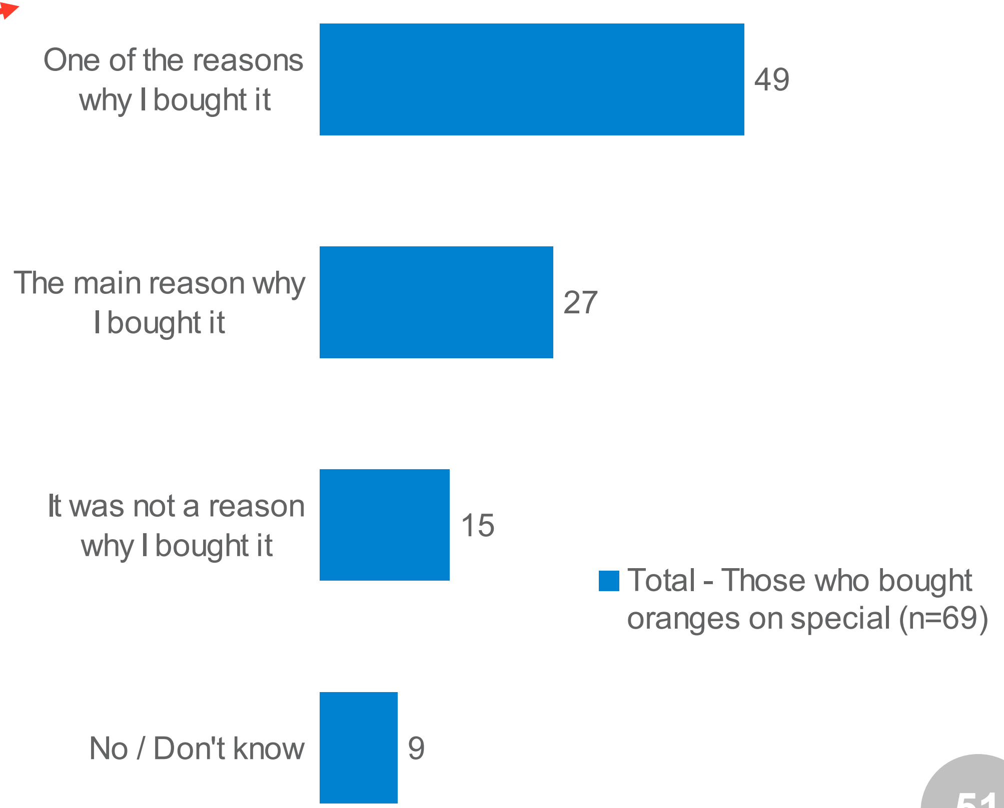
Specials have a role to play in driving short term sales

- Buying on special has a role to play for just over three quarter of those who bought oranges on special.

Proportion who state orange bought was on special



Specials effect your decision to buy oranges?

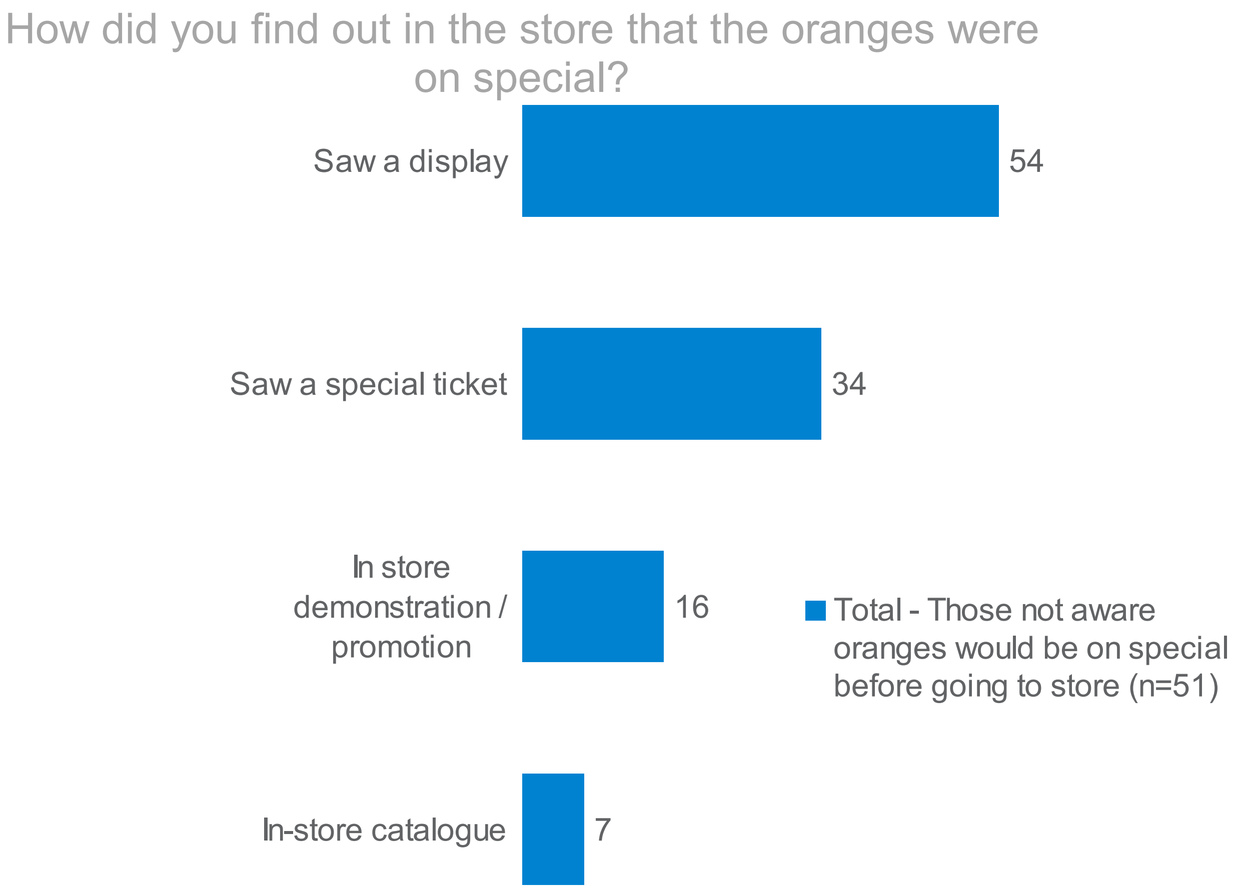


nielsen

Q24. Thinking about the oranges that you bought, were any of them on special (e.g. price discount / multibuys / competition)?
Q28. Did the special have any effect on your decision to buy? If so, was it.... ?

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

In-store displays (and to a lesser degree special tickets) play a key role in communicating sales to orange shoppers



nielsen

Q27. How did you find out <u>in the store</u> that the oranges were on special?

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Research Findings

- Market profile
- Attitudes towards oranges
- Drivers for purchase
- Specials in-store
- Level of planning and how decisions are made
- Consumer profile

nielsen

Level of planning and how decisions are made – summary findings

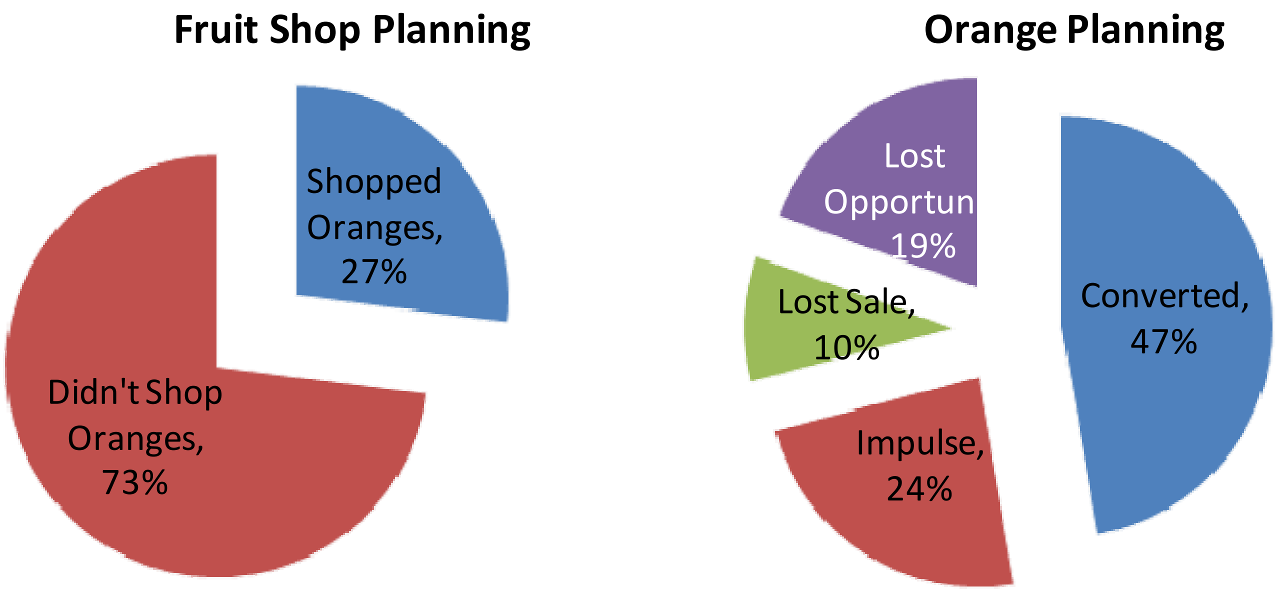
How are shoppers deciding when to buy oranges and what are they planning to buy?

- Most are planning to buy fruit although for about a quarter of shoppers, the decision to buy is made in-store therefore in-store displays are important to drive orange sales.
- Most are going into the stores with little-to-no information as to exactly what orange variety they want (other than Navel or Valencia) and will make a decision on these aspects when in the store.
- In addition, they are open to buying both loose and pre-packaged oranges before going into the store, but the majority are walking away with loose oranges. Recall from Homescan that 17% of buyers are purchasing packaged fruit. This suggests that consumers need a choice but are being turned away perhaps because of the lower perceived quality oranges used for packaging.
- Loose is generally preferred over packaged because shoppers are not trusting of the quality of bulk packs (*there is likely to be one or two bad oranges in there*). It is also easier to store loose oranges and large packs are too cumbersome to carry home and store in pantries.
- There is also a degree of uncertainty when buying oranges and by just buying a few at a time, shoppers can be assured of the taste and sweetness.

nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Of all orange shoppers, one in five consider oranges but do not make a purchase. One in ten plan and do not purchase



nielsen

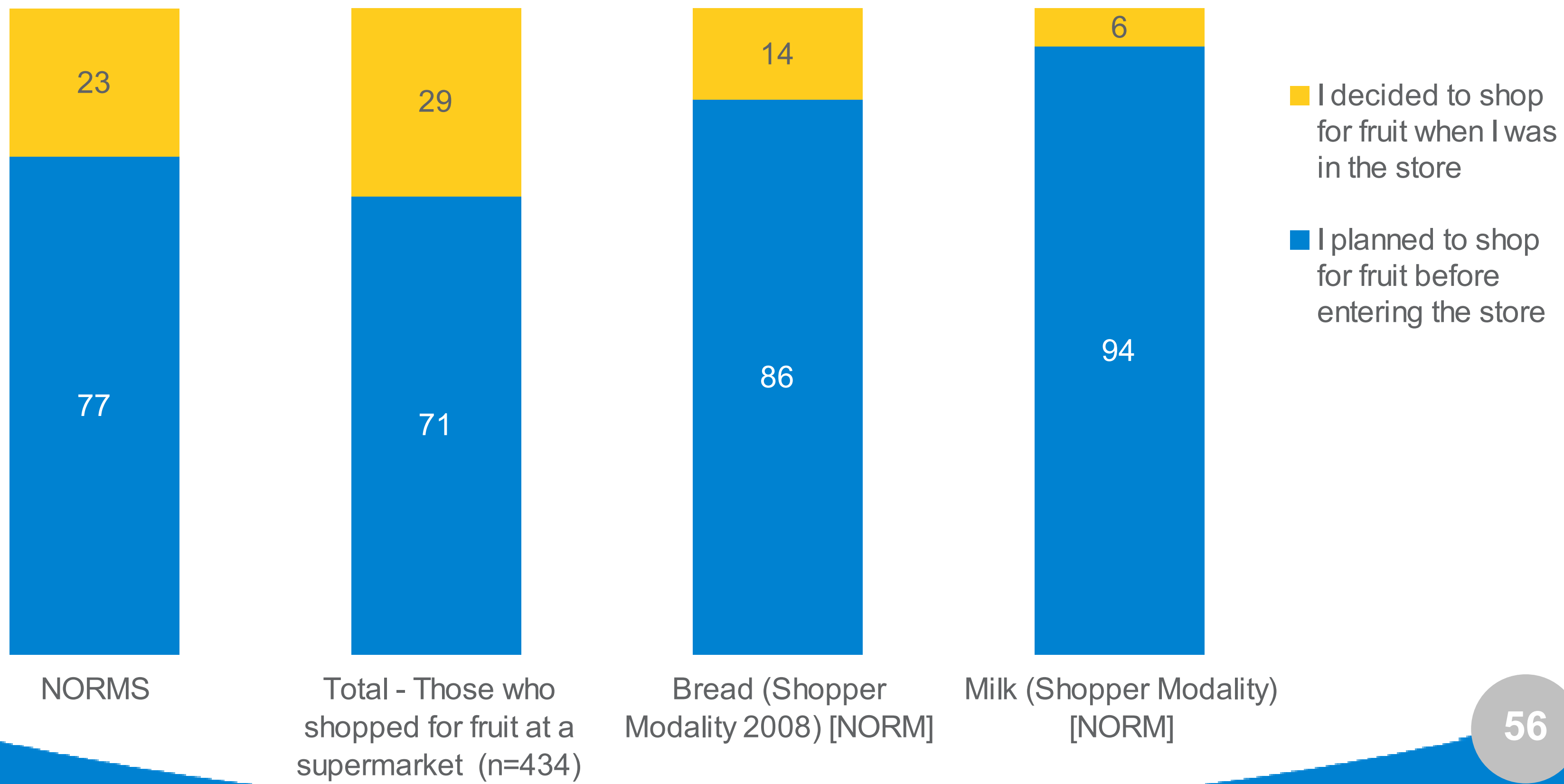
Q9a,b,c: Fruit shopped or planned or bought?

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

1 in 4 decided to shop for oranges when in the store, making presentation and displays very important in driving purchases of oranges

- Shopping for fruit is more spontaneous than shopping for milk and bread – there is more excitement variety in choice.
- Melbourne fruit shoppers are more likely to decide to buy fruit when in the store (28%) than Sydney fruit shoppers (11%). This suggests that Melbourne shoppers can be persuaded more when in the store.

Planned vs. spontaneous fruit shop

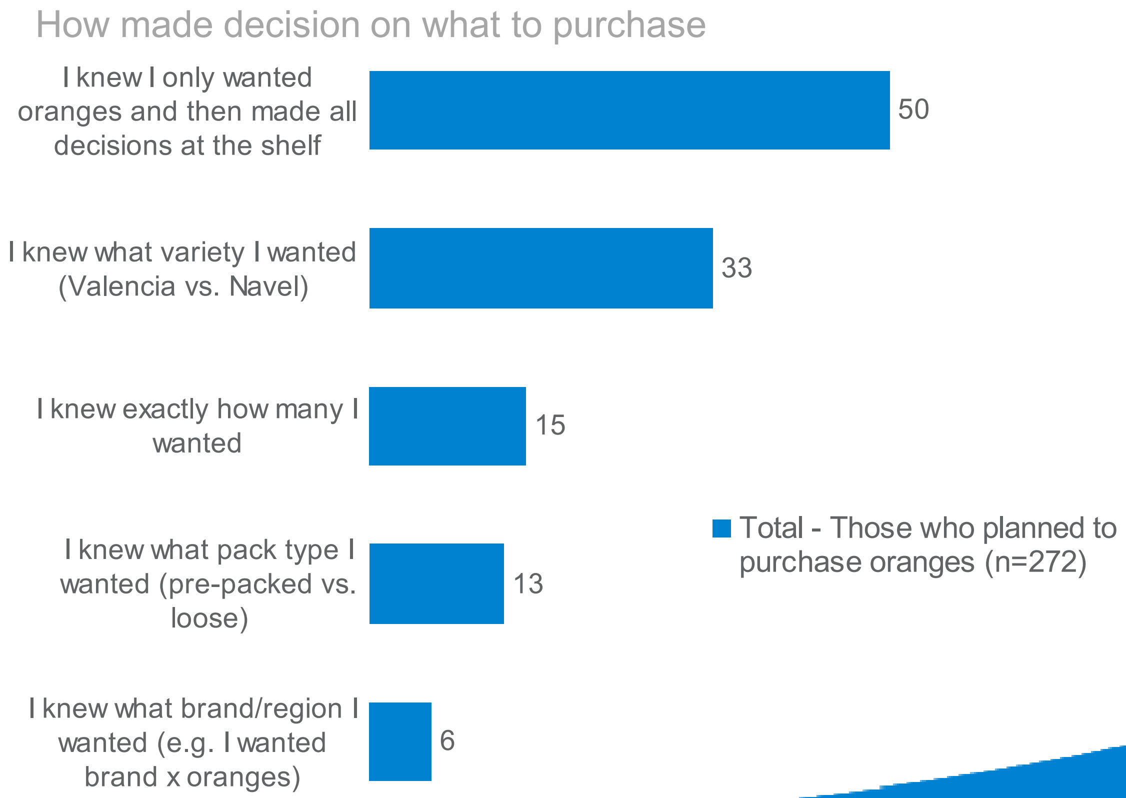


Q8. And was the fruit shopping in <INSERT FR OM Q6> on this last occasion planned or was it decided on the spur of the moment?
Base: Those who shopped for fruit at a supermarket

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Providing in-store information about the Riverland brand and its benefits over competing brands/varieties is key to driving sales

- This is particularly important in driving sales amongst family households which are more likely to make the decision on what to buy at the shelf (57%) than senior couple households (33%).
- Senior couples are more certain in what variety (48%) and how many oranges they want (21%) than families (26% and 6%, respectively).
- Of the 1 in 10 that knew what brand/ region they wanted, most confirmed they wanted Navel or Australian oranges in general.



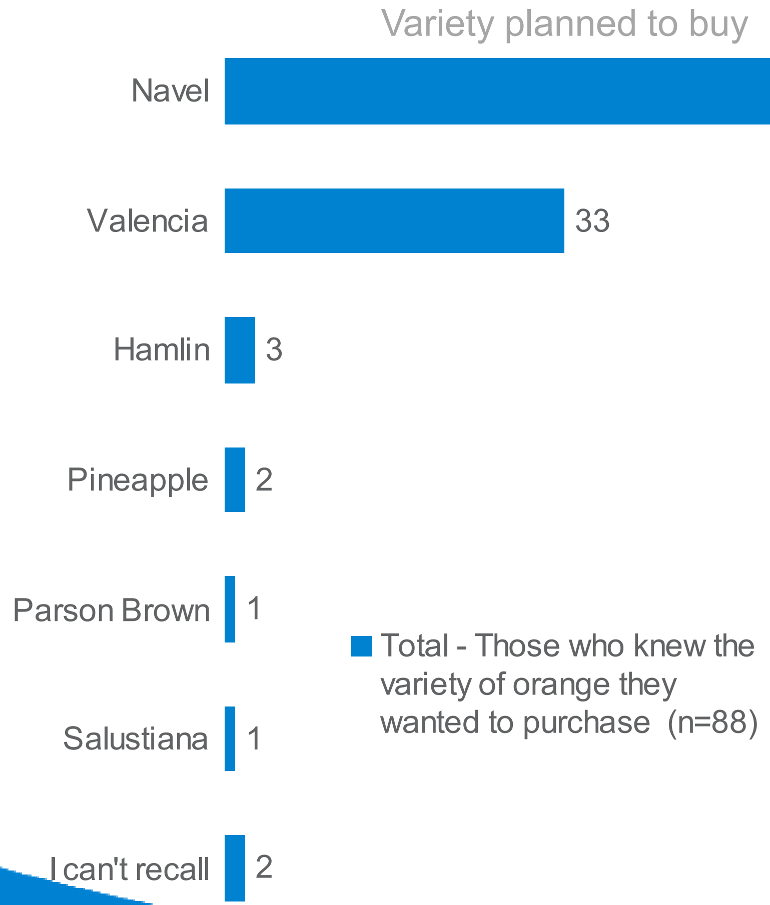
nielsen

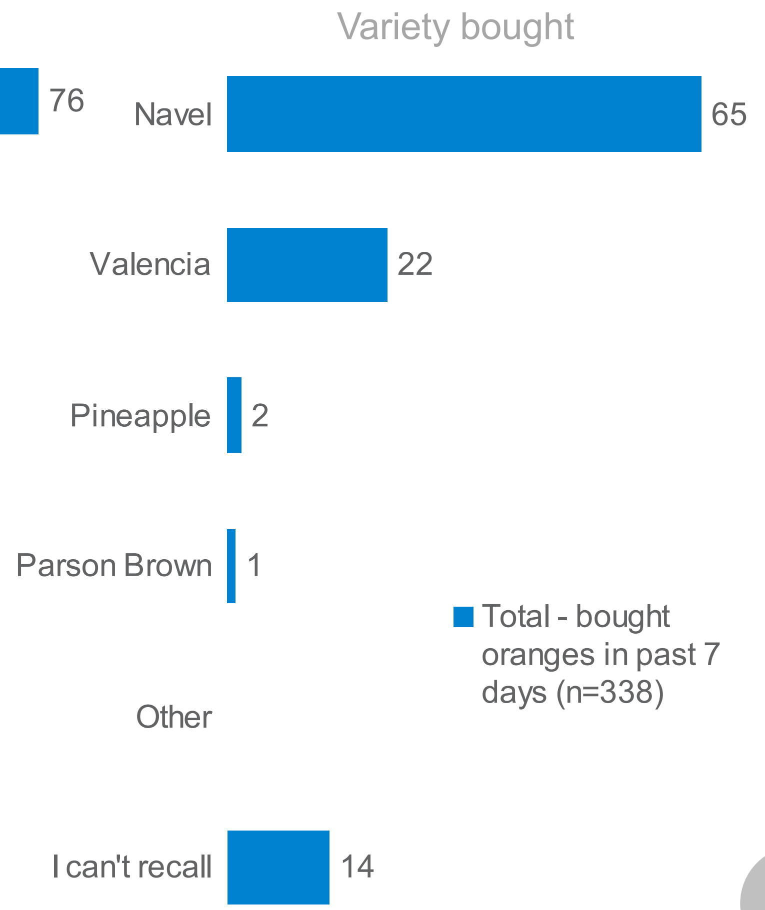
Q30. You said you planned to buy oranges, please choose from the following statements those that describe how you made your decision about what to purchase.
Base: Those who planned to purchase oranges

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Navel and to a lesser degree, Valencia are the main competitors in the market

- Navel oranges are the main variety that orange shoppers plan to buy and potentially do buy.





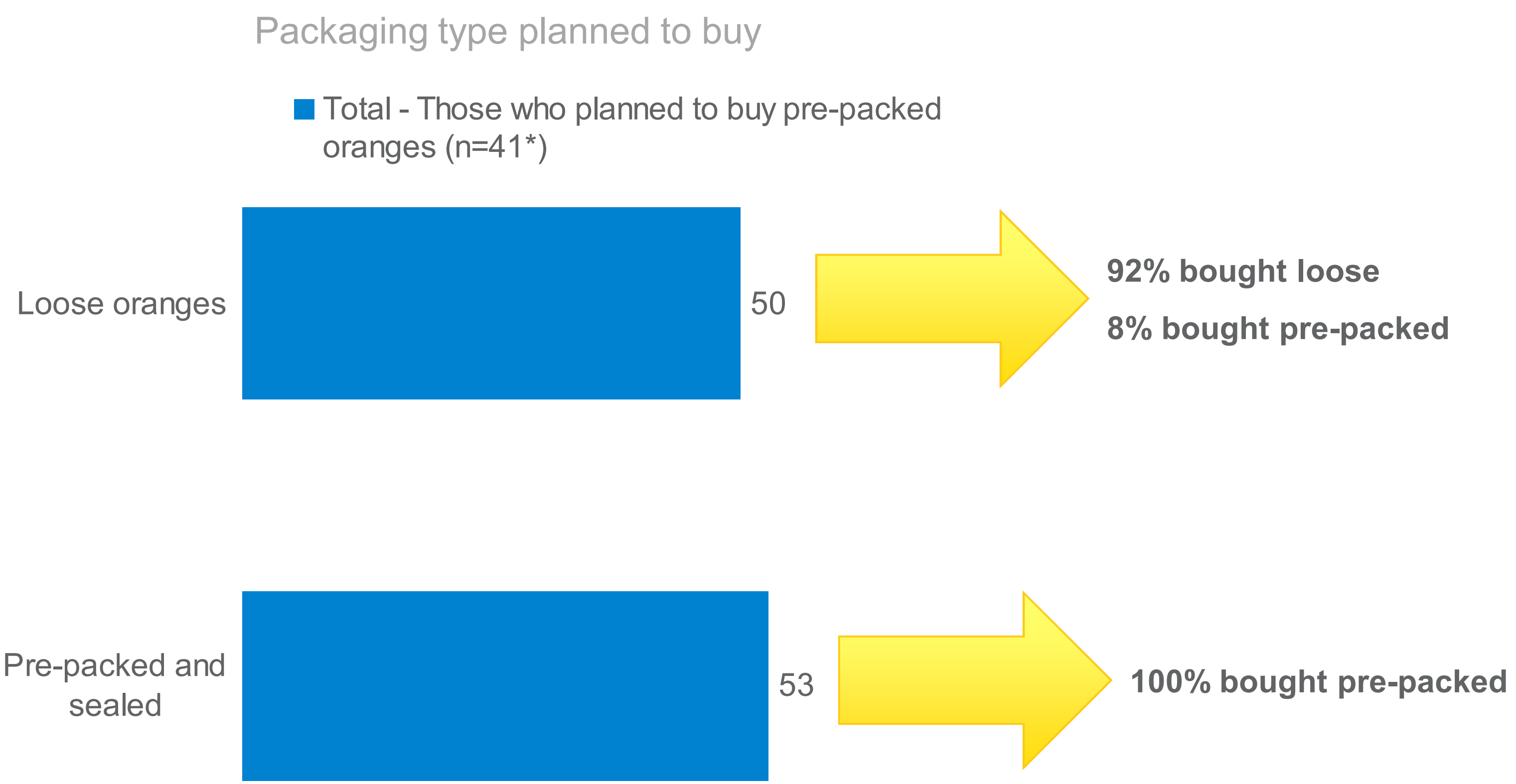
nielsen

Q31. Which variety of orange did you plan to buy?
Base: Those who knew the variety of orange they wanted to purchase
Q18. Which variety of orange did you buy?

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Almost all are purchasing loose oranges rather than pre-packed

- Of those who planned to buy pre-packed, all of them bought pre-packed.



Q32. Which packaging type did you plan to buy? [MA]
Base: Those who planned to buy pre-packed oranges
Q19. Which packaging type did you buy?

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Research Findings

- Market profile
- Attitudes towards oranges
- Drivers for purchase
- Specials in-store
- Level of planning and how decisions are made
- Consumer profile

Most fruit shoppers are married

		Total
		n=600
Region	Melbourne	30%
	Sydney	34%
	Brisbane	15%
	Adelaide	9%
	Perth	12%
Gender	Men	47%
	Women	53%
Age	18 to 24 years	12%
	25 to 34 years	22%
	35 to 45 years	26%
	46 to 54 years	17%
	55+	24%
Store last visited	Coles	32%
	Woolworths/ Safeway	32%
	Green Grocer	25%
	Fresh Market	11%

		Total
		n=600
Marital status	Married	55%
	In a partnership or de facto relationship	11%
	Divorced or separated	7%
	Widowed	1%
Household	At least 1 adult but the oldest is younger than 35	13%
	Only 1 adult who is 35yrs or older	7%
	At least 2 adults, the oldest is 35-59yrs	27%
	At least 2 adults, the oldest is over 60yrs	15%
	The oldest child is less than 6yrs	9%
	The oldest child is between 6-11yrs	8%
	The oldest child is between 12-17yrs	21%
Household size	1	9%
	2	35%
	3	21%
	4	20%
	5	12%
	6+	3%

nielsen

Q2. Which area do you live in? / Q44. What is your gender? / Q3. Please fill in your age / Q6. Thinking about the most recent occasion you did the fruit shopping, which ONE of the following stores did you visit?

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

More likely than not to be in paid employment and to be white collar workers

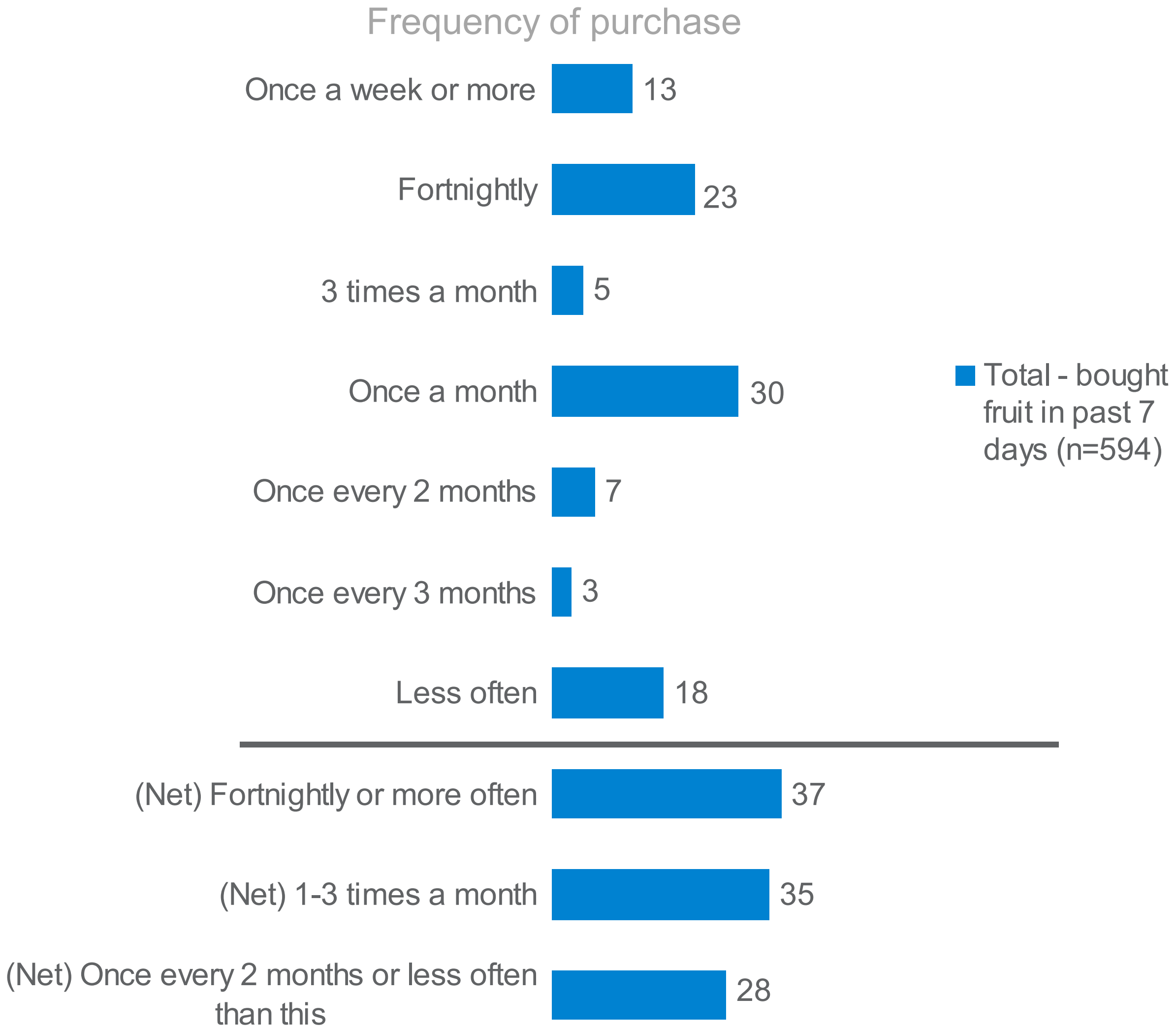
		Total
		n=600
Employment status	Working Full time	47%
	Working Part time	17%
	Working on a Casual basis	3%
	Currently seeking work	1%
	Not currently seeking work	4%
	Managing the Home / Home duties	9%
	Student	6%
	Retired	12%
Occupation status	Blue Collar 1 - E.g. Trade persons and related workers - policeman, nurse, technical officer, foreman, carpenter etc	8%
	Blue Collar 2 - E.g: Drivers, Machine operators, Factory workers, Labourers, Cleaners, Removalist, Truck driver etc.	4%
	White Collar 1 -. E.g: Managerial, Senior Administration, Professional, Associate-Professional-engineer, chemist etc.	53%
	White Collar 2 - E.g: Clerical, sales, personal service workers - sales/ customer service, business owner, clerical etc.	35%
Household income	Under $40,000	14%
	$40,001-60,000	8%
	$60,001-$80,000	11%
	$80,001-$100,000	14%
	$100,001- $120,000	12%

nielsen

Q49. What is your current employment status? Are you... / Q50. And which of these best describes your current occupation? / Q51. Finally, which range below best describes the total annual income for your household?

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Just over 1 in 10 fruit shoppers buy oranges once a week or more often



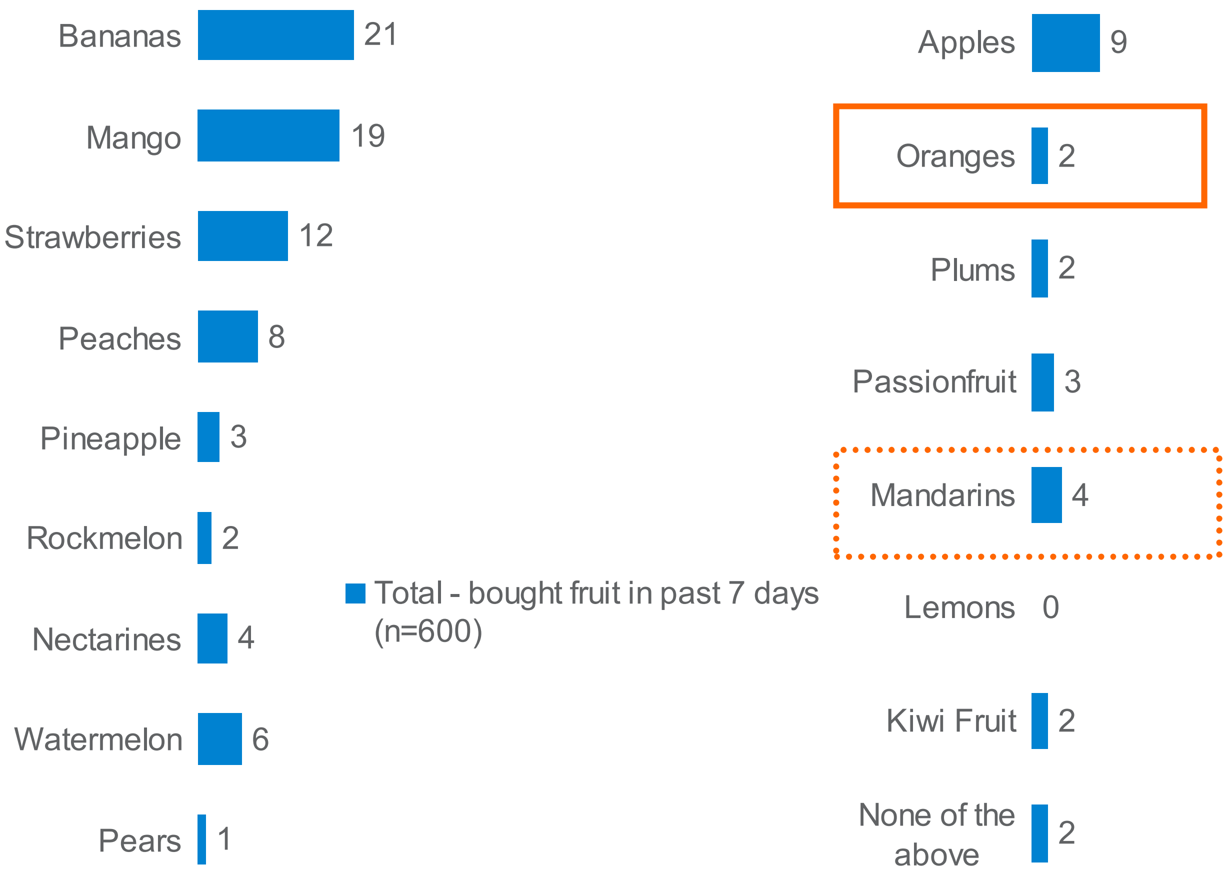
Q43. How often do you purchase oranges?

nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Appendices

Favourite fruit

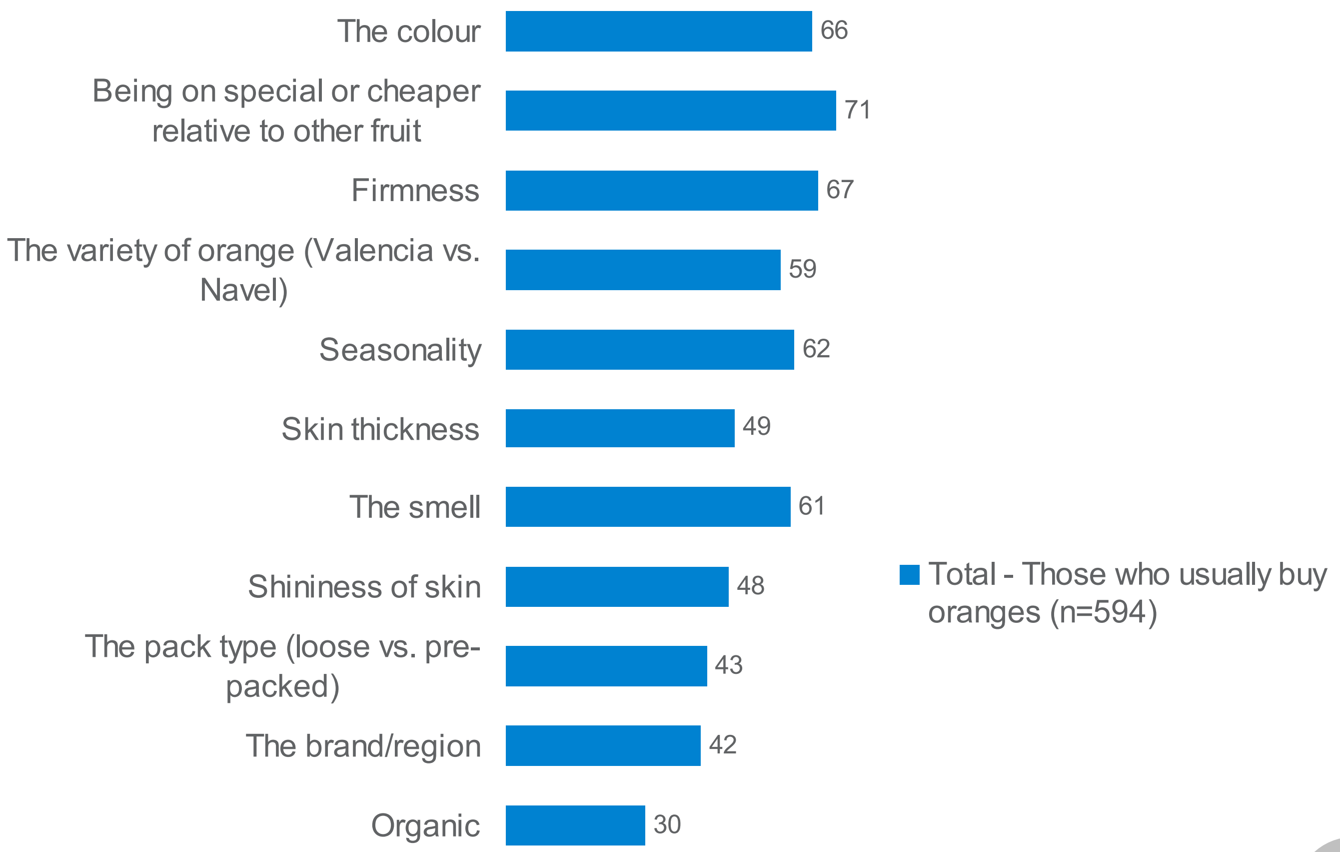


nielsen

Q35. Which of these types of fruit is your favourite?

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Factors that are important when shopping for oranges

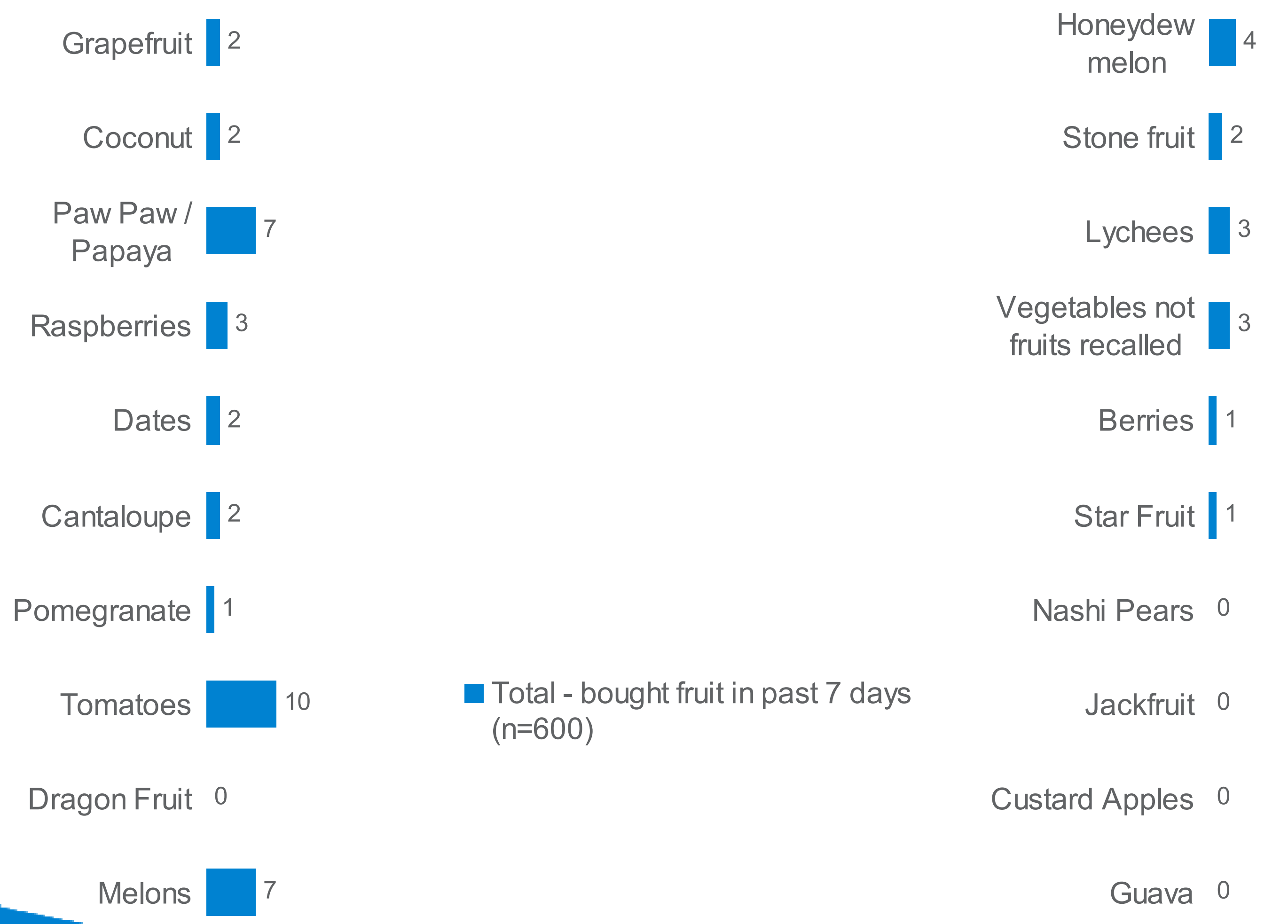


nielsen

Q39. Listed below are some factors that other people have said are important to them when shopping for oranges on their last occasion. Please click and drag the one factor that is most important to you when purchasing oranges and place the least important factor at the bottom. This does not necessarily mean it is not important, just that it is the least important.

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Unprompted recall of fruit



nielsen

Q7. Which types of fruit do you remember seeing in store when you were shopping for fruit? [Coded open ended question]

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

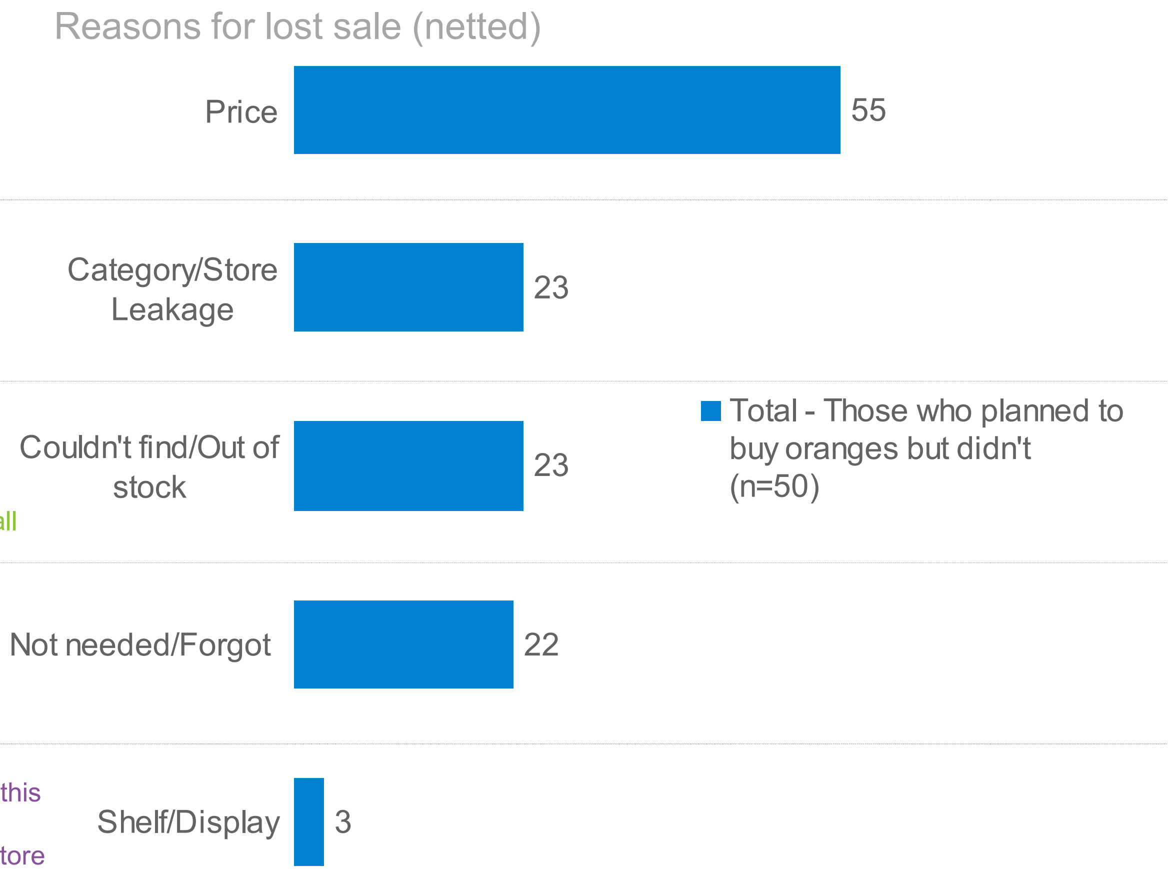
Triggers for purchase by individual features

Q20a. Why did you buy the oranges that you bought on that occasion?

nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Reasons for lost sale (netted)



They weren't on special
All the prices were too high in that store
I was just checking prices

I bought something else instead
I planned to buy them elsewhere

I just did not find any oranges I was interested in
I couldn't find the oranges I wanted
The oranges I wanted weren't available in the store at all

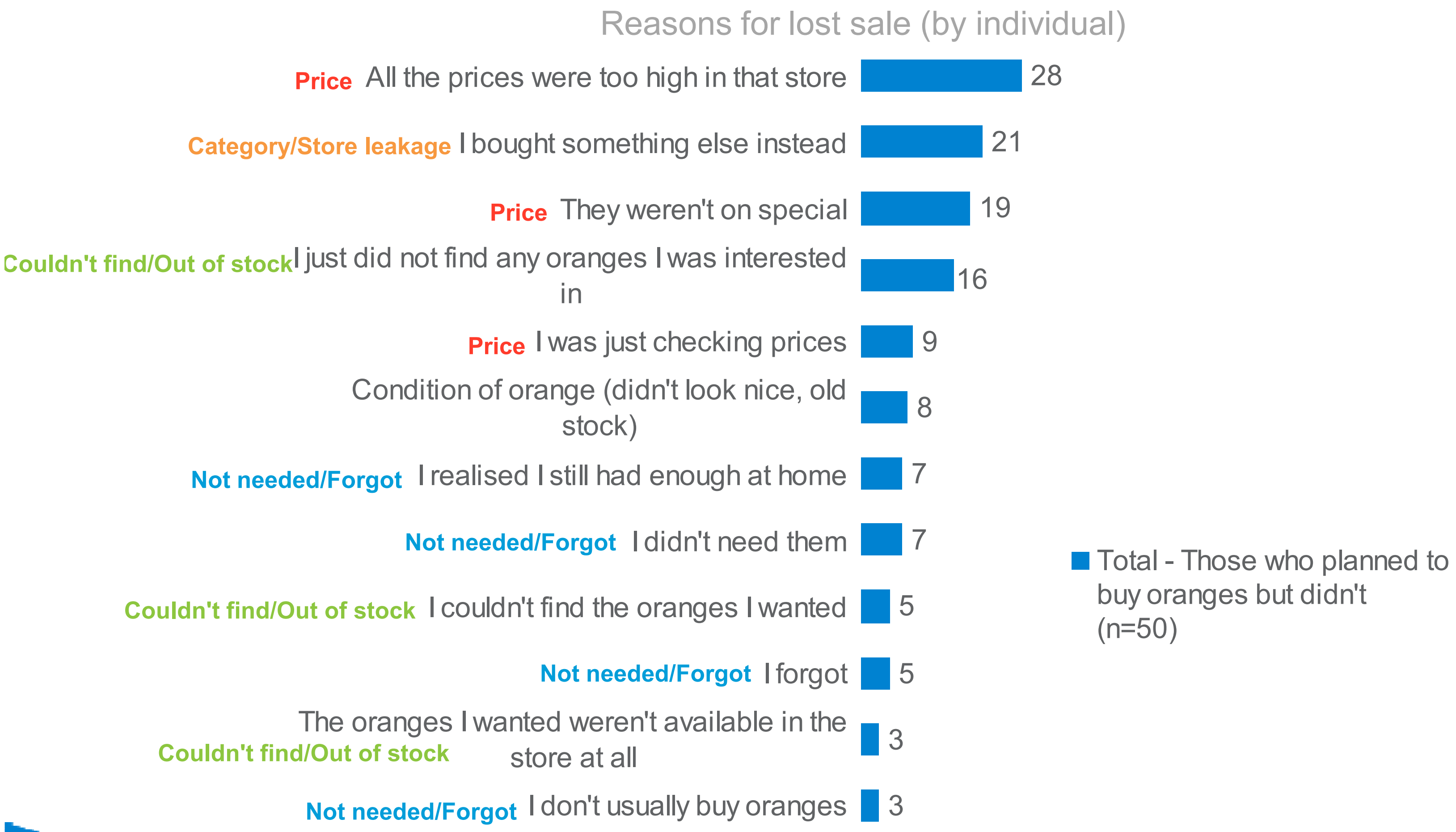
I realised I still had enough at home
I didn't need them
I forgot
I don't usually buy oranges

I found it too hard or unpleasant to shop for oranges in this store
I did not like the way the oranges are arranged in this store

Q34a. You planned to buy oranges before you entered the store on that occasion but didn't, why not?

nielsen
Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Reasons for lost sale (by individual)



Q34a. You planned to buy oranges before you entered the store on that occasion but didn't, why not?
Responses <3% not shown

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Reason for lost opportunity (netted)

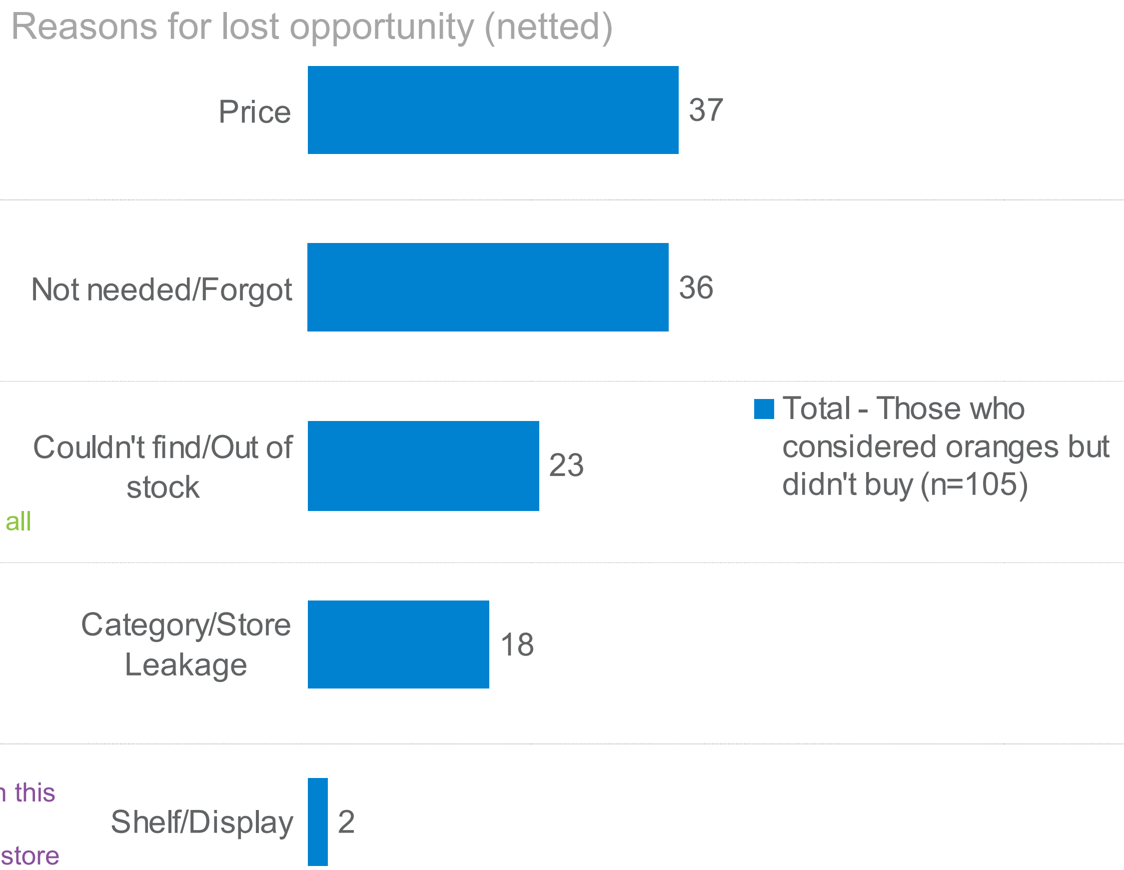
They weren't on special
All the prices were too high in that store
I was just checking prices

I realised I still had enough at home
I didn't need them
I forgot
I don't usually buy oranges

I just did not find any oranges I was interested in
I couldn't find the oranges I wanted
The oranges I wanted weren't available in the store at all

I bought something else instead
I planned to buy them elsewhere

I found it too hard or unpleasant to shop for oranges in this store
I did not like the way the oranges are arranged in this store



Q34b. You visited and considered buying oranges but didn't end up buying them, why not?

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

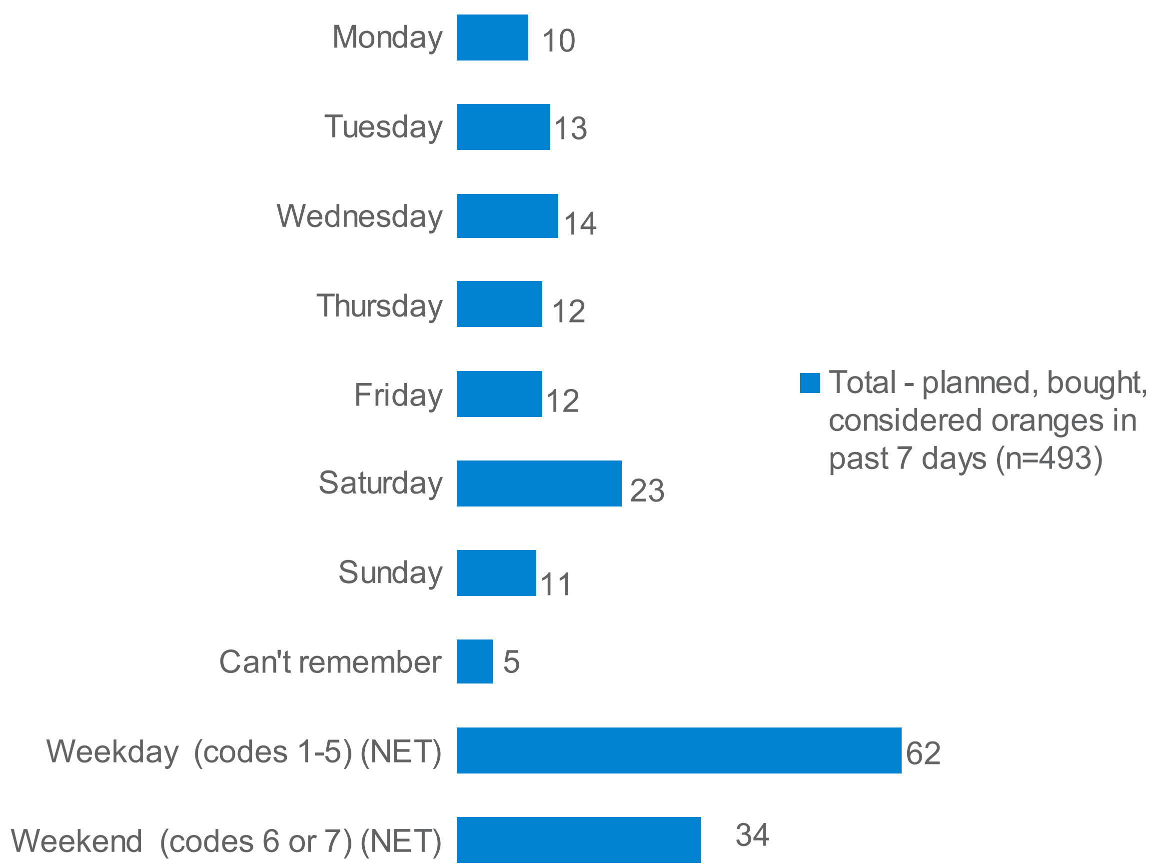
Reasons for lost opportunity (by individual)

Q34b. You visited and considered buying oranges but didn't end up buying them, why not?

nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Day of week of shop for orange

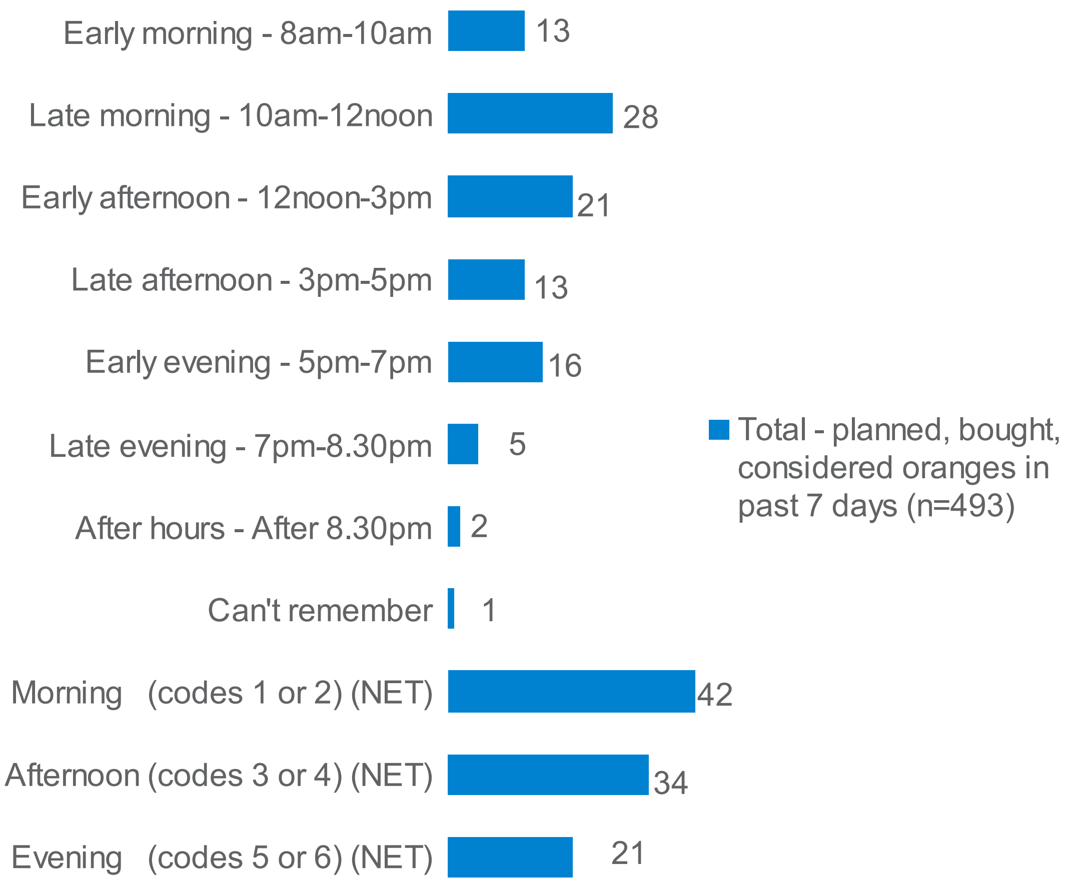


nielsen

Q14. On what day of the week was this shopping trip?

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Time of day of shop for oranges

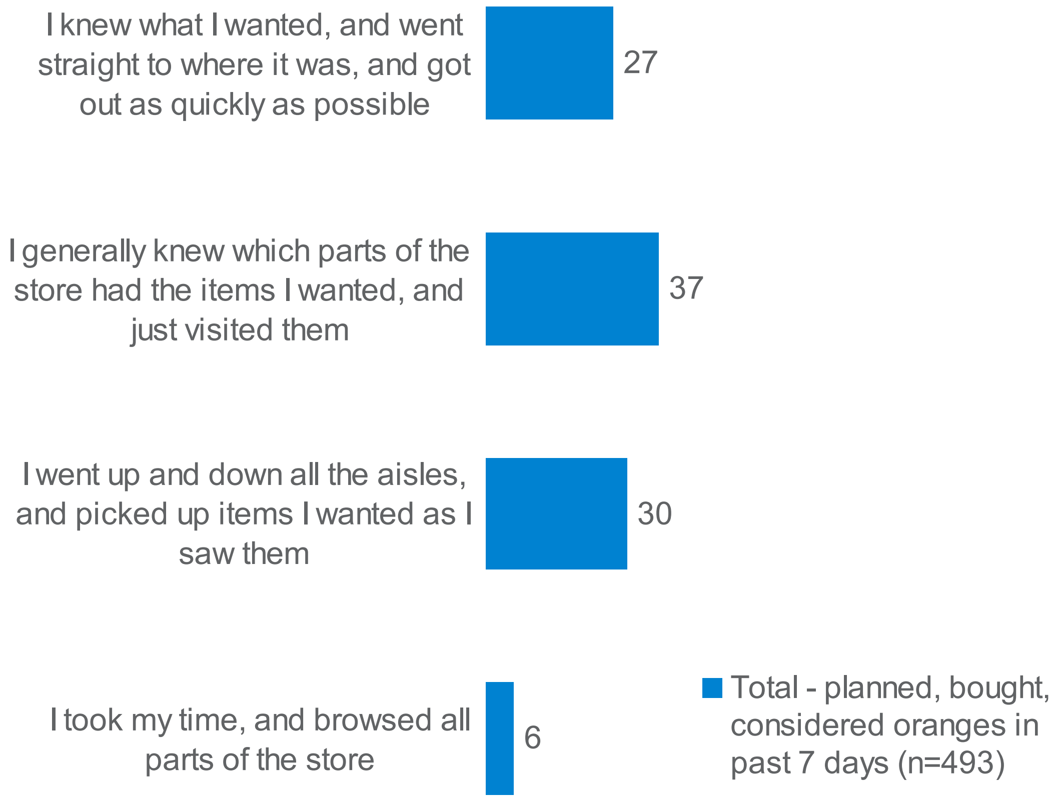


nielsen

Q15. What time of day did this shopping trip take place?

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Shop experience

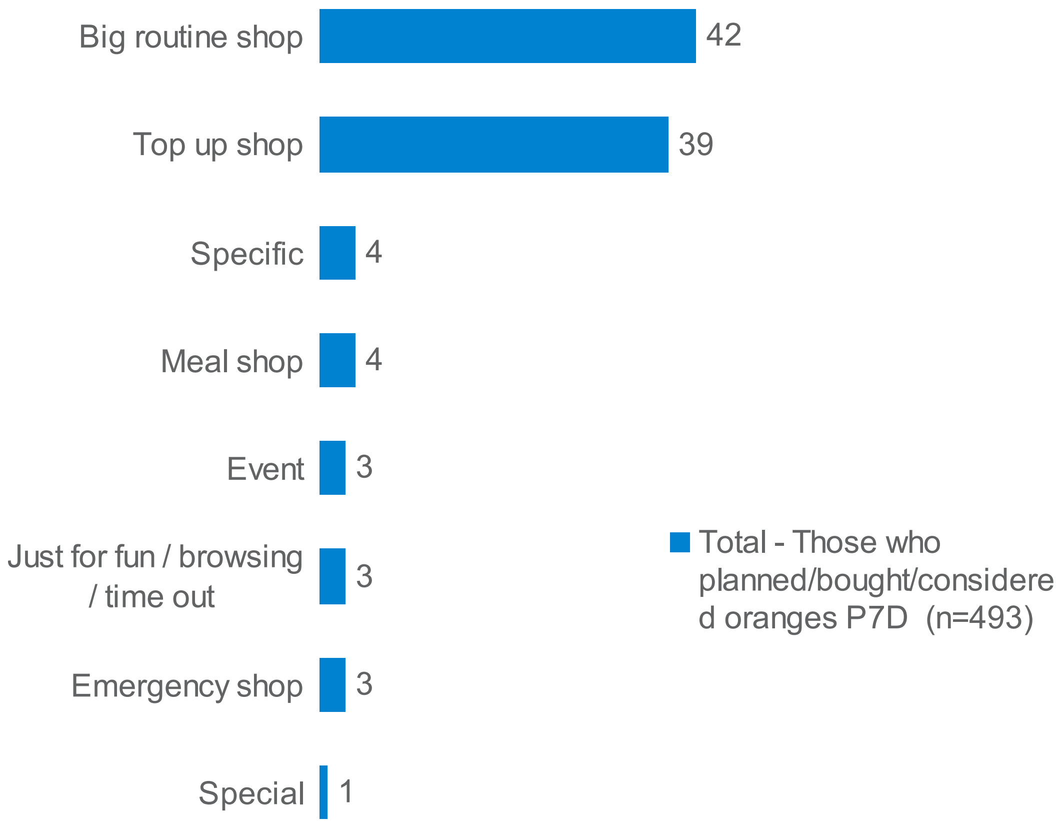


nielsen

Q16. Which of the following statements best describes the way you shopped <STORE FROM Q6> on that occasion?

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Shopper missions



nielsen

Q17a. Which of the following best describes your initial intention for the type of trip you made on that occasion?
Base: Those who planned/bought/considered oranges P7D

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Store performance

Performance compared with average

Orange section of the store…		Coles (n=255)	Woolworths/ Safeway (n=179)	Green Grocer (n=116)	Fresh Markets (n=50)
The store I went to has all the fruit I need	63	-10	-3	3	32
Products are well planned and layed out	51	-8	2	5	3
Easier to locate the oranges I want	50	4	-4	-1	-1
Has more choice and variety	40	-14	1	3	26
I enjoyed shopping the orange section	26	2	2	-6	5
Passing the orange section makes me want to stop and shop	23	-1	0	1	1
Layout is NOT confusing	92	-9	5	4	6

nielsen

Q38. On the same scale, could you please tell me how the oranges section of the <INSERT FROM Q6> you visited rates on the following areas compared to other stores?

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Questionnaire

Study ID	2866-AU	Resp. No.	
Interviewer No.		Interview Length	
No. Of Queries		Reference No.	

Thank you for agreeing to participate in this survey. Your views are important to us and your answers will be kept in the strictest confidence. Depending on your answers, the survey will take about 15 minutes to complete.

If you would like to view our privacy statement click here. If you require assistance at any time during the survey or would like to contact us, please click on the envelope in the bottom left hand corner of the screen. To begin, click on the button below.

Q1 **ASK ALL.**
RANGE: FOUR DIGITS AS PER STANDARD AUSTRALIAN POSTCODE
Please fill in your post code
(RI) POSTCODE .... |__|__|__|

Q2	AUTO CODE ON THE BASIS OF POSTCODE VALIDATION IN Q1 ASK ONLY IF POSTCODE AT Q1 IS ENTERED INCORRECTLY OR INVALID. Which area do you live in? [Single Answer]	Code	Route
	Sydney	01	
	Rest of NSW / ACT	02	CLOSE
	Melbourne	03	
	Rest of VIC	04	CLOSE
	Brisbane	05	
	Rest of QLD	06	CLOSE
	Adelaide	07	
	Rest of SA / NT	08	CLOSE
	Perth	09	
	Rest of WA	10	CLOSE
	TAS	11	CLOSE

Q44	**ASK ALL** What is your gender?[Single Answer]	Code	Route
	Male	1	
	Female	2	

Q3 **ASK ALL.**
TERMINATE ANY RESPONDENT AGED LESS THAN 18
RANGE 0-99

Please fill in your age
(RI) AGE (in years) .... |__|__|__|

Q4	**RANDOMISE ORDER. TERMINATE IF CODE=5,6,10,11** Do you or anyone in your household work in the following industries/ sectors? [Multiple Answer]	Code	Route
	Advertising	01	
	Media	02	
	Market research	03	
	Education	04	
	Citrus	05	
	Distribution, sales or retailing of fresh fruit and vegetables	06	
	Manufacturing	07	
	Farming/ primary industry	08	
	Public sector	09	
	Supermarket	10	
	Green grocer/ fresh market	11	
	None of the above	97	

Q5	Have you shopped for fresh fruit in the past 7 days? [Single Answer]	Code	Route
	Yes	1	
	No	2	CLOSE

Q5	Thinking about the most recent occasion you did the fruit shopping, which ONE of the following stores did you visit? *If you visited more than one store on the most recent occasion please choose the store you visited for most of your fruit products.* [Single Answer]	Code	Route
	ALDI	1	CLOSE
	Bi-Lo	2	CLOSE
	Coles	3	
	Franklins	4	CLOSE
	IGA	5	CLOSE
	Woolworths/ Safeway	6	
	Green Grocer	7	
	Fresh Market	8	
	Other (Specify)	9	CLOSE

Q7 Which types of fruit do you remember seeing in store when you were shopping for fruit?
PROBE Please list as many types of fruit you can recall seeing in store.

____

____

Q8	**ASK IF Q6 = CODE 3 OR 6** And was the fruit shopping in <INSERT FROM Q6> on this last occasion planned or was it decided on the spur of the moment? [Single Answer]	Code	Route
	I planned to shop for fruit before entering the store	1	
	I decided to shop for fruit when I was in the store	2	

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Q9a **ASK ALL EXCEPT IF Q8 = CODE 2.**
IF Q6 = 7 OR 8 ADD 'the'
ROTATE.
CODE 1 AND 107 ARE MUTUALLY EXCLUSIVE
Please indicate which of the following types of fresh fruit you planned to buy before entering <insert from Q6>.
Please read the list carefully and pick the items that most closely match what you had in mind..[MA]

Q9b **ASK ALL**
IF Q6 = 7 OR 8 ADD 'the'
ROTATE
Please indicate which of the following types of fruit you bought while at <INSERT FROM Q6>. [MA]

Q9c **Create hidden question that can be used by programmer to auto punch Q9c when creating tables**
ONLY ALLOW CODES NOT ANSWERED IN Q9a/b
IF Q6 = 7 OR 8 ADD 'the'
And what else did you consider while you were at the store? [Multiple Answer]
PROBE Please choose all other types of fruit you stopped and shopped or considered while at the store on this occasion.

	Q9a Foods Planned	Q9b Foods Bought	Q9c Foods Considered
None, I didn't plan any fruit types, wanted to make decision at the store (Q9a ONLY)	001	001	001
Apples	002	002	002
Oranges	003	003	003
Mandarins	004	004	004
Tangerines	005	005	005
Grapefruit	006	006	006
Lemons	007	007	007
Limes	008	008	008
Bananas	009	009	009
Kiwi fruit	010	010	010
Pineapple	011	011	011
Pears	012	012	012
Strawberries	013	013	013
Blueberries	014	014	014
Raspberries	015	015	015
Nectarines	016	016	016
Peaches	017	017	017
Plums	018	018	018
Apricots	019	019	019
Passionfruit	020	020	020
Watermelon	021	021	021
Rockmelon	022	022	022
Honeydew melon	023	023	023
Paw Paw / Papaya	024	024	024
Mango	025	025	025
Star Fruit	026	026	026
Dragon Fruit	027	027	027
Guava	028	028	028
Coconut	029	029	029
Custard Apples	030	030	030
Pomegranate	031	031	031
Cherries	032	032	032
Figs	033	033	033
Lychees	034	034	034
Jackfruit	035	035	035
None (Q9b/c ONLY)	107	107	107

Q10 **INCLUDE TICK BOX OF 'Don't know' (CODE=99)**
What variety of oranges are you aware of?

____

____

Q11 **Randomise codes 1-6**
Which of the following orange varieties are you aware of? [Multiple Answer]
PROBE Please select all that apply

	Code	Route
Valencia	01	
Navel	02	
Hamlin	03	
Parson Brown	04	
Pineapple	05	
Salustiana	06	
None of the above	97	

Q12 **ORANGE BARRIERS**
ASK IF CODE 3 NOT ANSWERED IN Q9a AND Q9b AND Q9c
ROTATE
You didn't shop for, consider, plan to buy or buy any oranges on the last occasion, why is that? [Multiple Answer]

	Code	Route
I bought something else instead	01	
I didn't need them	02	
I don't usually buy oranges	03	
I realised I still had enough at home	04	
I find it too hard or unpleasant to shop for oranges in this store	06	
All the prices were too high in that store	08	
I knew they weren't on special	09	
I couldnt find the oranges I wanted	10	
The oranges I wanted weren't available in the store at all	11	
I forgot	12	
I planned to buy them elsewhere	13	
I did not like the way the oranges looked in this store/ looked old/ not appealing	14	
I never buy oranges	97	
Other (Specify)	98	

Q13 **ASK IF Q12 = CODE 3 OR 97**
ROTATE
Why don't you usually buy oranges?[Multiple Answer]

	Code	Route
I don't like the taste	01	
They are too difficult to peel and eat	02	
They are too messy	03	
My children/household don't like them	04	
There are other more attractive fruits available	05	
Oranges are boring	06	
Other (Specify)	98	

SKIP TO Q35 (GENERAL SECTION) IF CODE 3 NOT ANSWERED IN Q9a AND Q9b AND Q9c, after Q12 or Q13 completed

IF Q6 = 7 OR 8 ADD 'the'
Now thinking about when you visited <INSERT STORE FROM Q6> and shopped for oranges. When answering the questions please think about that occasion and that occasion only.

nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Q14	On what day of the week was this shopping trip? *Please select one answer only.* [Single Answer]	Code	Route
	Monday	1	
	Tuesday	2	
	Wednesday	3	
	Thursday	4	
	Friday	5	
	Saturday	6	
	Sunday	7	
	Can't remember	9	

Q15	What time of day did this shopping trip take place? *Please select one answer only.* [Single Answer]	Code	Route
	Early morning - 8am-10am	1	
	Late morning - 10am-12noon	2	
	Early afternoon - 12noon-3pm	3	
	Late afternoon - 3pm-5pm	4	
	Early evening - 5pm-7pm	5	
	Late evening - 7pm-8.30pm	6	
	After hours - After 8.30pm	7	
	Can't remember	9	

Q16	IF Q6 = 7 OR 8 ADD 'the'	Code	Route
	Which of the following statements best describes the way you shopped <STORE FROM Q6> on that occasion? [Single Answer]		
	I knew what I wanted, and went straight to where it was, and got out as quickly as possible	1	
	I generally knew which parts of the store had the items I wanted, and just visited them	2	
	I went up and down all the aisles, and picked up items I wanted as I saw them	3	
	I took my time, and browsed all parts of the store	4	

Q17a Which of the following best describes your initial intention for the type of trip you made on that occasion? *Please select the response that best applies* [Single Answer]

Q17b **IF RESPONSE IN Q17a SELECTED, PLEASE BOLD SAME RESPONSE IN Q17b. DO NOT SHOW BOLD IN Q17a.**
Sometimes things don't always turn out the way we planned, please choose which of the following best describes how the trip actually turned out?
If the trip turned out as you intended please pick the statement that is in ***bold type.*** [Single Answer]

	Q17a Main Intention Trip Type	Q17b Other Trip Types
Big routine shop (Large, planned grocery shopping trip done on a regular basis i.e. weekly or fortnightly)	01	01
Top up shop (Regular small trip triggered by the need to top up groceries)	02	02
Emergency shop (Grocery trip for items you didn't expect to run out of / forgot to purchase / need immediately)	03	03
Meal shop (Shopping trip for a specific meal for the same day)	04	04
Event (Shopping trip specifically for a special occasion, parties, BBQ or for entertaining)	05	05
Just for fun / browsing / time out (An enjoyable and leisurely trip often triggered by the need for time out or to spoil yourself/the family or just to have a look around)	06	06
Specific (One specific item in mind and planned to buy)	07	07
Special (a trip triggered by seeing a special in a catalogue or ad)	08	08
No other (SHOW for b ONLY)	97	97

BOUGHT SECTION
ASK ONLY THOSE WHO BOUGHT ORANGES - CODE 3 IN Q9b

Q18	Which variety of orange did you buy? [Multiple Answer]	Code	Route
	Valencia	01	
	Navel	02	
	Hamlin	03	
	Parson Brown	04	
	Pineapple	05	
	Salustiana	06	
	Other (Please specify)	98	
	I can't recall	99	

Q19	Which packaging type did you buy? [Single Answer]	Code	Route
	Loose oranges	01	
	Pre-packed and sealed (e.g. bagged)	02	
	I can't recall	99	

Q20a **ROTATE LIST**
SHOW COLUMN HEADER ONLY IF CODE 1 AND 2 IN Q18. IF 3-6, 98 OR 99 SELECTED SHOW 'OTHER' COLUMN HEADING.
Why did you buy the oranges that you bought on that occasion? [Multiple Answer]

	Q20a		
	(H1) Valencia	(H2) Navel	(H3) Other
(R1) I ran out at home	01	01	01
(R2) Stocking up	02	02	02
(R3) I bought because they were on promotion/special	03	03	03
(R4) The fruit I really wanted wasn't available so I got them instead	04	04	04
(R5) I bought them because of the health benefits	05	05	05
(R6) I realised I needed some for entertaining/a special occasion	06	06	06
(R7) I realised I needed some for a recipe	07	07	07
(R8) I made a mistake and grabbed the wrong one by accident	08	08	08
(R9) I'd seen them advertised recently	09	09	09
(R10) I got them because my kids prefer them	10	10	10
(R11) I got them because my spouse/partner prefers them	11	11	11
(R12) I got them because I prefer them	12	12	12
(R13) Advertised in a retailer catalogue/feature	13	13	13
(R14) Allergy/dietary requirement	14	14	14
(R15) Signage, graphics poster caught my attention	15	15	15
(R16) To try something new and different	16	16	16
(R17) I bought them because they were in season	17	17	17
(R18) I bought them because they came pre packed	18	18	18
(R19) I bought them because they looked fresh (fresher than other options)	19	19	19
(R20) I bought them because I liked the brand or region where they are from	20	20	20
(R98) Others	98	98	98
(R99) Don't know	99	99	99

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Q21 **SHOW FOR THOSE SELECTED IN Q18=1-99**
ASK IF Q20 = CODE 20
You said you bought them because you liked the brand or region where they are from, do you remember the brand/region of the oranges you bought?

(R1) Valencia
____

(R2) Navel
____

(R3) Hamlin
____

(R4) Parson Brown
____

(R5) Pineapple
____

(R6) Salustiana
____

(R98) Other variety
____

Q22a **SHOW COLUMN HEADER ONLY IF CODE 1 AND 2 IN Q18 AND IF 3-6, 98 OR 99 SELECTED SHOW 'OTHER' COLUMN HEADING.**
ROTATE STATEMENTS
Which of the following best describes who you bought oranges for? [Single Answer]

	Q22a		
	(H1) Valencia	(H2) Navel	(H3) Other
(R1) I bought them mainly for myself	1	1	1
(R2) I bought them mainly for the kids	2	2	2
(R3) I bought them mainly for my spouse/partner	3	3	3
(R4) I bought them for someone else in the household	4	4	4
(R5) I bought them for the whole household	5	5	5
(R6) I bought them mainly to entertain guests or friends	6	6	6

Q23a **SHOW COLUMN HEADER ONLY IF CODE 1 AND 2 IN Q18 AND IF 3-6, 98 OR 99 SELECTED SHOW 'OTHER' COLUMN HEADING.**
ROTATE
From the list below, please choose the statement/s which best describe the occasion/s you bought oranges for on this most recent occasion? [Multiple Answer]

	Q23a		
	(H1) Valencia	(H2) Navel	(H3) Other
(R1) I bought them mainly for that night's dinner/dessert/supper (same night as the shopping occasion)	01	01	01
(R2) I bought them for a particular night's dinner/dessert/supper (not the same night as the shopping occasion)	02	02	02
(R3) I bought them for breakfast	03	03	03
(R4) I bought them for snacks (to eat between breakfast, lunch and dinner)	04	04	04
(R5) I bought them specifically for the kids lunches	05	05	05
(R6) I bought them specifically for my partners lunches	06	06	06
(R7) I bought them specifically for my lunches	07	07	07
(R8) I bought them specifically for juicing	08	08	08
(R9) I bought them mainly just to stock the fruit bowl	09	09	09
(R98) Others	98	98	98

Q24a **SHOW COLUMN HEADER ONLY IF CODE 1 AND 2 IN Q18 AND IF 3-6, 98 OR 99 SELECTED SHOW 'OTHER' COLUMN HEADING.**
Thinking about the oranges that you bought, were any of them on special (e.g. price discount / multibuys / competition)? [Single Answer]

	Q24a		
	(H1) Valencia	(H2) Navel	(H3) Other
(R1) Yes	1	1	1
(R2) No	2	2	2
(R9) Don't know	9	9	9

Q25a **SHOW COLUMN HEADER ONLY IF CODE 1 AND 2 IN Q18 AND IF 3-6, 98 OR 99 SELECTED SHOW 'OTHER' COLUMN HEADING.**
ONLY SHOW COLUMN HEADING IF CODE 1 SELECTED Q24a (for each column)
ASK IF Q24 = CODE 1
Did you know they were on special before going to the store? [Single Answer]

	Q25a		
	(H1) Valencia	(H2) Navel	(H3) Other
(R1) Yes	1	1	1
(R2) No	2	2	2
(R9) Don't know	9	9	9

Q26a **SHOW COLUMN HEADER ONLY IF CODE 1 AND 2 IN Q18 AND IF 3-6, 98 OR 99 SELECTED SHOW 'OTHER' COLUMN HEADING.**
ONLY SHOW COLUMN HEADING IF CODE 1 SELECTED Q24a (for each column)
ASK ONLY IF CODE 1 IN Q25
ROTATE
How did you find out that the oranges were on special before going into the store? [Multiple Answer]

	Q26a		
	(H1) Valencia	(H2) Navel	(H3) Other
(R1) TV ad	01	01	01
(R2) Radio ad	02	02	02
(R3) Newspaper ad	03	03	03
(R4) Magazine ad	04	04	04
(R5) Catalogue / brochure in the letterbox	05	05	05
(R6) Someone told me about it	06	06	06
(R7) Poster in the window	07	07	07
(R98) Others	98	98	98

Q27a **SHOW COLUMN HEADER ONLY IF CODE 1 AND 2 IN Q18 AND IF 3-6, 98 OR 99 SELECTED SHOW 'OTHER' COLUMN HEADING.**
ASK ONLY IF CODE 2 or 9 IN Q25
ONLY SHOW COLUMN HEADING IF CODE 1 SELECTED Q24a (for each column)

ROTATE
How did you find out in the store that the oranges were on special? [Multiple Answer]

	Q27a		
	(H1) Valencia	(H2) Navel	(H3) Other
(R1) Saw a special ticket	01	01	01
(R2) Saw a display	02	02	02
(R3) In-store catalogue	03	03	03
(R4) In store demonstration / promotion	04	04	04
(R5) Staff told me	05	05	05
(R98) Others	98	98	98

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Q28a	SHOW COLUMN HEADER ONLY IF CODE 1 AND 2 IN Q18 AND IF 3-6, 98 OR 99 SELECTED SHOW 'OTHER' COLUMN HEADING. ASK IF Q24 = CODE 1 ONLY SHOW COLUMN HEADING IF CODE 1 SELECTED Q24a (for each column) Did the special have any effect on your decision to buy? If so, was it ... ? [Single Answer]			
	Q28a		
	(H1) Valencia	(H2) Navel	(H3) Other
(R1) The main reason why I bought it	1	1	1
(R2) One of the reasons why I bought it	2	2	2
(R3) It was not a reason why I bought it	3	3	3
(R9) No / Don't know	9	9	9

Q29a	SHOW COLUMN HEADER ONLY IF CODE 1 AND 2 IN Q18 AND IF 3-6, 98 OR 99 SELECTED SHOW 'OTHER' COLUMN HEADING. ROTATE What would you usually do if the oranges that you bought on that occasion weren't available? Would you be more likely to... [Single Answer]			
	Q29a		
	(H1) Valencia	(H2) Navel	(H3) Other
(R1) Go to another store	01	01	01
(R2) Buy it on the next trip	02	02	02
(R3) Forget about it	03	03	03
(R4) Buy a different variety of orange	04	04	04
(R5) Buy another type of fruit altogether	05	05	05
(R6) Buy a different variety of citrus	06	06	06
(R7) Buy orange juice instead	07	07	07
(R98) Other (Specify)	98	98	98

PLANNED SECTION

Q30	ASK IF CODE 3 IN Q9a CODE 1 IS MUTUALLY EXCLUSIVE You said you planned to buy oranges, please choose from the following statements those that describe how you made your decision about what to purchase. *Please keep in mind that it doesn't matter if you bought them or not.*[Multiple Answer]	Code	Route
	I knew I only wanted oranges and then made all decisions at the shelf	1	
	I knew what variety I wanted (Valencia vs. Navel)	2	
	I knew what brand/region I wanted (e.g. wanted brand x oranges)	3	
	I knew what pack type I wanted (pre-packed vs. loose)	4	
	I knew exactly how many I wanted	5	

Q31	ASK IF Q30 = CODE 2 Which variety of orange did you plan to buy? [Multiple Answer]	Code	Route
	Valencia	01	
	Navel	02	
	Hamlin	03	
	Parson Brown	04	
	Pineapple	05	
	Salustiana	06	
	I can't recall	99	

Q32	ASK IF Q30 = CODE 4 Which packaging type did you plan to buy? [Multiple Answer]	Code	Route
	Loose oranges	1	
	Pre-packed and sealed	2	
	I can't recall	9	

Q33 **ASK IF Q30 = CODE 3**
Which brand/region of the oranges did you plan to buy?

____

____

Q34a LOST SALE
ASK IF 3 CODED IN Q9a BUT NOT IN Q9b. ROTATE
You planned to buy oranges before you entered the store on that occasion but didn't, why not? [MA]

Q34b LOST OPPORTUNITY
ASK IF 3 CODED IN Q9a BUT NOT IN Q9b. ROTATE
You visited and considered buying oranges but didn't end up buying them, why not?[MA]

	Q34a Lost Sale	Q34b Lost Opportunity
I bought something else instead	01	01
I didn't need them	02	02
I don't usually buy oranges	03	03
I realised I still had enough at home	04	04
I just did not find any oranges I was interested in	05	05
I found it too hard or unpleasant to shop for oranges in this store	06	06
I did not like the way the oranges are arranged in this store	07	07
All the prices were too high in that store	08	08
They weren't on special	09	09
I couldn't find the oranges I wanted	10	10
The oranges I wanted weren't available in the store at all	11	11
I forgot	12	12
I planned to buy them elsewhere	13	13
I was just checking prices	14	14
Other (Specify)	98	98

GENERAL SECTION

Q35	RANDOMISE ORDER OF BRANDS Which of these types of fruit is your favourite?[Single Answer]	Code	Route
	Apples	01	
	Oranges	02	
	Mandarins	03	
	Lemons	04	
	Bananas	05	
	Kiwi Fruit	06	
	Pineapple	07	
	Pears	08	
	Strawberries	09	
	Nectarines	10	
	Peaches	11	
	Plums	12	
	Passionfruit	13	
	Watermelon	14	
	Rockmelon	15	
	Mango	16	
	None of the above	97	

nielsen
Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Q36 **REVERSE ORDER OF COLUMNS AND ROWS SO fruit are in rows and statements are in columns. Multiple selection per column unless 'none of these' selected**

RANDOMISE ORDER OF BRANDS AND STATEMENTS

We will now show you a number of statements. For each statement, please select the types of fruits you think the statement applies to. [Single Answer]

PROBE You can select as many or as few types of fruit per statement as you wish.

	Oranges	Apples	Mandarins	Lemons	Bananas	Kiwi Fruit	Pineapple	Pears	Strawberries	Nectarines	Peaches	Plum	Passionfrut	Water melon	Rockmelon	Mango	None of these
(R1) Varieties that are instantly recognisable	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	97
(R2) Great for cooking	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	97
(R3) Fun	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	97
(R4) Refreshing ...	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	97
(R5) Easy to eat...	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	97
(R6) Easy to prepare	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	97
(R7) Exciting.......	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	97
(R8) Has many uses	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	97
(R9) Invokes fond childhood memories....	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	97
(R10) Portable	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	97
(R11) Great for kids............	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	97
(R12) Healthy	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	97
(R13) Exclusive/hard to find	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	97
(R14) A kitchen staple..........	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	97
(R15) Bright and colourful......	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	97
(R16) A sporty fruit.	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	97
(R17) Stays fresh longer.........	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	97

nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Q37 **ROTATE STATEMENTS**
On a scale of Strongly Disagree to Strongly Agree, could you please indicate how the **fruit section of the** <INSERT FROM Q6> you visited rates on the following areas compared to other stores? [Single Answer]

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
(R1) Has more choice and variety	1	2	3	4	5
(R2) Has new and interesting products	1	2	3	4	5
(R3) Easier to locate the products I want	1	2	3	4	5
(R4) Layout is confusing	1	2	3	4	5
(R5) Products are well planned and layed out	1	2	3	4	5
(R6) Passing the fruit section makes me want to stop and shop	1	2	3	4	5
(R7) I enjoyed shopping the fruit section	1	2	3	4	5
(R8) The store I went to has all the fruit I need	1	2	3	4	5

Q38 **ROTATE STATEMENTS**
On the same scale, could you please tell me how the **oranges section of the <INSERT FROM Q6> you** visited rates on the following areas compared to other stores? [Single Answer]

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Don't know
(R1) Has more choice and variety	1	2	3	4	5	9
(R3) Easier to locate the oranges I want	1	2	3	4	5	9
(R4) Layout is confusing	1	2	3	4	5	9
(R5) Products are well planned and layed out	1	2	3	4	5	9
(R6) Passing the orange section makes me want to stop and shop	1	2	3	4	5	9
(R7) I enjoyed shopping the orange section	1	2	3	4	5	9
(R8) The store I went to has all the fruit I need	1	2	3	4	5	9

Q39 **DO NOT ASK IF Q12=code 97**
Listed below are some factors that other people have said are important to them when shopping for oranges on their last occasion.
Please click and drag the one factor that is *most important to you* when purchasing oranges and drag it onto the top of the bar.
Now place the *least important* factor at the bottom. This does not necessarily mean it is not important, just that it is the least important.
Now move each other factor somewhere on the line so that everything is in order from most to least important.
Attachment(s):
O:\866.AU

VRS_Q39_E.gif VRS_Q39_E.htm VRS_Q39_E.xml

(R1) The variety of orange (Valencia vs. Navel)			
(R2) The pack type (loose vs. pre-packed)			
(R3) The brand/region			
(R4) The price (on special or relative to other fruit)			
(R5) The colour			
(R6) The smell			
(R7) Firmness			
(R8) Skin thickness			
(R9) Shininess of skin			
(R10) Seasonality			
(R11) Organic			

Q40a **ONLY DISPLAY THOSE RATED 2 - 100 IN Q39 (i.e. exclude those who rated 'least important'.**
Below are the factors you said were important to you when shopping for **oranges** on the occasion that you did. Could you please indicate for each if it was decided/considered at home or in the store? [Single Answer]

	Q40a		
	At Home	In Store	Don't know
(R1) The variety of orange (Valencia vs. Navel)	1	2	9
(R2) The pack type (loose vs. pre-packed)	1	2	9
(R3) The brand/region	1	2	9
(R4) The price (on special or relative to other fruit)	1	2	9
(R5) The colour	1	2	9
(R6) The smell	1	2	9
(R7) Firmness	1	2	9
(R8) Skin thickness	1	2	9
(R9) Shininess of skin	1	2	9
(R10) Seasonality	1	2	9
(R11) Organic	1	2	9

Q41 When are the best tasting oranges in season? [Single Answer]	Code	Route
Summer	1	
Winter	2	
All year round	3	
Don't know	9	

Q42 In which areas/regions in Australia do oranges mainly grow?

____

____

Q43 DO NOT ASK IF Q12=97 (Never buy oranges) How often do you purchase oranges? [Single Answer]	Code	Route
Once a week or more	1	
Fortnightly	2	
3 times a month	3	
Once a month	4	
Once every 2 months	5	
Once every 3 months	6	
Less often	7	

DEMOGRAPHICS

Finally, just a few questions about yourself which will be used for statistical purposes only, to ensure that we are speaking to a good cross section of the community. Your answers will, of course, be treated in strictest confidence.

Q45 We are trying to establish the main grocery shopper for the household. Are you the person in the household responsible or equally responsible for most of the grocery shopping? *If you are equally responsible then record as "Yes". However if you are responsible for pushing the trolley and do not take an active role in the decisions making, then the response is "No as you are not responsible for grocery shopping decisions.* [Single Answer]	Code	Route
Yes	1	
No	2	

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

Q46	Which of the following applies to you? Are you... [Single Answer]	Code	Route
	Single never married	1	
	Married	2	
	In a partnership or de facto relationship	3	
	Divorced or separated	4	
	Widowed	5	
	Prefer not to say	7	

Q47	EXIT DEMOS MODULE 4.2	Code	Route
	CAN YOU PLEASE MAKE EACH ROW 2 LINES WIDTH TO MAKE IT A BIT EVENLY SPACED? PLEASE ALSO HAVE A SPACE BETWEEN CODE 5 AND KIDS HEADING		
	Which of these best describes your household? [Single Answer]		
	PROBE *Please select the one that* ***best*** *fits*		
	Adults Only Household		
	(there is no one aged 17yrs or younger) *(Heading Only)*	1	
	At least 1 adult but the oldest is younger than 35	2	
	Only 1 adult who is 35yrs or older	3	
	At least 2 adults, the oldest is 35-59yrs	4	
	At least 2 adults, the oldest is over 60yrs	5	
	Kids in Household *(Heading Only)*	6	
	The oldest child is less than 6yrs	7	
	The oldest child is between 6-11yrs	8	
	The oldest child is between 12-17yrs	9	

Q48	DISPLAY DROP DOWN BOX OF 1 TO 50 AND 50+. ONLY NUMBERS CAN BE SELECTED. Including yourself, how many people live in your household?[Single Answer]	Code	Route
	1	1	

Q49	What is your current employment status? Are you...[Single Answer]	Code	Route
	Working Full time	1	
	Working Part time	2	
	Working on a Casual basis	3	
	Currently seeking work	4	
	Not currently seeking work	5	
	Managing the Home / Home duties	6	
	Student	7	
	Retired	8	
	Prefer not to say	9	

Q50	ONLY SHOW TO THOSE WHO SELECTED CODES 1,2 OR 3 AT Q49	Code	Route
	And which of these best describes your current occupation? [Single Answer]		
	Blue Collar 1 - (In most cases, a 4 year certificate (often via apprenticeship) is needed. E.g. Tradepersons and related workers - policeman, nurse, technical officer, foreman, carpenter, butcher, cook)	1	
	Blue Collar 2 - (E.g. Drivers, Machine operators, Factory workers, Labourers, Cleaners. Removalist. Truck driver. Roadworker. Cleaner. Fruit picker. Window washer, Assistants to tradepersons)	2	
	White Collar 1 - (in most cases, a degree or diploma is required. E.g: Managerial, Senior Administration, Professional, Associate Professional engineer, chemist, senior manager, solicitor, company director, doctor)	3	
	White Collar 2 - (E.g: Clerical, sales, and personal service workers- sales/customer service, business owner, clerical, bank teller, supervisors to customer service occupations)	4	

Q51	*Please select one answer only* Finally, which range below best describes the total annual income for your household? [Single Answer]	Code	Route
	Under $20,000	01	
	$20,001-40,000	02	
	$40,001-60,000	03	
	$60,001-$80,000	04	
	$80,001-$100,000	05	
	$100,001- $120,000	06	
	$120,001- $140,000	07	
	$140,001- $160,000	08	
	$160,001- $180,000	09	
	$180,000+	10	
	Prefer not to say	97	

That is all the questions we have for you on this occasion. Thank you very much for your time.

nielsen

Copyright © 2011 The Nielsen Company. Confidential and proprietary.

nielsen

Navel Oranges U&A Study

Exploring Opportunities for Further Penetration of South Australian Navel Oranges into the Japanese Market

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Agenda

nielsen

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Research Objects and Research Design

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Research Objectives

- For the export chain (Japan), the South Australian Citrus Industry Development Board (SACIDB)'s aim is to gain a solid understanding of the Japanese consumer's purchase behaviors with and perceptions of navel oranges.

- Specific objectives are to understand:

    - Consumer's awareness and perceptions of navel oranges

    - The factors that influence shoppers' purchase decision of navel oranges

    - Identify the importance, relative and absolute, of different product attributes of navel oranges

    - Explore the marketing mix for South Australian navel oranges

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Research Design

- **Methodology:** Focus group interviews (2 hours)

- **Number of groups/sample size:** 4 groups with 6 respondents per group
- **Research Area:** Tokyo (Nielsen's round table discussion room)
- **Group Composition:**
  - Group 1: Navel orange purchasers/consumers
  - Group 2: Navel orange purchasers/consumers
  - Group 3: Navel orange purchasers/consumers
  - Group 4: Navel orange non-purchasers/consumers

- **Respondent Criteria:**
  - Married females aged 30-49
  - Group 1&2 respondents: Those who have any preschool or primary school aged child
  - Group 3 respondents: Those who do not have any preschool or primary school aged children
  - Group 4 respondents: Half of respondents with no children (or adult children), half of respondents with preschool or primary school children
  - Group 1,2 &3 respondents: Those who buy oranges at least twice a month on average plus who bought nave orange at least once this year
  - Group 4 respondents: Those who buy citrus fruit (including oranges and grapefruit) at least twice a month on average plus who haven't have been purchasing navel oranges for at least one year.
  - Brand decision maker, purchaser and consumer of fruit
  - Both consumers and non-consumers to be non-rejecters of navel oranges
  - Those who buy oranges at Jusco store (at least two respondents per group)
  - Screen out those who do not eat citrus fruit at all
  - At least 1/3 of all respondents to be working females
  - Those who pass Nielsen's Sensitivity Check (to confirm they can articulate their responses)

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Key Insights

nielsen Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Key Insights - 1

- **Within the fruit category Japanese consumers give priority to seasonal fruits due to perceptions that they are delicious, high in nutritional value, inexpensive, and also because they tend to be the fruits that are most prominently displayed in-store. Oranges, being regarded as a year-round fruit, have little prominence in-store and no seasonal value.**

- **Oranges are instinctively thought of as Valencia oranges. Differentiation between Valencia oranges and Navel oranges is considerably muddled.**

  – Despite the juiciness and sweetness of Navel oranges suiting consumer tastes, Navel oranges are typically assumed to be Valencias.

  – Among the small minority of orange users who are loyal to Navel oranges (actively seek out Navel oranges), the convenience of Navels (thin-skinned and easy to peel, no seeds / pips, can be eaten with thin inner skin still on) is highly appreciated and considered a unique benefit of Navels. However, among the majority of orange users awareness of Navels is low and there is no acknowledgment of superior benefits of Navels.

nielsen

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Key Insights - 2

- **For most consumers purchase of Navel oranges appears to be random. When purchasing Navel oranges consumers think of this as simply "buying oranges;" they do not confirm variety or make selection based on variety.**

- **In this study two patterns emerged in terms of consumers' approach to fruit consumption, and this resulted in two different purchase patterns for oranges:**

  – **Type A: Consumers who always keep a stock-standard supply of fruit in the house.**
    - For these consumers, oranges are part of their standard supply of fruit. They regularly restock their orange supply and thus seek out oranges when they are out shopping even though the oranges are not prominently displayed.
    - Selection options tend to be limited, and consumers basically buy "whatever is on offer" as long as price and quality are acceptable (selection process basically involves a negative check on price and quality).
    - Loyal Navel users fitting the Type A profile look for the "Navel" label and familiar appearance of Navel oranges when in-store, and give priority to Navels when purchasing oranges.

  – **Type B: Consumers who are focused on variation, who give priority to seasonal fruits when buying fruit.**
    - These consumers mainly purchase the "seasonal" fruits that are prominently on display in stores and promoted in POPs. Oranges tend to be outside their usual shopping route and not noticed; users are unlikely to make a 'detour' to go to the orange stands. Oranges are only purchased if consumers cannot find any seasonal fruit that they want and oranges happen to capture their attention as they move through a store.
    - For Type B Navel Non-users who buy Valencia oranges without being conscious of variety, the main barrier to purchase of Navel oranges is lack of an in-store presence as a seasonal fruit.

nielsen

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Implications and Recommendations

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Implications and Recommendations - 1

1) Increase the presence of Navel oranges in-store, and arm users with information that enables them to make an informed product choice.

1. Targeting fruit users in general: in-store promotion of Navels as a "seasonal" fruit in summer.

- **Introduce a "seasonal" perspective in in-store promotion of Navels, and take advantage of the seasonal timing opportunities presented by South Australian origin.**
  - Unlike year-round Valencias, Navel oranges are suited to be promoted as "seasonal" given that they are only available in stores at certain times of the year.
  - Using both POP-type tools and taking advantage of tie-ups with retailers to ensure that Navel oranges are displayed in the "seasonal fruit" section and priced accordingly, the "seasonal" message needs to be comprehensively communicated.
    - Results of this study indicate that seasonality is a major issue for Japanese fruit users. Of particular note is that issues such as where and how products are displayed in-store, and pricing, are key indicators of seasonality.
    - There is also a need to educate consumers about country of origin and the influence of this on seasonality given the risk of Japanese consumers perceiving Australian oranges to be out of season when in fact they have been picked in season (given that seasons are opposite in Australia and Japan).

It is also recommended that the following in-store initiatives be employed as extensively as possible:

  - Communicate "richness" and "sweetness" for Navels: for example, use POPs and show the relative level of sweetness (compared to other fruit and/or oranges).
  - Communicate the functional benefits of Navels: Use claims such as "one Navel gives half the recommended daily allowance of Vitamin C," "high in anti-oxidants important for beauty," and "contains anti-cancer agents."
    - There is little awareness that oranges contain more Vitamin C than more sour citrus fruits such as lemons and grapefruit. Explanations along the above lines will represent a "new discovery" for consumers and may have strong potential to fuel purchase interest.

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Implications and Recommendations - 2

2. **Targeting orange users: make users aware of the difference between Valencias and Navels, and play up the benefits of Navels.**

   - **Introduce consumers to the taste and convenience benefits of Navel oranges = sweet and rich taste; easy to peel by hand; no seeds / pips; can be eaten with inner skin still on.**
     - The most effective means of introducing consumers to Navels would be to enable them to actually experience the oranges for themselves. Thus, along with tools such as POPs and leaflets it is recommended that in-store tastings be conducted.
     - Simply having slices of orange available in-store for tasting would appear to be a sufficient promotion.
       - Once consumers are made aware of the unique benefits of Navels (delicious taste, convenience and ease of eating) they are likely to be more interested in purchase.
       - For households in which there are young children, the benefits of Navels are particularly relevant and easily discernible. Tasting promotions are an effective driver for attracting children, and this in turn has potential to influence the shopping patterns of their mothers.

3. **Targeting Navel loyal users: Reduce opportunity loss from Navel loyal users not noticing Navels in store and therefore not purchasing them.**

   - **Strengthen tie-ups with retailers and use clear in-store signage to highlight Navels and differentiate Navels from Valencia oranges.**
     - Avoid having the orange section generically labeled as “oranges,” and ensure that labeling is “Navel oranges.” Use POPs and other promotional activity to educate consumers about the distinguishing features of Navel oranges, such as their “navel.”
       - Given the weak presence of Navel oranges in stores and little in-store information about Navel oranges there is potential for Navels to go unnoticed, even among loyal users who prefer to buy Navels.
       - There is especially strong need for clear identification as “Navels” in light of the fact that results of this study suggest that there is potential for the appearance of South Australian Navel oranges to differ from Japanese consumers’ preconceptions about what Navels look like.

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Implications and Recommendations - 3

2) Branding as South Australian Navel Oranges

- **Link assets of South Australia such as its vast expanses of nature, Southern geographical position, and ideal sunny conditions to the cultivation of Navel oranges in order to fuel expectations about delicious taste and add emotional value to South Australian Navels.**
  - Take the initiative over other places of origin and create a point of differentiation and superiority by being the first to actively promote branding in the currently information-less orange section. Use promotion to establish mass-consciousness of the idea that "Navels = South Australia."
  - A key advantage for South Australian Navels is that they are "seasonal" in Japanese summer. This means that they are in-store at a time of year when Navels from Northern Hemisphere countries are not available, creating significant scope for penetration of origin and branding.
    - In terms of oranges(≒Valencia oranges) the Sunkist brand dominates consumer mindshare.
    - In this study, while there was no recognition of the "Vitor" sticker the presence of stickers per se to clarify point of origin was reassuring, and consumers supported the continuance of this practice.
    - Considering that Australia appears to be little-known for fruit despite being strongly associated with food products in general it might be worth considering promoting Navel oranges in conjunction with other Australian foods.

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Implications and Recommendations - 4

3) Product specs in line with Japanese consumer needs.

- **There is no major dissatisfaction with the quality or size of Navels, or with issues such as bag size, suggesting that current specs should be adhered to.**
  ※ If standards for SA Navels differ from the standards outlined below it would seem advisable to modify the product.
  - Expected standards:
    - Price: Less than ¥100 per orange or ¥350-¥399 per bag (of around 5 oranges).
    - Taste: Rich taste, sweet, juicy.
    - Appearance: Dark orange in color, with thin outer skin that is easy to peel.
    - Size: for bags → smaller oranges; sold by piece→ larger oranges.

    - However, the following should be noted:
      - ➢ The South Australian grown navel oranges that were shown to respondent were bigger than the images respondents have of navel oranges and as such came across as difficult to identify at first glance (Especially for Navel Loyal Users)
      - ➢ There are those who prefer to buy by pieces instead of by bulk (in a bag) as they are concerned with the weighty amount being added to their total shopping and thus show restraint against buying in bulk.

nielsen Copyright © 2010 The Nielsen Company. Confidential and proprietary.

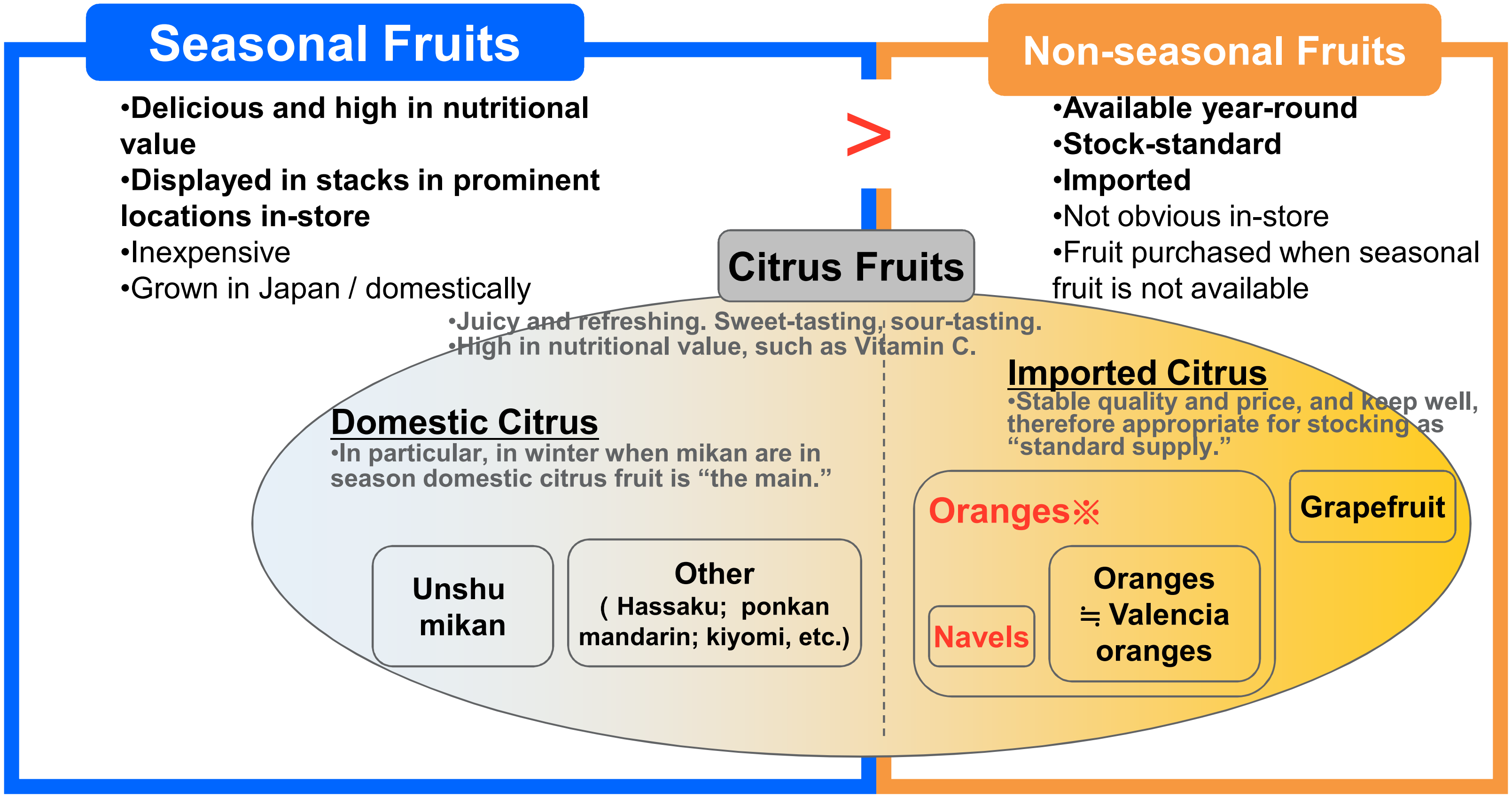
Detailed Findings

nielsen Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Awareness of Navel Oranges

1. Awareness of Fruits in General, and Positioning of Citrus Fruits

At a fundamental level fruits were divided into "seasonal" and "non-seasonal" fruits.



※ In the rest of the report "oranges" means all varieties, unless specifically indicated.

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Awareness of Navel Oranges

2. Awareness of Varieties of Orange – the Difference Between Valencias and Navels (1)

- **At mention of the word "oranges" consumers instinctively thought of Valencia oranges, and the link between "oranges" and "Valencias" was very strong. Navel oranges were called "Navels" rather than "oranges."**
- **Consumers were aware that Navels and Valencias were different types of orange, but had little knowledge of how the two varieties differed in terms of taste, appearance, and other features. As such, the two varieties were often confused.**
  - The key appeals of oranges were their sweetness and juiciness / rich taste, but there was general confusion about which of Valencias and Navels was the sweeter and juicier / richer taste variety.
  - Minimal differentiation was made based on skin pebbliness; consumers were unaware of whether the more pebbly-skinned variety was Valencias or Navels.
- **The only real difference acknowledged between the two varieties was that "Navels have a navel."**
- **Imagery of oranges in general was as follows:**
  - **Sweet and juicy.**
  - **Reliable taste; oranges always taste the same.**
    ※ With mikan taste was "hit and miss."
  - **Sweet and therefore liked by children / eaten by whole family.**
  - **Keep well.**
  - **Look nice, with their vibrant color**
    - Look good in a fruit basket; look nice and create pleasant feeling when served to guests.
      ⇒ **Fruit that is appropriate as stock-standard that is always kept in supply at home.**
  - **More of a hassle than bananas or mikan that children and husband can peel by themselves = oranges have to be cut or peeled (down to thin inner skin) for others to eat.**

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Awareness of Navel Oranges

2. Awareness of Varieties of Orange – the Difference Between Valencias and Navels (2)

- **A small minority of orange users were aware of the distinctive features of Navel oranges and had a distinct preference for Navels (Navel loyal users). These consumers appreciated the following benefits of Navels, and based on this, preferred them to Valencias.**
  - **Delicious**
    - **Sweeter and a richer taste (more concentrated flavor) than Valencias.**
  - **Easy, convenient**
    - **Thin outer skin.**
    - **Thin inner skin that can be eaten.**
    - **No seeds /pips.**
    - – The above features made Navels easy for children to eat, hence mothers of young children particularly appreciated Navels.
  - **Available only for a limited time.**
  - **More luxury / premium than Valencia oranges.**
- **Navel loyal users also differentiated Navels and Valencias by appearance:**
  - – **Image of the look of Navel oranges: More elongated; dark, rich color; smooth-skinned.**
    ⇒ When shown Australian Navels, the oranges were larger than loyal users' image of Navels and their skin was more pebbly. As such, they were not instantly recognizable as Navels.
- **Drawbacks of Navel oranges were that they made the hands dirty and were difficult to cut because they were so soft. This was perceived to somewhat limit their usage, in particular, it made them inappropriate for use on busy mornings and in packed lunches.**

  ※ ***Detailed usage of oranges is discussed in a subsequent section.***
- Among Navel orange loyal users some had grown up eating Navel oranges, and this contributed to their sense of familiarity and comfort with Navels.

nielsen

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Awareness of Navel Oranges

○ = relevant comments in group

- Comparative Awareness of Valencia and Navel Oranges (including misunderstanding)

	Valencia Oranges	Navel Oranges	Navel Loyal Users (Give priority to purchasing Navels)	Orange Users (Purchase oranges without being conscious of difference between varieties)	Navel Non-Users
Appearance	・ Round. ・ Dark color. ・ Smooth-skinned. ・ Thin-skinned. ・ Smallish ・ Tough wax	・ Have navel; elongated; dark color. ・ Smooth-skinned and smallish.	○	○	○
		・ Yellow-tinged.			○
		・ Thick and pebbly skin. Skin is tough.		○	○
Taste / Content	・ Sweet.	・ Sweet. Richer taste than Valencias.	○	○	
		・ Both types have same level of sweetness.		○	○
		・ Navels are more sour.			○
		・ Navels have distinctive fragrance.	○		
Convenience	・ Hard outer skin → Cannot be peeled with hands (need knife). ・ Cut into 1/6's or 1/8's and then eat. ・ Thin peel is difficult to eat. ・ Can be juiced. ・ Good for packed lunches.	・ Skin is soft → can be peeled with hands and eaten as is. ・ Not used for juicing. ・ Flesh is soft → not suitable for packed lunches, and difficult to cut.	○	○	○
		・ Inner skin is soft. ・ No seeds / pips → easy for children to eat.	○		
Others	・ Available year-round. ・ From California or Australia. ・ ・ Available everywhere. ・ Sold both in bags and by the piece /individually.	・ Seasonal (although season not known).※Very few respondents mentioned. ・ From California or Australia. ・ Not widely available; only limited number of stores stock Navels (such as Seijoishii supermarkets). ・ Usually sold by the piece / individually.	○	○	○
	・ Sunkist ・ Have stickers on the fruit	・ Not associated with any particular brands. / No brands come to mind. ・ No stickers on fruit.	○	○	○

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Consumption of Fruit

1. How Fruit is Consumed

- **Two patterns emerged in terms of how fruit is consumed, as outlined below.**
  - **Type A: Keep regular supply of stock-standard fruit (bananas, apples, oranges, etc.) and also eat seasonal fruits.**
    - Respondents fitting this profile who were in the Navel orange shopper groups (Groups A-C) tended to be more oriented to stock-standard fruit, while Navel Non-users (Group D) tended to eat more seasonal fruit than stock-standard fruit.
    - Respondents consciously chose stock-standard fruits because of their palatability for all family members and because they kept well. Fruits such as bananas, apples, and citrus fruits including oranges and grapefruit were eaten year-round.
  - **Type B: Do not have a stock-standard list of fruits, but continually switch between different fruits, with a focus on seasonal fruits.**
    - With oranges being available year-round (at any time) respondents tended to purchase oranges as a stopgap to seasonal fruit (for example if there was no appealing seasonal fruit in store / when “between seasons” for fruit) when they happened to notice oranges in-store.
- **There was a correlation between the above fruit consumption ‘types’ and in-store purchase behavior (as discussed on page 24).**
- **Overall, priority tended to be given to seasonal fruits given preconceptions that seasonal fruits were more tasty, higher in nutritional value, and more economical than fruits available year-round.**

nielsen

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Consumption of Fruit

2. Usage of Fruit

- **In most households represented in this study, all family members liked fruit and ate fruit almost every day.**
- **Individual households had their own particular consumption scenarios (for example, in some households fruit was mainly eaten for breakfast or snacks, while in others fruit was regularly eaten as dessert at the end of the evening meal) and choice of fruit depended on when and why it was being consumed, and on personal preference.**
  - Overall, consumers showed strong interest in the functional benefits and nutritional value of fruit. Those who served fruit for breakfast were particularly concerned about the functions and nutritional value of fruit, and showed almost an addiction to fruit.
  - Fruit that required peeling with a knife and/or cutting tended to be used after evening meals (rather than in the morning) when consumers had more emotional leeway and time to spend on preparation of the fruit.
  - In households with young children (pre-school and elementary school-age children) mothers were keen to feed their children healthy fruit rather than sugary snacks and sweets, and were therefore very conscious of their children's preferences when selecting fruit.
    - Specifically, while young children mainly preferred sweet fruits, as they got older they became increasingly accepting of more sour or tangy fruits such as grapefruit.
    - For children's snacks there was a preference for fruits that children could peel themselves, such as bananas and mikan.
    - For packed lunches consumers tended to cut up fruit rather than put in whole fruits.

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Consumption of Citrus Fruit

1. Consumption of Citrus Fruit

- **Citrus fruit was particularly liked for its refreshing, juicy taste, and was eaten in many different scenarios (from breakfast through to dessert after evening meal) .**
  - In addition to its taste, citrus fruit had the benefit of being rich in Vitamin C, and this was a point of superior differentiation over other fruit.
    - Consumers were very aware of the Vitamin C content of citrus fruit, with housewives conscious of the beauty benefits of Vitamin C for themselves as well as of the effectiveness of Vitamin C at warding off colds and flu in children.
    - Further advantages of citrus fruit, particularly over other standard fruits such as apples and bananas, were that the fruit did not quickly spoil after cutting (e.g., did not go brown) and that the fruit was not filling and was therefore fitting as something to eat after a meal.
- **In winter, the season for mikan, consumption of mikan was high and, correspondingly, consumption of imported citrus fruit tended to decline.**
  - Being easy to peel and eat as they are mikan were ideally suited to being left out for family members to help themselves to, and many respondents said that they did this with mikan in winter.

2. Consumption of Oranges

- **Oranges were popular as a stock-standard fruit, especially given their palatability for children due to their sweetness.**
- **Oranges were typically served cut into 6-8 pieces or sliced.**
  - Respondents said that unless oranges were made easy to eat by being served cut up, family members tended not to eat oranges because having to peel and cut up the oranges themselves was “too much of a hassle.”
- **Some consumers perceived oranges to be a nuisance to prepare, notably those who removed the thin inner skin from the flesh of the oranges before serving them.**
  - In addition, some women who were comparatively new to marriage and/or motherhood and women who purchased oranges infrequently found oranges slightly confronting in the sense that they were confused about how best to cut oranges to make them easy to eat.
- **A small minority of respondents used oranges for juicing and/or in cooking.**

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Consumption of Fruit

- Usage of fruit by occasion.

Consumption Scenario		Usage of oranges
Breakfast	**For breakfast focus was on functional value of fruit, as well as on convenience. Preference was for fruit that could be served with minimal preparation given that respondents were so busy in the mornings.** •Bananas were a comparatively popular breakfast fruit, perceived to be healthy as well as quick and convenient. Quite a few respondents served or ate banana with yoghurt for breakfast. •Oranges were also regarded as a good breakfast option on the grounds that they were an easy source of Vitamin C and freshened the mouth. •However, some respondents said that they did not serve oranges at breakfast because having to peel oranges by hand and cut them up was too time-consuming on busy mornings.	◎
Snack	**For snacks the most popular fruits were those that children could eat on their own without needing preparation or help. In winter mikan were a common snack.** •Mikan and bananas were popular snack options because these were fruits that children could peel themselves and eat as is. In many households mikan were left out for family members to help themselves as they liked. •A few respondents said that they kept plates of cut-up / sliced orange in the refrigerator for children to eat as snacks.	△
After evening meal (for dessert)	**Fruit served as dessert at the end of the evening was typically cut up.** •Cut-up apple or citrus fruit was commonly served at the end of the evening meal. •Even though cut-up fruit was the norm oranges were still associated with nuisance by some respondents, notably those who felt that they had to peel the oranges and remove their flesh so that their family would eat them (since family members would not eat oranges without having them presented already peeled and cut-up). •A benefit of oranges over fruit such as apples and nashi pears was that oranges did not quickly spoil once cut, whereas apples and nashi pears quickly spoiled (e.g., turned brown) if not eaten soon after cutting. •A benefit of citrus fruits in general over fruit such as apples and nashi pears was that they were not particularly filling, making them ideal as an after-dinner dessert.	◎
Packed lunch	**For packed lunches the focus was on fruit that children liked, as well as fruit that had decorative value / color and fruit that kept well / did not spoil.** •Fruit that was commonly used in packed lunches included apples, bananas, and citrus fruit such as oranges and mikan. •Oranges were a popular packed lunch item because of their bright, appetizing color and because children liked them. However, some respondents particularly disliked the idea of juice from cut oranges leaking out of the orange wedges while in the packed lunch, and therefore put oranges in a separate plastic container as part of the packed lunch. •Some respondents specifically commented that Navel oranges were not suitable for packed lunches because of their juiciness; cut-up Navel oranges tended to become sticky and messy. •Bananas and mikan were put in packed lunches as whole fruit, but no respondents put whole oranges in packed lunches.	○

Copyright © 201[illegible] The Nielsen Company. Confidential and proprietary.

Purchase of Oranges

1. How to Purchase Oranges

- **Most respondents simply purchased "oranges" without making a distinction between Valencia oranges and Navel oranges. The process of buying oranges involved minimal comparison, scrutiny or "selection;" respondents simply picked the product off the shelf. Most respondents did not even seem to be aware of whether they purchased Navel oranges or Valencia oranges.**
- **Reasons for low involvement in selection of oranges were as follows:**
  - **Lack of awareness of different varieties of oranges**
    - **Respondents had hazy knowledge (at best) of the difference between Navel oranges and Valencia oranges in terms of benefits, such as taste and ease of eating. When purchasing oranges it did not really occur to them that there was a distinct choice to be made between different varieties.**
    - **Oranges were perceived to be fruit that was "always the same" in terms of quality, hence respondents felt that they could "simply pick up any orange" and be assured of quality.**
  - **External factors (related to store display)**
    - **Many stores had only a limited stock of oranges on display, and this was not conducive to comparing and selecting products (there was a strong perception that stores stocked only one variety of oranges, but in reality it is possible that stores stocked two or more varieties).**
    - **With almost no information about oranges in-store, such as information about country of origin and different varieties of oranges, orange displays were instinctively thought of as dull.**
    - Some respondents specifically commented on the difference between how domestic fruit and oranges were displayed in-store; whereas domestic fruit was typically displayed with detailed POP and promotional information about place of origin and sweetness level, and even firmness / texture, oranges were displayed with minimal information, at most the variety name and name of the country of origin.
    - **Varying by supermarket, both Navel oranges and Valencia oranges were bunched together and labeled simply as "Oranges"**

- **Against the above background among most users Navel oranges tended to be purchased randomly as "oranges" rather than by design. Therefore, the way of buying Navel oranges is the same as buying oranges in general.**

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Purchase of Oranges

2. Orange Purchase Process and Selection Factors for Oranges

- **The orange purchase process varied somewhat between Type A and Type B respondents, as defined by their fruit-consumption patterns (discussed on page 19).**
  - **Type A: Always keep a standard supply of fruit in the house.**
    - Go to store intending to purchase oranges as part of their standard list of fruits, therefore go to orange section when in-store.
  - **Type B: Put focus on variation, and consume mainly seasonal fruits.**
    - Main purchase drivers are large, prominent displays in-store and POPs. Users rarely go to the orange section by design, although if they happen to notice oranges in-store they might purchase them as a stopgap to their supply of seasonal fruit.

<table>
<tr><th></th><th>Attracts Attention</th><th>Comparison and Scrutiny</th><th>Confirmation</th><th rowspan="3">Purchase Decision</th></tr>
<tr><td>Type A</td><td>(Go to orange section)
• Orange color</td><td rowspan="2">• None
➢ users did not even confirm whether oranges were Valencias or Navels.
➢ Any scrutiny that was made was at the level of confirming category = whether fruit was grapefruit or oranges.</td><td rowspan="2">• Price
• Bags: Around 5 oranges for ¥350-¥399 range.
• By piece: 1 orange for ¥80-¥100. Anything under ¥100 considered inexpensive. ¥150 or above too expensive / would not buy.
• Negative check on quality
• Freshness
• Confirm luster of skin and that fruit is not bruised or spoiled.
• (Minority) Confirm that oranges are firm and that stem is a good color.</td></tr>
<tr><td>Type B</td><td>• Orange color, if oranges happen to be on shopping route
• Large, prominent displays</td></tr>
</table>

nielsen

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Purchase of Oranges

3. Selection Factors for Oranges (1)

- **As discussed in the previous pages, in general, respondents did not compare or scrutinize products when buying oranges. In the minority of cases where oranges were looked at closely and compared the following drivers came into play:**
  - **Taste: Delicious = sweet, rich, juicy taste**
    - Oranges with dark, rich color, and that feel heavy.
    - POPs with claims such as “sweet” or “juicy.”

      ※ For other types of fruit the sugar content labeling was looked at, but this information was not available for oranges.
  - **Quality: Safe and reassuring**
    - Oranges with stickers on them (although stickers per se were not looked at closely).
    - Brand labeling, such as “Sunkist.”
    - Labeling of country of origin

      ※1 respondent in the total sample specifically looked for oranges from Australia. Other respondents were not particularly concerned about country of origin.
- **Quantity： Respondents divided among those who buy individually and those who buy by the bag (in bulk)**
  - **Reasons for buying individually**
    - Heavy
      - Including when purchasing other fruit or milk or two heavy products at the same time: As respondents lived in the Tokyo metro area and as such usually go to the supermarket on foot or via bicycle, they prefer to keep the total weight of their purchase down as much as possible.
    - Another reason is that they want to select an orange with no defects (buying in bulk doesn’t allow this)
  - **Reasons for buying by the bag (in bulk)**
    - Because oranges are a standby fruit and preserve themselves for a long period of time, there is little worry in leaving extra sitting in a bowl or dish in the house
    - The price per piece when buying by bag is cheaper than if buying 1 by 1

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Purchase of Oranges

3. Selection Factors for Oranges (2)

- **Elements that may become purchase decision influencers**
  - ➢ **The items below were not utilized or present for oranges at time of focus groups, however, these were noted by respondents as influencing their purchase intent for fruit.**
  - – **Seasonal display (Large, prominent display) POP indicating its seasonal**
    - ➢ Aware that fruit in season is delicious and high in nutritional value
    - ➢ **<u>If they see and understand that Australian oranges are "Now in season" and thus available for a limited time only in-store, their purchase intent will go up considerably (noted among all user groups)</u>**
  - – **In-store promotions**
    - • Sampling (tasting)
      - – Casually taste whatever is being sampled and then impulse buy / Child tastes it while shopping and wants it so they buy it
    - • Small video panels / animations
  - – **Taste**
    - • POP that conveys the delicious taste (EX: "Sweet!")
    - • Sweetness level indicator (numerical, visual etc.)

      ※Sweetness level is notated for other fruit but not for oranges
  - – **Nutritional value**
    - • POP that communicates nutritional value
  - – **Country of origin / region grown and other information**

※In addition to the above, a description about "Quick and easy preparation for eating" may also increase purchase intent

➢ For those who feel that cutting and peeling oranges takes time or those females who have just become housewives and are not sure on how to prepare

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Purchase of Oranges

- Expectations of In-store Information with Regard to Fruit (including oranges) and Promotions that Have Been Influential (Extracts from Verbatim Comments)

		Expectations of In-store Information	Other Issues
Navel Orange Users	A · Youngest child in elementary school or younger	▪ *With apples they show photographs of the apples, tell you about when the apples are at their best, and given information about texture and firmness. I would like it if they did the same type of thing for oranges, gave you introductions to each different variety.* ▪ *Sugar level, information about the maker and place of origin, and information that made you feel reassured about the products, such as that they were grown without use of pesticides.* ▪ *For kiwi fruit they do fabulous tastings. And when you taste the fruit you tend to buy it.* ▪ *Seasonality is really important. Our summer is when Australian fruit is in season. When fruit is in season and tastes good you feel like buying it.*	▪ *I can imagine CMs. CMs showing oranges being squeezed for juice against a backdrop of blue sky and white clouds. Lots of sunlight and oranges that seem sweet.* ▪ *If there was a feature on the oranges on television it would be striking. If I saw oranges featured on a health documentary on television it would probably reawaken my interest in buying them.*
	B · Youngest child in elementary school or younger	▪ *If they had POPs in-store I would read them. / Maybe pamphlets or DVDs playing in-store.* ▪ *Small sheets of information about the oranges left out near the orange section. / Having a sheet of information inside bags of oranges would be good.* ▪ *Photographs of the trees on which the oranges are grown. Photographs of harvesting or of the faces of the people who grow the oranges would attract your attention.* ▪ *I might buy the oranges if they were only available for a limited time and were promoted as such.* ▪ *It would be good if Navels had identifying stickers on them. Then you would immediately know that they were Navels and feel reassured.* ▪ *It has happened to me that the kids have tried fruit in a tasting, and I have ended up buying the fruit.*	▪ *I have seen TV advertising for oranges (Sunkist) and bananas, but not for Navels.* ▪ *When they had the Gold Kiwi campaign in-store it involved a mascot that captured the kids' attention. And the kids also wanted the stickers and bonus gifts that were offered with the fruit. And that had a strong influence.* ▪ *Have the oranges featured in television documentaries, advertising on radio, cooking programs.*
	C · No children · Youngest child in junior high school or older	▪ *Descriptions of the taste. / Claims such as "sweet" and "rich" would create impressions of good quality. / "Rich taste."* ▪ *You tend to associate fruit grown in lots of sun with deliciousness.* ▪ *If they had a POP that said "Southern hemisphere oranges are in season now" more people would buy them.* ▪ *I like to know the sugar level. (In Jusco stores sugar content is shown).* ▪ *I would like to know about safety issues, such as pesticide measures. I am happy to pay a bit more for oranges I feel safe about (up to 1.5 times the standard price).*	▪ *CMs and promotional campaigns give the impression that a company is really committed to selling its product.* ▪ *I tend to click on Net banner advertising if it seems interesting.* ▪ *Endorsement by a TV presenter (such as Mino Monta) would get the oranges selling.*
Navel Orange Non-Users	D · Youngest child in elementary school or younger · No children · Youngest child in junior high school or older	▪ *The sunlight is key. It makes you want to make juice out of the oranges. And that has potential to send you to a store in search of oranges, perhaps.* ▪ *In Australia the seasons are opposite from Japan. They need to play up imagery of the country of origin, and make consumers aware that the oranges are in season.* ▪ *A catchphrase about "cultivated in brilliant sunshine." / Photographs of orange groves. These would be far more effective than a promotions featuring a celebrity.* ▪ *The word "seasonal" is powerful. With these Australian oranges if you didn't know that the oranges were seasonal then you would be concerned that they might have taken a really long time to get into stores.* ▪ *"Rich faste." / "Juicy." / information about sugar content. / Claims along the lines of "xx times Vitamin C than in yy."* ▪ *Comparative information about Valencias and Navels.*	▪ *Information about how to effectively peel and eat oranges. Advice that the oranges can be eaten without needing a knife. Promotion that oranges can be eaten anywhere, anytime, like mikan.* ▪ *Celebrity endorsement campaigns would not be effective at making me want to buy the oranges.* ▪ *Having the oranges featured in a television documentary programs (such as Hanamaru Market) would increase interest in purchase.* ▪ *In-store tastings (for kiwi fruit) allow you to see what the fruit tastes like and encourage you to buy the fruit.*

nielsen

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Purchase of Oranges

3. Selection Factors for Oranges (2)

The following are not purchase decision factors:

- **Size :**
  - ① **Respondents had strong preconceptions that oranges "always tasted the same" / that there was no "hit and miss" with oranges in terms of taste. There was almost no correlation made between size and taste.**
  - ② **Given that oranges were mainly eaten cut-up, size was not an issue.**
    - A minority of respondents, all of whom peeled the inner skin as well as the outer rind of oranges, tended to prefer L-size oranges on the grounds that these were easier to peel.
    - Also, there was a general preference for smaller-size oranges when purchasing oranges by the bag, and larger-size oranges when purchasing oranges individually.

- **Pre-cut oranges:**
  - Pre-cut fruit was associated with higher cost as well as inferior freshness and flavor, and respondents showed no inclination to purchase pre-cut oranges.
  - A few respondents suggested that pre-cut fruit might appeal to people living on their own who purchased fruit at convenience stores, but for themselves as wives and mothers, pre-cut fruit was considered irrelevant.

nielsen

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Purchase of Oranges

4. Purchase of Seasonal Fruit

- In Japanese supermarkets the fruit section is typically structured around seasonal fruits. Stacks of seasonal fruit in island displays and end displays, as well as POPs advertising seasonality, tend to have a strong influence on purchase.
- For Type B respondents, who mainly consumed seasonal fruit, in-store shopping route revolved around the seasonal displays described above, and these were the major drivers to purchase.

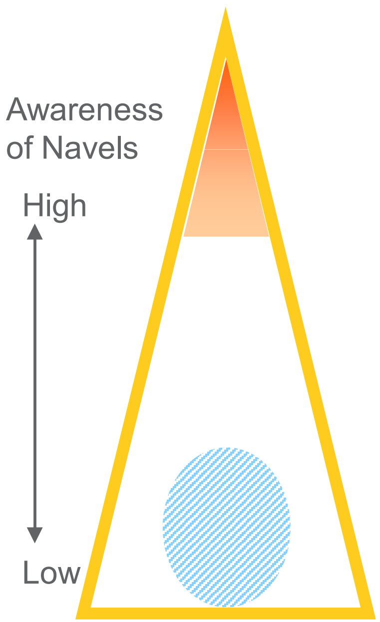
Attracts Attentio →	Comparison and Scrutiny →	Confirmation →	Purchase Decision
•Large, prominent displays of seasonal fruit. •POPs advertising seasonality. ※Note that for fruits not in season, including stock-standard fruit, POPs, campaigns and taste testing promotions are effective at capturing attention (e.g., for kiwi fruit).	•POPs giving information about the features of different varieties of fruit, the taste of the fruit, and the origin of the fruit.	•Price	

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Purchase of Oranges

5. Correlation Between User Type and Purchase Process

- **As noted earlier, in this study there were very few respondents who consciously differentiated Valencia oranges and Navel oranges when purchasing oranges. Only a small minority of respondents gave priority to Navel oranges (Navel Loyal Users).**



Navel Orange Loyal Users

•Perceived unique benefits in Navel oranges, and actively preferred to purchase Navel oranges if they were available in-store.

Orange Users (Majority)

•Made only hazy differentiation between Valencias and Navels.
•Tended to purchase Valencias more frequently than Navels, but basically did not differentiate between orange varieties at time of purchase.

Navel Orange Non-users

•Had no stock-standard supply of fruit; sought variation.

Type A
Keep oranges as part of stock-standard supply of fruit at home, and go to store intending to purchase oranges.

Type B
Give priority to seasonal fruit. If they happen to notice oranges in-store they might purchase them to bolster their supply of seasonal fruit.

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Purchase of Oranges

6. Purchase Process among Non-Mainstream Orange Users (1)

- **Navel Orange Loyal Users**

  = Minority of respondents who actively preferred Navel oranges, and gave priority to Navels when purchasing oranges.

  – Purchase process was basically the same as that of orange users in general. However, the following differences emerged:

  ・ **Attention tools: Respondents relied on “Navel” signage and the distinct shape (navel) of Navels to help them locate Navel oranges in-store.**

    – In general, in-store orange sections were associated with being fairly dull and having no POP-style information. As such, respondents typically relied on product color and shape as guides.

    – The Australian Navel oranges shown to respondents in the course of this study looked different from respondents’ image of Navels, in fact evoked impressions of Valencias. Some respondents specifically commented that if they saw the oranges in-store they would not realize that they were Navels.

  ・ **Confirmation: Price = Navel loyal users were prepared to pay a slightly higher price for Navels than for Valencias if required.**

  ※Although not sufficiently important to influence purchase Navel loyal users showed a preference for Navel oranges with distinctive “Navel-like” properties, such as a large navel.

nielsen

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Purchase of Oranges

6. Purchase Process among Non-Mainstream Orange Users (2)

- **Navel Orange Non-Users**

  = Segment of Type B users; mainly purchase seasonal fruits.

  Among these respondents the main barrier to purchase of Navels was lack of in-store presence as seasonal fruit.

  - These respondents made purchase decisions in-store based on what fruit was "in season." For Navels, display location and style that were not suggestive of seasonality, and lack of POPs, were the main barriers to purchase.
  - Respondents were not negative to Navel oranges and made minimal differentiation between Navels and Valencias. Basically, they were not conscious of Navels, and it is possible that they were buying Navels without realizing.
  - Some respondents acknowledged that if they knew more about the flavor of Navels (sweet and juicy, rich) and about how easy to eat they were (easy to peel by hand, no seeds / pips, inner skin is edible) they would be more likely to specifically look for Navels in-store.
  - For a few respondents the fact that their regular supermarket did not stock Navels was a barrier to purchase.

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Purchase of Oranges

- Purchase of Oranges (Valencias and Navels) (Extracts from Verbatim Comments / Navel Orange Users)

	Attention Tools / Purchase Motivators	Comparison / Scrutiny	Factors Motivating Selection of Oranges / Confirming Purchase
Navel Orange Users	• *I don't think about seasonality with oranges. For other fruits, if they're in season then I buy them.* • *I buy oranges when I remember that we have run out of them at home.* • *I didn't think it was the season for them so I didn't look for them. When Navels are out on display, that's when I buy them.* • *In supermarkets they display the in-season fruits at the front. I don't go to the back of the store just to pick up one or two pieces of fruit. When I see stacks of oranges, that's when I think they must be in season.*	• *Stores stock two varieties of oranges at the most. I just choose from the ones that are there.* • *I buy oranges without thinking about whether they are Navels or what variety they are. / I just take the ones off the stack on display. I don't know if they are Valencias or Navels. I don't look at what type they are.* • *Just knowing that they are Navels makes me think of tastiness, more so than hearing the name Valencia. I prefer to buy Navels. (Navel Loyal User)* • *You can't smell their fragrance in-store. It's only after I have bought them and tasted them at home that I know they are Navels. (No signage or 'flags' to Navels in-store).*	• *I don't really worry too much about choosing oranges. They're not hit and miss like some other fruits.* • *At the orange section it just says "oranges." Nothing about types of oranges. Whereas with apples they give you the name of each variety, and where it comes from.* • *I look at the products and check the price. I don't really pay attention to labeling of what variety they are.* • *It's more the claim of "sweet" and the POPs and price that attract me. Rather than the name.* • *Oranges usually cost around one hundred yen. When I see them for eighty yen I think "my lucky day" and buy a larger amount.* • *The sweeter the better, but it is difficult to judge sweetness in-store. There is no information given about sugar levels or anything. Based on appearance I assume the darker-colored ones to be sweeter and tastier.* • *With oranges I choose the ones that are lustrous and round, with vibrant color, and that are heavy.* • *If I had a choice between American and Australian oranges I would pick Australian. In my experience Australian oranges are more consistently good than American oranges. (1 respondent)* • *You take it for granted that fruits are grown with pesticides nowadays. It's not something I worry about.*

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Purchase of Oranges

- Purchase of Oranges (Valencias and Navels) (Extracts from Verbatim Comments / Navel Non-users)

	Attention Tools / Purchase Motivators	Comparison / Scrutiny	Factors Motivating Selection of Oranges / Confirming Purchase
Navel Non-Users	• *I buy fruit based on seasonality and mood. Purchase is random. I don't have a set list.* • *I have never gone to the store intending to buy oranges. I go to the store and if I happen to catch sight of good-looking oranges then I might buy them. It might be the price that catches my attention, or the fact that there are a lot of oranges all lined up.* • *I don't really have a need for oranges. If I happen to notice them I might pick some up, but often I don't notice them.* • *I might buy two grapefruit and one orange. I like to buy different fruits at one time, and compare them when I eat them. One load's worth of fruit usually lasts two or three days, so overall I get to choose lots of different fruits.* • *When nashi pears are in season it starts to get boring if you eat them every day. That's when I buy a few oranges. / Oranges are like a stopgap, the fruit you buy between one seasonal fruit and the next.*	• *I have usually decided on citrus fruit before going shopping, but for the most part I decide what I am going to buy once I am in the store and have seen what is on offer.* • *I just think of them as selling oranges. I don't buy oranges because they are Valencias or Navels. There tend to be more Valencias, so I end up buying Valencias.* • *My supermarket doesn't stock Navels.* • *There aren't that many varieties of orange.*	• *I have never really thought too much about choosing oranges. Because there's no hit and miss with oranges.* • *I buy oranges for about 100 yen per orange. I wouldn't buy oranges that cost 150 yen.* • *If the store offers tastings then you can compare products.* • *I feel more confident buying products that are clearly branded or that show place of origin, such as Sunkist. (I tend to choose the oranges with stickers on them).* • *I have never worried about place of origin.* • *I buy oranges by the bag, so I can't tell whether or not they have a navel.* • *I am easily attracted by the word "seasonal." I like it when products are marked as "seasonal" in store displays.* • *If certain products are promoted as being "rich" or "juicy" then I can make comparisons. Otherwise I just go on price.* • *I choose based on their shape and color and whether they have a clean and nice-looking stem. / I feel the oranges, and look at them all over. / I look at whether or not they have bruising or marks, because that leads to spoilage. I look for oranges that look nice.*

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Purchase of Oranges

7. Sources of Information

- **For fruit users in-store information has a strong influence on purchase.**
  - Domestic fruit, in particular, is typically displayed with detailed information about place of origin, sugar content (sweetness level), and the features of different varieties in each category. This type of information captures attention and fuels interest in the products.
- **In contrast, for oranges, the product range is typically fairly limited and in-store information is confined to the name of the variety and place of origin (without detailed information about these). This is not conducive to an environment of “learning about and choosing,” and as a result of this it is surmised that users are not “tuned in” to looking for information when they are in the orange section.**

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Acceptance of South Australian Oranges

Awareness and Imagery of South Australian Oranges

- **Australia had weak imagery as a producer of fruit, and respondents did not readily associate Australia with fruit. Only a few respondents recalled "Australia" as a source of Valencia and/or Navel oranges, and of these only one respondent could remember having purchased Australian oranges.**
- **The idea of "Australian origin" evoked imagery of "expansive country," "vast natural environment," "the southern Hemisphere, and warm," and "sun." All of these had positive implications for Australia as a source of oranges.**
  - In particular, the fact that the origin was South Australia evoked even stronger imagery of warm earth, which cued expectations of sweet and delicious oranges.
  - The one respondent who recalled having purchased Australian oranges perceived that Australian oranges were more consistently good (rich and delicious) than oranges from other countries. As a result this respondent now actively sought out Australian oranges when shopping.
  - Although Australia had weak imagery of fruit it was very well-known for food products, led by beef (Aussie Beef). Some respondents also had imagery of Australia as a country that had very strict quality controls for its food products, and this enhanced Australia's image as a food producer.

- **No respondents were aware of the Vitor brand. One respondent accurately recalled the Vitor sticker.**

  Users supported the idea of stickers on fruit ("*better than no stickers*") since even if they were unaware of the brand the fact that the fruit had stickers on made users feel reassured that place of origin was identified.
  - No Jusco users accurately recalled Vitor, although a few vaguely remembered the "blue stickers." However, it is possible that respondents were confused with the Sunkist stickers.

nielsen

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Acceptance of South Australian Oranges

"Riverland"

- **No respondents were aware of the Riverland region of South Australia. Word association with "River" and "Land" fostered imagery of a location with bountiful nature, however there was no linkage with specific imagery or benefits for oranges.**
- **Explanation of the Riverland as an area of fertile soil and bountiful water that was warm in summer transformed impressions of the Riverland. Respondents formed tangible imagery of oranges grown in an optimal environment, and had high expectations of the quality of the oranges.**
  - The key issue was knowing (or having the impression) that the land was optimal for growing oranges. In particular, issues such as "warm climate" and "plenty of sunshine" were considered important for ensuring that oranges were sweet.
    - In addition, fueling imagery of the backdrop to the Riverland as blue sky, large tracts of land, and verdant land enhanced product imagery.

"The health benefits of oranges"

- **Respondents were very conscious of the Vitamin C content of citrus fruits, and consumed citrus fruit with the Vitamin C content in mind. However, respondents were not aware of the specific health benefits of oranges such as that they "contain twice the daily recommended amount of Vitamin C," "have anti-oxidant effect that is good for beauty," and "help prevent cancer and heart disease."**

  Respondents indicated that if they were made aware of the superior health benefits of oranges over other fruits they would be more interested in purchasing oranges.
  - Some respondents believed that sour citrus fruits such as lemons and grapefruit contained more Vitamin C than oranges. Revelation of the specific health benefits of oranges represented a "new discovery" for respondents, and fueled interest. Respondents' reactions suggest that stronger promotion of the fact that oranges contain more Vitamin C than other fruits has potential to enhance interest in oranges, and lead to increased purchase.

nielsen

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Acceptance of South Australian Oranges

- Imagery of South Australian oranges / Riverland oranges (Extracts from Verbatim comments)

		Imagery of Australian Oranges (Unaided)	Imagery of the Riverland Region
Navel Orange Users	A ・ Youngest child in elementary school or younger	▪ *Oranges grown in the midst of nature in lots of sunlight, so nice and sweet.* ▪ *When I think of Australia I think of meat. I didn't realize they grew fruit there as well.* ▪ *Quarantine is very strict in Australia. You can be sure that food made in Australia is properly made.* ▪ *South Australia: oranges from warm regions are the most delicious.*	*<Aided>* ▪*The idea of "soil that is optimal for oranges" is appealing.* ▪*Water is the lifeblood of food. Foods from places like Nagano, where the water is clean and pure, taste delicious.*
	B ・ Youngest child in elementary school or younger	▪ *I find it easier to associate oranges with New Zealand than with Australia.* ▪ *I don't remember seeing "Australian" labels on any fruits.* ▪ *Australia has a reputation for strict quality control, which is reassuring.* ▪ *Country that is rich in nature.* ▪ *I instinctively think of places like Florida and California as sources of fruit. I associate Australia more with beef.*	*<Unaided>* ▪*The name has a good ring to it. It makes me think of growing things in the sun in a vast, spacious land that has a natural environment similar to Japan .* *<Aided>* ▪*It sounds like the perfect place for growing oranges.* ▪*The land where fruit is grown is a very important issue. Australia has imagery of vast expanses of pristine nature.*
	C ・ No children ・ Youngest child in junior high school or older	▪ *I thought oranges came from America. I didn't know that there are also oranges from Australia.* ▪ *Faced with a choice of American and Australian oranges I would choose the Australian ones. In my experience Australian oranges are more consistently good than American oranges.* ▪ *Imagery of lots of sun / blazing sun.* ▪ *Australia has opposite seasons from Japan, and it would be good to take advantage of delicious fruit in (Japanese) summer.* ▪ *"South Australian" sounds more delicious than "Australian." Specifying "South" makes you think it must be famous.*	*<Unaided>* ▪*I don't understand what "Riverland"(English transliteration) means. What is it?* ▪*It depends on whether or not the Riverland is truly recognized as an orange area within Australia.* *<Aided>* ▪*Almost anywhere can lay claim to "clean, pure water." I would prefer it if they gave more description of the taste of the oranges.*
Navel Orange Non-Users	D ・ Youngest child in elementary school or younger ・ No children ・ Youngest child in junior high school or older	▪ *I could get it more easily if the oranges were from New Zealand. "From Australia" just doesn't seem quite right.* ▪ *I am not particularly concerned about place of origin for oranges.* ▪ *Australian oranges sound rich and sweet. For foods that have names written in katakana script, such as "oranges" and "Navel oranges," imported products always seem more delicious than domestic produce. I don't have any resistance to imported produce, as long as it is not from South-East Asia.* ▪ *"South" makes me think of a warm climate and sweet flavor.*	*<Unaided>* ▪*Just hearing the word "Riverland" made me think of oranges grown in large areas of land with the blessing of the sun.*

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Acceptance of South Australian Oranges

- Evaluation of the Health Benefits of Oranges (Extracts from Verbatim Comments)

		Health Benefits of Oranges
Navel Orange Users	A • Youngest child in elementary school or younger	▪ *The parts about powerful anti-oxidant effect and "twice the amount" captured my interest. After all, it is cold and flu season at present.* ▪ *Until now I have never eaten oranges with a full appreciation of their benefits.* ▪ *I already knew all about the Vitamin C in oranges. There is no need to keep explaining it.* ▪ *If I had access to information about Navel oranges being superior to Valencia oranges then I would probably be persuaded to buy Navels.*
	B • Youngest child in elementary school or younger	▪ *I didn't know the health information about oranges. (Majority)* ▪ *I have always known that citrus fruits contain Vitamin C.* ▪ *"Twice the Vitamin C." That means oranges are good for people of all ages.* ▪ *If oranges can contribute to preventing cancer then I might buy them more.*
	C • No children • Youngest child in junior high school or older	▪ *I knew that oranges had anti-oxidant effect. I have heard that to get maximal effect you have to eat the fruit first, before anything else, on an empty stomach.* ▪ *The nutritional information is good. "Half an orange gives a day's daily allowance" is easy to understand.* ▪ *I prefer the emphasis to be on tastiness. There are other things that are good for health and beauty. Optimally, they should talk about both the taste and the health benefits.*
Navel Orange Non-users	D • Youngest child in elementary school or younger • No children • Youngest child in junior high school or older	▪ *The part about anti-oxidant effect captured my attention.* ▪ *This made me realize how amazing oranges are. I now look at oranges in a completely new light.* ▪ *They're more amazing than lemons.* ▪ *From now on I will also look at oranges as preventive food, for diseases such as cancer.*

nielsen

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Appendix

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Shown Oranges

Navel orange

Valencia orange

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Sentences Read Out

- Renowned for Vitamin C content, one Australian orange has almost twice the recommended daily Vitamin C intake. However, other great nutritional properties of Australian oranges are often forgotten about. Generally, citrus fruits have the highest antioxidant activity of all fruits, helping to boost the immune system and protect against cancer and heart disease.

- The Riverland in South Australia (SA) has the combination of warm summers, cool winters, excellent soil and water quality results in the production of superb citrus renowned for its intense colour and excellent eating attributes.

nielsen Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Discussion Guide -1

Time	Theme	Question	What to know / Key information
5/5	1.Introduction	• Moderator introduction: Role, taping, monitor, confidentiality • Self-introduction: Name, Family composition (including child(ren)'s age), Hobbies	• Background of lifestyle
20/25	2. Positioning of Citrus/Oranges within Fruit	• Usage and Attitude towards Fruit – Fruit that they often purchase, occasion of eating the fruit, reasons and purpose of eating the fruit : Why do they purchase and eat the fruit? →Who in their family influences their decision of the type of fruit to buy (e.g. Their kids love the fruit) – Do they purchase fruit regularly or for special occasions? • Occasion of Eating Oranges (Occasion, Reasons, Objectives) 【For Group D: Occasion of eating Citrus】 – Perceptions and eating habits of oranges. Differences in perceptions and eating habits between oranges and other citrus and the reasons. – Any differences in perceptions and eating habits between the varieties of oranges. The reasons why. : Are they, and to what extent, aware of the differences between the varieties of oranges? →Identify the level of awareness and perception towards oranges	➢ Usage and attitude towards fruit overall ➢ Positioning of orange within fruit ・Attractive points and benefits ・How to eat ➢ The level of understanding/perceptions of oranges
30/55	3. Perception and Usage of Navel Oranges	• Perceptions and Benefits of Navel Oranges – What do they know about navel oranges? Any perceptions that they have towards navel oranges? – To what extent are they aware? Do they recognize differences between navel oranges and other oranges? : Any differences compared to domestic mikan? : Any differences compared to valencia orange? – Are there any benefits and/or attractive attributes that are unique to navel oranges? Which attributes are they? – In contrast, are there any negative perceptions towards navel oranges? – Are there any perceptions regarding country of origin or brands (eg. Sunkist, Dole)? →Identify the level of perception or images of navel oranges without probing. • Show Navel Oranges – What do they think? Does it match with the images that they have? – Ask again any attributes that are unique to navel oranges (benefits, attractive attributes, negative points) → [For Group D] Ask reasons why they do not purchase navel oranges – Show other oranges (eg. valencia oranges) and ask them any differences of attributes or images between navel oranges and other oranges • 【For Group A-C】 Usage of Navel Oranges – How often do they eat navel oranges? In what occasion do they eat navel oranges? : Reasons why they eat more or less navel oranges than any other fruit (Why do they eat often or sometimes?) – Identify specific occasion of eating : How to eat (how to cut, how to serve, amount of eating), With whom – Reasons of eating navel oranges and expectations towards navel oranges (Probe on attributes in detail, such as taste, refreshment, dessert after meal, nutrition, for thirsty, for hungry) ※Make sure that these attributes are unique to navel oranges or not and the level of uniqueness. – Are there any other fruit in the same position as navel oranges? What do they eat when navel oranges are unavailable in stores?	➢ The level of understanding/perceptions of Navel oranges ➢ Unique Benefits or attractive attributes of Navel oranges compared to other oranges, citrus and fruit ➢ How to eat Navel oranges ➢ Barriers of purchasing Navel oranges for Non-shoppers

nielsen

Copyright © 2010 T

Discussion Guide-2

40/95	4. Purchase Behavior of Oranges and Navel Oranges	• Purchase Behavior of Oranges in Store 【Group D: Purchase Behavior of Citrus】 – Is there any difference of purchasing oranges and any other citrus? How much do they recognize the difference? – Basic information regarding purchasing oranges : Where/which channel do they mainly purchase oranges from? : How many times in a month do they purchase oranges? : Out of total fruit purchased, what percentage is for oranges? (Do they purchase oranges regularly or for special occasion?) : Do they purchase only oranges or do they purchase not only oranges but also other fruit? Are there any combinations/rules of fruit to buy? : Does shopping pattern of purchasing oranges differ depending on the season? :Timing of purchasing oranges (Do they purchase oranges every time they go to the store, when oranges at the home have run out, when oranges are advertised in a leaflet, when oranges are at a special price in store or else?) – Purchase decision process ① Decide which orange to buy before entering the store. ② Decide to purchase orange/citrus before entering store but decide which orange to buy in store. ③ Decide to purchase both category of fruit (orange/citrus) and what orange to buy in store. →When they purchase oranges, which fruit, orange or other fruit, do they look at and consider for purchasing? – Attributes to affect selecting oranges (First let them talk freely and then probe below) : Quality / Product (Taste/ freshness/ safety/ easy to peel etc.)⇒How do they check the attributes in store?(eg. Sweet taste ⇒Dark orange color) ※Probe on attributes that are mentioned in Section 3. : In-store information/package/price (range of price)・numbers of oranges in one package/country of origin or brands/promotion etc. : Influence of seasonality : What is the key driver to purchase oranges? • 【For Group A-C】 Probe on Navel Oranges – Are there any purchase decision process or attributes that are unique to navel oranges? How much do they recognize the difference? : Do they purchase navel oranges all year around or only when in season? (When do they think the seasonality of navel oranges is?)	➢ Basic information regarding purchasing oranges ➢ Detailed purchase behavior of oranges • Purchase decision process • Purchase triggers • Purchase barriers ➢ Purchase behavior unique to Navel oranges
		– Attributes to affect selecting navel oranges (First let them talk freely and then probe below) : What kinds of navel oranges do they like? ⇔Are there any types of navel oranges that they are not willing to purchase? : What attribute do they prioritize? What do they check in store? (Sniff, touch, color, price, POP, other in-store materials, package/mark, country of origin or brands, promotion, size (small, medium, large) etc.) →For size, probe on reasons why and any associations with quality. →Which country of origin comes to their mind? (Do they mention Australian navel oranges without probing?) →How much are they conscious of purchasing navel oranges? (Do they just purchase oranges and do not care about which variety? Or are they conscious / aware of purchasing navel oranges?) • 【For Group D】 Probe on reasons why they do not purchase navel oranges – Explore purchase barriers of navel oranges by asking purchase behavior of citrus in addition to perceptions towards navel oranges in Section 3. • Information source of fruit – How do they come to know information regarding fruit, such as seasonality, newness, health benefits etc? In-store, TV program, magazines or TVCM?	

Copy

Discussion Guide-3

25/120	5. Benefits of SA Navel Oranges	• Perception and Impression of Australian Navel Oranges – Do they know that there are navel oranges from Australia or South Australia? – What images do they associate with Australian or South Australian oranges/ navel oranges? : Any functional and/or emotional benefits? – Have they ever purchased Australian navel oranges before or are they aware of purchasing Australian navel oranges? ⇔ Comparison with other regions – Do they know origin of "Riverland"? • Show the Mark (Vitor) – Perception towards the mark : For Jusco shoppers, ask them to remember in-store behavior and feelings at Jusco as much as possible. • Acceptance of Navel oranges from Australia ※ Moderator will explain features or benefits of Australia navel oranges.	➢ Perception of country of origin ➢ Strength and weakness of Australian oranges ➢ Any clues to prompt purchase of SA navel oranges
		– What do they think of SA navel oranges? What is their impression? Is there anything that is attractive to them? – What would trigger purchase intention? : Price, promotion (media/ in-store), brand, nutrition, safety, etc. : Or other value add opportunities- e.g. packs ready peeled, packs ready sliced – What kinds of in-store materials/ communications such as POP or promotion, prompt a feeling of purchase not only for oranges but for fruit overall as well?	
–		• Thanks to them and addition questions if any	

nielsen

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Thank you

nielsen

Confidential & Proprietary • Copyright © 2010 The Nielsen Company

ネーブルオレンジU&A調査

日本における南オーストラリア産ネーブルオレン
ジの
さらなる普及に向けて

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

目次

nielsen

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

調査背景と調査設計

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Research Objectives

- For the export chain (Japan), the South Australian Citrus Industry Development Board (SACIDB)'s aim is to gain a solid understanding of the Japanese consumer's purchase behaviors with and perceptions of navel oranges.

- Specific objectives are to understand:

    - Consumer's awareness and perceptions of navel oranges

    - The factors that influence shoppers' purchase decision of navel oranges

    - Identify the importance, relative and absolute, of different product attributes of navel oranges

    - Explore the marketing mix for South Australian navel oranges

nielsen Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Research Design

- **Methodology:** Focus group interviews (2 hours)

- **Number of groups/sample size:** 4 groups with 6 respondents per group
- **Research Area:** Tokyo (Nielsen's round table discussion room)
- **Group Composition:**
  - Group 1: Navel orange purchasers/consumers
  - Group 2: Navel orange purchasers/consumers
  - Group 3: Navel orange purchasers/consumers
  - Group 4: Navel orange non-purchasers/consumers

- **Respondent Criteria:**
  - Married females aged 30-49
  - Group 1&2 respondents: Those who have any preschool or primary school aged child
  - Group 3 respondents: Those who do not have any preschool or primary school aged children
  - Group 4 respondents: Half of respondents with no children (or adult children), half of respondents with preschool or primary school children
  - Group 1,2 &3 respondents: Those who buy oranges at least twice a month on average plus who bought nave orange at least once this year
  - Group 4 respondents: Those who buy citrus fruit (including oranges and grapefruit) at least twice a month on average plus who haven't have been purchasing navel oranges for at least one year.
  - Brand decision maker, purchaser and consumer of fruit
  - Both consumers and non-consumers to be non-rejecters of navel oranges
  - Those who buy oranges at Jusco store (at least two respondents per group)
  - Screen out those who do not eat citrus fruit at all
  - At least 1/3 of all respondents to be working females
  - Those who pass Nielsen's Sensitivity Check (to confirm they can articulate their responses)

nielsen

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Key Insights

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Key Insights

- **果物の中でも、旬の果物は、おいしく、栄養価が高く、安く、店頭でも目立つので、優先的に食べられている。オレンジ類は1年中手に入ると思われ、店頭でも目立たない旬のない果物という認識。**
- **オレンジ類≒バレンシアオレンジとのイメージが強く、バレンシアオレンジとネーブルオレンジの違いに対する認識は極めてあいまいである。**
  - ネーブルオレンジの「ジューシーで濃厚な甘さ」は、オレンジユーザー達の嗜好に合致しているにもかかわらず、バレンシアと混同されている
  - 少数存在したネーブルオレンジを優先的に買うネーブルオレンジロイヤルユーザーは、手軽さ（外皮がうすく手でむける、種無し、中の薄皮ごと食べられるなど）もネーブル独自のベネフィットとして評価しているが、大多数のオレンジユーザーにとっては認知が低く、優位性には結びついていない
- **ネーブルオレンジを買うときは、漠然と「オレンジ」として買っており、種類を確認したり、選んだりしていない。**
- **果物の消費するタイプによって購買プロセスが異なり、2つのタイプに分けられた。**
  - **<u>タイプA：オレンジ類を家庭に常備する層</u>**
    - なくなったら補充するため、オレンジ類が店頭で目立たない場合も、探して購入する。
    - その場合の選択肢は限られており、価格や品質のネガティブチェック程度を経て、「そこにあるものを買う」状態。
    - タイプAに含まれるロイヤルユーザーは、「ネーブル」の表記と見た目を頼りにネーブルを見つけ、優先購入。

  - **<u>タイプB：バリエーションを重視し、季節の果物を優先して購入する層</u>**
    - 旬の大量陳列、POPなど目に付いたものを優先的に購入。動線上にないオレンジ類の棚に、わざわざ足を運ぶことは少ない。欲しい旬の果物がなく、オレンジ類が動線にあって目に付いたときのみ購入。

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Implications and Recommendations

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Implications and Recommendations

１）店頭におけるネーブルオレンジの存在感向上、商品選択のための基本情報提供の徹底

1． 広くフルーツユーザーに向け、「旬」の果物として、夏の店頭でアピール

- **オーストラリア産ネーブルが店頭に並ぶタイミングを逃さず、「旬」を切り口とした店頭コミュニケーションを実施することで、店頭での存在感を上げる**
  - 通年手に入るイメージのあるバレンシアオレンジと異なり、店頭に並ぶ時期が限られるネーブルオレンジは、「旬」を切り口としたコミュニケーションと相性がよい素材といえる。
  - POP等のツールのみならず、“季節もの”としての棚割り（エンド陳列、山積み等）や価格設定をはじめとした販売方法を、小売店との連携の元、徹底させることが望ましい。
    - 当調査を通し、日本の果物ユーザーにとって、果物の季節性が、非常に重視されていることが確認された。さらに、旬らしい配置や陳列、価格等が、来店客にとっての旬の目印となっていたことも特筆すべき点である。
    - オーストラリア産オレンジに関しては、旬の時期に収穫されたものということが全く伝わっていない。生産国に対する理解を高めることも、当課題の１つのポイントといえる。
- **その他、可能な範囲で下記の店頭施策を実施する**
  - 「甘さ」「濃厚さ」を伝達：POPでの表記や糖度などの尺度でわかりやすく伝える。
  - 機能ベネフィットの伝達：「半分で一日に必要なビタミンCが摂れる」「抗酸化作用で美容に良い」「ガン予防」など
    - 酸味の強いレモンやグレープフルーツよりビタミンCが豊富であることはあまり知られておらず、上記の説明は購入意向を喚起していた

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Implications and Recommendations

2. **オレンジユーザーにむけ、バレンシアオレンジとネーブルオレンジの違いを認知させ、ネーブルオレンジのベネフィットを訴求**

- **味や食べやすさ（手でむく、薄皮ごと食べる）といった、ネーブルオレンジ独自のベネフィットを紹介。**
  - POPやリーフレットなどのツール設置と併せて、店頭試食などを行い、実際にベネフィットを経験してもらうことが、最も効果的と考えられる。
  - 店頭に輪切りサンプルを置くだけも有意義と考えられる。
    - ネーブルオレンジの独自ベネフィット（味、手軽さ・食べやすさ）のインプットがあれば購入意向がアップすることが確認された。
    - これらのベネフィットは、小さな子どものいる家庭で実感されやすいものが多い。試食は、子どもをひきつけるドライバーとしての有効性も確認されており、検討が望まれる。

3．**ネーブルロイヤルユーザーが、ネーブルオレンジに気づかず購買できないチャンスロスを改善**

- **小売店側との連携を高め、バレンシアオレンジとの区別が明確につくような店頭表示を徹底。**
  - 「オレンジ」といった一般名称での陳列は避け、「ネーブルオレンジ」と必ず表記する。さらに例えば、ネーブルオレンジの識別方法である「ヘソ」をPOP等で紹介するなどのアピールが必要といえる。
    - 店頭情報の少なさ、ネーブルオレンジの存在感の低さから、ネーブルオレンジを優先的に購入したいと考えているロイヤルユーザーでさえ、お目当ての商品に気づいていない可能性がある。
    - 特に、日本人が一般的に考えるネーブルオレンジの外見と、南オーストラリア産ネーブルオレンジの外見にギャップがある場合、さらなるチャンスロス拡大を防ぐためにも、確実に視認される形でのアピールが必要。

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Implications and Recommendations

２）南オーストラリア産ネーブルオレンジのブランディング

- **「日差しに恵まれた」「自然豊かな」「南」オーストラリアのイメージと、そこで育ったネーブルオレンジのクオリティイメージを結びつけることで、味への期待、情緒的価値を付加する。**
  - 現状のコミュニケーション不在のオレンジコーナーを逆手に取り、「ネーブルオレンジと言えば南オーストラリア」との刷り込みを他の生産国に先駆けて行うことで、差別化と優位性の確立を狙う。
  - 夏に旬を迎えることは、南オーストラリア産ネーブルオレンジの最大の特徴。他の生産国のネーブルオレンジが店頭にないこの時期は、 産地を印象付けるには有効なタイミングといえる。
    - 現状のオレンジ（≒バレンシアオレンジ）といえば、「サンキスト」ブランドがマインドシェアで寡占状態にある。
    - 「Vitor」ステッカーは認知されていなかったものの、ステッカーが貼られていることで身元が分かる安心を評価する人もおり、今後も継続していくことが望ましい。
    - 食品に強いイメージがあるオーストラリアであるが、フルーツのイメージは低いことを考慮すると、他のオーストラリアンフードとの合同プロモーション等も検討に値する。

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

Recommendations

3）日本のユーザーニーズに合わせた商品スペック

- **商品クオリティやサイズ、袋詰めの容量等に目立った不満は上がっておらず、現状を今後も踏襲していくべきと考える。** ※現状御社の標準が下記と異なる場合は日本市場向けの改良が望ましい。
  - 以下に、満たすべき要点を記す。
    - 価格：100円/個以内、300円台後半/袋（5個程度）
    - 味：濃厚で甘い、ジューシー
    - 外見：濃いオレンジ色、うすくてやわらかく手でむける外皮
    - サイズ：袋入り→小さめのサイズ、ばら売り→大きめのサイズ
      - 但し、下記留意が必要である
        - 呈示したオーストラリア産ネーブルオレンジはイメージするネーブルオレンジより大きく、ネーブルオレンジと一目でわかりにくいとされた（特にネーブルロイヤルユーザー）
        - バラ売りを買っている人は買い物の全体量の重さを気にする傾向にあるため、大きいことが1度に購入する数の制限や購買阻害要因になる可能性もある

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

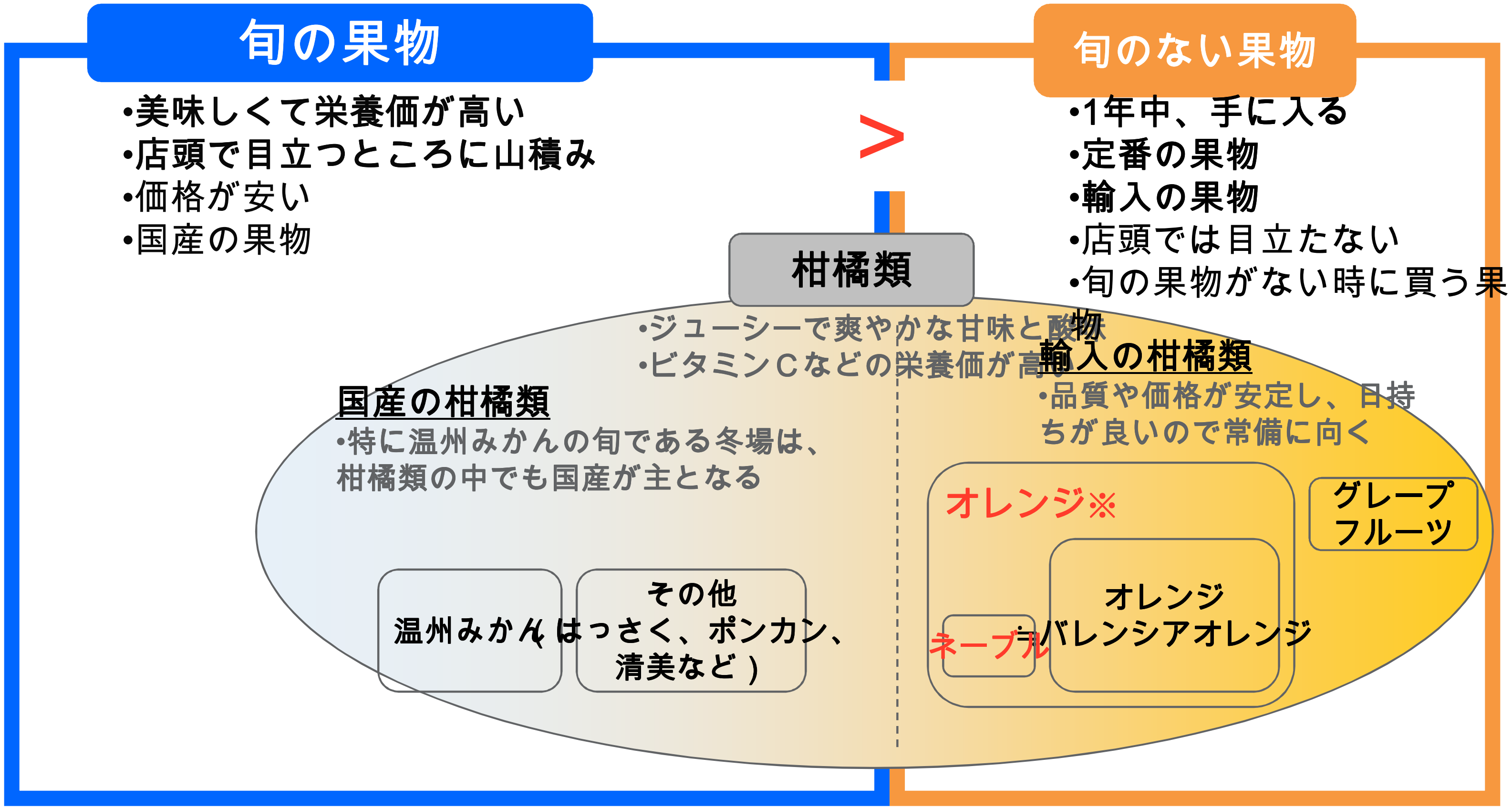
結果詳細

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

ネーブルオレンジの認識

1. 果物全体の認識と柑橘類の位置づけ

果物には、まず旬の果物と旬のない果物があるという認識がある。



※以降、オレンジ類としてレポートでは表記

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

ネーブルオレンジの認識

2. オレンジ類の認識-バレンシアオレンジとネーブルオレンジの違い（1）

- 「オレンジ」というとバレンシアオレンジを想起し、オレンジ類≒バレンシアオレンジのイメージが強い。ネーブルは「ネーブル」と呼んでいる。
- ネーブルオレンジとバレンシアオレンジは違う種類のオレンジであることは理解しているが、味・見た目・その他特徴などにおいて両者の違いはほとんど認識されておらず、混同している。
  - オレンジ類の大きな魅力として「甘くてジューシー」である点が挙げられたが、ネーブルオレンジとバレンシアオレンジのどちらがより甘いのか、より濃厚な味かは混乱している
  - 表面がでこぼこしているのが、ネーブルオレンジなのかバレンシアなのかがほとんど区別がつかない
- 両者の違いとして比較的認知されていたのは、「ヘソがあるのがネーブルオレンジ」という特徴のみである

- オレンジ類全体のイメージとして挙げられた点は以下である
  - 甘くてジューシー
  - 味に外れがない
    ※温州みかんは味に当たり外れがあるとされた
  - 甘味なので、子ども受けが良い/家族の皆が食べる
  - 保存がきく
  - 色が鮮やかで、見栄えが良い
    - フルーツかごに置いておくのに良い、お客さんが来たときに出すのに良い
  ⇒常備しておくのに向く果物
  - 子供や夫が自分でむいて食べられるバナナや温州みかんに比べて、切る/（薄皮まで）むくとい

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

ネーブルオレンジの認識

2. オレンジ類の認識-バレンシアオレンジとネーブルオレンジの違い（2）

- 一部の、ネーブルオレンジの特徴に詳しく、ロイヤリティを感じている層（ネーブルオレンジ・ロイヤルユーザー）は、ネーブルオレンジ独自のベネフィットを評価し、バレンシアオレンジよりも好んでいる
  - ➢ おいしい
    - バレンシアオレンジよりも甘い、味が濃厚
  - ➢ 手軽で便利
    - 外皮が薄い
    - 中のうす皮も薄い・食べられる
    - 種がない
    - – これらの利点は、特に小さな子どものいる主婦から、子どもに食べさせやすいと高く評価されていた
  - 入手時期が限られている、より希少
  - バレンシアオレンジより高級
- 又、ネーブルオレンジ・ロイヤルユーザーは、見た目からもネーブルとバレンシアを見分けられる
  - – ネーブルオレンジの形のイメージ：縦長、色が濃い、表面がつるっとしている
  - <u>⇒オーストラリア産ネーブルオレンジを呈示した際、想起するネーブルオレンジより大きく、表面がぼこぼこしているので一目でネーブルオレンジとは認識されなかった</u>
- 一方、ネーブルオレンジの方が手が汚れやすく、やわらかいので切りづらい点がネガティブに受け止められ、忙しい朝やお弁当には適さないなど、利用シーンの広がりを妨げていた
  - ※オレンジ類の利用実態については後述
- ネーブルオレンジ・ロイヤルユーザーには自身が子どもの頃からネーブルオレンジに親しんでいた

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

ネーブルオレンジの認識

- ネーブルオレンジとバレンシアオレンジの認識比較（誤認情報も含む）

○＝該当発言あり

	バレンシアオレンジ	ネーブルオレンジ	ネーブル・ロイヤルユーザー（ネーブルを意識し優先購入）	オレンジユーザー（違いを意識せず購入）	ノンユーザー
見た目	・丸みがある ・色が濃い ・表面がつるっとしている ・外皮が薄い ・小ぶり　・ワックスがきつい	・ヘソがある　・縦長　・色が濃い ・表面がつるっとしている　・小ぶり	○	○	○
		・黄味がかった感じ			○
		・厚くてぼこぼこしている、外皮が硬い		○	○
味・中身	・甘い	・甘い、バレンシアオレンジよりも濃厚	○	○	
		・甘さはどちらもかわらない		○	○
		・ネーブルは酸味が強い			○
		・ネーブル独特の匂いがある	○		
使い勝手	・外皮が硬い→手ではむけない •六つ切り・八つ切りで食べる ・うす皮が食べづらい ・ジュースにもできる ・お弁当につかえる	・外皮が柔らかい→手でむいても食べられる ・ジュースにはしない ・中がやわらかい→お弁当に不向き / 切りづらい	○	○	○
		・中皮が薄い　・種がない　→子どもにも食べやすい	○		
その他	・オールシーズン ・産地はカルフォルニア、オーストラリア ・どこでも買える ・袋売り・ばら売り	・旬がある（旬がいつかは非認知）※ごく少数 ・産地はカルフォルニア、オーストラリア ・売る場所が限られている（成城石井など） ・ばら売りが多い	○	○	○
	・サンキストのイメージ ・シールが貼られている	・ブランドが思いつかない　・シールがない	○	○	○

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

果物の食用実態

1.　果物の消費のし方

- **どのように果物を消費するかについて、下記の2つのタイプがあった。**

  □タイプA： 定番フルーツ（バナナ、リンゴ、オレンジ類等）を常備しながら、旬のものも食べる人

  - ネーブルオレンジユーザーグループ（A~C）には前者が多く、ノンユーザーグループ（D）には後者が多い傾向。
  - 定番フルーツは、家族皆が食べることや保存の長さなども意識して選ぶ傾向が強く、バナナ、リンゴ、オレンジやグレープフルーツなどの柑橘類が年間通じてよく利用されている。

  □タイプB：定番は特になく、旬のものを中心に様々なフルーツをホッピングする人

  - いつでも手に入るオレンジ類は季節のフルーツのつなぎとして購入されている

- **これらの果物の消費の仕方は、店頭での購買行動と相関がある（P23参照）**
- **旬の果物は、味、栄養価や経済面で優れているという認識があるため、優先的に食べられている。**

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

果物の食用実態

2.　果物全般の利用実態

- **家族皆が果物が好きで、ほぼ毎日果物を食べている家庭が多い。**
- **朝食やおやつ、夕食後のデザートなど、各家庭なりの利用シーンが決まっており、利用シーンと目的、また家族の好みなどで利用するフルーツを選んでいた。**
  - 全体に、フルーツの効能や栄養価についての関心も高い。中でも、朝食時にフルーツを出す人は、こうした果物の効能や栄養価を強く意識しており、また習慣性も高かった。
  - 包丁で剥く、切るなどの手間のかかるフルーツは夕食後など比較的余裕のある時に利用されていた。
  - 小学生以下の子どものいる家庭を中心に、子どもにはお菓子よりもヘルシーなフルーツを積極的に与えたいとの気持ちがうかがえ、より子どもの好みを意識した商品選びが伺えた。
    - 具体的には、小さな子どもには甘味の強いものが好まれ、成長するに従い、グレープフルーツのような苦味のあるものも受け入れるようになるなどの変化が見られた。
    - 小さな子どものおやつには、バナナや温州みかんなどの、子どもが自分でむいて食べられるものが好まれる。
    - お弁当にはカットしたフルーツを入れるケースが多い。

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

柑橘類の食用実態

1.　柑橘類の食用実態

- **さわやかさやジューシーさといった味が好まれ、朝食から夕食後のデザートまで様々なシーンで食べられている。**
  - 柑橘類は、味のほか、ビタミンCが豊富な点が、他の果物に比べた魅力。
    - ビタミンCを意識し、主婦本人の美容や、子どもの風邪予防効果が意識されていた。
    - 他の定番フルーツであるりんご、バナナと比べてカットしてもすぐに傷まない使い勝手のよさや、お腹にたまらないため食後にも食べやすい点なども評価されていた。
- **冬場は、温州みかんの季節であることから、温州みかんの消費が増え、輸入柑橘類の消費が減る傾向みられる。**
  - 温州みかんは、手でむいて食べられる手軽さから、家族が自由に食べられるように盛られていることが多い

2.　オレンジ類の食用実態

- **甘さが、子どもにも受けが良いことから、家庭の定番フルーツとして人気が高い。**
- **六つ切り・八つ切りや輪切りなどにカットして出されることが多い。**
  - 家族が面倒くさがって自分からは食べないので、カットして食べやすい形にして提供する。
- **中には、家族に提供する際に、中のうす皮から実を取り出して皿に盛る手間をかけている人もおり、面倒に感じられていた。**
  - 主婦歴の短い人やオレンジ購入頻度の低い人からは「どう切れば食べやすいのかよく分からない」との声も聞かれた。
- **少数ではあるが、ジュースにする人、料理に使う人もいる**

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

果物の食用実態

- 利用シーンごとのフルーツの使い分け

食用シーン		オレンジ類の利用
朝食	**フルーツの効能を意識。時間に余裕がないので、手をかけずにサーブできることが重要。** •特にバナナはヨーグルトと一緒に食べるという者が複数みられ、体のために良い食材として受け入れられている。 •オレンジ類は、ビタミンCが手軽に取れる、口の中がさっぱりするなどの利点があげられていた。 •忙しい朝は、オレンジ類はカットしてり、手でむくのが面倒なので、食卓に出さないという人もいた	◎
おやつ	**子どもでも自分で手軽に食べられるものが人気。冬場は温州みかんがよく好まれている。** •子どもが自分でむけてそのまま食べることのできるという理由から、温州みかんやバナナが好まれていた。温州みかんは、家族がいつでも自由に食べられるようにしている家庭も多い。 •子どものおやつ用に、カットしたり、身を取り出したオレンジを皿に盛ったものを冷蔵庫に入れている家庭などもある。	△
夕食後のデザート	**カットされたフルーツが多く登場。** •夕食後は、リンゴや柑橘類などをカットしたものがよく食べられている •オレンジ類は、家族がそのままでは食べないので、むいて実を取り出して出すことをしている人は、手間がかかる点を面倒に感じている。 •リンゴや梨はカットしたあとあまり時間をおけないが、オレンジはカットした後もすぐには悪くなりにくい点が便利だと感じている。 •柑橘類は、リンゴや梨よりもお腹にたまらない点が、食後のデザートに適していると評価されている。	◎
お弁当	**子どもの好きなフルーツや、彩り、傷みにくさなどを考慮したものを選んで利用。** •リンゴやバナナ、温州みかんやオレンジ類などの柑橘系が使われることが多い。 •オレンジ類は、色どりが鮮やかで食欲をそそること、子どもも好む味ということで子どものお弁当によく使われている。ただ、カットして入れているため水分が出るのを嫌う者もみられ、別にタッパーに入れているなどの工夫もみられた。	○

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

オレンジ類の購買実態

1. 買い方

- バレンシアオレンジとネーブルオレンジの違いを認識せず、漠然と「オレンジ」として購入している。オレンジ類を買う時に、選んだり、商品を吟味することはほとんどない。ネーブルオレンジなのか、バレンシアオレンジなのかの確認もしていない。
- 理由は以下である。
  - ➢オレンジ類に対する認識
    - ◘ネーブルオレンジとバレンシアオレンジの味や食べやすさといったベネフィットの違いが曖昧なので、どちらかの種類を選ぼうという意識がない
    - ◘オレンジ類は、品質が安定したイメージを持たれているので、選ばなくても外れないと思っている
  - ➢外的要因（店舗要因）
    - ◘店頭でのオレンジ類の品揃えが少なく比較環境にない（オレンジ類は1種類しかないという意識が強い　※実際の店舗には2種類以上ある可能性がある）
    - ◘産地、品種の情報など、オレンジ類の店頭情報がほとんどない、店頭が地味である
      - 国産の果物の多くが、詳細な産地や糖度、固さなどの商品情報をPOPなどで店頭で呈示しているのに対し、オレンジ類は、種類名や生産国名の記載のみに留まるなど、情報不足を指摘する声が頻出した。
    - ◘スーパーマーケットによって、ネーブルオレンジもバレンシアオレンジも「オレンジ」としか表記していない

- 上記のように、漠然と「オレンジ」としてネーブルオレンジを購入しているため、ネーブルオレンジの買い方はオレンジ類の買い方と同じである。

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

オレンジ類の購買実態

2.　オレンジ類の購買プロセスと購買選択基準

- オレンジ類の購買プロセスは、前述の果物の消費の仕方によって分かれた。（P18参照）
  - タイプA：旬の果物も食べるが、定番果物のオレンジ類を家庭に常備する層
    - オレンジ類を事前に購入することをほぼ決めて来店し、オレンジ類の売場まで足を運ぶ。
  - タイプB：バリエーションを重視し、季節の果物を食べる層
    - 旬の大量陳列、POPなどが購買促進要因となる。オレンジ類の売場にわざわざ足を運ぶことは少ない。店頭で目に付けば、旬の果物のつなぎ的にオレンジ類

	アイキャッチ	比較検討項目	確認事項	
タイプA	（オレンジ類売場まで足を運ぶ） • オレンジの色	•なし ➢バレンシアオレンジなのかネーブルオレンジなのかも確認せず ➢検討する人でも、グレープフルーツかオレンジ類かのカテゴリー検討のみ。	•価格 • 袋詰め：５個程度で300円台後半 • ばら売り：80～100円前後。100円を切ると安く、150円は高すぎる。 •品質のネガティブチェック • 鮮度 • ツヤや傷の有無の確認 • ハリがあり、へたの色がよい（一部）	購入決定
タイプB	• 動線上にあるオレンジ色 • 山積み陳列			

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

オレンジ類の購買実態

3.　オレンジ類の購入選択基準　(1)

- **オレンジ類はほとんど比較して選んでいないものの、比較する場合にのみ、下記が購買促進要因となる。**
  - **味：おいしいこと＝甘い、濃厚な味**
    - 外皮の色が濃く、重いもの
    - POPで「甘い」「ジューシー」と　いてあるもの
  - **品質：安全で安心できる**
    - シールが付いているもの（シールの表記は確認しない）
    - サンキストなどのメーカーの表記
    - 産地の表記

      ※オーストラリア産を優先的に買っている人は全グループで1名。他はほとんど産地を気にせず購入。

- **数量：バラ売りを買うか、袋入りは対象者により別れた**
  - **バラ売りを買う理由**
    - 重い
      - 他のフルーツも合わせて購入する場合や　　など重い商品も同時に買う場合。　　に　んでいて、スーパーマーケットには自　　や　　で行くことが多いため、買い物1　当たりの重さは重視される
    - 他に、傷のないものを選びたい、袋入りで買うと家で食べるのに　きる
  - **袋入りを買う理由**
    - オレンジ類は定番の果物であり、又、常備に向いているので、家においておくと安心
    - バラ売りより1個当たりの値　が安い

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

オレンジ類の購買実態

3. オレンジ類の購入選択基準 (2)

- **購買選択の基準になる可能性のある要素**
  - ➢ **下記は、現在、オレンジ売場にはないが、果物を購入する際に　を受けるものとして挙がったものである**
  - – **旬のディスプレイ(山積み、エンド陳列)、旬とかかれたPOP**
    - ➢ 旬のものは、おいしくて栄養価があると認識されている
    - ➢ **<u>オーストラリアで「旬」であるネーブルオレンジが季節限定で店頭に陳列されていることを知れば、購入意向が喚起されるとのこと(すべてのユーザーグループで挙がっていた)</u>**
  - – **店内プロモーション**
    - 試食
      - – 試食をやっているとつい食べて買ってしまう/子供が食べるので買うことがある
    - パネル、動
  - – **味**
    - おいしさを伝えるPOP(例:「甘い」)
    - 糖度表記

      ※糖度表記を他の果物では参考にするが、オレンジ類は付いていないとのこと
  - – **栄養価**
    - 栄養価がわかるPOP
  - – **産地や種類の詳細な情報**

※上記の他に、「　な食べ方の説明」も購買の促進要因になる可能性がある

➢ オレンジを切ったり、皮をむくのが手間と思われている、又、主婦になりたての人はどうやって切っていいかわからないと思っている

nielsen

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

オレンジ類の購買実態

3. オレンジ類の購入選択基準 (2)-2

- オレンジに限らず、果物を購入する際、店頭で欲しい情報、 を受けたプロモーションなど（発言 ）

		店頭で欲しい情報	その他
ネーブルオレンジユーザー	A ・ 子小学生以下	▪リンゴだと、店頭に があって、 れ時期、 ごたえなども いてある。オレンジも種類の紹介があるとうれしい。 ▪糖度 / メーカーや産地 / 無 や安心感を与えられる 言 ▪キュ イの試食 は 手で、試食をすると買ってしまう。 ▪旬は大事。夏でも、オーストラリアの旬で、今がおいしいと買いやすい。	▪C が想 できる。 い と い で、オレンジをキュッと っているのを思い かべる。いっぱい を びて甘そう。 ▪テレビでの紹介はすごい。 情報番 で改めて紹介されると買う。
	B ・ 子小学生以下	▪店頭で棚があってポップがあると む / 店頭にパネル、動 。 ▪商品情報の小さい を店頭に置く / 袋に入っているといい。 ▪実っている の 。収穫の様子、作っている人のは目を く。 ▪今しか手に入らないという時期があれば買うかもしれない。 ▪ネーブルのシールがあればすぐわかって安心できる。 ▪試食は子どもが食べて買ってしまうこともある。	•オレンジ（サンキスト）、バナナはC があるがネーブルにはない。 •ゴールドキュ イのキャンペーンは店頭でマスコットがいて子どもの関心も高い。シールやおまけなど子どもの欲しがるものも する。 •テレビの情報番 やラジオのC 、料理本。
	C ・子どもなし ・ 子中学生以上	▪味の説明 / 「甘い」「濃い」といわれると質がよさそう / 「濃厚」 ▪果物はたくさん日に びた方がおいしいイメージ。 ▪POPに「南半 のオレンジは今が旬」と かれていれば、買う人が増える。 ▪糖度が気になる。（ジャスコは いてある） ▪ の数値など安全性。多少高くても（1.5 程度）買う	•C やキャンペーンをやっていると力をいれている印象がある。 •ネットのバナー広 は 味があればクリックする。 • のキャスター（例 みのもんた）が 伝したら売れる。
ネーブルオレンジノンユーザー	D ・ 子小学生以下 ・子どもなし ・ 子中学生以上	▪オーストラリアは日本と季節が逆。産地イメージでき、旬と分かるようにする。 ▪旬という言 に かれる。旬が分からないと、すごく期間を置いて店頭に出しているのかという不安感がある。 ▪ を 々と びたというキャッチフレーズ / オレンジの が見たい。 能人を使ったプロモーションより全然いい。 ▪日差しは重要。オレンジでジュースを作りたくなる。そうすると オレンジを目的で買いにいくこともあるかもしれない。	▪上手なむき方や食べ方。ナイフがなくても食べられる。温州みかんと同じように、いつでも食べれるようにできる。 ▪ 能人を使ったキャンペーンは買う気にならない。 ▪テレビの情報番 （例 はなまるマーケット）の特 で取り上げられていると買いたくなる。 ▪試食（キ ィ）は味がわかって買うきっかけになる。

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

オレンジ類の購買実態

3.　オレンジ類の購入選択基準　(3)

下記は、購買促進要因にはなっていない。

- サイズ
  - オレンジ類は味の当たり外れがないという認識が大きいため、サイズによる味の違いはほとんど意識されていない
  - 主にカットして食べるため、サイズの大小は関　ない
    - 一部、甘皮まで手でむいて食べている人は、むきやすい サイズを　持した
  - 但し、袋詰めの場合は小ぶりサイズでたくさん入ったものが好まれ、ばら売りの場合は大きいサイズが好まれる傾向は見られた

- 予めカットされたもの
  - 割高感があり、鮮度や味の　化が気になるため、購入意向はなし。
  - コンビニエンスストアで1人　らしの人が買うもので、結　して子どものいる自分たち向けとの印象は持たれていなかった。

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

オレンジ類の購買実態

. 旬の果物の購入プロセス

- 日本のスーパーマーケットの果物コーナーは、「旬の果物」を中心に 成されている。 陳列やエンド陳列での山積みや旬を ったPOPが購入意欲を喚起する決め手になっている。
- 旬の果物を主に消費するタイプBのユーザーは、このような果物の買い方が主 である

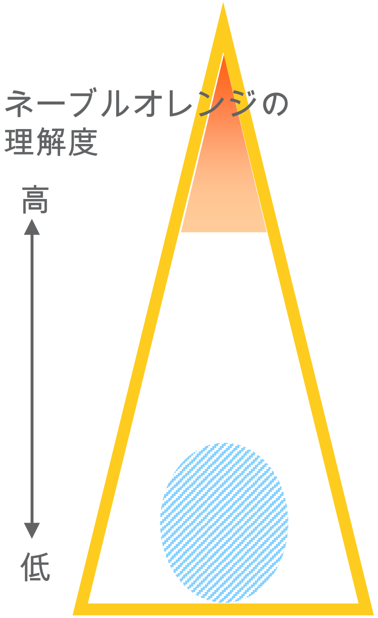
アイキャッチ	比較検討項目	確認事項	購入決定
•旬の大量陳列 •旬を知らせるPOP ※旬以外でも、POPやキャンペーン、試食などがあれば目が向く（キ イなど）	•種類ごとの特徴、味や産地に関するPOP	•価格	

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

オレンジ類の購買実態

5.ユーザーのタイプと購入プロセスのタイプの相関関

- 前述のように、バレンシアオレンジとネーブルオレンジの違いを意識しないで購入している人（オレンジユーザー）がほとんどである



ネーブルオレンジ・ロイヤルユーザー

•ネーブルオレンジ独自の魅力を理解し、店頭にネーブルオレンジが並んでいると、ネーブルオレンジを優先購入。

オレンジユーザー（　リュー　層）

•バレンシアオレンジとネーブルオレンジの違いが曖昧。
購入頻度はバレンシアオレンジの方が高いが、購入に際して2者を区別しない。

ネーブルオレンジ・ノンユーザー

•定番を持たず、果物にバリエーションを求める層

タイプA
オレンジ類を定番として家に常備しており、事前に購入することを決めて来店。

タイプB
旬の果物を優先。店頭で目に付くものがあれば、旬のつなぎ的にオレンジ類にも手が出る。

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

オレンジ類の購買実態

. 主なオレンジユーザー以外の購買プロセス (1)

- **ネーブルオレンジ・ロイヤルユーザー**

  ：ネーブルオレンジにロイヤリティを感じ、優先的に購入している少数 。

  – 購入プロセスはオレンジユーザーと大きな違いはない。ただし、下記の違いが見られた。

  ・アイキャッチ：「ネーブル」の表記と見た目を頼りにネーブルを見つける。

  – POP等情報が少なく地味な印象のあるオレンジ類の棚では、商品そのものの色形などが目印にされる。

  – 当調査で呈示したオーストラリア産ネーブルオレンジは、イメージするネーブルオレンジと外見のギャップがあり、バレンシアオレンジに い印象を持った。「これが店頭に並んでいたら、ネーブルとは気づかない」との発言が挙がっていた。

  ・確認項目：価格(バレンシアオレンジより、多少高くても購入)

  ※購買促進要因にはならないものの、ヘソが大きいことなど、より「ネーブルらしい」見た目を好む傾向。

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

オレンジ類の購買実態

.　主なオレンジユーザー以外の購買プロセス　(2)

- **ネーブルオレンジ・ノンユーザー**

  : 旬の果物を主に購入する層なので、購買プロセスはタイプBである。

  ネーブルオレンジ購買阻害要因は、旬の果物としての店頭での存在感の低さである。

  – 旬の果物を店頭で決定して購入しているため、ネーブルオレンジの旬が感じられない店頭陳列やしいPOPが最も大きな購買阻害要因である

  – ネーブルオレンジに対するネガティブはない。バレンシアオレンジとネーブルオレンジの違いへの理解が低く、ネーブルオレンジを意識することが少ないため、知らず知らずのうちに、ネーブルオレンジも購入している可能性がある。

  – ネーブルオレンジの味の違い（甘くて濃厚）や、手軽に食べられる利点（手でむける / 種なし / 薄皮ごと食べられる）が分かると利用頻度が上がる意向を示した人もいた。

  – ネーブルオレンジ自体が行きつけのスーパーに売っていないことが購買阻害要因となっている人もいた

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

オレンジ類の購買実態

- オレンジ類（バレンシアオレンジ、ネーブルオレンジ）の購入実態（発言　/ ネーブルオレンジユーザー）

	アイキャッチ / 購入のきっかけ	比較	オレンジ類の選択基準 / 確認
ネーブルオレンジユーザー	•オレンジに関しては旬は気にしていない。ほかの食材は旬だと買う •家に無かったかなと思った時に買う。 •季節によってないと思っていたので探していない。ネーブルが前面に出ていたら買う。 •スーパーで旬は手前に置いている。店の　に行って1個、2個は買わない。山積みが、旬のオレンジだと思う。	•店には多くても2種類程度しかない。オレンジ類の中で選ぶ。 •ネーブル、オレンジの区別を意識せずに買っている / バレンシアなのか、ネーブルなのか、山積みされているのを種類を見ないで買う。 •　りは店頭ではわからないので買って食べてみてネーブルとわかる（店頭での目印にはならない） •バレンシアオレンジと比べるとネーブルと聞いただけでおいしく感じる。ネーブルの方を買いたい。（ネーブルロイヤルユーザー）	•商品を見て値　をチェックするのであまり（種類の）表示を見ていない。 •オレンジは当たり外れがないので余計気にしない。 •オレンジとしか　いていない。産地も　いていない。種類もない。リンゴは種類も産地も　いてある •名前より、甘いという言　や、POP、値　に　かれて買う。 •いつもは100円ぐらい。80円　だとおっと思って多めに買う。 •甘いに　したことはないが、　できない。糖度とか　いていない。見た目で　い方がおいしそう / 糖度を気にする。ジャスコは糖度が　いてある。 •オレンジはつややかで丸く、色が鮮やかで重いものを優先して選ぶ（1名）。 •アメリカ産とオーストリア産があったらオーストリア産のほうが当たりが多かったので選ぶ。 •　は当たり前、気にしない。

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

オレンジ類の購買実態

- オレンジ類（バレンシアオレンジ、ネーブルオレンジ）の購買実態（発言　　/ ネーブルオレンジノンユーザー）

	アイキャッチ / 購入のきっかけ	比較	オレンジ類の選択基準 / 確認
ネーブルオレンジノンユーザー	•季節や気分で買うので、毎日決まったことはなく買っている。 •オレンジにしようと思って行って買うことはない。行って、そのときに良さそうなのが目についたら買っている。値　や、個別でいっぱい並んでいるとか。 •オレンジに必要性がない。目に付くと手に取るが、大々的にやっていないと、目に付かないで、素通りする。 •グレープフルーツを2個買ったら、オレンジを1個とか、1　でいろいろ買って食べ比べたりする。袋も2、3日で食べきるので、果物はいろいろな物をチョイスしている。 •梨が旬の時毎日だといやだと思うときにオレンジを買う / つなぎ。旬のものと旬のものの間。	•柑橘類ぐらいは決めているが、店に行ってみてから　を選ぶか決める。 •ネーブルだからバレンシアだからというのではなく、オレンジというひとくくりで売っている。バレンシアオレンジが多いのでバレンシアを買う。 •スーパーにネーブル自体ない。 •オレンジ自体、種類がそんなにない。	•オレンジは外れないから、気にして買うことはない。 •100円前後で購入。150円だと買わない。 •試食があると比べられる。 •サンキストなどメーカーや産地がはっきりしていると　　して買える。（シールのあるほうを選ぶ） •産地は全然気にしたことがない。 •ヘソ有無は袋で買うので、見ない。 •旬ということばに　かれる。店頭で旬と　いてあるといい。 •濃厚、ジューシーと　いてあれば比べて選ぶが、なければ値　で選ぶ。 •形、色、ヘタがきれいなもの /　ってみる。一通り　や下をみる / 傷からいたむので傷の有無。見た目のいいもの。

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

オレンジ類の購買実態

. 情報

- フルーツ購入者にとっては、店頭で　られる情報が、購入のけん　　として　　が大きい。
  - 国産フルーツを中心に、詳細な産地情報や糖度、種類ごとの特徴などきめ細かな紹介が店頭を　り、これらの情報が、商品に　味を持たせるきっかけになっている様子が伺える。
- 一方、オレンジ類については、品揃えが限られ、また店頭で　られる情報も、種別と生産国名程度と、選べる環境が　っていないため、オレンジ類売場では情報を探そうというアンテナが立っていないことが　　される

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

南オーストラリア産オレンジに対する受容性

オーストラリア産オレンジの認知

- **オーストラリアはフルーツ産地としての印象が　く、ピンとこない様子。ネーブルオレンジもしくはバレンシアオレンジについて、「オーストラリア産」を想起したのは、全体で数名に留まり、そのうち購入経験を記　していたのは１名のみ。**
- **「オーストラリア産オレンジ」から連想するものとしては、「広大な大地」「大自然」「南半　でかい」「　　」などが挙がり、いずれもオレンジの産地としてポジティブなイメージが大半であった。**
  - 特に「南」オーストラリアは、オーストラリアの中でもさらに温　な　地がイメージされ、甘くておいしいオレンジが育ちそうな期待が持たれていた。
  - 購入経験を記　していた１名は、他国のものに比べてオーストラリア産オレンジは「当たりが多い（濃厚でおいしい）」と感じ、積極的に手に取るようにしてた。
  - フルーツのイメージは　いものの、オーストラリアは、ビーフをはじめ食品に強いとの認識はある。また、食品の品質　理に　しい国であることを認知している人もおり、全体に好意的評価であった。

- **「　　」ブランドの認知は皆無。ステッカーをきちんと記　していたのは1名のみ。**

  ブランドを知らなくても、ブランドのステッカーが貼られていることは、身元が分かる安心感につながり、ないよりあった方が好ましいという印象。
  - ジャスコユーザーで明確に「　　」を　えていた人はおらず、なんとなく「　いステッカーが貼られていた」という記　がある人が数名。（ただし、同じブルーを使用した「サンキスト」との誤認の可能性もある）

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

南オーストラリア産オレンジに対する受容性

“リバーランド

- **「リバーランド」地方への認知は皆無。「　」「　地」という　からの連想で、自然に恵まれた場所であろうことが想　されたものの、具体的なベネフィットには結びつきづらかった。**
- **夏が　かく、　な　と水に恵まれた「リバーランド」の　地　のインプットにより、印象は一　。そこで収穫されるオレンジの品質への期待が高まる傾向にあった。**
  - いかにオレンジの生育に適した　地であるかという点が重視されていた。中でも、「温　」で「　分な日差し」を　びることが、甘いオレンジの　として意識されている。
    - 上記に加え、　い　と大地、　豊かといった自然豊かな風景イメージの想　を　らませることで、商品イメージが　き上げられることが分かった。

“オレンジの　ベネフィット

- **普　から、柑橘類はビタミンCを意識して利用されている。ただし、オレンジについて、「1日の摂取量の　2　のビタミンC」や「抗酸化作用よるガン予防･心　予防」などの具体的な効能を知っている人はいない。**

  他の果物に比べたオレンジの具体的な　面での優位性が分かれば、購入意向も高まるとされた。
  - 甘いオレンジより、レモンやグレープフルーツなど酸味の強い物の方がビタミンCが豊富であると考える人もおり、オレンジの具体的な　効能は、　情報として関心を　めた。オレンジ/ネーブルオレンジが、他の果物よりビタミンCが豊富と分かれば、魅力はより高まり、購買にも結びつく可能性が高い。

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

南オーストラリア産オレンジに対する受容性

- 南オーストラリア産 / リバーランド産オレンジのイメージ (発言　　)

		オーストラリア産オレンジのイメージ (非　成)	リバーランド地方のイメージ
ネーブルオレンジユーザー	A ・　子小学生以下	▪自然の中で　 を　びて育って、甘い。 ▪オーストラリアというと、　のイメージ。果物はあるのか。 ▪検　がすごくて、オーストラリアで作っているとち　んとしているイメージがある。 ▪南オーストラリア：　かい所の方がおいしそう。	成後> ▪「オレンジに適した　　」が魅力。 ▪食べ物は水が　。長　　など、水が　な所はおいしい。
	B ・　子小学生以下	▪ニュージーランドの方がイメージがある。 ▪フルーツでオーストラリアという表示を見た記がない。 ▪オーストラリアは食品の品質　理に　しいイメージで安心。 ▪自然豊か。 ▪フロリ　とかカリフォルニアの方がフルーツの産地のイメージ 。オーストラリアはビーフのイメージ	非　成> ▪　きはいい。広大な　地で日本と　たような自然環境で、　　を　びているイメージがある。 ▪　　成後> ▪オレンジの　　に最適。 ▪　は大切。オーストラリアは大自然のイメージ。
	C ・子どもなし ・　子中学生以上	▪オレンジはアメリカだと思っていた。オーストラリアがあることも知らなかった。 ▪アメリカ産とオーストラリア産があったら、オーストラリア産を買う。今まで食べて当たりが多かった。 ▪　　がサンサンのイメージ ▪季節が逆なので、夏においしいものが来ると使い分けできる。 ▪「オーストラリア」より「南オーストラリア」がおいしそう。南と限定されると、有名なのかと思う。	非　成> ▪「リバーランド」は　なのかそもそも分からない。 ▪オーストラリアのオレンジといったらリバーランドだよ　と国内で認められているかどうかで印象が違う 　成後> ▪「水がきれい」はどこでも言いそう。味の方を説明してほしい。
	D ・　子小学生以下	▪ニュージーランドなら　　。オーストラリア産はピンとこない。 ▪オレンジの産地にそんなにこだわらない。	非　成> ▪リバーランドと聞いただけで、　　の恵み多く、大地で育ったイメージがする

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

南オーストラリア産オレンジに対する受容性

- オレンジの　　ベネフィットへの評価（発言　　）

		オレンジの　　ベネフィット
ネーブルオレンジユーザー	A ・　子小学生以下	▪抗酸化作用が強いのと、2　、に　味を持った。風邪の時期なので。 ▪これまでありがたみを持ってオレンジを食べていなかった。 ▪ビタミンCはあらためて言われなくても知っていた。 ▪バレンシアオレンジよりネーブルオレンジが優れているという情報があると、ネーブルオレンジを買う
	B ・　子小学生以下	▪　面の情報は知らなかった（多数） ▪柑橘系イコールビタミンCのイメージが元々あった。 ▪ビタミンC2　は、　広い年　が対象になる。 ▪がん予防できるなら、買おうかなと思う。
	C ・子どもなし ・　子中学生以上	▪抗酸化作用があるのは知っていた。一番効果的なのが　腹時に一番最　にフルーツを食べることと聞いた。 ▪栄養表示。「半分で1日分摂れます」と言われたら、分かりやすい。 ▪おいしい方がいい。美容ならほかにもある。両方　いていたら一番ベスト。
ネーブルオレンジノンユーザー	D ・　子小学生以下 ・子どもなし ・　子中学生以上	▪抗酸化作用に　かれた。 ▪オレンジすごいという感じ。オレンジの見方が全然変わる。 ▪レモンよりすごい。 ▪ガンなどの予防食としても見れるようになる。

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

添付資料

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

呈示物

ネーブルオレンジ

バレンシアオレンジ

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

み上げた

●リバーランド産オレンジのベネフィット

オーストラリアのリバーランド地方は、夏は　かく、冬は　しく、　　　が　　　で、水の品質も高いため、オレンジの　　　には最適な場所です。そのため、リバーランド産のオレンジは色が濃く、食味も良いです

●オーストラリア産オレンジのベネフィット

オレンジ1個に、１日に摂ることが　められている2　の量のビタミンCが含まれています。またあまり知られていませんが、フルーツの中で最も抗酸化作用が高いので、　　　力を高めたり、　や心　　　を防いだりする効果があります。

nielsen
Copyright © 2010 The Nielsen Company. Confidential and proprietary.

ディスカッションガイド-1

Time	Theme	Question - detail	What to know / Key information
5/5	1.Ice-breaking ● 主旨説明 ● 自己紹介など	● 主旨説明 ● 自己紹介：氏名、家族構成（子の年齢など含む）、趣味	● 生活背景の確認
20/25	2．果物全体における柑橘類およびオレンジの位置づけ	● **<u>フルーツの利用実態</u>** －よく買うフルーツとその利用シーン・理由・目的など ：なぜそのフルーツなのか →決定要因として大きいのは家族の誰の影響か（子供が好き etc.） －フルーツを買うのは日常か、それともスペシャルなのか ● **<u>オレンジの利用シーン（シーン、理由、目的）【D：柑橘類の利用シーン】</u>** －柑橘類の中でも、オレンジとそれ以外で、利用の仕方やイメージの違い、使い分けなどはあるか、その理由 －オレンジの中で、種類による違い、使い分けはあるか、その理由 :オレンジの種類による違いで知っていること →非助成で、オレンジに対する認知レベルを知る	➤全般的なフルーツの利用状況の把握 ➤その中でのオレンジの位置づけ ・魅力やベネフィット等 ・利用のされ方 ➤オレンジに対する理解度
30/55	3．ネーブルオレンジの利用実態と意識	● **<u>ネーブルオレンジ認知、魅力</u>** －知っていること、イメージ等自由に －ネーブルオレンジとその他のオレンジの違いはどの程度認識されているか ：日本のみかんとの違いは？ ：バレンシアオレンジとの違いは？ －ネーブルオレンジならではの価値、魅力はあるか、どういう点が良いか －逆に、ネーブルオレンジに関するマイナス点はあるか →非助成で、ネーブルオレンジに対するイメージや認知レベルを知る －ネーブルオレンジの産地・ブランドの認知とそのイメージ（e.g.サンキスト、ドール）（非助成） ● **<u>ネーブルオレンジ実物の提示</u>** －イメージしていたものだったか等自由に －再度、ネーブルオレンジならではの価値、魅力、マイナス点について →【D】具体的な非購入理由 －バレンシアオレンジなど違う種類のオレンジも呈示し、イメージの違いを再度聴取 ● **<u>【A～C中心】ネーブルオレンジの利用状況</u>** －ネーブルオレンジの利用頻度やオケージョン ：他のフルーツと比べた頻度の多少の背景 （頻繁に食べる／頻度が少ない、のはなぜか） －利用シーンを具体的に ：食べ方（きり方、盛り付け、食べる量）、食べる人 －その理由と、ネーブルオレンジに期待すること （味：具体的に／リフレッシュ／食後のデザート／ビタミンC等栄養価／止渇／小腹満たし等） ※ネーブルオレンジならではのベネフィットなのか否か、またその程度を確認 －同じような位置づけの果物はあるか、 ネーブルオレンジが店頭にない時には何で代替しているのか	➤ネーブルオレンジに対する認知と理解 ➤他のフルーツ、他の柑橘類、他のオレンジと比べたネーブルオレンジの魅力やベネフィット ➤利用状況 ➤非購買層における阻害要因

nielsen

Copyright © 2010 The Nielsen Company. Confidential and proprietary.

ディスカッションガイド-2

40/95	4.オレンジ及びネーブルオレンジの購買実態	• **（フルーツ全般の購入利用状況を把握した上で）その中でもオレンジの店頭での購入状況【D：柑橘類の購入状況】** －購買シーンにおけるオレンジと他の柑橘類との違い、意識に差はあるか －購入の基礎情報 ：主に買うお店 ：月何回オレンジを買うか ：果物を買ううちのオレンジを買う割合（オレンジを買うのは、日常？スペシャル？） ：1種類か複数か、買う組み合わせ等 ：季節によって変わるか ：買うタイミングは？（買い物に行く度に買う？オレンジがなくなったら買う？チラシで安いときに買う？店頭で特売に気づいたときに買う？等） －購入プロセス ① 最初から、ある特定の種類のオレンジを買おうと思って入店 ② オレンジを買う又は柑橘類を買うことは入店前に決まっているが、どの種類かは店内で決定 ③ オレンジ/柑橘類を買うこともどの種類を買うかも店内で決定 →オレンジを買う際、他に見るものが柑橘類なのか、他の果物なのか －銘柄選択基準（非助成→徐々に下記項目について助成） ：品質面で重視すること（味／新鮮さ／安全性/剥きやすさ等） ⇒購入する際 どこでそれを判断するか（e.g. 甘い味⇒皮の色が濃い） ※純粋想起で出たアトリビュートについてもプローブ ：店頭情報／パッケージ／ばら売・袋詰め／価格（上限・下限）・入り数と値段の兼ね合い／産地・ブランド／キャンペーン等 ：季節による影響 ：買う決め手は何か？ • **【A～C中心】ネーブルオレンジについてプローブ** －購入の際、他のオレンジとの違い、意識に差はあるか ：買うのは通年か、旬の時期か（旬はいつだと思っているか） －主な購入チャネル、選び方（非助成→徐々に下記項目について助成） ：どんなネーブルオレンジが良いのか、好きか ⇔避けるタイプのオレンジ、ネーブルオレンジはあるか ：選ぶときの行動、重視し確認すること、参考にする情報 （においをかぐ、触る、色つや、価格、ＰＯＰ等店頭情報、パッケージやシール、産地・ブランド、キャンペーン、サイズ（S, M,L) etc) →そのサイズを選ぶ理由、品質との関連 →産地として思い浮かぶのは？（オーストラリアは非助成で想起されるか） →どの程度までネーブルオレンジを意識して買っているのか（オレンジしか意識していないのか、ネーブルオレンジまで意識して買っているのか） • **【D】ネーブルオレンジの非購入理由についてプローブ** －セクション3で出た非購入理由に加えて、季節性や店頭での選び方等を再聴取しながら、阻害要因を探る • **果物についての情報源** －どの果物が旬である、新しい、良いといった情報はどこで得るか？店頭/TVの情報番組/雑誌/TVCM？	➢オレンジに関する購入実態の基礎情報 ➢オレンジに関する店頭での購買行動の詳細 ・ 購入プロセス ・ 購買促進要因 ・ 購買阻害要因 ➢ネーブルオレンジ特有の購買行動の有無 ➢果物の情報源を簡単に確認
25/120	5. 南オーストラリア産ネーブルオレンジの価値	• **オーストラリア産ネーブルオレンジの認知と印象** －そもそもネーブルオレンジに「オーストラリア産/南オーストラリア産」があるのを知っていたか －「オーストラリア産、南オーストラリア産オレンジ」「同ネーブルオレンジ」と聞いて、どんなことを連想するか ：ベネフィット、情緒的イメージ等自由に －購入経験、オーストラリアを意識してオレンジを選ぶことはあるか ⇔他の産地との比較 －「リバーランド」の銘柄を知っているか • **ステッカー等の提示**(Vitor) －認知 ：特にジャスコユーザーについては、店頭での印象、その時何を買ったのかなど、ジャスコ店頭での自身の行動や気持ち記憶を思い返してもらう • **オーストラリア産ネーブルオレンジの受容性** ※特徴・アピールポイントを説明した上で、 －オーストラリア産ネーブルオレンジの印象、特に魅力を感じるポイント －購買頻度が上がるとしたら、どういったことがきっかけになるか ：価格、プロモーション（メディア／店頭)、ブランド、栄養価、安全性 ：カットフルーツ、剥き身など －その他、オレンジに限らず、「買いやすい」「つい買ってしまう」フルーツの販売方法、コミュニケーション、プロモーション等自由にディスカッション（ex. ＰＯＰ、キャンペーンなど）	➢産地に対する認識 ➢オーストラリア産オレンジの現状把握（強みと弱み） ➢今後の販売促進につながるヒントの発見
－	その他	• 追加質問などあれば	

nielsen
Copyright © 2010 The

Thank you

Confidential & Proprietary • Copyright © 2010 The Nielsen Company