

Realising the potential of Australian grown Asian vegetables

Understanding consumer triggers and barriers to consumption, and strategies to ensure the greatest likelihood of success in the market.



The information contained in this publication draws on the conclusions, including from desktop research, contained within the final report *Understanding consumer triggers & barriers to consumption of Australian native vegetables & Asian vegetables* (VG15071), Dr Denise Hamblin, Colmar Brunton, 2017.

The project was funded by Hort Innovation using the vegetable industry research and development levy and contributions from the Australian Government.


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 colmar brunton.

Key themes

- Asian vegetables have healthy levels of awareness and recall among Australian consumers.
- Consumer familiarity with Asian vegetables has primarily come about through cooking shows, travel, social media, availability in supermarkets, and friends/family of Asian background.
- Appeal was particularly strong for vegetables that are suitable to stir fry (a popular and familiar cooking method), and/or have a clear point of comparison with an existing product. For instance, gai lan's description as 'Chinese broccoli'.
- As provenance consistently rates as important to consumers*, if "Asian" is included in the product name or description, it will also be important to clarify at point of sale that the vegetable has been grown in Australia, not imported.
- Appealing to health-conscious consumers is key, acting as a trigger to purchase. Health benefits can be promoted on packaging and in-store.
- Consumers aged 10-25 were highly engaged with these Asian vegetables, found them appealing and expressed desire for them to be purchased. However, this study reveals that parents are potentially acting as gate keepers, more reluctant to purchase new vegetables for themselves and their family. Further research should be conducted into understanding this barrier to children's vegetable consumption.

* Project Harvest research, VG14060 and VG12078, Colmar Brunton



Gai lan/ Chinese broccoli

Strong consumer appeal.

Gai lan has a smaller head than regular broccoli and longer, crunchy stems, reminiscent of broccolini™. The thick glossy prominent leaves are blue-green and the entire plant can be eaten, including the white flowers. Available year-round in Australia, it has a flavour of its own, and is often served steamed or stir-fried.

A serve of gai lan provides a good source of vitamin C, and vitamin K, and contains folate.

- Tested well at all stages of the research, including taste.
- Particularly popular among families with children.
- Those that regularly purchase chillies and baby broccoli are also more likely to purchase.
- Consumers could easily imagine how to incorporate into their current repertoire of meals.
- No significant additional information other than name and appearance are needed to encourage purchase.



- Two thirds of consumers would buy gai lan **in addition** to their current vegetable shop, potentially growing the category rather than cannibalising existing vegetables on the market.
- Flavour descriptors will help differentiate gai lan from broccoli, broccolini™ and baby broccoli. Focus on the crunch of the vegetable, as well as communicating health and nutritional benefits.
- Investigate new varieties that reduce potential for stringiness and chewy quality, as some consumers disliked this. Alternatively, consider providing cooking instructions to mitigate.

Choy/choi sum

High potential and strong appeal among consumers.

A green leafy vegetable in the brassica family, with small edible yellow flowers, choy sum has a slightly earthy flavour, with mustardy-tasting stems. It is commonly stir-fried.

A serve of choy sum contains potassium, folate and is a good source of vitamin C.

- Conceptually, choy sum was most appealing to younger consumers. The high nutritional value was well liked by consumers.



- Differentiating choy sum from other leafy greens is the key challenge. Consumers enjoyed the taste of the product, so providing flavour descriptors will encourage trial.
- The majority of consumers indicated they would purchase choy sum **in addition** to their current vegetable purchases, representing strong potential for category growth.
- Purchase intent increased with the introduction of price, suggesting this is an attractive part of the offer, with potential for the recommended retail price (RRP) to be increased above \$2 per bunch.
- As crunch was a key sensory driver of liking:
 - promotion should focus on recipe ideas such as stir fries, with an emphasis on retaining the crunch in cooking instructions.
 - ensure that supply chain and transport is optimal for retaining textural crunch and vegetable does not become limp while in-store.
- New product development could focus on offering pre-chopped formats (bearing in mind importance of crunchy texture) with stir-fry sauce, appealing to convenience driven consumers.

Amaranth/Chinese/ red spinach*

Strong appeal to consumers.

This leafy vegetable's name is derived from its dark red veins and stems. Both the leaves and stems are cooked like spinach. They have a mildly sweet, earthy flavour.

A serve of red spinach contains fibre and is a good source of vitamin C.

- Red spinach commands a higher price per kilo (\$30) than regular spinach, however purchase intent remains strong. There may be potential to increase the RRP above the \$30 per kilo price point.
- The colour of the vegetable is appealing to consumers. This should be promoted to increase appeal and give consumers a reason to choose it.
- Potential to encourage purchase through red spinach's health and nutritional information.
- As the vegetable wilts quickly with a short shelf life, there is potential to value add in a pre-packed format, which is likely to encourage purchase. Ensure the packaging is transparent, so consumers can see the colour of the plant and assess freshness.
- Provide recipe ideas on pack to ensure an enjoyable sensory experience. Consumers should already be able to envisage using this vegetable in similar ways to spinach.



* the name red spinach was used in this study

Wombok/Chinese cabbage

Strong appeal.

Wombok is well known for its use in Asian cooking, as it is commonly found in dumplings, spring rolls, kim chi and stir fries. A sweet and mild flavoured cabbage, it has firm outer leaves and tender inner leaves.

A serve of wombok contains potassium and folate, and is a good source of vitamin C.

- Wombok is an appealing and somewhat familiar product with strong potential.
- Continue the current distribution of wombok into various purchase channels. There are clear expectations around taste and use, with little further information required to encourage trial.
- The challenge now exists in increasing the **frequency** of wombok purchases.
- Although the similarity with other cabbages indicates strong potential, consumers require a clear reason to choose wombok as an alternative. There is an opportunity to do this by communicating its superior shelf life, value, taste or texture.
- Consumers find the crunchy texture highly appealing. Communicate to consumers that wombok can maintain a crunchy texture even after cooked.
- Providing recipe cards to complement wombok would help provide further inspiration.
- Almost three quarters of consumers indicated they would purchase wombok **in addition** to their existing vegetables, potentially expanding the market.



Daikon/ white radish

Has potential; optimisation required.

This very large and long white radish has a mild flavour and crunchy texture, and offers the versatility of use raw in a salad, as well as cooked (roasted, steamed, stir fries etc). Its shape can take an oblong, spherical or cylindrical form.

A serve of daikon contains potassium.

- As the crunchy texture was well liked by consumers, providing recipe ideas to use in salads will assist in increasing consumer appeal. Placement near the salad vegetables and other radishes in retail channels may also encourage trial.
- The name 'daikon' currently limits potential. Pairing with a descriptor name such as *sweet mild radish (daikon)* would increase appeal and help cue usage. Currently there are no comparison vegetables to help consumers imagine how it would be prepared or used, or what it would be paired with.
- Ensure consumers are informed that daikon is grown in Australia. With provenance a relatively important factor for consumers when purchasing vegetables, the Japanese name may cause confusion as to where product is grown.
- To increase consumer appeal, this vegetable requires some level of consumer education. Investigate potential to produce a smaller vegetable size. Alternatively, smaller or pre-prepared formats such as cubes or batons would encourage purchase and reduce wastage.



In response to consumer sentiment, four vegetables considered in the early phases of this project did not progress to all stages of testing: lotus root, bitter melon, hairy melon and okra. The key findings of the research into these vegetables are summarised here:

Lotus root

Edible root of the lotus plant with white, crunchy flesh; mild, sweet water chestnut-like flavour.

- Conceptually, consumers found it difficult to imagine uses. This could be overcome with relevant information about taste and uses, recipes and trial at point of sale, as well as communicating health benefits.
 - Those consumers that had previously tried lotus root liked the flavour – definite potential exists.
 - Pre-prepared formats may appeal.
- People could easily envisage everyday applications, but clear communication of the different/fruitier taste could help to encourage trial.



Bitter melon

Flesh is crunchy and watery in texture, with bitter flavour.

- Both the name and appearance (warty grooves, shape, texture) limited willingness to taste.
- Bitter flavour perceived as unpleasant.
- Consider renaming.
- Would require significant education for mainstream adoption.





Hairy melon

Mild flavour akin to cucumber.

- Very low current awareness.
- Clear layer of fine hair on green skin – although a sign of freshness, off-putting to consumer panel.
- Long shelf life is appealing.
- Little potential due to name and no clear reason to buy (lack of obvious usage or benefits).

Okra

Small green seed pods, mild in flavour.

- Tested better when experienced vs conceptually.
- Name and appearance failed to provide clues to taste or usage – inhibiting at point of purchase and leading to no clear reason to buy/trial.
- Short shelf life perceptions are off-putting. Loose formats may mitigate this, allowing consumers to purchase what they need and use in timely fashion.



The research project *Understanding consumer triggers & barriers to consumption of Australian native vegetables & Asian vegetables (VG15071)* was completed by Colmar Brunton in 2017, and funded by Hort Innovation using the vegetable industry research and development levy and contributions from the Australian Government.

Its aim was to explore the commercial viability of Asian (and native) vegetables, their appeal and concerns among consumers, and provide strategies to ensure the greatest likelihood of success in the market.

The project included:

- interviews with those already using the foods under consideration to confirm what was already known
- twelve focus groups to test the concept of various products, including an opportunity for people to take home and try two vegetables
- an online survey, completed by 1532 consumers of fresh vegetables, evaluating photos and descriptions of the vegetables, including recipes and nutritional information
- tasting and evaluation of raw and cooked vegetables under controlled conditions by 100 frequent buyers of fresh vegetables.

For a summary of the native vegetable research findings from this project, please see the accompanying booklet, or request from Hort Innovation.

Images courtesy AUSVEG: Okra (front cover, pages 4 and 11), Lotus root (pages 3, 4 and 10), Bitter melon (pages 4, 10 and 11), Daikon (pages 4 and 9), Wombok (pages 4 and 8), Gai lan (page 5), Choy sum (page 6), Hairy melon (page 11)
Images courtesy Getty Images: Red spinach (pages 4 and 7)



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