

Realising the potential of native 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.

For further information about the project contact Sarah Robins, Vegetable Consumer Alignment Specialist, Hort Innovation: 02 8295 2300; sarah.robins@horticulture.com.au

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»» colmar brunton.



Key themes

- The idea of eating native foods often evokes a sense of pride, and curiosity about traditional users and uses.
- Native vegetables are particularly appealing if there is a clear point of comparison to an existing product, and there is value in having 'our own version.'
- Providing information on health and nutritional benefits is important. This fits with current trends, and provides a strong reason to buy something different.
- In-store materials could provide an important boost to people's willingness to buy, including recipes, ideas on possible substitutions, taste comparisons and storage requirements.
- Names had a significant impact in testing, which is likely to be true for first-timers in-store who only have appearance and name to base impressions on. Names that align with a similar product, or describe taste or texture, allow people to imagine different uses and make the foods more appealing.
- People expect to pay more for native vegetables, as they are considered rare and special.
- Familiarity tends to build up through cooking shows, social media, friends, and availability where people shop. Triggers for trying something new include eating at restaurants, with friends, or with people of a different ethnic background.



Kulyu

Kulyu has strong appeal as a concept. Supply requires additional development work.

Kulyu is similar to sweetpotato, and best eaten when baked, roasted or steamed. It remains crunchy when cooked, and can also be eaten raw. When charred and caramelised, it can give a sweet nashi pear-like flavour.

Kulyu has a similar nutrient content to sweetpotato.¹

It keeps best when stored whole in cool dry conditions, similar to storing potato.

- The provenance and nutrient content of kulyu were attractive to consumers, and its versatility for baking and roasting was widely appealing.
- Having Australia's 'own version' of sweetpotato was appealing.
- Including 'sweetpotato' in the name could encourage purchase as it provides a clear point of comparison and substitution.
- Consumers expect to pay the same, if not a little more, for kulyu as for sweetpotato. Highlighting provenance factors and versatility may further increase the value proposition.
- Information on selection, preparation, cooking and usage could encourage purchase, including recipes at point of sale.
- 18 to 24-year-olds found kulyu highly appealing. As they are less confident in the kitchen, recipes could focus on quick and easy meals. Providing pre-prepared options such as mash and roast kulyu could be investigated as easy trial dishes.



Saltbush

Saltbush has some appeal, but needs a clear reason for people to choose it.

Saltbush grows well in arid areas and retains a salty flavour in its leaves.

Large fresh or blanched leaves can be used to wrap around meat or fish, in salads or as a leafy bed for grilled meat or vegetables. Dried flakes can be added to bread, grills and pasta, and used as a pot herb.²

In a dried form, saltbush can last two years.

- Having a uniquely Australian substitute for salt is appealing.

- Specific nutritional attributes could be highlighted to promote saltbush as an alternative when adding extra flavour to dishes.
- Recipes at the point of sale could help improve knowledge and promote trial.
- The shelf life of dried saltbush and only needing a small portion when used as a herb were appealing.
- Small (25g packets) were seen as most appropriate for dried saltbush.
- People expect to pay a similar amount to more unusual types of rock salt (e.g. Mount Zero Pink Lake Salt).



Samphire

Samphire has potential. Short shelf life is a challenge.

Samphire is a native succulent growing wild on many of southern Australia's salty flats.

It is crunchy, salty and slightly peppery. The stems can be rinsed in cold water, then blanched in boiling water with a pinch of salt. Samphire can also be stir fried and pickled.

Samphire contains vitamins A, B and C, and is a source of calcium and iron.³

Samphire is best used fresh on the day of purchase.

- Easy preparation and potential use as a garnish, stir-fry or salad were appealing.
- The name does not suggest taste or ways to use samphire (also known as sea asparagus), so this could be highlighted in communications.
- Some people found samphire to be chewy or stringy, so pre-prepared formats that only use the tender tips could be considered.
- Loose formats situated near the herb section may encourage use as a garnish.
- Nutritional attributes were relatively appealing.
- Limited shelf life is a barrier to purchase. Best before dates and instructions on pack could help to manage consumer expectations.
- People expect a relatively high cost, in line with asparagus.



Warrigal greens

aka native Australian spinach

Warrigal greens have high conceptual appeal. Education is needed to manage expectations on taste and texture.

Warrigal greens grow along the eastern coast of Australia. They have a crisp leafy flavour, like fresh baby spinach leaves but with a garlicky, peppery finish, and can be used as a substitute for regular spinach, silverbeet or even bok choy.

Like rhubarb, the leaves contain oxalates, which in high quantities can have adverse effects – they should always be blanched before using, in boiling water for 10-15 seconds, then rinsed under cold water.⁴

Warrigal greens naturally contain antioxidants and fibre.

Stored in the fridge, like regular spinach, Warrigal greens have a shelf life of up to two weeks.⁵



- Conceptually, Warrigal greens performed well, with people liking the idea of a native spinach substitute.
- Consumers found it difficult to imagine a reason to purchase this instead of normal spinach, so could benefit from emphasising the value of choosing a native option.
- The name Australian spinach was preferred by consumers.
- Nutritional value and long shelf life were appealing.
- Recipe ideas could be used to highlight Warrigal greens' ability to substitute for a wide range of leafy greens. People who bought baby spinach and other herbs were most likely to indicate they would try it.
- Taste and texture received mixed results, with some people liking the crunchy texture and others finding it stringy and chewy. The furry nature of the leaves and extra preparation by blanching were also off-putting to some.
- Comparisons to premium leafy greens and an emphasis on the nutritional attributes could encourage people to value Warrigal greens at the expected high price.
- More work is needed to ensure availability and supply.

Youlk


Youlk has high potential and strong appeal. Regular supply requires additional work.

Youlk is an Australian native root vegetable from the carrot and parsnip family. It has firm, crisp flesh and a mild, sweet flavour.

It can be prepared and eaten in a variety of ways, including peeled or unpeeled in salads, sautéed as a side, or baked whole.

Nutritionally, youlk is similar to carrot,⁶ and also contains a good level of zinc.⁷

Youlk will last more than a month when stored in the fridge.

- The concept of youlk was appealing, with people easily able to imagine how to use it, and it also performed well when people had the opportunity to taste it in several forms. With greater awareness and availability, youlk has considerable potential to become a household vegetable staple item.
 - Initial testing simply used the name youlk, which provided little information for the consumer. The concept was refined before further testing, using the name *bush carrot* and avoiding terminology that was off-putting in initial testing.
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- Knowing that youlk is a native vegetable was highly appealing, and promotion of this aspect at point of sale could help to promote trial.
 - Most people liked the crunchy texture of the raw product, but its firmness when cooked did not appeal to everyone. Education about flavour and texture could help to manage expectations.
 - The long storage period was especially appealing, so instruction on proper storage methods could benefit buyers.
 - Education on the relationship between size and quality could be a benefit, as people were more inclined to buy cheaper, larger youlk rather than punnets of smaller youlk (which are a higher grade).

The research undertaken also tested the understanding of, and attitudes toward other native foods, including herbs and spices that have potential to be used with both native and regular vegetables. Greater awareness of the triggers and barriers to consumption will help guide promotion and communication about these foods, to grow the market.



Acacia seed

Acacia seed has high potential. Needs promotion on how to use.

Acacia seed, also known as wattleseed, tastes like a combination of roasted nuts, chocolate and coffee. It is generally sold lightly baked, in ground or powdered form. Acacia seed contains fibre, potassium, calcium, iron and zinc.⁸

- This is a unique product that lacks a clear comparison to other foods, so name alone is unlikely to prompt purchase and recipe ideas could be helpful.
- It was appealing once people tasted and smelled it. Calling out flavour descriptors on packs could encourage trial.
- Baking had the strongest appeal, so it could be stocked in the baking aisle in shops.



Bush tomato

Bush tomato has potential. Education is needed on how to use.

Bush tomato tastes somewhat tangy, with a light fruity and caramel overtone. It can be used dried (looks like a raisin) or powdered. The dried version absorbs liquid when cooked, so makes a good thickening agent. Bush tomato contains minerals, particularly potassium, as well as vitamin C.⁹

- Bush tomato is unlike anything consumers are familiar with, so recipes could help. The versatility was appealing, so there could be benefit in highlighting its use in both sweet and savoury dishes.
- There was some interest in its use as a thickening agent substitute for flour, and to enhance tomato flavour. It may be a good alternative for gluten avoiders.
- Nutrient content and extended shelf life were attractive features.



Finger lime

Finger lime has potential, most likely as a special occasion food.

Wild finger lime has a zesty citrus aroma with a tart taste. The pulp comes in a variety of skin and flesh colours. Fresh fruit is mainly used as a garnish, and the pulp used for processing into sauces, jams and jellies. Finger lime contains folate, potassium and vitamin E.¹⁰ It has a shelf life of 4–5 weeks.¹¹

- The 'zesty citrus' description was appealing, but using *caviar* as a descriptor was not. In-store it could help to place the fruit near other citrus and pomegranates for easier substitution/association.
- Nutritional attributes were appealing, as was the long shelf life.
- External appearance does not give an indication of taste or use. Providing samples at point of sale, or using images of the flesh, could help convey its potential use and novelty value.



Lemon myrtle

Lemon myrtle is an appealing and versatile product that the market is ready for.

Lemon myrtle has a fresh fragrance of lemon and lime. The leaves are commonly sold dried, either ground or powdered, and it can be used in both sweet and savoury dishes.

Lemon myrtle contains calcium, zinc, magnesium and vitamins A and E; and is a source of lutein.¹²

- Versatility was appealing, so recipes covering a variety of cooking styles could help.
- Nutritional attributes were appealing and could be highlighted on packs.
- Providing a choice of coarsely blended or finely ground dried lemon myrtle will meet the needs of different recipes.

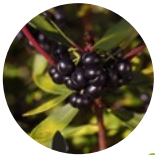


Native thyme

Native thyme has strong potential as a substitute for regular thyme.

Native thyme is a strong aromatic herb which tastes like an intense thyme or Italian herb, and is typically used in savoury cooking, as a garnish, or as a tea. Fresh native thyme is available year-round, while the dried format has a long shelf life when stored in cool dry conditions.

- Native thyme has a clear use as a substitute for common thyme, but people need a reason to switch, especially if it is going to be more expensive. Both fresh and dried formats were appealing.
- The complexity and potency of flavour means only a small amount is needed, so this could be highlighted to communicate the value, and considered when looking at packaging sizes.
- Being native to Australia carried inherent value.



Pepperberry

Pepperberry has strong potential. Recipes may encourage a switch from common pepper.

Native pepperberry can replace conventional pepper, with an added herbal dimension to the taste, and infuses a rich plum colour to sauces. The pepperberry is typically dried and used as a spice, in both sweet and savoury dishes, while the leaf can be used in place of curry leaf.

- People could easily envisage everyday applications, but clear communication of the different/stronger/warmer/fruitier taste could help to encourage a switch from regular pepper.
- The colour, nutrient content and versatility were all appealing.
- A number of packaging and format options are available, including fresh, dried whole pepperberry and pre-ground pepperberry.

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 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 people, testing photos and descriptions of the vegetables, including recipes and nutritional information
- tasting and evaluation of raw and cooked products under controlled conditions by 100 frequent buyers of fresh vegetables.

FOOTNOTES:

- 1 http://www.aff.org.au/Woodall_Native_Potato-like_Foods%20Brochures.pdf
- 2 <http://tasteaustralia.biz/bushfood/saltbush/>
- 3 <http://www.flowerdalefarm.com.au/produce/new-products/samphire.html>
- 4 <https://www.theguardian.com/lifeandstyle/australia-food-blog/2014/feb/02/bush-food-warrigal-greens>
- 5 <https://www.1millionwomen.com.au/blog/get-know-your-native-ingredients-warrigal-greens/>
- 6 http://www.aff.org.au/Woodall_Native_Potato-like_Foods%20Brochures.pdf
- 7 <http://www.abc.net.au/local/audio/2010/10/07/3032326.htm>
- 8 <http://www.agrifutures.com.au/farm-diversity/wattleseed>
- 9 <http://www.outbackpride.com.au/species/kutjera-desert-raisin>
- 10 <https://austsuperfoods.com.au/nutrition/finger-lime>
- 11 <http://www.agrifutures.com.au/farm-diversity/finger-lime>
- 12 <https://austsuperfoods.com.au/nutrition/lemon-myrtle>

Images courtesy AUSVEG: Finger lime (pages 4 and 10), Samphire (pages 3, 4 and 7)

Images courtesy Geoff Woodall: Kulyu (page 5)

Photos courtesy ANFAB: Pepperberry (pages 4 and 11), Acacia seed (page 10), Bush tomato (page 10), Lemon myrtle (page 11), Native thyme (page 11)

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Level 8, 1 Chifley Square
Sydney NSW 2000
Phone 02 8295 2300

For more information regarding Australia's rapidly-growing native food and botanical sector, contact the peak national body, Australian Native Food and Botanicals (ANFAB).

www.anfab.org.au
info@anfab.org.au