New varieties from the Australian Strawberry Breeding Program: 2 temperate varieties and 1 subtropical variety

BS17000: National Strawberry Varietal Improvement Program (2017-2022)

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The aim of the Australian Strawberry Breeding Program (ASBP) is to breed varieties that are specially adapted to Australia's major production climates: temperate, subtropical, and Mediterranean. These varieties must be highly profitable for growers and have superior quality to meet consumer preferences.

We have also recently adopted a new naming system for our varieties, with the first letter matching that of the target region, i.e., 'T' for temperate, 'S' for subtropical and 'M' for Mediterranean. This new system should make it easier for growers to readily identify which varieties are best suited for them and their growing region.

In this article we are excited to announce three new varieties: Tahli-ASBP and Tamara-ASBP (temperate), and Susie-ASBP (subtropical).

Tahli-ASBP is a "work-horse" variety, with a good balance between producer and consumer traits. Tahli has much higher yield and fruit size than one of the most widely grown temperate commercial varieties, and slightly better shelf life (Figures 1A and 1B). It has high brix, moderate acidity, and an excellent overall flavour score. Tahli has moderate tolerance to charcoal rot and powdery mildew. Fruit is displayed further away from the canopy than many existing temperate varieties which makes Tahli well-suited to tabletop production (Figure 1C).

Compared with Tahli-ASBP, Tamara-ASBP is more of a premium strawberry with traits more heavily targeted towards consumer satisfaction. Tamara has extremely high brix and moderate acidity (Figure 2A), and a similar excellent flavour score to Albion. Tamara has moderate charcoal rot tolerance, however, is susceptible to rain damage and may therefore perform better under protected cropping. Fruit are light red both internally and externally (Figure 2B), and plant size is similar to existing varieties (Figure 2C).

For the subtropical region, Susie-ASBP has higher yield and larger average fruit size than Red Rhapsody, and slightly higher early-season yield (Figure 3A). Flavour rating, brix and acidity levels are similar to that of Red Rhapsody. Susie has marginally lower bruise resistance, but slightly higher shelf life compared with Red Rhapsody, and is moderately susceptible to powdery mildew. Fruit shape of Susie is conic to long conic, with slightly lighter external colour than Red Rhapsody (Figure 3B). Bush size of Susie is similar to Red Rhapsody, with similar display of fruit, and flower trusses more upright in the canopy (Figure 3C).

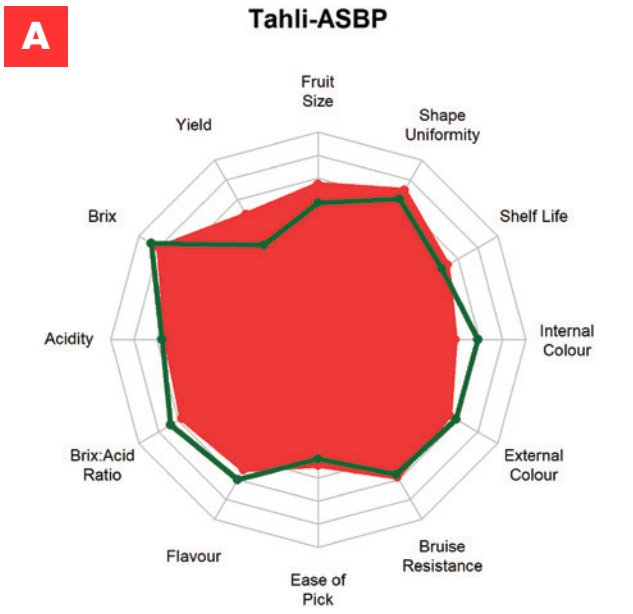






Figure 1. Features of the new temperate variety Tahli-ASBP.
A) Radar chart comparing Tahli (red polygon) with a widely grown temperate variety (green line). The centre of the plot represents the lowest value for each trait, and the outside line of the plot represents the highest value for that trait from our trials.
B) Fruit and C) plants of Tahli.

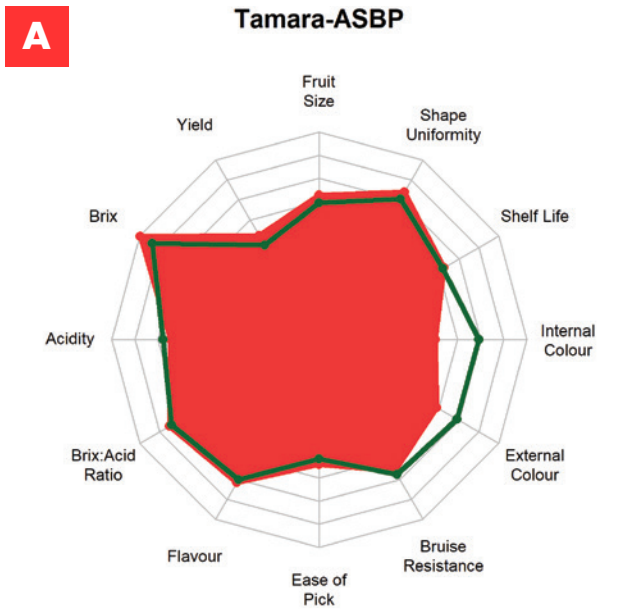






Figure 2. Features of the new temperate variety Tamara-ASBP.
A) Radar chart comparing Tamara (red polygon) with a widely grown temperate variety (green line). The centre of the plot represents the lowest value for each trait, and the outside line of the plot represents the highest value for that trait from our trials.
B) Fruit and C) plants of Tamara.

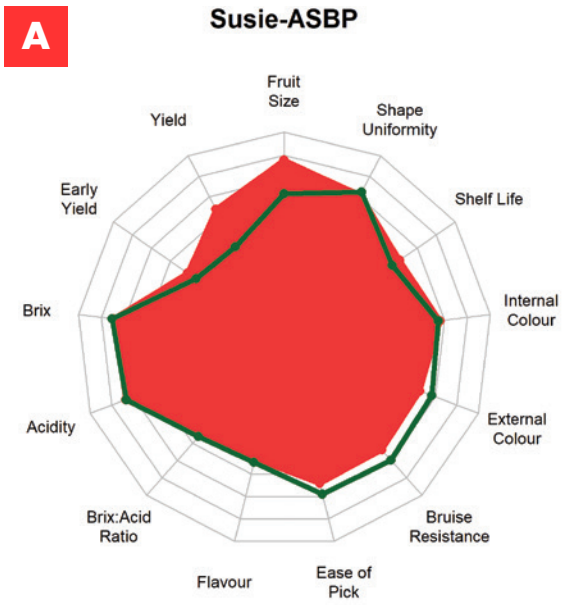






Figure 3. Features of the new subtropical variety Susie-ASBP. A) Radar chart comparing Susie (red polygon) with Red Rhapsody (green line). The centre of the plot represents the lowest value for each trait, and the outside line of the plot represents the highest value for that trait from our trials. B) Fruit and C) plants of Susie.

our focus is you

SUB-TROPICAL
• Red Rhapsody • Sundrench
• Scarlet Rose

TEMPERATE
• Scarlet Silk • Summer Song

PBR
All varieties protected by Plant Breeders Rights

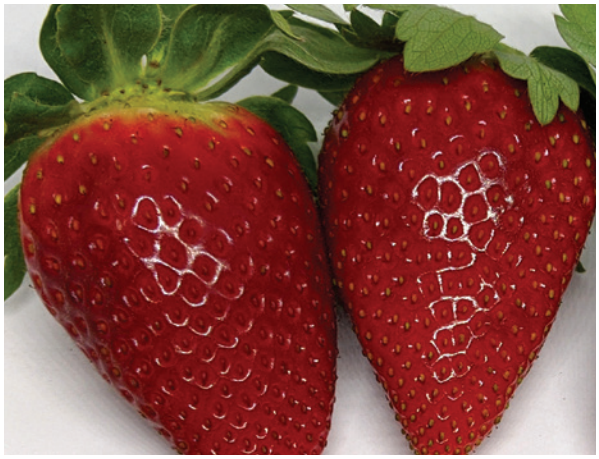
new
• Tahli-ASBP
• Tamara-ASBP
• UCD Royal Royce
• UCD Moxie • UCD Valiant



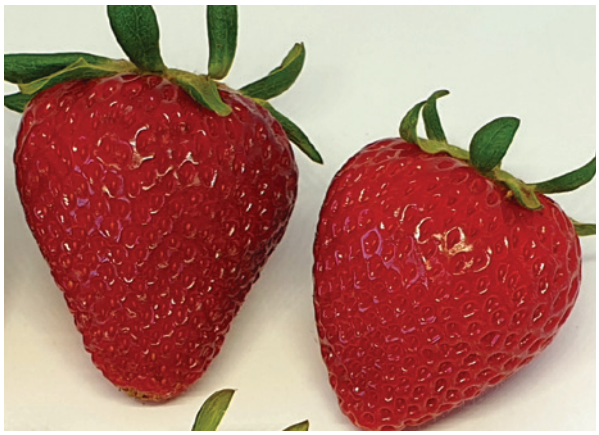
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Susie-ASBP



Tahli-ASBP



Tamara-ASBP

All three varieties are now available in small numbers from propagators, so please talk with your supplier if you are interested.

Acknowledgements

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We are also extremely grateful to all the fruit producers in all states who have trialled, collected data on, and given feedback on our on-farm selections. This has helped us make more informed and better commercial judgments.

The Australian Strawberry Breeding Program team members include Jodi Neal (project lead), Maddy Betts (laboratory technical assistant), Clinton Buck (Nambour field assistant), Apollo Gomez (pathologist), Sue Hibbit (Wandin field assistant), Lien Ko (virus indexing and pathology), Dale McKenna (Nambour field technical officer and hydroponics), Alan McWaters (Applethorpe technical officer), Alan Noon (Wandin field assistant), Katie O'Connor (breeding and genomics), Michelle Paynter (virus indexing, tissue culture, and pathology), Karen Spencer (Wandin operations manager), Matthew Webb (genomics), and Louella Woolcock (Nambour field and glasshouse operations manager).

Disclaimer: The above information is sourced from trials conducted on temperate and subtropical sites in Australia. This is the best available information on variety performance under local conditions at these sites. The information provided here may not be suitable for all sites or regions and varieties may perform differently in different locations. The Queensland Department of Agriculture and Fisheries, and Horticulture Innovation Australia provide the above information as a guide only and take no responsibility for the performance of the varieties on individual farms.