

The Best Practice Guide to UK Plum Production

Information Sheets on Preferred Varieties

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As the flowering period will vary depending in environmental conditions a scale of 1-5 will be used to indicate flowering time, with 1=very early.

The varieties were tasted by a panel of volunteers at NIAB EMR, the data for each variety is displayed in a spider diagram. See the table below for scoring definitions. Sweetness and acidity were compared to a reference sugar/acid solution containing 25.62g/l Sucrose to 1g/l Malic acid.

Table 1. Scoring definitions within the preferred plum varieties taste testing panel

Factor	Score				
	1	2	3	4	5
Colour	Very Pale	Pale	Light	Dark	Very dark
Colour Appeal	Very Unappealing	Unappealing	No preference	Appealing	Very Appealing
Aroma	No or very weak	Mild	Clear aroma	Strong	Very Strong
Aroma Appeal	Very Unappealing	Unappealing	No preference	Appealing	Very Appealing
Firmness	Very Soft	Soft	Some firmness	Firm	Very firm
Glossiness	Very Waxy	Some waxiness	Mixture	Glossy	Very Glossy
Sweetness (S)	Much less sweet	Less sweet	Same	Sweeter	Much Sweeter
Acidity (A)	Much less acidic	Less acidic	Same	More acidic	Much more acidic
S/A balance	Too acidic	Mildly too acidic	Good balance	Mildly too sweet	Too sweet
Flavour	Weak flavour	Mild flavour	Clear flavour	Strong flavour	Very strong flavour
Flavour Appeal	Very Unappealing	Unappealing	No preference	Appealing	Very Appealing
Texture	Very soft	Soft	Some firmness	Firm	Very firm
Texture Appeal	Very Unappealing	Unappealing	No preference	Appealing	Very Appealing
Overall Score	Very poor	Poor	Average	Good	Very good

The sugar and acid concentration of each variety was measured. Fructose, glucose and sucrose were identified for the sugars while ascorbic and malic were identified for the acids, two other acids were detected but unidentified.

The total sugar and acid for each variety are presented below:-

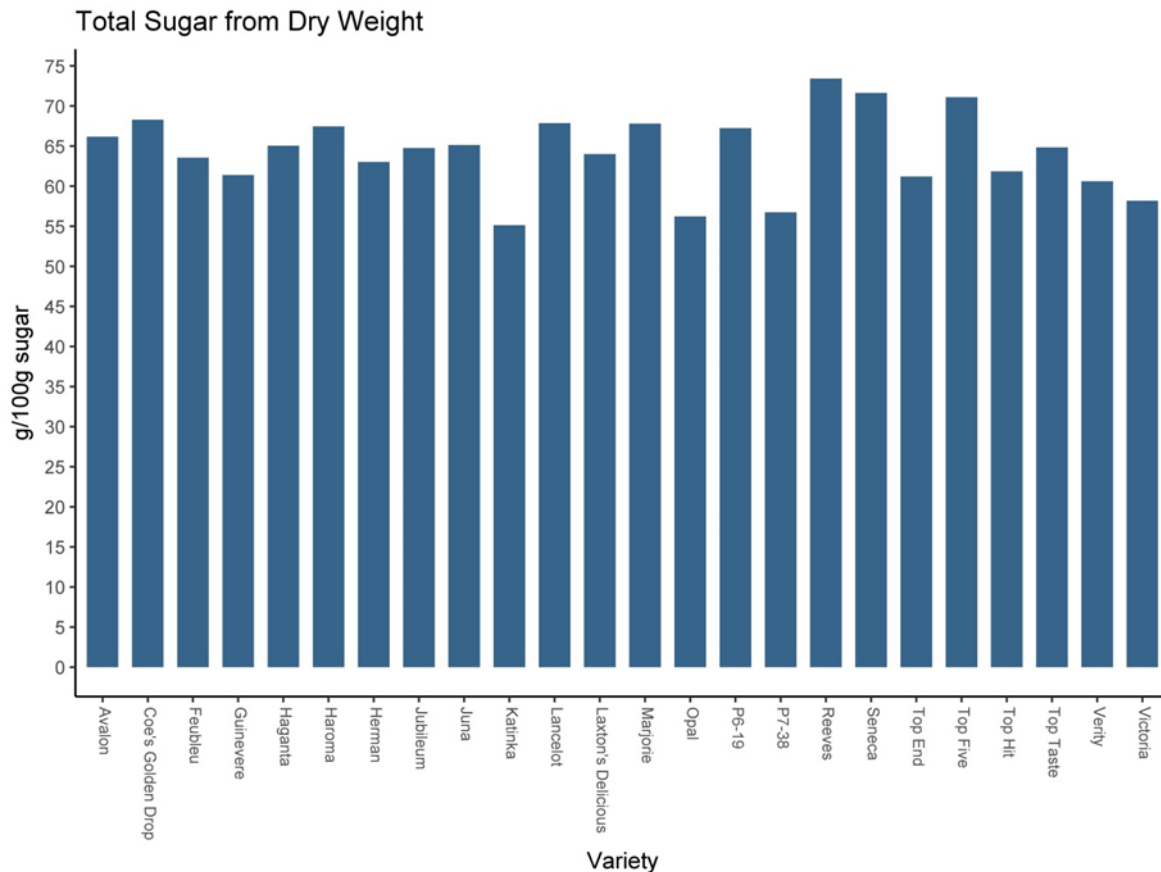


Figure 1. Total sugar content per 100g dry weight for each of the 24 preferred varieties

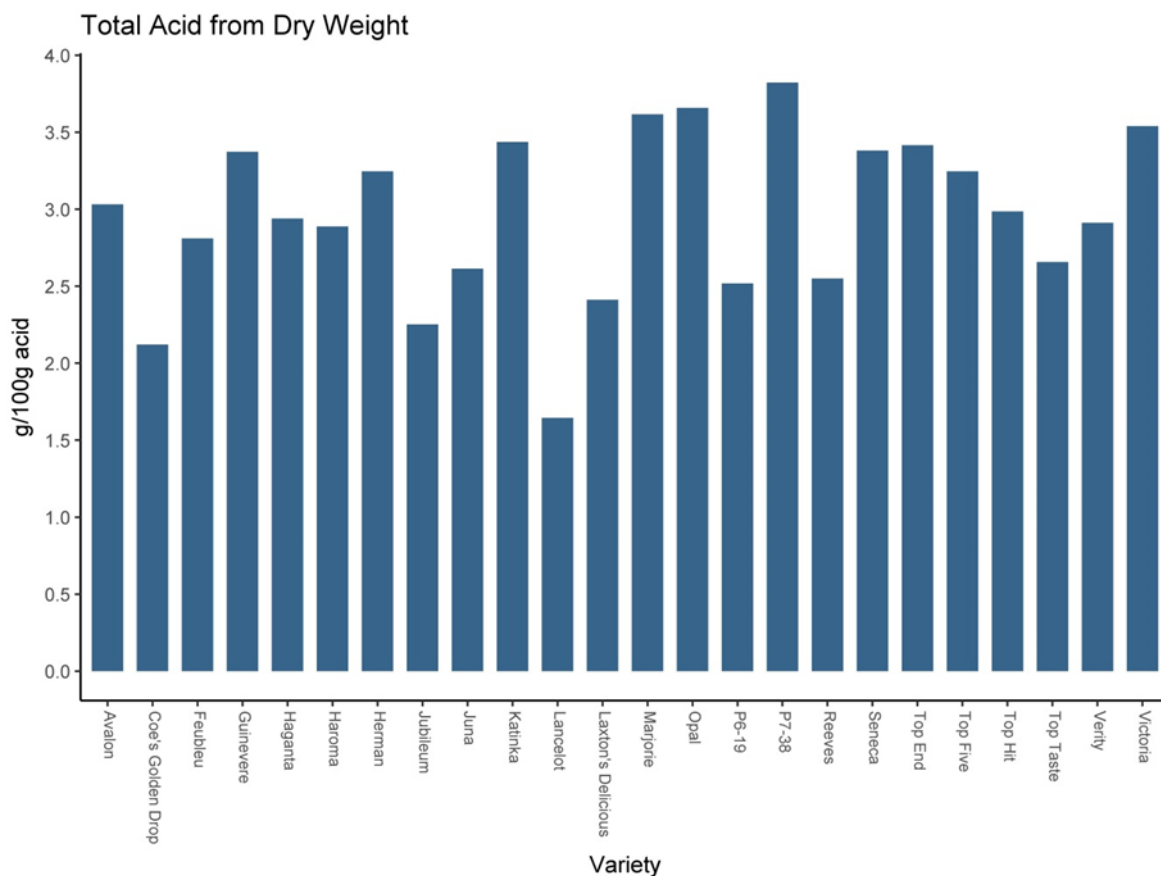


Figure 2. Total acid content per 100g dry weight for each of the 24 preferred varieties

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Below is the total average release rate of volatile compounds from each variety. It is measured in µg per hour per fruit. There is a clear difference between varieties, with Laxton’s Delicious having the highest release rate of 13.8 µg/h/fruit and Haganta the lowest at 0.07µg/h/fruit.

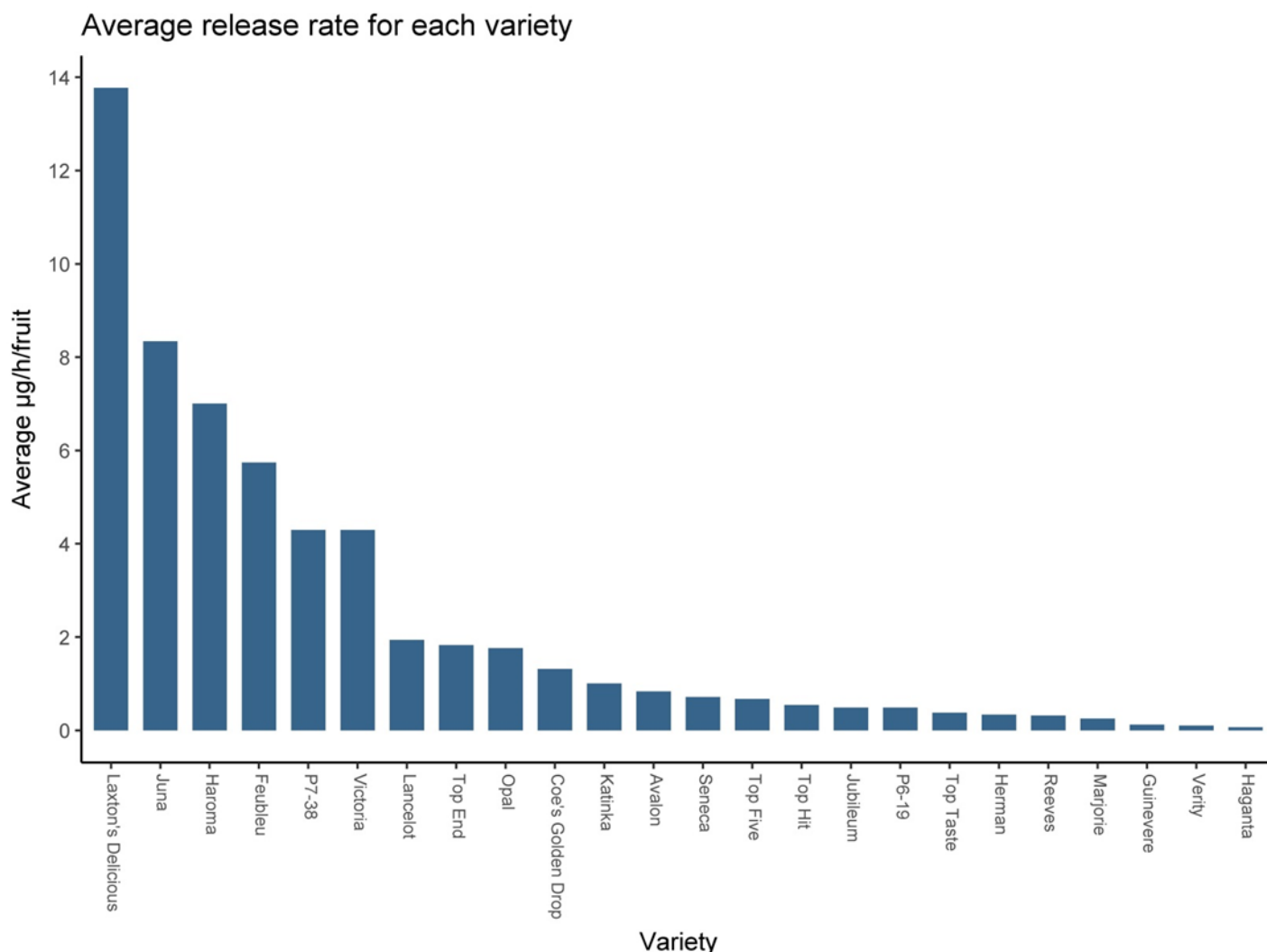


Figure 2. Release rates of volatile compounds (µg/h/fruit) for the 24 preferred varieties

The odour profile graphs for the individual varieties display the percentage that each component contributes to the total release rate from the above graph. Each graph displays the top 20 compounds; unless fewer than 20 were detected. Any compound named 'Unknown #' (where the # denotes a number) was unidentified but consistently detected as the same compound, thus 'Unknown 1' will be the same unidentified compound across all varieties.

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The below table shows the average cropping time for each variety. ‘Q’ indicates the average quarter of that month that cropping will happen. There are more varieties from the second half of August however there is at least one per quarter from early July.

Table 2. Average cropping time for each variety. Cropping time for each variety may vary depending on climatic factors throughout the year.

Variety	July				August				September			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Herman	■											
Katinka		■										
P7-38		■										
Juna			■									
P6-19				■								
Opal					■							
Lancelot						■						
Avalon							■					
Jubileum (Jubilee)							■					
Reeves							■					
Ferbleu								■				
Top Five								■				
Victoria								■				
Haroma									■			
Seneca									■			
Marjory									■			
Top Taste										■		
Coe’s Golden Drop										■		
Laxtons Delicious											■	
Top Hit												■
Guinevere												■
Verity												■
Haganta												■
Top End												■

ACKNOWLEDGMENTS

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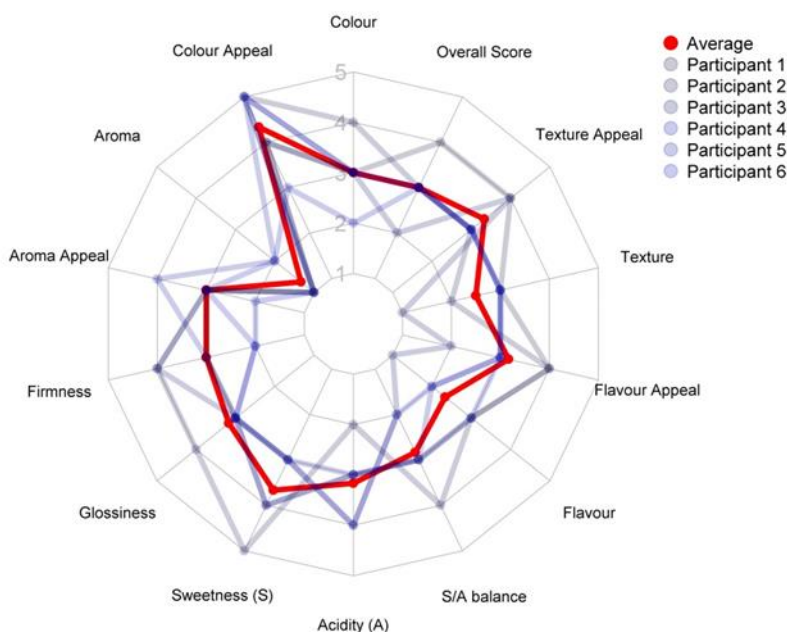
Victoria – mid season standard



SHAPE	Oval
AVERAGE SIZE	4.1cm wide, 5.7cm height
COLOUR	Orange/Red
AVERAGE °BRIX	15.8
AVERAGE CROPPING QUARTER	4 th Q in August
FLOWERING PERIOD	3
TREE HABIT	Spreading

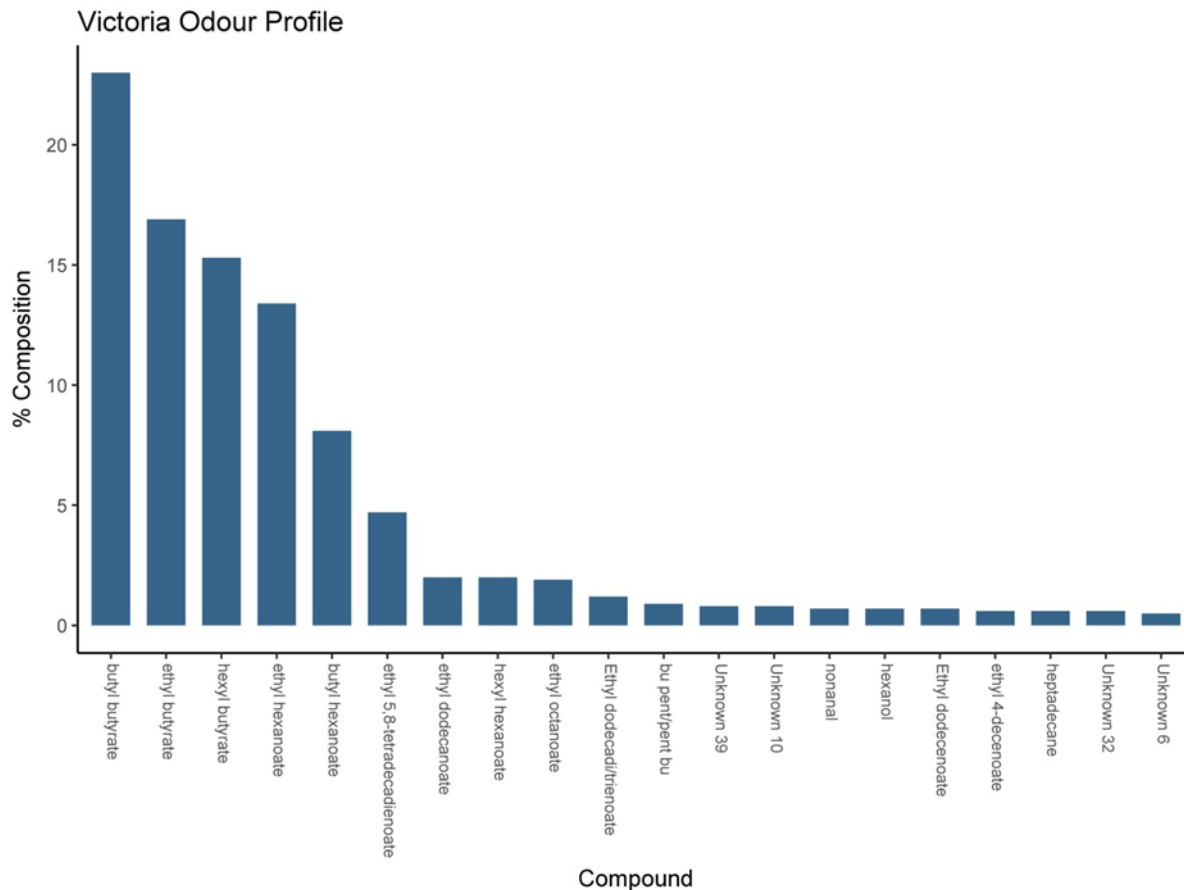
+	Highly self-fertile
+	High tree productivity
+	High cropping reliability
-	Low tree vigour
-	Low disease resistance (bacterial canker, brown rot and plum pox)
-	Trees require thinning (no thinning = potential smaller fruit and over crop)

Victoria tasting

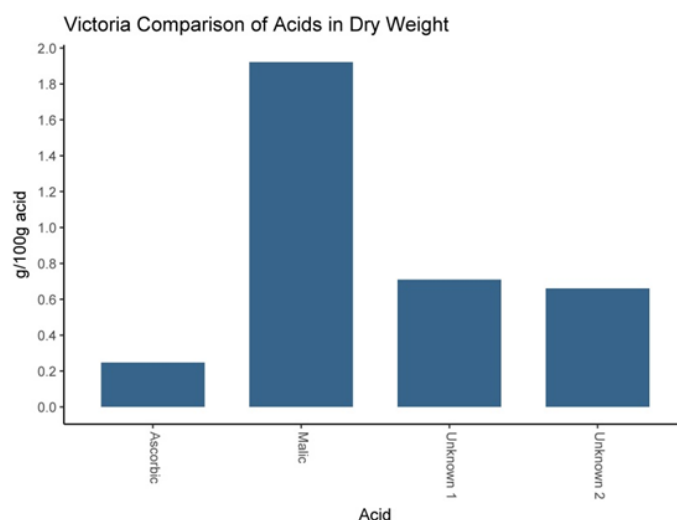
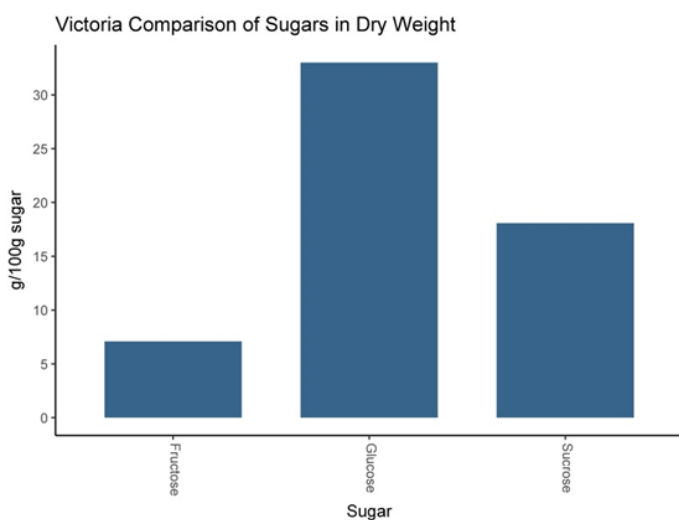


TASTING NOTES:

The tasting scores were quite variable between participants with some giving higher scores and some lower. The average overall score was 'average' as was the flavour appeal. The sweetness was higher than the reference however it was scored as having a good sugar/acid balance. The colour appeal was mostly high but the flavour appeal was average. Overall Victoria was rated as quite an average plum.



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Butyl butyrate	Floral
Ethyl butyrate	Apple, pineapple, banana, fruity and cognac
Hexyl butyrate	Apple/apple peel, waxy, sweet, soapy, citrus and fresh
Ethyl hexanoate	Apple peel, brandy, fruit gum, overripe fruit and pineapple flavours
Butyl hexanoate	Fruit, grass and green flavours
Ethy; 5,8-tetradecadienoate	No flavour



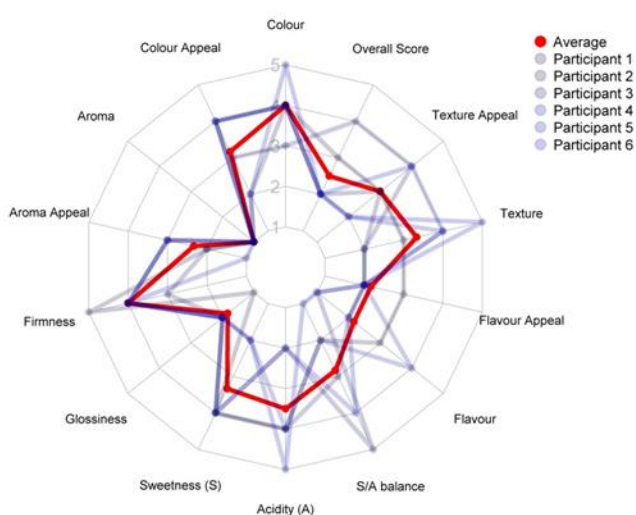
Herman



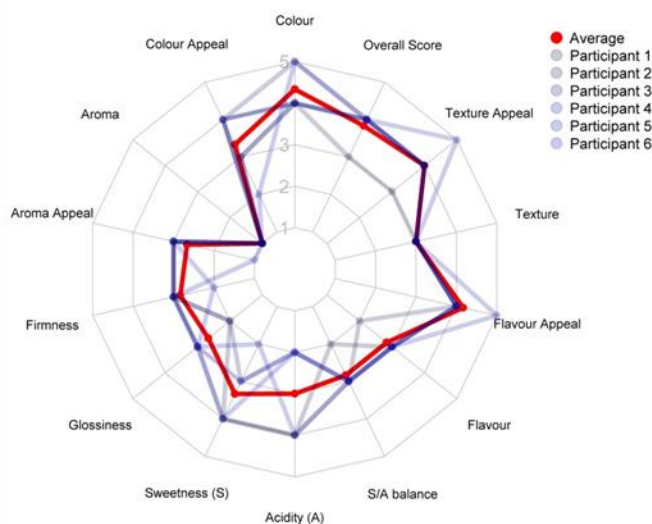
SHAPE	Oval / round
AVERAGE SIZE	3.5cm wide, 3.5cm height
COLOUR	Blue/violate
AVERAGE °BRIX	14.6 / 13.8
AVERAGE CROPPING QUARTER	1 st / 2 nd Q in July
FLOWERING PERIOD	3
TREE HABIT	Upright / spreading

+	Highly self-fertile
=	Average vigour
=	Average disease resistance (brown rot, plum pox)
-	Below average cropping reliability
-	Below average disease resistance (bacterial canker)

Herman (1) tasting



Herman (2) tasting

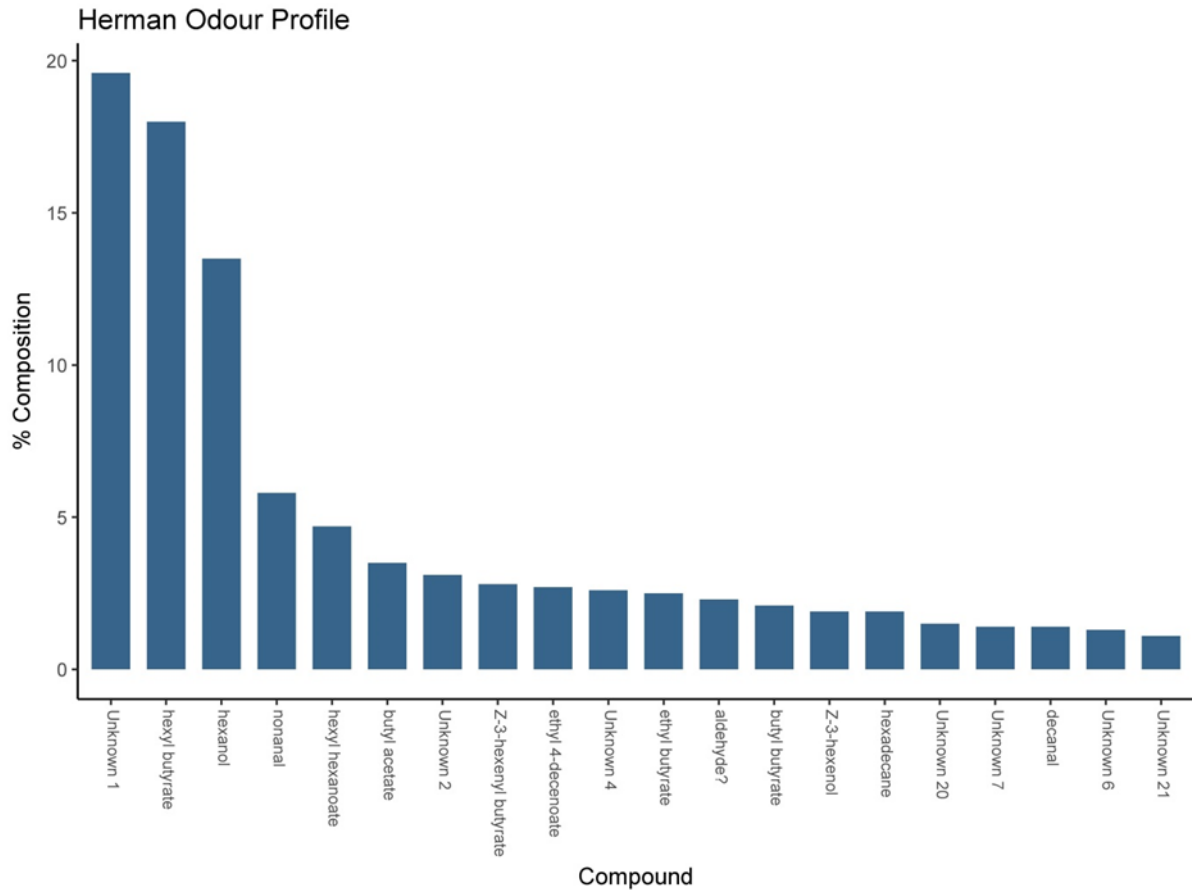


TASTING NOTES:

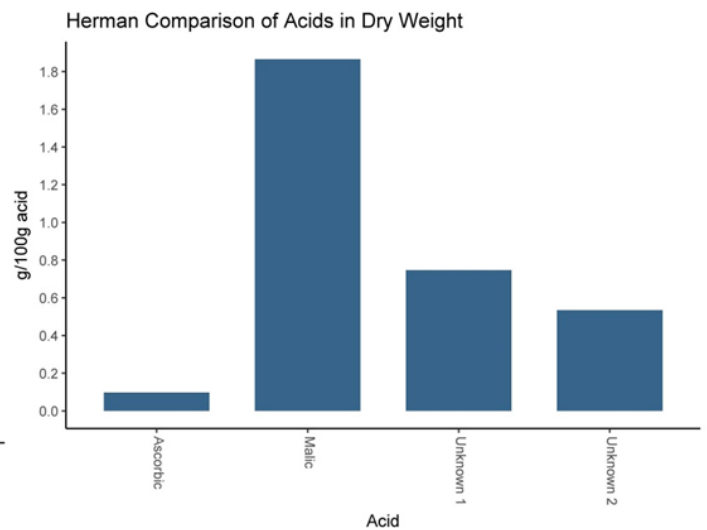
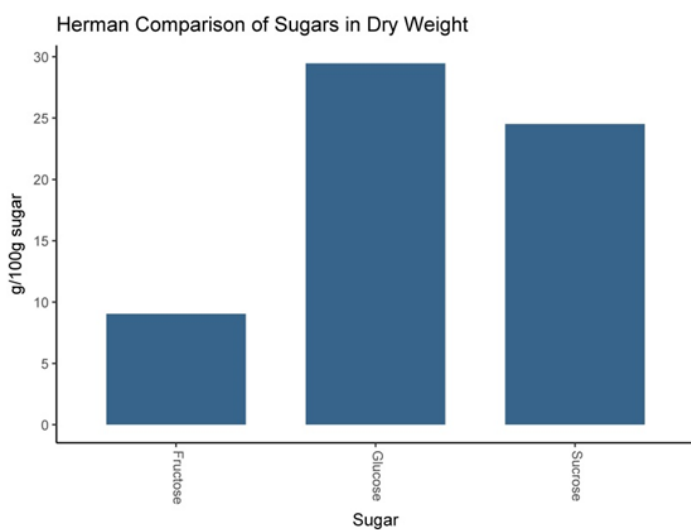
Note: Herman was sampled twice, the first pick date was 05/07/18 and the first tasting the 06/07/18. The second pick date was the 09/07/18 and the second tasting the 16/07/18.

The two samples scored similarly on most factors, the major difference between them being in flavour appeal, the later picked sample scored much higher for flavour appeal, slightly higher for sweetness and slightly lower for acidity. As a result the overall score is much higher for the later picked sample. This suggests that Herman can be quite desirable, however picking slightly later may produce a superior plum.

ODOUR PROFILE



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Unknown compound 1	Unknou
Hexyl butyrate	Apple/apple peel, waxy, sweet, soapy, citrus and fresh
Hexanol	Leafy, grass, sweaty, tallow, fatty, fresh and fruity
Nonanol	Citrus, lime, orange peel, rose, fat, fishy, aldehydic, waxy, orris and grapefruit
Hexyl hexanoate	Peach, vegetable, herbal, apple peel, fresh and cut grass flavours



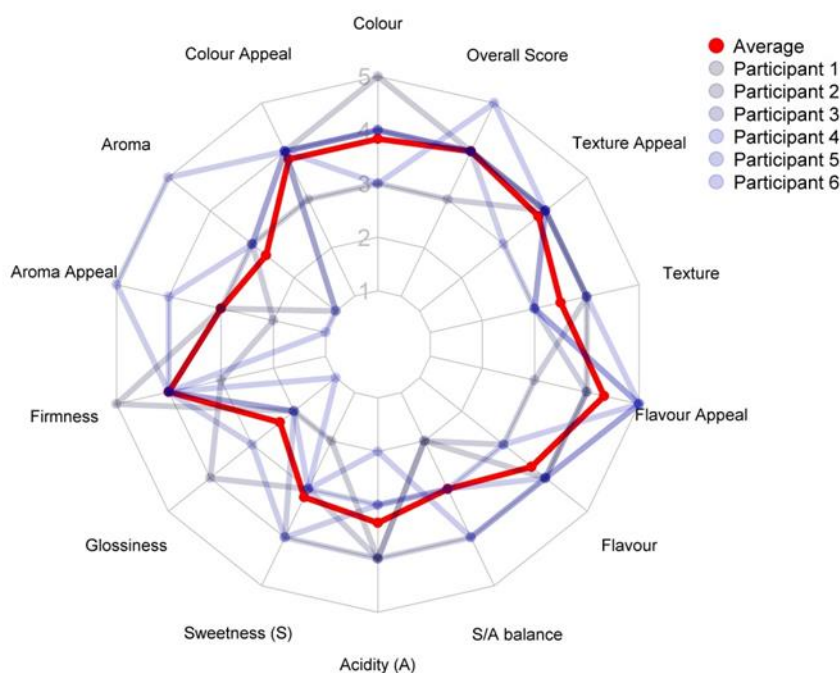
Katinka



SHAPE	Oval
AVERAGE SIZE	3.5cm wide, 4.5cm height
COLOUR	Blue/purple
AVERAGE °BRIX	16.1
AVERAGE CROPPING QUARTER	2 nd Q in July
FLOWERING PERIOD	3
TREE HABIT	Upright

+	Highly self-fertile
+	High tree vigour
+	Very high tree productivity
+	High disease resistance (bacterial canker, brown rot)
=	Average disease resistance (plum pox)

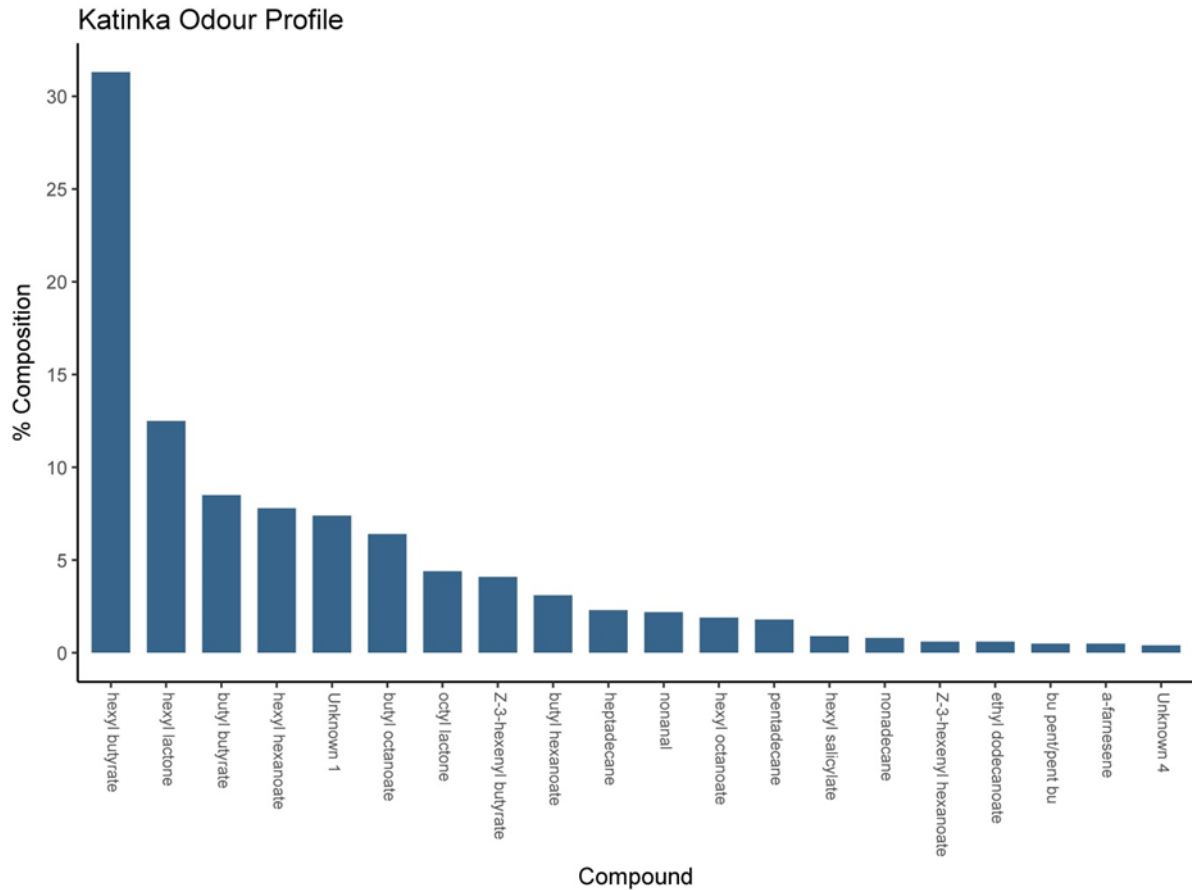
Katinka tasting



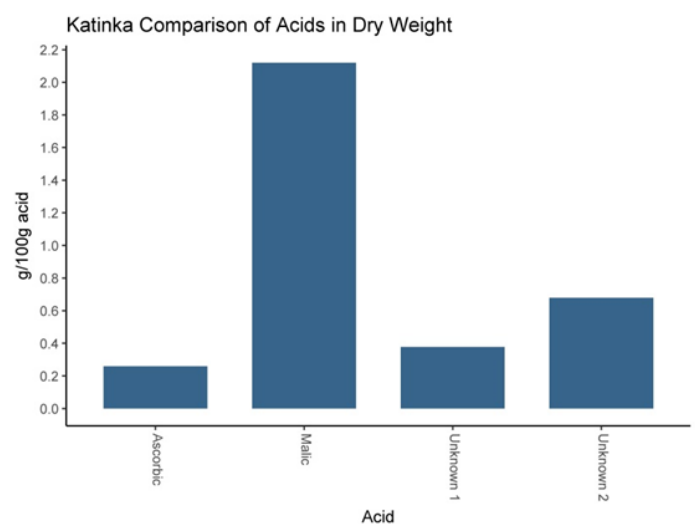
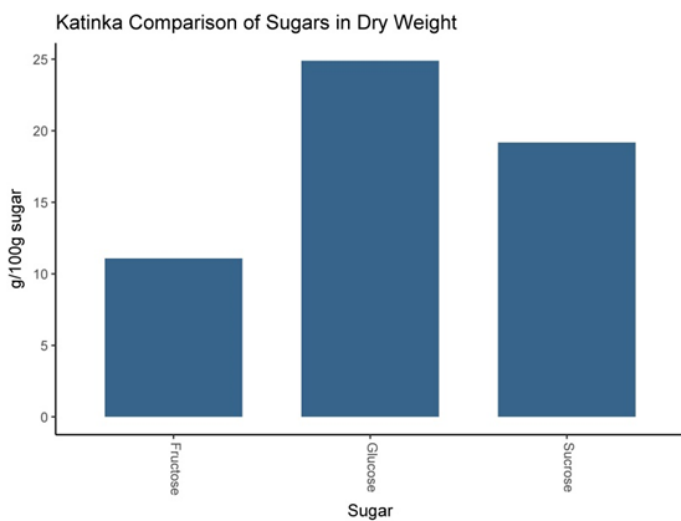
TASTING NOTES:

Katinka is quite desirable. The sweetness and acidity were similar to the reference and the sugar/acid balance rated as 'good balance' and the average overall score is 'good'. There was some variation in how participants scored Katinka however overall it seems to be above average in quality and flavour while having a good balance of sweetness and acidity.

ODOUR PROFILE



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Hexyl butyrate	Apple/apple peel, waxy, sweet, soapy, citrus and fresh
Hexyl lactone	No flavour
Butyl butyrate	Floral
Hexyl hexanoate	Peach, vegetable, herbal, apple peel, fresh and cut grass
Unknown compound 1	Unknown
Butyl octanoate	Buttery, herbal and dank



P7-38 (NEW VARIETY)

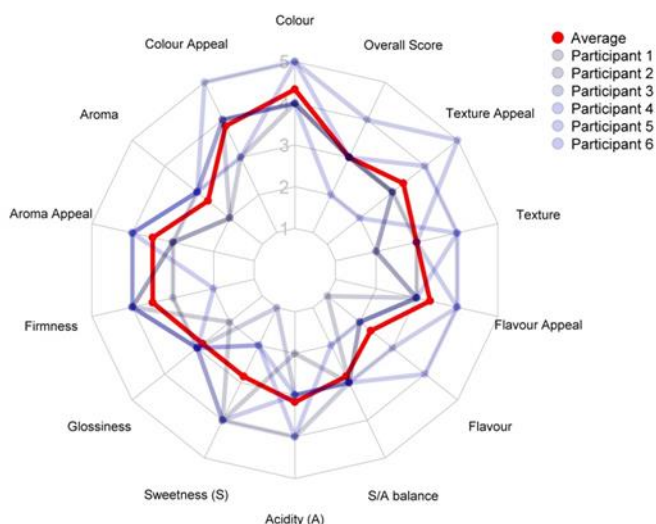


SHAPE	Oval
AVERAGE SIZE	3.1cm wide, 4.2cm height
COLOUR	Red/purple
AVERAGE °BRIX	(No data available)
AVERAGE CROPPING QUARTER	2 nd Q in July
FLOWERING PERIOD	3
TREE HABIT	Spreading

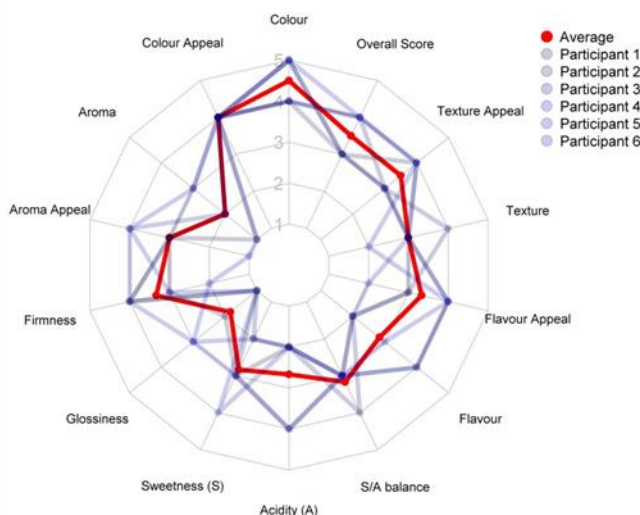
+	High tree vigour
+	High tree productivity
+	High cropping reliability
=	No data on disease resistance
=	Partially self-fertile

Note: As a potential new variety, data on P7-38 are preliminary

P7-38 (1) tasting



P7-38 (2) tasting

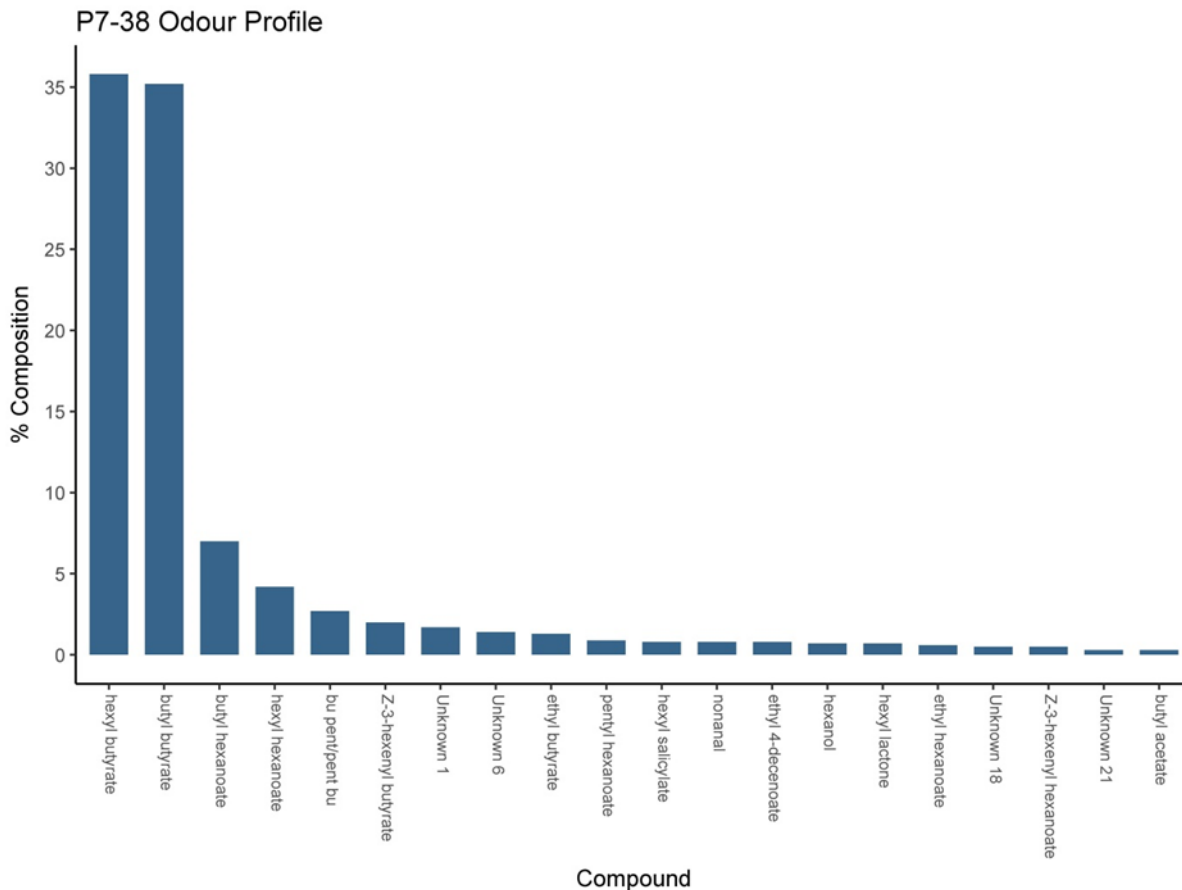


TASTING NOTES:

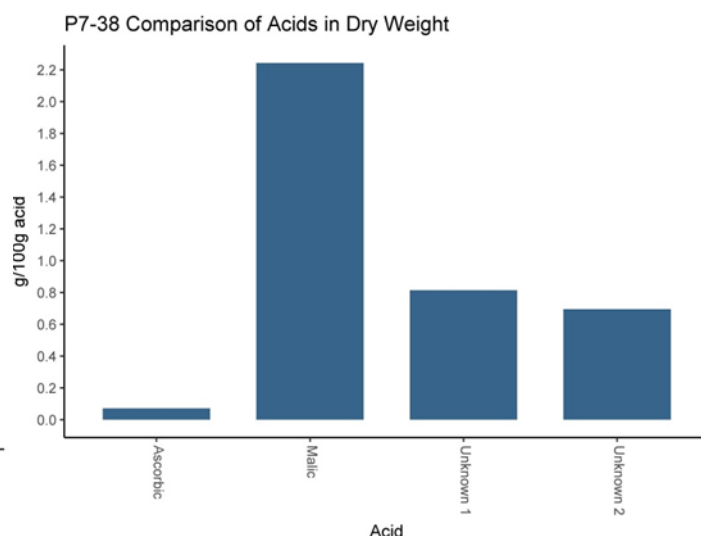
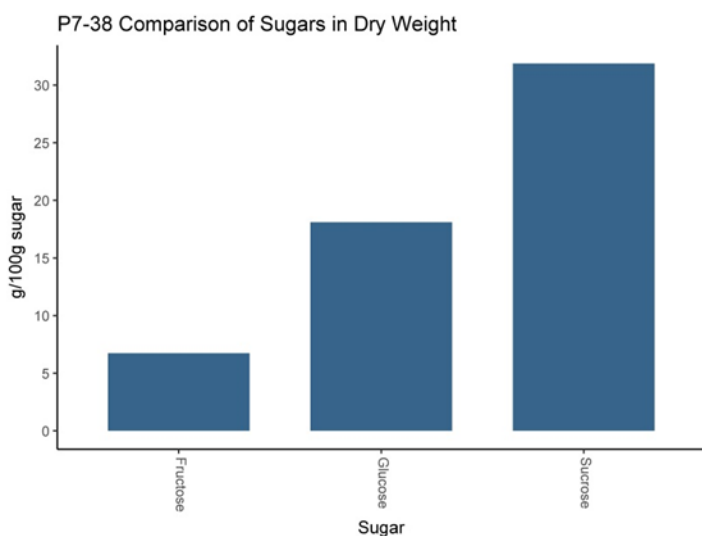
Note: P7-38 was picked and sampled two times. The first pick and tasting was on 06/07/18, the second was picked on 18/07/18 and tasted on the 23/07/18.

The sweetness and acidity ratings for both tastings were quite variable, although more variable for the earlier tasting. The earlier sample was possibly slightly under-ripe as it was rated as slightly more acidic and less sweet than the later sample. The flavour appeal was similar for both, while the overall score was slightly higher for the later sample. Overall the sweetness and acidity seem quite well balanced, neither being very sweet or acidic. The flavour appeal is slightly above ‘no preference’ and the overall score slightly above average.

ODOUR PROFILE



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Hexyl butyrate	Apple/apple peel, waxy, sweet, soapy, citrus and fresh
Butyl butyrate	Floral
Butyl hexanoate	Fruit, grass and green flavours
Hexyl hexanoate	Peach, vegetable, herbal, apple peel, fresh and cut grass



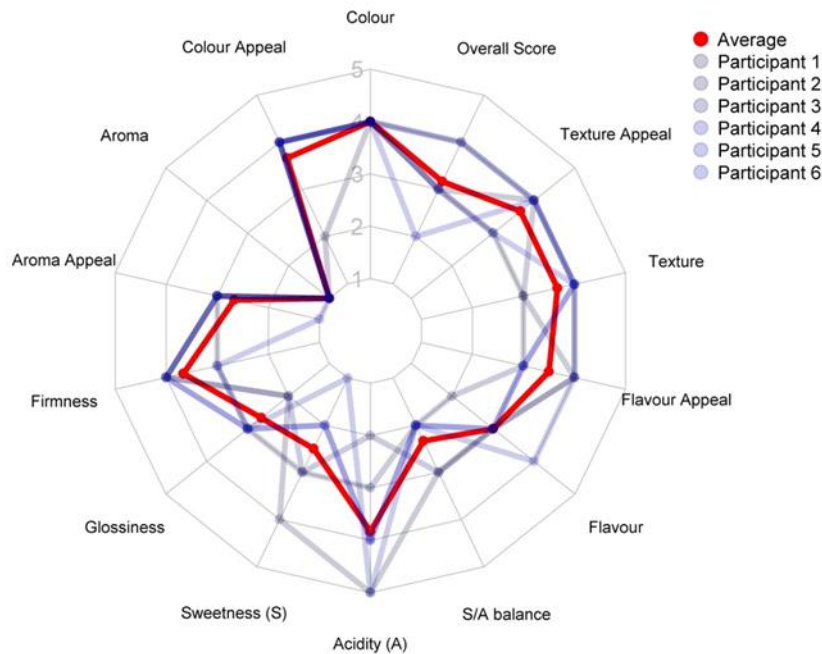
Juna



SHAPE	Oval (sometimes round)
AVERAGE SIZE	3cm wide, 4cm height
COLOUR	Blue/purple
AVERAGE °BRIX	14.6
AVERAGE CROPPING QUARTER	3 rd Q in July
FLOWERING PERIOD	2
TREE HABIT	Spreading

+	Highly self-fertile
+	High tree productivity
+	High disease resistance (Brown rot and Plum Pox)
=	Average disease resistance (bacterial canker)
=	Average tree vigour
-	Low cropping reliability
-	Frost sensitive
-	Requires irrigation
-	Requires thinning

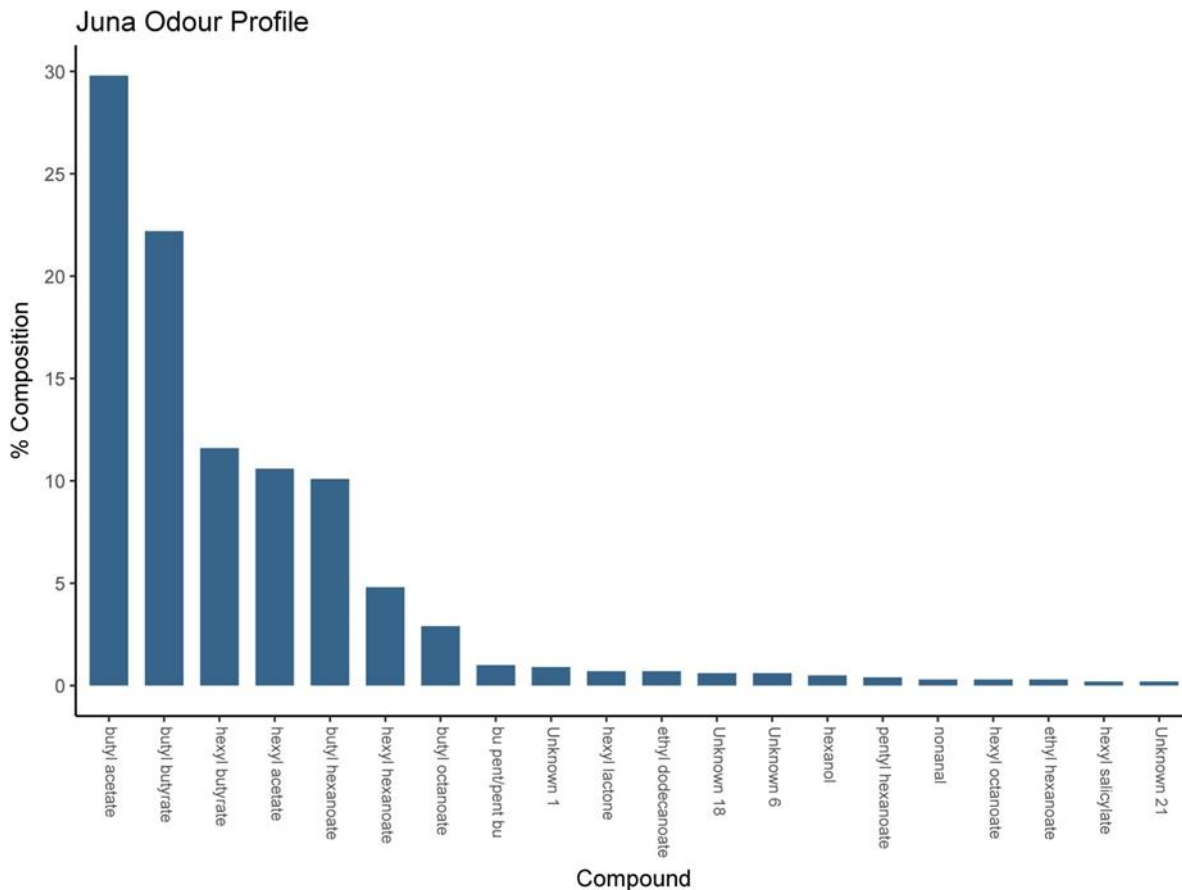
Juna tasting



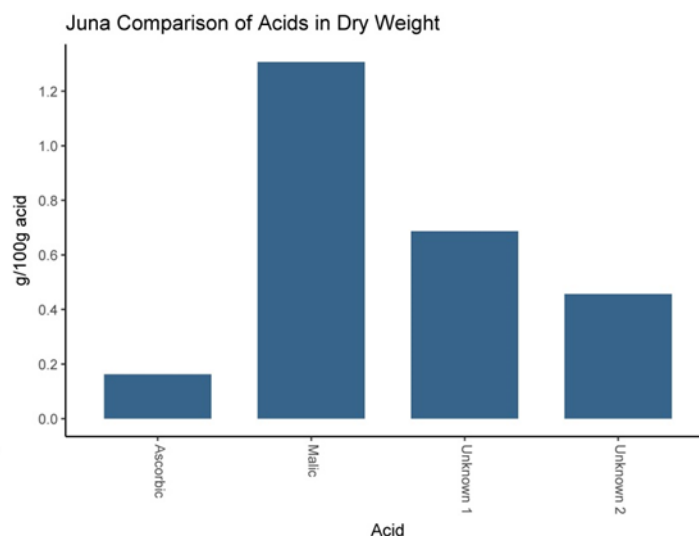
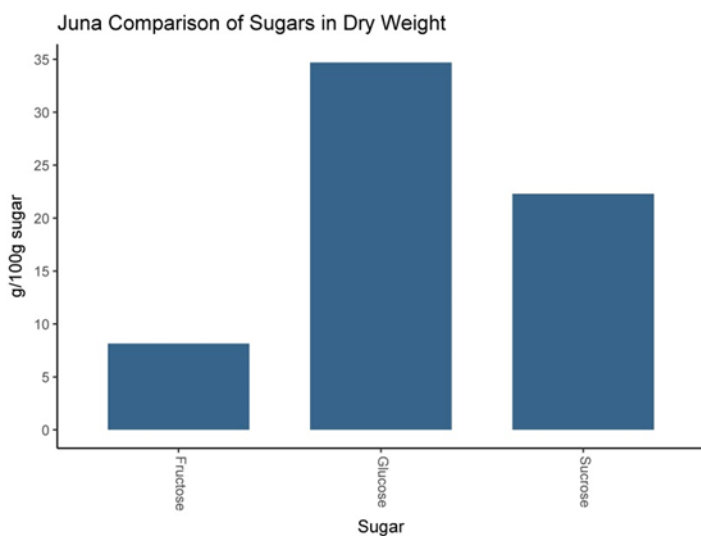
TASTING NOTES:

The sweetness score was below the reference and the acidity scored above, as a result the sugar/acid balance was closer to 'too acidic'. There was some variation in participant scores although less so in the sugar/acid balance rating. The flavour appeal averaged slightly above 'no preference' with no participants rating it below that. The overall score was average, although one participant rated Juna as 'poor' and one as 'good'. Overall Juna seems to be quite an acidic plum with a slightly above average flavour.

ODOUR PROFILE



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Butyl acetate	Apple, banana, glue and pungent
Butyl butyrate	Floral
Hexyl butyrate	Apple/apple peel, waxy, sweet, soapy, citrus and fresh
Hexyl acetate	Apple, banana, pear, grass and herb
Butyl hexanoate	Fruit, grass and green



P6-19 (NEW VARIETY)

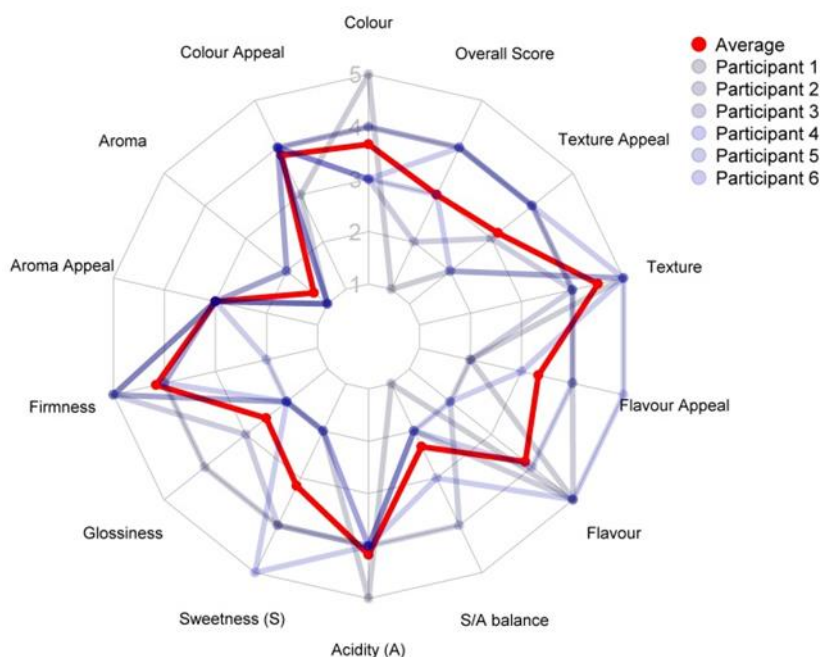


SHAPE	Round
AVERAGE SIZE	5.5cm wide, 5.5cm height
COLOUR	Red/purple
AVERAGE °BRIX	19.2
AVERAGE CROPPING QUARTER	4 th Q in July
FLOWERING PERIOD	3
TREE HABIT	Spreading

+	High tree vigour
+	High cropping reliability
=	Average tree productivity
=	No data on disease resistance
=	Partially self-fertile (better with pollinator)

Note: As a potential new variety, data on P6-19 are preliminary

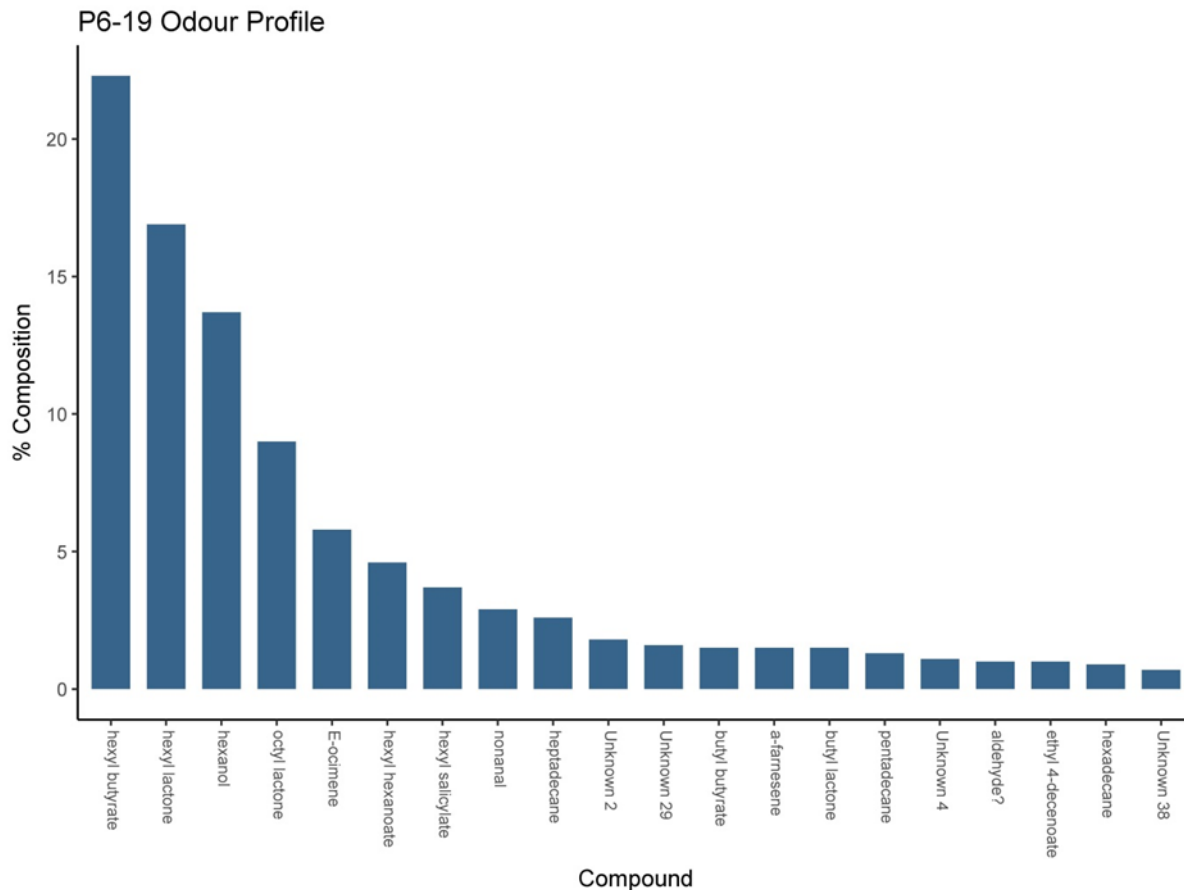
P6-19 tasting



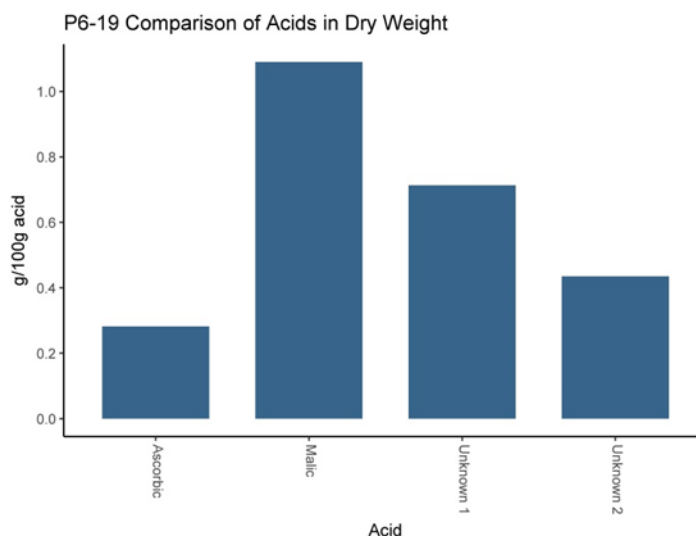
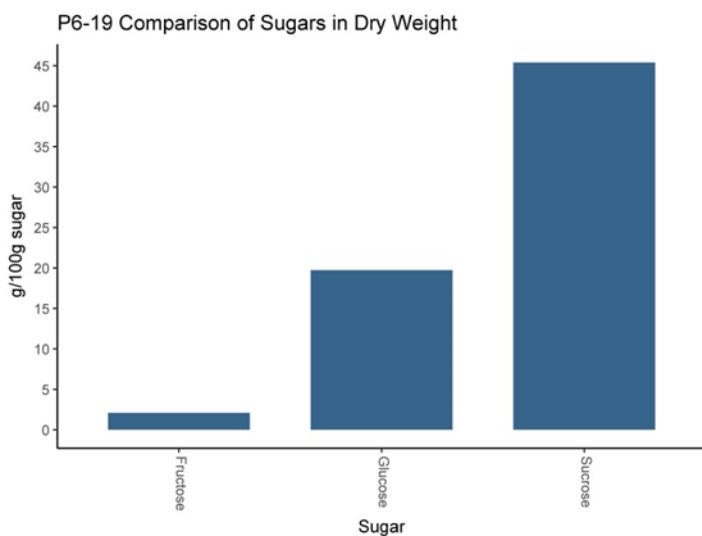
TASTING NOTES:

There was a lot of variation in how participants scored the sweetness, with some rating P6-19 as sweeter than the reference and some as less sweet, making the average about as sweet as the reference. The acidity ratings were more consistent, with all participants rating it as more acidic than the reference. The sugar/acid balance was also very variable; matching the sweetness variability, although most participants rated it as 'too acidic'. The average flavour strength is quite high however the flavour appeal is closer to 'no preference', although again there was a lot of variation between participants, with some rating it very highly and others rating it very low. The same is true of the overall score, meaning the average score was average. Overall P6-19 seems to be a slightly acidic plum, that will not appeal to everyone, however will be highly appealing to some.

ODOUR PROFILE



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Hexyl butyrate	Apple/apple peel, waxy, sweet, soapy, citrus and fresh
Hexyl lactone	No flavour
Hexanol	Leafy, grass, sweaty, tallow, fatty, fresh and fruity
Nonanal	Citrus, lime, orange peel, rose, fat, fishy, aldehydic, waxy, orris and grapefruit
Octyl lactone	No flavour
E-ocimene	Floral



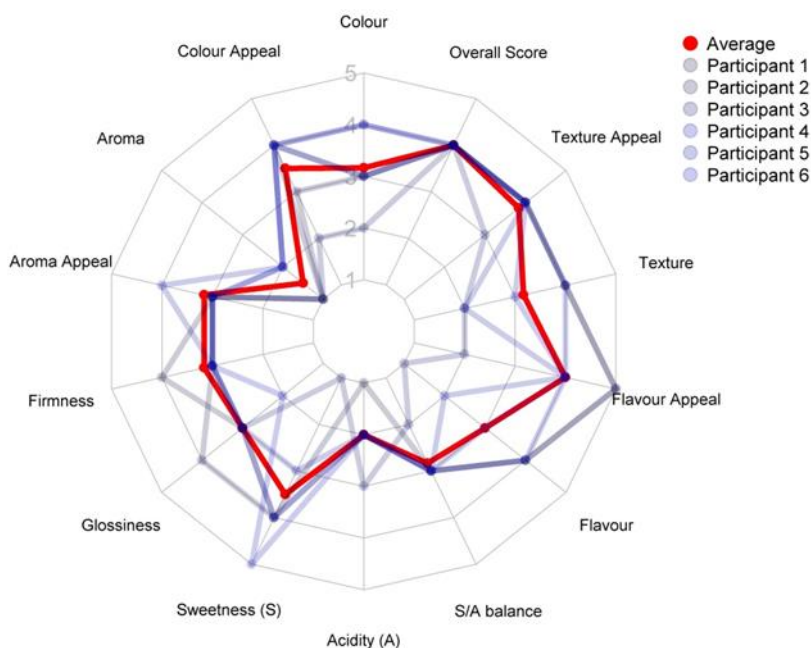
Opal

SHAPE	Oval/ round
AVERAGE SIZE	4.5cm wide, ~5cm height
COLOUR	Red/purple
AVERAGE °BRIX	14.3
AVERAGE CROPPING QUARTER	1 st Q in August
FLOWERING PERIOD	3
TREE HABIT	Spreading



+	High disease resistance (bacterial canker, Brown rot and Plum Pox)
+	High tree vigour
=	Average tree productivity
-	Low self-fertility
-	Low cropping reliability
-	Requires thinning

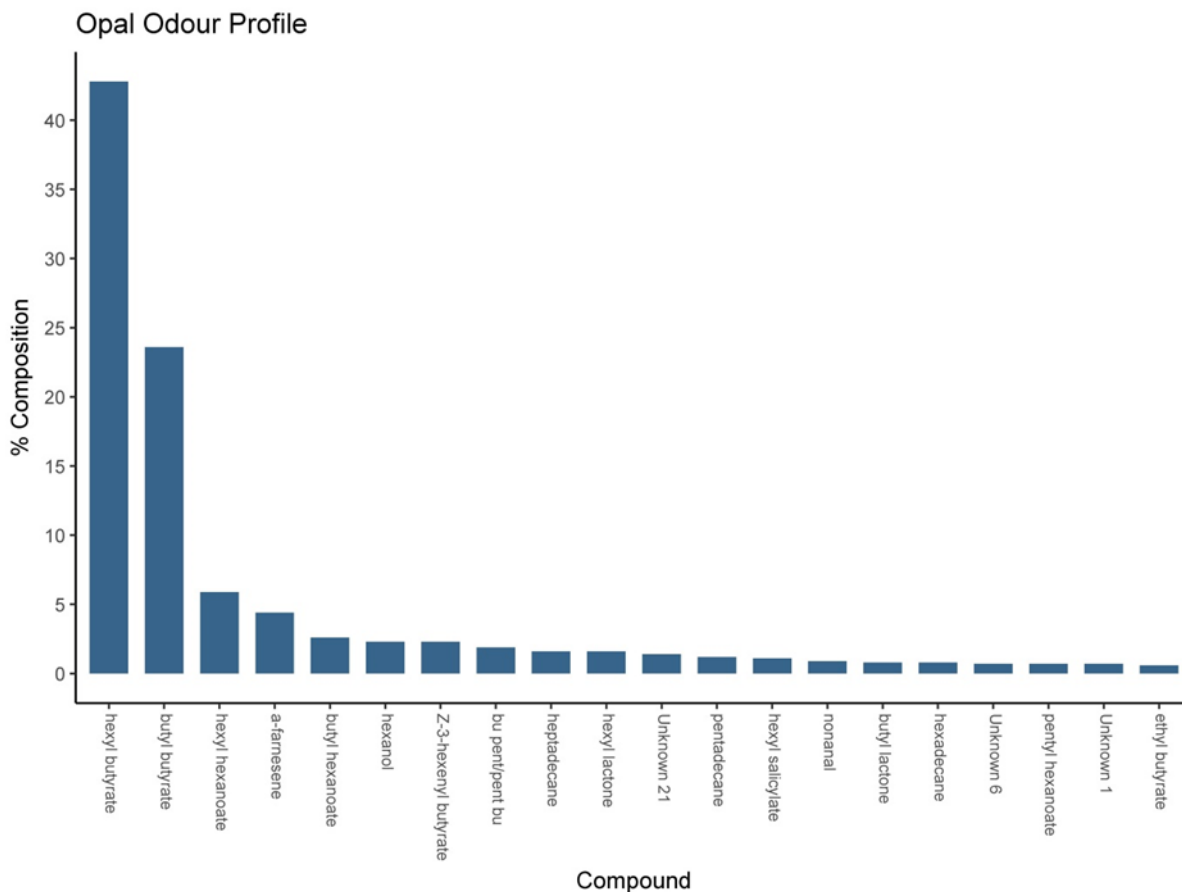
Opal tasting



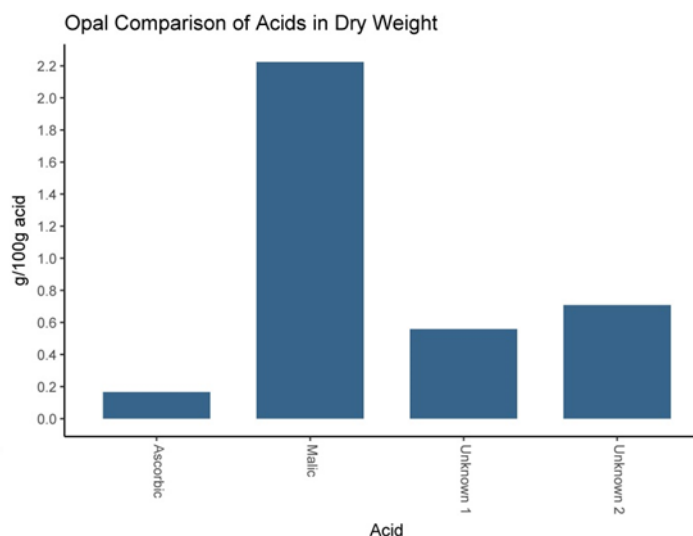
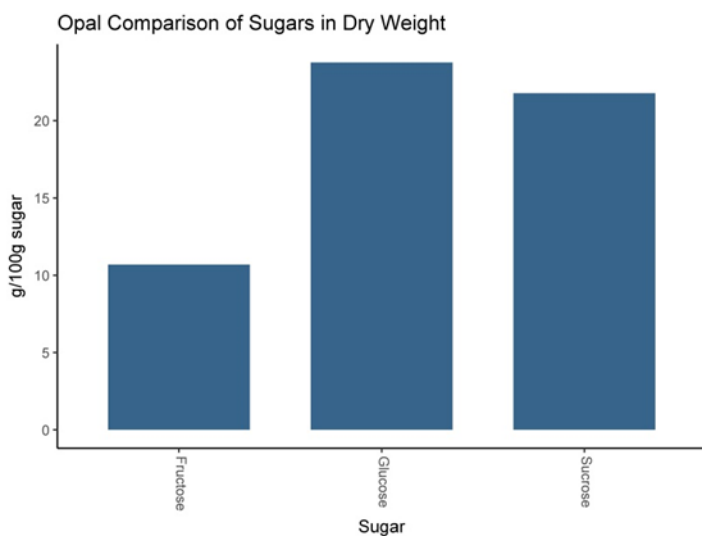
TASTING NOTES:

There was a lot of variation in the sweetness score for Opal ranging from much sweeter than the reference to much less sweet with the average being slightly sweeter, there was a lot less variation in the acidity with most considering it less acidic. The average sugar/acid balance was ‘good balance’ however some considered it too acidic. The flavour rating was also very varied, with some rating it as a strong flavour and some as a weak flavour. The flavour appeal was overall positive, with the average and most ratings being ‘appealing’, although one participant rated it as ‘unappealing’. The overall score for all participants was ‘good’ despite one participant giving the low flavour appeal score. Overall Opal appears to be quite an appealing plum, it seems to be slightly acidic and have a good flavour.

ODOUR PROFILE



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Hexyl butyrate	Apple/apple peel, waxy, sweet, soapy, citrus and fresh
Butyl butyrate	Floral
Hexyl hexanoate	Peach, vegetable, herbal, apple peel, fresh and cut grass



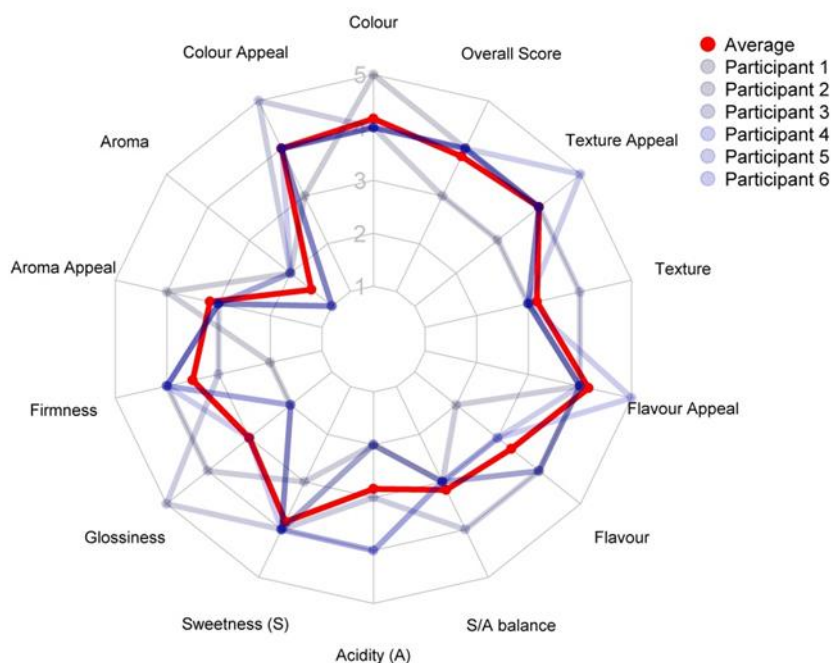
Lancelot

SHAPE	Round/ oval
AVERAGE SIZE	5cm wide, 5.5cm height
COLOUR	Red/purple
AVERAGE °BRIX	17.7
AVERAGE CROPPING QUARTER	1 st Q in August
FLOWERING PERIOD	3
TREE HABIT	Spreading



=	Average tree productivity
=	Average tree vigour
=	Average cropping reliability
=	Average disease resistance (bacterial canker, Brown rot, Plum Pox)
-	Low self-fertility

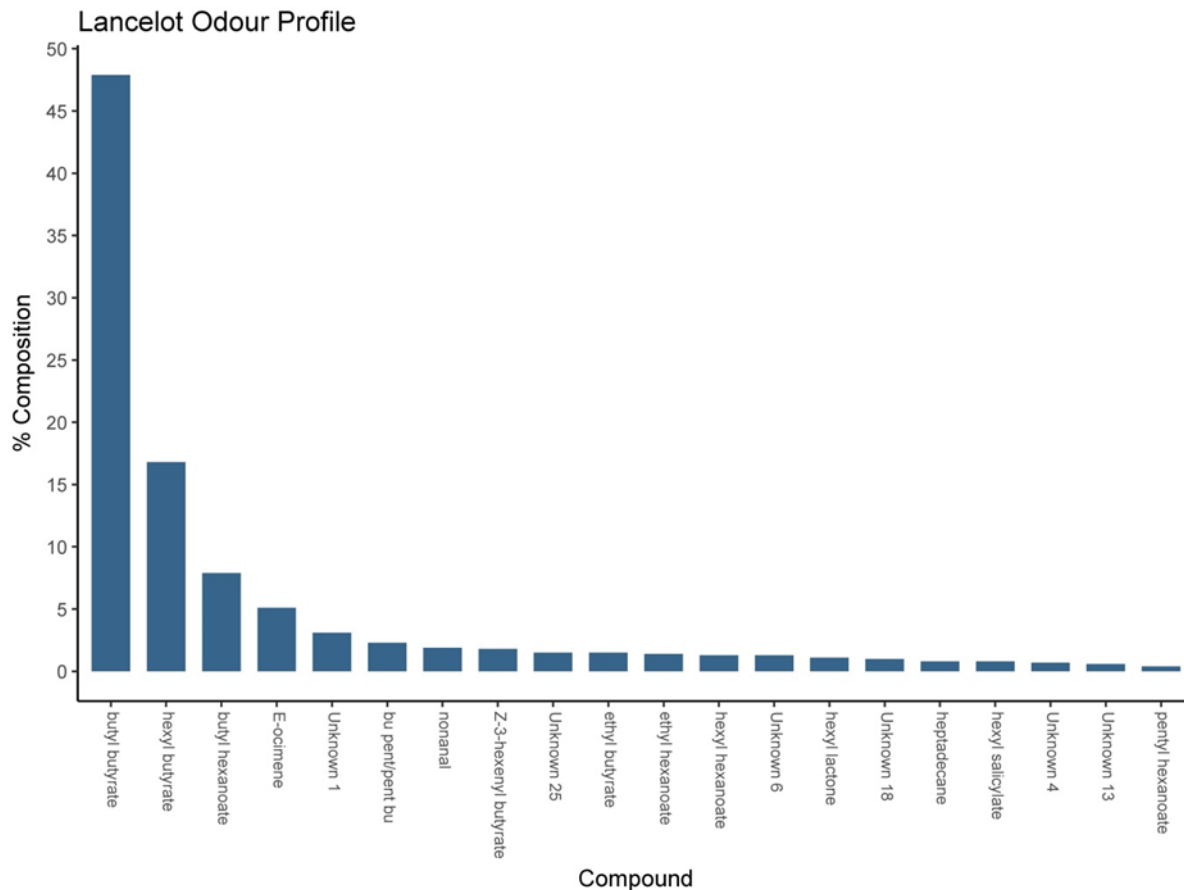
Lancelot tasting



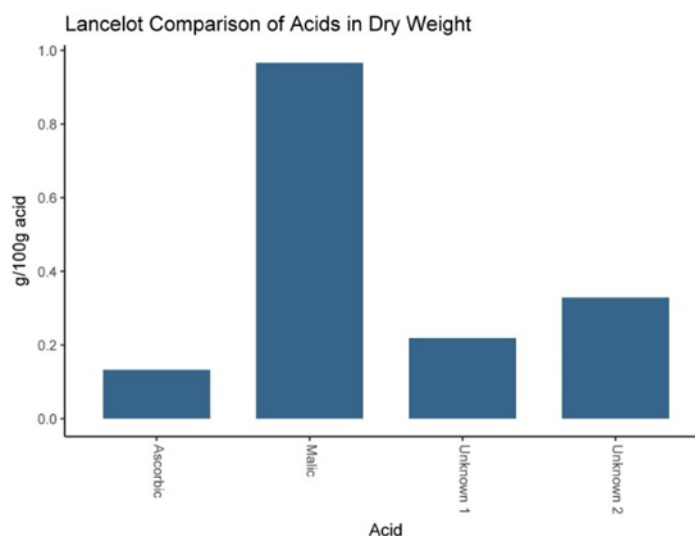
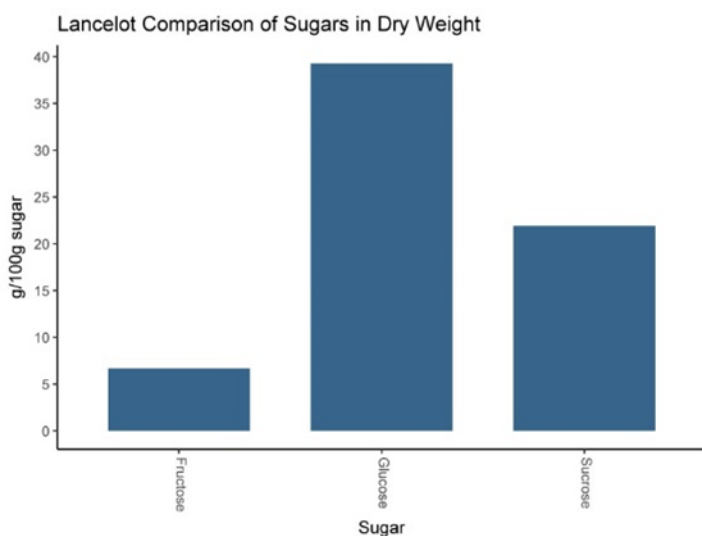
TASTING NOTES:

Most participants scored Lancelot as sweeter than the reference, while the acidity was more variable, with some rating it as more acidic and some as less, the average rating was about as acidic as the reference. Most participants rated the sugar/acid balance as 'good balance' with one participant rating it as 'too sweet'. The flavour score was quite variable, although most rated it as 'clear flavour' or above. The flavour appeal was very positive, with all participants rating it as 'appealing' or above. Most participants rated the overall score as 'good' although one rated it as 'average'. Overall Lancelot appears to be a sweet plum with a good sugar/acid balance and high flavour appeal.

ODOUR PROFILE



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Butyl butyrate	Floral
Hexyl butyrate	Apple/apple peel, waxy, sweet, soapy, citrus and fresh
Butyl hexanoate	Fruit, grass and green
E-cimene	Floral



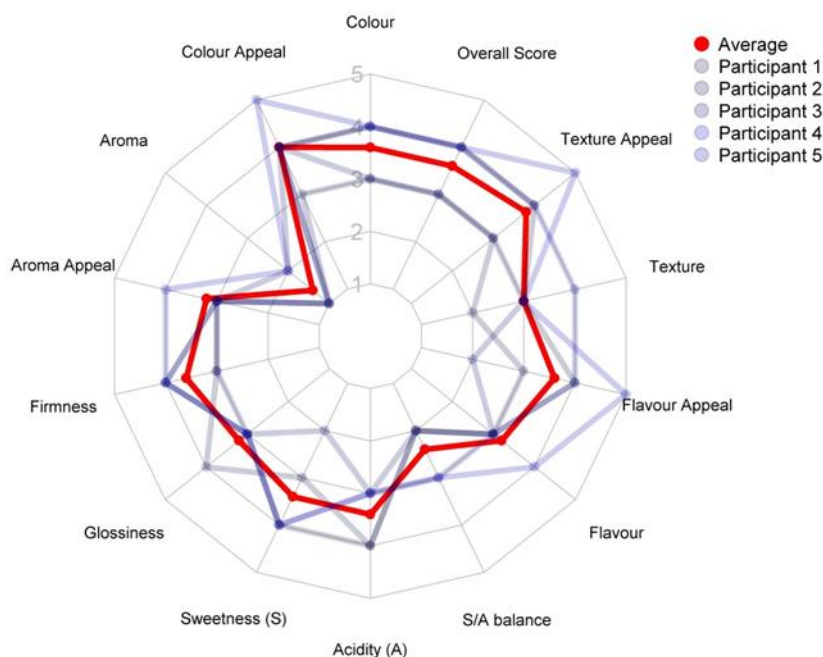
Avalon

SHAPE	Round/ oval
AVERAGE SIZE	4.4cm wide, 4.9cm height
COLOUR	Red
AVERAGE °BRIX	19.9
AVERAGE CROPPING QUARTER	3 rd Q in August
FLOWERING PERIOD	2
TREE HABIT	Upright-spreading



+	High disease resistance (Brown rot)
+	High tree vigour
=	Average disease resistance (bacterial canker)
-	No self-fertility
-	Low cropping reliability
-	Low tree productivity
-	Low disease resistance (Plum Pox)

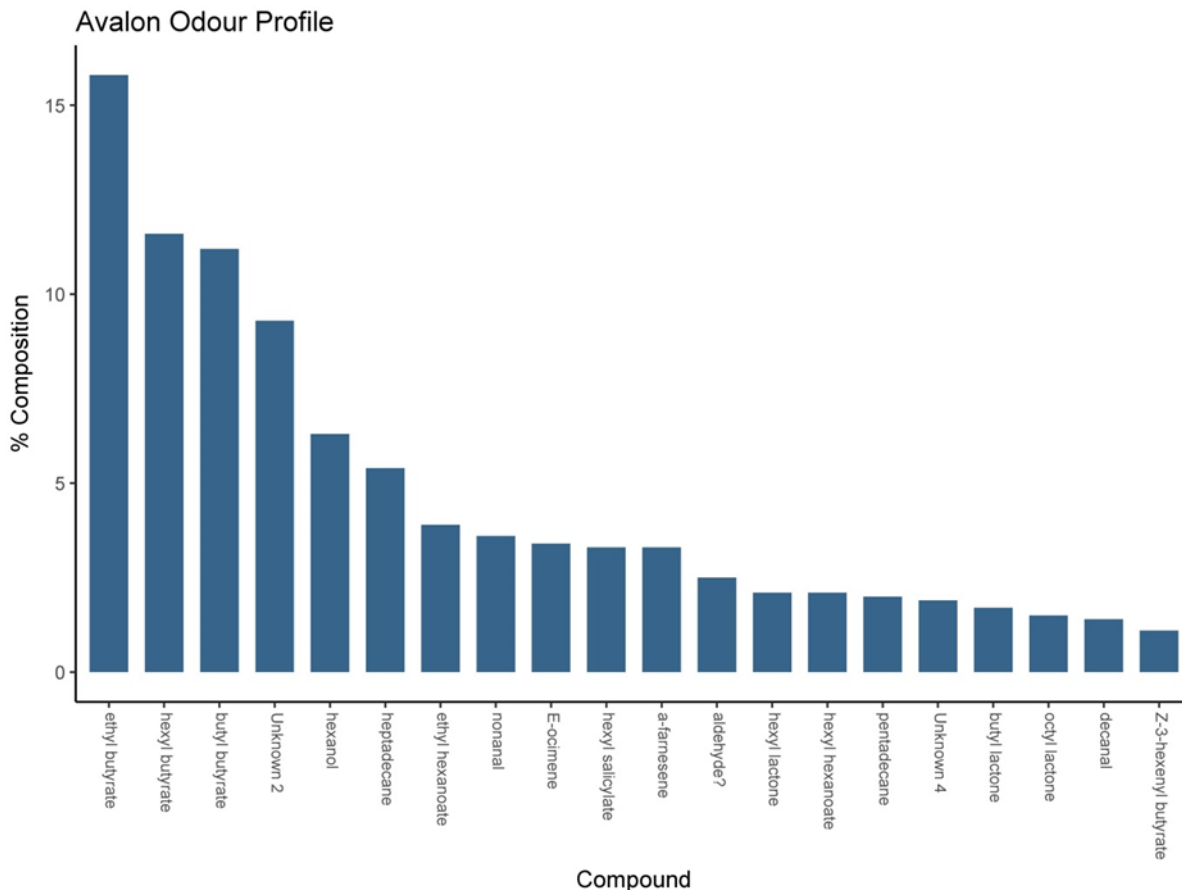
Avalon tasting



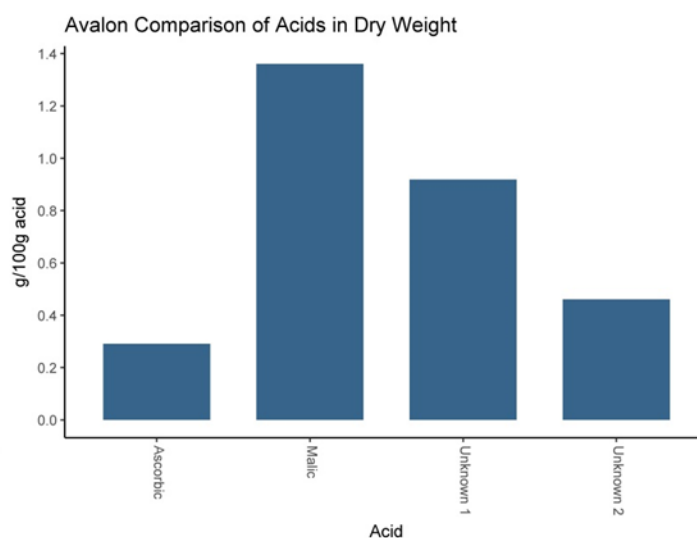
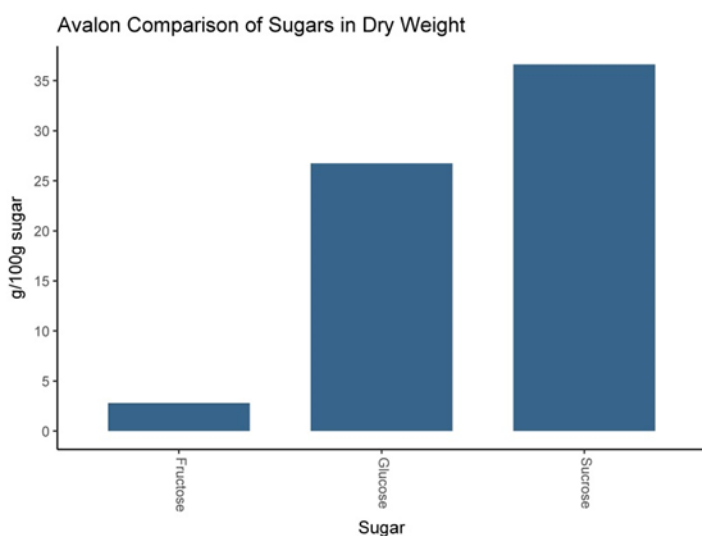
TASTING NOTES:

The sweetness and acidity were both scored above the reference on average, although with variation between participants. The sugar/acid balance was scored below 'no preference' meaning it was slightly too acidic, although some participants rated it as 'good balance'. Most participants rated the flavour as 'clear flavour' while the score for flavour appeal was very variable, with one participant giving as score of 'unappealing' and another rating it as 'very appealing'. The average overall score was between 'average' and 'good'. Overall Avalon is a plum with some sweetness and acidity that will tend towards being too acidic for some. The flavour will be very appealing to some but unappealing to others. A potentially above average plum but not to everyone's tastes

ODOUR PROFILE



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Ethyl butyrate	Apple, pineapple, banana, fruit, juicy and cognac flavours
Hexyl butyrate	Apple/apple peel, waxy, sweet, soapy, citrus and fresh
Butyl butyrate	Floral
Unknown compound 2	Unknown
Hexanol	Leafy, grass, sweaty, tallow, fatty, fresh and fruity flavours
Heptadecane	No flavour



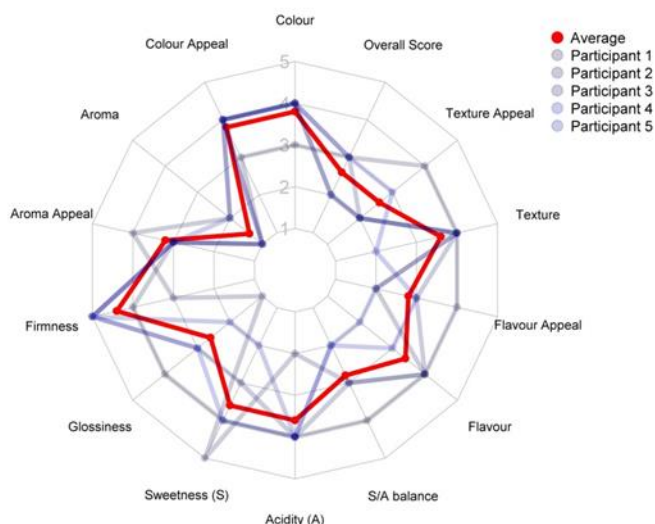
Jubileum (synonym: Jubilee)

SHAPE	Oval
AVERAGE SIZE	5.4cm wide, 6.4cm height
COLOUR	Red/purple
AVERAGE °BRIX	14.6/14.5
AVERAGE CROPPING QUARTER	3 rd Q in August
FLOWERING PERIOD	3
TREE HABIT	Upright

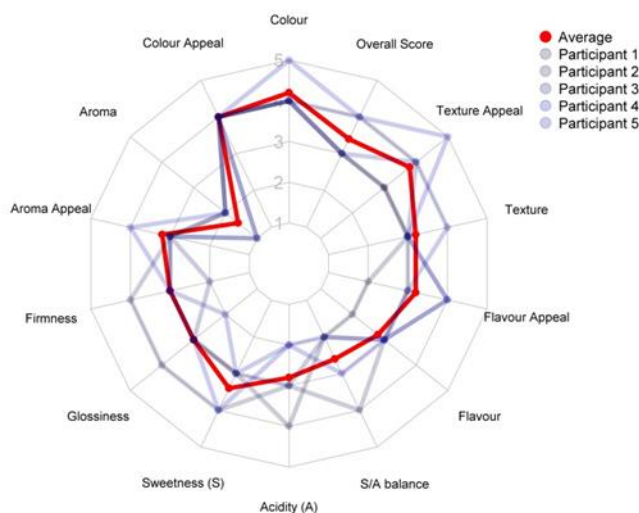


+	High tree productivity
+	High tree vigour
=	Partially self-fertile
-	Low disease resistance (bacterial canker, Brown rot, Plum Pox)

Jublieum (1) tasting



Jublieum (2) tasting

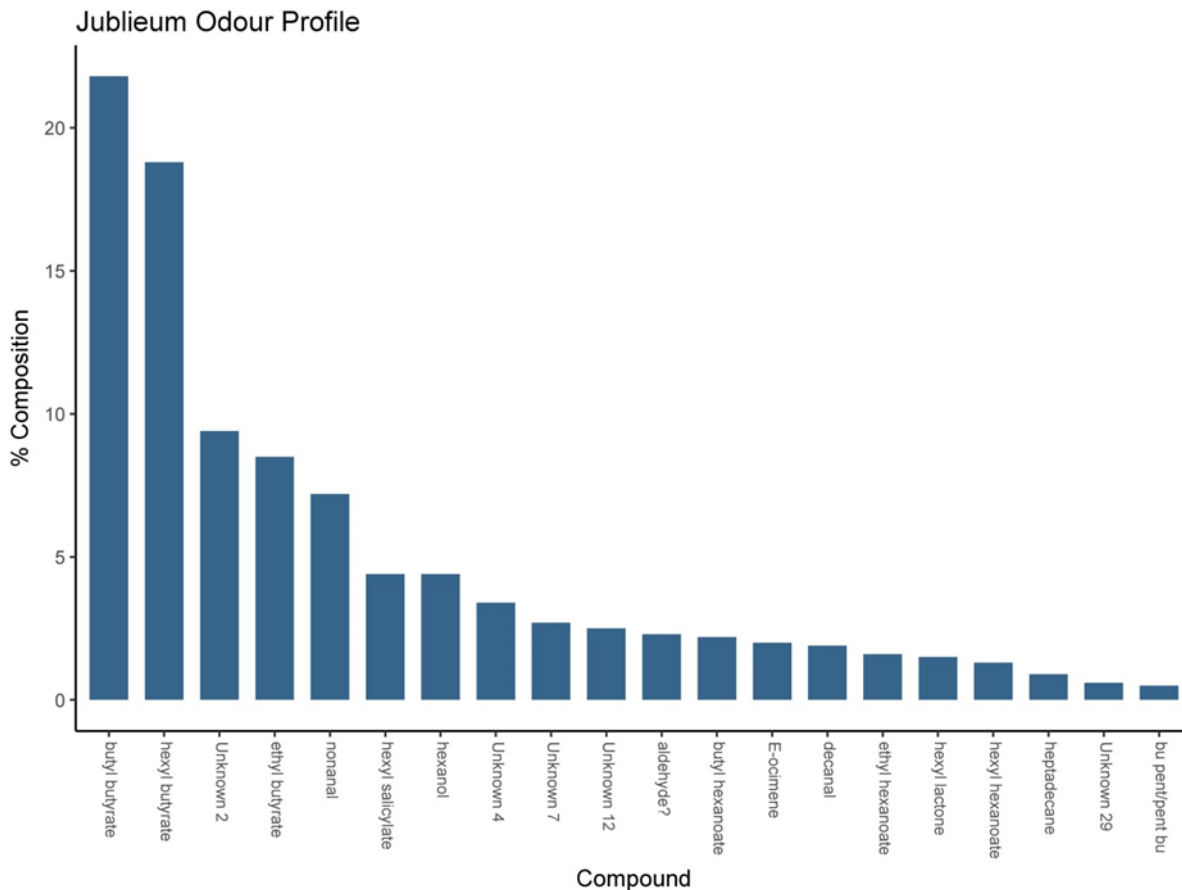


TASTING NOTES:

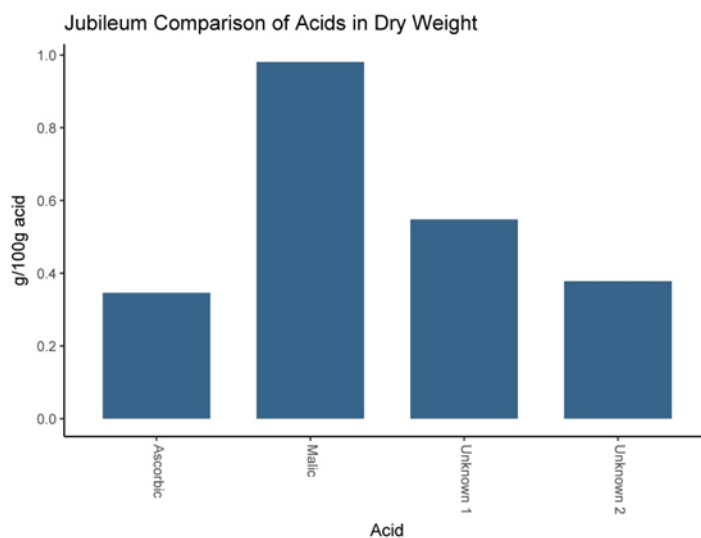
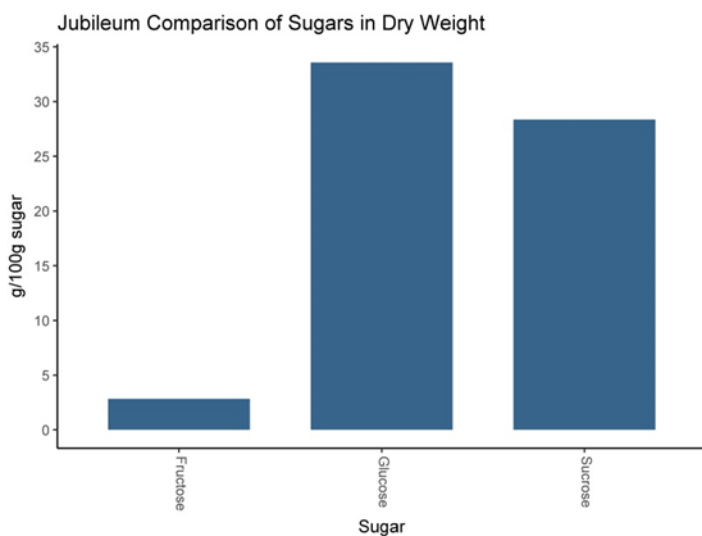
Note: P7-38 was picked and sampled two times. The first pick and tasting was on 08/08/18 and tasted on 10/08/2018, the second was picked on 15/08/18 and tasted on 16/08/18.

There were some differences between the tastings, with the earlier one being rated as higher firmness and acidity, suggesting slightly under-ripe, there was also more variation in the sweetness rating and sugar/acid balance of the earlier tasting with some finding it too sweet and others too acidic. At the later tasting the sweetness rating remained high while the acidity decreased, the sugar/acid rating remained variable with some finding it too sweet and others too acidic. The flavour appeal is slightly higher for the later tasting although for both it was about average; the overall score was higher for the later tasting although still close to average. Overall, Jublieum can be regarded as a sweet plum when ripe but with limited flavour, average scores.

ODOUR PROFILE



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Butyl butyrate	Floral
Hexyl butyrate	Apple/apple peel, waxy, sweet, soapy, citrus and fresh
Unknown compound 2	
Ethyl butyrate	Apple, pineapple, banana, fruit, juicy and cognac flavours
Nonanal	Citrus, lime, orange peel, rose, fat, fishy, aldehydic, waxy, orris and grapefruit



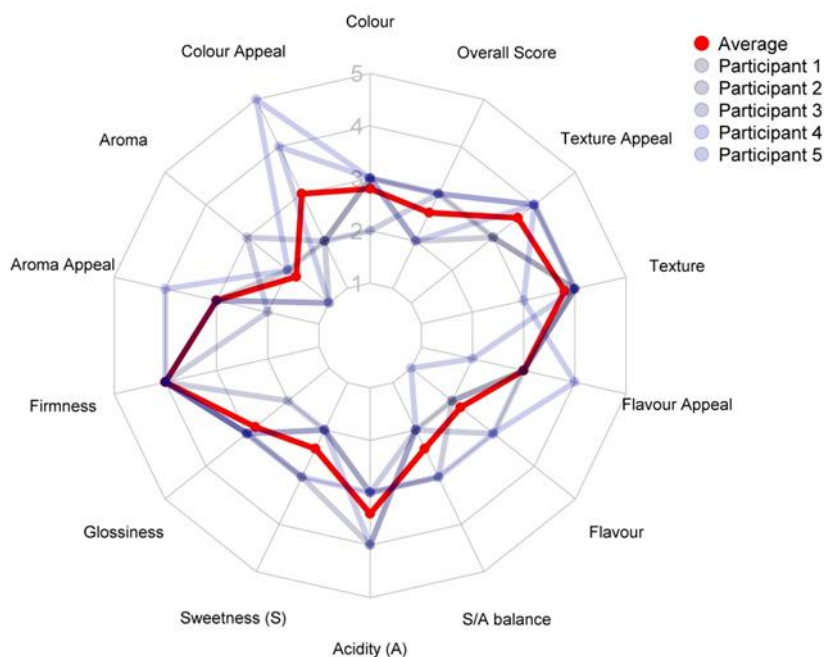
Reeves

SHAPE	Round
AVERAGE SIZE	5.1cm wide, 5.2cm height
COLOUR	Red/purple
AVERAGE °BRIX	15.3
AVERAGE CROPPING QUARTER	3 rd Q in August
FLOWERING PERIOD	3
TREE HABIT	Spreading



=	Average tree productivity
=	Average tree vigour
=	Average disease resistance (bacterial canker, Brown rot, Plum Pox)
-	No self-fertility
-	Low cropping reliability

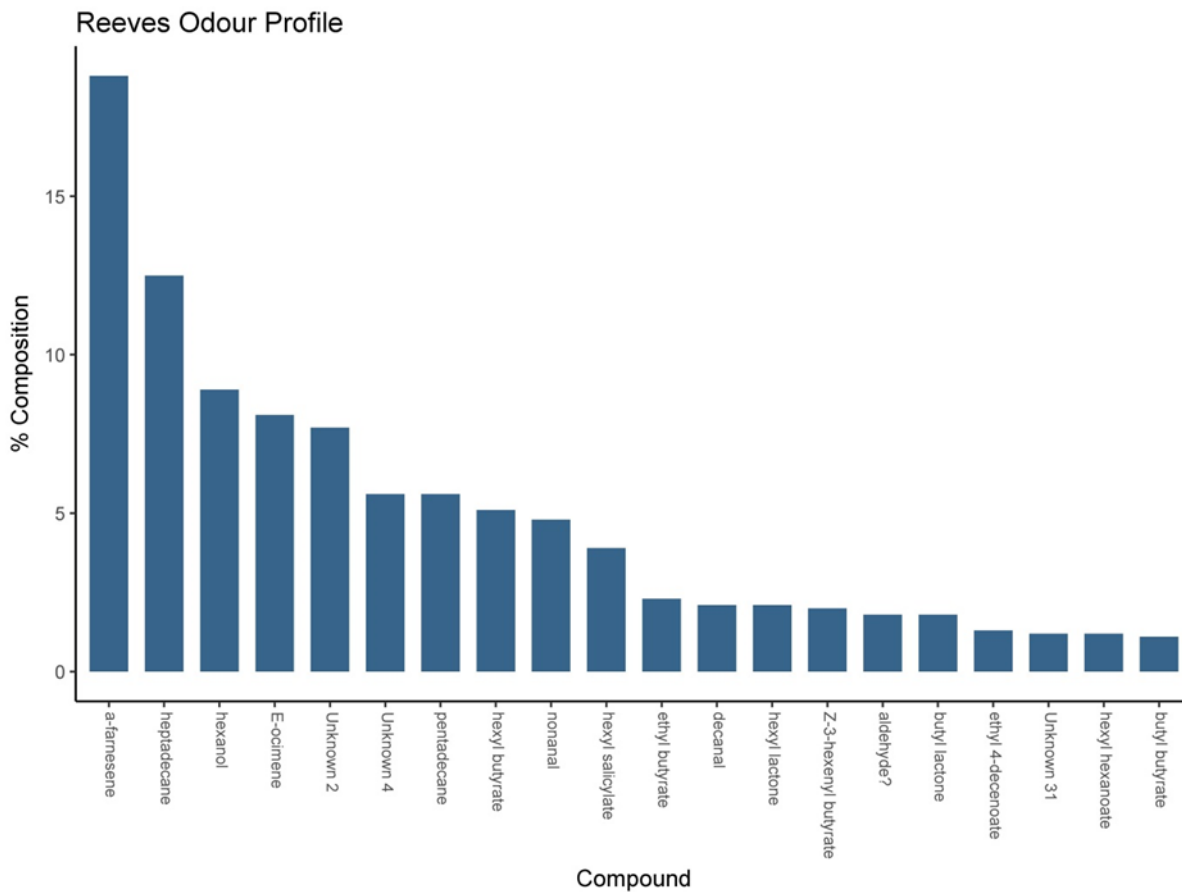
Reeves tasting



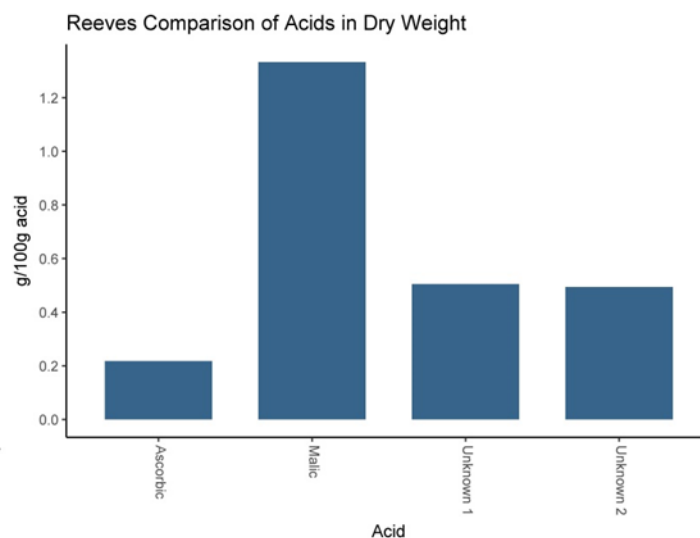
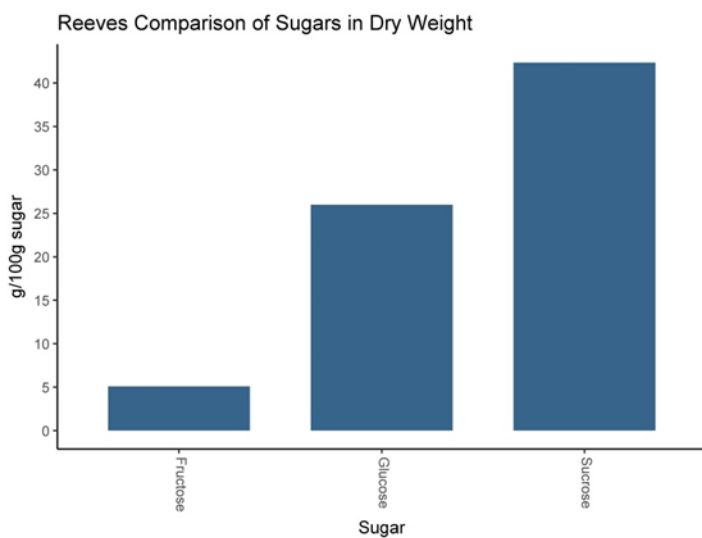
TASTING NOTES:

Reeves scored below the reference for sweetness; although some found it to be as sweet as the reference, and above for acidity; with all participants rating it as acidic as the reference or above. Most participants rated the sugar/acid balance as 'too acidic' with some saying 'good balance'. The flavour strength scores varied, however the average was close to 'mild flavour', most participants rated the flavour appeal as 'no preference' with one rating it 'appealing' and one 'unappealing'. The overall score was at or below 'average'. Overall Reeves seems to be an acidic variety with little flavour appeal, however the sample looked slightly under-ripe.

ODOUR PROFILE



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
α-farnesene	Boiled vegetable, floral and woody flavours
Heptadecane	No flavour
Hexanol	Leafy, grass, sweaty, tallow, fatty, fresh and fruity
E-ocimene	Floral
Unknown compound 2	Unknown
Unknown compound 4	Unknown
Pentadecane	Waxy
Hexyl butyrate	apple/apple peel, waxy, sweet, soapy, citrus and fresh



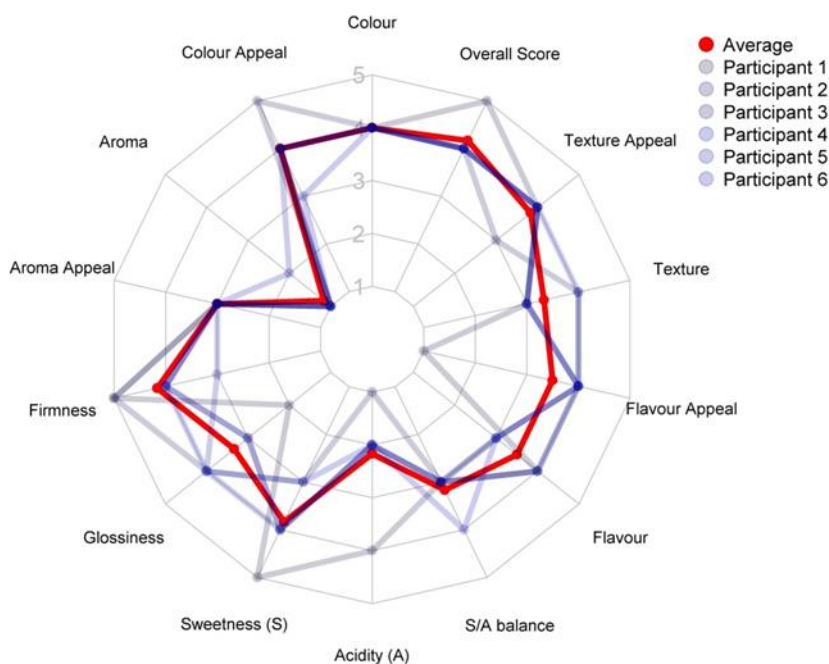
Ferbleu

SHAPE	Round
AVERAGE SIZE	4.2cm wide, 4.4cm height
COLOUR	Red/purple
AVERAGE °BRIX	17.9
AVERAGE CROPPING QUARTER	4 th Q in August
FLOWERING PERIOD	2
TREE HABIT	Spreading



+	High tree productivity
=	Average tree vigour
=	Average cropping reliability
=	Average disease resistance (bacterial canker, Brown rot, Plum Pox)
-	Low self-fertility

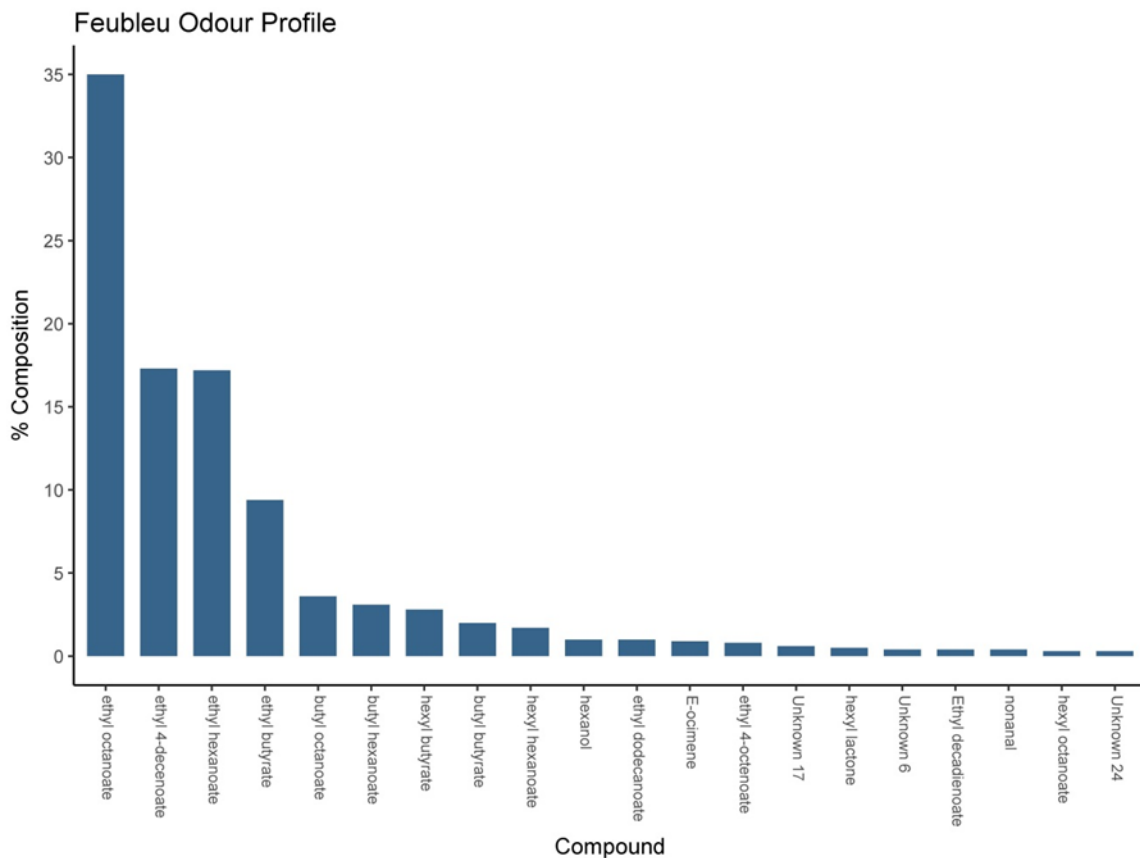
Feubleu tasting



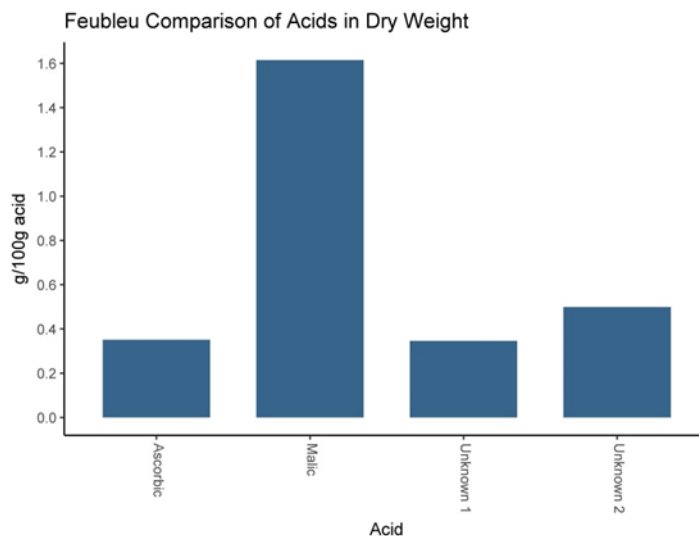
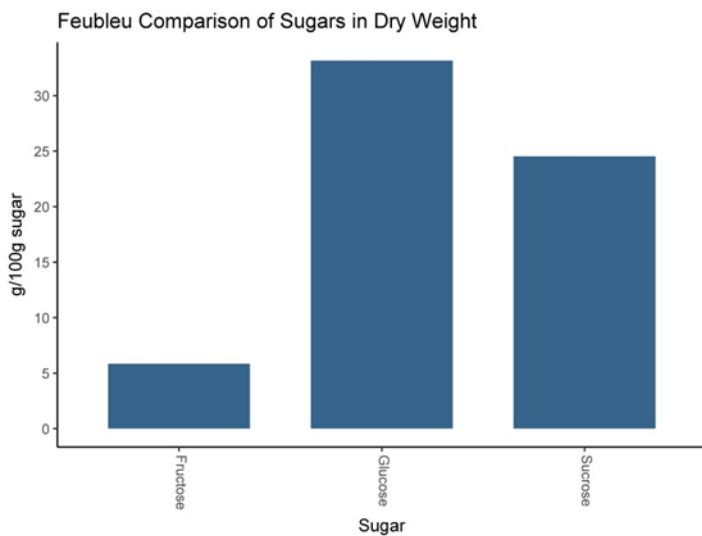
TASTING NOTES:

The average sweetness score for Feubleu was above the reference while the average acidity score was below the reference although there was some variation between participants. The average sugar/acid balance score was 'good balance', although one participant rated it as 'too sweet'. The flavour score was at or above 'clear flavour' and all participants except one gave the flavour appeal a score of 'appealing'. Despite one participant giving the flavour appeal a low score all gave Feubleu an overall score of 'good' or above. Overall Feubleu is a sweet plum but is considered to have a good sugar/acid balance and flavour. A good quality eating plum.

ODOUR PROFILE



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Ethyl octanoate	Apricot, brandy, fat, floral and pineapple
Ethyl 4-decanoate	Fruity
Ethyl hexanoate	Apple peel, brandy, fruit gum, overripe and pineapple
Ethyl butyrate	Apple, pineapple, banana, fruit, juicy and cognac



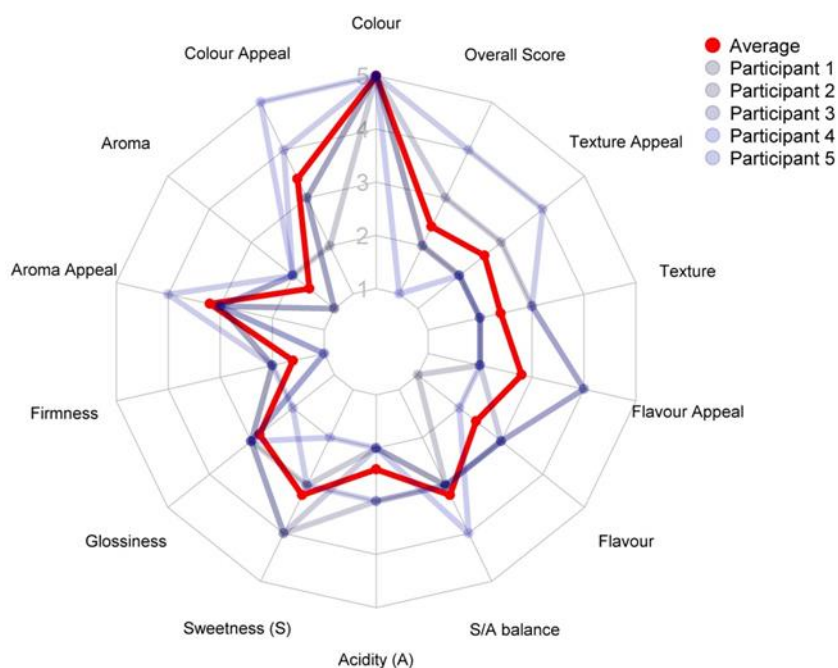
Top Five

SHAPE	Oval
AVERAGE SIZE	2.9cm wide, 3.4cm height
COLOUR	Blue/black
AVERAGE °BRIX	20.4
AVERAGE CROPPING QUARTER	4 th Q in August
FLOWERING PERIOD	4
TREE HABIT	Spreading



+	High tree vigour
+	High tree productivity
+	High cropping reliability
+	High disease resistance (bacterial canker, Brown rot and Plum Pox)
=	Partially self-fertile

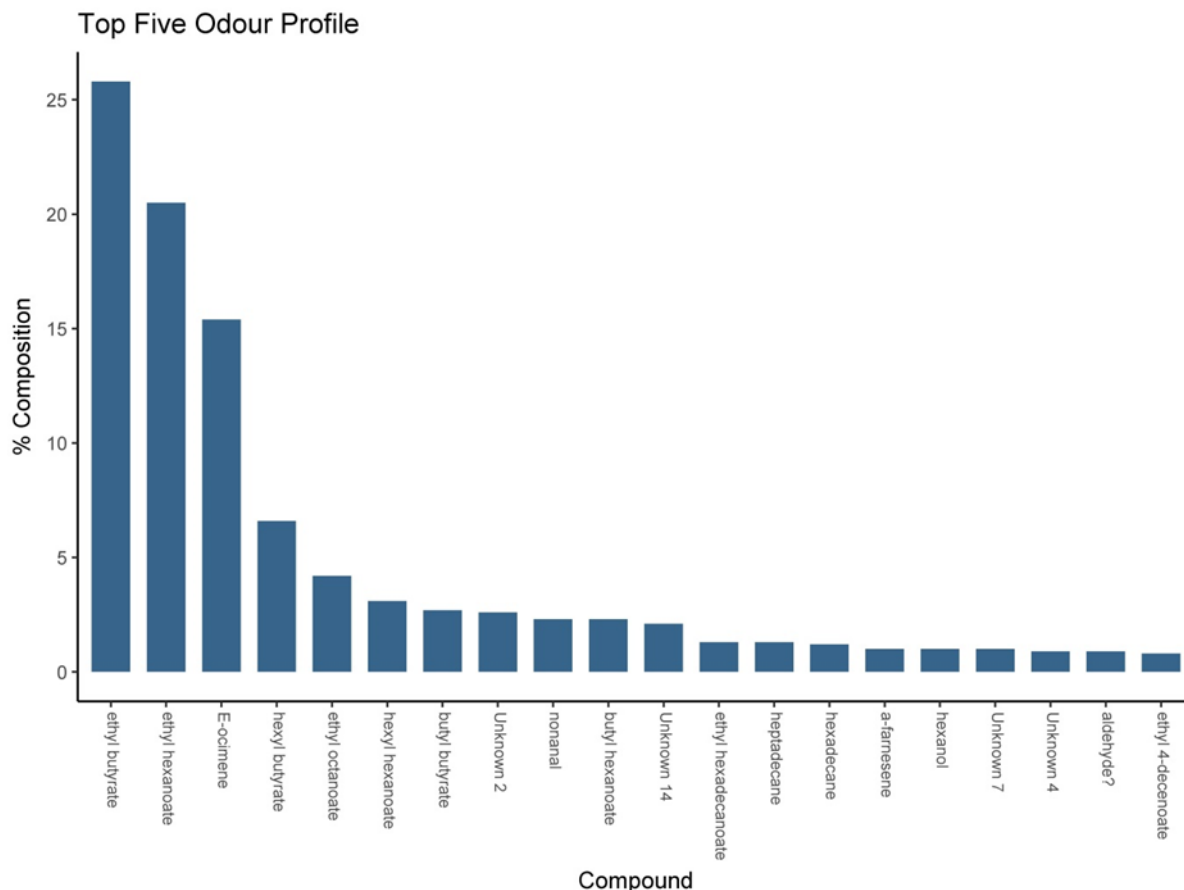
Top Five tasting



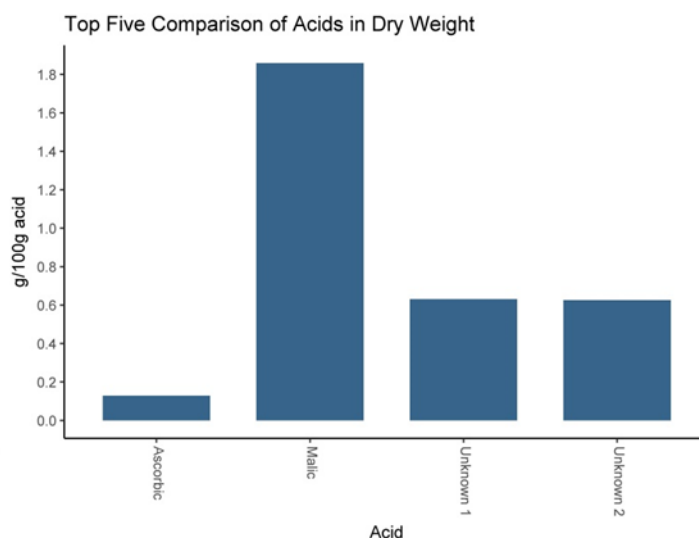
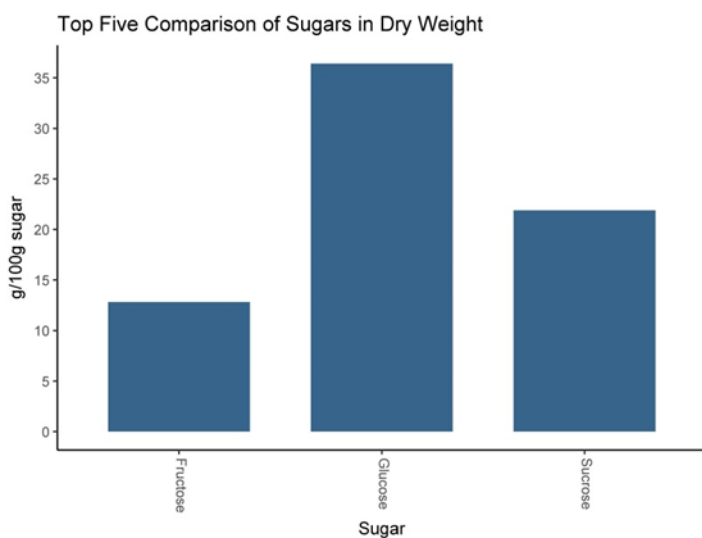
TASTING NOTES:

The sample was over-ripe which may explain the low overall score, the sweetness was similar to the reference while the acidity was lower, despite this most participants rated the sugar/acid balance as 'good balance'. The flavour score for most was 'unappealing' although this may have been due to the over-ripeness. The over-ripeness can be seen in the low texture score, meaning the plums were soft. Overall an average scoring plum, leaning towards unappealing however this could have been due to the over-ripeness. The small size may be appealing to some for snacking purposes.

ODOUR PROFILE



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Ethyl butyrate	Apple, pineapple, banana, fruit, juicy and cognac
Ethyl hexanoate	Apple peel, brandy, fruit gum, overripe and pineapple
E-ocimene	Floral
Hexyl butyrate	Apple/apple peel, waxy, sweet, soapy, citrus and fresh



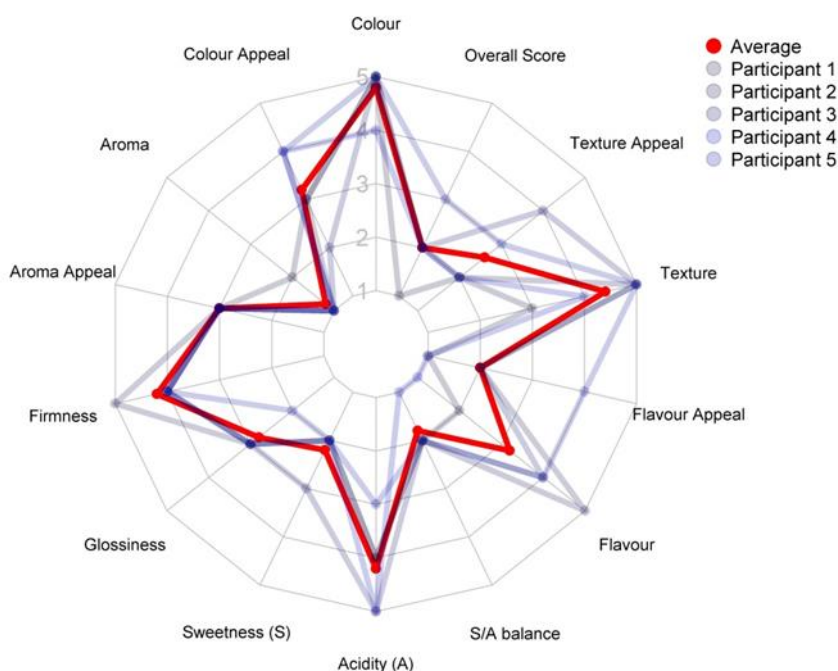
Haroma

SHAPE	Oval
AVERAGE SIZE	3.6cm wide, 4.4cm height
COLOUR	Red/ blue
AVERAGE °BRIX	16.8
AVERAGE CROPPING QUARTER	1 st Q in September
FLOWERING PERIOD	2
TREE HABIT	Spreading



+	High self-fertility
+	High tree productivity
+	High cropping reliability
=	Average disease resistance (bacterial canker)
=	Average tree vigour
-	Low disease resistance (Brown Rot and Plum Pox)

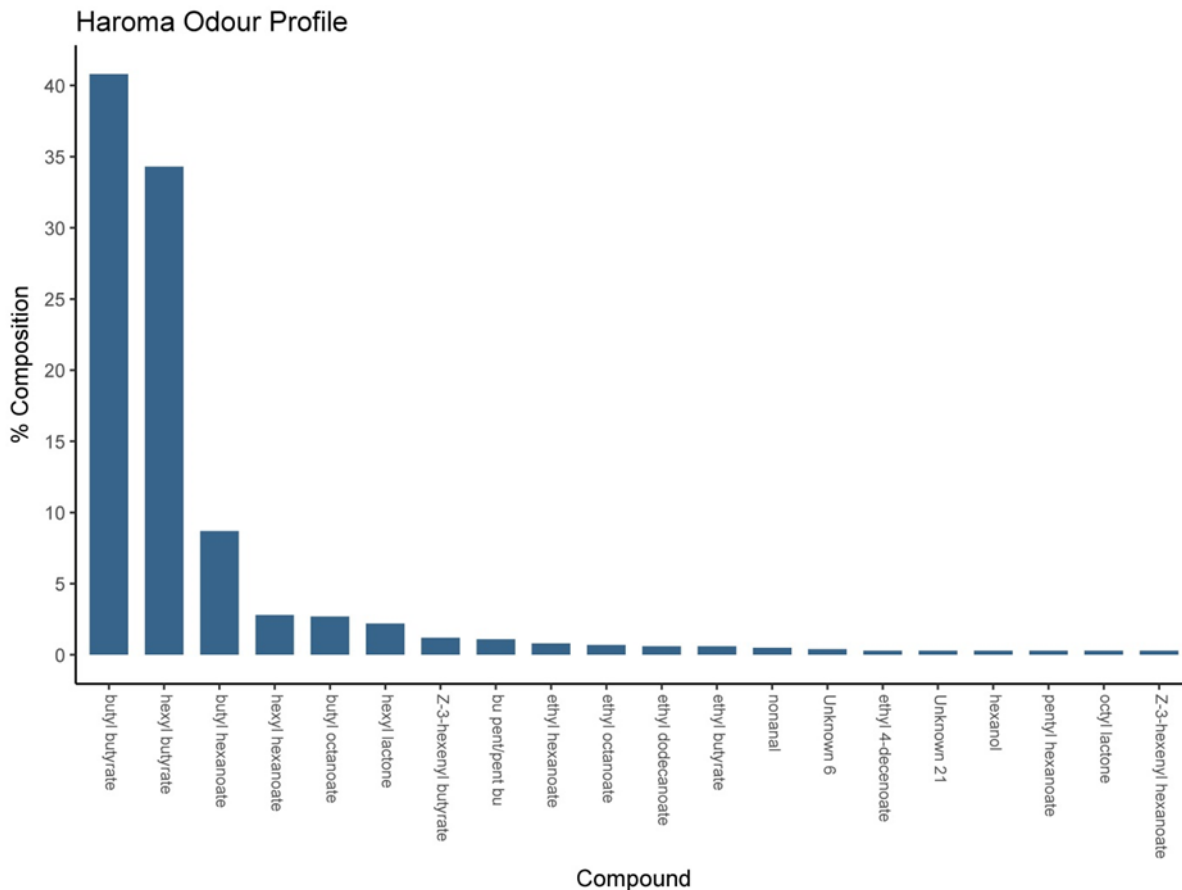
Haroma tasting



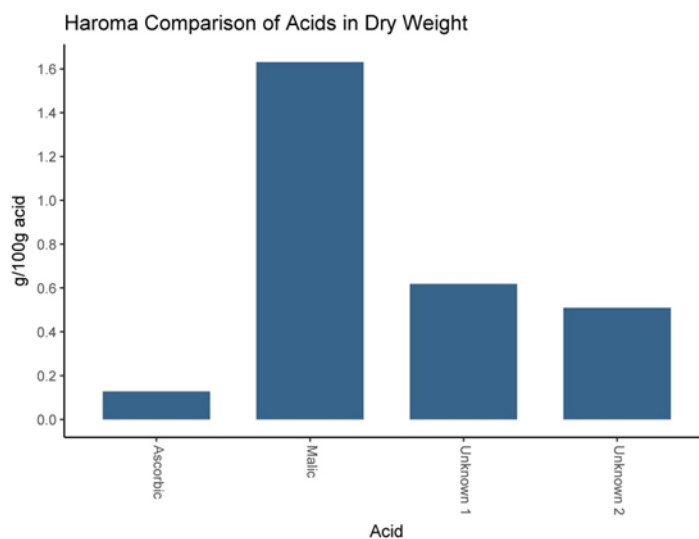
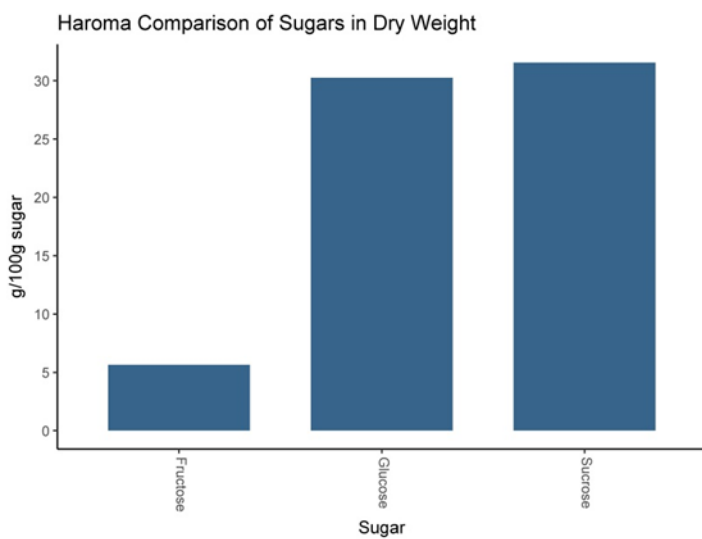
TASTING NOTES:

The sample was picked on the 30/08/18 possibly contributing to many of the plums in the sample being under-ripe, this can be seen in the high texture and firmness scores many participants gave, meaning the plums were very firm both to the touch and to eat. The high acidity is also a consequence of this, the sweetness was also below the reference. The flavour appeal and overall score were both very poor. The sugar/acid balance being 'too acidic' also reflects the high acidity. Overall an unappealing plum however the lack of appeal may come from the plums being under-ripe. A growers opinion of the plum rated it as having a 'excellent' level of sweetness and a 'good' acidity, it was also mentioned that the flavour develops when ripe meaning an under-ripe sample would score poorly on flavour, as this sample did.

ODOUR PROFILE



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Butyl butyrate	Floral
Hexyl butyrate	Apple/apple peel, waxy, sweet, soapy, citrus and fresh
Butyl hexanoate	Fruit, grass and green



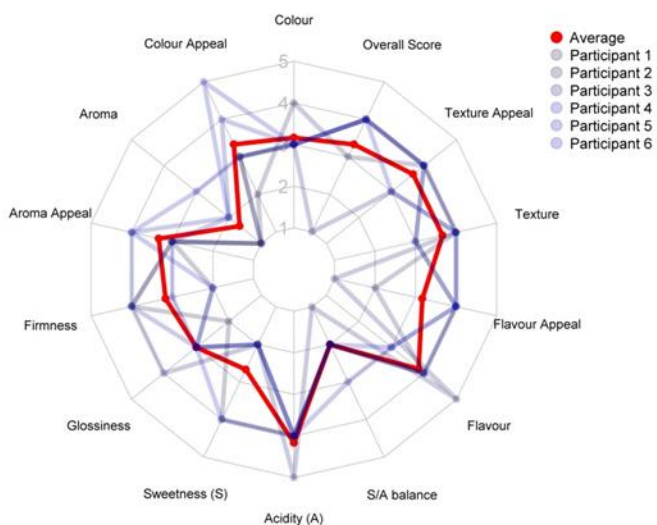
Seneca

SHAPE	Oval
AVERAGE SIZE	5.4cm wide, 6.4cm height
COLOUR	Red/ purple
AVERAGE °BRIX	16.7 / 18.5
AVERAGE CROPPING QUARTER	1 st Q in September
FLOWERING PERIOD	3
TREE HABIT	Upright-spreading

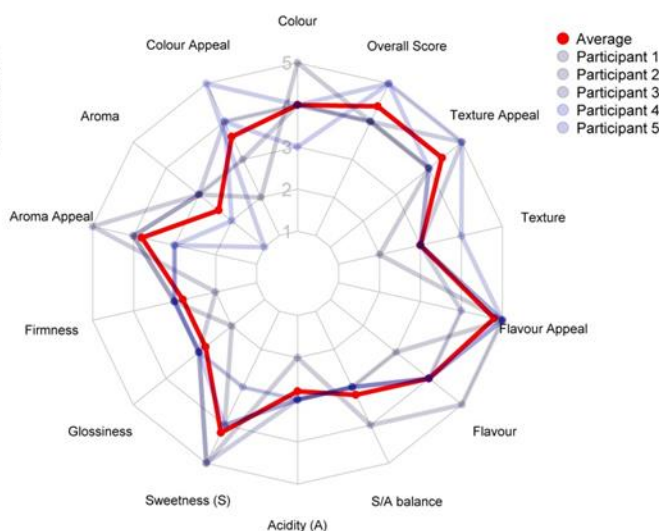


+	High tree vigour
+	High tree productivity
+	High disease resistance (bacterial canker)
=	Average disease resistance (bacterial canker)
=	Average cropping reliability
=	Partially self-fertile
-	Susceptible to cracking and rotting on trees

Seneca (1) tasting



Seneca (2) tasting

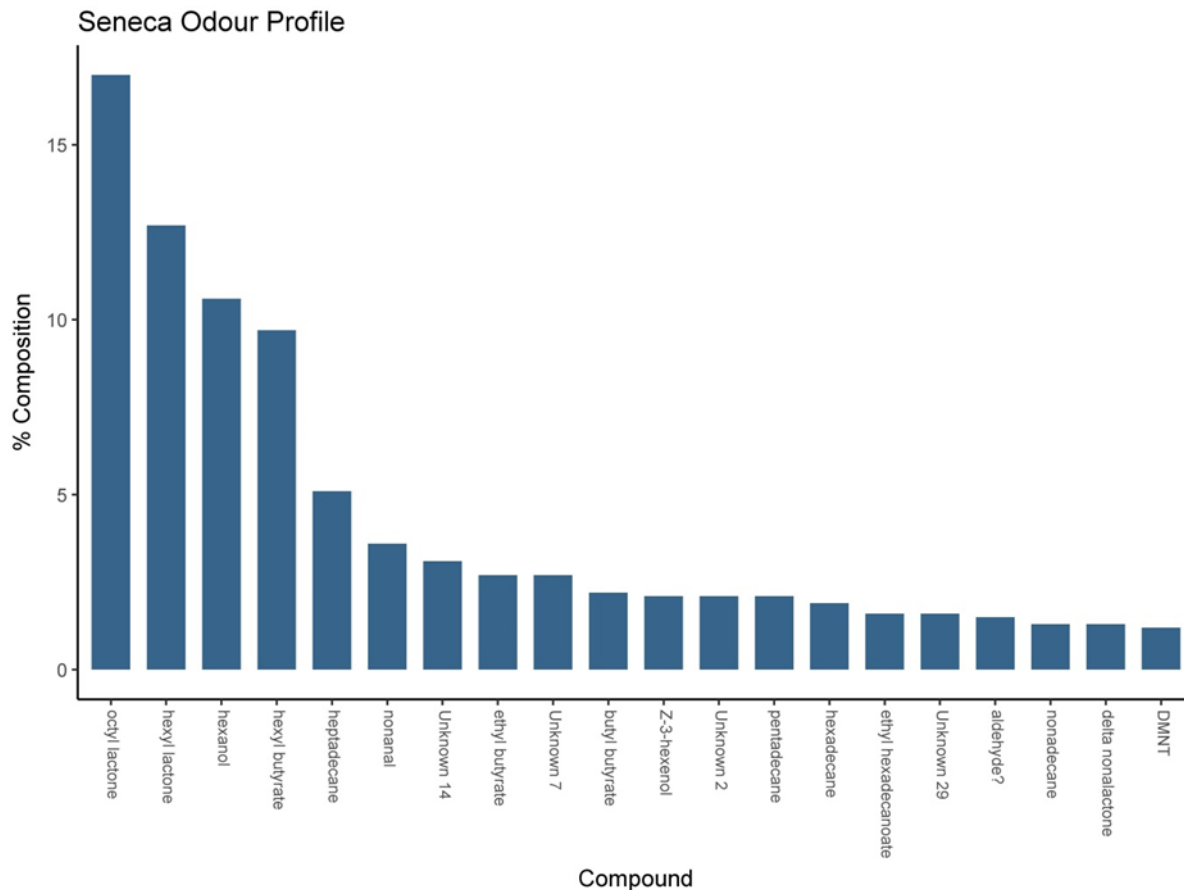


TASTING NOTES:

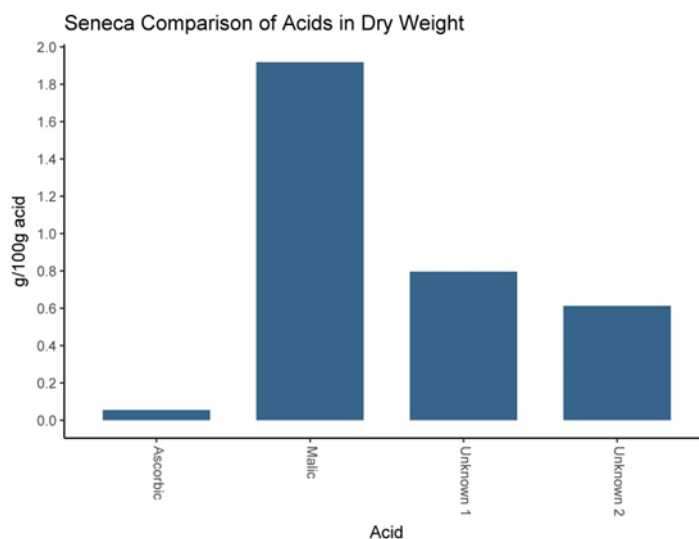
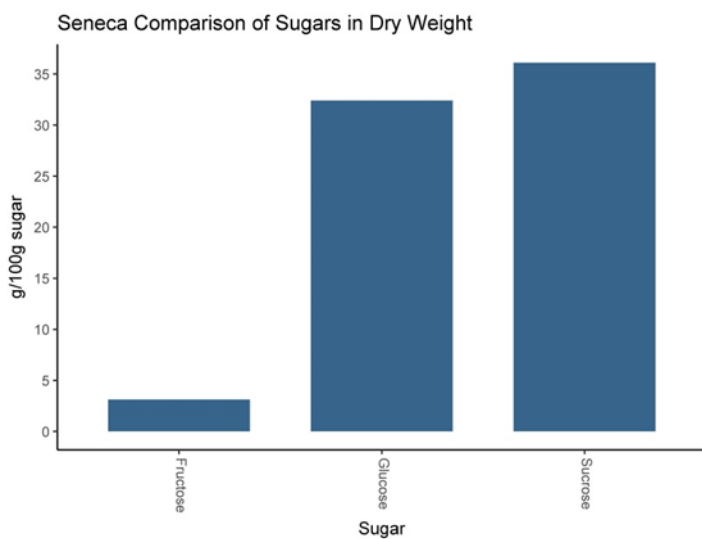
Note: Seneca was picked and sampled twice. The first pick and tasting was on 28/08/18 and tasted on 30/08/2018, the second was picked on 30/08/18 and tasted on 31/08/18.

The second sample of Seneca scored much higher on both flavour appeal and overall score, with less variation between participants. Some plums in the first sample were slightly under-ripe which can be seen by the much lower sweetness and higher acidity scores some participants gave. When ripe Seneca is a very sweet plum with a strong and appealing flavour, the sugar/acid balance was also rated as 'good balance'. When under-ripe Seneca is very acidic and has a poor flavour. Overall a high quality eating plum but ensuring ripeness is key.

ODOUR PROFILE



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Octyl lactone	No flavour
Hexyl lactone	No flavour
Hexanol	Leafy, grass, sweaty, tallow, fatty, fresh and fruity
Hexyl butyrate	Apple/apple peel, waxy, sweet, soapy, citrus and fresh
Heptadecane	No flavour



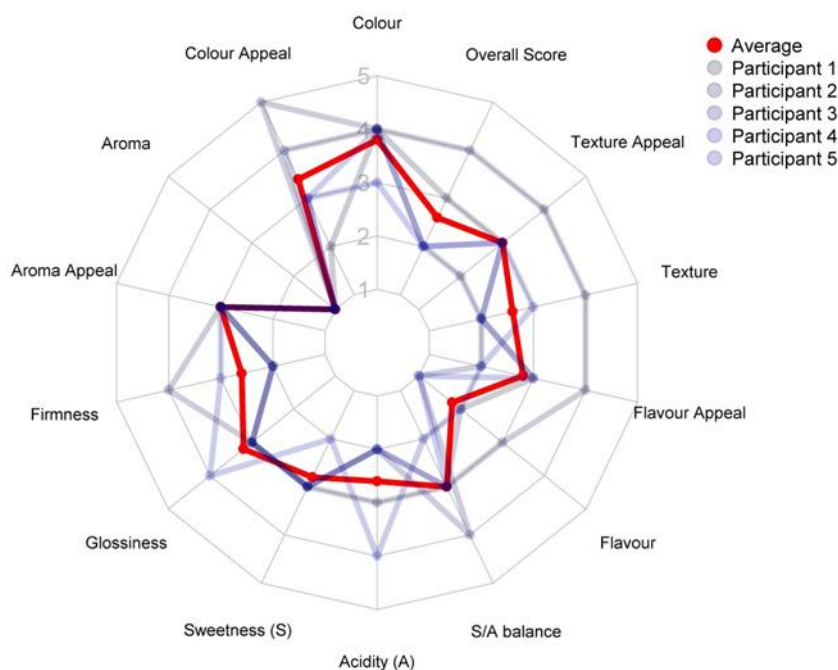
Marjories Seedling

SHAPE	Oval
AVERAGE SIZE	4cm wide, 4.8cm height
COLOUR	Blue
AVERAGE °BRIX	14
AVERAGE CROPPING QUARTER	1 st Q in September
FLOWERING PERIOD	5
TREE HABIT	Upright



+	High tree vigour
+	High cropping reliability
+	High self-fertility
+	Average disease resistance (bacterial canker)
=	Average tree productivity
=	Average disease resistance (bacterial canker and Brown rot)

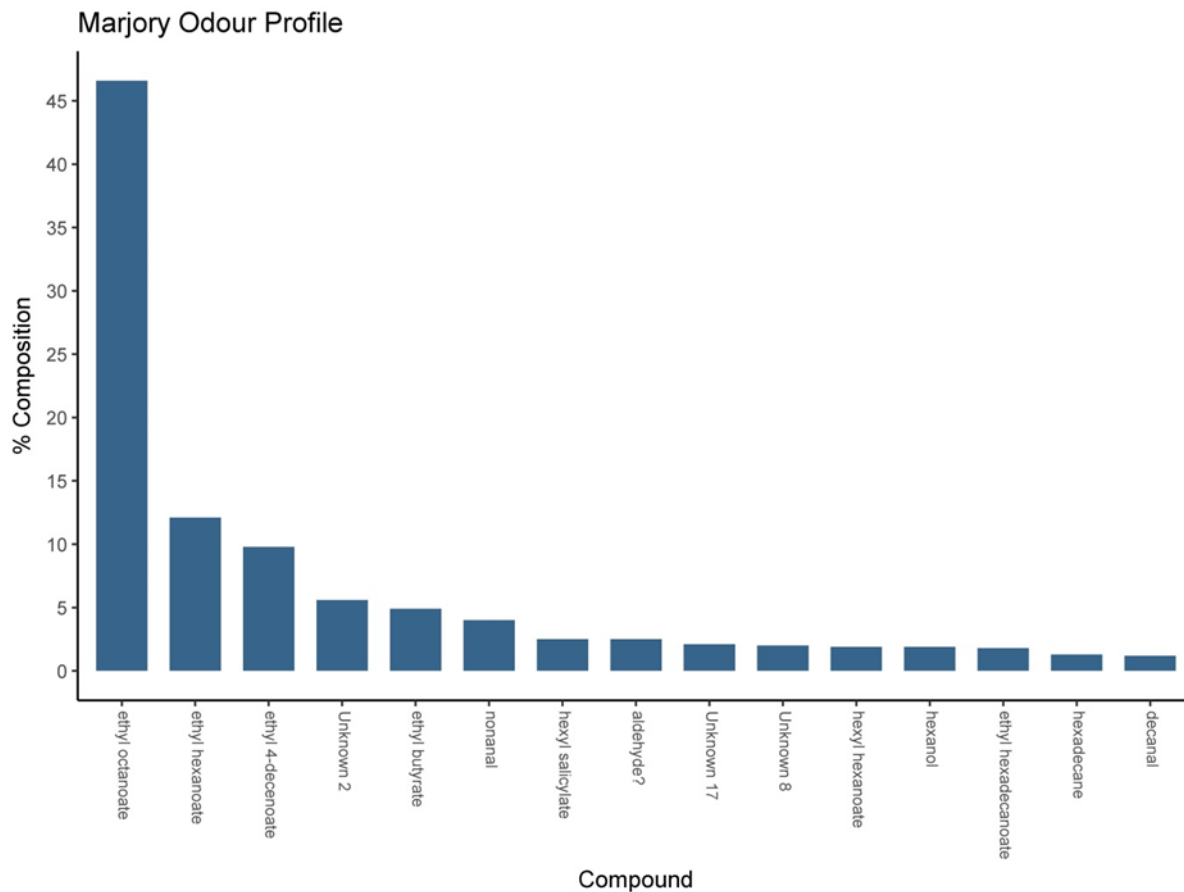
Marjorie tasting



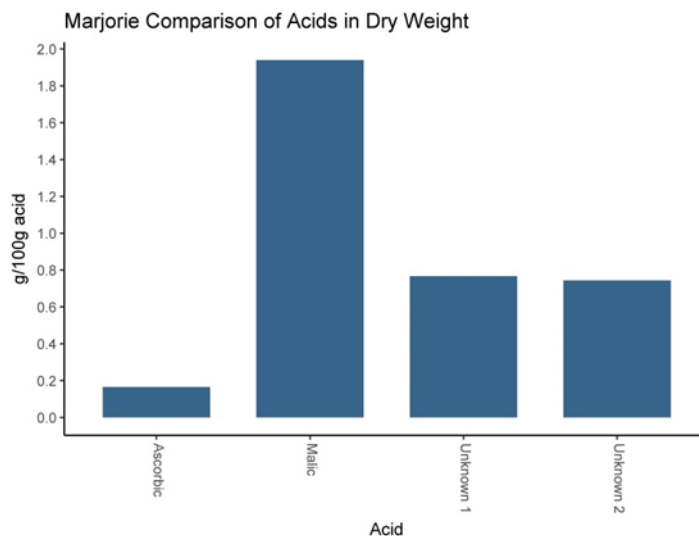
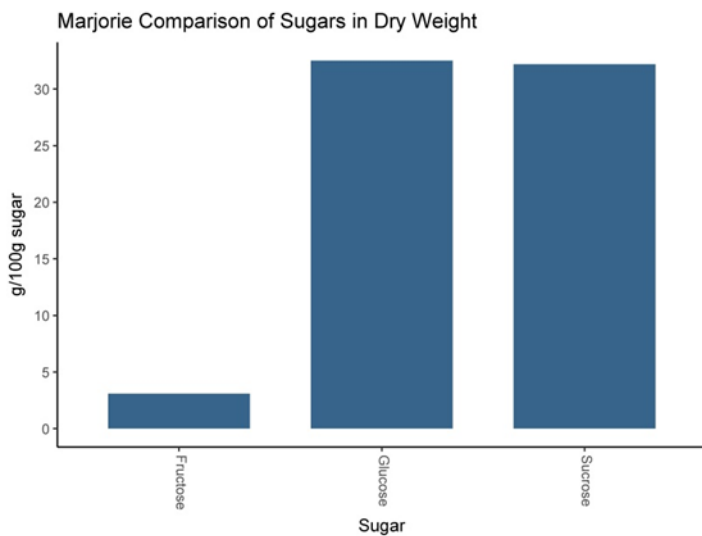
TASTING NOTES:

The average sweetness rating was close to the reference as most participants rated the sweetness as the same as the reference while the average acidity was also close to the reference, some rated the acidity as higher and some as lower. The average sugar/acid balance rating was 'good balance'. The flavour score was low suggesting a weak flavour while the average flavour appeal score was close to 'no preference' with some rating it as appealing and some as unappealing. The average overall score was below 'average' as some rated it 'poor' and some as 'average', one participant rated it as 'good'. Overall the sugar/acid balance appears to be good but it lacks flavour and is slightly below average.

ODOUR PROFILE



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Ethyl octanoate	Apricot, brandy, fat, floral and pineapple
Ethyl hexanoate	Apple peel, brandy, fruit gum, overripe fruit and pineapple
Ethyl 4-decenoate	Fruity



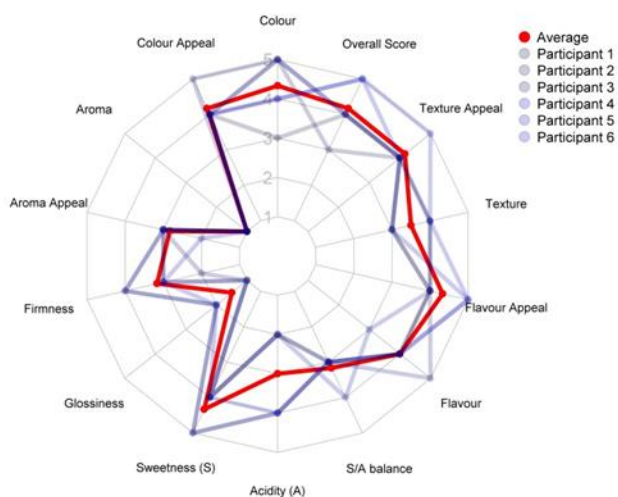
Top Taste

SHAPE	Oval
AVERAGE SIZE	3.8cm wide, 4.7cm height
COLOUR	Blue/purple
AVERAGE °BRIX	23.9 / 26
AVERAGE CROPPING QUARTER	1 st Q in September
FLOWERING PERIOD	2
TREE HABIT	Spreading

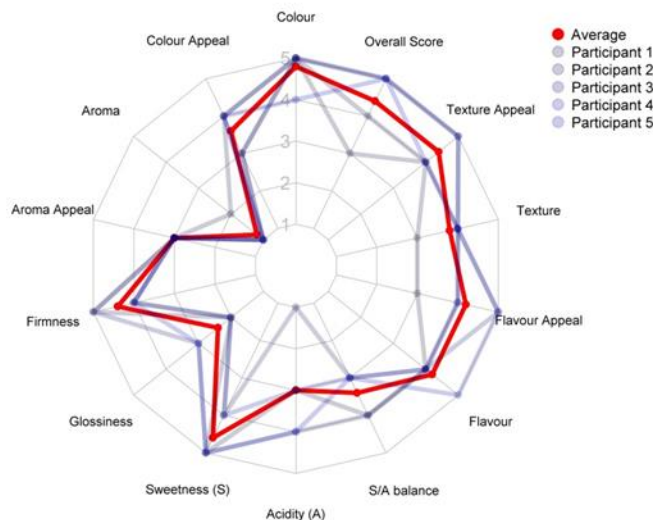


+	High self-fertility
+	High cropping reliability
+	High disease resistance (bacterial canker, Plum Pox)
=	Average disease resistance (Brown rot)
=	Average tree vigour
=	Average tree productivity

Top taste (1) tasting



Top taste (2) tasting

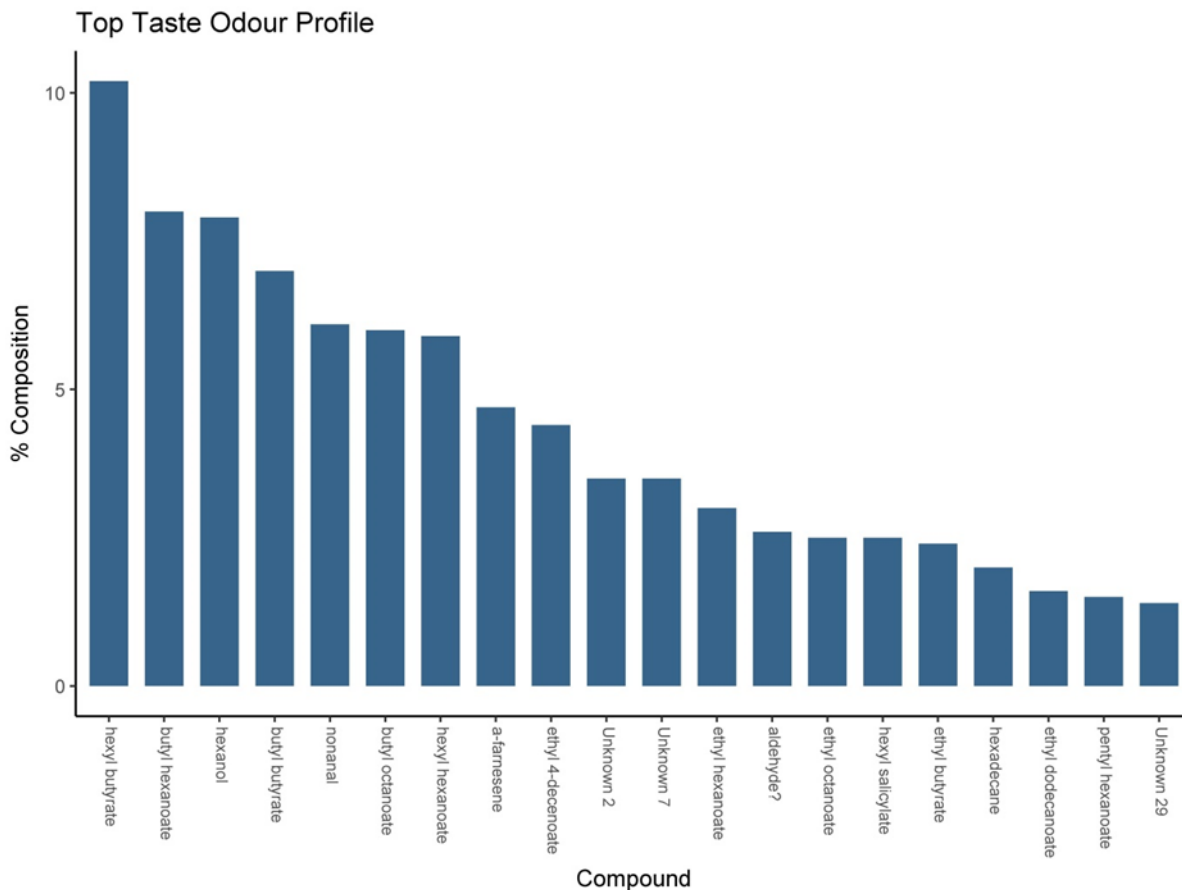


TASTING NOTES:

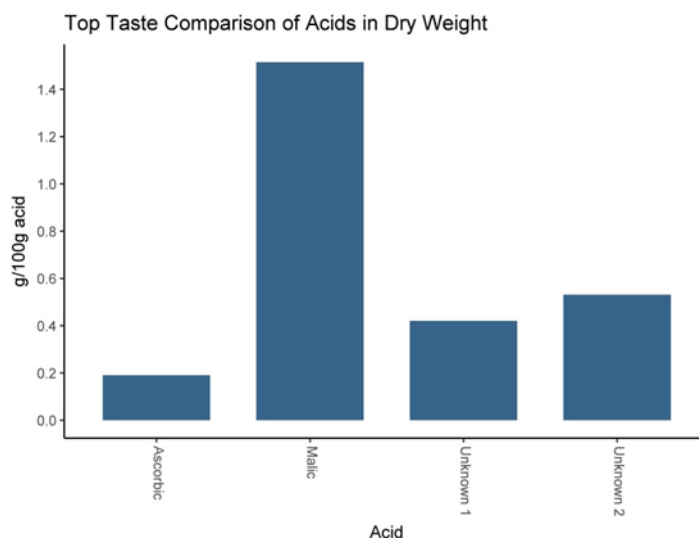
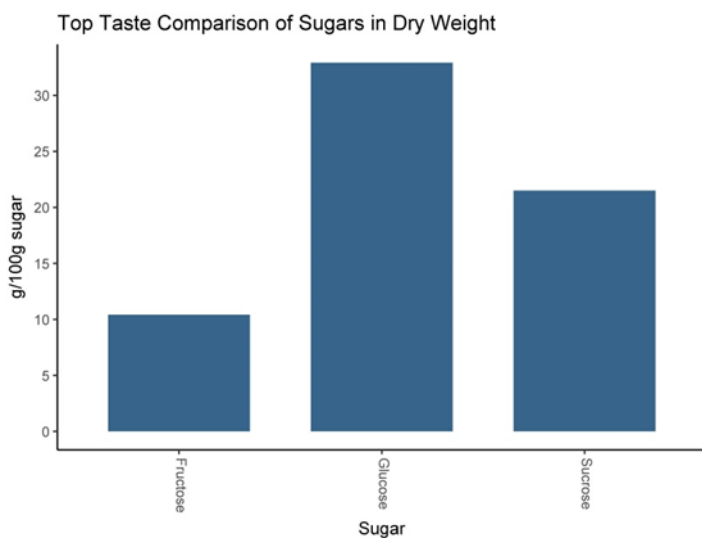
Note: Top Taste was picked and sampled twice. The first pick and tasting was on 24/08/18 and tasted on 30/08/2018, the second was picked on 30/08/18 and tasted on 31/08/18.

There was some difference in the tasting scores. The scores at both picking dates are quite high for most factors, although the aroma appears to be weak. Both scored high on sweetness with the later picking being slightly sweeter and acidity similar to the reference for both. The sugar/acid balance is close to 'good balance' for the earlier picking while being slightly 'too sweet' for the later picking. The flavour score is quite high as is the flavour appeal and texture appeal. The average overall score is high, although one participant scored it lower than the others, dragging the average down. Overall it appears to be a very desirable variety from the tasting trial.

ODOUR PROFILE



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Hexyl butyrate	Apple/apple peel, waxy, sweet, soapy, citrus and fresh
Butyl hexanoate	Fruit, grass and green
Hexanol	Leafy, grass, sweaty, tallow, fatty, fresh and fruity
Butyl butyrate	Floral
Nonanal	Citrus, lime, orange peel, rose, fat, fishy, aldehydic, waxy, orris and grapefruit
Butyl octanoate	Buttery, herbal and dank
Hexyl hexanoate	Peach, vegetable, herbal, apple peel, fresh and cut grass



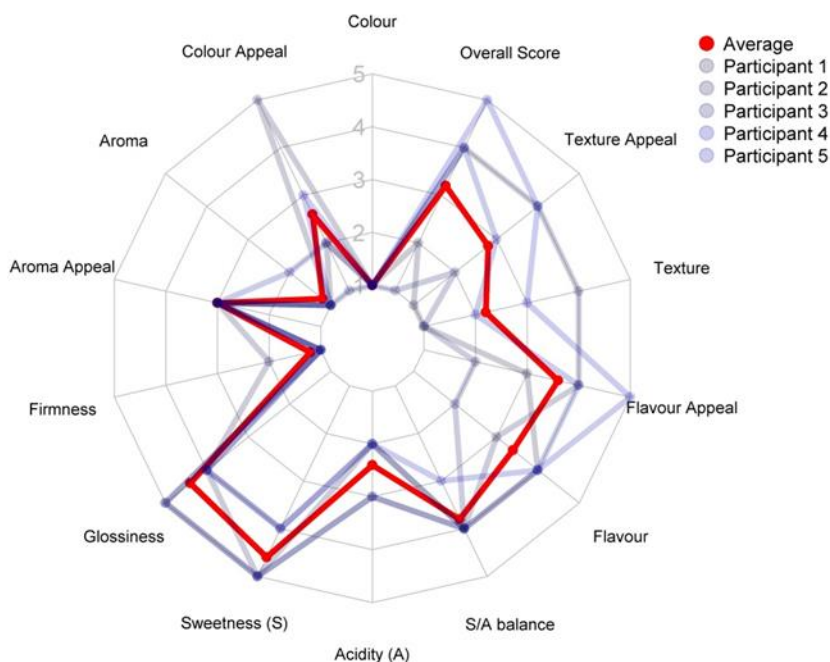
Coe's Golden Drop

SHAPE	Oval
AVERAGE SIZE	4.2cm wide, 5.2cm height
COLOUR	Yellow/green
AVERAGE °BRIX	23.2
AVERAGE CROPPING QUARTER	2 nd Q in September
FLOWERING PERIOD	2
TREE HABIT	Spreading



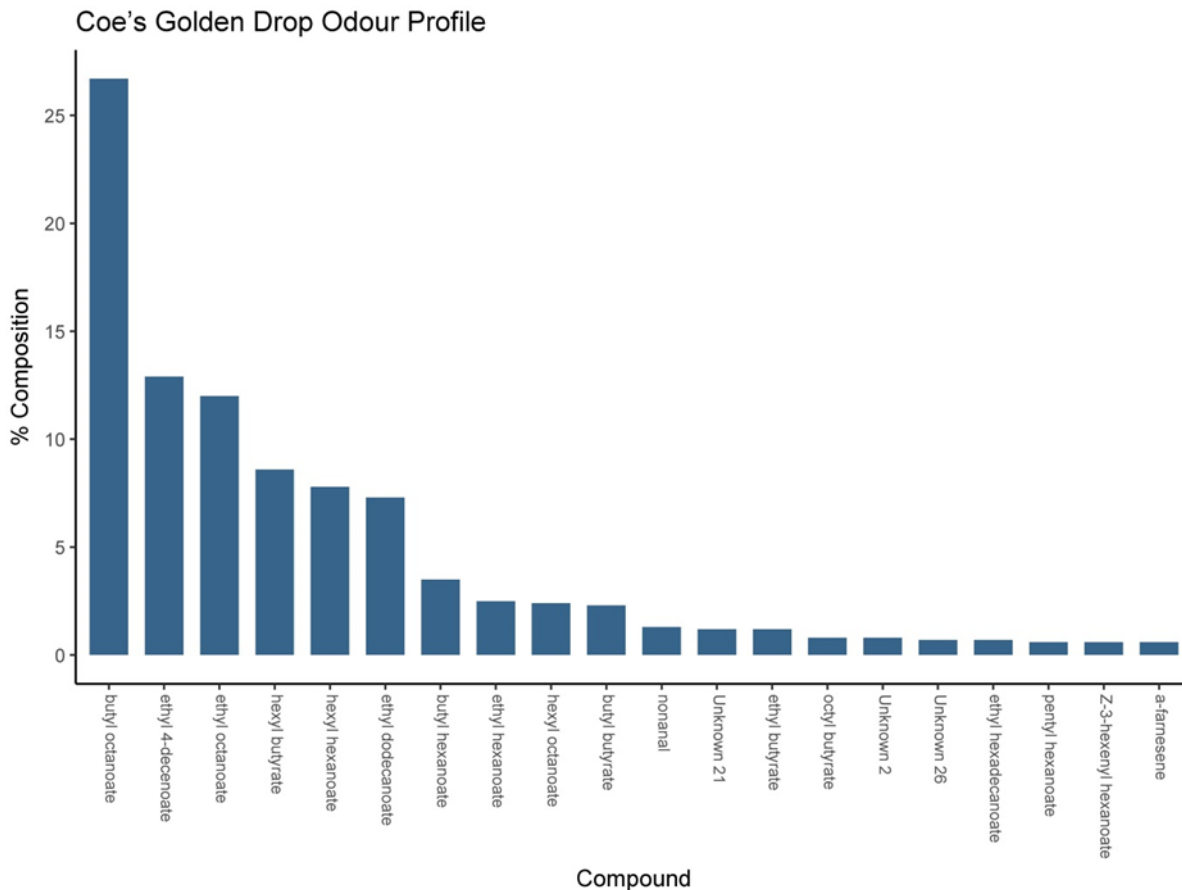
=	Average cropping reliability
=	Average disease resistance (Brown rot, Plum Pox)
-	Low tree vigour
-	Low disease resistance (bacterial canker)
-	No self-fertility
-	Susceptible to wasp damage

Coe's Golden Drop tasting

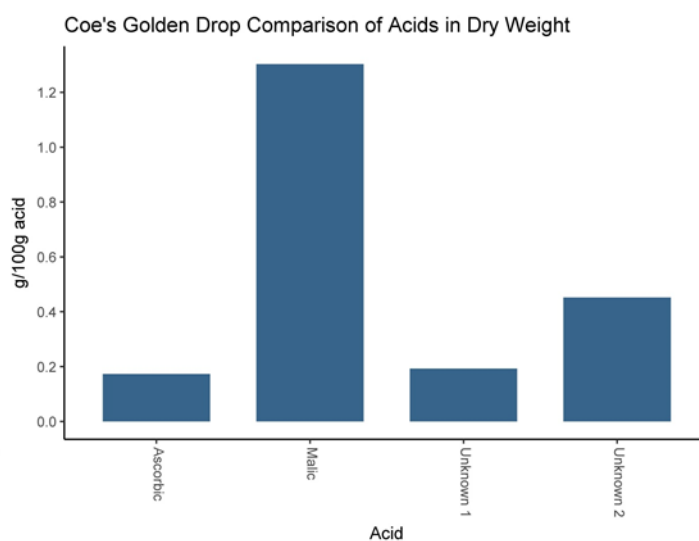
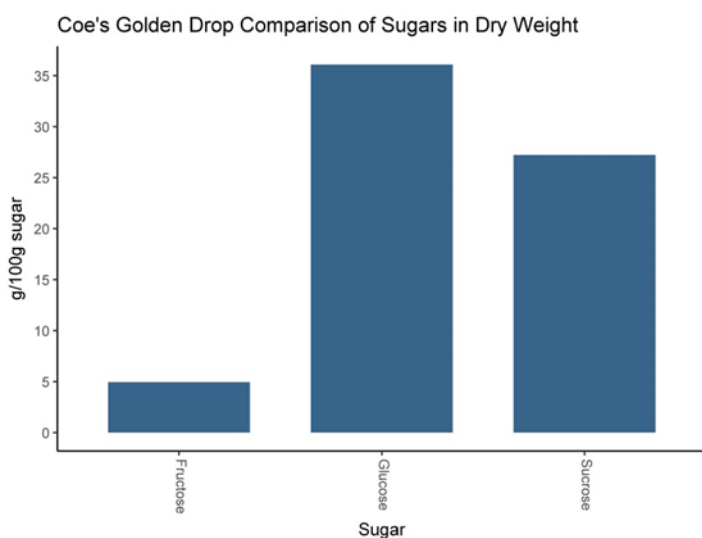


TASTING NOTES:

All participants rated it as sweeter than the reference but disagreeing on how much sweeter. The average acidity was lower than the reference however some rated it as acidic as the reference. Most participants rated the sugar/acid balance as 'too sweet'. There was variation in how the flavour was scored, with some rating it as 'strong' and others as 'mild', likewise the flavour appeal score was variable with some giving as score of 'appealing' and others 'unappealing'. The average was close to 'appealing'. The texture and firmness scores were low meaning the plums were soft and possibly over-ripe, perhaps contributing to the higher sweetness and lower flavour appeal. The overall score is quite close to 'average' although some rated it higher. Overall it seems Coe's Golden Drop is a very sweet plum that will appeal to some but less so to others. A growers opinion of the plum rated it as 'good' for both sweetness and acidity.



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Butyl octanoate	Buttery, herbal and dank flavours
Ethyl 4-decanoate	Fruity
Ethyl octanoate	Apricot, brandy, fat, floral and pineapple
Hexyl butyrate	Apple/apple peel, waxy, sweet, soapy, citrus and fresh
Hexyl hexanoate	Peach, vegetable, herbal, apple peel, fresh and cut grass
Ethyl; dodecanoate	Floral, fruit and leaf



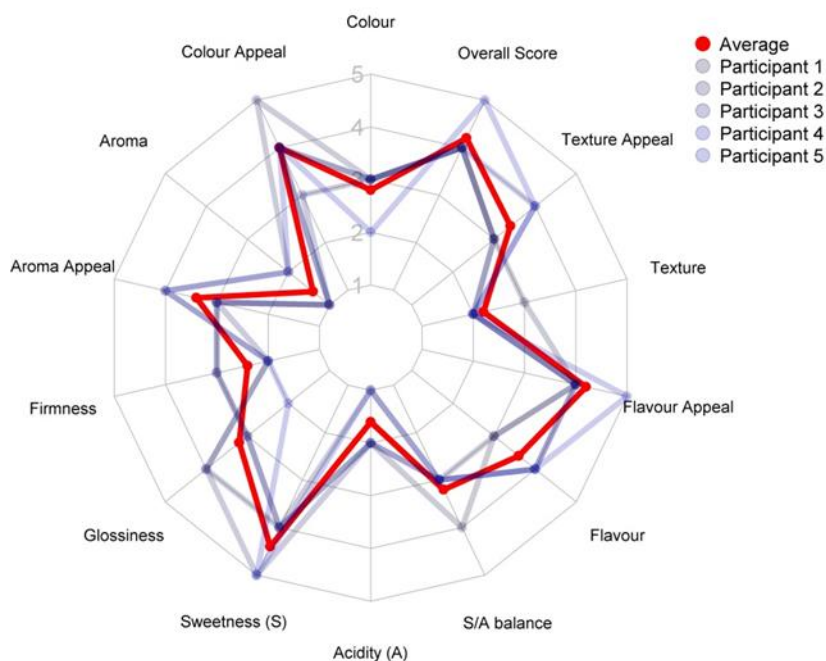
Laxtons Delicious

SHAPE	Oval/ can be round
AVERAGE SIZE	4.9cm wide, 6.4cm height
COLOUR	Red
AVERAGE °BRIX	18.6
AVERAGE CROPPING QUARTER	2 nd Q in September
FLOWERING PERIOD	4
TREE HABIT	Upright-spreading



=	Average cropping reliability
=	Average tree vigour
-	Average disease resistance (bacterial canker, Brown rot, Plum Pox)
-	Low productivity (?)
-	No self-fertility

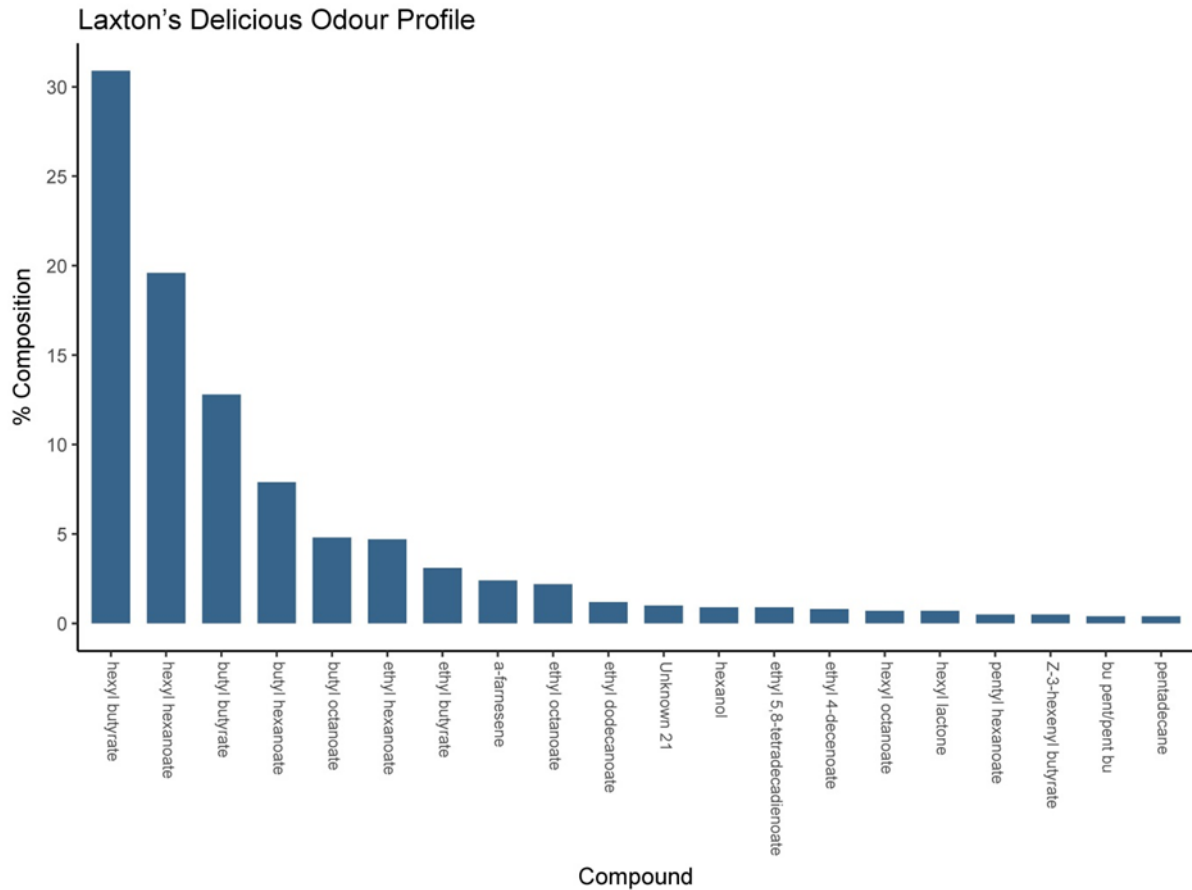
Laxtons Delicious tasting



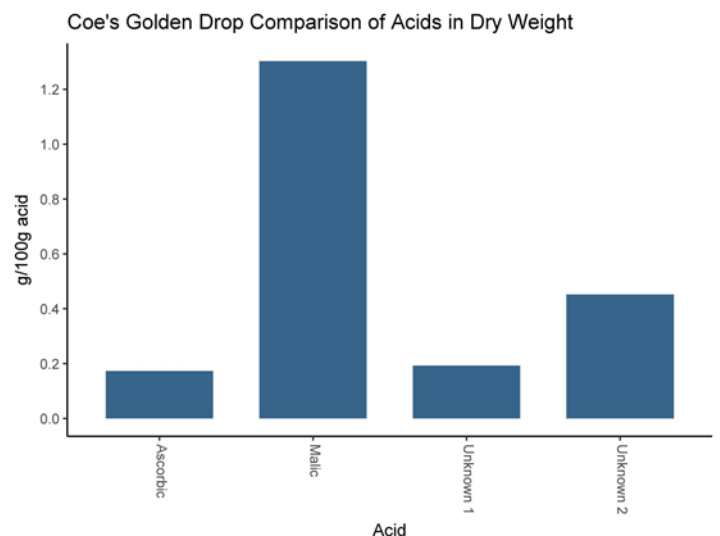
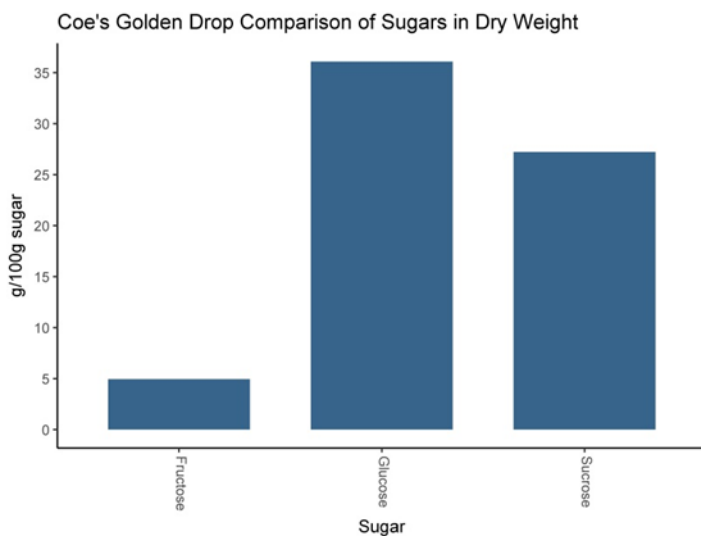
TASTING NOTES:

Laxtons Delicious was rated as much sweeter than the reference while also being rated as less acidic, participants were mostly in agreement on these ratings. Most rated the sugar/acid balance as 'good balance'. There was some variation in the flavour score although all rated it as 'clear flavour' or above. All participants rated the flavour appeal as 'appealing' or above. The texture and firmness were both rated low, suggesting a soft, possibly slightly over rime plum. All participants rated the overall score as 'good' or above. Overall a very positively received plum with a high sweetness and good flavour.

ODOUR PROFILE



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Hexyl butyrate	Apple/apple peel, waxy, sweet, soapy, citrus and fresh
Hexyl hexanoate	Peach, vegetable, herbal, apple peel, fresh and cut grass
Butyl butyrate	Floral
Butyl hexanoate	Fruit, grass and green



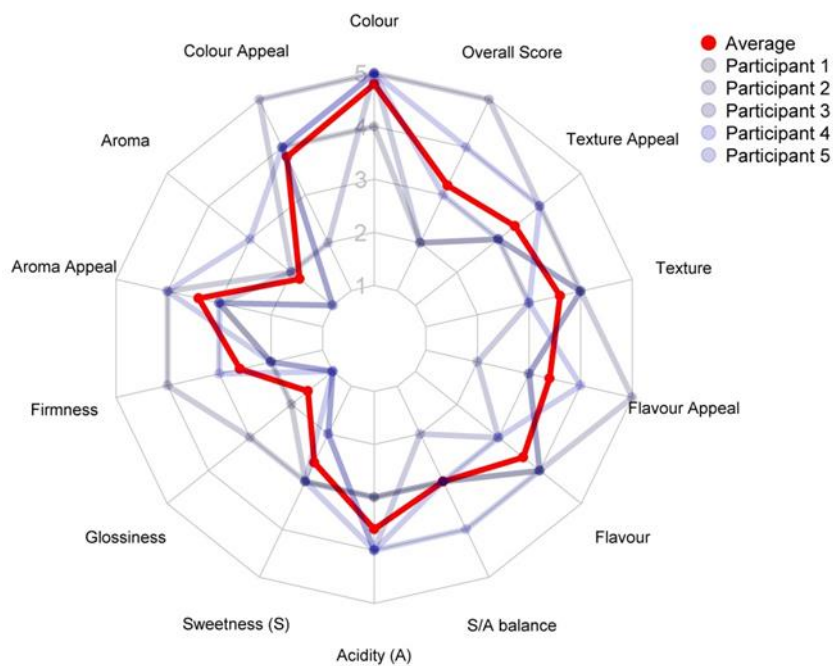
Top Hit

SHAPE	Oval
AVERAGE SIZE	3.9cm wide, 5.2cm height
COLOUR	Blue
AVERAGE °BRIX	20.1
AVERAGE CROPPING QUARTER	3 rd Q in September
FLOWERING PERIOD	2
TREE HABIT	Spreading



+	High tree productivity
+	High cropping reliability
+	High disease resistance (bacterial canker, Brown rot, Plum Pox)
=	Partial self-fertility (better with pollinator, Haroma is a good choice)
=	Average tree vigour

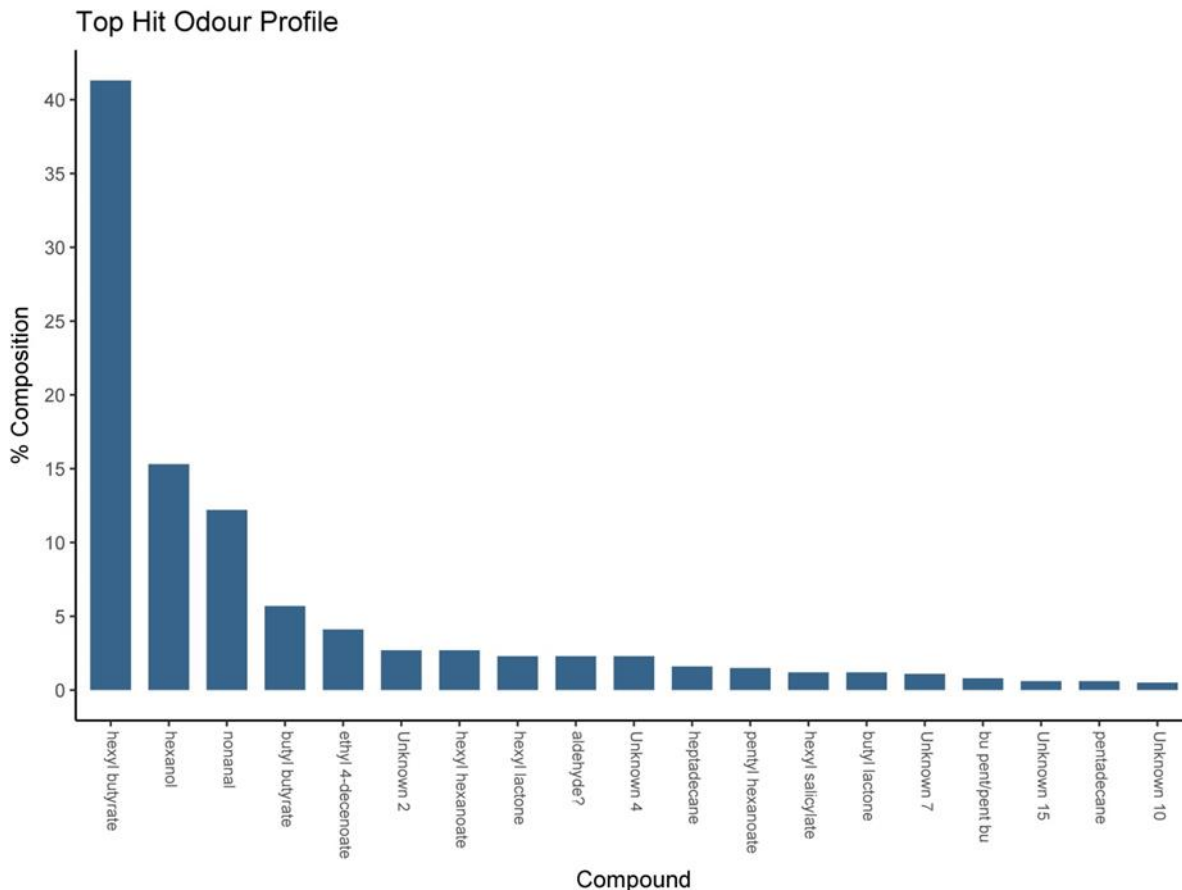
Top Hit tasting



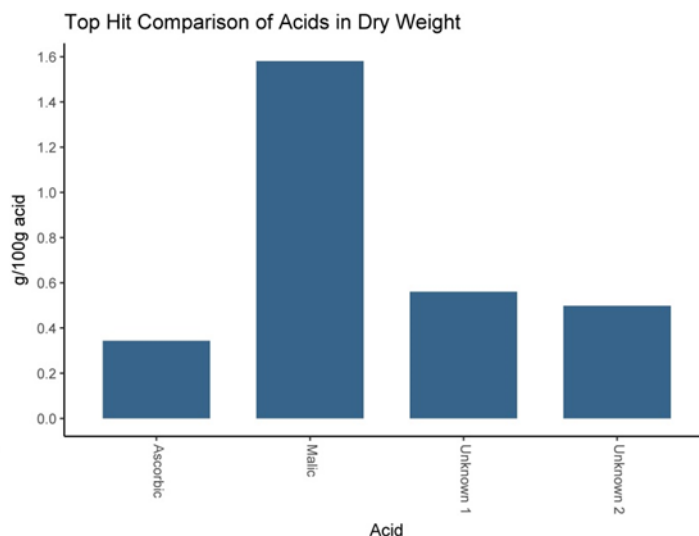
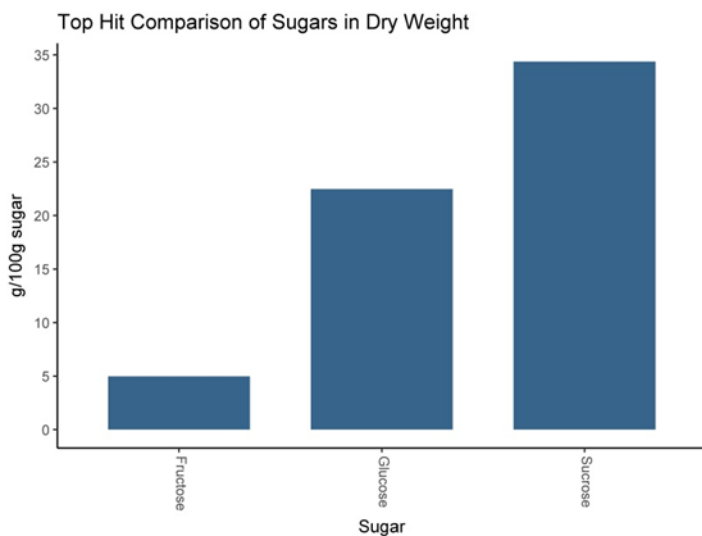
TASTING NOTES:

There was some variation in the sweetness scores, with some rating it as sweet as the reference and others rating it as less sweet, while most participants rated the acidity as higher than the reference. Despite this most rated the sugar/acid balance as 'good balance'. The flavour appeal score varied, with some participants finding it appealing and others rating it either 'no preference' or 'unappealing'. The overall score was also very variable with some rating it as 'poor' and others as 'good' or above. Overall Top Hit seems to be a slightly more acidic plum with a flavour that will only appeal to some.

ODOUR PROFILE



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Hexyl butyrate	Apple/apple peel, waxy, sweet, soapy, citrus and fresh
Hexanol	Leafy, grass, sweaty, tallow, fatty, fresh
Nonanal	Citrus, lime, orange peel, rose, fat, fishy, aldehydic, waxy, orris and grapefruit
Butyl butyrate	Floral



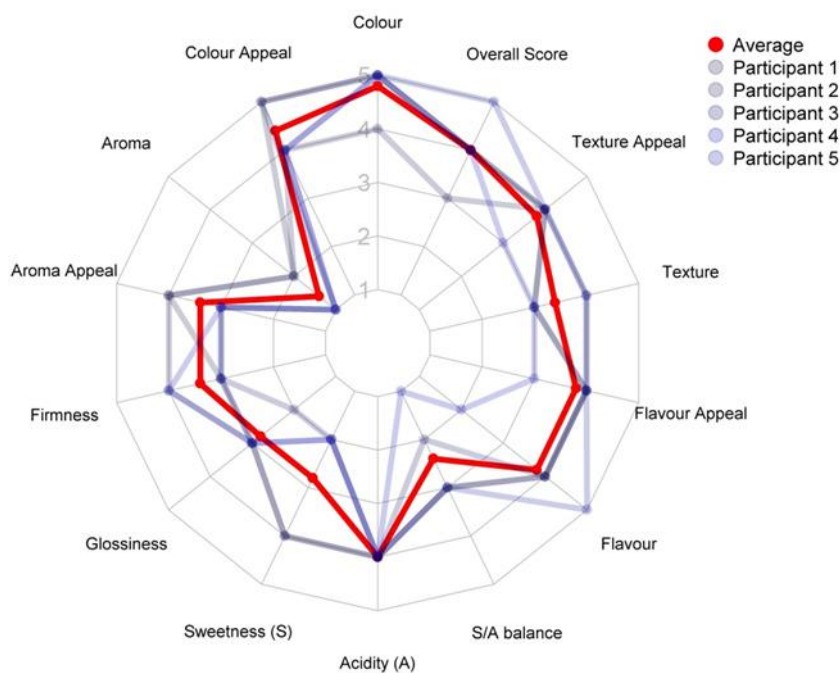
Guinevere

SHAPE	Round/ oval
AVERAGE SIZE	4.2cm wide, 4.7cm height
COLOUR	Blue/Purple
AVERAGE °BRIX	21.1
AVERAGE CROPPING QUARTER	3 rd Q in September
FLOWERING PERIOD	3
TREE HABIT	N/A



+	High tree productivity
+	High cropping reliability
?	Unknown disease resistance (bacterial canker, Brown rot, Plum Pox)
=	Average tree vigour

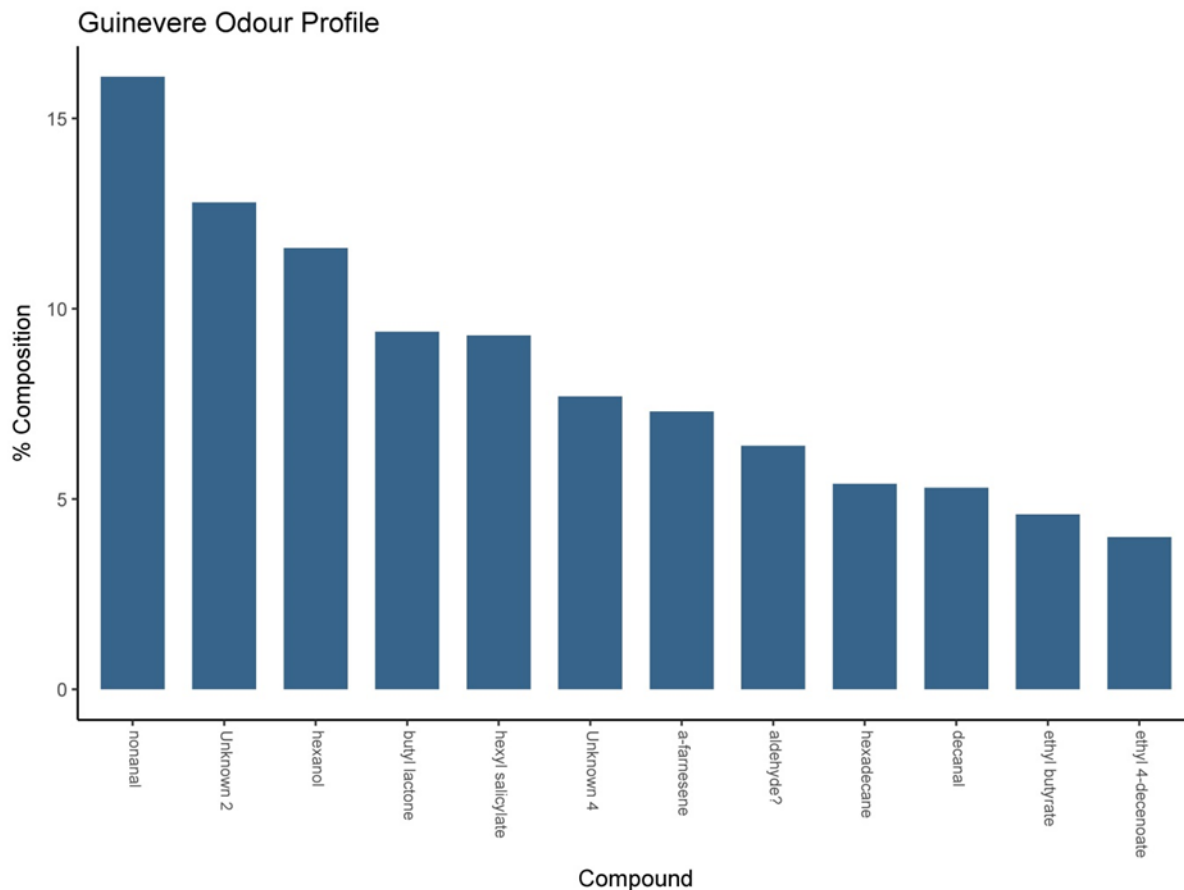
Guinevere tasting



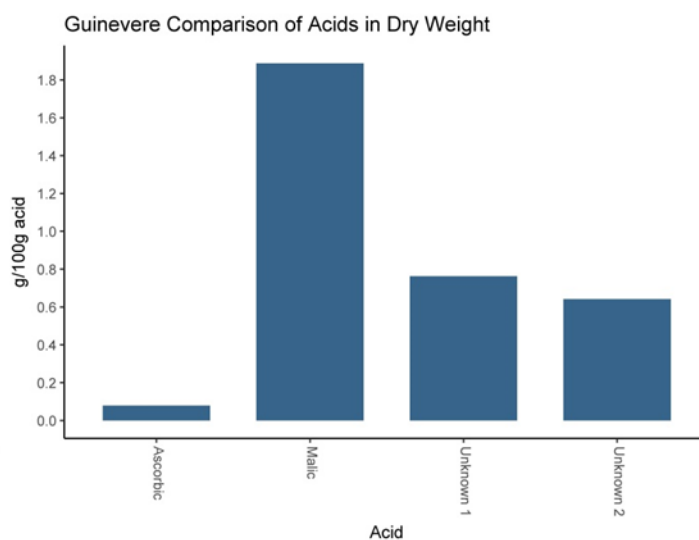
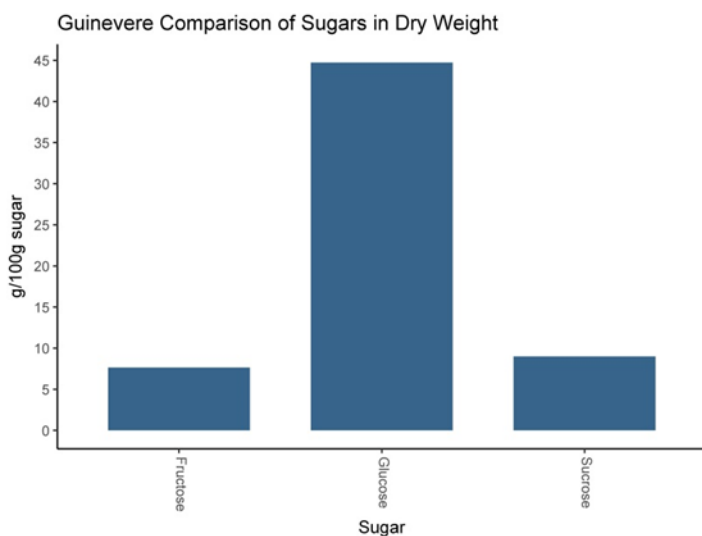
TASTING NOTES:

The sweetness scores were variable, with some participants finding Guinevere sweeter than the reference and some finding it less sweet, thus the average was similar in sweetness to the reference. All participants rated the acidity as higher than the reference. Some participants rated it as having a good sugar acid balance, while others rated it as too acidic. All but one participant rated the flavour and flavour appeal as good (or better). The overall score was also good or better for all but one participant. Overall Guinevere seems to be an acidic plum, that some will find also has some sweetness. Some will find the sugar acid balance to be good, while others will find it too acidic. Despite this it has an appealing flavour to most participants and an overall good score.

ODOUR PROFILE



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Nonanal	Citrus, lime, orange peel, rose, fat, fishy, aldehydic, waxy and grapefruit
Unknown compound 2	Unknown
Hexanol	Leafy, grass, sweaty, tallow, fatty, fresh
Butyl lactone	No flavour
Hexyl salicylate	No flavour
α-farnesene	Boiled vegetable, floral and woody
Hexadecane	No flavour
Decanal	Floral, fried, orange peel and tallow



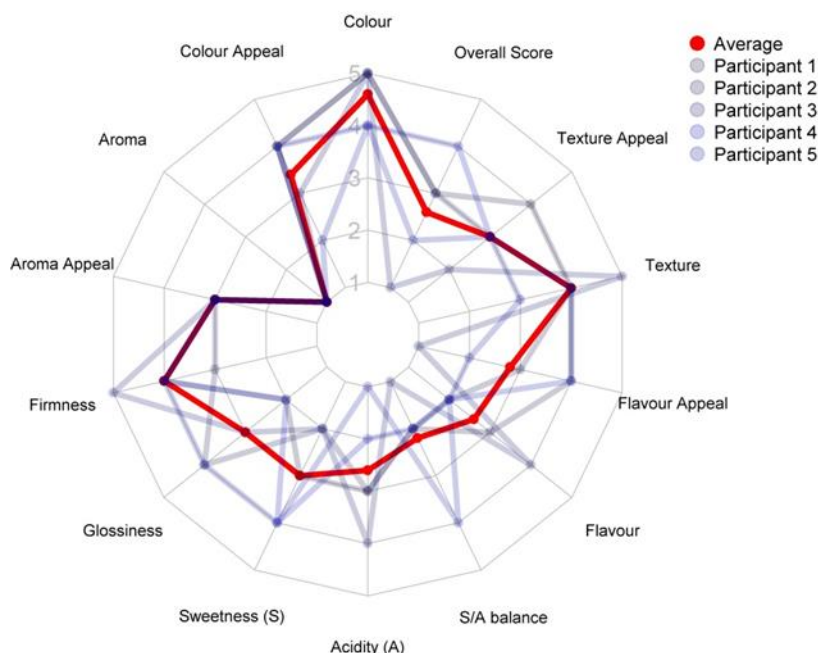
Verity

SHAPE	Oval
AVERAGE SIZE	4cm wide, 5.8cm height
COLOUR	Blue/Purple
AVERAGE °BRIX	17.6
AVERAGE CROPPING QUARTER	3 rd /4 th Q in September
FLOWERING PERIOD	2
TREE HABIT	Spreading



+	Long storage capability when refrigerated (2-4 weeks)
?	UNKNOWN TREE CHARACTERISTICS
-	SWD risk if picked late

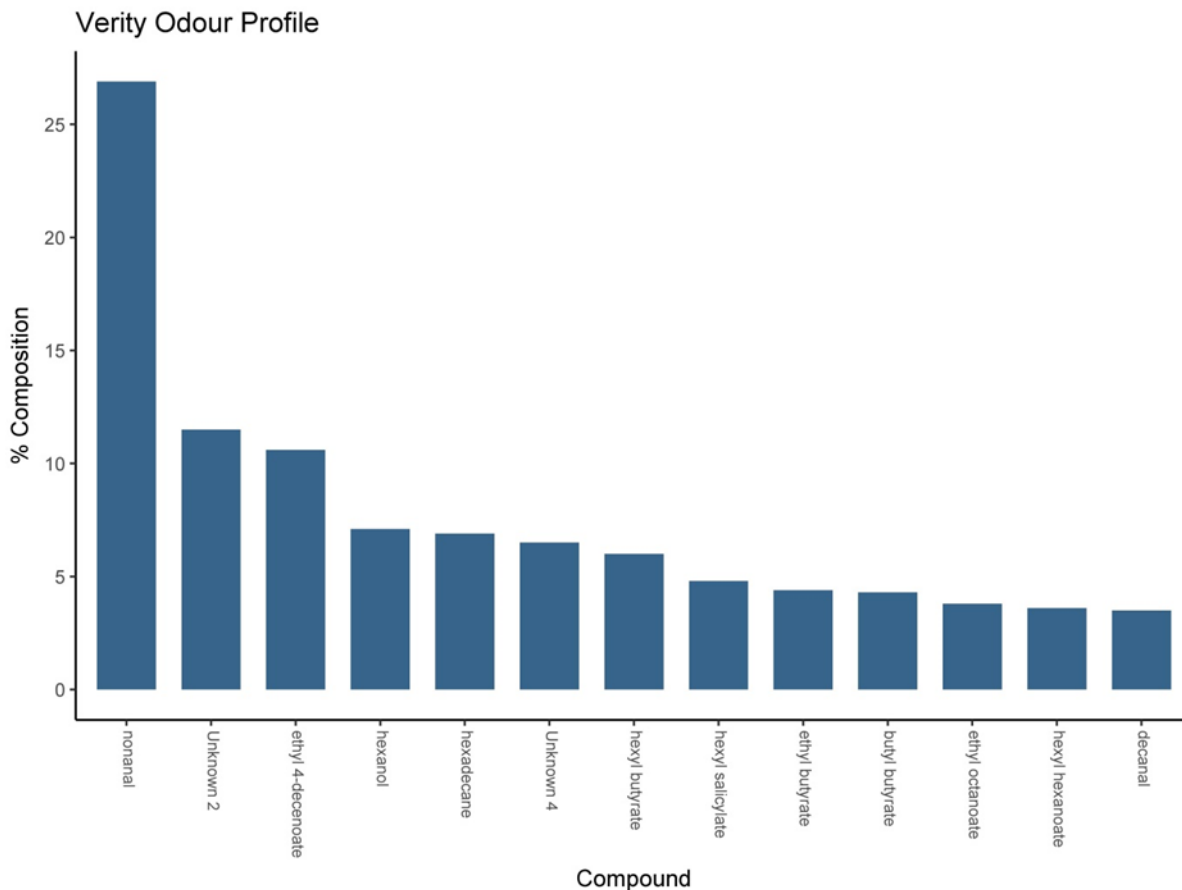
Verity tasting



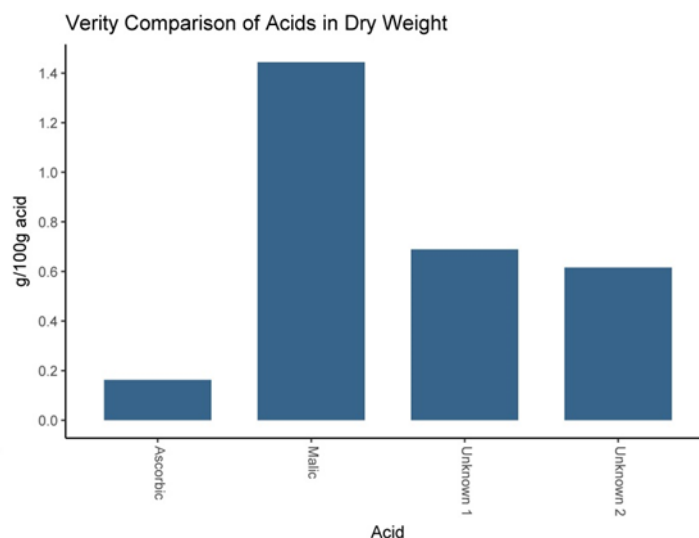
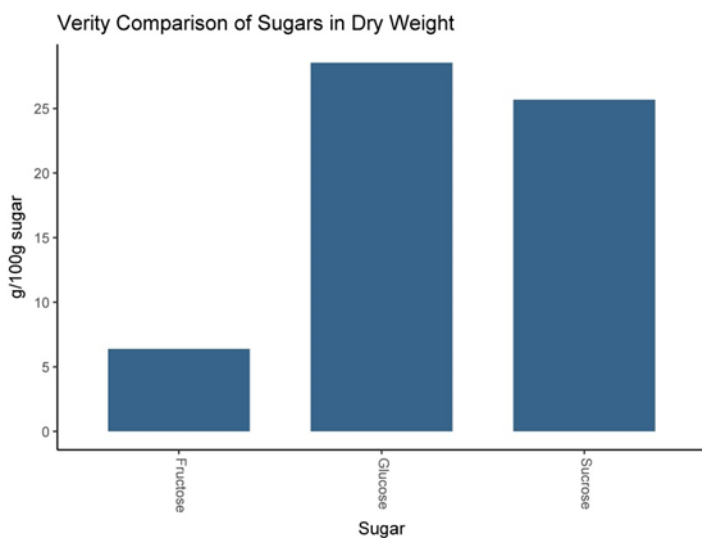
TASTING NOTES:

There was some variation in how participants rated the sweetness, with some finding it sweeter than the reference and some less sweet, with the average being about as sweet as the reference, while the acidity ratings were even more variable with the average being slightly less acidic than the reference. Despite this the sugar/acid balance was rated as 'too acidic' by most participants. The texture and firmness were both rated quite high, meaning it was firm and possibly under-ripe. The flavour appeal was also variable, with some rating it as appealing and others as unappealing, the average was 'no preference'. The average overall score was slightly below 'average' with some participants rating it as 'poor' or 'very poor' but others rating it as 'average' or 'good'. Overall Verity seems to be a slightly acidic plum with average flavour, although this may be because it was possibly under-ripe. From this tasting it is a plum that will appeal to some but not all.

ODOUR PROFILE



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Nonanal	Citrus, lime, orange peel, rose, fat, fishy, aldehydic, waxy, orris and grapefruit
Unknown compound 2	Unknown
Ethyl 4-decenoate	Fruity
Hexanol	Leafy, grass, sweaty, tallow, fatty, fresh
Hexadecane	No flavour
Unknown compound 4	Unknown
Hexyl butyrate	Apple/apple peel, waxy, sweet, soapy, citrus and fresh



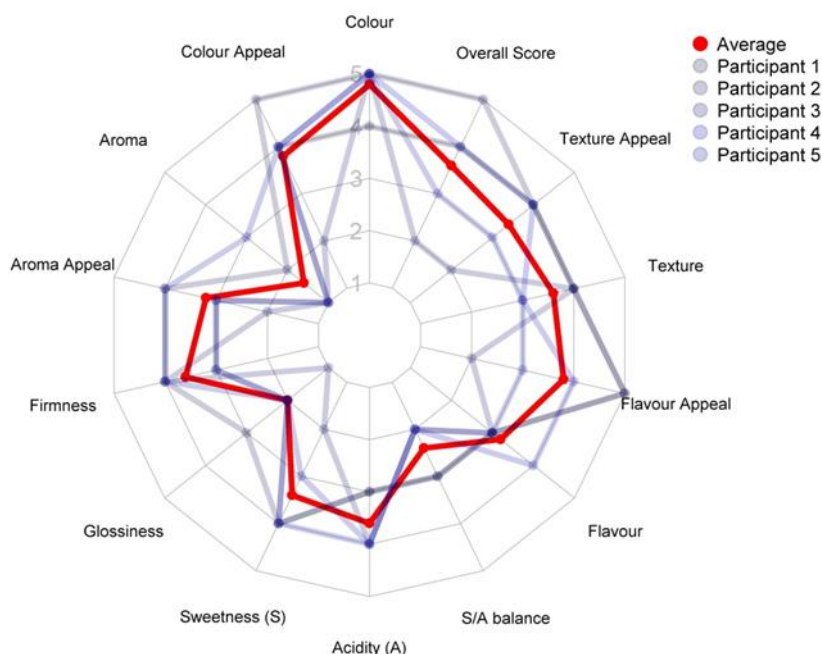
Haganta

SHAPE	Round/Oval
AVERAGE SIZE	4.3cm wide, 5.6cm height
COLOUR	Blue/purple
AVERAGE °BRIX	23.2
AVERAGE CROPPING QUARTER	4 th Q in September
FLOWERING PERIOD	2
TREE HABIT	Spreading



+	High tree productivity
+	High disease resistance (bacterial canker)
=	Partial self-fertility
=	Average tree vigour
=	Average cropping reliability
=	Average disease resistance (Brown rot)
-	Low disease resistance (Plum Pox)

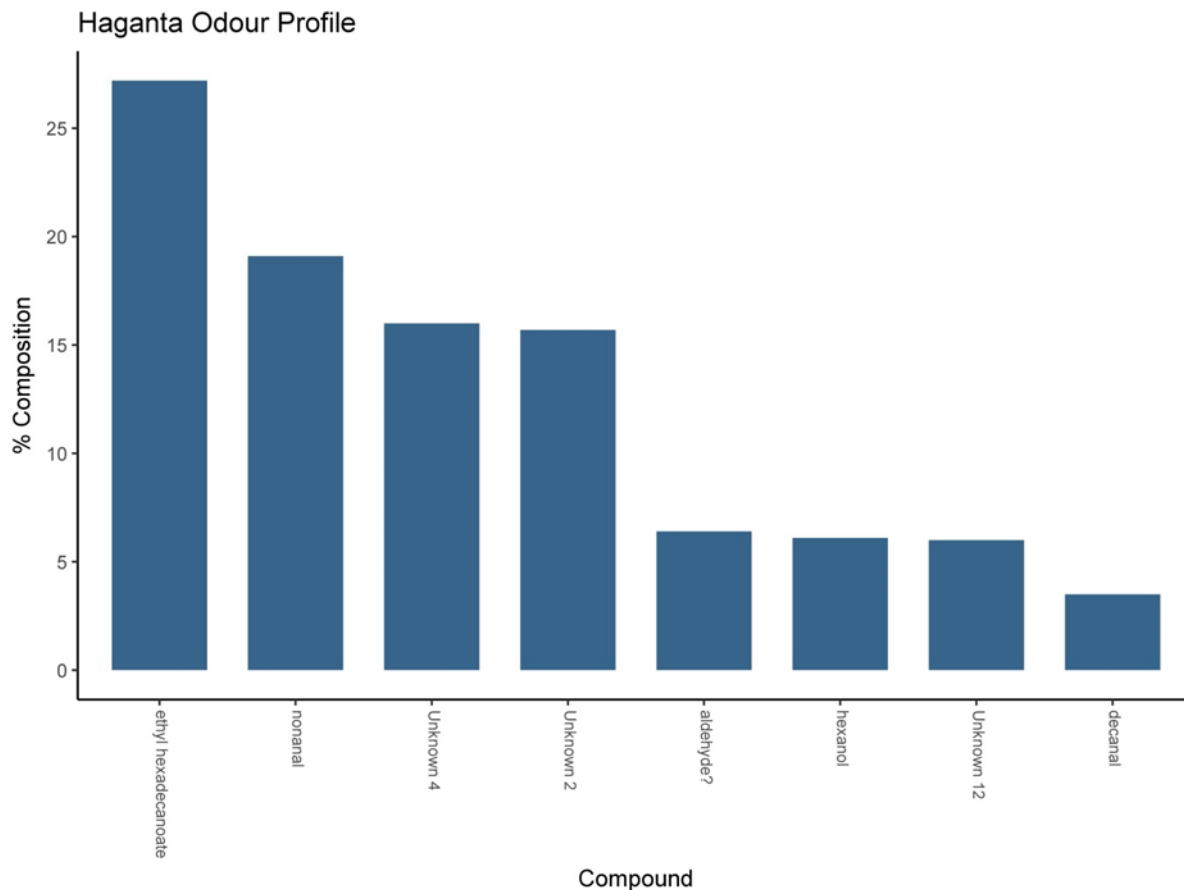
Haganta tasting



TASTING NOTES:

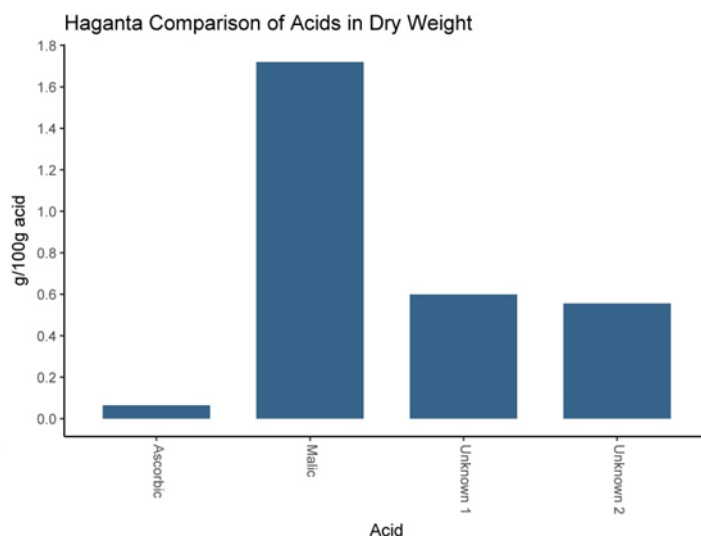
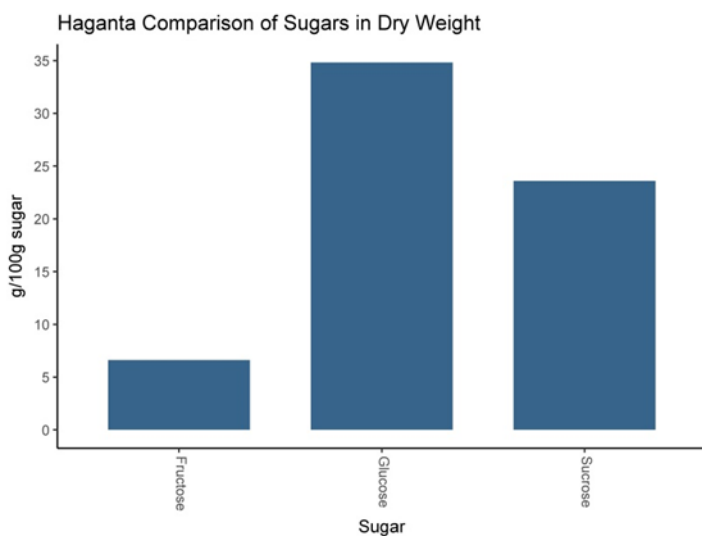
Most participants scored the sweetness at or above the reference and all scored the acidity at or above the reference. This may be why most participants rated the sugar/acid balance as 'too acidic'. The flavour appeal scores were much more variable, with some rating it highly and others poorly, the overall score was likewise variable, with some rating it very highly and others very poorly. Overall Haganta seems to be a slightly acidic plum, with a flavour that is very appealing to some but unappealing to others, likely due to some participants liking the acidity while others did not.

ODOUR PROFILE



Compound

MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Ethyl hexadecanoate	Wax
Nonanal	Citrus, lime, orange peel, rose, fat, fishy, aldehydic, waxy, orris and grapefruit
Unknown compound 4	Unknown
Unknown compound 2	Unknown
Aldehyde?	Fruity
Hexanol	Leafy, grass, sweaty, tallow, fatty, fresh



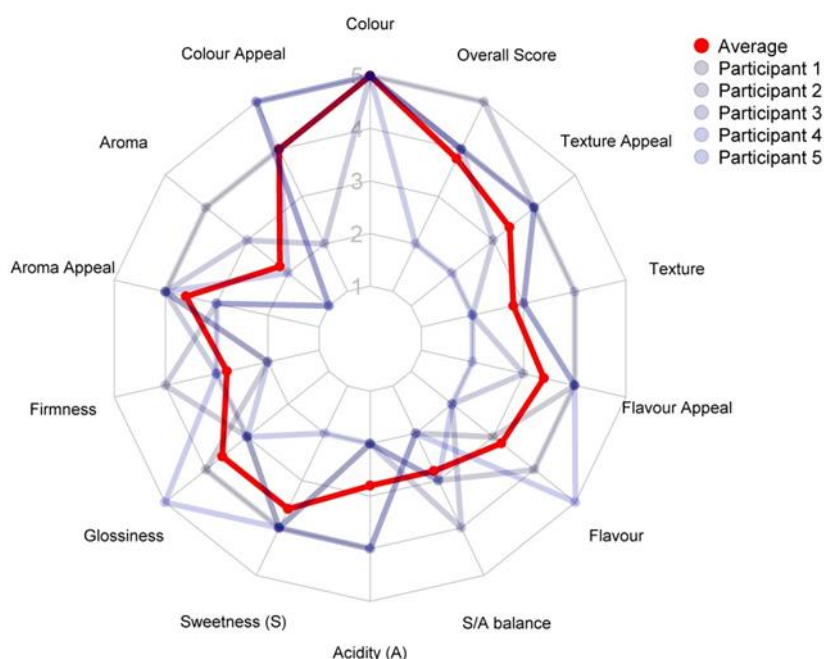
Top End

SHAPE	Oval
AVERAGE SIZE	4cm wide, 5.7cm height
COLOUR	Blue/Black
AVERAGE °BRIX	18.3
AVERAGE CROPPING QUARTER	4 th Q in September
FLOWERING PERIOD	2
TREE HABIT	Spreading



+	High self-fertility
+	High tree productivity
=	High cropping reliability
=	High disease resistance (bacterial canker, Brown rot, Plum Pox)
=	Stores relatively well
-	Low tree vigour

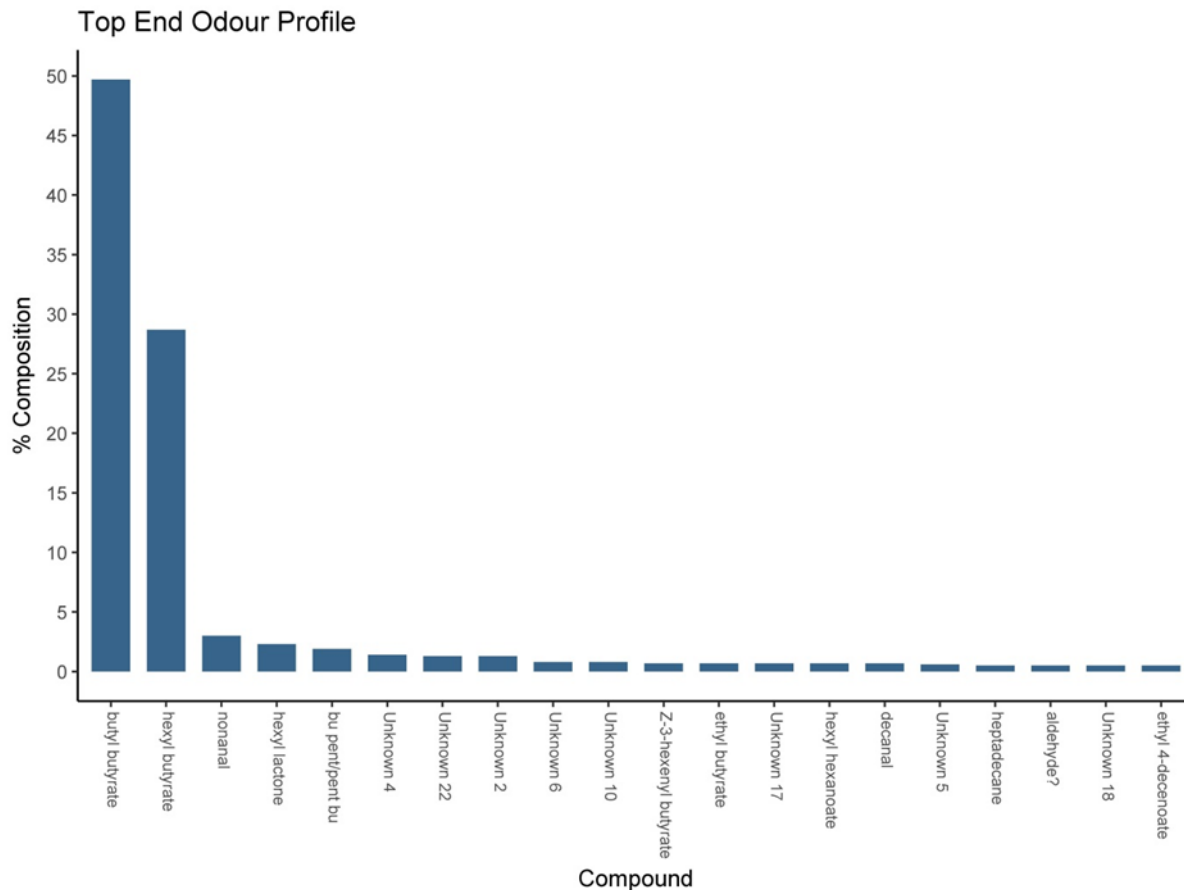
Top End tasting



TASTING NOTES:

There was variability in most of the scoring, possibly suggesting some of the samples were slightly over-ripe, some of the firmness scores were low, suggesting the fruit was soft and so possibly over-ripe. Most scored the sweetness as higher than the reference and the acidity as lower however despite this some participants rated the sugar/acid balance as 'too acidic' and some as 'too sweet'. The flavour appeal was also variable, with some finding it appealing and others unappealing. While some participants found the flavour unappealing only one gave Top End an overall score of 'poor' while all other participants rated it favourably. The overall score suggests a good quality plum that is quite sweet but with a good sugar/acid balance. The flavour appears to be inconsistent. A potentially good quality plum.

ODOUR PROFILE



MOST ABUNDANT VOLATILES	FLAVOUR PROFILE
Butyl butyrate	Floral
Hexyl butyrate	Apple/apple peel, waxy, sweet, soapy, citrus and fresh

