

## Barley Variety Trials

For the period 2011 – 2018 SEPWA have tested 27 barley varieties and with around 10 SEPWA barley variety trials throughout the Esperance Port Zone (EPZ) each year. Similar to wheat, barley and other crop species SEPWA contacts breeding and commercial companies for the latest and newest releases varieties to be included in these trials.

As in previous years at harvest sub-samples are taken of all barley varieties including all current and pending malt varieties and CBH undertake quality testing including protein, moisture, colour screenings and hectolitre weight. These results determine the Farmanco Economic ranking based on the varietal classification e.g. Malt, Food or Feed and current pricing at time of harvest.

<b>Barley Yields and Quality data for SEPWA Trials 2011-2018</b>						
<b>Year x Area</b>	<b>Yield (t/ha)</b>	<b>Protein %</b>	<b>Colour</b>	<b>Hectolitre Weight</b>	<b>Yield (kg/mm)</b>	<b>Farmanco Economic Ranking</b>
<b>High Rainfall - Sandplain</b>	<b>3.316</b>	<b>10.9</b>	<b>55</b>	<b>62.5</b>	<b>9.9</b>	<b>\$809.38</b>
2011	3.810	10.9	55	62.0	13.0	\$896.12
2012	2.466	11.6	56	59.2	8.5	\$691.87
2013	2.957	13.2	54	61.0	9.1	\$652.12
2014	2.282	10.6	56	62.5	5.8	\$533.78
2016	3.346	8.9	57	64.5	8.4	\$658.14
2017	4.469	10.3	56	64.3	16.1	\$1,159.44
2018	4.995	9.6	55	65.2	11.3	\$1,537.05
<b>Medium Rainfall - Mallee</b>	<b>3.648</b>	<b>10.7</b>	<b>57</b>	<b>64.4</b>	<b>12.6</b>	<b>\$913.61</b>
2011	3.000	11.6	56	64.9	9.4	\$739.06
2012	3.051	11.5	57	63.4	13.8	\$889.37
2013	3.411	13.0	57	62.4	9.9	\$803.30
2014	2.979	10.8	56	64.3	11.9	\$734.99
2015	4.673	8.6	57	65.7	21.0	\$1,085.26
2016	4.410	8.2	57	67.0	11.4	\$859.94
2017	4.194	9.4	57	66.1	13.9	\$1,093.40
2018	5.026	8.5	56	63.3	17.2	\$1,557.20
<b>Low Rainfall - Mallee</b>	<b>2.920</b>	<b>11.1</b>	<b>58</b>	<b>63.7</b>	<b>12.4</b>	<b>\$694.89</b>
2011	1.380	12.0	55	61.6	5.8	\$321.14
2012	2.065	11.0	58	62.4	11.9	\$595.18
2013	3.968	12.2	57	65.0	15.1	\$901.02
2014	2.398	10.6	58	64.0	9.3	\$579.90
2015	3.513	11.0	61	63.1	15.0	\$818.82
2016	3.580	9.7	60	63.2	13.8	\$710.54
2017	3.228	10.4	58	64.7	15.5	\$834.71
2018	1.881	10.9	56	65.3	10.0	\$583.82
<b>Average</b>	<b>3.154</b>	<b>11.0</b>	<b>57</b>	<b>63.6</b>	<b>12.0</b>	<b>\$764.45</b>

New varieties in 2018 included new potential malting variety Banks from Intergrain, a late maturing potential malting barley suited to medium to high rainfall environments and has good straw strength and good head retention. Other varieties included RGT Planet, Rosalind, Spartacus, Compass, Hindmarsh, Baudin, Fathom, Flinders, and Scope

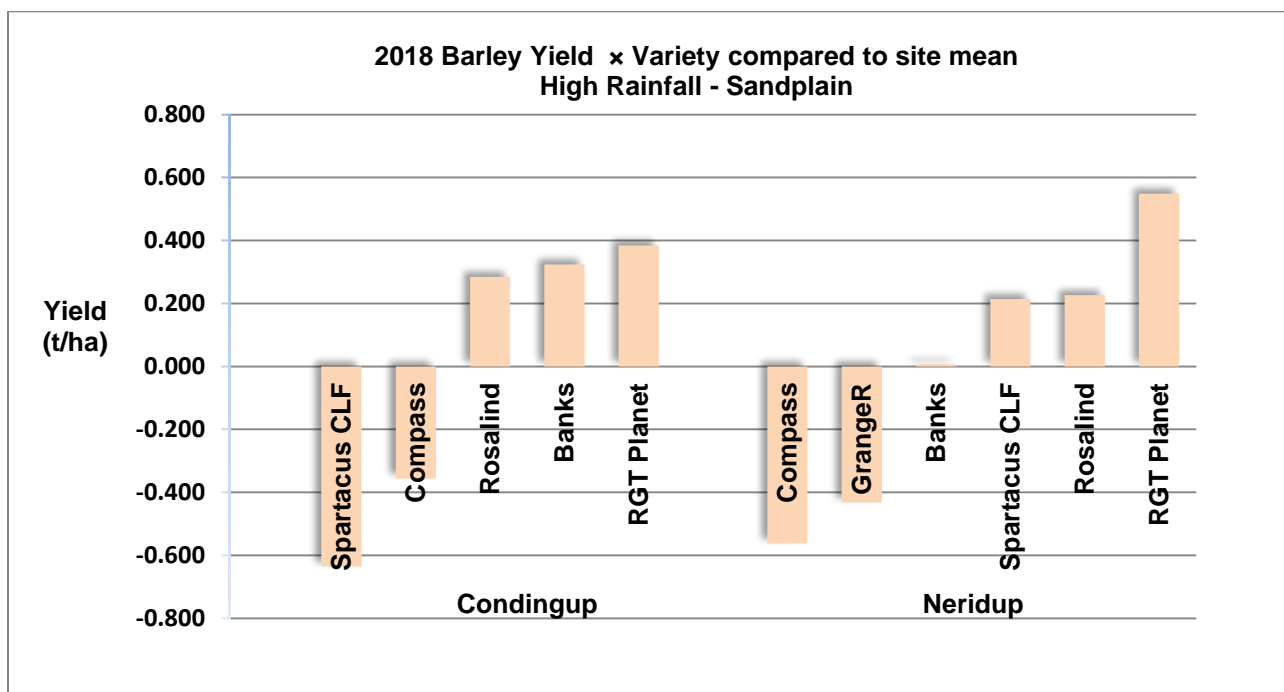
In 2018 there was very little head loss seen in any of the SEPWA Barley variety trials. In previous years barley head loss can represent significant loss of revenue and this is particularly so in the south coast regions of WA where higher yielding barley production tests barley straw strength and head loss.

Also as part of the R4R funded project "Barley Brand Development for Asian Consumers" funded through Royalties for Regions which is working to better understand the needs of end users in the market SEPWA has been collecting samples of all current and pending malt varieties from the SEPWA barley variety trials to test malting quality (micro-malt) of varieties throughout the Esperance Port Zone

## 2017 Barley Yield and Quality Data

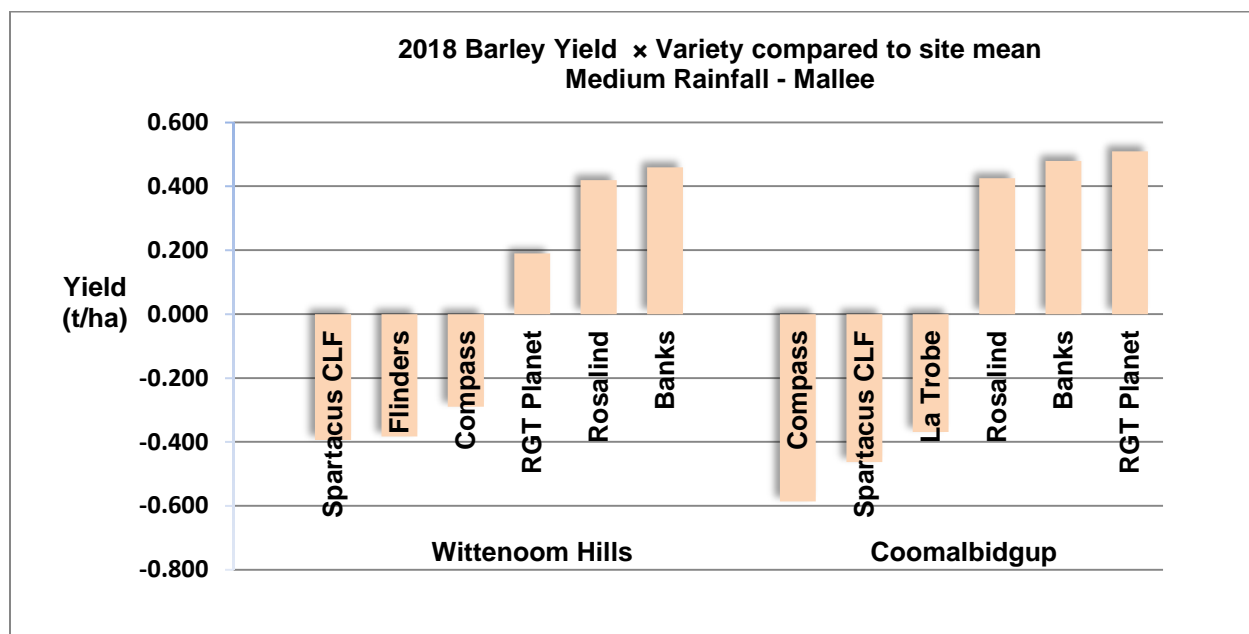
Summaries of the 2018 SEPWA Barley Trials for each of the regions in the Esperance Port Zone (EPZ) together with quality parameters can be seen in the following tables.

Barley Yields and Quality data for SEPWA Trials 2018						
Year x Region	Yield (t/ha)	Protein %	Colour	Hectolitre Weight	Yield (kg/mm)	Farmanco Economic Ranking
<b>High Rainfall - Sandplain</b>	<b>4.995</b>	<b>9.6</b>	<b>55</b>	<b>65</b>	<b>11.3</b>	<b>\$1,537</b>
<b>Condingup</b>	<b>4.976</b>	<b>9.8</b>	<b>54</b>	<b>65</b>	<b>11.4</b>	<b>\$1,518</b>
Compass	4.620	9.7	55	64	10.5	\$1,409
RGT Planet	5.360	9.8	54	64	12.2	\$1,635
Rosalind	5.260	10.4	54	65	12.0	\$1,604
Spartacus CLF	4.340	9.7	55	67	9.9	\$1,324
Banks	5.300	9.6	54	67	12.1	\$1,617
<b>Neridup</b>	<b>5.010</b>	<b>9.4</b>	<b>55</b>	<b>65</b>	<b>11.2</b>	<b>\$1,553</b>
Compass	4.448	9.5	55	65	9.9	\$1,357
GrangeR	4.578	9.3	55	66	10.2	\$1,396
RGT Planet	5.558	8.9	54	62	12.4	\$1,695
Rosalind	5.236	9.6	55	66	11.7	\$1,597
Spartacus CLF	5.224	9.5	55	66	11.7	\$1,593
Banks	5.017	9.6	56	66	11.2	\$1,681
<b>Average</b>	<b>4.995</b>	<b>9.6</b>	<b>55</b>	<b>65</b>	<b>11.3</b>	<b>\$1,537</b>



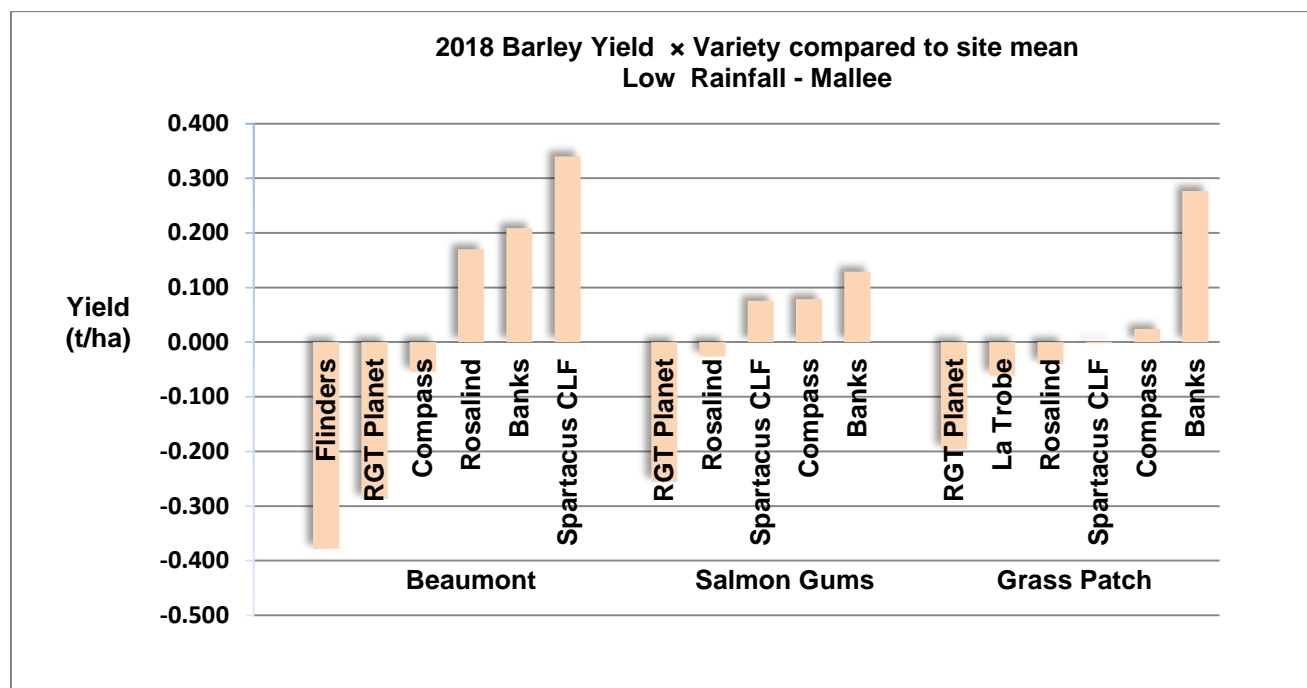
### Barley Yields and Quality data for SEPWA Trials 2018

Year x Region	Yield (t/ha)	Protein %	Colour	Hectolitre Weight	Yield (kg/mm)	Farmanco Economic Ranking
<b>Medium Rainfall - Mallee</b>	<b>5.026</b>	<b>8.5</b>	<b>56</b>	<b>63</b>	<b>17.2</b>	<b>\$1,557</b>
<b>Wittenoorn Hills</b>	<b>5.248</b>	<b>8.9</b>	<b>56</b>	<b>63</b>	<b>22.0</b>	<b>\$1,649</b>
Compass	4.958	8.6	57	63	20.8	\$1,512
Flinders	4.865	9.6	57	65	20.4	\$1,630
RGT Planet	5.438	9.1	56	63	22.8	\$1,659
Rosalind	5.667	8.4	56	63	23.8	\$1,728
Spartacus CLF	4.854	9.5	56	65	20.3	\$1,626
Banks	5.708	8.0	56	62	23.9	\$1,741
<b>Coomalbidgup</b>	<b>4.804</b>	<b>8.1</b>	<b>55</b>	<b>63</b>	<b>12.3</b>	<b>\$1,465</b>
Compass	4.218	7.8	55	61	10.8	\$1,286
La Trobe	4.435	8.3	55	64	11.4	\$1,353
RGT Planet	5.314	7.3	55	61	13.6	\$1,621
Rosalind	5.229	8.7	55	64	13.4	\$1,595
Spartacus CLF	4.341	8.3	56	64	11.1	\$1,324
Banks	5.284	8.0	55	65	13.6	\$1,612
<b>Average</b>	<b>5.026</b>	<b>8.5</b>	<b>56</b>	<b>63</b>	<b>17.2</b>	<b>\$1,557</b>



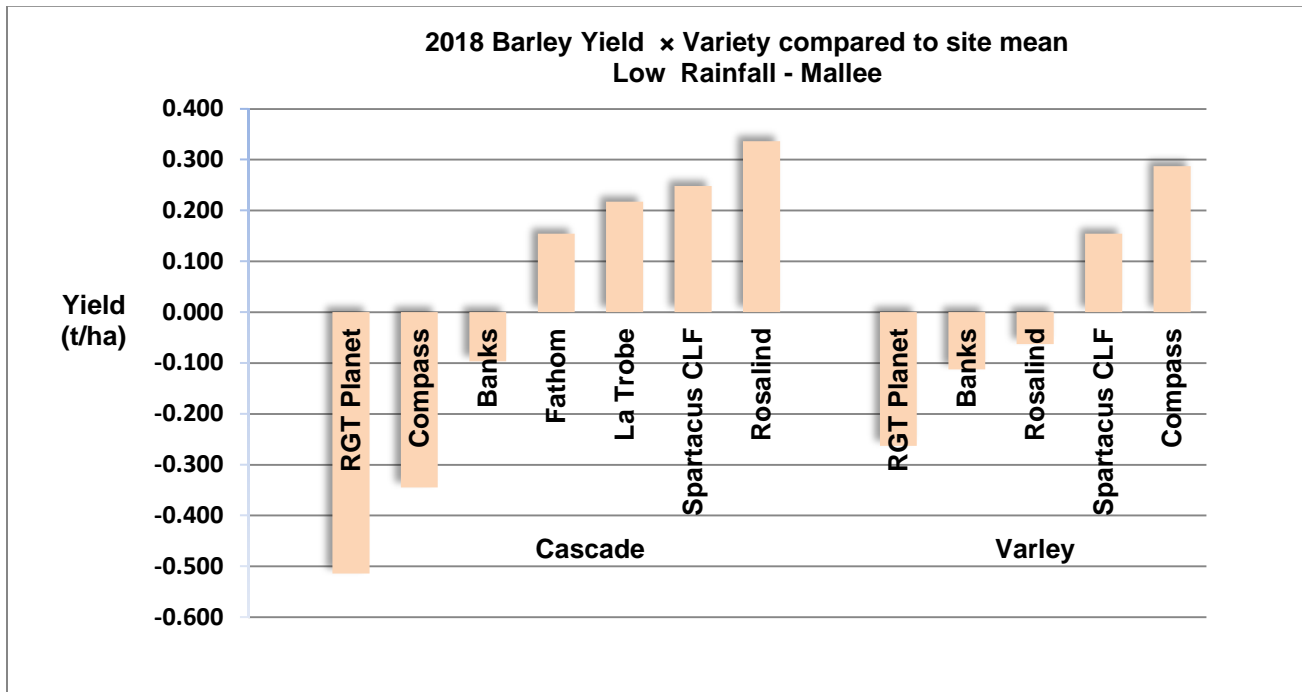
### Barley Yields and Quality data for SEPWA Trials 2018

Year x Region	Yield (t/ha)	Protein %	Colour	Hectolitre Weight	Yield (kg/mm)	Farmanco Economic Ranking
<b>Low Rainfall - Mallee</b>	<b>2.054</b>	<b>8.9</b>	<b>56</b>	<b>63</b>	<b>9.7</b>	<b>\$631</b>
<b>Beaumont</b>	<b>3.303</b>	<b>8.9</b>	<b>55</b>	<b>61</b>	<b>11.0</b>	<b>\$1,007</b>
Compass	3.248	9.5	56	62	10.9	\$991
Flinders	2.925	9.1	55	65	9.8	\$892
RGT Planet	3.016	9.2	55	60	10.1	\$920
Rosalind	3.473	8.8	55	63	11.6	\$1,059
Spartacus CLF	3.643	8.8	56	61	12.2	\$1,111
Banks	3.512	8.1	54	58	11.7	\$1,071
<b>Salmon Gums</b>	<b>1.578</b>	<b>8.5</b>	<b>57</b>	<b>62</b>	<b>9.4</b>	<b>\$481</b>
Compass	1.657	8.9	57	62	9.9	\$505
RGT Planet	1.322	8.5	56	60	7.9	\$403
Rosalind	1.552	8.6	58	60	9.3	\$473
Spartacus CLF	1.654	8.5	57	66	9.9	\$504
Banks	1.707	7.8	57	61	10.2	\$521
<b>Grass Patch</b>	<b>1.200</b>	<b>9.2</b>	<b>56</b>	<b>66</b>	<b>8.5</b>	<b>\$379</b>
Compass	1.224	8.9	56	64	8.6	\$373
La Trobe	1.139	9.6	56	66	8.0	\$382
RGT Planet	1.004	9.0	56	66	7.1	\$306
Rosalind	1.160	9.3	56	67	8.2	\$354
Spartacus CLF	1.198	9.0	57	66	8.5	\$365
Banks	1.477	9.5	57	67	10.4	\$495
<b>Average</b>	<b>2.054</b>	<b>8.9</b>	<b>56</b>	<b>63</b>	<b>9.7</b>	<b>\$631</b>



**Barley Yields and Quality data for SEPWA Trials 2018**

Year x Region	Yield (t/ha)	Protein %	Colour	Hectolitre Weight	Yield (kg/mm)	Farmanco Economic Ranking
<b>Low Rainfall - Mallee</b>	<b>1.636</b>	<b>13.7</b>	<b>57</b>	<b>68</b>	<b>10.4</b>	<b>\$517</b>
<b>Cascade</b>	<b>1.116</b>	<b>14.4</b>	<b>57</b>	<b>68</b>	<b>6.9</b>	<b>\$340</b>
Compass	0.771	15.0	57	67	4.7	\$235
Fathom	1.270	14.8	56	67	7.8	\$387
La Trobe	1.333	14.7	56	67	8.2	\$407
RGT Planet	0.602	14.4	56	75	3.7	\$184
Rosalind	1.452	14.0	57	68	8.9	\$443
Spartacus CLF	1.364	14.1	57	68	8.4	\$416
Banks	1.019	13.9	57	67	6.3	\$311
<b>Varley</b>	<b>2.363</b>	<b>12.6</b>	<b>57</b>	<b>68</b>	<b>15.3</b>	<b>\$764</b>
Compass	2.650	12.2	57	67	17.2	\$888
RGT Planet	2.100	12.1	58	68	13.6	\$704
Rosalind	2.300	13.7	56	67	14.9	\$702
Spartacus CLF	2.517	11.9	57	69	16.3	\$843
Banks	2.250	13.2	58	69	14.6	\$686
<b>Average</b>	<b>1.636</b>	<b>13.7</b>	<b>57</b>	<b>68</b>	<b>10.4</b>	<b>\$517</b>



Barley Yields - Percentage Site Mean 2018									
Year x Area	High Rainfall - Sandplain		Medium Rainfall - Mallee		Low Rainfall - Mallee				
	Condingup	Neridup	Wittenoorn Hills	Coomalbidgup	Beaumont	Salmon Gums	Grass Patch	Cascade	Varley
Compass	93%	89%	94%	88%	98%	105%	102%	69%	112%
Fathom								114%	
Flinders			93%		89%				
GrangeR		91%							
La Trobe				92%			95%	119%	
RGT Planet	108%	111%	104%	111%	91%	84%	84%	54%	89%
Rosalind	106%	105%	108%	109%	105%	98%	97%	130%	97%
Spartacus CLF	87%	104%	92%	90%	110%	105%	100%	122%	106%
Banks	107%	100%	109%	110%	106%	108%	123%	91%	95%
<b>Average</b>	<b>4.976</b>	<b>5.010</b>	<b>5.248</b>	<b>4.804</b>	<b>3.303</b>	<b>1.578</b>	<b>1.200</b>	<b>1.116</b>	<b>2.363</b>
<i>Variety &gt;105% site mean</i>									

## Quality and malting varieties

Like wheat, at harvest sub-samples are taken of all barley varieties and CBH undertake quality testing including protein, moisture, colour screenings and hectolitre weight. These results determine the Farmanco Economic ranking based on the varietal classification e.g. Malt, Food or Feed and current pricing at time of harvest. Based on quality standards received from CBH for varieties which were either under malt accreditation or achieved malting in the SEPWA Barley variety trials for 2011 – 2018, 46% achieved Malt 1 or Malt 2.

*(Please note that in 2018 there was no Malt 2 Segregation re Farmanco Ranking)*

Barley Classifications (Malt Varieties) for SEPWA Trials 2011 - 2018							
MALT Varieties	MALT 1		MALT 2		BFED1		Total
Banks***	2	20%			8	80%	10
Bass	6	19%	11	34%	15	47%	32
Baudin	6	21%	11	39%	11	39%	28
Buloke	7	24%	7	24%	15	52%	29
Compass	6	13%	9	20%	30	67%	45
Flinders	13	29%	10	22%	22	49%	45
Gairdner	13	57%	3	13%	7	30%	23
GrangeR	9	27%	8	24%	16	48%	33
La Trobe	12	22%	18	33%	25	45%	55
RGT Planet***	3	15%	2	10%	15	75%	20
Scope	7	11%	20	31%	38	58%	65
Spartacus CLF	6	19%	4	13%	22	69%	32
<b>Total</b>	<b>90</b>	<b>21%</b>	<b>103</b>	<b>25%</b>	<b>224</b>	<b>54%</b>	<b>417</b>

\*\*\* Denotes variety under malt evaluation

## Farmanco Economic Ranking (\$/ha)

Quality data received from CBH including protein, moisture, colour, hectolitre weight and screenings were carried out on all barley varieties at each site. The Farmanco Economic ranking is based on variety classification e.g. malt or feed variety, current barley pricing at harvest and grade using quality parameters protein, colour, screenings and hectolitre weight,

2018/19 Pricing		
Grade	Price	Spread
Malt1	\$ 335.00	\$0
Malt2	No Segregation at costing	
BFOD1	\$ 310.00	-\$25.00
BFED1	\$ 305.00	-\$30.00

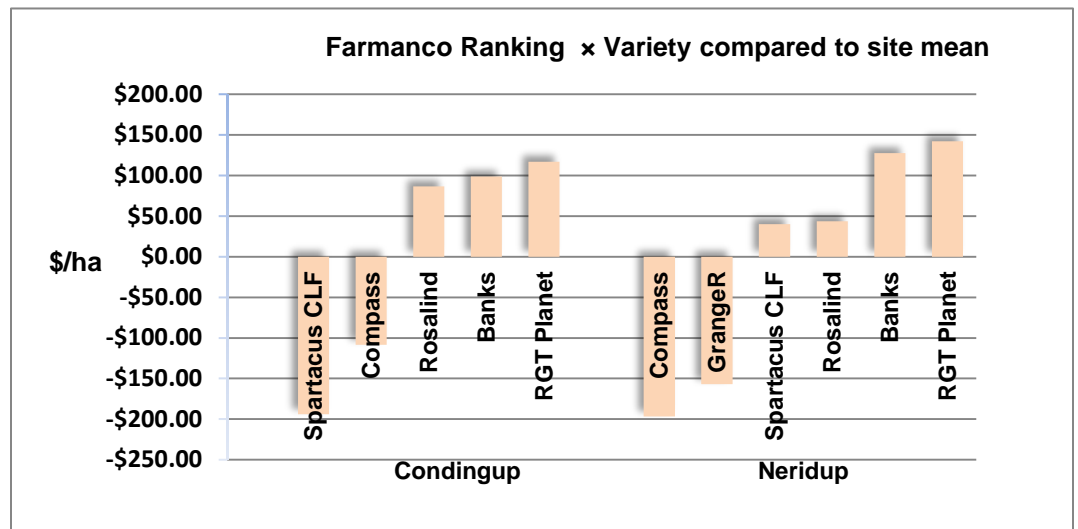
The following prices have been used in the economic ranking for barley varieties.

**Malt Varieties** – La Trobe, Baudin, Flinders, Scope, GrangeR, Compass, Spartacus CLF

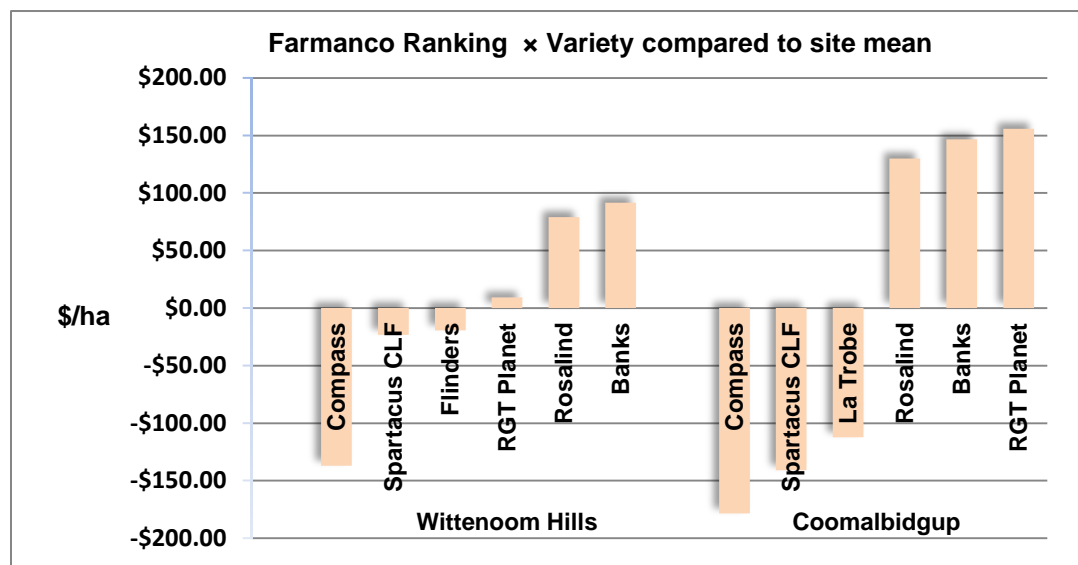
**Malt varieties under evaluation** - RGT Planet, Banks

**Feed Varieties** - Fathom, Rosalind,

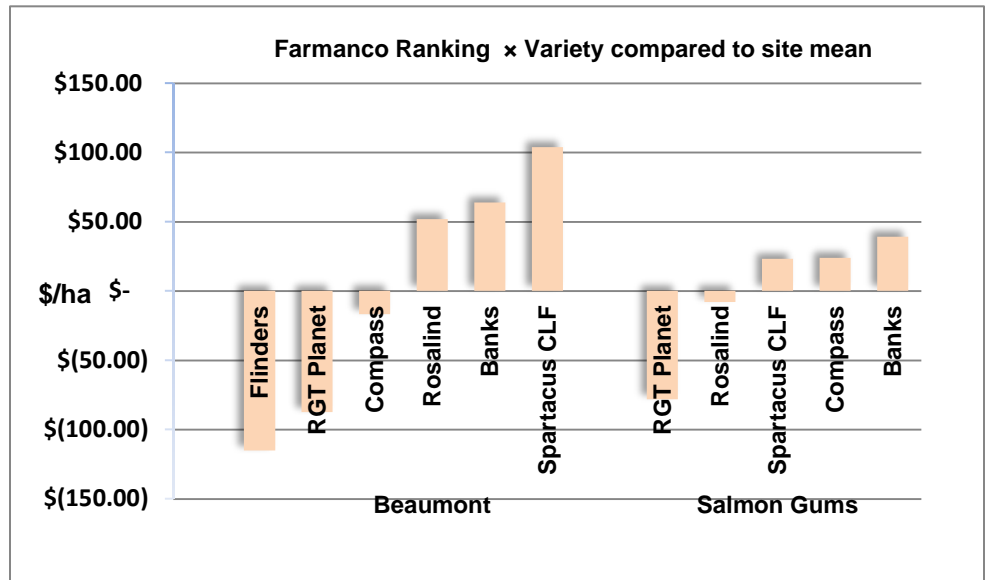
2018 Farmanco Ranking		
Variety	Condingup	Neridup
GrangeR		\$1,396
Compass	\$1,409	\$1,357
Rosalind	\$1,604	\$1,597
RGT Planet	\$1,635	\$1,695
Banks	\$1,617	\$1,681
Spartacus CLF	\$1,324	\$1,593
<b>Average</b>	<b>\$1,518</b>	<b>\$1,553</b>



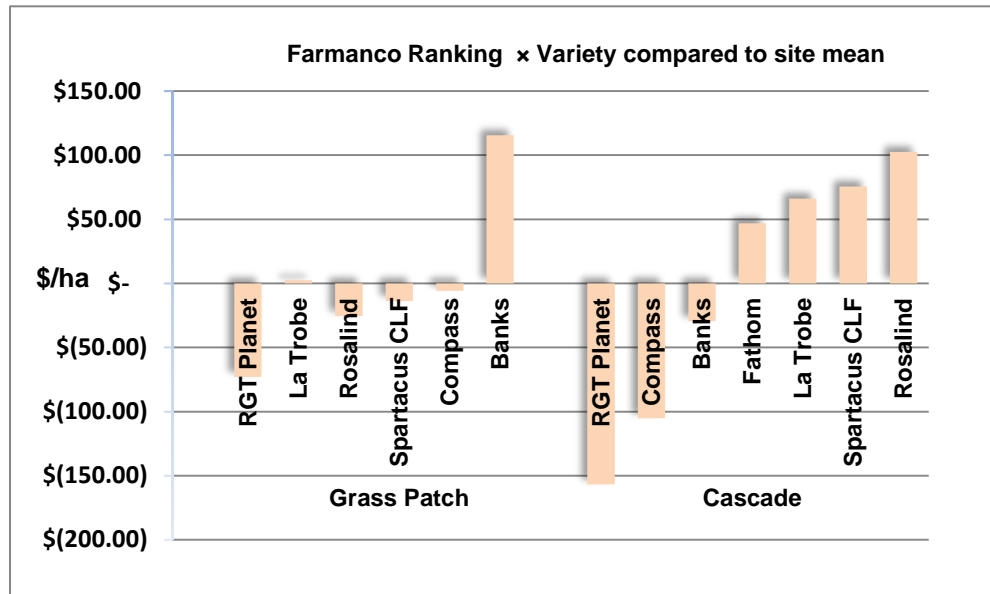
2018 Farmanco Ranking		
Variety	Wittenoorn Hills	Coomalbidgup
Flinders	\$1,630	
La Trobe		\$1,353
Compass	\$1,512	\$1,286
Rosalind	\$1,728	\$1,595
RGT Planet	\$1,659	\$1,621
Banks	\$1,741	\$1,612
Spartacus CLF	\$1,626	\$1,324
<b>Average</b>	<b>\$1,649</b>	<b>\$1,465</b>



2018 Farmanco Ranking		
Variety	Beaumont	Salmon Gums
Flinders	\$892	
Compass	\$991	\$505
Rosalind	\$1,059	\$473
RGT Planet	\$920	\$403
Banks	\$1,071	\$521
Spartacus CLF	\$1,111	\$504
<b>verage</b>	<b>\$1,007</b>	<b>\$481</b>



2018 Farmanco Ranking		
Variety	Grass Patch	Cascade
La Trobe	\$382	\$407
Fathom		\$387
Compass	\$373	\$235
Rosalind	\$354	\$443
RGT Planet	\$306	\$184
Banks	\$495	\$311
Spartacus CLF	\$365	\$416
<b>Average</b>	<b>\$379</b>	<b>\$340</b>



2018 Farmanco Ranking	
Variety	Varley
Compass	\$888
Rosalind	\$702
RGT Planet	\$704
Banks	\$686
Spartacus CLF	\$843
<b>Average</b>	<b>\$764</b>

