

2023 Update

The Forage Value Index (FVI) is a tool that helps Australian dairy farmers and their advisors to make more informed decisions when selecting ryegrass cultivars.

It provides an accurate, reliable and independent assessment of the potential economic value of ryegrass cultivars across three different species (Perennial, Annual and Italian ryegrass) in a number of dairy-producing regions across Australia. The FVI is calculated by multiplying the Performance Value of each cultivar (i.e. total kilograms dry matter produced per hectare per season) by its Economic Value (i.e. the estimated value of this extra production per season). Performance Values for each variety are determined by industry assessed trial data. To be included in the FVI database, each cultivar must have data from at least three trials that have been conducted using strict industry approved protocols. For Perennial ryegrass, trials must be three years in length, whilst Annual & Italian ryegrass trials must be a minimum of one full growing season.

Reference varieties

Across the three different species of ryegrass, the Performance Value is expressed as the percentage change in yield relative to a selected reference cultivar which effectively acts as the genetic base for that species in the FVI. The reference cultivar is generally a well-known variety for each ryegrass species, where farmers and advisors are more likely to have a good understanding and knowledge of its performance over many years across various environments. The reference cultivars for each species are as follows:

- Perennial ryegrass: Victorian Ryegrass (Vic Rye)
- Annual Ryegrass: Tetila (from a certified source to ensure consistency across trials)
- Italian Ryegrass: Crusader







Figure 1 Map of trial locations across south eastern Australia that contributed to the FVI in 2023





Coloured bars

The FVI for each cultivar is expressed as a numerical value and is also assigned within a coloured bar. The FVI value is a prediction of extra operating profit per hectare over and above the reference cultivar in each species, which always has an FVI value of 0. Cultivars within the same-coloured bar are not significantly different to each other at the 95 per cent confidence interval.

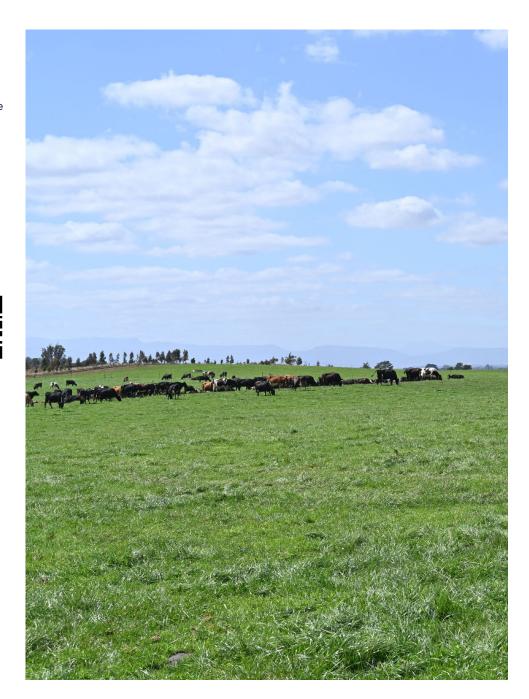
The FVI information allows users to rank cultivars according to their region and user nominated attributes (e.g. seasonal yields, ploidy, heading date, endophyte). The number of trials in which the cultivar has been tested is also included in the table.

Seasonal yield tables

The accompanying tables of cultivar performance during the various FVI seasons are of particular importance to dairy farmers, depending upon their farming system and calving pattern. For example, dairy farmers that calve in the autumn might favour those cultivars that have a higher performance value for autumn and winter as they would likely value greater winter growth in their pastures. The vast majority of trial data comes from the Pasture Trial Network (PTN), and users can now check out the details of individual trials on the PTN in addition to the FVI rankings. They can be accessed at etools.mla.com.au/ptn or by scanning the QR code.

Autumn seasonal values for annual and Italian ryegrass FVI's

In 2023, performance values for Autumn in the Annual & Italian ryegrass FVI's have been removed from the index. The first harvest was not taken from the majority of these trials until after the 31st May and this meant that data for Autumn (March-May) which reflects very early establishment in these varieties was too limited for us to fully be confident it accurately reflected differences in the varieties at this time of the year. The solution is to generate more yield data before 31st May by sowing these trials earlier in the growing season and that is the aim for 2023 trials. However, most trials are dryland and therefore the timing of the autumn break is a big factor in establishing trials successfully. Recent autumn breaks in many regions particularly in Victoria have been very variable. This change only applies to Annual and Italian ryegrass FVI's. Perennial trials run for three years and so sufficient data is collected in autumn in these trials.



Gippsland: Forage Value Index 2023 – ITALIAN RYEGRASS

	FVI		Early	Late						No. of	f trials
Cultivar	Gipps	Winter	Spring	Spring	Summer	Endophyte	Ploidy	Heading Date	Marketer	Overall	Gipps
Tempo	64	107	103	102	101	Nil	D	Late	Barenbrug Australia	16	2
Arise	29	103	101	101	101	Nil	Т	Late	Barenbrug Australia	15	1
Aston	16	104	100	100	100	Nil	Т	Late	Barenbrug Australia	8	1
Concord II	14	103	101	99	100	Nil	D	Late	DLF Seeds	18	2
Manta	13	101	100	101	101	Nil	D	Late	DLF Seeds	6	1
SF Accelerate 2	11	100	100	101	100	Nil	D	Late	Seed Force	7	1
Jackpot	11	103	101	100	99	Nil	D	Late	DLF Seeds	14	1
Lush AR37	10	101	99	100	101	AR37	Т	Late	DLF Seeds	8	0
Feast II	10	102	99	101	101	Nil	Т	Late	DLF Seeds	18	2
Amass	8	100	99	101	101	Nil	Т	Mid	Valley Seeds	7	1
Mona	3	100	99	102	100	Nil	Т	Late	DLF Seeds	14	1
SF Emmerson	3	98	99	101	101	Nil	Т	Late	Seed Force	3	1
Asset AR37	3	101	100	100	100	AR37	D	Late	DLF Seeds	4	1
Echo	1	101	100	100	99	Nil	Т	Mid	Tas Global Seeds	4	1
SF Indulgence	0	100	100	100	100	Nil	D	Late	Seed Force	4	1
Crusader	0	100	100	100	100	Nil	D	Late	DLF Seeds	8	0
Nourish	-2	101	99	100	101	Nil	Т	Late	DLF Seeds	8	0
Combat	-2	101	100	100	99	Nil	D	Mid	Upper Murray Seeds	4	0
Mohaka AR37	-3	98	100	100	101	AR37	Т	Late	DLF Seeds	4	1
Pepper	-5	101	99	100	100	Nil	Т	Mid/Late	Seed Force	7	1
Awesome	-7	101	100	100	98	Nil	D	Late	Upper Murray Seeds	5	0
Maverick GII	-13	99	100	100	99	Nil	D	Mid	DLF Seeds	4	1
Xtend	-14	98	99	101	99	Nil	D	Mid	AGF Seeds	9	1
Thumpa	-14	100	98	100	99	Nil	Т	Late	DLF Seeds	18	2
Knight	-15	104	99	98	98	Nil	D	Late	DLF Seeds	18	2
Sonik	-18	99	99	99	99	Nil	D	Late	Cropmark Seeds	4	1
Blade	-24	98	99	100	98	Nil	D	Late	Cropmark Seeds	4	1

Notes

- 1 Crusader was chosen as the reference cultivar for the Italian ryegrass FVI, due to its relative performance being more widely known by the dairy industry compared to the other options. Unlike the Perennial and Annual FVI's where the reference cultivars used were towards the bottom of the FVI tables, Crusader is still a mid-ranking cultivar in the Italian ryegrass FVI despite being commercially available for many years. Therefore several cultivars in the Italian FVI have a negative FVI relative to Crusader. The reference cultivar in the FVI is always zero, and the FVI for all other cultivars in the list are measured against this line.
- 2 Data to create the performance values for each cultivar were taken from 18 Italian ryegrass trials. The trials were located in the following regions and were measured at various stages between 2015 and 2021 Leongatha, Terang, Howlong (x4), Kiewa Valley, Shepparton, Taree, Aberdeen (x3), Meander Valley, Lardner Park, Bega, Warrnambool, Colac and MacArthur.
- 3 In the Italian ryegrass FVI, only trial data from the first year of growth is included in the calculations. The majority of Italian ryegrass PTN trials do not persist into a second year in future when there is sufficient data from year 2 of a trial for Italian cultivars it will be included in a 2-year Italian ryegrass FVI.
- 4 Correction from 2021/22 FVI list: The two varieties Mohaka AR37 and Lush AR37 were incorrectly decoded from a small number of trials in the 2021/22 Italian ryegrass FVI, which may have affected their rankings. This error has now been corrected for the 2022/23 update.

Legend

Heading	Description
Cultivar	A plant variety that has been produced by selective breeding. Cultivars are as listed as on the Australian Seed Federation Pasture Seed Database.
Colour bars	Cultivars with the same colour are not significantly different from each other.
FVI	The rating is based on the outcome of economic and performance values for each cultivar.
Seasonal performance	A performance value is based on the difference in dry matter production between a cultivar's seasonal performance and that of Crusader Italian ryegrass. This is a percentage ranking – percent better or worse than Crusader ryegrass. For example, Crusader is always 100 for each FVI season. A cultivar that is 110 means that it produced 110 per cent of the dry matter produced by Crusader in that particular FVI season. A cultivar that is 97 means it produced 97 per cent of the dry matter produced by Crusader in that particular FVI season.
Autumn	March/April/May
Winter	June/July
Early spring	August/September
Late spring	October/November
Summer	December/January/February
Endophyte	A fungus which protects plants from a range of insect pests. Different types of endophytes affect persistence, dry matter production, insect pest species and nutritive value in different ways.
Ploidy	The number of chromosomes per cell in the plant. A diploid ryegrass has two, while a tetraploid has four.
Heading date	The date when 50 per cent of the plants of a variety have emerged seed heads in a typical year. Heading dates are listed on the Australian Seed Federation Pasture Seed Database.
Marketer	The company marketing the cultivar.
No. of trials	To be included in the Italian ryegrass Forage Value Index database, each cultivar must have data from at least three, one-year trials.



Economic values

The economic values are a key aspect of the overall forage value index. Whilst the performance values are the same across all regions in the FVI at present, the seasonal value of the extra pasture is different across the regions. Hence, localised regional tables are provided to more accurately reflect the marginal value of a kilogram of ryegrass in the different parts of the country. The way the economic values are calculated for the FVI changed for the 2022 release.

Original individual case study farm approach

When the FVI was first introduced, economic values were developed using a case study farm approach in each of the four regions where perennial ryegrass is dominant (South West Victoria, Northern Victoria, Gippsland and Tasmania). A typical dairy system based on a real farm business in each region was modelled, with the base monthly estimated metabolisable energy requirements of the herd, the feed consumed, and the pasture consumption per hectare defined. For each of the five FVI seasons, the economic value of the additional pasture to the case study farm system was estimated according to the market value of feeds that the additional pasture replaced (on an equivalent energy basis), or as the net market value of hay or silage produced if the additional pasture was surplus to the case study farm requirements. Farming systems, even within regions in Australia, are quite diverse by comparison to other pasture based dairy industries elsewhere in the world. The case study farm approach to determine economic values provided a good indication of the general value of additional pasture yield in each region, but was limited by how representative the case study farm is for each region.

New market value approach

The new approach for calculating economic values simplifies the way extra seasonal pasture production is valued. Seasons when grazed pasture is typically in deficit and in surplus are defined for each FVI region. For example, in Gippsland, pasture was assumed to be in deficit during summer, autumn and winter, and in surplus during early and late spring. Extra pasture produced in a period when it is typically in deficit is valued more than in periods when it is typically in surplus. In seasons of deficit, extra pasture is valued as its maximum replacement cost; as purchased supplementary feed, and in seasons of surplus it is valued at its minimum salvage value; as standing hay to be conserved. Market prices (2011-2018 average price) of feeds delivered to each region were used to establish these maximum and minimum economic values on an equivalent nutritive value basis.

How the new approach for calculating economic values affects the ranking of cultivars in the FVI

A previous release of the FVI was used to compare the two methods of calculating the economic values, to assess whether it made a difference to the FVI rankings. The FVI of 19 perennial ryegrass cultivars was calculated using the economic values from the original case study farm method and the market value approach, across the three Victorian regions. The 19 cultivars were compared to a common reference cultivar (Victorian), which was assigned a value of zero. Using the economic values calculated by the original method case study farm method, the 19 cultivars were calculated to be worth an extra \$0-\$180 per ha more than Victorian ryegrass, the reference cultivar. Using the economic values calculated by the market value approach, the same 19 cultivars were calculated to be worth an extra \$24-\$200/ha more than the same reference cultivar. Hence, it is clear that there is good agreement between the two methods for calculating the economic values.

Advantages of the market value approach

There are several advantages to using the market value approach. First, the economic values are applicable to all producers who buy and sell substitutes for grazed pasture, and who experience similar timings of pasture surpluses and deficits. This removes the limitations of having a single representative farm for each region. Second, the simplified approach makes it easier to communicate how the economic values have been calculated. This enables farmers to more easily consider how the FVI rankings relate to their individual circumstances. Lastly, regional differences can be accounted for in seasonality of pasture supply, and feed types and prices, and the economic values are relatively straightforward to update once established.



New economic values updated for 2022 onwards

The 2022 update of the FVI used newly updated economic values for all three ryegrass species and the same EV's are again in use for this update in 2023. In South West Victoria, Northern Victoria, Gippsland and Tasmania, grazed pasture was assumed to be in deficit during autumn, winter and summer, and surplus during early spring and late spring. In the two new regions of South Coast NSW and North Coast NSW, grazed pasture was assumed to be in deficit during autumn and winter and surplus during early spring, late spring, and summer.

Separate economic values for dry matter yield have now been calculated for perennial ryegrass cultivars and for annual/Italian ryegrass cultivars for the Victorian and Tasmanian regions. This aims to better reflect differences in the seasonal nutritive value of perennial vs. annual/Italian ryegrasses when calculating the economic values.

Perennial Ryegrass economic values for the Forage Value Index (\$/kg DM)

Region	Autumn	Winter	Early Spring	Late Spring	Summer
South West Victoria	0.36	0.37	0.31	0.29	0.32
Northern Victoria	0.36	0.37	0.30	0.28	0.32
Gippsland	0.41	0.42	0.35	0.33	0.37
Tasmania	0.39	0.41	0.31	0.30	0.36

Annual and Italian Ryegrass economic values for the Forage Value Index (\$/kg DM)

Region	Autumn	Winter	Early Spring	Late Spring	Summer
South West Victoria	0.37	0.37	0.29	0.29	0.35
Northern Victoria	0.38	0.38	0.30	0.30	0.36
Gippsland	0.42	0.42	0.35	0.35	0.40
Tasmania	0.41	0.42	0.31	0.31	0.38
South Coast NSW	0.44	0.44	0.37	0.37	0.36
North Coast NSW	0.47	0.48	0.38	0.38	0.38

Gippsland Winter seasonal performance – ITALIAN RYEGRASS

Cultivar		Winter	Early Spring	Late Spring	Summer	FVI Gipps	Endophyte	Ploidy	Heading Date	Marketer	No. of trials
Tempo		107	103	102	101	64	Nil	D	Late	Barenbrug Australia	16
Knight		104	99	98	98	-15	Nil	D	Late	DLF Seeds	18
Aston		104	100	100	100	16	Nil	Т	Late	Barenbrug Australia	8
Arise		103	101	101	101	29	Nil	Т	Late	Barenbrug Australia	15
Concord II		103	101	99	100	14	Nil	D	Late	DLF Seeds	18
Jackpot		103	101	100	99	11	Nil	D	Late	DLF Seeds	14
Feast II		102	99	101	101	10	Nil	Т	Late	DLF Seeds	18
Lush AR37		101	99	100	101	10	AR37	T	Late	DLF Seeds	8
Pepper		101	99	100	100	-5	Nil	Т	Late	Seed Force	7
Asset AR37		101	100	100	100	3	AR37	D	Late	DLF Seeds	4
Combat		101	100	100	99	-2	Nil	D	Mid	Upper Murray Seeds	4
Manta		101	100	101	101	13	Nil	D	Late	DLF Seeds	6
Nourish		101	99	100	101	-2	Nil	T	Late	DLF Seeds	8
Awesome		101	100	100	98	- 7	Nil	D	Late	Upper Murray Seeds	5
Echo		101	100	100	99	1	Nil	Т	Mid	Tas Global Seeds	4
Thumpa		100	98	100	99	-14	Nil	Т	Late	DLF Seeds	18
SF Accelerate 2		100	100	101	100	11	Nil	D	Late	Seed Force	7
Amass		100	99	101	101	8	Nil	Т	Mid	Valley Seeds	7
Mona		100	99	102	100	3	Nil	T	Late	DLF Seeds	14
Crusader		100	100	100	100	0	Nil	D	Late	DLF Seeds	8
SF Indulgence		100	100	100	100	0	Nil	D	Late	Seed Force	4
Maverick GII		99	100	100	99	-13	Nil	D	Mid	DLF Seeds	4
Sonik		99	99	99	99	-18	Nil	D	Late	Cropmark Seeds	4
SF Emmerson		98	99	101	101	3	Nil	Т	Late	Seed Force	3
Blade		98	99	100	98	-24	Nil	D	Late	Cropmark Seeds	4
Xtend		98	99	101	99	-14	Nil	D	Mid	AGF Seeds	9
Mohaka AR37		98	100	100	101	-3	AR37	Т	Late	DLF Seeds	4

Gippsland early Spring seasonal performance – ITALIAN RYEGRASS

Cultivar	Early Spring	Late Spring	Summer	Winter	FVI Gipps	Endophyte	Ploidy	Heading Date	Marketer	No. of trials
Tempo	103	102	101	107	64	Nil	D	Late	Barenbrug Australia	16
Arise	101	101	101	103	29	Nil	Т	Late	Barenbrug Australia	15
Jackpot	101	100	99	103	11	Nil	D	Late	DLF Seeds	14
Concord II	101	99	100	103	14	Nil	D	Late	DLF Seeds	18
Aston	100	100	100	104	16	Nil	Т	Late	Barenbrug Australia	8
Combat	100	100	99	101	-2	Nil	D	Mid	Upper Murray Seeds	4
SF Accelerate 2	100	101	100	100	11	Nil	D	Late	Seed Force	7
Awesome	100	100	98	101	-7	Nil	D	Late	Upper Murray Seeds	5
SF Indulgence	100	100	100	100	0	Nil	D	Late	Seed Force	4
Asset AR37	100	100	100	101	3	AR37	D	Late	DLF Seeds	4
Crusader	100	100	100	100	0	Nil	D	Late	DLF Seeds	8
Mohaka AR37	100	100	101	98	-3	AR37	Т	Late	DLF Seeds	4
Maverick GII	100	100	99	99	-13	Nil	D	Mid	DLF Seeds	4
Echo	100	100	99	101	1	Nil	Т	Mid	Tas Global Seeds	4
Manta	100	101	101	101	13	Nil	D	Late	DLF Seeds	6
SF Emmerson	99	101	101	98	3	Nil	Т	Late	Seed Force	3
Amass	99	101	101	100	8	Nil	Т	Mid	Valley Seeds	7
Lush AR37	99	100	101	101	10	AR37	Т	Late	DLF Seeds	8
Pepper	99	100	100	101	-5	Nil	Т	Mid/Late	Seed Force	7
Mona	99	102	100	100	3	Nil	Т	Late	DLF Seeds	14
Blade	99	100	98	98	-24	Nil	D	Late	Cropmark Seeds	4
Xtend	99	101	99	98	-14	Nil	D	Mid	AGF Seeds	9
Knight	99	98	98	104	-15	Nil	D	Late	DLF Seeds	18
Sonik	99	99	99	99	-18	Nil	D	Late	Cropmark Seeds	4
Nourish	99	100	101	101	-2	Nil	Т	Late	DLF Seeds	8
Feast II	99	101	101	102	10	Nil	Т	Late	DLF Seeds	18
Thumpa	98	100	99	100	-14	Nil	Т	Late	DLF Seeds	18

Gippsland late Spring seasonal performance – ITALIAN RYEGRASS

Cultivar	'	Late Spring	Summer	Winter	Early Spring	FVI Gipps	Endophyte	Ploidy	Heading Date	Marketer	No. of trials
Tempo		102	101	107	103	64	Nil	D	Late	Barenbrug Australia	16
Mona		102	100	100	99	3	Nil	Т	Late	DLF Seeds	14
Feast II		101	101	102	99	10	Nil	Т	Late	DLF Seeds	18
Manta		101	101	101	100	13	Nil	D	Late	DLF Seeds	6
Amass		101	101	100	99	8	Nil	Т	Mid	Valley Seeds	7
SF Accelerate 2		101	100	100	100	11	Nil	D	Late	Seed Force	7
Arise		101	101	103	101	29	Nil	Т	Late	Barenbrug Australia	15
Xtend		101	99	98	99	-14	Nil	D	Mid	AGF Seeds	9
SF Emmerson		101	101	98	99	3	Nil	Т	Late	Seed Force	3
Aston		100	100	104	100	16	Nil	Т	Late	Barenbrug Australia	8
SF Indulgence		100	100	100	100	0	Nil	D	Late	Seed Force	4
Mohaka AR37		100	101	98	100	-3	AR37	Т	Late	DLF Seeds	4
Echo		100	99	101	100	1	Nil	Т	Mid	Tas Global Seeds	4
Blade		100	98	98	99	-24	Nil	D	Late	Cropmark Seeds	4
Jackpot		100	99	103	101	11	Nil	D	Late	DLF Seeds	14
Combat		100	99	101	100	-2	Nil	D	Mid	Upper Murray Seeds	4
Crusader		100	100	100	100	0	Nil	D	Late	DLF Seeds	8
Lush AR37		100	101	101	99	10	AR37	Т	Late	DLF Seeds	8
Asset AR37		100	100	101	100	3	AR37	D	Late	DLF Seeds	4
Thumpa		100	99	100	98	-14	Nil	Т	Late	DLF Seeds	18
Awesome		100	98	101	100	-7	Nil	D	Late	Upper Murray Seeds	5
Pepper		100	100	101	99	-5	Nil	T	Mid/Late	Seed Force	7
Maverick GII		100	99	99	100	-13	Nil	D	Mid	DLF Seeds	4
Nourish		100	101	101	99	-2	Nil	T	Late	DLF Seeds	8
Concord II		99	100	103	101	14	Nil	D	Late	DLF Seeds	18
Sonik		99	99	99	99	-18	Nil	D	Late	Cropmark Seeds	4
Knight		98	98	104	99	-15	Nil	D	Late	DLF Seeds	18

Gippsland Summer seasonal performance – ITALIAN RYEGRASS

Tempo	Cultivar	Summer	Winter	Early Spring	Late Spring	FVI Gipps	Endophyte	Ploidy	Heading Date	Marketer	No. of trials
SF Emmerson 101 98 99 101 3	Tempo	101	107	103	102	64	Nil	D	Late	Barenbrug Australia	16
Manta	Lush AR37	101	101	99	100	10	AR37	T	Late	PGG Wrightson Seeds	8
Feast II	SF Emmerson	101	98	99	101	3	Nil	T	Late	Seed Force	3
Amass 101 100 99 101 8 Nil T Mid Valley Seeds 7 Arise 101 103 101 101 29 Nil T Late Barenbrug Australia 15 Nourish 101 101 99 100 -2 Nil T Late PGG Wrightson Seeds 8 Mohaka AR37 101 98 100 100 -3 AR37 T Late DLF Seeds 4 SF Accelerate 2 100 100 100 101 11 Nil D Late DLF Seeds 4 Concord II 100 100 100 100 101 11 Nil D Late DEF Seeds 8 SF Indulgance 100 100 100 100 0 Nil D Late DLe Seed Force 8 SF Indulgance 100 101 100 100 10 10 10	Manta	101	101	100	101	13	Nil	D	Late	DLF Seeds	6
Arise 101 103 101 103 29 Nil T Late Barenbrug Australia 15 Nourish 101 101 99 100 -2 Nil T Late PGG Wrightson Seeds 8 Mohaka AR37 101 98 100 100 -3 AR37 T Late DLF Seeds 4 Mohaka AR37 100 100 100 100 101 11 Nil D Late Seed Force 7 Concord II Nil D Late PGG Wrightson Seeds 8 Crusader 100 100 100 100 100 Nil D Late PGG Wrightson Seeds 8 Findulgence 100 100 100 100 100 Nil D Late PGG Wrightson Seeds 8 Findulgence 100 100 100 100 100 Nil D Late PGG Wrightson Seeds 8 Findulgence 100 100 100 100 100 Nil D Late Seed Force 4 Aston 100 100 100 100 100 Nil D Late Seed Force 4 Aston 100 100 100 100 100 Nil T Late Barenbrug Australia 8 Asset AR37 100 101 100 100 100 16 Nil T Late Barenbrug Australia 8 Asset AR37 100 101 100 100 100 10 Nil T Late Barenbrug Australia 8 Asset AR37 100 101 100 100 100 10 Nil T Late Barenbrug Australia 8 Asset AR37 100 101 100 100 100 10 Nil T Late DLF Seeds 14 Mona 100 101 109 100 -5 Nil T Mid/Late Seed Force 7 Echo 99 101 100 100 100 10 Nil T Mid Tas Global Seeds 4 Sonik 99 99 99 99 99 -8 Nil T Mid Tas Global Seeds 4 Xtend 99 98 99 101 -14 Nil D Late Cropmark Seeds 9 Thumpa 99 100 98 90 101 -14 Nil D Late DLF Seeds 14 Maverick GII 99 99 100 100 -13 Nil T Late DLF Seeds 14 Maverick GII 99 99 101 100 100 -2 Nil D Mid PGG Wrightson Seeds 4 Kright 98 101 100 100 -2 Nil D Mid Upper Murray Seeds 4 Kright 99 101 100 100 -2 Nil D Late Upper Murray Seeds 4 Kright 99 101 100 100 -2 Nil D Late Upper Murray Seeds 4	Feast II	101	102	99	101	10	Nil	Т	Late	PGG Wrightson Seeds	18
Nourish 101 101 101 99 100 -2 Nil T Late PGG Wrightson Seeds 8	Amass	101	100	99	101	8	Nil	T	Mid	Valley Seeds	7
Mohaka AR37 101 98 100 100 -3 AR37 T Late DLF Seeds 4 4	Arise	101	103	101	101	29	Nil	Т	Late	Barenbrug Australia	15
SF Accelerate 2	Nourish	101	101	99	100	-2	Nil	T	Late	PGG Wrightson Seeds	8
Concord I	Mohaka AR37	101	98	100	100	-3	AR37	Т	Late	DLF Seeds	4
Crusader 100 100 100 100 0 Nil D Late DLF Seeds 8 SF Indulgence 100 100 100 100 0 Nil D Late Seed Force 4 Aston 100 104 100 100 16 Nil T Late Barenbrug Australia 8 Asset AR37 100 101 100 100 3 AR37 D Late DLF Seeds 4 Mona 100 101 190 100 3 AR37 D Late DLF Seeds 14 Pepper 100 101 199 100 -5 Nil T Mid/Late DLF Seeds 14 Sonik 199 101 100 100 -1 Nil T Mid Tas Global Seeds 4 Xtend 199 99 99 99 -18 Nil D Late Cropmark Seeds	SF Accelerate 2	100	100	100	101	11	Nil	D	Late	Seed Force	7
SF Indulgence 100 100 100 100 0 Nil D Late Seed Force 4 Aston 100 104 100 100 16 Nil T Late Barenbrug Australia 8 Asset AR37 100 101 100 100 3 AR37 D Late DLF Seeds 4 Mona 100 100 100 99 102 3 Nil T Late DLF Seeds 14 Pepper 100 101 99 100 -5 Nil T Mid /Late Seed Force 7 Echo 99 101 100 100 1 Nil T Mid /Late Seed Force 7 Echo 99 101 100 100 1 Nil T Mid /Late Seed Force 7 Echo 99 99 101 100 1 Nil D Late Cropma	Concord II	100	103	101	99	14	Nil	D	Late	PGG Wrightson Seeds	18
Aston 100 104 100 100 16 Nil T Late Barenbrug Australia 8 Asset AR37 100 101 100 100 3 AR37 D Late DLF Seeds 4 Mona 100 100 100 99 102 3 Nil T Late DLF Seeds 14 Pepper 100 101 99 100 -5 Nil T Mid Tas Global Seeds 4 Sonik 99 101 100 100 1 Nil T Mid Tas Global Seeds 4 Xtend 99 99 99 99 -18 Nil D Late Cropmark Seeds 4 Xtend 99 99 99 101 -14 Nil D Mid AGF Seeds 9 Thumpa 99 100 98 100 -14 Nil T Late DLF Seeds <td>Crusader</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> <td>0</td> <td>Nil</td> <td>D</td> <td>Late</td> <td>DLF Seeds</td> <td>8</td>	Crusader	100	100	100	100	0	Nil	D	Late	DLF Seeds	8
Asset AR37 100 101 100 100 3 AR37 D Late DLF Seeds 4 Mona 100 100 100 99 102 3 Nil T Late DLF Seeds 14 Pepper 100 101 99 100 -5 Nil T Mid/Late Seed Force 7 Echo 99 101 100 100 1 Nil T Mid Tas Global Seeds 4 Sonik 99 99 99 99 -18 Nil D Late Cropmark Seeds 4 Xtend 99 99 99 99 -18 Nil D Mid AGF Seeds 9 Thumpa 99 100 98 100 -14 Nil D Late DLF Seeds 18 Jackpot 99 103 101 100 11 Nil D Mid PGG Wrightson Seeds	SF Indulgence	100	100	100	100	0	Nil	D	Late	Seed Force	4
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Maverick GII 99 99 100 100 -13 Nil D Mid PGG Wrightson Seeds 4 Combat 99 101 100 100 -2 Nil D Mid Upper Murray Seeds 4 Awesome 98 101 100 100 -7 Nil D Late Upper Murray Seeds 5 Knight 98 104 99 98 -15 Nil D Late DLF Seeds 18	Thumpa	99	100	98	100	-14	Nil	Т	Late	DLF Seeds	18
Combat 99 101 100 100 -2 Nil D Mid Upper Murray Seeds 4 Awesome 98 101 100 100 -7 Nil D Late Upper Murray Seeds 5 Knight 98 104 99 98 -15 Nil D Late DLF Seeds 18	Jackpot	99	103	101	100	11	Nil	D	Late	DLF Seeds	14
Awesome 98 101 100 100 -7 Nil D Late Upper Murray Seeds 5 Knight 98 104 99 98 -15 Nil D Late DLF Seeds 18	Maverick GII	99	99	100	100	-13	Nil	D	Mid	PGG Wrightson Seeds	4
Knight 98 104 99 98 -15 Nil D Late DLF Seeds 18	Combat	99	101	100	100	-2	Nil	D	Mid	Upper Murray Seeds	4
·	Awesome	98	101	100	100	-7	Nil	D	Late	Upper Murray Seeds	5
Blade 98 98 99 100 -24 Nil D Late Cropmark Seeds 4	Knight	98	104	99	98	-15	Nil	D	Late	DLF Seeds	18
	Blade	98	98	99	100	-24	Nil	D	Late	Cropmark Seeds	4

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