Dairy Australia

Gippsland Forage Value Index
Perennial Ryegrass

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.

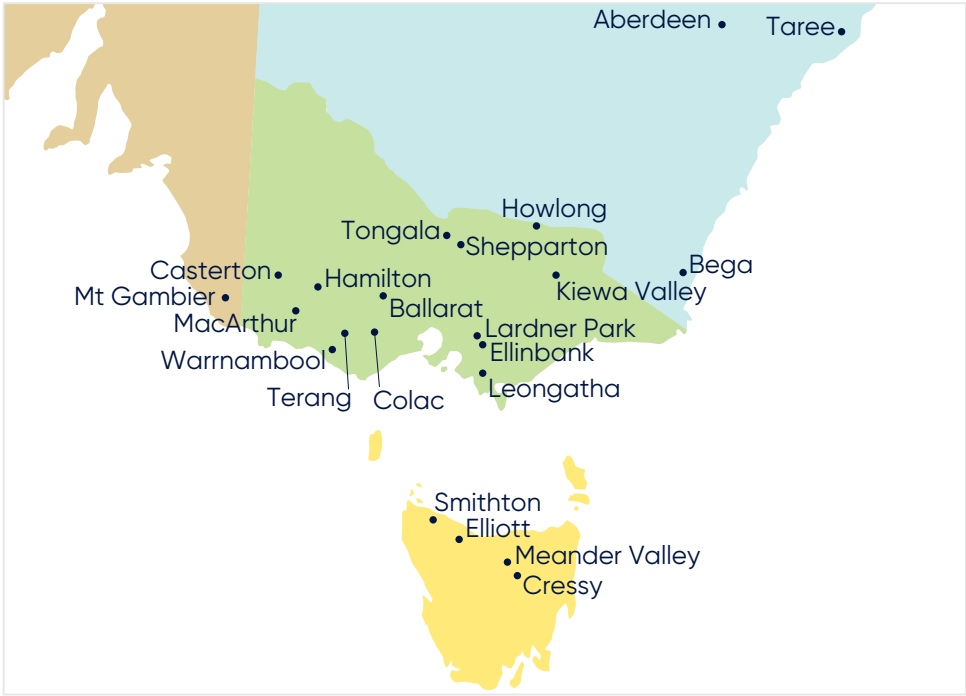
It provides an accurate, reliable and independent assessment of the potential economic value of ryegrass cultivars across three different species (Perennial, Annual and Italian ryegrass) in a number of dairy-producing regions across Australia. The FVI is calculated by multiplying the Performance Value 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



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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.

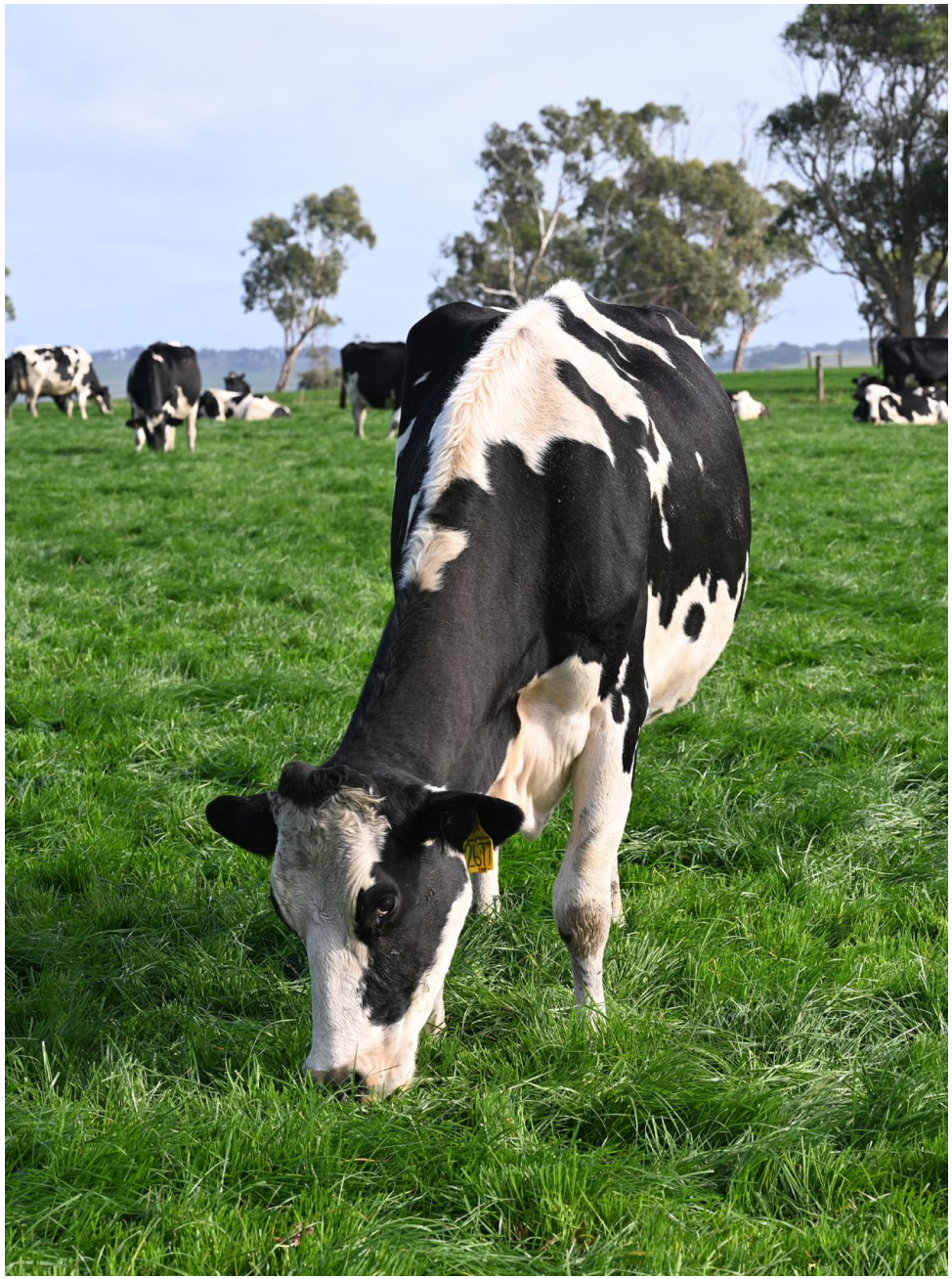
The FVI information allows users to rank cultivars according to their region and user nominated attributes (e.g. seasonal yields, ploidy, heading date, endophyte). The number of trials in which the cultivar has been tested is also included in the table.

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.



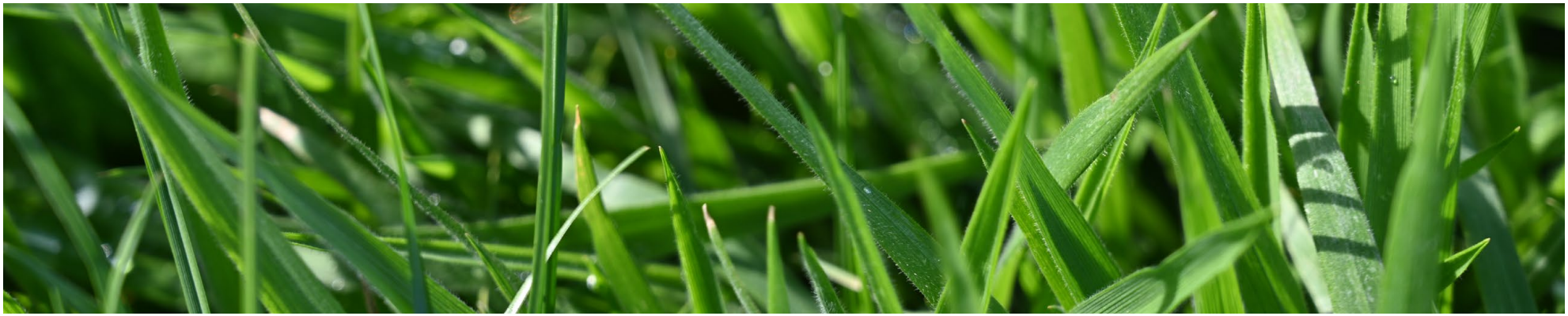
Gippsland: Forage Value Index 2023 – PERENNIAL RYEGRASS

Cultivar	FVI Gippsland	Autumn	Winter	Early Spring	Late Spring	Summer	Endophyte	Ploidy	Heading Date	Marketer	No. of trials	
											Overall	Gippsland
Base AR37	283	122	124	99	98	121	AR37	Tetraploid	Late	DLF Seeds	20	2
Halo AR37	208	117	120	97	95	121	AR37	Tetraploid	Late	DLF Seeds	19	2
Bealey NEA2	207	116	118	98	96	119	NEA2	Tetraploid	Very Late	Barenbrug Australia	13	1
Reward Endo5	196	117	117	96	97	119	Endo5	Tetraploid	Very Late	DLF Seeds	16	2
Samurye NEA12*	192	113	115	100	97	118	NEA12	Tetraploid	Late	Barenbrug Australia	3	0
One50 SE	186	113	117	99	96	118	SE	Diploid	Late	DLF Seeds	7	0
Kidman AR1	183	114	116	100	97	116	AR1	Diploid	Early	Barenbrug Australia	9	1
Viscount NEA4	182	113	115	100	98	116	NEA4	Tetraploid	Late	Barenbrug Australia	10	1
Impact2 NEA2	181	112	116	100	97	116	NEA2	Diploid	Late	Barenbrug Australia	16	2
4front NEA2	178	114	115	99	97	116	NEA2	Tetraploid	Late	Barenbrug Australia	5	0
Shogun NEA2*	175	111	115	100	96	118	NEA2	Tetraploid	Late	Barenbrug Australia	6	1
SF Hustle AR1	174	113	116	98	97	116	AR1	Diploid	Mid	Seedforce	12	1
Fitzroy SE	164	111	114	102	96	114	SE	Diploid	Early	DLF Seeds	4	0
Maxsyn NEA4	164	113	114	98	97	116	NEA4	Diploid	Mid-Late	Barenbrug Australia	4	0
BanquetII Endo5	164	113	115	97	96	117	Endo5	Tetraploid	Late	DLF Seeds	9	0
Prospect AR37	164	113	116	99	95	116	AR37	Diploid	Late	DLF Seeds	13	2
Expo AR37	159	113	116	97	97	115	AR37	Diploid	Late	DLF Seeds	11	2
Platform AR37	158	113	115	98	97	114	AR37	Diploid	Late	DLF Seeds	8	0
Legion AR37	157	114	115	98	95	115	AR37	Diploid	Late	DLF Seeds	6	0
Matrix	152	112	115	98	96	116	SE	Diploid	Late	Cropmark Seeds	9	2
Excess AR37	152	114	116	96	95	115	AR37	Diploid	Mid	DLF Seeds	13	2
One50 AR1	151	111	115	98	95	117	AR1	Diploid	Late	DLF Seeds	11	1
Jackal AR1	150	112	114	98	97	114	AR1	Diploid	Mid	AGF seeds	8	1
One50 AR37	149	113	117	97	94	116	AR37	Diploid	Late	DLF Seeds	16	2
Platinum	143	112	115	97	96	114	Low	Diploid	Late	Valley Seeds	7	1
AusVic	139	111	112	98	97	114	Low	Diploid	Mid	Vic Seeds	5	0
Wintas II	130	111	112	97	98	114	Nil	Diploid	Mid	Tasglobal Seeds	4	0
Avalon AR1	84	107	109	96	98	110	AR1	Diploid	Mid	Vic Seeds	13	2
Victorian SE	**0**	**100**	**100**	**100**	**100**	**100**	**SE**	**Diploid**	**Early**	**Various**	**20**	**2**

*Hybrid cultivar containing perennial and Italian ryegrass parentage, and as such, may not persist as long as pure perennial cultivars

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 Victorian ryegrass. This is a percentage ranking – percent better or worse than Victorian ryegrass. For example, Victorian 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 Victorian in that particular FVI season. A cultivar that is 97 means it produced 97 per cent of the dry matter produced by Victorian 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 Perennial ryegrass Forage Value Index database, each cultivar must have data from at least three, 3-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 Autumn seasonal performance – PERENNIAL RYEGRASS

Cultivar	Autumn	Winter	Early Spring	Late Spring	Summer	FVI Gippsland	Endophyte	Ploidy	Heading Date	Marketer	No. of trials
Base AR37	122	124	99	98	121	283	AR37	Tetraploid	Late	DLF Seeds	20
Reward Endo5	117	117	96	97	119	196	Endo5	Tetraploid	Very Late	DLF Seeds	16
Halo AR37	117	120	97	95	121	208	AR37	Tetraploid	Late	DLF Seeds	19
Bealey NEA2	116	118	98	96	119	207	NEA2	Tetraploid	Very Late	Barenbrug Australia	13
Excess AR37	114	116	96	95	115	152	AR37	Diploid	Mid	DLF Seeds	13
Legion AR37	114	115	98	95	115	157	AR37	Diploid	Late	DLF Seeds	6
4front NEA2	114	115	99	97	116	178	NEA2	Tetraploid	Late	Barenbrug Australia	5
Kidman AR1	114	116	100	97	116	183	AR1	Diploid	Early	Barenbrug Australia	9
Viscount NEA4	113	115	100	98	116	182	NEA4	Tetraploid	Late	Barenbrug Australia	10
Maxsyn NEA4	113	114	98	97	116	164	NEA4	Diploid	Mid-Late	Barenbrug Australia	4
One50 SE	113	117	99	96	118	186	SE	Diploid	Late	DLF Seeds	7
Platform AR37	113	115	98	97	114	158	AR37	Diploid	Late	DLF Seeds	8
One50 AR37	113	117	97	94	116	149	AR37	Diploid	Late	DLF Seeds	16
Samurye NEA12	113	115	100	97	118	192	NEA12	Tetraploid	Late	Barenbrug Australia	3
BanquetII Endo5	113	115	97	96	117	164	Endo5	Tetraploid	Late	DLF Seeds	9
Prospect AR37	113	116	99	95	116	164	AR37	Diploid	Late	DLF Seeds	13
SF Hustle AR1	113	116	98	97	116	174	AR1	Diploid	Mid	Seedforce	12
Expo AR37	113	116	97	97	115	159	AR37	Diploid	Late	DLF Seeds	11
Impact2 NEA2	112	116	100	97	116	181	NEA2	Diploid	Late	Barenbrug Australia	16
Jackal AR1	112	114	98	97	114	150	AR1	Diploid	Mid	AGF seeds	8
Platinum	112	115	97	96	114	143	Low	Diploid	Late	Valley Seeds	7
Matrix	112	115	98	96	116	152	SE	Diploid	Late	Cropmark Seeds	9
One50 AR1	111	115	98	95	117	151	AR1	Diploid	Late	DLF Seeds	11
Fitzroy SE	111	114	102	96	114	164	SE	Diploid	Early	DLF Seeds	4
Shogun NEA2	111	115	100	96	118	175	NEA2	Tetraploid	Late	Barenbrug Australia	6
AusVic	111	112	98	97	114	139	Low	Diploid	Mid	Vic Seeds	5
Wintas II	111	112	97	98	114	130	Nil	Diploid	Mid	Tasglobal Seeds	4
Avalon AR1	107	109	96	98	110	84	AR1	Diploid	Mid	Vic Seeds	13
Victorian SE	**100**	**100**	**100**	**100**	**100**	**0**	**SE**	**Diploid**	**Early**	**Various**	**20**

Gippsland Winter seasonal performance – PERENNIAL RYEGRASS

Cultivar	Winter	Early Spring	Late Spring	Summer	Autumn	FVI Gippsland	Endophyte	Ploidy	Heading Date	Marketer	No. of trials
Base AR37	124	99	98	121	122	283	AR37	Tetraploid	Late	DLF Seeds	20
Halo AR37	120	97	95	121	117	208	AR37	Tetraploid	Late	DLF Seeds	19
Bealey NEA2	118	98	96	119	116	207	NEA2	Tetraploid	Very Late	Barenbrug Australia	13
Reward Endo5	117	96	97	119	117	196	Endo5	Tetraploid	Very Late	DLF Seeds	16
One50 AR37	117	97	94	116	113	149	AR37	Diploid	Late	DLF Seeds	16
One50 SE	117	99	96	118	113	186	SE	Diploid	Late	DLF Seeds	7
Prospect AR37	116	99	95	116	113	164	AR37	Diploid	Late	DLF Seeds	13
Excess AR37	116	96	95	115	114	152	AR37	Diploid	Mid	DLF Seeds	13
Expo AR37	116	97	97	115	113	159	AR37	Diploid	Late	DLF Seeds	11
SF Hustle AR1	116	98	97	116	113	174	AR1	Diploid	Mid	Seedforce	12
Kidman AR1	116	100	97	116	114	183	AR1	Diploid	Early	Barenbrug Australia	9
Impact2 NEA2	116	100	97	116	112	181	NEA2	Diploid	Late	Barenbrug Australia	16
Samurye NEA12	115	100	97	118	113	192	NEA12	Tetraploid	Late	Barenbrug Australia	3
Legion AR37	115	98	95	115	114	157	AR37	Diploid	Late	DLF Seeds	6
Platinum	115	97	96	114	112	143	Low	Diploid	Late	Valley Seeds	7
BanquetII Endo5	115	97	96	117	113	164	Endo5	Tetraploid	Late	DLF Seeds	9
Matrix	115	98	96	116	112	152	SE	Diploid	Late	Cropmark Seeds	9
One50 AR1	115	98	95	117	111	151	AR1	Diploid	Late	DLF Seeds	11
Shogun NEA2	115	100	96	118	111	175	NEA2	Tetraploid	Late	Barenbrug Australia	6
Viscount NEA4	115	100	98	116	113	182	NEA4	Tetraploid	Late	Barenbrug Australia	10
4front NEA2	115	99	97	116	114	178	NEA2	Tetraploid	Late	Barenbrug Australia	5
Platform AR37	115	98	97	114	113	158	AR37	Diploid	Late	DLF Seeds	8
Maxsyn NEA4	114	98	97	116	113	164	NEA4	Diploid	Mid-Late	Barenbrug Australia	4
Fitzroy SE	114	102	96	114	111	164	SE	Diploid	Early	DLF Seeds	4
Jackal AR1	114	98	97	114	112	150	AR1	Diploid	Mid	AGF seeds	8
Wintas II	112	97	98	114	111	130	Nil	Diploid	Mid	Tasglobal Seeds	4
AusVic	112	98	97	114	111	139	Low	Diploid	Mid	Vic Seeds	5
Avalon AR1	109	96	98	110	107	84	AR1	Diploid	Mid	Vic Seeds	13
Victorian SE	**100**	**100**	**100**	**100**	**100**	**0**	**SE**	**Diploid**	**Early**	**Various**	**20**

Gippsland Early Spring seasonal performance – PERENNIAL RYEGRASS

Cultivar	Early Spring	Late Spring	Summer	Autumn	Winter	FVI Gippsland	Endophyte	Ploidy	Heading Date	Marketer	No. of trials
Fitzroy SE	102	96	114	111	114	164	SE	Diploid	Early	DLF Seeds	4
Samurye NEA12	100	97	118	113	115	192	NEA12	Tetraploid	Late	Barenbrug Australia	3
Shogun NEA2	100	96	118	111	115	175	NEA2	Tetraploid	Late	Barenbrug Australia	6
Kidman AR1	100	97	116	114	116	183	AR1	Diploid	Early	Barenbrug Australia	9
Victorian SE	**100**	**100**	**100**	**100**	**100**	**0**	**SE**	**Diploid**	**Early**	**Various**	**20**
Viscount NEA4	100	98	116	113	115	182	NEA4	Tetraploid	Late	Barenbrug Australia	10
Impact2 NEA2	100	97	116	112	116	181	NEA2	Diploid	Late	Barenbrug Australia	16
One50 SE	99	96	118	113	117	186	SE	Diploid	Late	DLF Seeds	7
4front NEA2	99	97	116	114	115	178	NEA2	Tetraploid	Late	Barenbrug Australia	5
Base AR37	99	98	121	122	124	283	AR37	Tetraploid	Late	DLF Seeds	20
Prospect AR37	99	95	116	113	116	164	AR37	Diploid	Late	DLF Seeds	13
SF Hustle AR1	98	97	116	113	116	174	AR1	Diploid	Mid	Seedforce	12
Bealey NEA2	98	96	119	116	118	207	NEA2	Tetraploid	Very Late	Barenbrug Australia	13
AusVic	98	97	114	111	112	139	Low	Diploid	Mid	Vic Seeds	5
Maxsyn NEA4	98	97	116	113	114	164	NEA4	Diploid	Mid-Late	Barenbrug Australia	4
Jackal AR1	98	97	114	112	114	150	AR1	Diploid	Mid	AGF seeds	8
Platform AR37	98	97	114	113	115	158	AR37	Diploid	Late	DLF Seeds	8
One50 AR1	98	95	117	111	115	151	AR1	Diploid	Late	DLF Seeds	11
Legion AR37	98	95	115	114	115	157	AR37	Diploid	Late	DLF Seeds	6
Matrix	98	96	116	112	115	152	SE	Diploid	Late	Cropmark Seeds	9
One50 AR37	97	94	116	113	117	149	AR37	Diploid	Late	DLF Seeds	16
Expo AR37	97	97	115	113	116	159	AR37	Diploid	Late	DLF Seeds	11
BanquetII Endo5	97	96	117	113	115	164	Endo5	Tetraploid	Late	DLF Seeds	9
Halo AR37	97	95	121	117	120	208	AR37	Tetraploid	Late	DLF Seeds	19
Platinum	97	96	114	112	115	143	Low	Diploid	Late	Valley Seeds	7
Wintas II	97	98	114	111	112	130	Nil	Diploid	Mid	Tasglobal Seeds	4
Excess AR37	96	95	115	114	116	152	AR37	Diploid	Mid	DLF Seeds	13
Reward Endo5	96	97	119	117	117	196	Endo5	Tetraploid	Very Late	DLF Seeds	16
Avalon AR1	96	98	110	107	109	84	AR1	Diploid	Mid	Vic Seeds	13

Gippsland Late Spring seasonal performance – PERENNIAL RYEGRASS

Cultivar	Late Spring	Summer	Autumn	Winter	Early Spring	FVI Gippsland	Endophyte	Ploidy	Heading Date	Marketer	No. of trials
Victorian SE	**100**	**100**	**100**	**100**	**100**	**0**	**SE**	**Diploid**	**Early**	**Various**	**20**
Avalon AR1	98	110	107	109	96	84	AR1	Diploid	Mid	Vic Seeds	13
Base AR37	98	121	122	124	99	283	AR37	Tetraploid	Late	DLF Seeds	20
Viscount NEA4	98	116	113	115	100	182	NEA4	Tetraploid	Late	Barenbrug Australia	10
Wintas II	98	114	111	112	97	130	Nil	Diploid	Mid	Tasglobal Seeds	4
Impact2 NEA2	97	116	112	116	100	181	NEA2	Diploid	Late	Barenbrug Australia	16
4front NEA2	97	116	114	115	99	178	NEA2	Tetraploid	Late	Barenbrug Australia	5
AusVic	97	114	111	112	98	139	Low	Diploid	Mid	Vic Seeds	5
Reward Endo5	97	119	117	117	96	196	Endo5	Tetraploid	Very Late	DLF Seeds	16
Samurye NEA12	97	118	113	115	100	192	NEA12	Tetraploid	Late	Barenbrug Australia	3
Platform AR37	97	114	113	115	98	158	AR37	Diploid	Late	DLF Seeds	8
Kidman AR1	97	116	114	116	100	183	AR1	Diploid	Early	Barenbrug Australia	9
SF Hustle AR1	97	116	113	116	98	174	AR1	Diploid	Mid	Seedforce	12
Jackal AR1	97	114	112	114	98	150	AR1	Diploid	Mid	AGF seeds	8
Maxsyn NEA4	97	116	113	114	98	164	NEA4	Diploid	Mid-Late	Barenbrug Australia	4
Expo AR37	97	115	113	116	97	159	AR37	Diploid	Late	DLF Seeds	11
Bealey NEA2	96	119	116	118	98	207	NEA2	Tetraploid	Very Late	Barenbrug Australia	13
Shogun NEA2	96	118	111	115	100	175	NEA2	Tetraploid	Late	Barenbrug Australia	6
Fitzroy SE	96	114	111	114	102	164	SE	Diploid	Early	DLF Seeds	4
Platinum	96	114	112	115	97	143	Low	Diploid	Late	Valley Seeds	7
BanquetII Endo5	96	117	113	115	97	164	Endo5	Tetraploid	Late	DLF Seeds	9
One50 SE	96	118	113	117	99	186	SE	Diploid	Late	DLF Seeds	7
Matrix	96	116	112	115	98	152	SE	Diploid	Late	Cropmark Seeds	9
Legion AR37	95	115	114	115	98	157	AR37	Diploid	Late	DLF Seeds	6
Excess AR37	95	115	114	116	96	152	AR37	Diploid	Mid	DLF Seeds	13
Prospect AR37	95	116	113	116	99	164	AR37	Diploid	Late	DLF Seeds	13
One50 AR1	95	117	111	115	98	151	AR1	Diploid	Late	DLF Seeds	11
Halo AR37	95	121	117	120	97	208	AR37	Tetraploid	Late	DLF Seeds	19
One50 AR37	94	116	113	117	97	149	AR37	Diploid	Late	DLF Seeds	16

Gippsland Summer seasonal performance – PERENNIAL RYEGRASS

Cultivar	Summer	Autumn	Winter	Early Spring	Late Spring	FVI Gippsland	Endophyte	Ploidy	Heading Date	Marketer	No. of trials
Base AR37	121	122	124	99	98	283	AR37	Tetraploid	Late	DLF Seeds	20
Halo AR37	121	117	120	97	95	208	AR37	Tetraploid	Late	DLF Seeds	19
Bealey NEA2	119	116	118	98	96	207	NEA2	Tetraploid	Very Late	Barenbrug Australia	13
Reward Endo5	119	117	117	96	97	196	Endo5	Tetraploid	Very Late	DLF Seeds	16
Shogun NEA2	118	111	115	100	96	175	NEA2	Tetraploid	Late	Barenbrug Australia	6
Samurye NEA12	118	113	115	100	97	192	NEA12	Tetraploid	Late	Barenbrug Australia	3
One50 SE	118	113	117	99	96	186	SE	Diploid	Late	DLF Seeds	7
BanquetII Endo5	117	113	115	97	96	164	Endo5	Tetraploid	Late	DLF Seeds	9
One50 AR1	117	111	115	98	95	151	AR1	Diploid	Late	DLF Seeds	11
SF Hustle AR1	116	113	116	98	97	174	AR1	Diploid	Mid	Seedforce	12
Impact2 NEA2	116	112	116	100	97	181	NEA2	Diploid	Late	Barenbrug Australia	16
Matrix	116	112	115	98	96	152	SE	Diploid	Late	Cropmark Seeds	9
4front NEA2	116	114	115	99	97	178	NEA2	Tetraploid	Late	Barenbrug Australia	5
Kidman AR1	116	114	116	100	97	183	AR1	Diploid	Early	Barenbrug Australia	9
Viscount NEA4	116	113	115	100	98	182	NEA4	Tetraploid	Late	Barenbrug Australia	10
Maxsyn NEA4	116	113	114	98	97	164	NEA4	Diploid	Mid-Late	Barenbrug Australia	4
Prospect AR37	116	113	116	99	95	164	AR37	Diploid	Late	DLF Seeds	13
One50 AR37	116	113	117	97	94	149	AR37	Diploid	Late	DLF Seeds	16
Excess AR37	115	114	116	96	95	152	AR37	Diploid	Mid	DLF Seeds	13
Legion AR37	115	114	115	98	95	157	AR37	Diploid	Late	DLF Seeds	6
Expo AR37	115	113	116	97	97	159	AR37	Diploid	Late	DLF Seeds	11
AusVic	114	111	112	98	97	139	Low	Diploid	Mid	Vic Seeds	5
Platform AR37	114	113	115	98	97	158	AR37	Diploid	Late	DLF Seeds	8
Fitzroy SE	114	111	114	102	96	164	SE	Diploid	Early	DLF Seeds	4
Wintas II	114	111	112	97	98	130	Nil	Diploid	Mid	Tasglobal Seeds	4
Jackal AR1	114	112	114	98	97	150	AR1	Diploid	Mid	AGF seeds	8
Platinum	114	112	115	97	96	143	Low	Diploid	Late	Valley Seeds	7
Avalon AR1	110	107	109	96	98	84	AR1	Diploid	Mid	Vic Seeds	13
Victorian SE	**100**	**100**	**100**	**100**	**100**	**0**	**SE**	**Diploid**	**Early**	**Various**	**20**

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