

### 2025 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 is updated each year with new trial data so that farmers can have up-to-date information on the performance of newly released varieties and how they compare to existing established varieties. The FVI 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. This minimum trial requirement will increase over the next couple of years. For Perennial ryegrass, trials must be three years in length, while Annual and Italian ryegrass trials must be a minimum of one full growing season.







Figure 1 Map of trial locations across South-eastern Australia used in the 2025 FVI.





#### 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 that effectively acts as the genetic base for that species in the FVI.

The reference cultivar is 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 current 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.

#### 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 zero. 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 and metabolisable energy). 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 FVIs

In 2023, performance values for autumn in the Annual and Italian ryegrass FVIs were removed from the index. The first harvest was not taken from the majority earlier PTN trials until after 31 May and this meant that data for autumn, defined as March-May yield in the FVI, 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. Since then a sufficient amount of new trial data has become available to allow the autumn performance values for annual and Italian ryegrass to be reintroduced to the FVI calculation for this 2025 update. This issue does not affect the Perennial ryegrass FVI as thise trials run for three years and so sufficient autumn yield data is always collected in years two and three of these trials.

## Forage quality - Annual and Italian ryegrass

A new feature of the 2025 FVI is the expansion of forage quality estimates at a varietal level from Perennial ryegrass, to now also include some Annual and Italian ryegrass varieties. Metabolisable energy (ME) was the measure chosen to provide an indication of seasonal forage quality for each cultivar.

Pasture samples were collected at an individual plot level and ME concentration was measured using near infrared (NIR) spectroscopy analysis across all five FVI seasons. Metabolisable energy is presented in the FVI tables below as megajoules of ME per kg of dry matter. Performance values for ME were calculated using the same statistical methodology used to create seasonal and total annual dry matter yield values for each cultivar.

For annual and Italian ryegrass, the forage quality trait has not been incorporated into the overall FVI ranking for each cultivar in each region. Two trials were analysed for forage quality in 2024 in Annual and Italian ryegrass and not every variety was included in those two trials. However, farmers can still look at the mean yearly and seasonal forage quality value for each cultivar, to get an initial idea of the variation in ME between the different cultivars.

## Forage quality - Perennial ryegrass

For the 2025 Perennial FVI, we have included forage quality as a sub-trait in the overall FVI calculation for each variety. This marks an significant evolution of the index to one that is based on more than one trait of economic importance to farmers (dry matter yield) to a genuine multi-trait index. The methodology used to achieve this is outlined in detail in the following paper:

Lewis, C.D., Smith, K.F., Jacobs, J.L., Ho, C.K.M., Leddin, C.M., Moate, P.J. and Malcolm, B., 2024. Using a two-price market value framework to value differences in metabolisable energy concentration of pasture across seasons. Agricultural Systems, 217, p.103939.

## Northern Victoria: Forage Value Index 2025 – Perennial RYEGRASS

Cultivar	FVI Nthr Vic	FVI DM	FVI ME	Total trials	Nthn Vic trials	Autumn	Winter	Early spring	Late spring	Summer	Endophyte	Ploidy	Heading date	Marketer	Metabolisable energy (ME)	Trials ME measured
4front NEA2	452	421	31	8	1	125	137	104	103	128	NEA2	Tetraploid	Late	Barenbrug Australia	11.36	3
Base AR37	404	386	19	25	6	124	135	103	101	126	AR37	Tetraploid	Late	DLF Seeds	11.20	8
Maxsyn NEA4	370	360	9	9	1	126	132	102	98	127	NEA4	Diploid	Mid	Barenbrug Australia	11.05	1
Three60 AR37	364	347	18	4	0	126	143	102	96	118	AR37	Diploid	Late	DLF Seeds	11.20	1
Bealey NEA2	347	322	24	14	7	122	125	102	101	126	NEA2	Tetraploid	Very Late	Barenbrug Australia	11.28	4
Reward Endo5	329	301	28	20	1	119	127	98	101	126	Endo5	Tetraploid	Very Late	DLF Seeds	11.34	8
Reason AR37	312	306	6	4	0	121	136	104	99	114	AR37	Diploid	Mid	DLF Seeds	11.02	1
Array NEA2	311	300	11	5	1	119	134	103	97	121	NEA2	Diploid	Very Late	Barenbrug Australia	11.05	2
Hustle RGT18	310	306	4	3	Ο	117	134	103	97	122	RGT18	Diploid	Mid	RAGT	11.00	1
One50 SE	309	296	13	8	0	117	129	103	97	125	SE	Diploid	Late	DLF Seeds	11.11	3
Legion AR37	307	292	15	10	0	122	134	102	95	120	AR37	Diploid	Mid	DLF Seeds	11.13	4
Kidman AR1	307	302	4	9	2	118	124	107	100	121	AR1	Diploid	Early	Barenbrug Australia	10.99	4
Platform AR37	286	264	21	12	0	116	130	99	100	117	AR37	Diploid	Late	DLF Seeds	11.23	4
Hustle AR1	251	242	8	16	2	114	120	102	100	121	AR1	Diploid	Mid	RAGT	11.05	5
Jackal AR1	219	214	5	8	2	115	117	101	100	117	AR1	Diploid	Mid	AGF seeds	11.00	4
Platinum	211	207	4	7	2	114	127	96	99	116	Low	Diploid	Late	Valley Seeds	10.98	4
Matrix SE	208	197	11	12	2	114	121	99	95	120	SE	Diploid	Late	Cropmark Seeds	11.09	5
One50 AR37	193	186	6	21	4	112	122	98	96	118	AR37	Diploid	Late	DLF Seeds	11.03	7
AusVic	168	170	-2	5	1	110	107	102	103	115	Low	Diploid	Mid	Various	10.91	2
Avalon AR1	74	75	-1	13	2	104	109	95	102	107	AR1	Diploid	Mid	Various	10.92	3
Wintas II	59	51	8	4	0	101	107	94	106	103	Nil	Diploid	Mid	Tasglobal Seeds	11.06	1
Victorian SE	0	0	0	24	5	100	100	100	100	100	SE	Diploid	Early	Various	10.93	8

Hybrid cultivars	FVI Nthn Vic	FVI DM	FVI ME	Total trials	Nthn Vic trials	Autumn	Winter	Early spring	Late spring	Summer	Endophyte	Ploidy	Heading date	Marketer	Metabolisable energy (ME)	Trials ME measured
Samurye NEA12	694	681	13	4	1	127	147	120	103	154	NEA12	Tetraploid	Late	Barenbrug Australia	11.11	1
Shogun NEA	378	366	12	6	3	108	132	114	98	131	NEA	Tetraploid	Late	Barenbrug Australia	11.11	4
Victorian SE	0	0	0	24	5	100	100	100	100	100	SE	Diploid	Early	Various	10.93	8

#### **Notes**

- 1 The overall FVI for each variety is in the bolded column. This comprises the sum of the FVI DM and FVI ME value for each variety.
- 2 A separate hybrid cultivar list has been created for varieties that have Perennial x Italian ryegrass parentage. See the Hybrid v Perennial section on page four for further details.
- 3 Metabolisable energy (ME) is presented for each cultivar as megajoules of ME per Kg of dry matter. This value also contributes to the overall FVI value for each variety (see FVI ME column).
- 4 Cultivars with greater number of trials are more proven and users can have greater confidence in their position in the rankings. Most newer cultivars with just three or four trials of data will have more trial information filtering through to the FVI over the next year or two to improve their reliability and confidence in their position on the list.

#### 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. The FVI DM value is generated using seasonal DM yield and the FVI ME value is generated from metabolisable energy (ME) differences between varieties.
Total trials	To be included in the Perennial ryegrass Forage Value Index database, each cultivar must have data from at least three, three-year trials.
Seasonal performance	A performance value is based on the difference in dry matter production between a cultivar's seasonal performance and that of Victorian Perennial ryegrass. This is a percentage ranking – per cent 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 that 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.
Metabolisable energy	A measure of the Forage Quality of each cultivar, measures as megajoules of ME/kg of dry matter. Cultivars with higher ME values are likely to have greater milk production potentia for the same level of dry matter intake. This value for each variety contributes to its FVI ranking via the FVI ME component of the index.

### Separate hybrid ryegrass FVI sub-list

Hybrid ryegrasses, positioned between Italian and Perennial varieties, excel in both growth and persistence. Hybrids will generally have superior winter and early spring production compared to Perennial ryegrass due to their Italian ryegrass parentage. Therefore they provide an option to maximise production over a shorter time period of around 2–4 years. Developed by crossing Italian with Perennial ryegrass, their longevity or persistence will generally be less than Perennial ryegrass, but more than Italian ryegrass.

Care must be taken in selecting the hybrid ryegrass for your system as there are use patterns ranging from shorter-term (2–3 years), to medium (3–4 years), to longer-term where hybrids essentially perform like a Perennial ryegrass. This depends on the level of Italian vs Perennial parentage in the hybrid variety. Generally the more Perennial in nature the parentage is, the less winter and early spring production it will exhibit, but there are exceptions to the rule. The agronomic characteristics depend on the genetic background and breeding objectives. As hybrids are common in intensive production, where farmers are looking to maximise annual forage production, optimal pasture management is crucial for maximising performance and longevity.

Given the fit of hybrids into a Perennial dairying system, and the relatively short three-year PTN trial and evaluation program that feeds into the FVI, hybrids have been listed in the Dairy Australia FVI to assist farmers in understanding their fit and benefit relative to Perennial ryegrass over that timeframe. However, they are listed in a separate sub-list to the true Perennial varieties in recognition of the fact that they are not the same. In an ideal scenario, longer Perennial ryegrass trials of five years or more would reflect both the yield and persistence of yield over a longer period for each variety but logistical and resourcing constraints within the PTN mean that for now, Perennial ryegrass varieties are evaluated over a three-year timeframe. This is under review at present within the PTN to see if longer Perennial trials are feasible.

Give all data in the Perennial and hybrid ryegrass FVI reflects yield performance over three years, care must be taken in understanding the positioning and value of hybrids listed in the FVI tables, their benefit to your system in respect to seasonal growth patterns, and the expected longevity before sowing a hybrid variety. It is highly recommended to consult with your agronomist when deciding between a Perennial or hybrid variety.

### **Economic values**

The economic values are a key aspect of the overall Forage Value Index. While 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 methodology with which the economic values are calculated for the FVI changed in 2022, and now new updates to these economic values using the same methodology have been used in the 2025 FVI update.

#### New market value approach adopted from 2022 FVI onwards

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 of greater value than 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 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 prior to the 2023 FVI update 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 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.

### Update to 2025 economic values

Using the same two-prove market value framework as described above, the feed prices used in the economic value calculations for 2025 were updated to reflect 2022 dollar values instead of 2020 dollar values. The estimated cost of hay conservation (used for the salvage value component of the equation) was also updated to reflect 2022 average prices. This allowed inflation to be accounted for and resulted in both feed cost and conservation costs used being 10 per cent greater than the previously used values.

### New economic values updated for 2025 onwards

The 2025 update of the FVI used newly updated economic values for all three ryegrass species, as described on the previous page in detail. 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 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 versus Annual/Italian ryegrasses when calculating the economic values.

#### Perennial ryegrass seasonal yield economic values for the 2025 Forage Value Index (\$/kg DM)

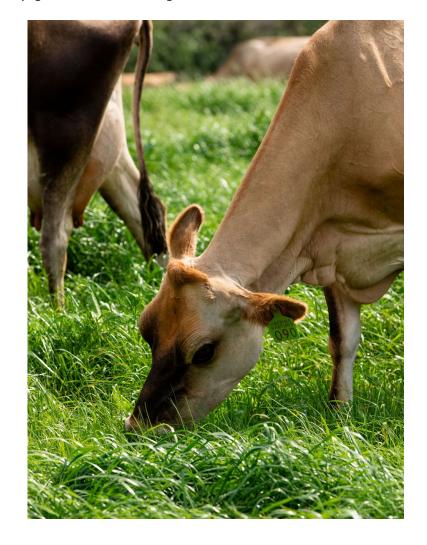
Region	Autumn	Winter	Early spring	Late spring	Summer
South-west Victoria	0.40	0.41	0.34	0.32	0.36
Northern Victoria	0.39	0.40	0.33	0.31	0.35
Gippsland	0.45	0.46	0.39	0.36	0.40
Tasmania	0.43	0.45	0.35	0.33	0.39

#### Annual and Italian ryegrass seasonal yield economic values for the 2025 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
Mid-north coast NSW	0.47	0.48	0.38	0.38	0.38

#### Perennial ryegrass forage quality economic values for the Forage Value Index (cents/MJ ME)

Region	Autumn	Winter	Early spring	Late spring	Summer
South-west Victoria	1.1	1.1	0.9	0.9	1.1
Northern Victoria	1.1	1.1	0.6	0.6	1.1
Gippsland	1.2	1.2	0.7	0.7	1.2
Tasmania	2.4	2.4	0.5	0.5	2.4



## Northern Victoria: Autumn seasonal performance – Perennial RYEGRASS

Cultivar	FVI Nthn Vic	Autumn	Winter	Early spring	Late spring	Summer	Endophyte	Ploidy	Heading date	Marketer	Total trials	Autumn metabolisable energy
Three60 AR37	364	126	143	102	96	118	AR37	Diploid	Late	DLF Seeds	4	10.6
Maxsyn NEA4	370	126	132	102	98	127	NEA4	Diploid	Mid	Barenbrug Australia	9	11.0
4front NEA2	452	125	137	104	103	128	NEA2	Tetraploid	Late	Barenbrug Australia	8	11.1
Base AR37	404	124	135	103	101	126	AR37	Tetraploid	Late	DLF Seeds	25	10.9
Bealey NEA2	347	122	125	102	101	126	NEA2	Tetraploid	Very Late	Barenbrug Australia	14	11.0
Legion AR37	307	122	134	102	95	120	AR37	Diploid	Mid	DLF Seeds	10	10.9
Reason AR37	312	121	136	104	99	114	AR37	Diploid	Mid	DLF Seeds	4	10.6
Reward Endo5	329	119	127	98	101	126	Endo5	Tetraploid	Very Late	DLF Seeds	20	11.0
Array NEA2	311	119	134	103	97	121	NEA2	Diploid	Very Late	Barenbrug Australia	5	10.6
Kidman AR1	307	118	124	107	100	121	AR1	Diploid	Early	Barenbrug Australia	9	10.7
Hustle RGT18	310	117	134	103	97	122	RGT18	Diploid	Mid	RAGT	3	10.6
One50 SE	309	117	129	103	97	125	SE	Diploid	Late	DLF Seeds	8	10.8
Platform AR37	286	116	130	99	100	117	AR37	Diploid	Late	DLF Seeds	12	10.8
Jackal AR1	219	115	117	101	100	117	AR1	Diploid	Mid	AGF seeds	8	10.7
Platinum	211	114	127	96	99	116	Low	Diploid	Late	Valley Seeds	7	10.6
Matrix SE	208	114	121	99	95	120	SE	Diploid	Late	Cropmark Seeds	12	10.7
Hustle AR1	251	114	120	102	100	121	AR1	Diploid	Mid	RAGT	16	10.8
One50 AR37	193	112	122	98	96	118	AR37	Diploid	Late	DLF Seeds	21	10.7
AusVic	168	110	107	102	103	115	Low	Diploid	Mid	Various	5	10.7
Avalon AR1	74	104	109	95	102	107	AR1	Diploid	Mid	Various	13	10.7
Wintas II	59	101	107	94	106	103	Nil	Diploid	Mid	Tasglobal Seeds	4	10.8
Victorian SE	0	100	100	100	100	100	SE	Diploid	Early	Various	24	10.7

Hybrid cultivar	FVI Nthn Vic	Autumn	Winter	Early spring	Late spring	Summer	Endophyte	Ploidy	Heading date	Marketer	Total trials	Autumn metabolisable energy
Samurye NEA12	694	127	147	120	103	154	NEA12	Tetraploid	Late	Barenbrug Australia	4	10.8
Shogun NEA	378	108	132	114	98	131	NEA	Tetraploid	Late	Barenbrug Australia	6	10.8
Victorian SE	0	100	100	100	100	100	SE	Diploid	Early	Various	24	10.7

## Northern Victoria: Winter seasonal performance – Perennial RYEGRASS

Cultivar	FVI Nthn Vic	Winter	Early spring	Late spring	Summer	Autumn	Endophyte	Ploidy	Heading date	Marketer	Total trials	
Three60 AR37	364	143	102	96	118	126	AR37	Diploid	Late	DLF Seeds	4	11.1
4front NEA2	452	137	104	103	128	125	NEA2	Tetraploid	Late	Barenbrug Australia	8	11.5
Reason AR37	312	136	104	99	114	121	AR37	Diploid	Mid	DLF Seeds	4	11.0
Base AR37	404	135	103	101	126	124	AR37	Tetraploid	Late	DLF Seeds	25	11.6
Hustle RGT18	310	134	103	97	122	117	RGT18	Diploid	Mid	RAGT	3	11.2
Legion AR37	307	134	102	95	120	122	AR37	Diploid	Mid	DLF Seeds	10	11.3
Array NEA2	311	134	103	97	121	119	NEA2	Diploid	Very Late	Barenbrug Australia	5	11.2
Maxsyn NEA4	370	132	102	98	127	126	NEA4	Diploid	Mid	Barenbrug Australia	9	11.3
Platform AR37	286	130	99	100	117	116	AR37	Diploid	Late	DLF Seeds	12	11.5
One50 SE	309	129	103	97	125	117	SE	Diploid	Late	DLF Seeds	8	11.2
Reward Endo5	329	127	98	101	126	119	Endo5	Tetraploid	Very Late	DLF Seeds	20	11.8
Platinum	211	127	96	99	116	114	Low	Diploid	Late	Valley Seeds	7	11.4
Bealey NEA2	347	125	102	101	126	122	NEA2	Tetraploid	Very Late	Barenbrug Australia	14	11.7
Kidman AR1	307	124	107	100	121	118	AR1	Diploid	Early	Barenbrug Australia	9	11.4
One50 AR37	193	122	98	96	118	112	AR37	Diploid	Late	DLF Seeds	21	11.4
Matrix SE	208	121	99	95	120	114	SE	Diploid	Late	Cropmark Seeds	12	11.4
Hustle AR1	251	120	102	100	121	114	AR1	Diploid	Mid	RAGT	16	11.5
Jackal AR1	219	117	101	100	117	115	AR1	Diploid	Mid	AGF seeds	8	11.4
Avalon AR1	74	109	95	102	107	104	AR1	Diploid	Mid	Various	13	11.4
Wintas II	59	107	94	106	103	101	Nil	Diploid	Mid	Tasglobal Seeds	4	11.6
AusVic	168	107	102	103	115	110	Low	Diploid	Mid	Various	5	11.5
Victorian SE	0	100	100	100	100	100	SE	Diploid	Early	Various	24	11.5

Hybrid cultivar	FVI Nthn Vic	Autumn	Winter	Early spring	Late spring	Summer	Endophyte	Ploidy	Heading date	Marketer	Total trials	Winter metabolisable energy
Samurye NEA12	694	147	120	103	154	127	NEA12	Tetraploid	Late	Barenbrug Australia	4	11.6
Shogun NEA	378	132	114	98	131	108	NEA	Tetraploid	Late	Barenbrug Australia	6	11.6
Victorian SE	0	100	100	100	100	100	SE	Diploid	Early	Various	24	11.5

## Northern Victoria: Early spring seasonal performance – Perennial RYEGRASS

Cultivar	FVI Nthn Vic	Early spring	Late spring	Summer	Autumn	Winter	Endophyte	Ploidy	Heading date	Marketer	Total trials	Early spring metabolisable energy
Kidman AR1	307	107	100	121	118	124	AR1	Diploid	Early	Barenbrug Australia	9	11.4
Reason AR37	312	104	99	114	121	136	AR37	Diploid	Mid	DLF Seeds	4	11.8
4front NEA2	452	104	103	128	125	137	NEA2	Tetraploid	Late	Barenbrug Australia	8	11.8
Base AR37	404	103	101	126	124	135	AR37	Tetraploid	Late	DLF Seeds	25	11.6
One50 SE	309	103	97	125	117	129	SE	Diploid	Late	DLF Seeds	8	11.5
Hustle RGT18	310	103	97	122	117	134	RGT18	Diploid	Mid	RAGT	3	11.5
Array NEA2	311	103	97	121	119	134	NEA2	Diploid	Very Late	Barenbrug Australia	5	11.3
AusVic	168	102	103	115	110	107	Low	Diploid	Mid	Various	5	11.3
Maxsyn NEA4	370	102	98	127	126	132	NEA4	Diploid	Mid	Barenbrug Australia	9	11.4
Three60 AR37	364	102	96	118	126	143	AR37	Diploid	Late	DLF Seeds	4	11.9
Hustle AR1	251	102	100	121	114	120	AR1	Diploid	Mid	RAGT	16	11.4
Bealey NEA2	347	102	101	126	122	125	NEA2	Tetraploid	Very Late	Barenbrug Australia	14	11.7
Legion AR37	307	102	95	120	122	134	AR37	Diploid	Mid	DLF Seeds	10	11.5
Jackal AR1	219	101	100	117	115	117	AR1	Diploid	Mid	AGF seeds	8	11.4
Victorian SE	0	100	100	100	100	100	SE	Diploid	Early	Various	24	11.3
Matrix SE	208	99	95	120	114	121	SE	Diploid	Late	Cropmark Seeds	12	11.5
Platform AR37	286	99	100	117	116	130	AR37	Diploid	Late	DLF Seeds	12	11.7
One50 AR37	193	98	96	118	112	122	AR37	Diploid	Late	DLF Seeds	21	11.4
Reward Endo5	329	98	101	126	119	127	Endo5	Tetraploid	Very Late	DLF Seeds	20	11.7
Platinum	211	96	99	116	114	127	Low	Diploid	Late	Valley Seeds	7	11.3
Avalon AR1	74	95	102	107	104	109	AR1	Diploid	Mid	Various	13	11.3
Wintas II	59	94	106	103	101	107	Nil	Diploid	Mid	Tasglobal Seeds	4	11.4

Hybrid cultivar	FVI Nthn Vic	Autumn	Winter	Early spring	Late spring	Summer	Endophyte	Ploidy	Heading date	Marketer	Total trials	Early spring metabolisable energy
Samurye NEA12	694	120	103	154	127	147	NEA12	Tetraploid	Late	Barenbrug Australia	4	11.5
Shogun NEA	378	114	98	131	108	132	NEA	Tetraploid	Late	Barenbrug Australia	6	11.5
Victorian SE	0	100	100	100	100	100	SE	Diploid	Early	Various	24	11.3

## Northern Victoria: Late spring seasonal performance – Perennial RYEGRASS

Cultivar	FVI Nthn Vic	Late spring	Summer	Autumn	Winter	Early spring	Endophyte	Ploidy	Heading date	Marketer	Total trials	
Wintas II	59	106	103	101	107	94	Nil	Diploid	Mid	Tasglobal Seeds	4	11.0
AusVic	168	103	115	110	107	102	Low	Diploid	Mid	Various	5	10.8
4front NEA2	452	103	128	125	137	104	NEA2	Tetraploid	Late	Barenbrug Australia	8	11.3
Avalon AR1	74	102	107	104	109	95	AR1	Diploid	Mid	Various	13	10.9
Base AR37	404	101	126	124	135	103	AR37	Tetraploid	Late	DLF Seeds	25	11.3
Bealey NEA2	347	101	126	122	125	102	NEA2	Tetraploid	Very Late	Barenbrug Australia	14	11.4
Reward Endo5	329	101	126	119	127	98	Endo5	Tetraploid	Very Late	DLF Seeds	20	11.4
Platform AR37	286	100	117	116	130	99	AR37	Diploid	Late	DLF Seeds	12	11.1
Victorian SE	0	100	100	100	100	100	SE	Diploid	Early	Various	24	10.8
Hustle AR1	251	100	121	114	120	102	AR1	Diploid	Mid	RAGT	16	11.1
Kidman AR1	307	100	121	118	124	107	AR1	Diploid	Early	Barenbrug Australia	9	10.9
Jackal AR1	219	100	117	115	117	101	AR1	Diploid	Mid	AGF seeds	8	11.0
Reason AR37	312	99	114	121	136	104	AR37	Diploid	Mid	DLF Seeds	4	10.9
Platinum	211	99	116	114	127	96	Low	Diploid	Late	Valley Seeds	7	11.0
Maxsyn NEA4	370	98	127	126	132	102	NEA4	Diploid	Mid	Barenbrug Australia	9	10.9
Hustle RGT18	310	97	122	117	134	103	RGT18	Diploid	Mid	RAGT	3	11.2
Array NEA2	311	97	121	119	134	103	NEA2	Diploid	Very Late	Barenbrug Australia	5	11.0
One50 SE	309	97	125	117	129	103	SE	Diploid	Late	DLF Seeds	8	11.4
One50 AR37	193	96	118	112	122	98	AR37	Diploid	Late	DLF Seeds	21	11.1
Three60 AR37	364	96	118	126	143	102	AR37	Diploid	Late	DLF Seeds	4	11.4
Matrix SE	208	95	120	114	121	99	SE	Diploid	Late	Cropmark Seeds	12	11.2
Legion AR37	307	95	120	122	134	102	AR37	Diploid	Mid	DLF Seeds	10	11.1

Hybrid cultivar	FVI Nthn Vic	Autumn	Winter	Early spring	Late spring	Summer	Endophyte	Ploidy	Heading date	Marketer		Late spring metabolisable energy
Samurye NEA12	694	103	154	127	147	120	NEA12	Tetraploid	Late	Barenbrug Australia	4	11.2
Victorian SE	0	100	100	100	100	100	SE	Diploid	Early	Various	24	10.8
Shogun NEA	378	98	131	108	132	114	NEA	Tetraploid	Late	Barenbrug Australia	6	11.2

## Northern Victoria: Summer seasonal performance – Perennial RYEGRASS

Cultivar	FVI Nthn Vic	Summer	Autumn	Winter	Early spring	Late spring	Endophyte	Ploidy	Heading date	Marketer	Total trials	Summer metabolisable energy
4front NEA2	452	128	125	137	104	103	NEA2	Tetraploid	Late	Barenbrug Australia	8	11.0
Maxsyn NEA4	370	127	126	132	102	98	NEA4	Diploid	Mid	Barenbrug Australia	9	10.6
Reward Endo5	329	126	119	127	98	101	Endo5	Tetraploid	Very Late	DLF Seeds	20	10.8
Bealey NEA2	347	126	122	125	102	101	NEA2	Tetraploid	Very Late	Barenbrug Australia	14	10.7
Base AR37	404	126	124	135	103	101	AR37	Tetraploid	Late	DLF Seeds	25	10.6
One50 SE	309	125	117	129	103	97	SE	Diploid	Late	DLF Seeds	8	10.7
Hustle RGT18	310	122	117	134	103	97	RGT18	Diploid	Mid	RAGT	3	10.6
Kidman AR1	307	121	118	124	107	100	AR1	Diploid	Early	Barenbrug Australia	9	10.5
Hustle AR1	251	121	114	120	102	100	AR1	Diploid	Mid	RAGT	16	10.5
Array NEA2	311	121	119	134	103	97	NEA2	Diploid	Very Late	Barenbrug Australia	5	11.1
Matrix SE	208	120	114	121	99	95	SE	Diploid	Late	Cropmark Seeds	12	10.6
Legion AR37	307	120	122	134	102	95	AR37	Diploid	Mid	DLF Seeds	10	10.9
Three60 AR37	364	118	126	143	102	96	AR37	Diploid	Late	DLF Seeds	4	11.1
One50 AR37	193	118	112	122	98	96	AR37	Diploid	Late	DLF Seeds	21	10.4
Platform AR37	286	117	116	130	99	100	AR37	Diploid	Late	DLF Seeds	12	11.0
Jackal AR1	219	117	115	117	101	100	AR1	Diploid	Mid	AGF seeds	8	10.5
Platinum	211	116	114	127	96	99	Low	Diploid	Late	Valley Seeds	7	10.5
AusVic	168	115	110	107	102	103	Low	Diploid	Mid	Various	5	10.2
Reason AR37	312	114	121	136	104	99	AR37	Diploid	Mid	DLF Seeds	4	10.8
Avalon AR1	74	107	104	109	95	102	AR1	Diploid	Mid	Various	13	10.3
Wintas II	59	103	101	107	94	106	Nil	Diploid	Mid	Tasglobal Seeds	4	10.5
Victorian SE	0	100	100	100	100	100	SE	Diploid	Early	Various	24	10.3

Hybrid cultivar	FVI Nthn Vic	Autumn	Winter	Early spring	Late spring	Summer	Endophyte	Ploidy	Heading date	Marketer	Total trials	Summer metabolisable energy
Samurye NEA12	694	154	127	147	120	103	NEA12	Tetraploid	Late	Barenbrug Australia	4	10.5
Shogun NEA	378	131	108	132	114	98	NEA	Tetraploid	Late	Barenbrug Australia	6	10.5
Victorian SE	0	100	100	100	100	100	SE	Diploid	Early	Various	24	10.3

#### Disclaimer

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