

# **NORTHERN VICTORIA FORAGE VALUE INDEX 2018**



The Forage Value Index (FVI) is a new tool that helps Australian dairy farmers and their advisors to make more informed decisions when selecting perennial ryegrass cultivars. It provides an accurate, reliable and independent assessment of the potential economic value of perennial ryegrass cultivars in different dairy regions of southeast 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 are determined by industry assessed trial data. To be included in the FVI database, each cultivar must have data from at least three, three-year trials that have been conducted using strict industry protocols. The Performance Value is expressed as a percentage change relative to 'Victorian' cultivar of perennial ryegrass.

Economic Values are determined by assessing the economic value of extra pasture grown during the respective seasons through an economic analysis of 'case study' farms in the four different dairying regions in southeast Australia.

The FVI for each cultivar is expressed as a colour, whereby those cultivars with the same colour are not significantly different to each other. The green colour indicates those cultivars that have performed the best in each region and have the most potential to contribute to operating profit.

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.

The accompanying tables of the performance of the cultivars during the various 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 would favour those cultivars that have a high performance value for autumn and winter as they would value more highly greater winter growth of their pastures.

## Northern Victoria: Forage Value Index 2018

Cultivar	FVI North Vic	Autumn	Winter	Early spring	Late spring	Summer	Endophyte	Ploidy	Heading date	Marketer	No. of trials
Base AR37	155	113	118	98	98	114	AR37	Tetraploid	Late	PGG Wrightson Seeds	8
Bealey NEA2	139	112	116	97	97	114	NEA2	Tetraploid	Very late	Heritage Seeds	8
Kidman AR1	118	110	113	100	97	110	AR1	Diploid	Early	Heritage Seeds	5
Impact2 NEA2	112	108	112	98	98	112	NEA2	Diploid	Late	Heritage Seeds	8
Fitzroy SE	106	106	112	104	96	108	SE	Diploid	Early	PGG Wrightson Seeds	6
One50 SE	105	108	114	98	96	112	SE	Diploid	Late	Agricom	4
Halo AR37	104	110	115	95	96	114	AR37	Tetraploid	Late	Agricom	8
One50 AR37	101	109	114	98	97	110	AR37	Diploid	Late	Agricom	4
Arrow AR1	90	106	108	100	99	110	AR1	Diploid	Mid	Heritage Seeds	9
Banquet II Endo5	88	108	112	96	97	112	Endo5	Tetraploid	Late	PGG Wrightson Seeds	9
Prospect AR37	86	107	113	98	96	110	AR1	Diploid	Late	Agricom	3
Alto AR37	85	107	112	98	97	111	AR37	Diploid	Late	Heritage Seeds	3
Ansa AR1	84	107	111	98	97	111	AR1	Diploid	Mid-late	Pasture Genetics	3
Excess AR37	82	109	112	97	97	111	AR37	Diploid	Mid	PGG Wrightson Seeds	3
Extreme AR37	78	109	111	97	97	108	AR37	Diploid	Mid	PGG Wrightson Seeds	5
Matrix	77	108	111	97	96	111	SE	Diploid	Late	Cropmark Seeds	3
Endure WT	74	107	110	98	98	109	SE	Tetraploid	Mid	Vicseeds	3
One50 AR1	67	107	111	97	96	112	AR1	Diploid	Late	Agricom	7
Wintas II	66	106	109	96	98	109	LE	Diploid	Mid	TasGlobal Seeds	3
SF Tenacity WT	64	107	108	99	97	107	SE	Diploid	Early	Seed Force	3
Alto AR1	60	106	110	97	97	109	AR1	Diploid	Late	Heritage Seeds	3
Avalon AR1	53	106	111	96	98	107	AR1	Diploid	Mid	Vicseeds	5
Revolution	53	105	111	96	96	109	AR1	Diploid	Mid	Seed Force	4
Helix	15	102	107	97	96	107	AR1	Diploid	Mid	Cropmark Seeds	4
Victorian SE	0	100	100	100	100	100	SE	Diploid	Early	Many	8

## 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. Select from any of the cultivars in the green bars.
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.
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% 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 Forage Value Index database, each cultivar must have data from at least three, three-year trials.

# Northern Victoria early spring seasonal performance

Cultivar	Early spring	Late spring	Summer	Autumn	Winter	FVI North Vic	Endophyte	Ploidy	Heading date	Marketer	No. of trials
Fitzroy SE	104	96	108	106	112	106	SE	Diploid	Early	PGG Wrightson Seeds	6
Arrow AR1	100	99	110	106	108	90	AR1	Diploid	Mid	Heritage Seeds	9
Victorian SE	100	100	100	100	100	0	SE	Diploid	Early	Many	8
Kidman AR1	100	97	110	110	113	118	AR1	Diploid	Early	Heritage Seeds	5
SF Tenacity WT	99	97	107	107	108	64	SE	Diploid	Early	Seed Force	3
Prospect AR37	98	96	110	107	113	86	AR1	Diploid	Late	Agricom	3
Impact2 NEA2	98	98	112	108	112	112	NEA2	Diploid	Late	Heritage Seeds	8
One50 AR37	98	97	110	109	114	101	AR37	Diploid	Late	Agricom	4
One50 SE	98	96	112	108	114	105	SE	Diploid	Late	Agricom	4
Ansa AR1	98	97	111	107	111	84	AR1	Diploid	Mid-late	Pasture Genetics	3
Endure WT	98	98	109	107	110	74	SE	Tetraploid	Mid	Vicseeds	3
Alto AR37	98	97	111	107	112	85	AR37	Diploid	Late	Heritage Seeds	3
Base AR37	98	98	114	113	118	155	AR37	Tetraploid	Late	PGG Wrightson Seeds	8
Extreme AR37	97	97	108	109	111	78	AR37	Diploid	Mid	PGG Wrightson Seeds	5
Bealey NEA2	97	97	114	112	116	139	NEA2	Tetraploid	Very late	Heritage Seeds	8
Helix	97	96	107	102	107	15	AR1	Diploid	Mid	Cropmark Seeds	4
Matrix	97	96	111	108	111	77	SE	Diploid	Late	Cropmark Seeds	3
One50 AR1	97	96	112	107	111	67	AR1	Diploid	Late	Agricom	7
Alto AR1	97	97	109	106	110	60	AR1	Diploid	Late	Heritage Seeds	3
Excess AR37	97	97	111	109	112	82	AR37	Diploid	Mid	PGG Wrightson Seeds	3
Wintas II	96	98	109	106	109	66	LE	Diploid	Mid	TasGlobal Seeds	3
Revolution	96	96	109	105	111	53	AR1	Diploid	Mid	Seed Force	4
Avalon AR1	96	98	107	106	111	53	AR1	Diploid	Mid	Vicseeds	5
Banquet II Endo5	96	97	112	108	112	88	Endo5	Tetraploid	Late	PGG Wrightson Seeds	9
Halo AR37	95	96	114	110	115	104	AR37	Tetraploid	Late	Agricom	8

# Northern Victoria late spring seasonal performance

Cultivar		Late spring	Summer	Autumn	Winter	Early spring	FVI North Vic	Endophyte	Ploidy	Heading date	Marketer	No. of trials
Victorian SE		100	100	100	100	100	0	SE	Diploid	Early	Many	8
Arrow AR1		99	110	106	108	100	90	AR1	Diploid	Mid	Heritage Seeds	9
Wintas II		98	109	106	109	96	66	LE	Diploid	Mid	TasGlobal Seeds	3
Impact2 NEA2		98	112	108	112	98	112	NEA2	Diploid	Late	Heritage Seeds	8
Base AR37		98	114	113	118	98	155	AR37	Tetraploid	Late	PGG Wrightson Seeds	8
Endure WT		98	109	107	110	98	74	SE	Tetraploid	Mid	Vicseeds	3
Avalon AR1		98	107	106	111	96	53	AR1	Diploid	Mid	Vicseeds	5
Kidman AR1		97	110	110	113	100	118	AR1	Diploid	Early	Heritage Seeds	5
Bealey NEA2		97	114	112	116	97	139	NEA2	Tetraploid	Very late	Heritage Seeds	8
Banquet II Endo5		97	112	108	112	96	88	Endo5	Tetraploid	Late	PGG Wrightson Seeds	9
Extreme AR37		97	108	109	111	97	78	AR37	Diploid	Mid	PGG Wrightson Seeds	5
SF Tenacity WT		97	107	107	108	99	64	SE	Diploid	Early	Seed Force	3
Alto AR1		97	109	106	110	97	60	AR1	Diploid	Late	Heritage Seeds	3
Alto AR37		97	111	107	112	98	85	AR37	Diploid	Late	Heritage Seeds	3
Excess AR37		97	111	109	112	97	82	AR37	Diploid	Mid	PGG Wrightson Seeds	3
Ansa AR1		97	111	107	111	98	84	AR1	Diploid	Mid-late	Pasture Genetics	3
One50 AR37		97	110	109	114	98	101	AR37	Diploid	Late	Agricom	4
Matrix		96	111	108	111	97	77	SE	Diploid	Late	Cropmark Seeds	3
Revolution		96	109	105	111	96	53	AR1	Diploid	Mid	Seed Force	4
One50 SE		96	112	108	114	98	105	SE	Diploid	Late	Agricom	4
Fitzroy SE		96	108	106	112	104	106	SE	Diploid	Early	PGG Wrightson Seeds	6
Prospect AR37		96	110	107	113	98	86	AR1	Diploid	Late	Agricom	3
One50 AR1		96	112	107	111	97	67	AR1	Diploid	Late	Agricom	7
Helix		96	107	102	107	97	15	AR1	Diploid	Mid	Cropmark Seeds	4
Halo AR37		96	114	110	115	95	104	AR37	Tetraploid	Late	Agricom	8

### Northern Victoria summer seasonal performance

Cultivar	Summer	Autumn	Winter	Early spring	Late spring	FVI North Vic	Endophyte	Ploidy	Heading date	Marketer	No. of trials
Bealey NEA2	114	112	116	97	97	139	NEA2	Tetraploid	Very late	Heritage Seeds	8
Halo AR37	114	110	115	95	96	104	AR37	Tetraploid	Late	Agricom	8
Base AR37	114	113	118	98	98	155	AR37	Tetraploid	Late	PGG Wrightson Seeds	8
Impact2 NEA2	112	108	112	98	98	112	NEA2	Diploid	Late	Heritage Seeds	8
One50 SE	112	108	114	98	96	105	SE	Diploid	Late	Agricom	4
Banquet II Endo5	112	108	112	96	97	88	Endo5	Tetraploid	Late	PGG Wrightson Seeds	9
One50 AR1	112	107	111	97	96	67	AR1	Diploid	Late	Agricom	7
Matrix	111	108	111	97	96	77	SE	Diploid	Late	Cropmark Seeds	3
Ansa AR1	111	107	111	98	97	84	AR1	Diploid	Mid-late	Pasture Genetics	3
Excess AR37	111	109	112	97	97	82	AR37	Diploid	Mid	PGG Wrightson Seeds	3
Alto AR37	111	107	112	98	97	85	AR37	Diploid	Late	Heritage Seeds	3
One50 AR37	110	109	114	98	97	101	AR37	Diploid	Late	Agricom	4
Kidman AR1	110	110	113	100	97	118	AR1	Diploid	Early	Heritage Seeds	5
Arrow AR1	110	106	108	100	99	90	AR1	Diploid	Mid	Heritage Seeds	9
Prospect AR37	110	107	113	98	96	86	AR1	Diploid	Late	Agricom	3
Alto AR1	109	106	110	97	97	60	AR1	Diploid	Late	Heritage Seeds	3
Revolution	109	105	111	96	96	53	AR1	Diploid	Mid	Seed Force	4
Wintas II	109	106	109	96	98	66	LE	Diploid	Mid	TasGlobal Seeds	3
Endure WT	109	107	110	98	98	74	SE	Tetraploid	Mid	Vicseeds	3
Fitzroy SE	108	106	112	104	96	106	SE	Diploid	Early	PGG Wrightson Seeds	6
Extreme AR37	108	109	111	97	97	78	AR37	Diploid	Mid	PGG Wrightson Seeds	5
SF Tenacity WT	107	107	108	99	97	64	SE	Diploid	Early	Seed Force	3
Avalon AR1	107	106	111	96	98	53	AR1	Diploid	Mid	Vicseeds	5
Helix	107	102	107	97	96	15	AR1	Diploid	Mid	Cropmark Seeds	4
Victorian SE	100	100	100	100	100	0	SE	Diploid	Early	Many	8

### Northern Victoria autumn seasonal performance

Cultivar		Autumn	Winter	Early spring	Late spring	Summer	FVI North Vic	Endophyte	Ploidy	Heading date	Marketer	No. of trials
Base AR37		113	118	98	98	114	155	AR37	Tetraploid	Late	PGG Wrightson Seeds	8
Bealey NEA2		112	116	97	97	114	139	NEA2	Tetraploid	Very late	Heritage Seeds	8
Halo AR37		110	115	95	96	114	104	AR37	Tetraploid	Late	Agricom	8
Kidman AR1		110	113	100	97	110	118	AR1	Diploid	Early	Heritage Seeds	5
Extreme AR37		109	111	97	97	108	78	AR37	Diploid	Mid	PGG Wrightson Seeds	5
One50 AR37		109	114	98	97	110	101	AR37	Diploid	Late	Agricom	4
Excess AR37		109	112	97	97	111	82	AR37	Diploid	Mid	PGG Wrightson Seeds	3
One50 SE		108	114	98	96	112	105	SE	Diploid	Late	Agricom	4
Banquet II Endo5		108	112	96	97	112	88	Endo5	Tetraploid	Late	PGG Wrightson Seeds	9
Impact2 NEA2		108	112	98	98	112	112	NEA2	Diploid	Late	Heritage Seeds	8
Matrix		108	111	97	96	111	77	SE	Diploid	Late	Cropmark Seeds	3
Prospect AR37		107	113	98	96	110	86	AR1	Diploid	Late	Agricom	3
Ansa AR1		107	111	98	97	111	84	AR1	Diploid	Mid-late	Pasture Genetics	3
Alto AR37		107	112	98	97	111	85	AR37	Diploid	Late	Heritage Seeds	3
One50 AR1		107	111	97	96	112	67	AR1	Diploid	Late	Agricom	7
Endure WT		107	110	98	98	109	74	SE	Tetraploid	Mid	Vicseeds	3
SF Tenacity WT		107	108	99	97	107	64	SE	Diploid	Early	Seed Force	3
Fitzroy SE		106	112	104	96	108	106	SE	Diploid	Early	PGG Wrightson Seeds	6
Wintas II		106	109	96	98	109	66	LE	Diploid	Mid	TasGlobal Seeds	3
Alto AR1		106	110	97	97	109	60	AR1	Diploid	Late	Heritage Seeds	3
Avalon AR1		106	111	96	98	107	53	AR1	Diploid	Mid	Vicseeds	5
Arrow AR1		106	108	100	99	110	90	AR1	Diploid	Mid	Heritage Seeds	9
Revolution		105	111	96	96	109	53	AR1	Diploid	Mid	Seed Force	4
Helix		102	107	97	96	107	15	AR1	Diploid	Mid	Cropmark Seeds	4
Victorian SE		100	100	100	100	100	0	SE	Diploid	Early	Many	8

### Northern Victoria winter seasonal performance

Cultivar		Winter	Early spring	Late spring	Summer	Autumn	FVI North Vic	Endophyte	Ploidy	Heading date	Marketer	No. of trials
Base AR37		118	98	98	114	113	155	AR37	Tetraploid	Late	PGG Wrightson Seeds	8
Bealey NEA2		116	97	97	114	112	139	NEA2	Tetraploid	Very late	Heritage Seeds	8
Halo AR37		115	95	96	114	110	104	AR37	Tetraploid	Late	Agricom	8
One50 SE		114	98	96	112	108	105	SE	Diploid	Late	Agricom	4
One50 AR37		114	98	97	110	109	101	AR37	Diploid	Late	Agricom	4
Kidman AR1		113	100	97	110	110	118	AR1	Diploid	Early	Heritage Seeds	5
Prospect AR37		113	98	96	110	107	86	AR1	Diploid	Late	Agricom	3
Banquet II Endo5		112	96	97	112	108	88	Endo5	Tetraploid	Late	PGG Wrightson Seeds	9
Impact2 NEA2		112	98	98	112	108	112	NEA2	Diploid	Late	Heritage Seeds	8
Alto AR37		112	98	97	111	107	85	AR37	Diploid	Late	Heritage Seeds	3
Fitzroy SE		112	104	96	108	106	106	SE	Diploid	Early	PGG Wrightson Seeds	6
Excess AR37		112	97	97	111	109	82	AR37	Diploid	Mid	PGG Wrightson Seeds	3
Matrix		111	97	96	111	108	77	SE	Diploid	Late	Cropmark Seeds	3
One50 AR1		111	97	96	112	107	67	AR1	Diploid	Late	Agricom	7
Ansa AR1		111	98	97	111	107	84	AR1	Diploid	Mid-late	Pasture Genetics	3
Extreme AR37		111	97	97	108	109	78	AR37	Diploid	Mid	PGG Wrightson Seeds	5
Avalon AR1		111	96	98	107	106	53	AR1	Diploid	Mid	Vicseeds	5
Revolution		111	96	96	109	105	53	AR1	Diploid	Mid	Seed Force	4
Alto AR1		110	97	97	109	106	60	AR1	Diploid	Late	Heritage Seeds	3
Endure WT		110	98	98	109	107	74	SE	Tetraploid	Mid	Vicseeds	3
Wintas II		109	96	98	109	106	66	LE	Diploid	Mid	TasGlobal Seeds	3
SF Tenacity WT		108	99	97	107	107	64	SE	Diploid	Early	Seed Force	3
Arrow AR1		108	100	99	110	106	90	AR1	Diploid	Mid	Heritage Seeds	9
Helix		107	97	96	107	102	15	AR1	Diploid	Mid	Cropmark Seeds	4
Victorian SE		100	100	100	100	100	0	SE	Diploid	Early	Many	8

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