



Forage Value Index

Frequently asked questions

The Forage Value Index (FVI) is a rating system 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 south-east Australia.

Why has it been developed?

Australian dairy farmers invest more than \$100 million renovating pastures each year. Perennial ryegrass accounts for almost 80 per cent of this. Until now, there has been no easy way of assessing the agronomic performance or potential economic benefit of different cultivars for use in dairy production. The selection of better performing cultivars will help to increase pasture productivity at key times of the year and ultimately, farm profitability.

How is the FVI calculated?

FVI ratings are based on independently calculated Performance Values (PV) for seasonal dry matter production and Economic Values (EV). FVI ratings are calculated by multiplying the Performance Value (i.e. kg DM/ha) of each cultivar by its Economic Value (i.e. the seasonal \$ value of each extra kg of pasture grown). PVs are determined by industry assessed trial data. EVs are determined by economic analysis of 'case study' farms in four different dairying regions in south-east Australia.

How are FVI ratings expressed?

The PV for each cultivar is expressed as a percentage relative to Victorian ryegrass and the FVI uses a colour rating system. All cultivars with the same colour are not significantly different to each other. A green colour rating indicates those cultivars that have performed the best in each region and have the most potential to contribute to operating profit. A red colour rating indicates those in the bottom group of cultivars for performance and have the least potential to contribute to operating profit. Ideally, farmers should use cultivars in the green column wherever possible to maximise pasture productivity and farm profitability.

What data sources are included?

A range of data sources are used to calculate the FVI ratings. These include trial data from the Pasture Variety Trial Network (PVTN) and limited seed company data that meet PVTN eligibility criteria. Only cultivars listed in the Australian Seed Federation Pasture Seed Database and confirmed as a “variety” are used in the FVI.

What data are eligible for inclusion?

To be included in the FVI database, each cultivar must have data from at least three three-year trials that have been conducted using Pasture Variety Trials Network (PVTN) protocols. All trials are managed under mown conditions, with herbage cut, dried and weighed. Dry matter yield is assessed by direct measurement (i.e. cut, dried and weighed). Nitrogen is applied after each mowing at a rate equivalent to the amount contained in the dry matter removed. Only trials that meet these criteria will be considered for inclusion in the FVI database.

Who determines whether data is eligible?

All trial data are reviewed by the FVI Technical Advisory Committee to determine its eligibility for inclusion in the FVI database. The FVI Technical Advisory Committee currently comprises representatives from Agriculture Victoria (DEDJTR), the University of Melbourne, Australian Seed Federation, Heritage Seeds, PGG Wrightson Seeds, Meat and Livestock Australia and Dairy Australia. Once approved, data are analysed by accredited statisticians using modern analysis tools similar to those used in the successful national trialling network for grains crops.

Are there trials in my region?

There are not trials from every corner of south-east Australia. The power of the FVI is in the aggregated data pool for south-east Australia and this is the most comprehensive and accurate data pool for perennial ryegrass cultivars in Australia. There are no large differences in overall seasonal rankings between different regions (i.e. Gippsland, Western Victoria, Northern Victoria and Tasmania). The results show that while total yield is affected by environmental conditions (i.e. rainfall, climate and irrigation), the best plant genetics tend to perform the best in each region. This means the FVI ranking is appropriate to use in all parts of south-east Australia.

How can I select the best cultivars for my farm?

The FVI information can be accessed free of charge from the Dairy Australia website.

What pasture species are included?

The FVI ratings are only for perennial ryegrass cultivars. Other pasture species (e.g. Italian ryegrass and tall fescue) may be added in the future.

What traits are included?

The FVI ratings are based on the potential economic value of seasonal production yields. Other traits (e.g. metabolisable energy and persistence) may be added in the future.

What new data will be added?

The FVI database already contains cultivars from most seed companies. The FVI ratings will be updated each year as new trial data become available. These ratings will be available before the autumn renovation period. New cultivars of perennial

ryegrass and cultivars from other species will be added as more information becomes available. Dairy Australia, in partnership with Agriculture Victoria (DEDJTR) has four cultivar evaluation trials underway in south-east Australia. Additional data from Pasture Trials Network trials will be included in the FVI database as it becomes available.

What other information will become available?

FVI ratings will be improved over time to enable the comparison of cultivars across dairy regions and the inclusion of new perennial ryegrass cultivars, new traits (e.g. metabolisable energy and plant persistence) and other pasture species (e.g. Italian ryegrass and tall fescue).

Who developed the FVI?

The FVI was developed as a partnership between several industry associations and government bodies as part of a wider strategy to increase the productivity and profitability of Australian dairy farms. They include Dairy Australia, Agriculture Victoria, DairyNZ, the Australian Seed Federation and Meat and Livestock Australia.

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