

DairyNZ Forage Value Index

The BW for pastures

www.dairynzfvi.co.nz

The logo for AGFIRST, featuring the word "AGFIRST" in white, bold, uppercase letters. The text is set against a dark blue, wavy, ribbon-like background that curves around the letters.

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DairyNZ Forage Value Index

- Joint initiative between DairyNZ and New Zealand Plant Breeders Research Association
- It is an estimated profit index \$/ha
- Based on relative performance values (PV's) for key traits
- Currently the performance traits are 5 seasonal traits
 - Winter
 - Early spring
 - Late spring
 - Summer
 - Autumn
- The PV's multiplied by economic values to give DairyNZ FVI (\$/ha)



Economic values

- The economic worth of a change in DM production in each of the 5 periods has been calculated for dairy farms in four regions of NZ.
- The value of feed at different times of the year does vary around the country
- The value of extra DM production over the spring is lower than winter or summer
- Over time economic values will be calculated for nutritional value and persistence
- Economic values will change over time with payout and as input costs change

Regionally based

- Data from trials are regionalised.
- Trial data from the Waikato receives a higher weighting in estimating PV's for the upper north island region than trials conducted elsewhere in the country

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Star system

- Cultivars are grouped based on estimated DairyNZ FVI and PV using a star based system.
- All cultivars in the top 20% of cultivars are given 5 stars the bottom 20% are given 1 star

FVI (\$/ha)

| | Upper North Island | Lower North Island | Upper South Island | Lower South Island |
|-------|--------------------|--------------------|--------------------|--------------------|
| ★★★★★ | \$456 to \$511 | \$451 to \$473 | \$400 to \$483 | \$324 to \$354 |
| ★★★★ | \$240 to \$345 | \$322 to \$434 | \$299 to \$388 | \$244 to \$320 |
| ★★★ | \$131 to \$196 | \$256 to \$314 | \$222 to \$254 | \$158 to \$198 |
| ★★ | -\$19 to \$130 | \$154 to \$218 | \$149 to \$179 | \$102 to \$139 |
| ★ | -\$118 to -\$62 | -\$49 to \$146 | -\$46 to \$118 | -\$35 to \$75 |



Evaluation Date: 19 Dec. 2012

- 1: The FVI is currently a combination of seasonal dry matter performance values, and does not include persistence or nutritive value information.
- 2: Cultivars with AR1 endophyte are not recommended as they provide limited protection against black beetle
- 3: Cultivars with SE are not recommended as they can cause ryegrass staggers in summer and may reduce milksolids production at this time

All Cultivars – By FVI Star Rating and Confidence

| Cultivar | FVI ¹ (Star Rating) | FVI Star Range (\$/ha) | Conf ² | Performance Values ³ (Star Rating) | | | | | Endo ⁴ | PI ⁵ | HD ⁶ | Marketer |
|------------------|-----------------------------------|---------------------------|-------------------|---|----|----|-----|-----|-------------------|-----------------|-----------------|---------------------|
| | | | | WIN | ES | LS | SUM | AUT | | | | |
| Halo AR37 | 5 | | 5.4 | 5 | 3 | 3 | 5 | 5 | AR37 | T | VL | Agricom |
| Matrix SE | 5 | \$456 to \$511 | 4.0 | 2 | 5 | 5 | 5 | 4 | SE | D | VL | Cropmark Seeds |
| Ultra AR1 | 5 | | 3.6 | 3 | 5 | 5 | 5 | 5 | AR1 | D | L | Cropmark Seeds |
| One50 AR37 | 4 | | 4.5 | 5 | 2 | 1 | 3 | 5 | AR37 | D | L | Agricom |
| Banquet II Endo5 | 4 | \$240 to \$345 | 4.3 | 4 | 2 | 2 | 4 | 3 | Endo5 | T | L | PGG Wrightson Seeds |
| Alto AR37 | 4 | | 2.0 | 4 | 5 | 4 | 4 | 4 | AR37 | D | L | Agriseeds |
| Bealey NEA2 | 3 | | 8.0 | 5 | 3 | 2 | 4 | 3 | NEA2 | T | VL | Agriseeds |
| Arrow AR1 | 3 | \$131 to \$196 | 5.0 | 2 | 4 | 2 | 2 | 2 | AR1 | D | M | Agriseeds |
| Expo AR1 | 3 | | 3.3 | 1 | 4 | 4 | 3 | 1 | AR1 | D | L | PGG Wrightson Seeds |
| Nui SE | 2 | | 10+ | 1 | 4 | 5 | 2 | 1 | SE | D | M | Common |
| Alto AR1 | 2 | -\$19 to \$130 | 8.3 | 3 | 3 | 3 | 2 | 2 | AR1 | D | L | Agriseeds |
| One50 AR1 | 2 | | 6.6 | 3 | 2 | 1 | 3 | 4 | AR1 | D | L | Agricom |
| Bronsyn AR1 | 1 | | 7.3 | 1 | 1 | 4 | 1 | 2 | AR1 | D | M | Agriseeds |
| Commando AR37 | 1 | -\$118 to -\$62 | 6.3 | 2 | 1 | 3 | 1 | 1 | AR37 | D | M | Agricom |
| Extreme AR37 | 1 | | 4.0 | 4 | 1 | 1 | 1 | 3 | AR37 | D | M | PGG Wrightson Seeds |

¹5 = top 20%, 1 = bottom 20%. ²Confidence (higher is better). ³WIN = winter dry matter production (May, Jun), ES = early spring dry matter production (July, Aug), LS = late spring dry matter production (Sept, Oct), SUM = summer dry matter production (Nov-Jan), AUT = autumn dry matter production (Feb-Apr). ⁴Endophyte, ⁵Ploidy (D=Diploid, T=Tetraploid), ⁶Heading date (M=Mid, L=Late, VL=Very late). For more information visit www.dairynzfvi.co.nz

Summary

- DairyNZ FVI summarises performance data and provides an estimated economic value
- Currently based on seasonal DM production but will expand to include nutritional traits and persistence
- Not all cultivars are evaluated due to limited data but will improve over time
- Pasture renewal success will still depend on good management practices at each step of the program

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Questions & Answers

Question 1: When is nutrition and persistence traits going to be included?

Answer: *The forage variety trial protocol have already altered but it will take 2-5 years before all the data can be included in the index.*

Question 2: Why are some common cultivars not yet included in the FVI?

Answer: *There are protocols as to how many years of data and at how many locations cultivars have to be trialled. Surprisingly some commonly used cultivars do not meet the criteria.*