

National Forage Variety Trials [®]

Data summaries: Perennial ryegrass 1991-2009

This report summarises dry matter yield data from 42 replicated trials conducted throughout New Zealand.

Background

The New Zealand National Forage Variety Trial (NFVT) system was set up by the New Zealand Plant Breeding and Research Association Inc. (NZPBRA), a society established to promote plant breeding and research in New Zealand.

Trials commenced in 1991 in co-operation with AgResearch Grasslands, co-ordinated by NZPBRA.

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IMPORTANT INFORMATION ABOUT PERENNIAL RYEGRASS YIELD SUMMARIES

- The trials included in these summaries were carried out at a limited number of sites using specified management regimes and cannot represent every situation.
- Trials do not measure animal performance.
- The variation or reliability in variety yield is given by the horizontal bar on the graph called an error bar. A wider bar means less reliability (possibly due to a variety being in fewer trials or more variable in yield). In comparing varieties, those whose error bars do not overlap are significantly different (from each other) at the 95% confidence level. **Those whose error bars do overlap are not significantly different from each other.**

PRESENTATION

- There are five sets of trial summaries. The decision to split summaries was made on statistical analysis of variation between regions. Summaries are:

All New Zealand:	42 trials
North Island:	16 trials
Canterbury:	20 trials
Southland	6 trials

- To be in a summary, varieties must have been in a minimum of three trials in that region. All varieties on the market that reach the three trial threshold are included in the summaries.
- Within each summary, the average drymatter yield of each variety has been calculated and recorded for each season and yearly total as a large dot.

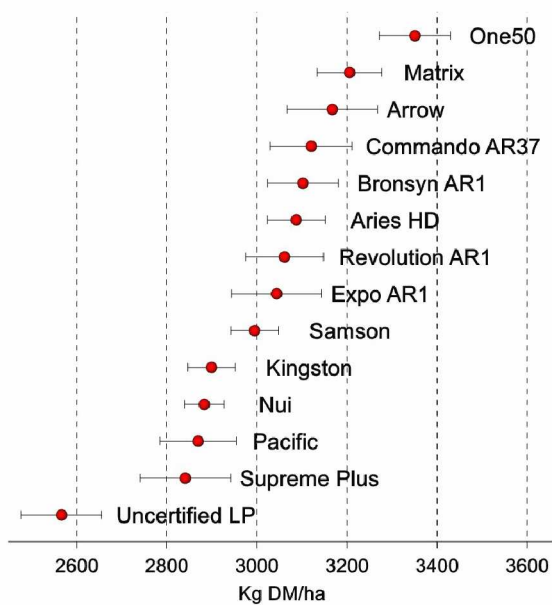
TRIAL MANAGEMENT

- Trials broadly simulate rotational grazing under high nutrient supply conditions.
- Trials usually ran for three years and three months from autumn (usually March) sowing. Seasons are defined as: Autumn– March, April, May; Winter– June, July, August; Spring– September, October, November; Summer– December, January, February.
- Perennial ryegrasses tested have typically contained standard endophyte (SE) outside of Southland. Perennial ryegrass with novel endophytes (e.g. AR1) or without endophyte (WE) are identified.
- 42 trials were run at the following locations:

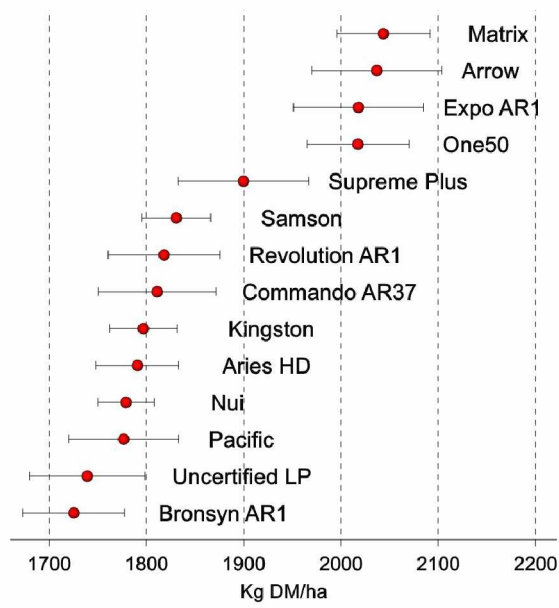
Waikato	7	Taranaki:	3	Manawatu:	4	Wanganui	1	Hawkes Bay:	1
Canterbury:	20	Southland:	6						
- Sowing rate of tetraploid varieties was 28 kg/ha approximately 40% higher than diploid varieties (20 kg/ha).

Trials were four replicate, with yield measured by cutting with a drymatter analysis, or by pasture probe. Herbage dissections were undertaken when the non-sown components contributed more than 5% of yield.

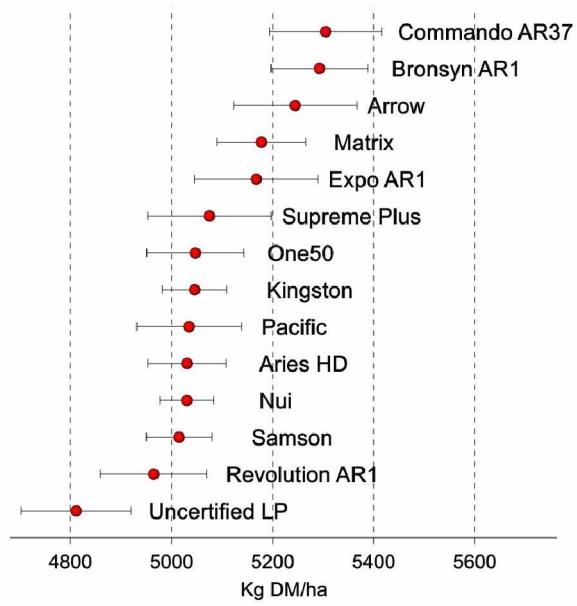
All New Zealand Trials Autumn Yield



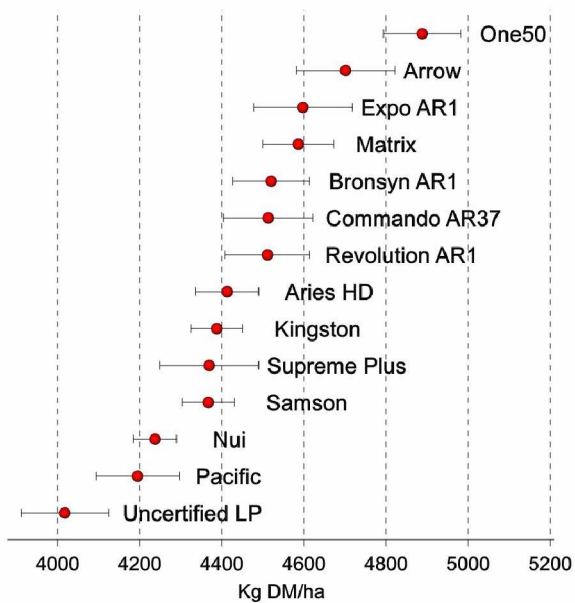
All New Zealand Trials Winter Yield



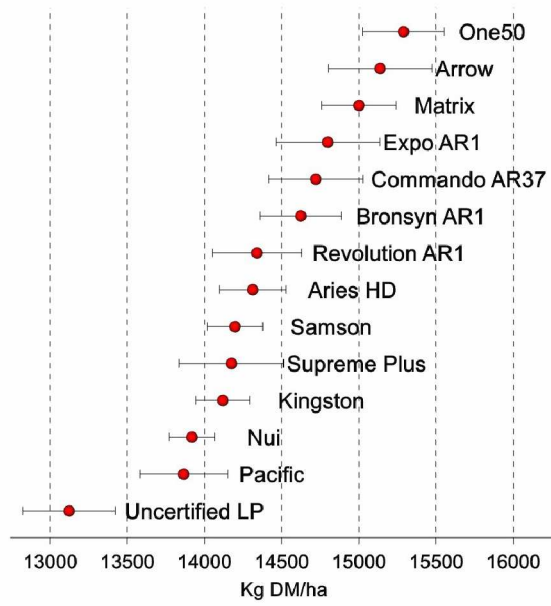
All New Zealand Trials Spring Yield



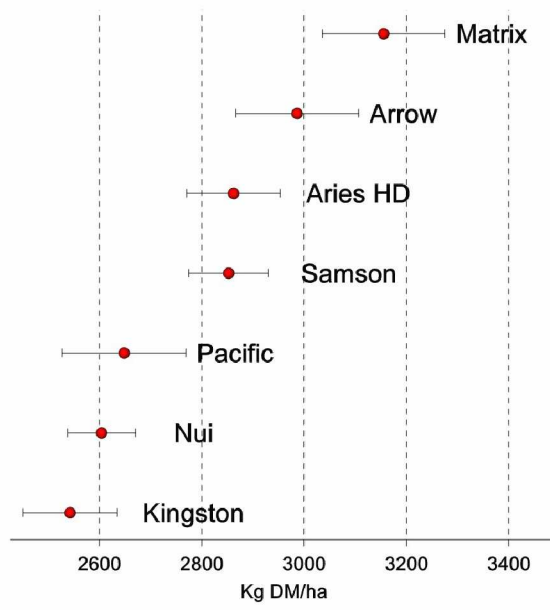
All New Zealand Trials Summer Yield



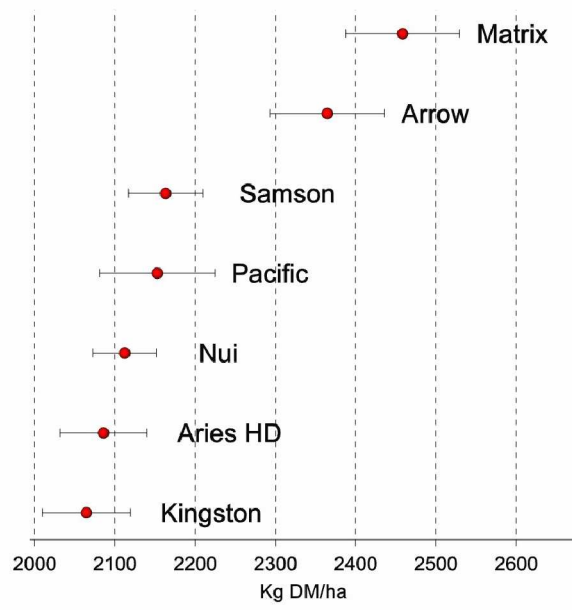
All New Zealand Trials Total Yield



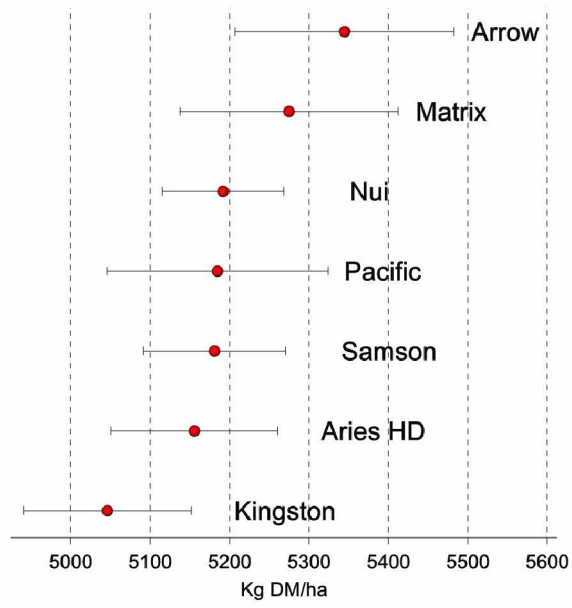
North Island Trials Autumn Yield



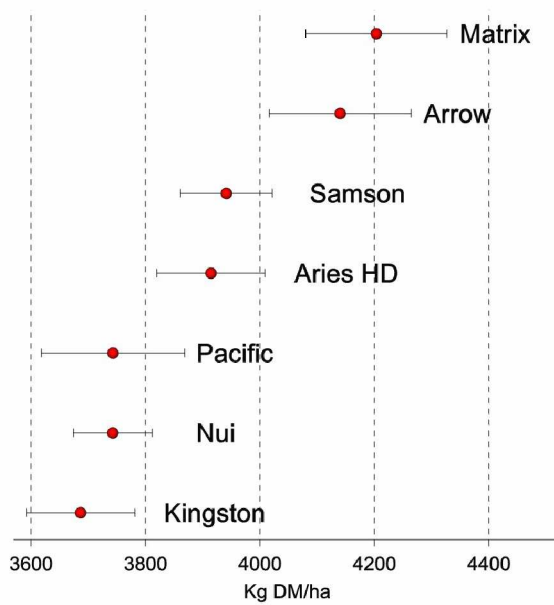
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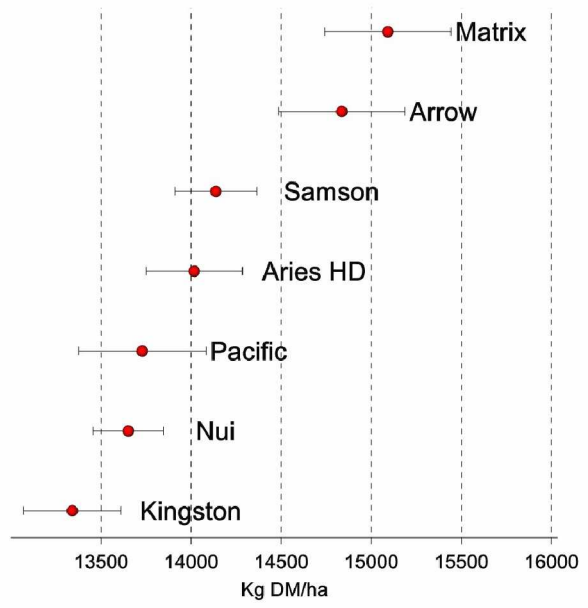
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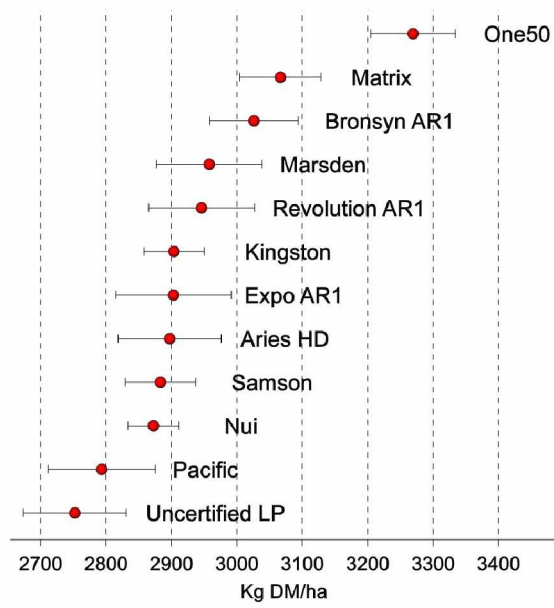
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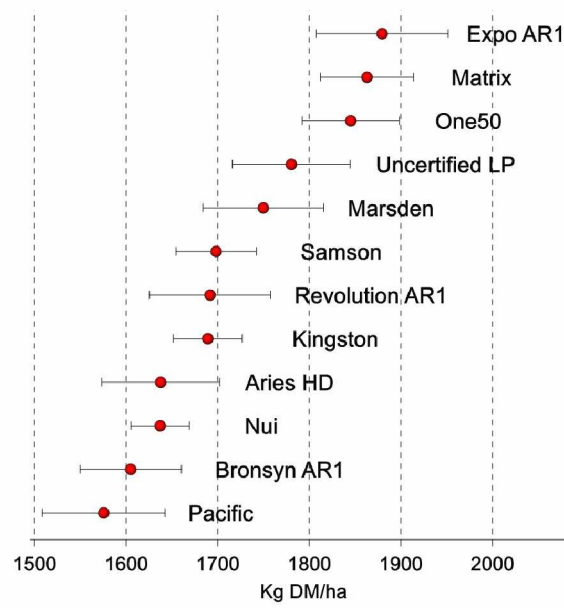
North Island Trials Total Yield



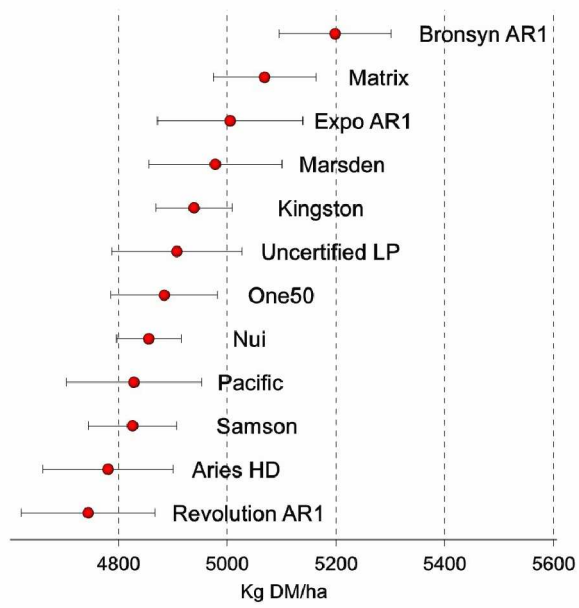
Canterbury Trials Autumn Yield



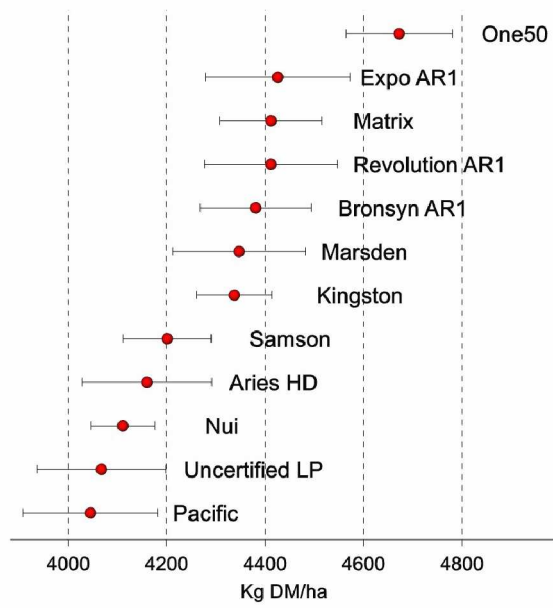
Canterbury Trials Winter Yield



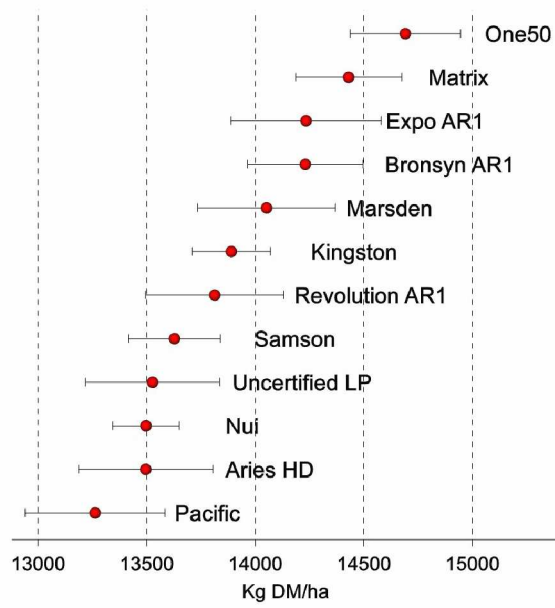
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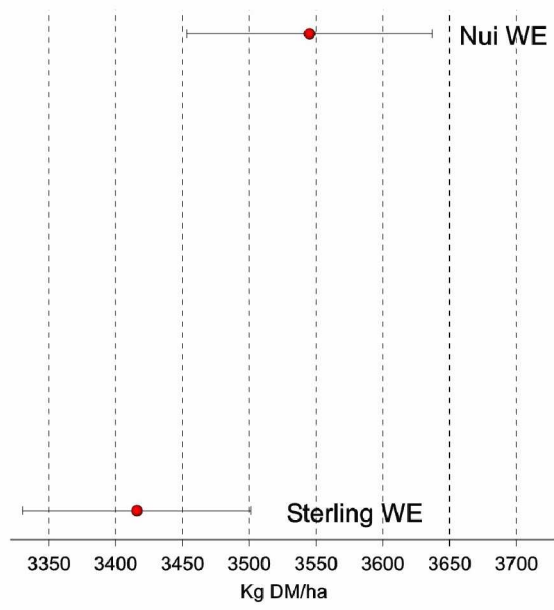
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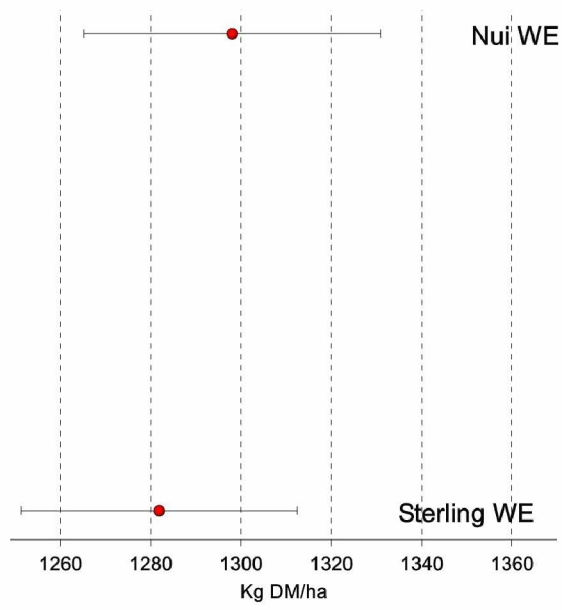
Canterbury Trials Total Yield



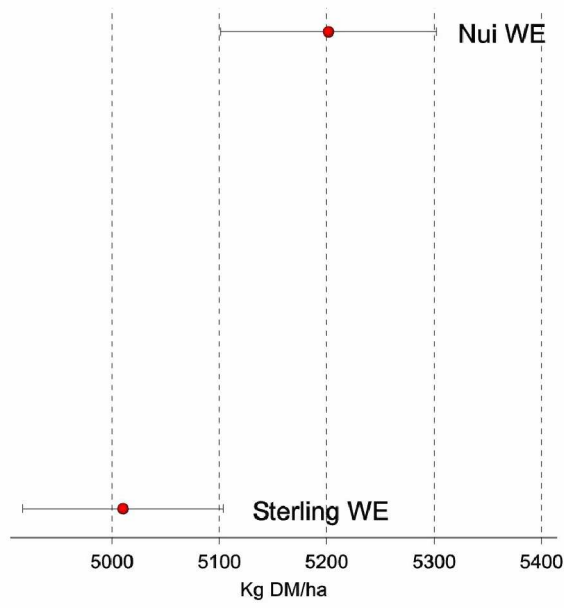
Southland Trials Autumn Yield



Southland Trials Winter Yield



Southland Trials Spring Yield



Southland Trials Summer Yield

