

AGRICOM SOUTHBURN TRIAL SITE

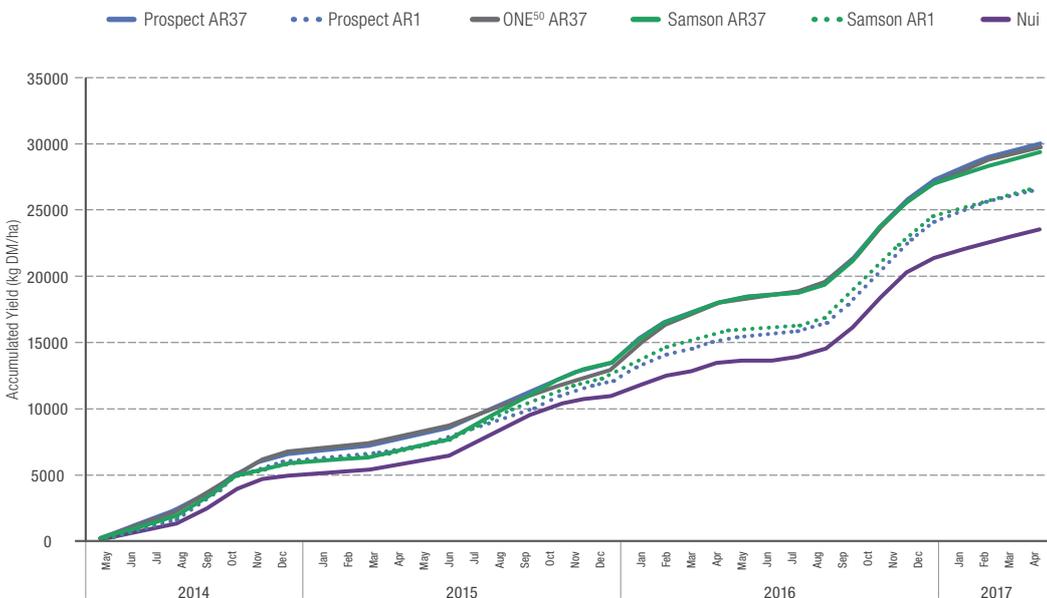
Contact 0800 183 358 Fax 03 341 4581
Email: info@agricom.co.nz agricom.co.nz

AGRICOM 
Pastures for Profit®

Southburn Trial Site

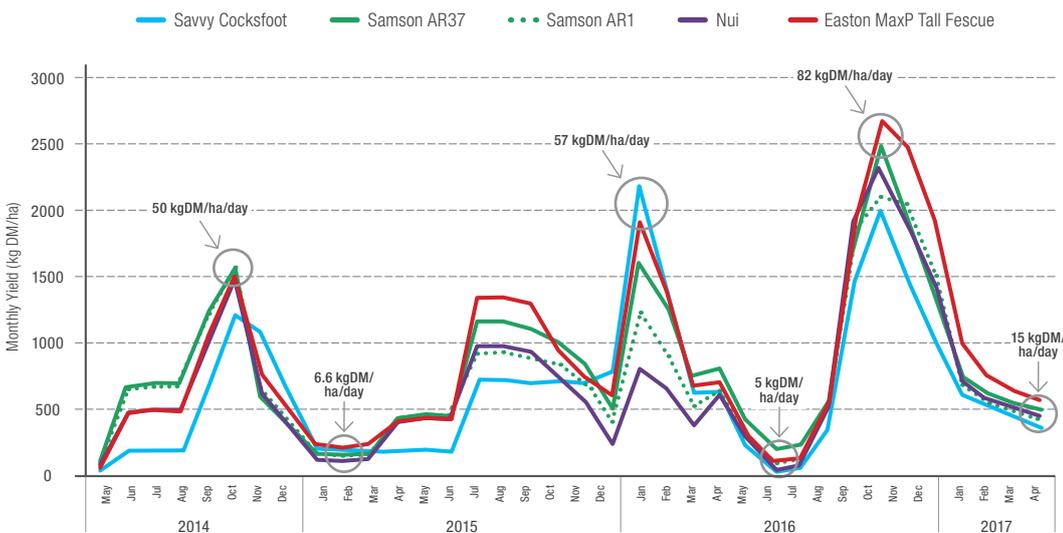
Interim Data. Trial drilled 18th February, 2014

Figure 1: Southburn Endophyte Effects - Accumulated Yield (kg DM/ha) of selected cultivars over three and a half years



The effects of endophyte at Southburn have become very apparent over the past 2 years. **Prospect AR37, ONE⁵⁰ AR37** and **Samson AR37** have been similar over the whole period and together top the accumulated yield after three and a half years. **Prospect AR1** and **Samson AR1** kept in line with their **AR37** equivalents for the first year, and then started to separate out after the first summer. The result of Nui could represent 'variety not stated' (VNS) ryegrass with variable endophyte status.

Figure 2: Southburn monthly yield (kg DM/ha) of selected examples of different species over three and a half years



The seasonal differences between the various species at Southburn have performed to expectation (Figure 2).

While the fescues started off slowly, their second and third spring were very dominant along with showing their strength over the summer of 2016/17 where soil moisture was sufficient.

Samson AR37 and **AR1** follow the same growth pattern, however **Samson AR37** out performs **Samson AR1** under periods of stress and after three and a half years it has resulted in **Samson AR37** yielding 2351 kg DM/ha more than **Samson AR1**.

Figure 3: Southburn species differences - Accumulated yield (kg DM/ha) of selected examples of different species over three and a half years

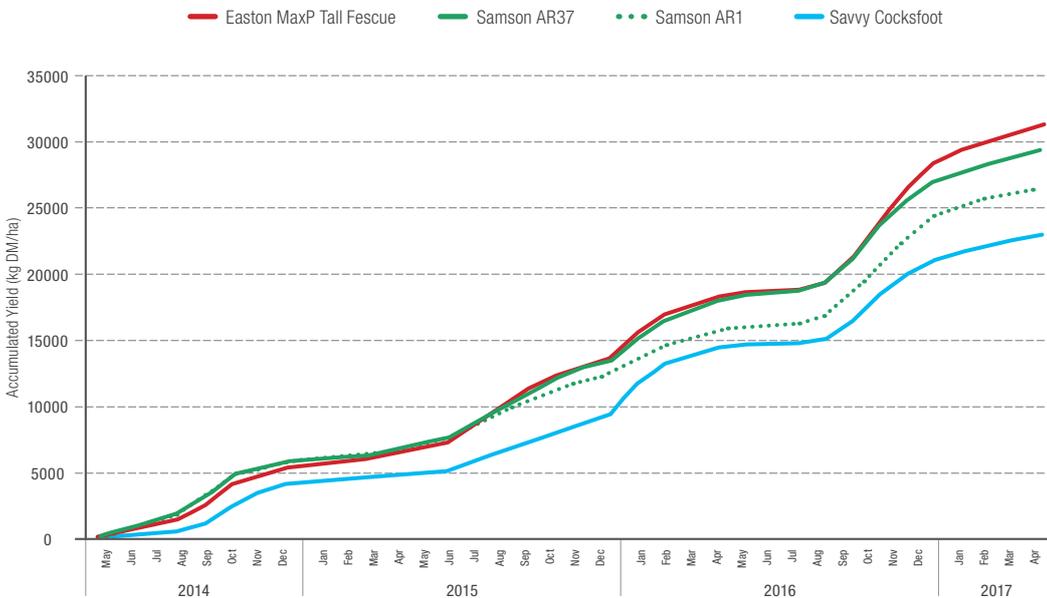


Figure 3 shows selected cultivars of different species and their different accumulated species yield over three and a half years. Both the **Easton MaxP** tall fescue and **Savvy** cocksfoot are slower to establish than ryegrass. After one and a half years **Easton MaxP** tall fescue had caught up to the total accumulated growth of **Samson AR37** and has shown very good growth in this challenging environment.

Figure 4: Southburn total yield (kg DM/ha) to the end of autumn 2017

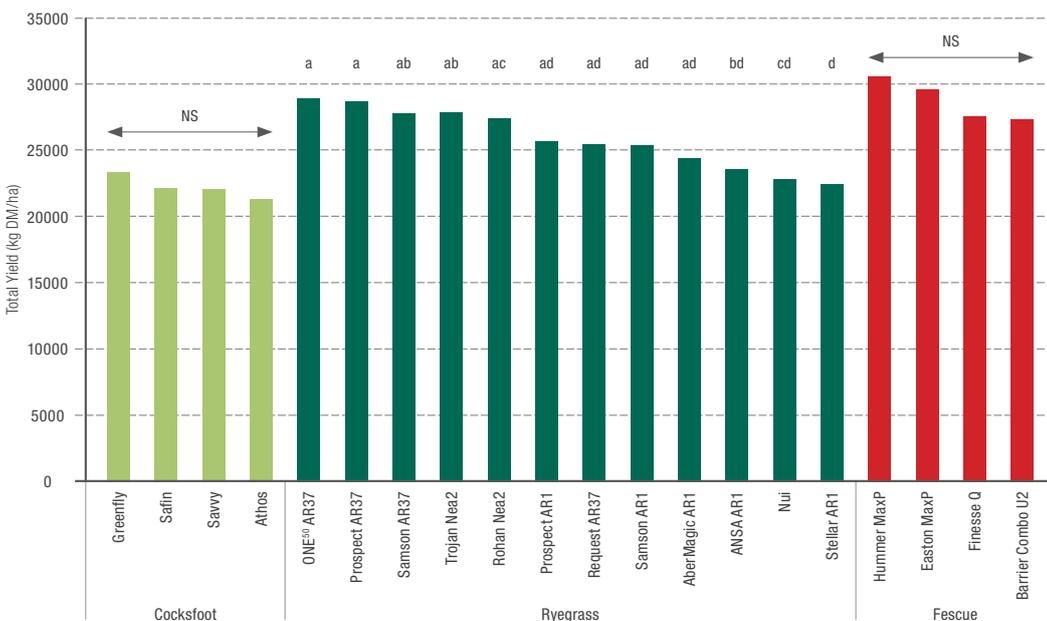


Figure 4 shows the replicated cultivars at Southburn separated out in to their species.

Note: The significance letters are only relevant within a species, e.g. the ryegrasses compared to the other ryegrasses and not to the cocksfoot or tall fescue.

About Southburn

This site is one of many gateways across New Zealand that Agricom use to research and analyse production and persistence, understand the critical link between products and grazing management for maximum yield, and realise the potential of endophyte.

Species: cocksfoot, tall fescue, perennial ryegrass, Italian/hybrid ryegrass (demo).

Endophytes: AR1, AR37, NEA2, MaxP & U2.

While the site had a kind autumn in the year of sowing (2014), the year following had less than 50% of the usual annual rainfall, with very minimal rainfall all summer until March 2015.

The 2015/16 summer was setting up for a dry season, but was saved by a significant rainfall mid-January. January 2016 had more rainfall than the combined amount from both January 2014 and January 2015.

Spring 2016 was very kind with plentiful soil moisture, allowing for high growth rates which resulted in a spring yield of 6583 kg DM/ha compared to 2728 kg DM/ha grown in the Spring of 2015.



19 March 2015



Mid Jan 2016



Late Jan 2016
(after 80mm rain)



21 April 2017



March 2016



12 October 2016 - Showing the difference in heading date between Samson (left), Request (middle) and Prospect (right).



12 October 2016 - Showing the difference in early spring growth between Easton MaxP tall fescue (left) and ONE50 AR37 late flowering perennial ryegrass (right).