MONARO FARMING SYSTEMS

Monaro Farming Systems

2019 Annual General Meeting

11th September 2019

Reports and Meeting Papers

Table of Contents

Agenda

Start: Lunch 12.00 to 1.00pm

- 1.00 – 1.45pm - Benchmarking (Monaro KPI's) – Sandy McEachern
- 1.45 – 2.30pm - Final results LAMB finishing – GrazProphet
- 2.30 - 2.40pm – Native Vegetation Update – John Murdoch
- 2.40 – 3.00pm – Afternoon Tea
- 3.00 - 3.45pm - Aust Ag Land Price Outlook – Rabo (Wes Lefroy)
- 3.45 - 4.30pm - Seasonal Outlook - GrazProphet
- 4.30 – 4.45pm - Preliminary results steer finishing – GP
- 4.45 – 5.00pm – Final Summary Tables – Drench Trials
- 5.00 – 5.30 pm - **Monaro Farming Systems AGM**

Close: Drinks 5.30pm

Chairman's Report 2019 – Richard Taylor

Droughts can be defining times for farm businesses. The pressure on decision making intensifies, and Mother Nature can punish our mistakes severely. Anyone who has farmed through tough times knows that getting it wrong is a searing experience. The natural reaction to this is to become more conservative, to try to ensure it never happens again. However, becoming too conservative limits our ability to take advantage of the better years. We need to constantly work toward building better farming systems that can take advantage of good years, while still being able to preserve our livestock and natural resource base in the bad.
While most of our time as farmers is spent getting things done, and implementing the decisions we make, it is making the best decisions that is the key advantage of successful farms.
It is for this reason the primary role of MFS should be always to deliver high quality information to help farmers make the best decisions possible. Where there are gaps in this information, we look to design and seek funding for projects to fill these knowledge gaps.

In the last twelve months, our core programs were again well supported. There were 390 soil tests submitted, to take total tests over the 3000 mark. 13 farms participated in financial benchmarking, and two critical seasonal outlooks were delivered. The Worm Club continues to provide a snapshot of worm status on the Monaro, and we encourage producers to continue to submit their tests results.
Some of our projects were completed, with 24 drench resistance tests completed under our AWI worm project, to give the Monaro perhaps the best database of drench resistance status in the country. The lamb finishing project has completed its second and final year, with results supporting the Grassgro modelling that a component of finishing pastures can significantly boost farm profits.

Other projects are continuing, including a steer finishing project, a lamb supplementation project, Richard Simpson's sulphur project, summer pasture options, and phosphorus efficient legumes. The Next Generation Forecasting project has recently installed an additional five soil moisture probes on the Monaro, and within the next twelve months should be generating weekly seasonal outlooks for pasture growth at all soil probe sites.

The MFS role in facilitating native vegetation work has resulted in Stuart Burge's Monaro Kangaroo Grass Strategy. In conjunction with work done by the LLS, we now have a much better understanding of the extent of medium and high conservation grasslands on the Monaro, and how best to protect them. This has already translated into revised definitions for protected grasslands under the Federal EPBC Act, and in the next twelve months we expect there will also be changes to the State vegetation assessments, as well as the introduction of Monaro specific codes, and a whole farm mapping option for producers.

There are additional projects on the drawing board for seeking funding, including investigating Lovegrass herbicide resistance, quantifying the roles of Giberellic acid and nitrogen in winter feed production, robotic spot spraying, and examining greenhouse gas emissions from our different farming systems.
With plenty of activity, and a national reputation as a leading farming group, in many ways MFS is in a very good space. However, we do have serious challenges. We have been very dependent in the past on the LLS (and previously the CMA) for funding our core administration costs. This funding is currently not available, and MFS accumulated funds will only fund the shortfall for another 18 months. This is a critical issue for the Board.

A big thanks to the Board for another year of hard work, with special thanks to Georgie Hood who is now retiring after four years on the Board. Georgie has greatly upgraded and professionalised our financial reports and our HR and WHS systems.

The most important person in MFS's 12-year history has been Nancy Spoljaric, who has decided to finish her role at the end of 2019. Nancy skills, commitment, and positive attitude have been central to the success of the group. I would like to take the opportunity to thank Nancy for all her work, and for making my time as Chairman an easy and pleasant one. The good news is that MFS has secured a very able replacement in Zoe Dawson.

This is my final Chairman's report. After four years in the role, I am delighted to report that John Murdoch will be taking over at the September AGM. The role requires a significant commitment of time and energy, so we are very grateful to John for taking it on. John will be only the fourth Chairman of MFS, with Dave Mitchell, Oli Cay and myself each serving a four-year term. I wish John all the best, and am sure he, Zoe and the very capable Board will take MFS to a new level.

Richard Taylor.

MFS Statement of Profit & Loss – For the Year Ended 30 June 2019

2018		2019	Notes
	Income		
	Government Grants		
73,092	LLS Support	1,733	**1**
26,364	Membership	25,187	
70,299	Other Industry Grants	204,250	**2**
15,640	Sponsorship	11,920	**3**
2,592	Interest received	1,669	
187,987	**Total Income**	**244,759**	
	Expense		
1,023	Advertising	1,510	
207	Bank Charges	340	
5,183	Catering	3,424	
132,406	Contract Work	164,604	**5**
643	Depreciation (20%)	530	
-	Field day and workshop expenses	447	
1,055	Profit/loss on fixed assets		
8,369	Materials / Capital Items	4,529	**6**
	Office Operating Costs		
873	Phone and internet	1,157	
943	Postage	957	
429	Stationery	500	
676	Subscriptions	2,984	**7**
1,037	Sundry	326	**8**
1,542	Training	1,648	**9**
6,825	Travel, Accommodation & Meals	5,763	**10**
58,057	Wages	49,938	**11**
2,214	Insurance	2,440	**12**
(24,528)	Reimbursed expenses	(21,760)	**4**
196,953	**Total Expense**	**219,337**	
$(8,967)	**Net Income**	**$25,422**	

MFS Balance Sheet – As at 30 June 2019

2018		2019
	ASSETS	
	Current Assets	
	Bank accounts	
19,931	Monaro Farming Systems Inc	105,200
21,615	Cash Maximiser Account - NAB	12,104
94,403	Term Deposit - NAB	47,822
-	NGF Project bank account	94,005
-	Accounts Receivable	-
135,949	Total Current Assets	259,131
	Fixed Assets	
1,713	Computers	2,846
500	Electronic Equipment	500
(697)	Less: Accumulated depreciation	(1,227)
1,515	Total Fixed Assets	2,119
137,464	**TOTAL ASSETS**	**261,250**
	LIABILITIES	
	Current Liabilities	
-	Payroll liabilities	4,167
(1,800)	GST Payable	10,812
-	Net income on NGF Project	74,009
-	Provision for Long Service Leave	7,577
(1,800)	**TOTAL LIABILITIES**	**96,565**
$139,263	**NET ASSETS**	**$164,685**
	EQUITY	
148,230	Opening Balance Equity	139,263
(8,967)	Net Income	25,422
$139,263	**TOTAL EQUITY**	**$164,685**

Total bank balance's on the 9th September 2019 = $56,547 (main operating account) + $61,689 (cash maximiser account) + $47,751 (term deposit) = **$165,988 net position**

Out of a **total of $165,988** we have approx. **$55k** already committed to specific projects leaving a balance of **$111k** in the operating budget to continue delivering our core projects (seasonal outlooks, soils and worm club) as well as new initiatives.

There is $81,696 in a separate bank account which has been set up for the **Next Generation Forecasting** project and has its own budget and financial reporting system.

Financial Report Notes

Note 1: Extension payment for MFS Coordinator Services - Agreement SE 02508

Note 2: Other Industry Grants Include;

	Amount	**Funder**
MLA PDS lamb finishing (16.16)	$12,048	MLA
RnD4P MLA P eff legumes(16.16)	$3,500	MLA
Solving sulphur story (17.2)	$47,627	MLA Donar Company / MFS
AWI war on worms (17.21)	$5,500	AWI
LLS native veg weeds (17.19)	$107,000	LLS
MLA PDS fin steers (18.21)	$18,575	MLA
LLS grant for soils club	$10,000	LLS

Note 3: Lambpro $1,000, AgriWest Rural $1,000, Landmark $1,000, Elders $1,000, Incitec soil test rebate $3,920, Rabobank $2,000, NAB $1,000, Zoetis $1,000

Note 4: Reimbursed expenses includes money for soil tests above the MFS offered credit, Invetus worm kits supplied on request by MFS and $15,973 reimbursed to MFS from benchmarking participants for group activities

Note 5: **Contract Work Main Expenses**

- Seasonal Outlooks (8.1) - $14,381 [3 X Seasonal Outlooks (GrazProphet), Spring 2018, Summer 2019 and Autumn 2019 (includes moisture probe modelling)]
- Soils club (10.7) - $19,926 [Bulk submission to incitec - soil test analysis costs]
- Benchmarking groups (14.13) - $21,600 [Annual MFS field day presentation and closed group sessions and farm reports]
- Moisture probes (16.15) - $1,000 [Hosting fees for probe sites]
- Lamb finishing (16.16) - $11,584 [Pasture sampling and assessments - 9 sites plus data analysis and reporting and presentations]
- Fast track solve the Sulphur story (17.2) - $35,637 [MFS cash contributions plus field services, trial set up and soil, biomass analysis - CSIRO technical team]
- AWI war on worms (17.21) - $4,707 [Worm tests for drench resistance trial including trial testing and member credit tests]
- Steer finishing (18.22) - $3,091 [Pasture sampling and assessments - 6 sites]
- Native veg/weed man (17.19) - $37,180 [Completion and submission of Final Grasslands Review report and 4 farm case studies - Stuart Burge]
- Other - $15,440 – [Main costs include $1,250 for employment contracts (as MFS became an employer), $3,920 for website re-development and $8,740 for development of the live weather and soil moisture dashboard]

Note 6: Worm kits (Invetus), EID Sheep tags (lamb PDS), chemicals, drench guns, ear tags for drench trials, professional printing jobs, etc.

Note 7: 3 X Reckon Hosted licenses (accounting software), 3 X Office 365 licenses, website annual subscriptions for Vimeo and Word Press

Note 8: Sundry - vouchers for survey prizes

Note 9: Training - $375 for admin officer to complete remote Reckon on-line training, $1,273 for Hay Inc Scholarship training (majority repaid)

Note 10: Executive Officer and Admin Officer travel

Note 11: Executive Officer and Admin Officer wages

Note 12: MFS Insurances including Directors Association Liability, Public Liability and Voluntary Workers personal accident

PROJECT REPORTS

MFS Project **08-1 - Grass Gro – Seasonal Outlooks**

Project Leader: Richie Taylor

Project Manager: Nancy Spoljaric

Project Collaborators: Doug Alcock (Graz Prophet Consulting), Phil Graham (Graham Advisory)

Project Funders: South East LLS, MFS

GrassGro® modeling – Seasonal Outlooks

Seasonal Outlook projections (GrassGro®) at strategic decision-making times of the year gives producers critical soil, pasture and livestock information to base farm management decisions and capitalise on opportunities. Outlooks are typically presented to members in Autumn and Spring with occasionally an additional Summer outlook if needed. Annual costs for the program are approx. $11k which is currently funded out of MFS operational funds following significant financial support from SE Local Land Services.

These seasonal outlooks presented by Doug Alcock have become one of MFS cornerstone projects. The outlooks now include analysis at four moisture probe sites across the Monaro including Muniong (Adaminaby), Bukalong (Bombala), Bungarby and Delegate and are based on a self-replacing merino wool enterprise. At the Bungarby site two (2) farm systems are presented on both a native and improved pasture.

At each site the following is reported;

- → Cumulative rainfall
- → Temperature
- → Plant available water (PAW)
- → Ground cover
- → Green herbage mass projections
- → Ewe condition score projections
- → Likelihood of supplementary feeding
- → Risk of breaking minimum ground cover rule (>70%)
- → Impact of not feeding
- → Exploration of seasonal management options – opportunities, strategies to deal with challenges

Funding from the Next Generation Forecasting (NGF) project this year has allowed MFS to install a further five (5) moisture probes across the region giving a wider representation of soil types and enterprises;

1. Coolringdon (Cooma) – Basalt, SR merino flock, model two (2) sites – native and improved pastures
2. Gaerloch (Counteginny) – Granite, SR merino flock
3. Maffra (Cooma) - Red/Black Basalt, SR merino flock or merino wethers
4. Cobana (Bombala) - Granite/Shale, 1st X ewe system
5. Tintagel PC (Mila) - Basalt/Granite, Wool/Sheep-meat/Cattle - SR Beef Herd

Benefits of seasonal outlooks;

- → increased confidence and understanding of trigger points
- → pasture growth potentials, soil water holding capacities, different wilting points of certain pasture species
- → translate this to the amount of feed availability for the next three months & the likely impacts on stock performance & condition score, weight gains, lambing/calving and weaning success rates as well as the probability of needing supplementary feeding etc.
- → better understand the different water use efficiencies of crop and pasture systems;
- → better understand soil and water interactions at critical crop & pasture growth stages;

** Recent moisture probe site – Gaerloch, Counteginny*

MFS Project 10-7 **Soil Club – whole farm soil fertility management**

Project Leader: Owen Smith

Project Manager: Nancy Spoljaric

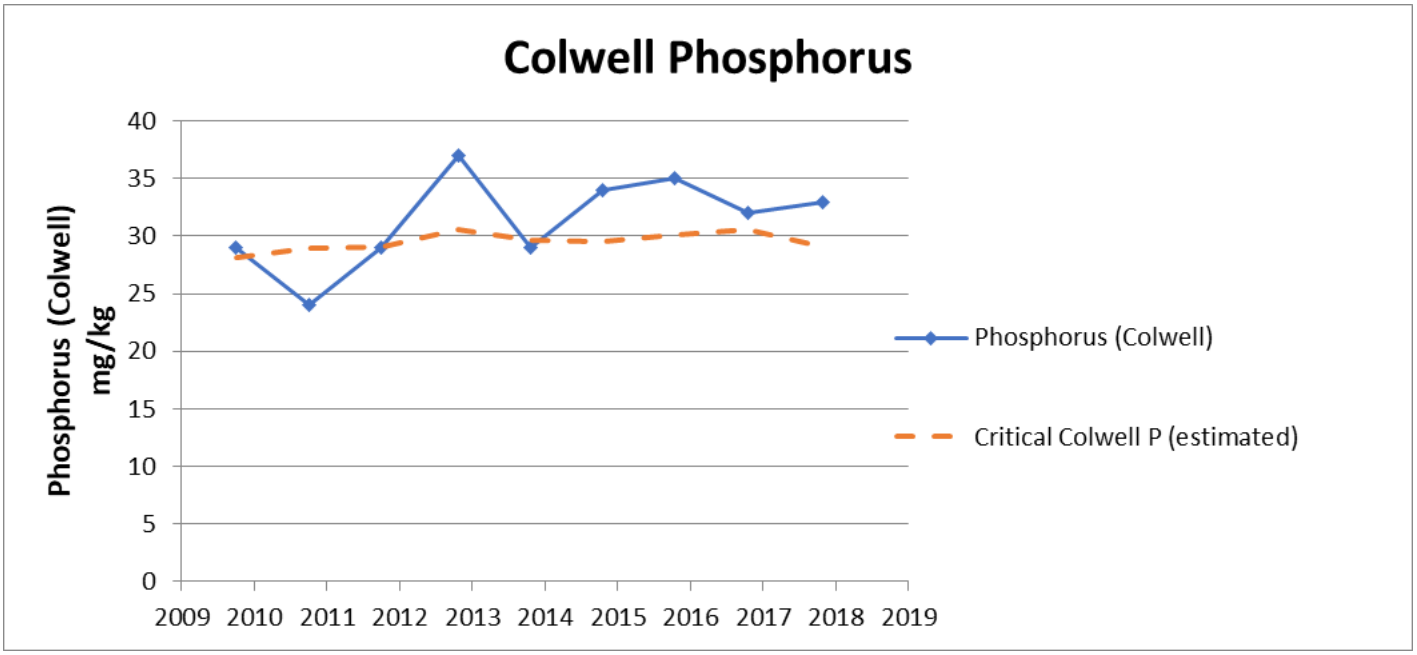
Project Funder: South East LLS / MFS

Project Collaborators: Dr Richard Simpson (CSIRO), South East LLS, TFS, HLN

Background

The MFS Soils Club was initiated in 2010 and now involves 98 farm businesses, has tested a total of 1602 paddocks and has a data set of >3,000 tests representing the three main soil types on the Monaro (basalt, granite and shale). The work done by the soils club has improved the skill level, understanding and capacity of producers to manage their soil fertility and improve pasture productivity.
The data collated for individual paddocks over the previous nine (9) years now provides solid evidence for producers to be confident in basing fertilizer investment decisions on the trend lines indicated.

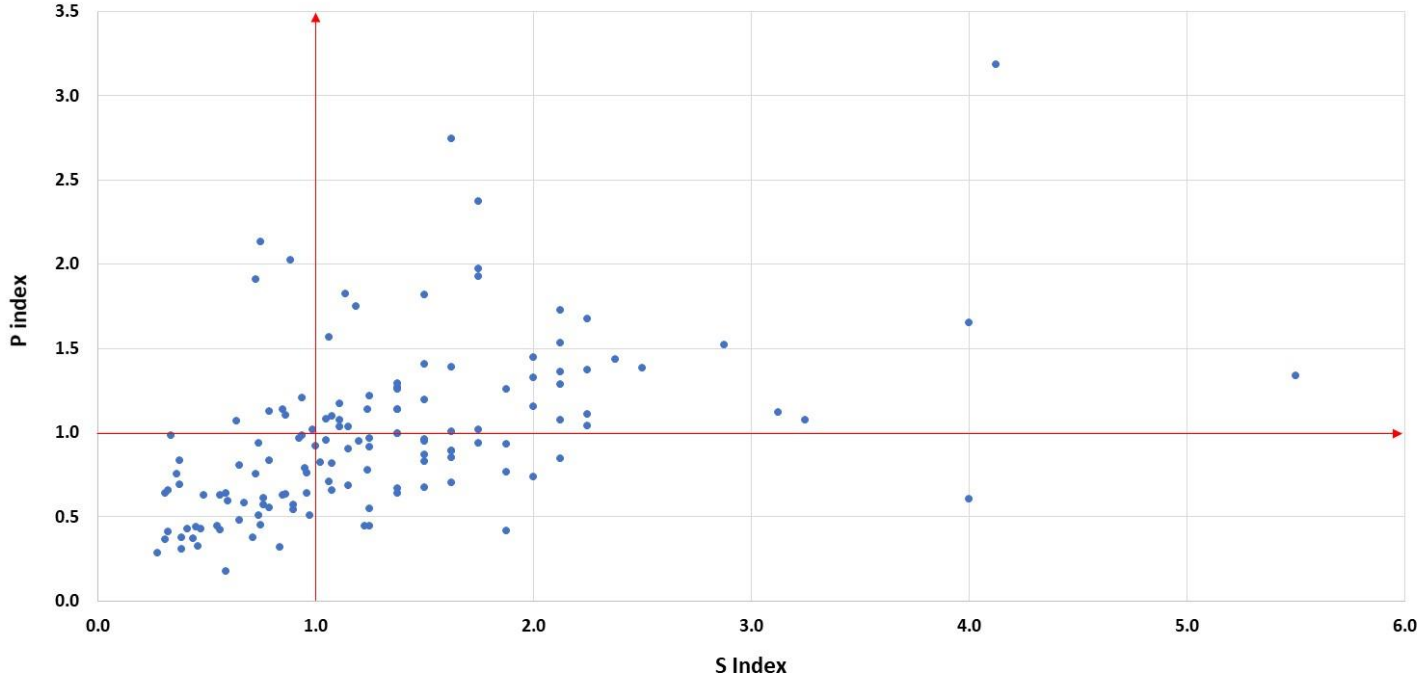
Highlights to come out of the 2018 Annual bulk soil submission include;



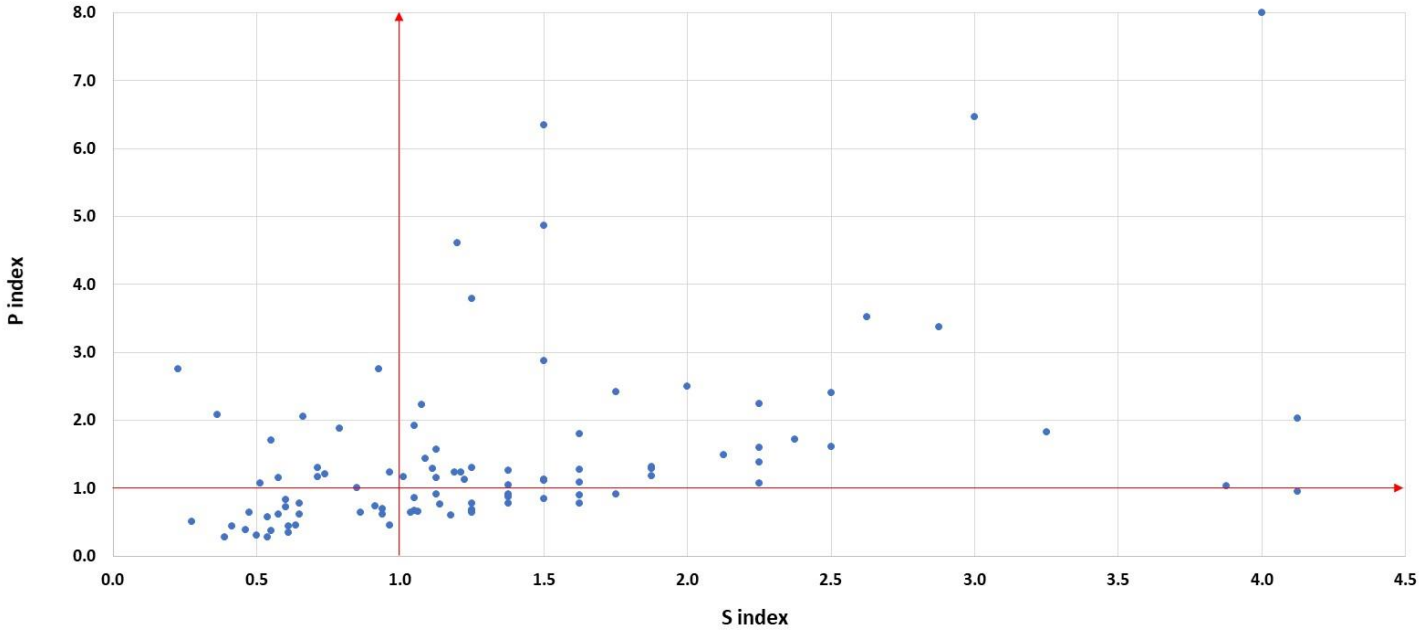
"Most of you have enough years of data now to be confident in basing your decision on the trends."
Phil Graham, 2018 Soil Club presentation

In 2018, 390 soil tests were submitted as a bulk lot to Incitec. The results from the bulk soil submission were presented according to their PBI level.

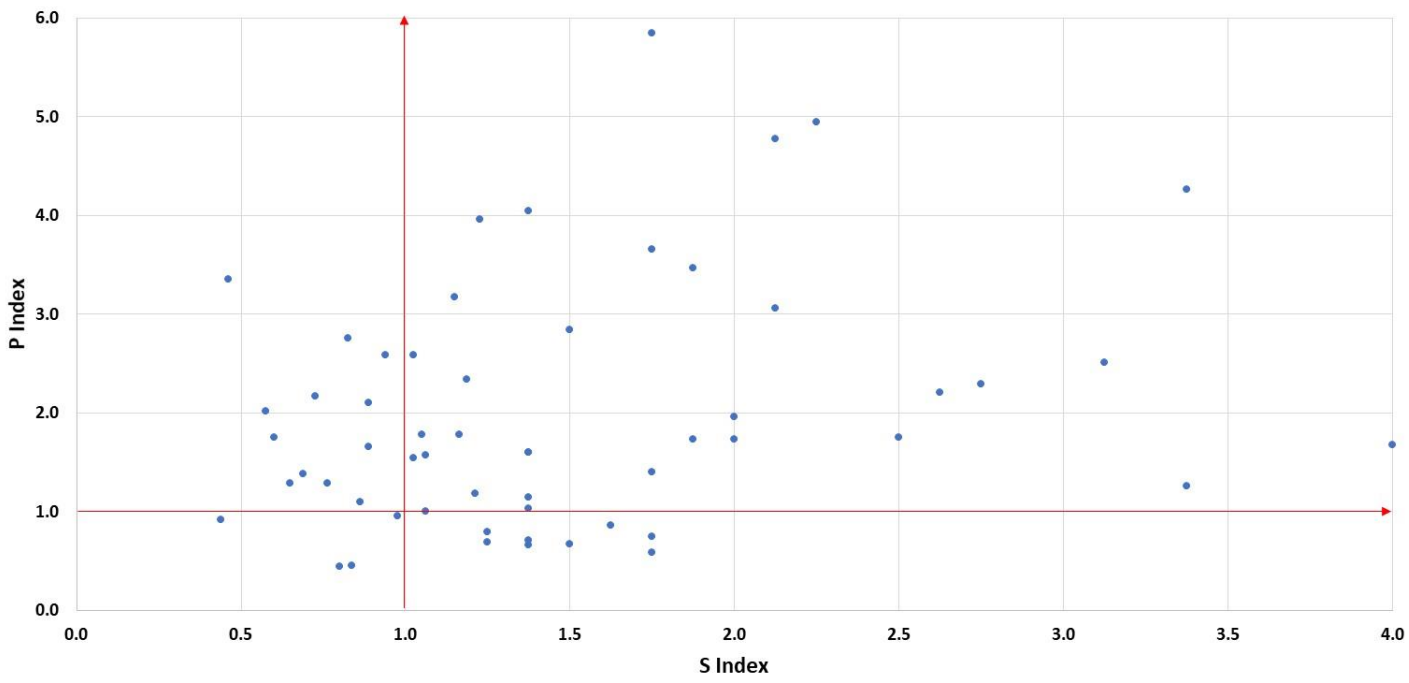
PBI up to 80



PBI 80 to 150



It is only the paddocks in the bottom left box made by the red lines which are responsive to both P & S elements. The paddocks in the top right box are above the critical values for P and S.



This graph demonstrates the majority of paddocks with a PBI >=160 are sufficient for P and S. These results suggest applying fertiliser to these paddocks would not give a good return on investment as these nutrients are already non-limiting.

Phil also gave a presentation comparing four (4) culling strategies and cumulative cash flow.

Table 1: 4 culling strategies based on average genetics – cumulative cashflow to 3 years post drought

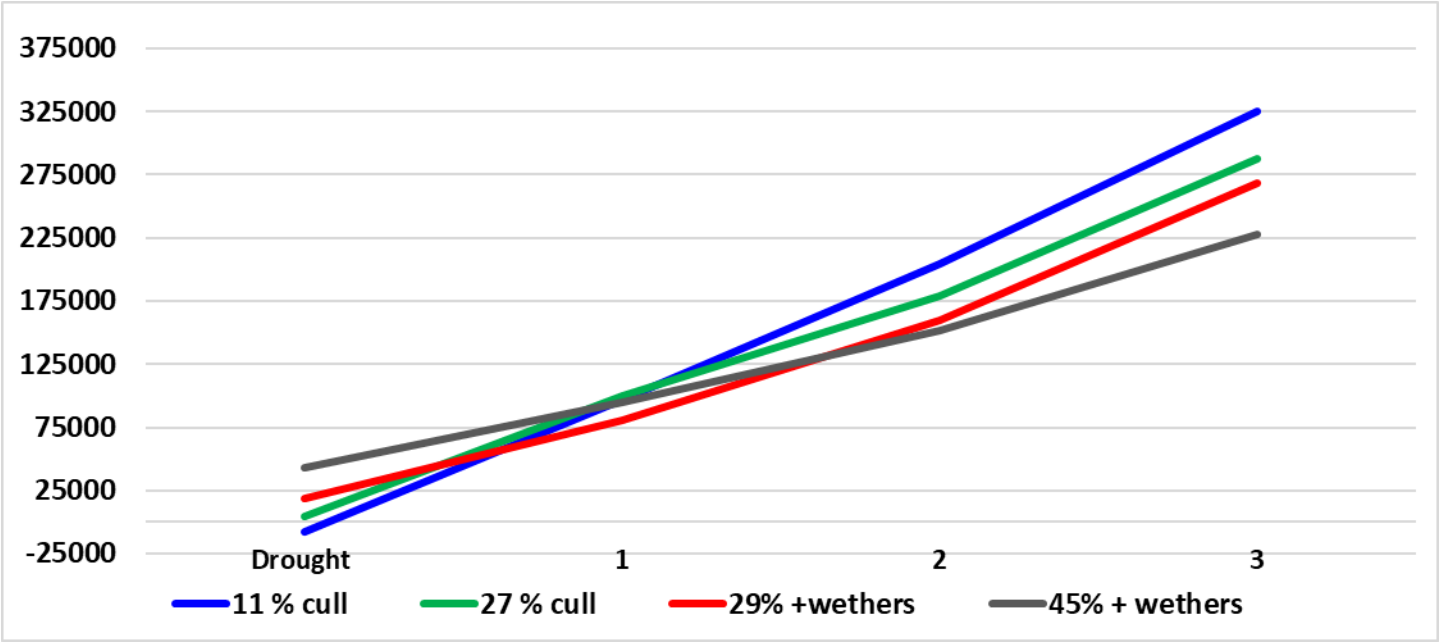
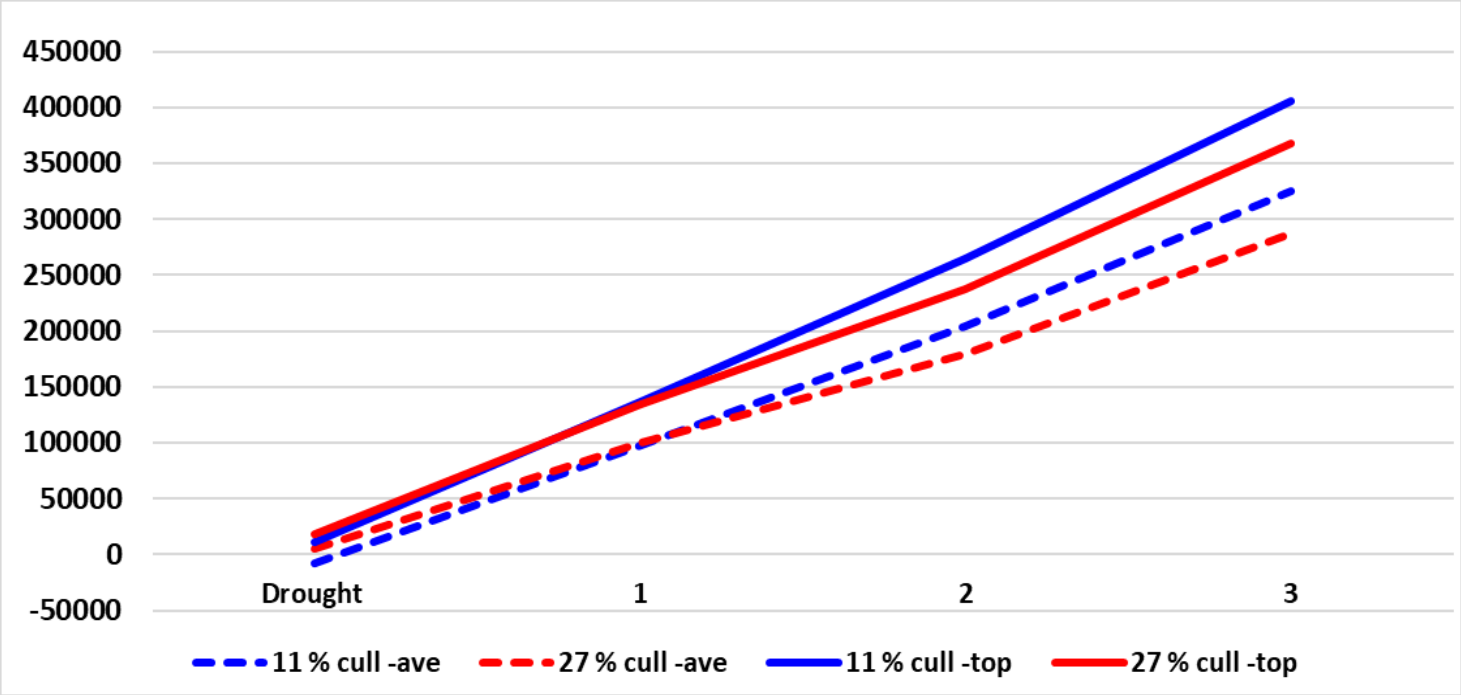
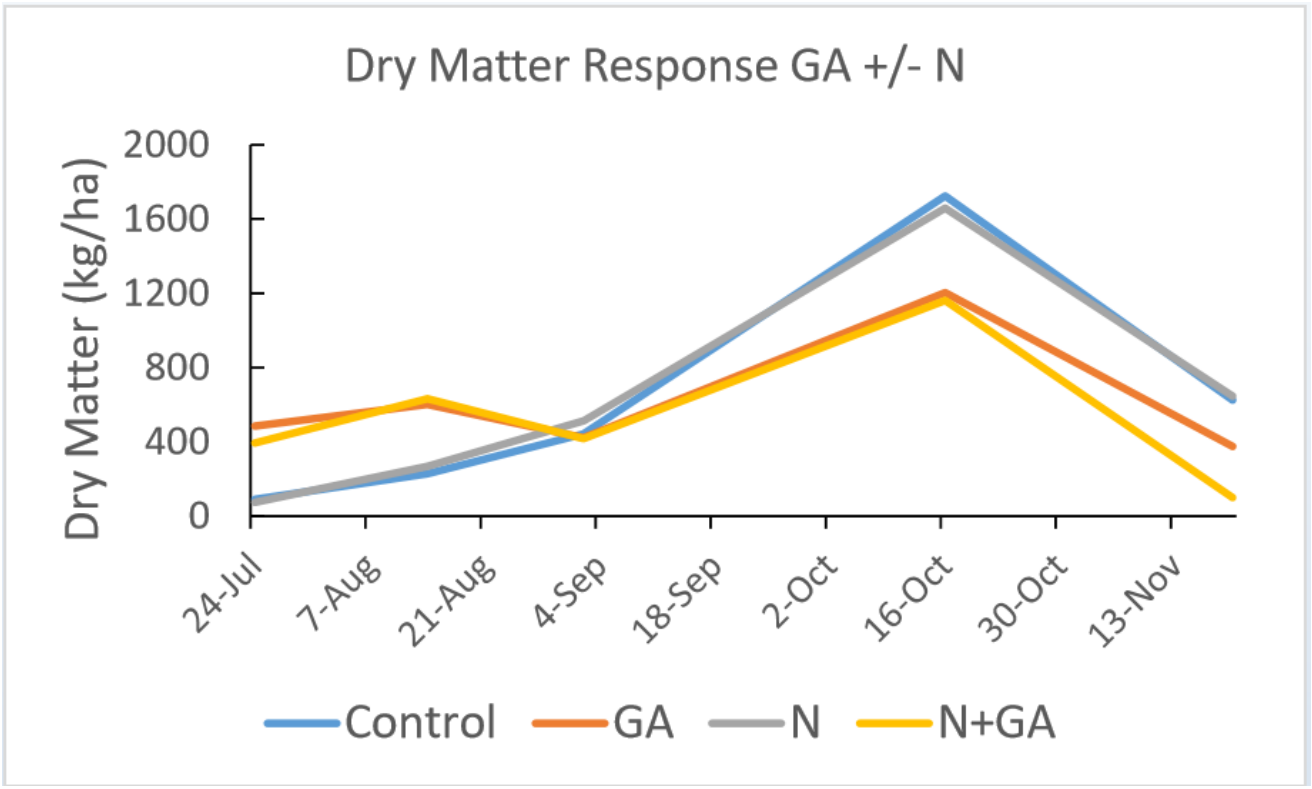


Table 2: The value of top versus average genetics - cumulative cashflow to 3 years post drought



Jim Virgona (Graminus Consulting) gave a presentation on the possible **role of nitrogen and gibberellic acid** on the Monaro to stimulate growth over the winter period. This presentation can be found on the MFS website at https://www.monarofarmingsystems.com.au/presentations/.



MFS Project 11-10 MFS Agricultural Training Initiatives (on-going)

Project Leaders: Bea Litchfield

Project Collaborators: MFS Host Producers, Hay Inc, Nancy Spoljaric

Project Funder: MFS

At the conclusion of the 2018 traineeship program, the Board decided it was timely to re-assess the value of continuing to run the program and to assess whether the associated on-going risks and challenges continue to be in the group's best interests.
Following this assessment, the Board agreed to place the traineeship in its current form into recess for an indefinite period and to replace the traineeship with the offer of a scholarship.

In 2019 MFS offered a **farm scholarship to the value of $2,000** for a young local person already working in Agriculture or interested in a long-term career in the industry, to attend the Hay Inc Rural Education Program.
The scholarship included attending and completing the Hay Inc Certificate which includes a range of "hands on" workshops and workplace mentoring, delivered on rural properties throughout the Hay NSW district. It was a fantastic opportunity to gain agricultural skills, learn & work with other young people, and explore on-going workplace opportunities, in an on-farm experience.
Crystal Rose Barns was awarded this scholarship but unfortunately due to personal reasons (an unexpected family illness) she was unable to complete the training.

Again the Board discussed whether we continue with the scholarship offer in 2020 and it was agreed to replace this initiative with facilitating placement of students or young people looking for work in the agricultural industry on the Monaro. MFS has now developed a **page on our website with an EOI form** which allows prospective students or young people to register their interest in working on the Monaro for various time periods (1 week to several months). This EOI form, once submitted, is automatically directed to the MFS EO who will forward throughout our networks. It is hoped this service will assist students with placement opportunities and producers who are looking to fill short or long term labour gaps.

Re-cap of the MFS traineeship program – trainee testimonials 2010 - 2018

The MFS program was amazing, I learnt a lot from it and am hoping one day to get back working on a property! I still use a lot of the skills I learnt throughout the year when I work on weekend on properties etc. I started the trade to get more experience in other areas and a general interest into the auto electrics as well I'm glad I have done both now and feel I have got a lot out of both Jobs! I still recommend the program to a lot of people especially young agricultural people as it is a really good way to learn about the farming process from a lot of different perspectives and the skills you get out of it are a bonus! **Cameron Johnson, 2014 MFS trainee**

I'm currently in my 3rd of my university degree studying a Bachelor of Agricultural Science, I have one more year until I finish, and I plan to pursue a career in pasture agronomy. I'm doing a wool classing course by distance and hopefully one day I can run my own sheep property. MFS was the perfect traineeship, it encouraged me to pursue my career in agriculture, it was hands on which I loved and the best part was learning the different ways to do one management practice from a broad range of farmers. The knowledge that I learnt from my traineeship has transferred to my university degree and I couldn't be thankful enough. it's a brilliant program and I hope it keeps running in the future. **Kate Connelly, 2014 MFS trainee**

I just want to say again thank you so much for accepting me as the 2017 trainee. Although I had some issues I absolutely loved my time with the MFS and would love to do it all over again if I could! I really hope this program does continue as it was an incredible experience and I truly learnt so much that is going to help me for the rest of my life! So again thank you for everyone involved for making it such a positive and fulfilling experience, **Georgie Constance, 2017 MFS trainee**

The 12month traineeship was a blast. I learnt a lot from some of the Monaro's leading farmers and graziers. The MFS Traineeship is defiantly worth doing and is good to have it on the resume. A couple of company's I have worked for asked about it and checked out the website, and liked what they saw and said "we wish we had something like that near us. **Daniel Rowson 2012 MFS trainee**
[Daniel now works full time on the Monaro as a manager for Mick Findlay for his properties Arthella, Deeban & Rockybah.]

MFS first trainees, Jake Goodlock & Dan Rowson


Kelsey McDonald crutching at Gaerloch


Kate Connelly helps out vaccinating weaners at Slap Up

HAYINC. RURAL EDUCATION

MFS MONARO FARMING SYSTEMS

MFS Project 14 – 13 **MFS Comparative Analysis Group (2013 – Present)**

Project Leader: Georgie Hood

Project Collaborators: Holmes & Sackett, Nancy Spoljaric, MFS Producers

Project Funder: Rabobank, MFS, MFS producer members

Objectives and Activities

The MFS benchmarking group continued strongly last year with 13 farm businesses taking part. The group increased the number of meetings to 3 closed sessions, two of which were on farm (Lisa Phillips and Mick Shannon). The group also decided to benchmark their budget for 2018-19, which provided the opportunity to trial different scenarios and the potential effect on the key performance indicators.
The group continues to mature and the benefit of the interaction between the members increases in value.

Farm Visit – Lisa Phillips, Slap Up

This program is run as a full cost recovery model with the benchmarking members paying an annual fee which covers the full cost of the reports and closed sessions. MFS subsidises the cost for the general presentation given by Sandy McEachern at our Spring Field Day every year as it is agreed the data gives valuable information to the whole membership and Industry on KPI's for the Monaro.

Achievements to date:

- Documentation of 5 years of key production data for 15 top performing Monaro farm businesses.
- Have solid key performance indicators for Monaro grazing businesses for wool, prime lamb, cattle and cropping enterprises.
- Underpins future project applications by supplying comparative analysis enterprise data.
- Have documented achievable/target levels of production for the Monaro (KPI's).

Interesting statistics and points:

- Top 5% of the Group show a 13% Returns on Assets Managed (ROAM) compared to 6% for the average.
- The ROAM for the group is higher than the rest of the Holmes and Sackett benchmarking data by approximately 1-2%.
- Average Farm Profit ($/HA) has improved across the benchmarking group from $87/HA in 2013/14 to $190/HA in 2017/18.
- Accurate financial and production targets for Monaro producers to use to assess their own business.
- Analysis of Benchmarking trends communicated to wider members.

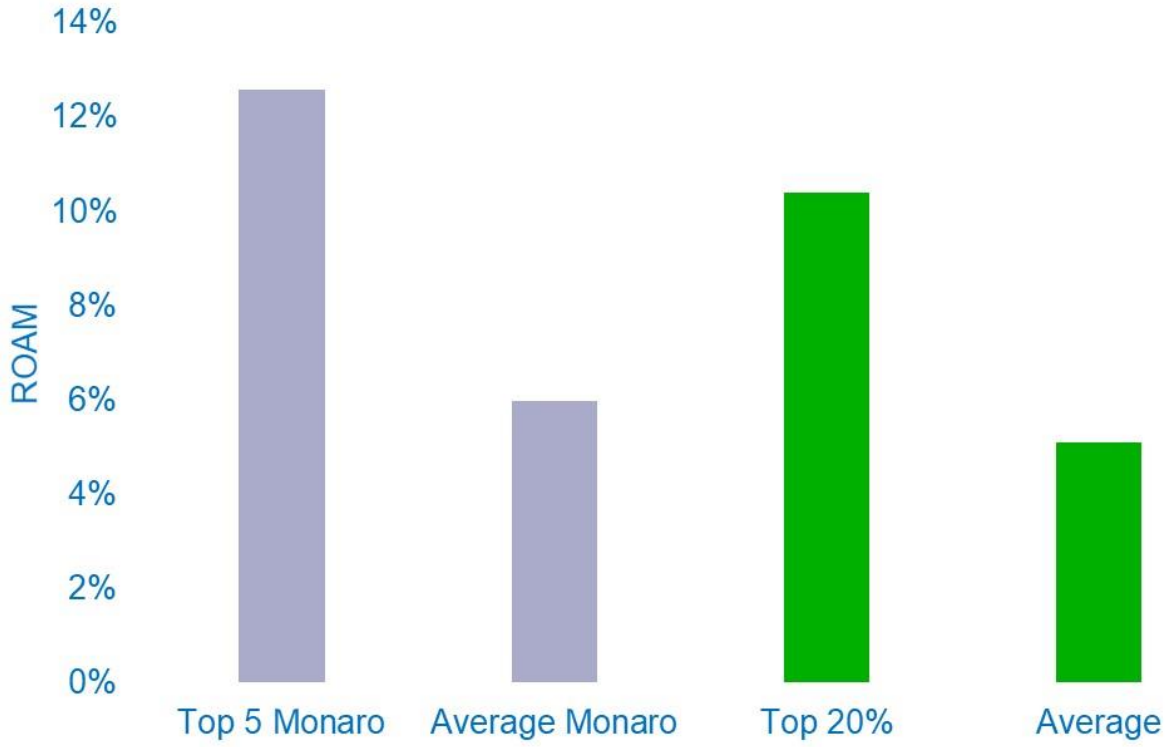
Next year, new members are encouraged to join the group. The aim is to make the group as inclusive and welcoming as possible.

Rabobank

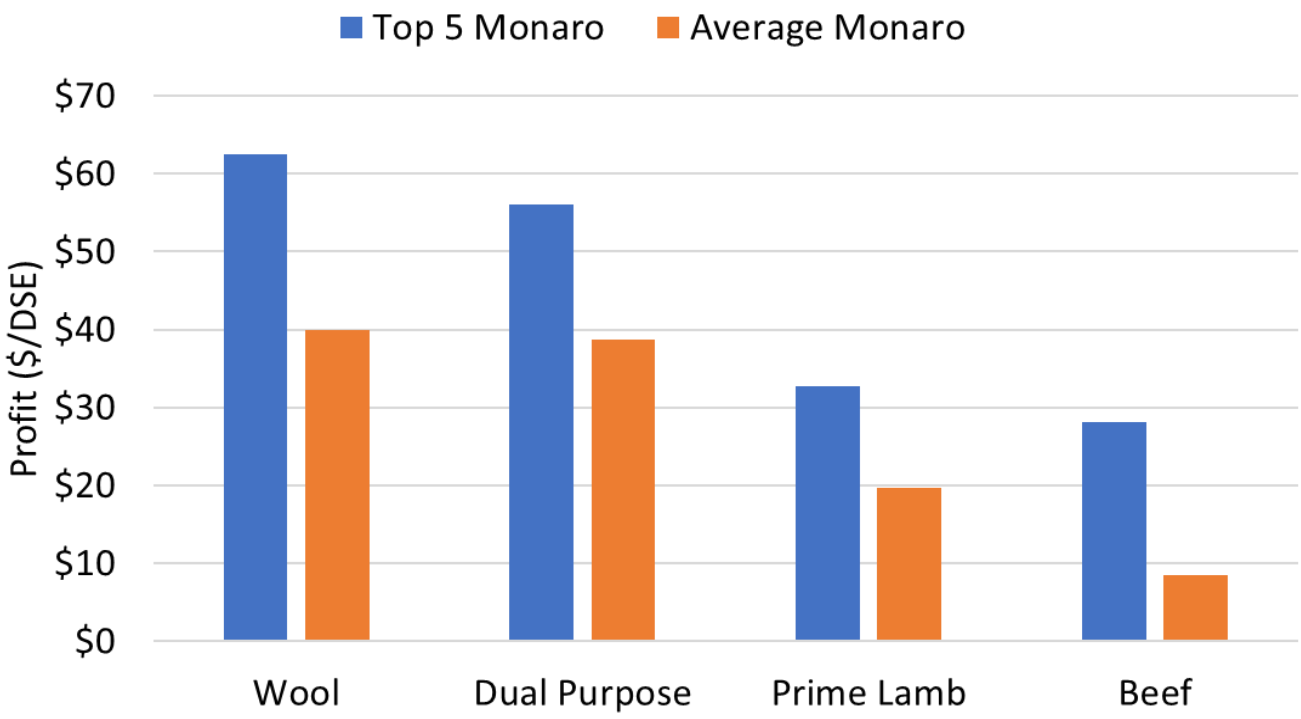
HOLMES SACKETT

Below is a **selection of slides from the 2018 general benchmarking presentation** by Holmes & Sackett.

Comparable profitability to the remainder of the benchmarking database



You know a commodity is going well when there is not more variation within than between enterprises



MFS Project 15 – 14 **MFS Worms Club**

Project Leader: Richard Taylor

Project Collaborators: Invetus Pty Ltd (formerly VHR), Dawbuts, MFS Producers, University of New England, Paraboss, Nancy Spoljaric

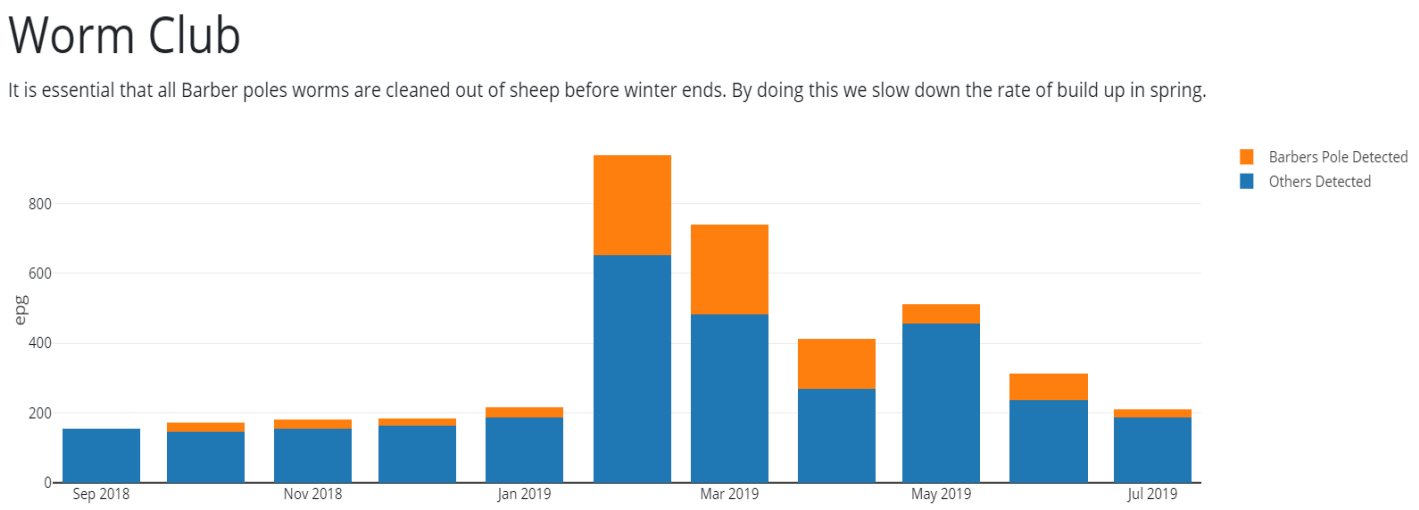
Project Funder: MFS

The MFS worms club data base continues to grow with a total of 750 worm test results from 57 producers. These results are continually updated to the MFS website page as a live graph. Members are given 2 free worm test Invetus KITS (worth $25) as part of their MFS membership package each year to encourage regular testing and growth of the data base. It is planned in the future to report results as "district specific".

We are currently negotiating with our developer a way to also report data other than the average epg per test ie the maximum and minimums to give an idea of the range of results that are being received. This would take the form of a "heatmap" table using colours to represent scale. The headings for this table could possibly be;

- number of tests
- average epg
- maximum epg
- no. with culture
- % barbers pole

MFS Website Graphic
https://www.monarofarmingsystems.com.au/weather-station-report/



MFS Project 17 – 21 **Waging the War on Worms**

Project Leader: **Richard Taylor**

Project Collaborators: MFS Host Producers, WormBoss, AWI, UNE, Dawbuts, Dr Matt Playford, Nancy Spoljaric

Project Funder: AWI

To date MFS has conducted a **total of 24 drench resistance trials on** properties ranging from Delegate to Jerangle. We have also initiated 3 fluke trials however the Day 0 FEC were too low to warrant continuing with the collections so our total of completed fluke trials still stands at one (1). The last 12 drench trials conducted also included **abamectin** and **derquantel (Startect)** which brings the total number of treatment groups to eight (8) including the control.
The worm test credit (valued at $150) offered to members from Sept 2018 onwards as part of this project has been a significant incentive for producers to regularly conduct worm tests and these results have been fed into the data base.

Barbers pole worm made up the majority of counts with black scour and brown stomach worm making up the three major types. Resistance results varied across farms depending on worm type. Breakdowns in the chemicals albendazole, closantel, abamectin and moxidectin was common in barbers pole populations with resistance to these chemicals also present against black scour and brown stomach worm.

Overall Drench Effectiveness - MFS Drench Trials - 2017 - 2019

SINGLE ACTIVES

Farm	BZ (White)	Levamisole	Moxidectin	Closantel *	Monepantel (Zolvix)	Derquantel + Abamectin (Startect)	Abamectin
1	57%	81%	75%	16%	100%	NT	NT
2	67%	93%	82%	0%	99%	NT	NT
3	66%	100%	100%	56%	100%	NT	NT
4	95%	100%	100%	73%	100%	NT	NT
5	63%	96%	66%	49%	100%	NT	NT
6	66%	20%	82%	0%	100%	NT	NT
7	77%	96%	73%	91%	100%	NT	NT
8	85%	100%	100%	77%	100%	NT	NT
9	42%	97%	95%	8%	100%	NT	NT
10	83%	75%	100%	17%	100%	NT	NT
11	83%	98%	100%	NT	100%	100%	100%
12	71%	94%	35%	94%	NT	NT	0%
13	88%	98%	99%	61%	100%	99%	94%
14	81%	83%	87%	0%	96%	100%	52%
15	90%	98%	61%	97%	100%	NT	NT
16	88%	100%	85%	76%	100%	100%	0%
17	24%	88%	86%	NT	97%	98%	97%
18	67%	99%	59%	95%	100%	100%	15%
19	84%	100%	20%	98%	100%	100%	37%
20	78%	99%	71%	88%	100%	NT	0%
21	0%	94%	0%	0%	100%	98%	0%
22	60%	99%	0%	78%	100%	99%	0%
Average	69%	91%	72%	54%	100%	99%	36%
No. Farms Effective (>=95%)	1/22	14/22	7/22	3/20	21/21	9/9	2/11

NT = Not Tested

Combinations were still effective to varying degrees on the majority of farms tested however protection periods often significantly reduced. Zolvix (monepantel) and Startect (derquantel + abamectin) were found to be "effective" in all trials with no resistance confirmed.

Overall Drench Effectiveness - MFS Drench Trials - 2017 - 2019

COMBINATION DRENCHES

Farm	BZ/Lev	BZ/Clos ***	Abamectin/ Clos	BZ / Abamectin	Lev/Abamectin	BZ/Lev/Moxidectin (Triple)	BZ/Lev/Abamectin (Triple)	BZ/Lev/Abamectin/ Closantel
1	94%	78%				97%		
2	90%	52%				99%		
3	100%	89%				100%		
4	100%	72%				100%		
5	94%	73%				99%		
6	78%	78%				99%		
7	94%	88%				100%		
8	100%	99%				100%		
9	94%	39%				100%		
10	85%	78%				100%		
11	100%			100%	100%	100%	100%	100%
12	99%			84%	100%	100%	100%	100%
13	98%		99%	99%	99%	100%	100%	100%
14	90%			97%	97%	100%	99%	100%
15	100%	99%				100%		
16	100%			96%	100%	100%	99%	100%
17	91%			99%	100%	99%	100%	100%
18	100%			72%	99%	100%	100%	100%
19	99%			95%	100%	100%	100%	100%
20	77%			89%	100%	93%	100%	100%
21	58%			12%	68%	58%	68%	58%
22	81%	78%	90%	81%	100%	100%	100%	100%
Average	92%	77%	95%	84%	97%	97%	97%	96%

As part of the deliverables for this project, MFS was discussing with ParaBoss the potential to partner with them to develop a nationwide data base. However, after further discussion with the ParaBoss technical committee and with CSIRO - who wanted to develop a drench test and WEC database - Matt Playford indicated that he thought this may be an expensive task that might in fact cost more like $100K.

In conjunction with Bridget Peachey AWI it was decided that we instead scope out the development of a DrenchTests database project, but it will be so that data can be pooled (anonymously) to analyse for trends in development of drench resistance which can then be reported to Industry.

A scoping exercise is currently underway, and a funding proposal will be presented to AWI at the end of October 2019 for such a project if it is considered feasible.

MFS is currently summarizing our results to present at the 2019 Spring Field day and a Final Report will be prepared for AWI and ParaBoss by December 2019 when the project concludes.

A post-project survey is in the process of being developed to distribute to the MFS membership. This will be emailed out to members via survey monkey once the final results tables are distributed. Survey responses will be collated over a two week period and the results and discussions included in our Final Report.

Dr Matt Playford (Dawbuts) gave a presentation of our results at our 2019 Autumn field day.

Worm Type

Farm	Barbers Pole *(Haemonchus)*	Black Scour *(Trichostrongylus)*	Small Brown (*Ostertagia)*	Large Bowel *(Oesophagostomum)*
1	3%	31%	58%	4%
2	47%	16%	23%	14%
3	0%	70%	27%	3%
4	67%	5%	14%	14%
5	75%	17%	7%	1%
6	27%	45%	19%	9%
7	86%	8%	5%	1%
8	87%	8%	5%	0%
9	47%	16%	23%	14%
10	71%	17%	11%	1%
11	2%	15%	83%	0%
12	96%	0%	4%	0%
13	12%	53%	16%	19%
14	88%	9%	3%	0%
15	93%	1%	6%	0%
16	94%	2%	3%	1%
17	0%	29%	71%	0%
18	100%	0%	0%	0%
19	98%	0%	2%	0%
20	98%	0%	1%	0%
21	96%	4%	0%	0%
22	98%	0%	2%	0%
23	37%	13%	39%	11%
Average	**62%**	**16%**	**18%**	**4%**

MFS Project: **Finishing Systems**

Project Leader: John Murdoch

Project Collaborators: Doug Alcock (GrazProphet), MFS Producers, Nancy Spoljaric

Project Funder: Meat and Livestock Australia

MFS Project 16 – 16 - Finishing Systems the Future? (MLA PDS) - LAMB

"Finishing systems for the future" is nearing conclusion with the data set for Year 2 completed. Despite an extremely challenging, dry spring and summer period, eight (8) pasture systems were measured for a second year from October 2018 to March 2019.
These included similar pastures to Year 1 such as lucerne, brassicas, chickory, plantain, legume/clover and perennial pastures. A final summary of Year 1 and 2 results will be presented at our Spring field day in September 2019 and will include a comprehensive economic comparison.
It is expected the overall, take-home messages will emphasise the significant economic benefits that are achievable from retaining and finishing lambs on a variety of "finishing" pastures on the Monaro. This conclusion will be underpinned by actual, validated evidence gathered over two (2) years which show net profit margins considerably higher than the baseline, traditional system of selling lambs as stores (total enterprise GM of $161/ha).

Preliminary Results include;

1. **Production increase in DSE/HA or kg liveweight extra/ha?**
   → Estimate would be increase in DSE/Ha by 0.8-1.5, or an additional KG live weight produced per ha of 20-30 kg/ha

2. **GM results**
   → GM Increase for a brassica system (above baseline store system of $161/ha) was measured at $334/ha
   → Av net profit $ha/yr across all the systems measured = $721

3. **The extra income and extra costs in achieving this GM increase =**
   → Av Net Income Value ($/ha) = $1,227
   → Av Extra Costs ($/ha) = $537

4. **Would 5% (of the total grazing area of a farm) allocated to a Brassica finishing system be realistic across the Monaro?**
   → Yes 5% would be realistic, that's 50HA on 1000 HA farm, 10% would also be a reasonable assumption.

Year 2 Summary

	Lucerne			Pasture			Forage Brassica		Herb mix	
Lamb Gain (Kg Lwt/ha)	253	274		99	1242		305	871	381	105
Net Other Grazing (DSE/ha)	0.69	3.3		1.7	8		2.5	7	2.8	0.3
Net Value ($/ha)	651	560		363	2930		968	1977	877	268
Extra Costs ($/ha)	156	424		154	791		396	925	792	119
Net Profit 2018-19 ($/ha)	**495**	**136**		**209**	**2139**		**572**	**1052**	**85**	**148**
Net Profit 2017-18 ($/ha)	355	503	305	828	845	324	123	361	2394	
Ave Net Profit ($/ha/yr)	***425***	***319***		***519***	***1492***		***347***	***706***	***1239***	

Note: The traditional base system is to turn off lambs as stores by the end of December each year at an average lamb sale weight of 29kg and a total enterprise GM of $161/ha.

MFS Project 18 – 22 - Weaner to Yearling Production Pays Off? (MLA PDS) - BEEF

Unfortunately, due to season, only two of the three steer finishing sites planned for 2018 went ahead. These included a steer (with supplementation) and a cull heifer system on winter wheat crops at Mick Shannon's property. Six more sites are currently underway in early 2019 bringing the total of measured sites to eight over two seasons.

The **2019 sites** include the following;

1. Murdoch Mila – winter wheat
2. Murdoch Bibbenluke – winter wheat
3. Murdoch Ando – lucerne / fescue
4. Shannon Cathcart – oats
5. Shannon Cathcart – grazing canola
6. Jackson Ando – winter wheat

A brief preliminary presentation of results to date will be presented at our 2019 Spring field day.

Doug Alcock is currently recording entry and exit pasture biomass cuts and host producers are recording establishment costs, input costs and live weight data.
Due to the continuing challenging season, many of the steers on these systems have been recently sold or are planned to be sold before Spring however each site has had at least one(1) if not two (2) grazings.

MFS Project 19 – 25 - The Sense in Supplementation (MLA PDS) – LAMB with SUPP

The economic benefits of using feeders, even on high quality finishing pastures, is the most striking message to date to come out of our lamb finishing PDS, and several producers are already setting up to be able to integrate additional supplementation into this enterprise.
MFS successfully applied for another PDS to be able to deliver hard data around this practice giving producers added confidence to continue with or adopt some form of supplementation.

Many producers on the Monaro are grappling with this decision of "how much" and "for how long" to supplementary feed as grain price climbs from <$350/ton, to as high as $500/ton delivered. Formulated pellet rations are often higher leaving producers questioning the economics of these decisions.

Our Lamb PDS showed lambs with access to supplementary feed (grain or grain based) achieved significantly higher weight gains on fodder crop compared to those lambs with no supplementation.

It is highly relevant to producers going into our spring/summer period to analyse the economics of supplementary feeding for finishing given the current climate of:

→ Very high grain prices;
→ Predicted very high lamb prices – potentially we will see a significant variance in store vs 'finished' prices.

Supplementary feeding on fodder could well be the most efficient use of feed, as opposed to full ration feeding in a finishing feedlot scenario (which some producers are currently trialing).

Four host sites have been confirmed which will kick off in Spring 2019 (dependent on season). If possible, each site will also have a control site with no feeders in the paddocks. As it is a demonstration trial only, we cannot replicate sites or eliminate the environmental / animal variation that will be presented by each site but it should be able to give us some valuable data applicable to each system;

1. Wallendibby (Delegate) – brassica
2. Bukalong (Bombala) – cereal crop / improved pasture or brassica
3. Woodburn (Mila) - rye grass and brassica
4. Old Springfield (Bungarby) – canola

MFS Project 17 – 20 **MLA Fast track – Solving the Sulphur (S) Story**

Project Leader: Phil Graham

Project Collaborators: Dr Richard Simpson (CSIRO), Dr Rebecca Haling (CSIRO), CSIRO technical field officers, MFS Producers, Nancy Spoljaric

Project Funder: MFS and MLA Donar Company (MDC)

Background

This project is focused in the following three areas of work:

1. **Response of subterranean clover to S on soils with different starting levels of extractable S in the surface soil (0-10 cm).**

In May and June 2018, 15 field sites were set up across the Monaro region to investigate the response to S application (nil or high S) of a sown subterranean clover pasture. A subterranean clover-rich pasture sward is being used as a "bio-indicator" of S-responsiveness of each site.

2. **Response of the KCl40 soil S test to application of S.**

At a subset of six of the sites (two sites on each soil type) an additional experiment was set up to investigate the soil test response to S application. Treatments received 'nil', 15, 30 or 45 kg S/ha as gypsum with three replicates.

3. **Deep soil coring to assess distribution of S in soil profiles.**

Deep soil cores (0-80 cm) were taken in May and June 2018 at 9 of the 15 sites. [Five replicate cores to a depth of ~80-100 cm was taken around the perimeter of the plots sown to subterranean clover.]
Soil at the remaining 6 sites is still too dry to core but sites will be revisited when there is sufficient rainfall to permit coring.

Progress

Soils from those sites that have been cored have been processed (dried, sieved) and all required soil chemical extractions completed (KCl40 extraction for sulfur, Colwell extraction for phosphorus and potassium, and 1:5 $CaCl_2$ for pH and aluminium).

Unfortunately, again due to the 2018 season, only 2 of the 15 pasture trials could be harvested. The remaining sites have now been re-sown with sub-clover in May 2019 and weed control on the plots carried out and S treatments re-applied where required. With recent rain it is hoped establishment of sub-clover will be good and responses to the treatments can be measured in Spring 2019.

Plots will be re-visited in the Spring months to assess whether there is sufficient clover cover/ dry matter to harvest. Once the final deep cores have been taken (conditions permitting) and soil analyses have been finalized, work will focus on assessing trends in the S down the soil profiles and how this relates to S fertiliser history.

Findings to date

Seasonal conditions can have a significant impact on sub-clover germination as well as timing of sowing (several sites were sown perhaps a little too late ie. outside of the window for successful clover establishment.) Our sites are scattered across areas with considerable variation in rainfall, elevation, aspect, soil type. All these "environmental" factors can have a substantial impact on site success in terms of data collection.

Understanding how to interpret the universally poor S test results for 80% of paddocks (all three major soil types) across the Monaro and subsequent ability to correct S deficiency and/or understanding how to access it better will either increase production and/or enable better informed and economic decisions on fertiliser choice, quantity and application rates.

This program has provided a financial incentive and crucial support for MFS to be able to contract CSIRO to conduct this research; the result so far is a much more serious research effort and better research outcomes are anticipated from such a partnership. Locally validated, evidence-based results will drive adoption and practice change on the ground at a much faster rate than general, generic based Industry information.

Extracts from Dr Richard Simpsons (CSIRO) presentation – Dec 2018

Results

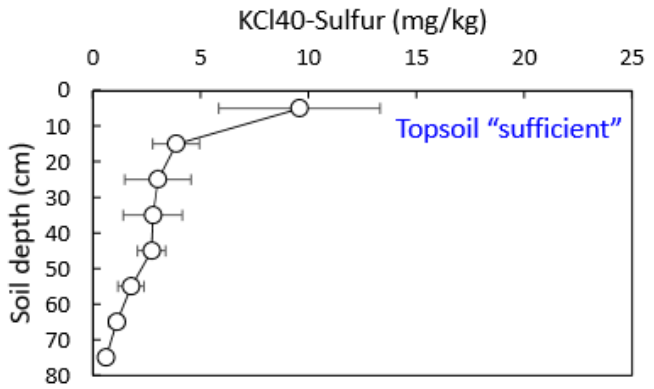
- Appears to be little evidence of accumulation of "available" S at depth in these soil profiles i.e. most S is in the top 0-10 cm. Possible exception at one or two sites but large error bars on these values indicate high uncertainty that there is S at depth at these sites.
- A general lack of S at depth indicates that the S status can be predicted by surface test alone. "Loss" of S after application requires further work to understand what is happening to the S in these systems (forms, availability, cycling, movement etc)
- Most sites were close to or above the critical S value (i.e. 8 mg S/kg for the KCl-40 S test); there was only one site that was very low in S.
- The low number of clearly "S-deficient" sites was not an expected result; it may be due to sampling (May/June) being close to recent fertiliser applications and/ or recent release of S by mineralisation.
- Several sites were low in potassium (K) in the topsoil and low throughout the profile.
- Most sites were in the adequate range for pH and Al for growth of subterranean clover.

NB

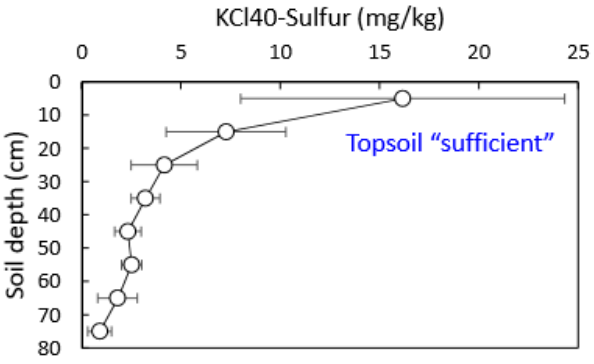
* Results correspond to the time of sampling i.e. May/ June 2018

* In some cases, fertiliser granules were sitting on the soil surface but were not included in the soil samples taken for analysis so test results might not reflect very recent applications of fertilizer.

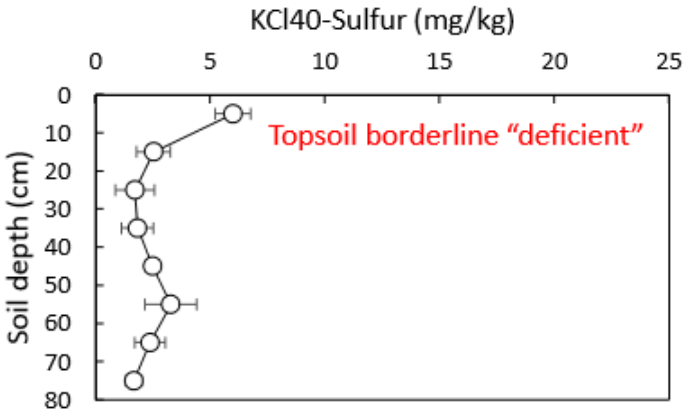
Site 1



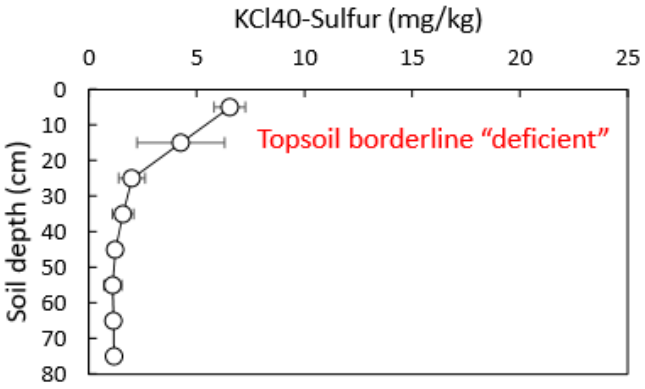
Site 2



Site 3



Site 4



Granite Site – low to intermediate surface soil S – Nevertire paddock, "Corrowong", Delegate

MFS Project 16 - 18 **Phosphorous Efficient Pastures – RnD4 Profit (Collaborative)**

Project Leader: Dr Richard Simpson (CSIRO), Richard Hayes (NSW DPI)

Project Collaborators: Doug Alcock, MFS and seven other producer groups in Victoria, NSW and WA

Project Funder: Australian Government Department of Agriculture and Water Resources (Rural R&D4Profit), MLA, Dairy Australia and AWI Ltd

Background

This project aims to identify more phosphorus (P) efficient legumes and is evaluating alternative legume species, such as Yellow and French (pink) serradellas to see if they can establish and persist in our Monaro soil types and perennial pasture grazing systems. The most relevant issue for Monaro producers which the current work is assessing is whether high-yielding serradella varieties will be persistent enough to justify their use in permanent pastures.

Two replicated trial sites at "Redcliff" and "Glenfinnan" were sown in 2017 (both sites derived predominantly from the typical slate/shale association that crosses the Monaro) and some sites were re-sown in 2018. The sowings were comparing an Industry standard sub (Goulburn) with two serradella cultivars (Margurita (French/Pink) and Avila (Yellow). Both sites were fertilised to maintain a moderate P level at 20 mg/kg Colwell.

Results for Glenfinnan site

The 2017 sowing was largely unsuccessful at Glen Finnan due to insufficient weed control prior to sowing.
Both sites were re-sown in 2018

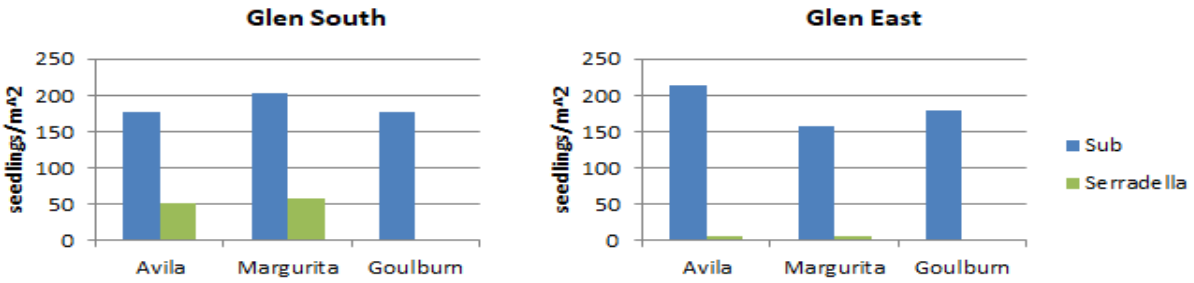
Despite a very poor season and very delayed establishment, the 2018 sowing with the correct varieties was much more successful than the 2017 sowing presumably due to the extra year of weed control.

Regeneration Seedling Counts (Glen Finnan 2018 sowing)

At the Glen Finnan site while there was some rainfall in March the summer had been so dry that germination conditions still were not ideal. When inspected on the 30th of April 2019 there had been some legumes germinate in a very patchy fashion leaving large parts of the plots with no legumes present. Germination counts were delayed until the 21st of June however there was still relatively low seedling counts with very patchy coverage.

Overall the germination of the sown legumes at Glen Finnan was poor on the East aspect with very little of the Serradella present. On the southern aspect however there was useful germination with both Avila and Magurita around 50 plants/m2. Sub Clover dominated the legumes present on both aspects with between 150 and 200 plants/m2 across all treatment tending to indicate that the vast majority was from the existing seed pool on the site rather than the sown variety “Goulburn”.

Seedling Counts at Glen Finnan June 2019



Typical size of clover seedlings – 21/06/19

Typical size of Serradella seedlings – 21/06/19

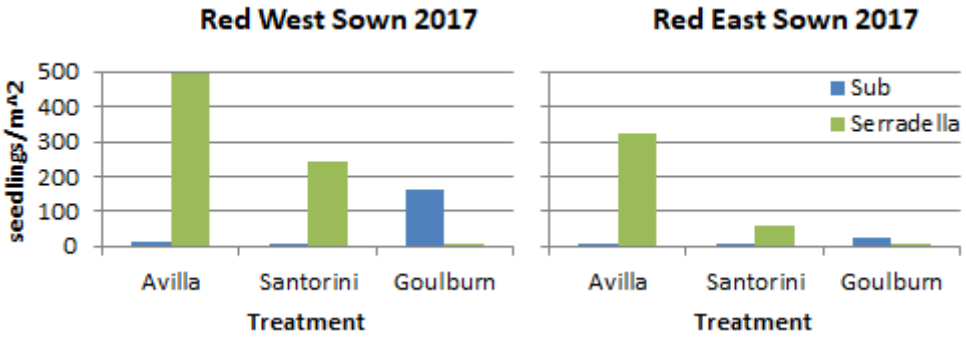
Results for Redcliff site

At Redcliff establishment was better but regeneration was poor in 2018. Both sites were re-sown in 2018.
Despite a very poor season and very delayed establishment, the 2018 sowing with the correct varieties was much more successful than the 2017 sowing presumably due to the extra year of weed control.
Margurita at the Redcliff East site showed excellent performance in 2018. Avila performed best on both aspects but the Margurita performed at least as well as the Goulburn Sub.

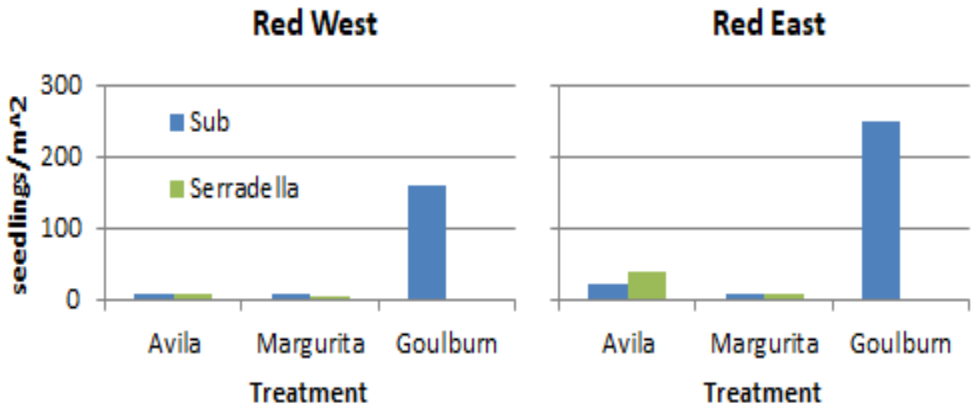
Regeneration Seedling Counts Redcliff (Both sowings)

In 2019 Monaro experienced an excellent start to Autumn (113mm rain) which gave excellent conditions for germination. Some unexpected grazing on the RedCliff sites in April / May 2019 set the plots back a little however the fences were again made secure and plots closed to allow for recovery of any surviving seedlings and to allow for any further germination. Plots were inspected on the 3rd of July and a germination and seedlings count conducted.

Seedling Counts for 2017 sown plots at Redcliff - 21st June 2019



Seedling Counts for 2018 sown plots at Redcliff - 21st June 2019



Of great interest was the **recovery of *Santorini serradella*** in the 2017 sown plots even though there had been insufficient germination or growth to take any meaningful measurements on these plots in 2018. Depending on spring rainfall it is hoped that these 2017 sown plots will have sufficient growth that they will become part of the biomass and composition monitoring this spring pending an adequate level of spring rainfall.

Also despite very impressive serradella production in spring 2018 from the 2018 sown plots regeneration on these plots was quite limited. This would tend to support previous observations that in the tablelands environment the seed set by serradella in the first-year post sowing takes more than one summer to soften sufficiently to germinate meaning that significant regeneration does not occur until the second year post sowing. By contrast the regeneration of the Goulburn Sub. Clover from the 2018 sowing was good on both aspects.

Serradella regeneration Red West 2017 sowing

Next Steps

Both sites are currently closed to grazing and will remain closed until after biomass assessments in spring. Pending adequate spring rainfall, all sites (2017, 2018 sown trials) will be measured this Spring for biomass and soil tests taken to monitor soil P levels.

Avila Serradella Redcliff West site - 2018 sowing

Fodder Systems and Feed Gaps - MLA Producer Demonstration Site - $34,100

Aim: Can granular and foliar pasture applications such as Nitrogen and Gibberellic Acid significantly increase dry matter production on pastures on two soil types on the Monaro over the winter period to optimize stock production and performance relative to untreated winter pastures?

Severe cold winter temperatures with a high frequency of frosts, lead to low soil temperatures and subsequently restrict pasture growth creating an inhibitive "winter feed gap" on the Monaro from May to September.

Many producers currently use supplementary feeding over the winter period at a major enterprise cost to maintain stocking rate rather than looking at ways to utilize / enhance the feed base by strategically applying pasture growth stimulants such as gibberellic acid (GA) and nitrogen (N). Winter stocking rates generally dictate enterprise production capacity over the spring and summer period therefore winter carrying capacities remains a major profit driver for the whole grazing system.

Anecdotal observations suggest GA and N products to optimize dry matter production (DMP) is significantly underutilized in the Monaro grazing Industry compared to other grazing regions.

There has been no scientific based, trial work on a paddock scale done for our local area or cost benefit analysis to determine if N & GA applications are actually translating into additional, measurable DMP and therefore improving animal performance and enterprise net profit. Some strip trials that have been done on improved pasture suggest increases of 200-600 kg/DM/ha are possible using GA however this data has not been integrated into livestock performance or gross margin comparisons.

Boco Rock – Resistance testing - farmers fight against African love grass on the Monaro - $6,000

MFS recently invested in an economic study to quantify the economic impact of weeds to a grazing farm business. This study indicated in a native pasture system in 2017, with a 25% weed infestation, gross margin was reduced by 80% ($112,557 down to $44,364) due to loss of productive pasture and costs of weed control. In a farm system with 15% of country sown to improved pastures and a 15% level of weed infestation, the reduction in overall gross margin in 2017, was 21% ($112,557 down to $88,818).
This project aims to provide science-based evidence of the status of resistance in ALG populations on the Monaro to chemical (flupropanate) control methods. This will enable land holders and Councils to more effectively and efficiently tailor their chemical control strategies.

Project Description;

- target 12 ALG sites, some in the Bredbo region (as the core infestation with long history of herbicide use), Cooma and around Maffra (as an area upwind of Nimmitabel)
- test 3 rates of flupropanate (Taskforce) - 1, 2 and 3 L/ha

Robotic Weed Sprayer "Kelpie" - Agent Orientated Software (AOS) Group

MFS has also recently been asked to partner in a project submitted as part of the Smart Farming Grants Round 2 with a robotics company Agent Orientated Software (AOS). This project is looking to build and test an automated, weed spraying vehicle called the "Kelpie". MFS was approached to provide the on-farm trial sites to test and refine the prototype. The machine will trial intelligent software and hardware technology which will allow programming of the machine and vision detection algorithms to detect serrated tussock and African love grass and employ variable rate spraying. The aim in the long term is to provide a cost-effective alternative to manual weed spraying where applicable in certain landscapes. Other partners include UNE and NSW DPI.

Collaborating Projects

Next Generation Forecasting – Dept. of Agriculture & Water Resources, National Landcare Program
Consortium includes MFS as the lead organisation with project partners TFS, LLS and Bookham Ag and CSIRO

Amount: **$512,000**
Project Term: August 2018 to June 2022
Allocation: Development of pasture forecasting tool, web-based application (App)

This exciting new collaborative project aims to help provide producers with 'real time' decision making tools on their mobile phones and tablets. The project, funded by the Australian Government's National Landcare Program Smart Farming partnerships, will build on the existing South East Soil Moisture Probe Network.

CSIRO are a key partner in the project lead by **Patrick Mitchell, Senior Research Scientist**. *"The new system combines our latest advancements in climate forecasting, soils and livestock systems modelling to give farmers better predictions of future conditions at critical times during the year."*

The increasingly volatile farming environment, climate and markets, means that twice-yearly forecasts are no longer sufficient for effective decision making. Instant and reliable forecasting is required to ensure the long term profitability of farming enterprises and the management of our landscape for next generation agriculture.

"While we don't know what rain we will get, using moisture probes and current pasture levels to give us an accurate starting point, and combining with historical rainfall probabilities going forward, gives us the best achievable insight into the months ahead. Having this information continually updated and delivered to our phone, tablet or lap top will be of enormous value to our business, and help us do a better job looking after our land and animals." **Richard Taylor.**

Through this project the network will be expanded to 25 moisture probes across the Southern Tablelands. The Monaro will receive a further 5 to 6 bringing the total network to 10 probes on the Monaro," which should give a good representation of soil types and rainfall patterns.

New probe sites

1. Coolringdon (Cooma) – Basalt, SR merino flock, model two (2) sites – native and improved pastures
2. Gaerloch (Counteginny) – Granite, SR merino flock
3. Maffra (Cooma) - Red/Black Basalt, SR merino flock or merino wethers
4. Cobana (Bombala) - Granite/Shale, 1st X ewe system
5. Tintagel PC (Mila) - Basalt/Granite, Wool/Sheep-meat/Cattle - SR Beef Herd

New probe site at "Coolringdon", close to Cooma

2017 MerinoLink / Monaro Farming Systems Sire Evaluation at Cavan (Yass)

Amount: **$2,500 - $3,000 per sire (entry fee)**

Project Term: Jan 2017 to Dec 2021

Allocation: 16 sires (includes 6 Monaro sires & 3 linked sires), two assessments (10 months and 22 months). Wethers measured for a further two (2) shearing's.

Perennial pasture & forage combinations to extend summer feed for southern NSW (CSIRO)

Amount: un known

Project Term: Jan 2018 to 30 June 2021

Allocation: Compare the performance and persistence of grass and legume combinations on a granite soil type under grazing pressure to look at best options for lamb finishing. Species to be compared include lucerne, phalaris, cocksfoot, ryegrass, chickory, plantain, annual & perennial clovers such as arrowleaf, white, talish, caucasian etc

- Monaro core site is on “Burando”, and was sown in 2018
- legume trial (red clover, sub clover, white clover, lucerne, tallish clover, strawberry clover, Caucasian clover)
- non-legume trial (chickory, cocksfoot, fescue, rye-grass, plantain, prairie grass, phalaris, digit grass etc) were
- seedling counts were done on the 24th May and weed control on 18th June 2019
- first sampling will be in Sep-Oct. 2019
- focus of the project is summer - autumn performance rather than spring
- a small species evaluation trial was sown on “Glenfinnan” property on 26 March 2019.
- Glenfinnan was much drier than Burando and establishment has not been as good.

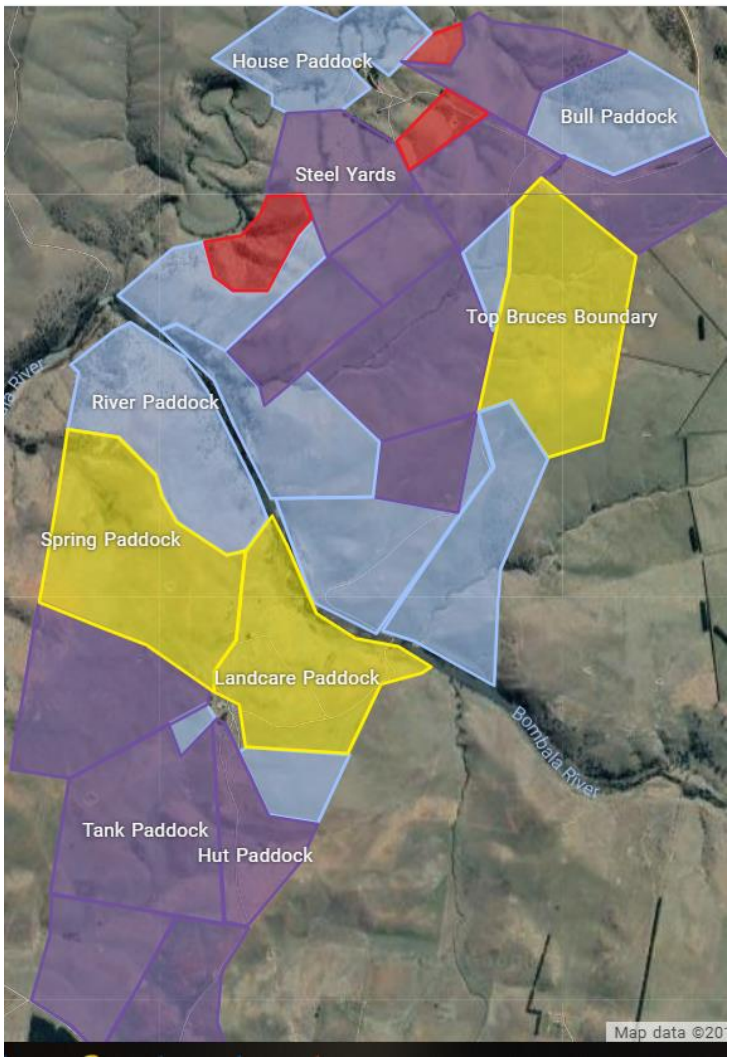
Non-legume trial taken on 31st May 2019 – “Burando”, Bombala

Monaro Grasslands Best Management Practices
Amount: $107,000 (Funded by LLS – Sustainable Land Management)
Project Term: June 2018 to October 2018

Over the last year, MFS has assisted in developing a proposed management plan for the Monaro native grasslands and a targeted methodology to define higher conservation value grasslands. The goal was to develop a Plan which is a win-win both for the environment (that is, high quality native temperate grassland conservation) and agricultural productivity, and to implement this plan in such a way which is embraced by all landholders.
As of August 2019, it appears everyone is still working towards the implementation of a Monaro code, adoption of Stuart Burges Kangaroo Grass strategy and adoption of a whole farm mapping approach however there are no clear actions as yet.
The process was a three-stage delivery as outlined below;

Stage 1 - Facilitate a review of the NSW Biodiversity Conservation Act and investigate an alternative Management Plan for the Monaro Native Grasslands (review undertaken by Stuart Burge & Associates).

Stage 2 - Road Test the proposed draft Management Plan and develop a final Recommendation Report
[MFS has worked with Stuart Burge to develop four (4) Farm Plans using the recommended guidelines to come out of the review to "road test" this process.]



Stage 3 - Extension Campaign.
Example of a Future Farm Plan Vegetation Map

Legend

= Exotic Species dominated ie. sown (Phalaris or crop).

= Low Conservation Grassland dominated by low quality native grasses and weeds

= High Conservation Grassland – fenced with planted native trees and remnant vegetation

= Paddocks planned for improvement for weed control and improved production

MFS Events Summary 2018/19

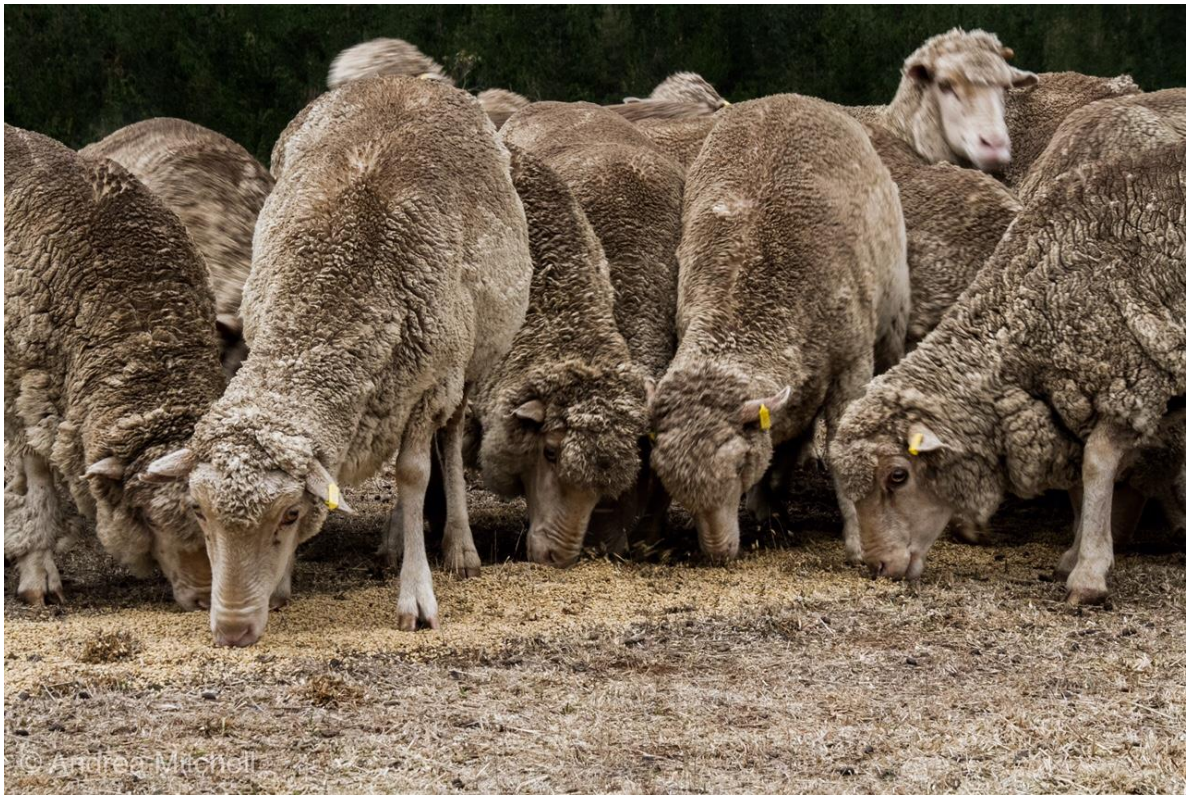
- **MFS AGM / Spring Field Day – 6th Sept 2018**
  - Comparative Analysis Report, Sandy McEachern – Holmes & Sackett
  - Spring Seasonal Outlook – Doug Alcock, Grazprophet
  - Lamb Finishing PDS - Doug Alcock, Grazprophet
  - Serrated Tussock resistance on the Monaro? Jo Powells, LLS
  - Summer Active Perennial Project – Dr Richard Culvenor (CSIRO)

- **Soils Club Field Day – 7th Dec 18**
  - 2018 Bulk Soil Submission – Monaro Summary
  - Updates on local Monaro soil projects – Richard Simpson (CSIRO)
  - Economics of Nitrogen & Gibb acid for winter feed production on the Monaro (Graminus Consulting)
  - Sire Evaluation Results Update (Sally Martin)
  - Seasonal Outlook and Phosphorus Efficient Pastures
  - MFS website & Native Vegetation Update

- **Benchmarking Group – Lisa Philips - closed session – 27th November 2018**

- **Autumn Field Day – 10th April 2019**
  - Autumn Seasonal Outlook - Doug Alcock, Grazprophet
  - Grain Purchasing Strategies – Ben Shannon (BCS Rural)
  - Drench Resistance Status for the Monaro – Dr Matt Playford

- **Benchmarking Group - Mick Shannon - closed session – 10th May 2019**



MFS Supporters – THANKYOU

MFS Partners

South East Local Land Services
NSW DPI
CSIRO
Meridian Agriculture
Sydney University
Boyce Chartered Accountants
Tablelands Farming Systems
Holbrook Landcare Network
Bookham Agricultural Bureau

Project Funders

South East Local Land Services
Department of Agriculture & Water Resources
National Landcare Program
NSW DPI
Meat & Livestock Australia (MLA)
MLA Donar Company (MDC)
Australian Wool Innovation Ltd
University of New England
Dairy Australia
Australian Merino Sire Evaluation Association Incorporated (AMSEA)

Sponsorship Packages

Rabobank
Incitec Pivot
Telstra Country Wide

Bronze Sponsors

National Australia Bank
Agriwest Rural - Cooma
Lambpro
Elders Cooma
Landmark Bombala
Zoetis

Special Mentions…

Chairman Richard Taylor who steps down from the Chair role after four years of contribution. Richie has given MFS exemplary leadership and direction during this time, and countless hours of his time, thankyou Richie for guiding MFS through many challenges and opportunities.

MFS Board Members (Phil, Jono, Warwick, Georgie, John, Owen and Bea) who have also contributed many volunteer hours towards MFS activities and direction, thankyou for being such a cohesive and active Board who is a pleasure to work with. A special mention must be made to **Georgie Hood** who steps down from the Board this year. Behind the scenes Georgie has implemented professional financial management systems for MFS and an employment framework. She has given up a huge amount of her "free time" to put this in place.

South East LLS, thankyou to **Jo Powells and Luke Pope.**

Boyce for consistently providing meeting rooms, HR and financial management support over the last 12 years.

Lachy Ingram for continuing to provide technical support input into our projects.

Dr Richard Simpson for providing constant technical advice on pastures and soils for the Monaro and his willingness to continue working with MFS to deliver local Monaro research information (Solving the Sulphur Story and P Efficient Pastures).

Doug Alcock, who underpins the majority of MFS projects on the Monaro in terms of data collection and analysis and plays an integral role in delivering our seasonal outlooks.

MFS Lamb Finishing Trial Hosts – Brad Yelds, John Jeffreys, Mick Shannon, Richie Taylor, John Murdoch

MFS Steer Finishing Trial Hosts – Mick Shannon, Lisa Philips, Murray Jackson, Col Murdoch, John Murdoch

MFS Supplementary Feeding Trial Hosts – Neil Waters, Patrice Clear, George Haylock, Angus Hobson & Hannah Marriott.

Solving the S Story Trial Hosts – Brad Yelds, Bea & Jim Litchfield, Simon Stephens, Damian Murphy, Dave & Andrea Mitchell, George Haylock, Jim Haylock, Dean & Anne Campbell, Tim Fletcher, Malcolm Pearce, Oli Cay, Richie Taylor, Ron & Mandy Horton.

Thank you to **Andrea Mitchell, Gus Hobson & Doug Alcock** for providing photos for this AGM report and many other MFS project reports.


CSIRO


awi
Australian Wool
Innovation Limited


PROUD PARTNERS OF
THE UNIVERSITY OF
SYDNEY


mla
MEAT & LIVESTOCK AUSTRALIA


Rabobank


MERIDIAN
Agriculture


BOYCE
CHARTERED ACCOUNTANTS
Knowledge. Insight. Experience.


NSW
GOVERNMENT
Local Land
Services
South East


Telstra


NSW
GOVERNMENT
Department of
Primary Industries

TFS Tablelands Farming Systems

Next Generation Agriculture

agribusiness nab

Cooma Rural

61 Commissioner Street Cooma NSW 2630

Ph 02 64525566 Fax 02 64521536

www.crtcountrystores.com.au

Incitec Pivot Fertilisers

LAMBPRO

LINKING GENES AND MARKETS

zoetis

FOR ANIMALS. FOR HEALTH. FOR YOU.

Elders

LANDMARK