



**Monaro Farming Systems  
2020 Annual General Meeting  
30<sup>th</sup> September 2020**

Reports and Meeting Papers



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## SPRING FIELD DAY & AGM AGENDA

**Start: Lunch 12.00 to 1.00pm**

- ❖ 1.00 - 1.45pm: Benchmarking (Monaro KPI's) - Sandy McEachern H&S
- ❖ 1.45 - 2.45pm: Carbon Testing - Phil Graham, Graham Advisory
- ❖ 2.45 - 3.15pm: Afternoon Tea
- ❖ 3.15 - 4.00pm: Commodities Outlook - Angus Gidleigh Baird, Rabobank
- ❖ 4.00 - 4.30pm: Worms Club - Matt Playford, Dawbuts
- ❖ 4.30 - 5.00pm: Summary and Updates - John Murdoch
- ❖ 5.00 - 5.30pm: **Monaro Farming Systems AGM**



## CHAIRMAN'S REPORT 2020: JOHN MURDOCH

The last twelve months have been challenging in unprecedented ways in both their individual severity, and cumulative succession. A drought period alone can be a trying time on the Monaro, however a severe drought culminating with a devastating fire season, into a period of extreme individual and macro-economic uncertainty of the SARS-COV2 pandemic has pushed many to their mental and physical limits. We still find ourselves in an uncertain position without a clear pathway to a post pandemic future; high volatility and variance within our core commodity markets; and a spring that is very reliant on continued follow-up rain in order to begin building a drought recovery.

With all but a few factors outside a producer's influence, it is important to reflect on the previous 12-18 months and take note of what has been a success and where we can improve and learn. With a shorter farming career than most of our members, I have learned more in this dry period than in the previous five years of favourable seasons and most of this learning has come from mistakes and errors.

MFS has equally faced a challenging 12 months. For those who are not aware, the Commonwealth Co-ordinator funding that had been so vital to the groups success over the past 12 years has been ceased, leaving a significant hole in the groups budget that is yet to be permanently filled. In December we farewelled Nancy Spoljaric from the Executive Officer position, who with her vast experience from MFS' inception and passion for the group was uniquely irreplaceable. The pandemic has restricted our ability to deliver face-to-face field-days and networking, one of the invaluable benefits of the group, particularly in such challenging seasonal and climatic circumstances. The drought itself has also played havoc with our ability to deliver some of the project work within our pipeline. The MFS Soils Club, Lamb Supplementary Finishing PDS, Steer Finishing PDS, and the Winter Feed Gap PDS were either adversely affected or postponed completely due to the severe seasonal conditions.

While the group has been challenged, we have welcomed some significant highlights in 2019-20. Firstly, the group very thankfully secured the services of Zoe Rolfe as the new Executive Officer. Zoe has well and truly hit the ground running, and has somehow managed to very quickly get her head around the challenging MFS portfolio while bringing a unique flair to how MFS has delivered services to members during SARS-COV2. I thank both Nancy, Zoe and Bec Kading for what was an incredibly smooth change-over in a difficult period. MFS also welcomed Mandy Horton to the board this year as a producer director keeping up the wonderful tradition of big contributions made by the Herbert sisters to the group!

The highlight of project delivery this year has been the launching of the Next-Gen Forecasting interface *Farming Forecaster*. The system has revolutionised members ability to access up-to-date seasonal outlooks, and support timely decision-making. A huge thank you to Andrea Mitchell, Zoe, Richie Taylor and Phil Graham for their drive and determination for the delivery of this system. Farming Forecaster demonstrates the group's ability to deliver innovative high value localised projects that are of significant value not only to members but to the wider agricultural community.

As MFS is evolving its funding stream and as it attempts to adapt to the future challenges and opportunities presented to farmers on the Monaro, the groups strategic direction will also change. Environmental sustainability is now a vitally important trait of our industry, and as such MFS aims to target project work in the realm of soil carbon and emissions accounting within Monaro farming enterprises. In tandem to this is the continued drive to innovate and focus on technological and production efficiencies which has seen MFS partner in some exciting upcoming projects such as the development of the *Kelpie Robotic Weed Spraying* technology.

The MFS constitution is in need of an update and it is intended that a revised constitution will be presented to members during the coming year. This presents a unique opportunity for members to reflect on how they would like MFS to serve their needs into the future. MFS' highly respected industry reputation and creditability is seeing the group increasingly



asked to be involved in or reflect on government policy and industry strategy, most significantly seen with MFS' continued engagement in Native Vegetation issues. Members should reflect on whether they want to see MFS take more of a role in this domain, or feel they are better represented through other SFO or industry bodies. The MFS board would welcome any feedback or commentary as we review the constitution.

There have been a number of industry contributors whose passion and support are integral to MFS' continued success, and I would like to extend my thanks to the efforts of Luke Pope, Jo Powells and Matt Lieschke from LLS, and Dr Richard Simpson and Rebecca Haling from CSIRO.

Lastly, I want to thank the entire MFS board for their significant contributions during the last twelve months, particularly in their patience with their new and inexperienced chair! The 2019-20 board was made up of myself, Mandy Horton, Richie Taylor, Bea Litchfield, Owen Smith, Phil Graham, Jono Forrest and Warwick Badgery, and it is a pleasure to work with such high skilled and hard working individuals. This year we farewell Richie who has been a phenomenal contributor to MFS. Richie has been on the MFS board for six years and was Chair for four. His superhuman ability to manage workload, wisdom and analytical mind will be very much missed by the group. I, on behalf of all MFS members, extend the most sincere gratitude to Richie for all he has done for MFS.



# MFS STATEMENT OF PROFIT & LOSS - FOR THE YEAR ENDED 30 JUNE 2020

## MONARO FARMING SYSTEMS STATEMENT OF PROFIT & LOSS FOR THE YEAR ENDED 30 JUNE 2020

2019		2020	Notes
<b>Income</b>			
	<u>Government Grants</u>		
1,733	LLS Support	-	1
25,187	Membership	25,492	
204,250	Other Industry Grants	85,279	2
11,920	Sponsorship	16,380	3
-	COVID Stimulus	16,000	4
1,669	Interest received	1,121	
<b>244,759</b>	<b>Total Income</b>	<b>144,272</b>	
<b>Expense</b>			
1,510	Advertising	636	
340	Bank Charges	127	
3,424	Catering	4,482	
164,604	Contract Work	87,578	5
530	Depreciation (20%)	424	
447	Field day and workshop expenses	-	
2,440	Insurance	4,788	6
4,529	Materials / Capital Items	2,733	7
2,614	Office Operating Costs	2,939	
2,984	Subscriptions	3,828	8
326	Sundry	349	
4,652	Superannuation	4,829	
1,648	Training	181	
5,763	Travel, Accommodation & Meals	6,391	9
45,286	Wages	52,450	10
(21,760)	Reimbursed expenses	(22,538)	11
<b>219,337</b>	<b>Total Expense</b>	<b>149,197</b>	
<b>\$25,422</b>	<b>Net Income</b>	<b>\$(4,925)</b>	

## FINANCIAL REPORT NOTES

**Note 1:** LLS sponsorship for soils club etc is included in the "Other Industry Grants" line

**Note 2:** Other Industry Grants

Seasonal Outlooks:	\$10,274
Soils Club LLS Funding:	\$10,000
P Efficient Pastures:	\$10,500
AWI War on Worms:	\$6,500
Solving Sulfur Story:	\$10,991
MLA PDS Lamb Finishing:	\$14,434
Coordinaire Bushfire/Drought:	\$19,380
MLA PDS Winter Feed Gap:	\$3,200

**Note 3:** Sponsorship: Lambpro \$1000, Agriwest \$2000, Rabo \$1500, MLA \$5000, Boyce \$500, Rabo \$2000, Landmark \$1000, Elders \$1000, Zoetis \$1000, Incitec \$2,180.

**Note 4:** Covid Stimulus/Payments: \$6,000 Jobkeeper payments for Bec (passed on as wages) and \$10,000 stimulus

**Note 5:** Contract Work

Seasonal Outlook:	\$12,805
Soils Club:	\$16,765
Worms Club:	\$141
Benchmarking:	\$14,000
Soil Moisture Probes:	\$1,487
AWI War on Worms:	\$1,095
Solving Sulfur Story:	\$24,725
MLA PDS Steer Finishing:	\$9,111
MLA PDS Lamb Finishing:	\$6,699
Other	\$750

**Note 6:** Insurance: Timing difference and catch up payments

**Note 7:** Material and capital items: Worm tests for membership, professional printing

**Note 8:** Subscriptions: Survey Monkey \$280, MS Office \$625, Vimeo \$400, Reckon \$1200, Last Pass \$160, Zoom \$770, Movavi \$40, Text Magic \$45, Drop Box \$60, Xero \$60.

**Note 9:** Travel/Accom/Meals: this includes allowances to employees for travel / internet / phone

**Note 10:** Wages MFS: 2020 figure includes Zoe/Nancy training and handover

**Note 11:** Reimbursed Expenses: This was for Benchmarking and Soil test reimbursements in 2019

# MFS BALANCE SHEET - AS AT 30 JUNE 2020

## MONARO FARMING SYSTEMS BALANCE SHEET AS AT 30 JUNE 2020

<u>2019</u>		<u>2020</u>
<b>ASSETS</b>		
	Current Assets	
	Bank accounts	
105,200	Monaro Farming Systems Inc	78,375
12,104	Cash Maximiser Account - NAB	31,722
47,822	Term Deposit - NAB	48,582
94,005	NGF Project bank account	58,522
-	Accounts Receivable	-
<u>259,131</u>	Total Current Assets	<u>217,201</u>
	Fixed Assets	
2,846	Computers	2,846
500	Electronic Equipment	500
<u>(1,227)</u>	Less: Accumulated depreciation	<u>(1,651)</u>
<u>2,119</u>	Total Fixed Assets	<u>1,695</u>
<u>261,250</u>	<b>TOTAL ASSETS</b>	<u>218,896</u>
<b>LIABILITIES</b>		
	Current Liabilities	
4,167	Payroll liabilities	5,797
10,812	GST Payable	4,958
74,009	Accumulated net income on NGF Project	48,381
<u>7,577</u>	Provision for Long Service Leave	<u>-</u>
<u>96,565</u>	<b>TOTAL LIABILITIES</b>	<u>59,136</u>
<u>\$164,685</u>	<b>NET ASSETS</b>	<u>\$159,760</u>
<b>EQUITY</b>		
139,263	Opening Balance Equity	164,685
<u>25,422</u>	Net Income	<u>(4,925)</u>
<u>\$164,685</u>	<b>TOTAL EQUITY</b>	<u>\$159,760</u>



## PROJECT REPORTS

### MFS Project 08.01

### Seasonal Outlooks

**Project Leader:**

Richie Taylor

**Project Manager:**

Zoe Rolfe

**Project Collaborators:**

Doug Alcock (Graz Prophet Consulting), Phil Graham (Graham Advisory)

**Project Funders:**

South East LLS, MFS

### 2020 REPORT

#### 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 nine moisture probe sites across the Monaro. In addition, over the last twelve months two sites at Nimmitabel and Ando have been included without moisture probes.

The current sites are listed below, and are designed to provide a wide representation of soil types, average rainfall and enterprises;

1. Muniong (Adaminaby) - Granite. Self replacing Merino flock.
2. Bukalong (Bombala) - Shale / Mudstone. Self replacing Merino flock.
3. Bungarby (2) sites - native and improved pastures - Basalt. Self replacing Merino flock.
4. Delegate - Tertiary Sediments / Metasediments. Self replacing Merino flock.
5. Coolringdon (Cooma) - Basalt. Self replacing Merino flock.
6. Countegany - Granite. Self replacing Merino flock.
7. Maffra - Red/Black Basalt. Self replacing Merino flock.
8. Bibbenluke (Bombala) - Granite/Shale. Prime Lamb.
9. Mila - Basalt/Granite. Self replacing Beef herd.
10. Nimmitabel - Red/Brown Basalt. Merino Ewe x terminal ram enterprise.
11. Ando - Black Basalt. Self replacing Merino flock.

The NGF project has allowed automation in forecasting pasture availability, as well as expected animal condition score, ground cover, and supplementary feed requirements. These projections are updated at the start of each month and tracked daily. However, MFS will continue to provide seasonal updates at Field Days, both to help with interpretation of seasonal outlooks, and to look at strategies to deal with below or above average seasonal conditions.

MFS has delivered three seasonal outlooks since the 2019 annual meeting and spring outlook, with a pre-Xmas summer outlook being added to the traditional spring and autumn outlooks, to help producers in their decision making given the severe drought conditions.

**Benefits of Seasonal Outlooks;**

- increased confidence and understanding of seasonal outlooks and 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 ground cover, 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.



*Image: Recent moisture probe site - Maffra*

**MFS Project 10.01****Soils Club**

**Project Leader:** Owen Smith

**Project Manager:** Zoe Rolfe

**Project Funder:** South East LLS / MFS

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

**2020 REPORT**

The MFS Soils Club was initiated in 2010 and now involves 113 farm businesses, has tested a total of 1795 paddocks and has a data set of >3,500 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 ten years now provides solid evidence for producers to be confident in basing fertilizer investment decisions on the trend lines indicated.

Due to the dry conditions of the 2019 season, soil sampling took place over a few months period. In total, 76 properties submitted 298 soil tests.

The soils club attracted a grant of \$10,000 from LLS and incurred \$16,765 of expenses. Historically the soils club has produced a deficit for MFS, with government funding being less (and more sporadic) than the rebate that MFS offers to its members to ensure that sampling is done. The rebate to members for the 2020-21 period continues to be \$300.

As the number of tests in the database increase, and the time over which testing occurs increases, the database grows in value. The board feels that the soils club project is valuable and will continue to promote it. Soil Carbon is mandated in the tests offered to producers by MFS. It is hoped that the data base can be used in future projects that examine the relationship between soil carbon and extensive livestock production systems. As climate change and carbon emissions become part of the social consciousness, it is also hoped the data base can be leveraged to industry to help demonstrate the sustainability of the production systems currently operated on the Monaro.

Rebecca Haling and Richard Simpson (CSIRO), partnered with the MFS soils club in a project entitled "Solving the Sulphur Story". The objectives of this project were to:

- Determine where S was ending in the soil profile
- Determine if a 0-10cm soil S test would indicate S responsiveness
- Determine S responsiveness and thus assist fertiliser rate planning

Project findings were as follows:

- There was not a S "bubble" at depth, surface S test is likely indicative of S fertility
- The relationship between increase in KCl40 test with quantity of S applied is weak.

The findings come with 2 caveats, being they were preliminary findings done under drought conditions. MFS believes this is an important area of research, with 80% of soil tests in the database demonstrating an S deficiency. Soil Phosphorus is reliably measured, and industry adoption of P application to target critical P levels is widespread. As such, it is hypothesised that S (and K) are more commonly becoming the limiting factor to production. It is hope MFS will obtain funding to partner with Rebecca and Richard to build on their existing work. The objective of the new project will be to *"develop better guidelines for soil S testing and S-fertiliser use, and understand how to combine this with results of P and K testing to determine the correct rate, balance and type of S, K and P inputs for optimum (balanced) soil fertility"*.

## MFS Project 10.06

## MFS Worms Club

**Project Leader:** Richard Taylor (2020 Phil Graham)

**Project Collaborators:** Gypstar (took over from Invetus Pty Ltd), Dawbutts, MFS Producers, Zoe Rolfe

**Project Funder:** MFS

### 2020 REPORT

The MFS worms club data base continues to grow with a total of 119 worm test results received in the 2019/20 financial year.

These results are continually updated to the MFS website page as a live graph.

From 2020, members will be given a free (postage paid) worm test kit from Dawbutts Labs (worth \$15) as part of their MFS membership package each year to encourage regular testing and growth of the data base.

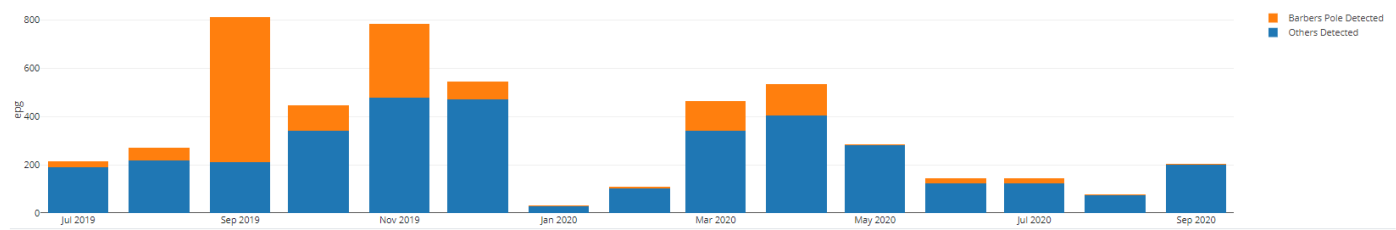
As we move out of drought conditions, please continue be alert and test your stock.

Please also forward any worm test results (regardless of lab) received to Zoe at MFS so that we can continue to grow our database and help inform our members.

### MFS Website Graphic

<https://www.monarofarmingsystems.com.au/weather-station-report/>

### Worm Club



**MFS Project 14.13****MFS Comparative Analysis Group**

<b>Project Leader:</b>	Owen Smith
<b>Project Collaborators:</b>	Holmes & Sackett, MFS Producers
<b>Project Funder:</b>	MFS, MFS producer members

**2020 Report**

The MFS board decided to hand administration of the MFS benchmarking group back to Holmes Sackett in early 2020. This decision was taken to reduce the amount of time (and thus wages) MFS spent in administering the group. In previous years MFS has funded one benchmark group meeting. Data from the MFS bench marking group has been an important tool when MFS has tried to secure funding. By funding a group meeting MFS has been able to access the group data. This year the board decided that it was no longer able to fund the group meeting. Fortunately, the bench marking group has decided to continue to donate their data to MFS. Sandy McEachern (Holmes Sackett principle) has also agreed to continue to present the data to the broader Monaro community at the MFS Spring Field Day at no cost to MFS.

There was some confusion in the hand over of administration from MFS to Holmes Sackett. It was discovered that MFS owed Holmes Sackett \$13,000 as MFS had invoiced members for benchmarking services, but had not been invoiced by Holmes Sackett for these services. It was also discovered that 2 bench marking members that have since left the group had not been invoiced for services valuing \$1,480. These funds have not yet been recovered.

The group itself continues to operate strongly. In 2019-2020 there were 3 on farm meetings (Waldren's, Keighley's and Yelds'). The Waldren meeting was held remotely due to COVID restrictions. Three business's left the group, but two businesses have also joined the group. Return on assets managed for the group was 1%, compared to 2.8% for the Holmes Sackett data base, highlighting the tough seasonal conditions experienced on the Monaro.





**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

## **2020 Report**

### **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.

### **Final Conclusions from Study**

This research has effectively demonstrated the adaptation and potential productivity of Serradellas in the Monaro environment where establishing and maintaining legumes in perennial pastures has often proven difficult. While it has proven to persist in the long term sub clover is very subject to false breaks and years of very low biomass production. The apparent staggered germination of serradella and its tolerance of some extremely dry conditions during these experiments demonstrate that the industry has another option for an annual pasture legume worthy of consideration.

As fertiliser prices increase over time, legumes with lower phosphorous requirements are likely to play an important role in maintaining production levels while lowering one of the main variable costs. For Monaro producers the findings of this participatory research should give some confidence that serradella can perform a similar role to sub clover in a productive perennial pasture. Monaro farms with similar PBI should conceivably be able to operate at the same level of production using serradellas but with a saving of at least 18kg P/ha of capital fertiliser (200kg of super phosphate equivalent).

Paddock scale trials of pasture mixes with Avila would be a useful adjunct to this small plot research in order to convince producers of its utility in the Monaro and other tablelands environments especially if established in paddocks of known marginal P levels where historical performance of sub clover has been poor. This approach would also give the opportunity to demonstrate the expected livestock performance of animals grazing pastures with significant serradella content.



*Image: Grazed regeneration of Avila serradella (Redcliff East, 2019)*



**Project Leader:** Richard Taylor

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

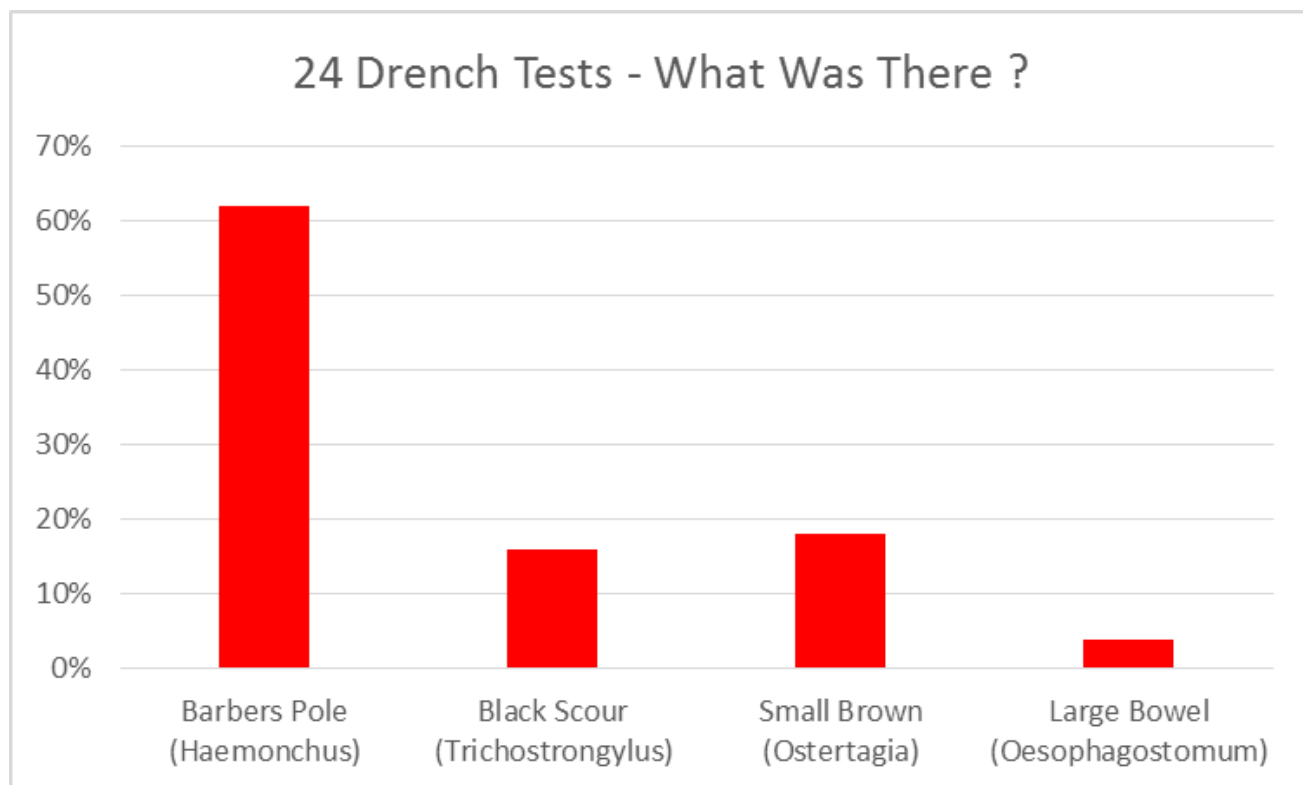
**Project Funder:** AWI

## 2020 Report

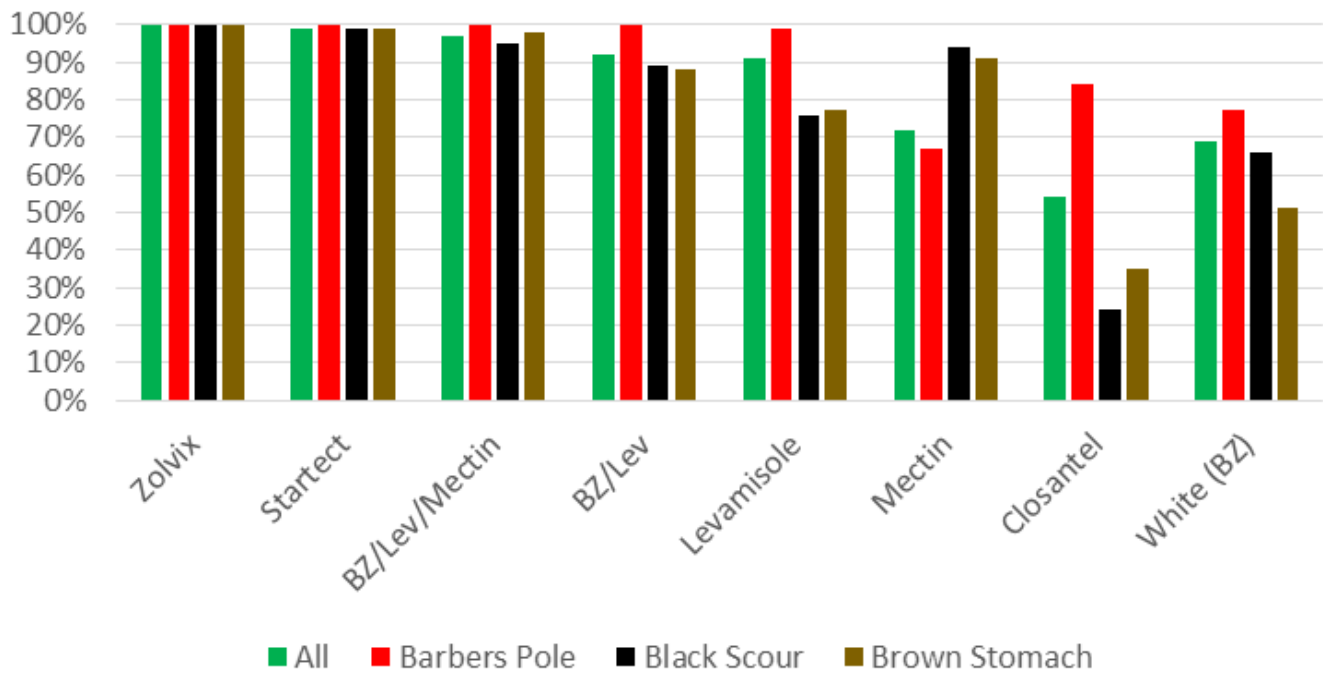
### Final Report

The main **conclusions** to come out of this project were as follows;

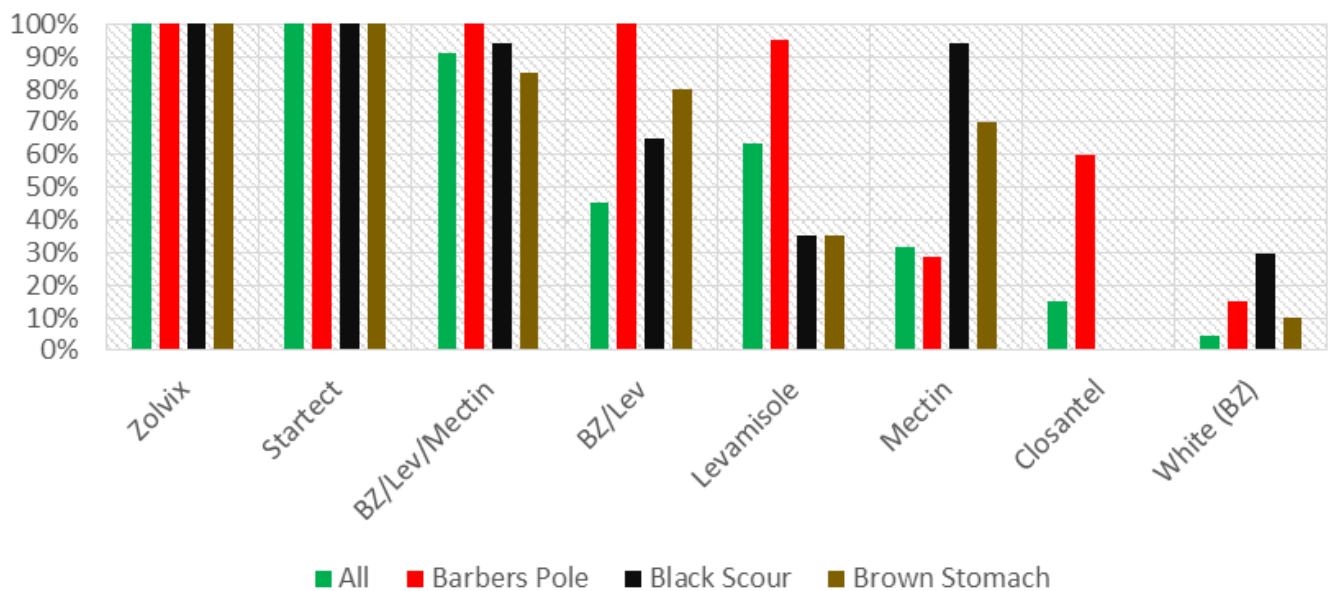
- Results are **farm specific** and a key message was that to really understand the status on your property, a drench resistance test is critical.
- **Barbers Pole** was present on 20 out of 22 farms and accounted for 60% of the overall egg output. This reinforces the message that barbers pole is the major issue for producers in the Monaro district.
- Barbers Pole has the most control options, but there is a high level of resistance to the mectins. Levamisole is still effective on a large proportion of farms (>90%) and closantel was still effective on 60% of farms.
- **Zolvix and Startect** are working on all farms that were involved in the trials.
- Triple (BZ/Lev/Mectin) combination drenches were effective on 20 out of 22 farms.
- BZ/Lev combination resistance was very prevalent (this combination was only effective on 10 out of 22 farms).
- BZ (white drenches) have no role except in a combination.



## Average Drench Effectiveness (22 Farms)



## Percentage of Farms Effective



<b>MFS Project 18.08:</b>	<b>Farming Forecaster (Previously Next Generation Forecasting)</b>
<b>Project Leader:</b>	Richard Taylor
<b>Project Officer:</b>	Andrea Mitchell
<b>Project Collaborators:</b>	Consortium includes MFS as the lead organisation with project partners TFS, LLS and Bookham Ag
<b>Project Funder:</b>	Dept. of Agriculture & Water Resources, National Landcare Program – Smart Farming Partnerships

## 2020 Report

This has been a big year for the Farming Forecaster Project, seeing the completion of a new website and app along with a successful online launch and media exposure. The Steering Committee made up of representatives from MFS, TFS, Bookham Ag, SE LLS and CSIRO have worked together to deliver a great product!

CSIRO has completed the pasture forecast graphs in line with the agreement between MFS and CSIRO and the forecasts are updated daily (tracking line) and monthly (tactical lines). The full suite of outputs is now available for the pasture page in farming forecaster and is delivering operational forecasts to the website.

The current pasture outlook projections are based on the known starting position (soil moisture, pasture available etc), and using the full range of the last thirty years of weather records running forward over the next three months. It is expected over the coming months that an additional graph will be provided based on the same starting position, but with the next three months weather skewed by the BOM seasonal outlook. This will allow producers to consider the outlook with or without the impact of the seasonal forecast.

As a result of the wide promotion of the farming forecaster website and its relevance to the grazing industry, there is substantial interest from other groups, organisations, and individuals wanting to get involved with the project. This interest has brought forward the development of a system to expand the project. Discussion papers and costing schedules have been produced as a way of moving forward to allow others to eventually join the project.

## New probe sites and farm systems

In addition to the five, new soil moisture probe sites that are now fully installed and recording data, two simulated sites have been established, one at Nimmitabel and one at Ando. These sites provide the pasture forecast graphs only, as there is no probe on site. Total sites on the Monaro is now eleven.

## Training videos

Matthew Lieschke, Senior Agriculture Advisor – Livestock South East Local Land Services developed four training videos which can be found on the [farmingforecaster.com.au](http://farmingforecaster.com.au) website, below is the number of views since going live on the 20<sup>th</sup> August:

1. Introduction to Farming Forecaster – 139 views
2. Making Sense of the Probe Data – 38 views
3. Making Sense of the Pasture Data – 37 views
4. Making Sense of Livestock Data – 32 views

## Analytics for the [farmingforecaster.com.au](http://farmingforecaster.com.au) from launch to 15<sup>th</sup> September 20

Below is a snapshot of visits to the website and what area users are visiting, these figures have exceeded initial expectations.

### Total website visits

since launch	26 767 views
last 30 days	5 326 views
last 7 days	1 153 views

### Breakdown of areas visited

Index	17 320 visits (landing page of each site)
Probe Detail	4 032 visits
Pasture Detail	3 675 visits
M'ber Updates Detail	827 visits
Probe Network	714 visits
Weather Forecast	199 visits

MFS would welcome feedback from members on any aspects of the project, and in particular if there are anomalies between the forecast and what is happening on the ground, or if there are inaccurate readings from the soil probes or rain gauges. Please direct any feedback to Zoe or Andrea or discuss with a Board member.

Finally, a quote from Richard Taylor taken from his interview with the ABC Country Hour;

*Farming is a risky business at times, and with uncertainties around the weather and commodity markets it pays to understand what is at stake. If I am placing a bet, I need to know what the odds are, make sure they are in my favour and what I stand to lose if it goes against me.*

*This Farming Forecaster tool will address both of these things — what the odds are in terms of the season going forward, and then, if we do move to a low-rainfall scenario, what our likely supplementary feed requirements need to be.*

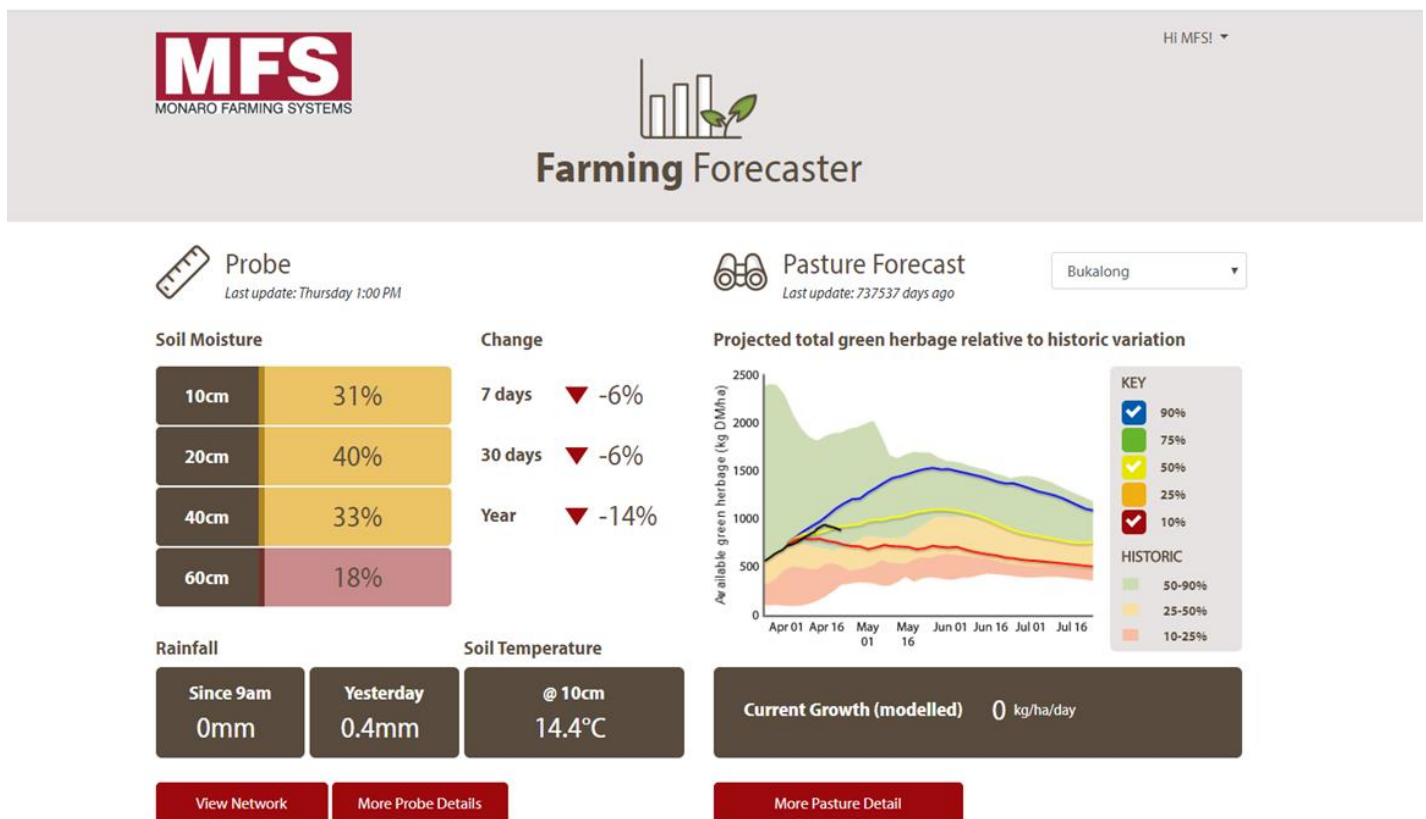


Image: [www.farmingforecaster.com.au](http://www.farmingforecaster.com.au)

**MFS Project 18.11: MLA PDS Steer Finishing**

**Project Leader:** John Murdoch

**Project Collaborators:** Doug Alcock (GrazProphet), MFS Producers, Zoe Rolfe

**Project Funder:** Meat and Livestock Australia

**PDS Driver**

*Can high quality forage crop and perennial pasture systems be utilised to meet target weights for finishing steers on the Monaro and increase overall farm profit relative to the traditional base selling enterprise system?*

The Monaro is traditionally a cattle breeding region with a typical beef enterprise operating on the premise that weaner steers and surplus heifers are sold at 6-9 months of age before their first winter. This practice is intended to reduce the total stock numbers over winter, which is a period of low pasture growth and feed quality on the Monaro.

Recent MFS member surveys indicated meat production enterprises have increased from 20% to 50% of farm enterprise over the preceding six years, with a trend to increasing beef and lamb production at the expense of wool enterprises. Recent prices have also increased interest in taking steers onto heavier feedlot or kill weights rather than the historical norm of producing calves for the Autumn weaner sales. Member surveys had also indicated a strong desire to explore better finishing systems for these meat enterprises.

MFS had previously invested in GrassGro® modelling work which had quantified the relative profitability (\$/ha) of retaining steer weaners through a second spring, either on pasture or winter forage crop, compared to a baseline system of selling at weaning. Modelling results indicated retaining steers on pasture increased farm profit in all but the driest years, with an average increase in farm gross margin of 20%. Running these steers on an oats crop over winter at 2.5 steers/ha increased farm profit by an additional 38 percentage points. The benefit of the oats crop was a 32 kg/head increase in sale weight, but more importantly a decrease in area needed to run the steers, allowing greater cow numbers to be run.

The modelling suggested considerable scope for improved farm profitability via these finishing systems however now pasture/animal trials are needed to validate the modelling results and to ground truth paddock situations across the variable climate and soil types of the Monaro.

**2020 Report**

The 2020 sites unfortunately fared far worse than in 2019 with no producers being able to carry any weaned cattle through on winter forage crops. In agreeance with MLA MFS postponed the 2019 season work and will now aim to conduct this through the 2021 Autumn and Winter.

MFS will again be looking for host sites in the upcoming Autumn, and as such if you are planning on retaining weaned calves on winter active forage pastures and would like to participate in the grazing trial please contact Zoe Rolfe or John Murdoch.

## 2019 Results

The **2019** participating sites;

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 – annual ryegrass

As the winter period progressed into a failed spring all farm systems had to exit their steers due to competing farm system feed demands, and while optimum feedlot entry weights were not able to be reached, nor pasture production maximized, the results still showed a marked improvement in farm profitability even in unfavorable circumstances.

### Steer Grazing Data

LOCATION	Bibbenluke		Mila	Ando	Cathcart	
TYPE	Lucerne/Rye Grass	Wheat	Wheat	Annual Rye	Oats	Canola
VARIETY	<i>Stamina GT6/Perrin</i>	<i>Manning</i>	<i>Manning</i>	<i>Vedure</i>	<i>Blackbutt</i>	<i>UKN</i>
KG/Head/Day	0.96	1.42	1.61	1.4	1.33	1.24
Total KG Gain	652	2405	2988	3994	1243.8	4050
Gain KG/HA	65	241	269.9	285	77.8	405

### Farm Profitability

LOCATION	Bibbenluke		Mila	Ando	Cathcart	
TYPE	Lucerne/Rye Grass	Wheat	Wheat	Annual Rye	Oats	Granite
VAR.	<i>Stamina GT6/Perrin</i>	<i>Manning</i>	<i>Manning</i>	<i>Vedure</i>	<i>Blackbutt</i>	<i>UKN</i>
<i>Animal Gain</i> (KG Lwt/ha)	65	241	270	285	77	405
<i>Net Grazing</i> (DSE/HA > 8 DSE)	9.7	-4.24	-0.9	-2.7	4.4	-6.5
<i>Net Value</i> (\$/ha)	\$ 745.00	\$ 639.00	\$ 939.00	\$ 764.00	\$ 470.00	\$1,051.00
<i>Extra Costs</i> (\$/ha)	-\$ 204.00	-\$ 477.00	-\$ 405.00	-\$ 454.00	-\$ 405.00	-\$ 660.00
<i>Net Profit</i> (\$/ha)	\$ 541.00	\$ 162.00	\$ 533.00	\$ 310.00	\$ 540.00	\$ 391.00
<i>Increase in</i> <i>Farm Gross</i> <i>Margin</i> (\$/ha)	\$ 39.00	\$ 12.00	\$ 38.00	\$ 22.00	\$ 39.00	\$ 28.00



The steer grazing was valued at a 3 year median yearling feeder steer value of 294c/kg liveweight. Animal health costs of \$5/head, a transaction cost of 5% of the value gained, and transport costs 5c/kg gained were also applied to the transaction. In addition maintenance Phosphorus for any extra DSE carried above 8 DSE was accounted for at \$5/DSE.

Subsequent animal 'non-steerer' grazing as well as negative crop values if an annual stocking rate of 8 DSE/HA was not reached was valued at \$53.20/DSE. This figure represents the weighted average GM/DSE across Holmes and Sackett Benchmarked farms on the Monaro in the preceding three years across Wool, Beef and Lamb enterprises.

The establishment costs of the Lucerne/Rye Grass pasture were amortized over the expected life of the pasture, this being 7 years.



**MFS Project 19.05:**                      **MLA PDS The Sense in Supplementation**

**Project Leader:**                      John Murdoch

**Project Collaborators:**              Doug Alcock (GrazProphet), MFS Producers, Zoe Rolfe

**Project Funder:**                      Meat and Livestock Australia

#### **PDS Driver**

The economic benefits of using feeders, even on high quality finishing pastures, is the most striking message to date to come out of our 2018 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.

Unfortunately the 2019 spring and summer was not conducive to commencing this trial, all sites either sold surplus lamb into a surprisingly strong store market, or moved stock into a full feedlot program. Very few producers were able to germinate let alone graze a summer forage crop.

However given the volatility in grain and red meat commodity prices, MFS views this project of high importance and will push ahead with it's commencement in the coming spring.

**MFS Project 20.01:** **MLA PDS Fodder Systems and Feed Gaps (Winter Feedgap)**

**Project Leader:** John Murdoch

**Project Collaborators:** Doug Alcock (GrazProphet), MFS Producers, Zoe Rolfe

**Project Funder:** Meat and Livestock Australia

**PDS 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.

## **2020 Report**

Work to commenced in 2020 with three sites selected:

- Bungarby (Keighly) – Phalaris Pasture
- Myalla (Litchfield) – Perirenal Rye Grass
- Ando (Platts) – Forrage Oats

Off the back of rejuvenating February rains an April application of Foliar Nitrogen was applied to all three sites, however sadly there was no further meaningful rain for the region as we went into winter. In June it was decided not to continue with the trial, as the window for Gibberillic Acid application had reached its limits of commercial value, and the lack of any soil moisture did not give a promising outlook of the ability to obtain meaningful results. As such the PDS was suspended in June, and will recommence for the 2021 winter.

## **CURRENT SUCCESSFUL FUNDING SUBMISSIONS - YET TO COMMENCE**

### **South East Coordinaire - Drought Relief and Bushfire Recovery Grants**

MFS have received funding from South East Coordinaire services to host some events following on from the bushfire and drought conditions experienced by our region in the past twelve months. The activities are aimed at bringing the farming community together in a face to face setting to promote connectedness and improve wellbeing through conversation and shared experiences.

A Crop Tour is being organised for late October to visit numerous farms around the Monaro, including a bus for transport and gourmet picnic lunch hamper.

A Formal Dinner is being organised for late November to enable an enjoyable and fully cost covered evening for our local farmers and their families.

### **Robotic Weed Sprayer “Kelpie” - Agent Orientated Software (AOS) Group**

We were asked to partner in a project submitted as part of the Smart Farming Grants Round 2 with a robotics company Agent Orientated Software (AOS) and we have recently been informed that this project has been successful in receiving funding.

The project will build and test an autonomous mobile robot, “Kelpie”, to identify individual weeds and selectively spray or remove them. Five Kelpie systems will be trialled on Monaro farms and Treasury Wine Estates vineyards - autonomously navigating pasture or vineyard to economically control weeds where it is currently not possible. Kelpie will record the position and size of the weeds, to produce a Weeds Map for planning and audit purposes, and a Feed Quality Map with the current farm stock carrying capacity.

Project Partners include: Agent Oriented Software Pty Ltd, The University of New England, Department of Industry, Queensland University of Technology, Monaro Farming Systems CMC Incorporated, Autonomous Operational Software Pty Ltd, David Miron, and Treasury Wine Estates Vintners Limited.

### **Boco Rock - ALG Resistance testing - farmers fight against African love grass on the Monaro**

#### **2020 Report**

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

## CURRENT FUNDING SUBMISSIONS

### **FRRR - Foundation for Regional and Rural Renewal “Tackling Tough Times Together”**

MFS have submitted an application to receive funding to facilitate some workshops by Anna Marshall from People Mastery.

The aim of the project is to host workshops for local rural families to regroup after recent tough times. The focus will be on deepening trust, increasing self-awareness & improving general communication effectiveness within, and between, farming families, as well learning and building habits for a healthy mind.

The funds will pay for a local training organisation (People Mastery) to specifically develop a workshop targeted to our rural community. The workshops will be held at central venues across the community (Nimmitabel, Cooma and Bombala) and will be fully catered for participants.



## COLLABORATING PROJECTS

### 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:** unknown

**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 18<sup>th</sup> 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 31<sup>st</sup> 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.

Progress has been hampered by the summer bushfire season and COVID-19 outbreak with a significant amount of LLS resources either reassigned or restricted in movement. MFS 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.



## **MFS EVENTS SUMMARY 2019/2020**

### ➤ **MFS AGM / Spring Field Day - 11<sup>th</sup> Sept 2019**

- Comparative Analysis Report - Sandy McEachern (Holmes & Sackett)
- Lamb Finishing PDS Final Results - Doug Alcock (GrazProphet)
- Native Vegetation Update - John Murdoch
- Aust Ag Land Price Outlook - Wes Lefroy (Rabo)
- Spring Seasonal Outlook - Doug Alcock (GrazProphet)
- Steer Finishing PDS Prelim Results - Doug Alcock (GrazProphet)
- Drench Trials Final Summary - Richard Taylor

### ➤ **Soils Club / Summer Field Day - 7<sup>th</sup> Dec 18**

- Seasonal Outlook Summer - Doug Alcock (GrazProphet)
- Grow more Biomass / Store More Carbon - Susan Orgill (NSW DPI)
- Regular Soil Testing to Keep Fertiliser Investment on Track - Richard Simpson (CSIRO)
- Solving the Sulfar Story - Rebecca Haling (CSIRO)
- Steer Finishing Trials Yr 1 Economics - Alcock (GrazProphet)
- Monaro Nodulation Experiment - Harry Middlebrook (Uni of Sydney)
- Serradella Trials / P Efficient Pastures Update - Doug Alcock (GrazProphet)

### ➤ **Farming Forecaster Launch - 24<sup>th</sup> April 2020**

- Webinar hosted by NSW DPI
- Introduction and Opening: John Murdoch and Dr Mike Kelly
- Online launch of Farming Forecaster Tool: Phil Graham and Matt Lieshke (LLS)

### ➤ **Seasonal Outlook - 8<sup>th</sup> May 2020**

- Webinar hosted by MFS
- Introduction and Opening: John Murdoch
- Seasonal Outlook: Doug Alcock (GrazProphet)

### ➤ **Native Vege Update - 22<sup>nd</sup> May 2020**

- Webinar hosted by MFS
- Introduction and Opening: John Murdoch
- Update on the Native Vegetation Act: Luc Farago (LLS)

### ➤ **The Science of Seasonal Outlooks - 18<sup>th</sup> June 2020**

- Webinar hosted by MFS
- Introduction and Opening: John Murdoch
- Weather Forecast data interpretation: Dr Patrick Mitchell (CSIRO)

### ➤ **Winter Field Day - 26<sup>th</sup> August 2020**

- Face to Face field day (following COVIDSafe guidelines)
- Historical Rainfall Data - Phil Graham (Graham Advisory)
- Farming Forecaster Launch Update - Matt Lieshke (LLS) and Phil Graham
- Seasonal Outlook - Alcock (GrazProphet)
- Louise Fletcher - RFCS & Ted O’Kane - DPI

## **MFS SUPPORTERS - THANK YOU**

### **MFS Partners**

South East Local Land Services  
NSW DPI  
CSIRO  
University of Sydney  
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 NSW  
Australian Merino Sire Evaluation  
Association Incorporated (AMSEA)

### **Sponsorship Packages**

Rabobank  
Incitec Pivot  
Mercado  
Dawbuts  
Telstra

### **Bronze Sponsors**

Cooma Rural - Agriwest  
Elders Cooma  
Lambpro  
MLP (Monaro Livestock & Property)  
National Australia Bank  
NutrienAg Bombala  
Zoetis

## **SPECIAL MENTIONS...**

**MFS Board Members (Richie, Phil, Jono, Warwick, Mandy, 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.

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

**Boyce** for consistently providing meeting rooms, HR and financial management support over the last 13 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 Steer Finishing Trial Hosts** - Mick Shannon, Lisa Philips, Murray Jackson, Col Murdoch, John Murdoch

**MFS Winter Feed Gap Trial Hosts** - Bea Litchfield, Charles Keighley, Stephen & Sharon Platts



# Local Land Services South East



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**TFS** Tablelands  
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