



**Monaro Farming Systems
2008 Annual General Meeting
20th August 2008**

Reports and Meeting Papers

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Agenda

MFS AGM Farm Walk BBQ

The Monaro Farming Systems AGM and Farmwalk BBQ on Wednesday 20th August, 2008 will commence at 2.30pm at Andy Martin-Smith's property 'Glenfinnan', Nimmitabel and then move to the Nimmitabel Bowling Club by 4.30pm.

Program

- | | |
|----------|---|
| 2.30pm | Management and opportunities from in-paddock self weighing of sheep.
Andy Martin-Smith's property, 'Glenfinnan', (15 Yandra Road Nimmitabel)
Phil Graham, DPI, Yass, NSW. |
| 4.30pm | Sheep Electronic ID management systems under trial in Victoria.
Presentation via phone and power point by Charles de Fegely |
| 5.00pm | Coffee Break |
| 5.20pm | Monaro Farming Systems AGM, including reports. |
| 6.00pm | Presentations from:
National Australia Bank
Southern Rivers CMA |
| 6.20pm | Keynote speaker
Professor Rob Napier
Worldwide, world class farmers, what sets them apart? |
| Sevenish | Refreshments and dinner. |

Chairman's Report – David Mitchell

It has been a busy and challenging first year, as with starting any new venture, however it's also been a rewarding year for Monaro Farming Systems.

From the beginning, the concept of MFS has been well received, as shown by the founding membership base and the support and enthusiasm from other organisations of our formation. Other farming System groups around the country are flourishing, highlighting the purpose for these groups to drive the agenda of research, development and extension in their local farming environment.

Members may have not observed, "the biggest bang for their buck" this year, however I can assure you that an enormous amount of work has been done behind the scenes to form a solid foundation for MFS. The true measure of your investment will come over a longer period.

The interim board is in place for another year and allows the organisation to form this foundation. Thereafter, the board structure will be made up of three elected members, two professionals by invitation and one representative from Mike Stephens & Associates. The board has appointed Mike Stephens as the Executive Officer of MFS in an unpaid capacity, this will allow Mike to act on behalf of the board in the day to day operations. Thank you to John Auer, John Jeffreys, Kate Waldren, Richard Taylor, James Larritt and particularly Mike Stephens for their contribution and effort over the past 12 months.

Setting Research Development and Extension Priorities

In our founding years it is extremely important to find what the Monaro research, development and extension priorities are. We started the process by generating ideas from the membership base, leading to a "Think Tank" held in March. The Think Tank was attended by representatives from MFS, Sydney University, Boyce Chartered Accountants, Mike Stephens and Associates, NSW DPI and CSIRO.

The Think Tank developed a road map considering Monaro as "one Farm" before fleshing out the six major RD&E issues:

1. Legume Mix and Balance
2. Pasture Productivity
3. Soil Nutrition
4. Measurement of Conversion - kgs of dry matter, wool / hectare /kilogram of product /rainfall
5. Winter Feed Gap
6. Enterprise Mix.

The next stage of this process will be "scoping" of each issue to:

1. Define the problems
2. Collection of known data or information
3. Analysis of that data
4. Define projects relative to the identified gaps.

This process is slow however it will ensure we develop meaningful, focused and cost effective projects that achieve results. A full report on the Think Tank is available.

Farm Focus Groups

The objective of the focus groups is sharing information and co-learning to develop solutions to business barriers. This area of MFS has been disappointing as delivery has not hit the mark! They are very costly to run and organise, however in recognising this, the board is committed to improving the situation and encourages feedback to assist us in improvement. Details see group reports.

Events

The events run this year have proven to be extremely successful, including the launch, Spring field day and Graze and Grain field day with quality guest speakers including Tom Bull, Mick Keogh, Richard Clark and Rob Napper. We will continue with these quality events next year and would appreciate any suggestions.

Partnerships

For MFS to be successful, we need to form solid partnerships that add value and strengthen our objectives and operations. We have identified five organisations to partner including:

Mike Stephens and Associates, (MS&A)

Sydney University,

Southern Rivers Catchment Management Authority, (SRCMA)

Boyce Chartered Accountants and

NSW Department of Primary Industries, (NSW DPI).

The process of forming partnerships has been more difficult and time consuming than first thought however we are making steady progress.

Our relationship with MS&A continues to grow with Mike putting in an enormous amount of voluntary time. I cannot express enough, the importance of this alliance in partnering a professional organisation in a management capacity. MS&A bring years of experience in working in all levels Agriculture and links the Monaro to other Agricultural regions and organisations. I would also like to thank the MS&A team and Jenny Brophy for her administration work.

After three meetings with Southern Rivers Catchment Management Authority (SRCMA) an agreement has almost been reached where SRCMA will fund MFS \$50,000 for a part-time coordinator and the delivery of MFS Project 08.1-Grass Gro for the first year. The board is grateful for this funding, as it's a tight funding year for the CMA. Both boards agreed that the SRCMA & MFS can and should work willingly together. Whilst both organisations will have differing goals, values and priorities, working together in whatever way the circumstance allows will be positive for both organisations.

MFS 2008 Projects

We have commenced two RD&E projects this year- MFS Project 08.1-Grass Gro is initially a three year project with the possibility to be extended depending on the results. Grass Gro will be a powerful tool for members, in examining strategic farming decisions and a basis for making operation decisions throughout the grass growing season. We also believe it will play a big part in research projects. MFS Project 08.2 – Thermoskin - will evaluate Thermoskin in protecting sheep off shears. The trial is been conducted at Ando and we will have the results by early spring.

Thank you to Olli Cay, Col Murdoch, Jim Shovelton and Doug Alcock for their time and effort in delivering these projects. For details see project reports.

In concluding, I would like to thank the National Australia Bank for their sponsorship and our founding members for their belief in MFS.

Our organisation will assist farm businesses to be more profitable and sustainable on the Monaro. This will be done by identifying the gaps in knowledge and skill and arranging activities to remove those gaps and to develop a culture of continuous improvement in our industries. I believe we are well on the way to delivering such a result.

"An investment in knowledge always pays the most interest" Benjamin Franklin (1706-1790)

David Mitchell
Chairman

Executive Officer's Report – Mike Stephens

Most of the activities have been covered in David Mitchell's report or in the project reports, The areas which I need to cover are sponsorship, finance, focus groups and to foreshadow that there will be an election of office bearers prior to the 2009 AGM.

Sponsorship

Corporate fundraising for organizations like MFS is difficult until we have runs on the board. With the commitment from the SRCMA to provide support we will be in a better position attract funds.

Our major corporate sponsor, NAB has contributed \$3000.

Finance

The financial report shows that MFS traded at a loss of \$1059.81 for its first year. This loss has been accentuated by the fact that we have had to establish the organization, purchase information, and on occasions purchase services from the NSW DPI.

In order to ensure the growth MFS most of the work has been done on a voluntary basis. Members of the MS&A team have been charged out at reduced rates and I act as a volunteer. The board is confident that we will be able to run the organization at a modest profit in the near future.

Focus Groups

David Mitchell has reported that the groups may need to be re-designed. MFS is the first farmer organisation in Australia to attempt to combine. RD&E, Events and small 'Focus' groups.

Like all innovations it will take some adjustment before we get the mix right. The Board is keen to get feedback from members so the group activity can be improved.

Election of Office Bearers

I would like to draw you attention to David Mitchell's comments about the election to be held in 2009.

Mike Stephens
Executive Officer

Financial Report – Mike Stephens

MONARO FARMING SYSTEMS PROFIT AS LOSS TO 15TH AUGUST 2008

INCOME

Subscriptions	\$21,181.82	
NAB Sponsorship	\$ 3,000.00	
MLA /MS&A CMC Expense reimbursement	\$ 8,254.88	
Contribution to Lunch	\$ 240.00	
TOTAL INCOME		\$ 32,676.70

EXPENSES

Servicing Farm Focus Groups	\$ 5,856.25	
CMC Research Phase	\$ 4,812.50	
Secretarial Support	\$ 6759.00	
Monaro Profile Data	\$ 1750.00	
Advertising	\$ 615.08	
Signs	\$ 480.00	
Telephone, emails etc	\$ 166.96	
Telephone Conferences	\$ 1,271.30	
Postage	\$ 16.50	
Speakers Costs		
Ashley White	\$ 2,391.50	
Leo Hamilton	\$ 360.00	
HJK Down Under Chemicals	\$ 600.80	
Mick Keogh	\$ 579.00	
Total Speakers Costs	\$ 3931.30	
Travelling and Accommodation	\$ 7,110.35	
Venue and Catering	\$ 967.27	
		\$ 33,736.51

Shortfall	-\$ 1,059.81
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Project Reports

MFS Project 08-1 - Grass Gro

Project Leader – Oliver Cay

Project Manager – Jim Shovelton

Project Team – Mandi Stevenson (SRCMA)
Doug Alcock (NSW DPI)
Andrew Moore (CSIRO)

Background

Because grazing systems are very complex it is impossible for producers, other land managers and advisors to predict the outcomes of changes in management practices, economic conditions or the impact of variable seasonal conditions without the use of expert systems.

CSIRO has developed a unique decision support program called Grass Gro which has been used extensively in other parts of southern Australia. The core of the program is a dynamic model of pasture production based on soil type, weather and pasture species at any given site. The resultant pasture production is then used to run a grazing enterprise. Grass Gro can assess the effect of management options on gross margins, pasture and animal production, supplementary feeding as well as a series of environmental indicators such as persistence of species, ground cover, drainage etc.

The key to this project is to develop four Grass Gro simulation models for Monaro and to use those simulations with members of MFS to look at strategic (long term) and tactical decisions and their impact on farm profitability and sustainability.

MFS has identified the red basalt soils and granitic soils as the key soil types and that these will be modeled with both introduced pastures and native pastures.

Introduced species have been effectively modeled; however, further modeling is required before native pastures can be effectively simulated. In the first year of the project CSIRO will develop the native pasture components of Grass Gro.

The key processes in the project are:

- Develop the improved pasture simulations for the two soil types.
- Develop native pasture components for the model by CSIRO which will be tested and validated in conjunction with MFS members
- Develop the native pasture simulations for the two soil types
- MFS members to identify key management questions for the Monaro. Examples of strategic questions could be – what is the appropriate time of lambing, what is the best

drought management strategy given various market settings, what impact will a changes in management have on ground cover, etc.

- Scenarios modelled to address these questions.
- Tactical simulations at strategic times each year of the project to enable producers to plan during critical periods. Key times identified are late autumn/early winter and December, although other simulations will be needed in response to atypical seasonal events such as prolonged drought, unseasonal rainfall, etc.

No model can accurately predict outcomes. Grass Gro's strength is that it enables producers to see the "big picture" and to look at possible outcomes from making a particular decision. It is through discussion of the issues raised, that producers gain a greater understanding of the impact of decisions on profit and sustainability and can make more informed decisions. A further benefit is that it is highly likely that modeling will identify future issues for research.

The Grass Gro program is not a program that will be normally be used directly by producers. Its role is as a decision support tool in the hands of a skilled operator who can discuss with producers that implications of the outcomes of the simulations.

The time table is for the modeling to be completed by the end of October with ground trialing by MFS members from January with the model being fully operational by the middle of the year.

I would like to thank Project leader Oliver Cay and acknowledge the assistance of Mandi Stevenson, Doug Alcock, Andrew Moore and the SRCMA.

Jim Shovelton
Project Manager

MFS Project 08-2 Thermoskin

Project Leader – Colin Murdoch

Project Manager – Doug Alcock

The Problem

Choice of shearing time on the Monaro is perhaps a more vexed question than at any other location in Australia. The vast majority of merino ewes are joined to lamb in the late winter – spring period and in order to avoid the discounts associated with low tensile strength and mid break many of these flocks also shear pre-lambing so placing the point of break in the weathered tip of the staple. The practise also has the advantage of reducing the risk of pregnant animals falling and not being able to regain their feet.

The downside to this management technique is the potentially serious weight loss of ewes prior to lambing and its impact on the lambing process and in extreme weather events the serious risk of ewe losses to hypothermia. The impact of inclement weather can be dramatic. Table 1 shows the relative performance of merino ewes subject to chill stress. A clean shorn animal is clearly subject to extreme stress and dramatic weight loss compared to animals with even minimal wool length.

Table 1. Modelled performance of 54kg (FS 3) merino ewes in various lengths of wool grazing typical winter pastures¹ 115 days from the start of joining.

Wool Length cm	Chill Effect ² MJ/day	Live-weight change grams/head/day	Maternal weight change grams/head/day	Supplement ³ to maintain fat score grams/head/day
Bare Shorn	6.8	-208	-277	990
1	3.4	-99	-168	620
1.5	1.3	-33	-102	430
2	0.3	-4	-74	350
3	0.0	1	-69	350

Source: GrazFeed

1) 500kg Green DM/ha @ 70% digestibility plus 2000kg dead DM/ha @ 45% digestibility

2) Extra energy required to maintain body temperature (8°C max temp, -3°C min temp, 5mm of rain and 20km/h wind)

3) Animals fed wheat at 13 MJ/kg DM.

Animals with at least 2cm of wool length do not suffer any additional stress due to chill but bare shorn animals (about 0.5cm of wool length) can suffer dramatic weight loss and a huge increase in energy requirement in order to maintain core body temperature. There is a significant risk that under these weather conditions the animal would not be able to maintain their temperature and they may die from hypothermia. In more benign conditions (10°C max temp, -3°C min temp, no rain and 10 km/h wind) the weight loss on bare shorn animals is similar to that of animals with 1cm wool length in the more extreme conditions (168g/h/d maternal weight loss). Assuming the animals survive the direct effects of chill then the maternal weight loss by lambing time would be at least 7 kg (approximately 1 fat score)

The solution

In terms of the energy balance the solution to the problem lies in either increasing the energy intake of the animal (supplements) or reducing the chill effect. In extreme conditions to maintain fat score of bare shorn ewes would need an extra 640 g/h/d of wheat compared to the requirements of an animal with 2cm wool length. Averaged over the 35 days (good days and bad) until lambing starts could amount to an additional 14kg of grain per head which at \$350/tonnes would cost \$4.90.

As an alternative to feeding more, various methods have been employed to reduce chill stress. The use of “snow combs” in order to maintain greater wool length off shears, the use of sheep coats and more recently the application of Thermoskin have been tried. All these technologies seek to prevent animals getting wet, reduce skin exposure to wind or increase the level of insulation. The question is just how effective are they at reducing the level of chill and reducing weight loss without additional nutritional input. These techniques have been assessed before but never in a direct comparison and often in a more benign environment. For example coating trials at Condobolin showed no difference in animal performance in the winter months (Hatcher *pers comm*) but the Condobolin environment is considerably more benign than a Monaro winter

The Trial

A trial is being done on the property of Colin Murdoch at Ando to compare the impact of various treatment on off shears weight loss of late pregnant merino ewes. The treatments included, Nil, Snow Combs, Sheep Coats and Thermoskin. 230 ewes were scanned as singles and multiples, weighed and fat scored on the first of July then grouped on birth type before allocating 50 ewes equally across treatments according to weight and fat score. Fat scoring is an assessment of the fat depth at the GR site on the 12th/13th rib 110mm down from the back bone. For the purposes of analysis the animals were judged on a continuous scale (mm of tissue depth) in order to increase the measurement resolution compared to assessing in full fat score increments (5mm per fat score) 30 ewes were discarded from the trial based on either extreme body weight or fat score or because they were not pregnant.

The animals were run together until shearing when they were reweighed and fat scored off shears as the basis against which to judge treatment differences. Thermoskin and coats were applied on the day of shearing.

Table 2. Average weight and GR fat depth at scanning (1/7/08) and shearing (28/7/08)

Treatment	1/7/08		28/7/08	
	Wt	FS	Wt	FS
Nil	53.3	13.6	49.4	12.9
Snow comb	53.5	13.8	48.9	13
Coats	53.8	13.8	49.6	12.9
Thermoskin	54.5	13.9	50.2	12.5

It can be seen that between scanning and shearing the animals lost about 1mm of GR fat depth which should equate to about 1.4 kg of maternal weight. No comparison can be made based on live-weight since fleeces were not weighed and this difference cannot be accounted for. Moreover there will have been some compensating increase in live weight due to a gain in conceptus weight. Overall the ewes performed well between scanning and shearing and with no further maternal weight loss would commence lambing in fat score three.

The ewes will be run together and will again be weighed and fat scored in the week commencing the 18th of August to determine any differential performance between the treatments over a period of approximately three weeks post shearing.

Doug Alcock
Project Manager

Think Tank on Research, Development and Extension

14th March 2008

Attendees:

David Mitchell (MFS), Mike Stephens (MFS), John Auer (MFS), Jono Forest (Boyce Chartered Accountants), Richard Simpson (CSIRO), Doug Alcock (NSW DPI), Luke Pope (NSW DPI), Jim Shovelton (MS&A) and Inakwu Odeh (Sydney University).

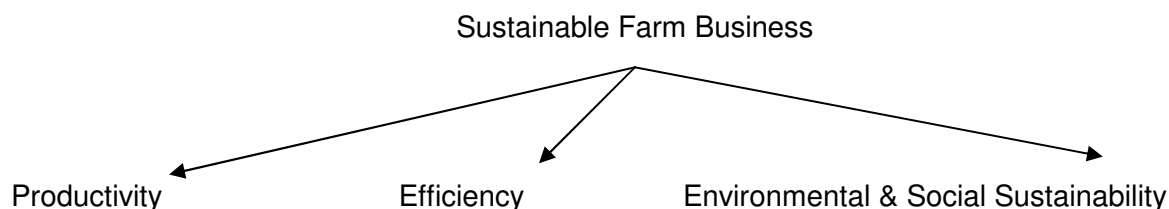
The Thought Process:

Through the facilitated process the Monaro was thought of as “one” farm which the major goal of the farm being “Sustainable Farm Business”.

This led to three sub headings of

- a) productivity
- b) efficiency and
- c) environmental and social sustainability.

A Sustainable Farm Business was drawn diagrammatically as shown below:



Productivity is driven by the following factors:

Dry Matter Production
Pasture Composition
Pasture Management

Efficiency is driven by:

Production (how much/when)
Conversion (what to do with it)
Cash flow
Capital
People

Environmental and Social Sustainability is driven by:

Social

Rural towns
Education
Monitor -Decline, issues

Environment

Carbon trade-measurement

Benchmark Monaro

Native Vegetation

Soil Retention

ground cover

Water environment

Climate change

The Six Issues The Think Tank Resolved Are Priority Issues for The Monaro Are:

1. Legume mix/balance
2. Pasture Productivity
3. Soil Nutrition
4. Performance Plotting and Measure Conversion Output
5. Optimal Winter Stock Rates
6. Enterprise Mix

The next stage of this process will be “scoping” of each issue to:

5. Define the problems
6. Collection of known data or information
7. Analysis of that data
8. Define projects relative to the identified gaps.

Focus Group Reports

Grass Group – Jim Shovelton

The pasture group has met twice this year. The first meeting was at Hamish and Liz Jardine's property at Nimmitabel and discussed options for improving winter pasture production. The field walks focused on revising Prograze skills. Luke Pope, Jim Shovelton and Mike Stephens facilitated.

The second meeting was held at Reynolds' property, Nimmitabel. Key speaker was Reg Hill (Wrighton's Australian Research Manager) who discussed ryegrass options and the development of grazing tolerant lucernes (via telephone hookup). Field trips looked at winter cereal and perennial ryegrass management. Luke Pope and Jim Shovelton facilitated.

The group is a large group. It was intended to split the group up into two groups. However, splitting the members up into different streams created issues when members in one stream felt they were missing out on activities in another stream. The format of this group needs reviewing.

A number of members would like the group to focus in greater detail on whole farm implications of pasture decisions.

Lamb Group – Mike Stephens

The Lamb Group held its first field day on the 4th of March 2008 at the Craigie Fire Shed. The day was facilitated by DPI's Ashley White with assistance from Doug Alcock. The group gained a really good understanding of the industry "end to end".

The group has experienced some difficulty in arranging the next event – an abattoir visit; however this is planned for, in the near future.

Future Directions of the Group Are:

- | | |
|--------------------------|--|
| 1. Visit to abattoir | - follow lambs through from paddock to kill assessments |
| 2. Key profit drivers | - stores vs finishing
- case study from within group
- Grassgro |
| 3. Issues to investigate | - scanning singles vs twins
- self-replacing composite breeds
- opportunities for finishing store lambs (take advantage of later growing season in this area). |

4. Farm systems issues
 - setting decision making thresh-holds (eg if feed deficit approaching, what cut off weight if 90 days @ 200g/hd)
 - rape crop vs slow growth pasture
 - filling feed gaps: winter and when finishing lambs (costs and benefits of options)
5. Practical ram selecting exercise including Lambplan
6. Progeny testing trial
 - testing Lambplan

MFS Supporters

Monaro Farming Systems would like to say a big “Thank You” to the following supporters:



National Australia Bank as MFS’s major Corporate Partner

Meat and Livestock Australia (MLA)
As a Major Corporate Partner



Project Partners:
Southern Rivers Catchment Management Authority
NSW Department of Primary Industries



Collaborative Partners:

CSIRO

University of Sydney

Boyce and Co.

MS&A



The University of Sydney



MFS would like to thank Gordon Litchfield Wool for their kind donation of meat for today's BBQ.

