

# final report

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## Higher Pasture Production and Utilisation

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## Project Aim

**To increase carrying capacity and meat production per hectare, through increased pasture production and the use of improved legume pastures and new technologies.**

Three of the driest seasons on record in this area were recorded over the three years of the trial and due to the run of dry seasons, the project aims changed in Year 2 with more focus on managing feed supply in the summer months and increasing pasture production of legumes for the cropping rotation. While maintaining a focus on utilising tools such as pasture measurement, rotational grazing and simple feed budgeting. The trial focus was directed at establishing sub clover with treatments of inoculants to improve first and second year pasture production and nitrogen fixation (for cropping phase).

## Objectives (Measurable Outcomes)

**Group members to utilise 2.5-3.0t/ha dry matter for the season. Initial measurements indicate that the district average for pasture utilisation is only at 1.5-2.0t DM/ha.**

Unfortunately after the first season of dry and a failure of the large scale whole paddock sub clover/inoculant trial the recordings by group members for utilising pastures was overshadowed by the large supplementary feeding programs required to get them through to next season. This is where the group aims utilising pastures changed to focussing on trialling feed supply strategies to lower the risk of dry seasons.

In the second season, two farmer's trialled the following livestock feed supply strategy - boxing ewes together in one mob, defer grazing after the break until pastures reached 1,000 kgs dry matter FOO and then sowing the sacrifice paddock with a fodder crop that will be utilised by weaners after weaning. This strategy proved extremely successful with both farmers reducing supplementary feeding of weaners by 22% and 31% respectively.

**To achieve 180-200 kg/ha live weight gain. The current average LWG/ha in the area is estimated to be 100-120kg/ha based on current stocking rates.**

The group agreed early in Year two of the trial not to focus on this aim given the run of poor seasons and rather focus on reducing the requirement for supplementary feeding using strategies such as deferred grazing, combining mob's together and planting fodder crops. The group agreed that implementing these strategies would lower risk of over-grazing and erosion as well as reduce the cost of production.

**Reduce the cost of production by producing and utilising more dry matter.**

An initial benchmark cost of production was carried out on one producer in the group to determine the range of CoP levels experienced by farmers in this region. The range in CoP for this one producer over the 2006 and 2007 seasons (average production years) was \$2.87 and \$2.95/kg carcass weight respectively. However the large supplementary feeding costs experience in the early part of 2008 and subsequent late season break increased this same producers CoP to \$5.03/kg carcass weight. This indicated how critical it was to concentrate on reducing supplementary feed costs through the use of strategies such as fodder crops.

A Cost of Production workshop was planned for Year 3 and unfortunately was cancelled after dry conditions were experienced throughout the 2009 season and many group members planned to sell down stock numbers to reduce summer feeding costs.

## Methodology

The Project aimed to paddock-scale recording of stock movements to determine increases in utilization and live weight gains. These included comparisons between improved (re-sown sub clover legume) and unimproved pastures. The improved pasture site included newer annual and sub clover varieties sown with a new inoculation technology called Alosca and Nodulator. The inoculant trial was conducted independently by Quairading Agriservices (results attached in separate one page result report).

At the beginning of each season (February), the Group would de-brief and discuss any issues that arose during the season and also held a planning meeting where they would consider the issues from the previous season, trial results and discuss their priorities and strategies for the coming season. This type of flexibility in the Project planning and Group structure resulted in the change in direction of the project to focus more on reducing risk of high supplementary feeding costs and also allowed the group to insert critical decision timelines on how the season was progressing. This process ultimately determined that the final year of the project was not completed so that funds were not wasted on consulting and trial costs.

The project results have been disappointing for all the members due mainly to poor seasons not allowing comparison trials and techniques to be fully utilized. However the results from strategies such as combining mobs, deferred grazing and fodder crops has certainly changed the majority of member's practices. Unfortunately due to variations in seasonal breaks and winter rainfall these strategies cannot always be implemented perfectly due to other issues such as erosion risk (deferred grazing and larger mobs can be detrimental to soil structure).

### Member's Comments:

One farmer, Sean Powell made this statement at one of our final meetings: "The best thing I've done in my livestock enterprise is join my ewe mobs together and confine feed them in a 40 hectare paddock. This reduced my time in hand feeding at the break so I could concentrate on my cropping program. I then used this paddock to sow a late fodder crop of lupins and peas after my cropping program was finished. I then used this paddock to graze weaners over summer with minimal management – just made sure the water supply was good. This is simple stuff really, I don't know why I didn't do it before".

### **Trial measurements. Have these enabled you to show the economics of the outcomes and what benefits [dollar] members may be able to gain? How have/will members improve their bottom line? (Members comments please)**

Unfortunately the clover inoculation trial did not survive the harsh conditions of 2009 and only minimal recorded measurements were taken early in the growth of the trial. The producers members plan to continue this type of research in future years though as they see this as critical to their whole farm enterprise mix to aim for lower nitrogen inputs in the cropping phase.

### **Any environmental benefits of the outcomes of your project? E.g. better bush/tree regeneration, less dust or water run off etc.**

As a result of knowledge acquired throughout the duration of the Project there have been one major positive result for the environment:

- Improved paddock groundcover during summer and autumn due to improved use of fodder crops to reduce numbers of feet on fragile soils.

### **Please describe any open days, field days etc and how many attended?**

#### October 2007

An open field day was held by the group to view the initial sub clover and inoculant trials at Sean Powell's property. 5 other farmers attended as well as one CSBP and one Landmark agronomist. Unfortunately due to seasonal conditions in Year 2 of the project, no further field walks were conducted.

### **Was the Group satisfied with the results of the project?**

The group were generally disappointed with the results of the project due mainly to things beyond their control. The seasonal conditions were very un-kind in the first two years of the project and when Year 3 looked like dishing up the same, costs were minimised in the final year with no direct consultancy undertaken.

### **How could you have done the project better?**

In one way the Project would have been more successful if all Group members had been slightly more pro-active with paddock recording. Record keeping and farmers are sometimes an incongruous mix. Generally the record keeping of stock movements to determine paddock profitability is not common with farmers in this area and notably not a priority in a highly cropping focused enterprise. This would be an area for both Project management and Group members to address.

Perhaps introducing critical time points throughout the season before Year 3 may have enabled the project to be delayed for a year then picked up again in the next year. This allows flexibility with seasonal conditions which is particularly important in an area where the livestock enterprise contributes less than 15% of farm income.

### **Is the group interested in doing another project?**

Given the recent spike in sheep prices and run of poor cropping seasons, the group has certainly expressed interest in running a further project focusing on legume trials and their impact in the cropping rotation.

### **Would you recommend other Groups run their own trials?**

Certainly, we would recommend other Groups run their own trials. Agvivo has been approached to form other Groups in the area but it comes down to the logistics of proper management when the distance between facilitator and group members is so large (4-5 hours).

### **How would the Members sum up their experiences in doing the MLA PIRD project**

The Group's general consensus is that the Project has certainly opened their minds to using non-traditional practices in their farming business with specific regards to their livestock enterprises. They cite increased knowledge about legume pasture production from inoculants (initial indications from trials), grazing management and stock management (mob size and deferred grazing). They have increased their repertoire in risk management strategies through better use of fodder crop strategies which has come about as a direct result of trialing new ideas and gaining knowledge through the Project.

### **Comment on the organisation and management of PIRDs, this will assist MLA in better management of future projects.**

Our dealings with MLA, Project organisation and management of PIRDs have been excellent and uncomplicated throughout the duration of the three year Project. Reporting and expectations have been well explained and particularly flexible. Gerald Martin is a pleasure to work with and should be commended on his approach to farmer funding.

### **Please email or post (*no faxes please*) the completed form to:**

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