

2002/T01



Producer Research Support

Winter Beef Production

King Island Prograze Update Group



The King Island Prograze Update Group has made serious progress with their understanding of grazing management and reduced conserving feed. They have demonstrated up to 30% increase in winter stocking rate and outstanding results with high nitrogen, phosphorus and potassium rates.

The project

The nine farmers and one agronomist that comprised the King Island Prograze Update Group were concerned that not enough of King Island's fabulous spring feed was being eaten. The project set out to understand the scope for running more animals in winter to increase stocking rates and therefore animal production in spring.

On King Island, winter carrying capacity and time of calving can be used to maximise the grazing of spring feed.

Objectives

The primary aim of this project was to increase livestock production by increasing winter stocking rates and turning more spring pasture into beef. This aim was to be achieved by meeting the following objectives:

1. Having all group members record winter DSEs and kg beef/ha;
2. Identify winter stocking rate targets (such as greater than 20 DSE/ha) and how we can achieve them;
3. Have at least six properties recording cow condition, average pasture mass and grazing strategy at the start of winter, mid-winter, the end of winter and end of spring;
4. Facilitate farmwalk visits by the group to each monitored property at identified times;
5. Identify and document how the group can consistently exceed 400kg beef/ha; and
6. Extend these experiences to all interested producers on the island, using the King Island beef group as a great starting point.

What was done

Each project team member monitored at least one (of their own) mob of animals and the pasture they run on. The stock condition and pasture availability through the seasons for 10 mobs was assessed.

This was done by touring the island through the seasons, looking at each mob on the same day at each assessment time. Monitoring, or physical benchmarking of each of the participating beef farms, occurred nine times over two years. Observations were recorded using both stills and video footage.

What happened?

There is definitely scope to use cow condition more efficiently, and the potential to grow more feed. Although winter feed is being well utilised, there may also be opportunities to manage the feed profile better by using rotation length and fertiliser inputs.

The project group made two well received presentations to 70-90 producers at the King Island beef group annual feature days in 2003 and 2004. Presentations included video from assessment days and showed exactly what was done.

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Key points

- Control of capeweed at one site to grow and graze more feed.
- Targets of 25 – 30 winter DSEs have been identified and achieved by some. Achieving them has required high fertility, intensive controlled grazing, and some supplementary feed inputs.
- Some of the group are achieving in excess of 400kg of live-weight per hectare per year.
- A commitment to 7% annual increases in stocking rate by one member.
- A 30% increase in stocking rate by one member to a winter stocking rate of 27 –30 DSE/ha.
- Illustration that high stocking rates, good stock condition and good conception rates can co-exist.

Discussion

By touring the island and seeing each mob on each property in one day, project team members have been challenged by observed differences in feed, condition, and performance.

On each property a host of positive outcomes have been achieved:

1. Boyd Hoare

Boyd has begun the change from autumn to spring calving. This herd most commonly had the highest condition score. This showed that cows can carry too much condition as a response to low stocking rates and lower total feed use in good times. The property now has more focus on the utilisation of feed and condition across the year and a more flexible rotation.

2. Ian Smith

Ian has increased winter stocking rate by up to 30% to between 27 and 30 DSE/ha. This has been achieved with an intensive rotation and subdivision, using high inputs of fertiliser and some silage inputs. There has been an excellent utilisation, pasture composition and growth of both pasture and replacement heifers.

Ian now wants to more fully cost this approach, to see if it's sustainable and investigate how it can be supported without silage inputs. The last year saw no silage inputs, but a slight reduction in the number of cattle reaching their target joining weight.

3. Fred Perry

Fred's rotational management of two cow herds has seen a commitment to a gradual increase in stocking rate without reduced cow or calf performance. Pasture growth and composition have been fantastic, however, continued increases in a wet environment are problematic.

Despite this, Fred is still committed to increasing stocking rate and using increased strategic fertiliser inputs to advance the commencement of spring growth. Stocking rates have reached 25 DSE per ha, with 6 – 10 % increases achieved.

4. Jan Van Ruiswyk

The groups monitoring of Jan's steers and cows and the same day comparisons between properties has helped support Jan in his decision to stop feeding out hay in winter and use stocking rate and stock density to manage the spring flush.

We've still seen the cows in winter condition of 2.5 to 3 (even in miserable weather!) and seen their dramatic surge in performance as spring gets going. Rotational grazing has helped manage the feed profile and use the excess, whilst not cutting hay has boosted autumn growth.

Jan's change in strategy has worked well for two years without penalising herd performance. Jan is keen to measure his productivity and assess whether pasture renovation will provide another step forward.

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Producer Research Support

MLA Producer Research Support offers support funding of up to \$15,000 over three years for groups of producers keen to be active in on-farm research and demonstration trials.

These activities include:

- Producer Initiated Research and Development
- More Beef from Pastures demonstration trials
- Prime Time Wean More Lambs demonstration trials
- Sustainable and productive grazing grants.

Contact Gerald Martin -
Producer Research Support Coordinator.

Tel 08 8556 2900 or
producersupport@mla.com.au

5. Kevin Crouch

Kevin's commitment to measuring the kilograms of live-weight produced on his monitoring block has allowed a more critical analysis of the block's performance and set a baseline for comparison into the future. Currently he's producing 155kg of carcass weight per ha with a stocking rate of 19 DSE/ha.

Pasture production limited at this site and Kevin has included nitrogen fertiliser applications and pasture renovation strategies within his rotational grazing system. This has allowed the group to see the substantial increases in feed on offer that can be achieved.

6. Roger Clemons

Roger's monitoring block hasn't been managed to facilitate a measurement of productivity, but it has allowed the comparison of feed on offer with cow condition. In general stock have been seen in excellent growing condition, with the scope to both grow and use feed more intensively.

The use of spray grazing to control capeweed, provided grazing pressure is applied in a timely manner, and the resurrection of a paddock apparently overrun with capeweed in the early stages of establishment, were of interest to the group.

The pressure that cutting hay can place on pasture on a dry sandy site has also been observed. Species composition and growth were adversely affected by a late hay cut in the dry.

Roger also commenced a paired paddock stocking rate trial and achieved a near doubling of stocking rate with a combination of more intensive rotational grazing and fertiliser application.

7. Peter and Rod Bowling

At Rod and Peter's a mob of steers and heifers grazing across a large section of the property were observed. This meant that productivity assessments were not possible. Despite this the scope to increase pasture utilisation, with spring surpluses in large paddocks seeing significant wastage was seen. Fluctuations in feed on offer were dramatic. Contrasting with the opportunity to eat more feed was the winter challenge of supporting the stocking rate required to achieve better utilisation.

There has been some scope to push cow condition a little harder, but increased subdivision and grazing management inputs in tandem with other strategies to fill the feed gap, seem appropriate.

This site has seen fantastic fescue pastures pumping water out of areas prone to increased natural salinity and provided an extremely graphic demonstration of the benefit of a game fence to control grazing by wallabies. Pasture composition and feed on offer changed almost unbelievably on pasture with the same potential, a wire width apart - one side a desert with 100kg DM/ha and white clover rye and fescue at 2500kgDM/ha a wallabies neck away.



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8. Rod Graham

Rod had been unhappy with the block he monitored for some time. Pasture composition and growth hadn't met expectations and the stock had been slow to meet Japanese ox slaughter targets, with too many being carried over into an extra winter. Monitoring encouraged Rod to see the improvements in response to his fertiliser regime, dissuading more costly renovation strategies. Rod also started a paired paddock stocking rate trial.

At this site stocking rate has nearly doubled in response to grazing management and fertiliser inputs, and will be subject to a full cost benefit analysis.

Next steps

The project team would like to more fully evaluate the stocking rate changes some members have made and properly measure and cost the outputs and inputs at each of the monitoring sites. Members would also like to try fertiliser and pasture management approaches to increase feed availability when it counts.

Group members have decided they would like to undertake the following on their monitor areas:

1. Fred Perry

Monthly records of cow condition and stocking rate. Measuring the feed on offer with a meter and estimating the feed demand. The calves will be weighed at weaning and the kilograms of live-weight produced per hectare calculated.

2. Rod Bowling

Response to nitrogen application assessed in paired paddocks monitored throughout the year. This would involve measuring the kilograms of feed on offer and growth response, with the grazing days, and the timing and duration of the graze period also being recorded.

3. Jan van Ruswyk

An assessment of the cost benefit of paddock renovation. Jan wants to determine all the costs and inputs incurred by the renovation, and weigh animals on and off the paddock to determine animal productivity. Grazing records of timing and duration will also be kept to determine the grazing days. Jan also wishes to assess the effects of aeration on pasture production, comparing different forms of mechanical aeration on the kilograms of feed grown.

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4. Kevin Crouch

Weighing monthly to measure kilograms of live-weight grown through the year and total production per hectare and the cost per kilogram. Kevin is interested in trialing a winter spelling strategy and possibly the use of lucerne to fill a summer feed gap.

5. Ian Smith

Measuring the feed on offer once a month and weighing to determine the kilograms of live-weight grown per hectare. Ian is also interested in costing and measuring the impact of silage inputs at high stocking rates.

6. Michael Youd

Michael is a new member keen to measure the impact and costs of paddock redevelopment. Paired paddocks will be compared for feed on offer and winter carrying capacity.

7. Roger Clemons and Rod Graham

Both will continue their stocking rate trials, comparing winter carrying capacity and kilograms of live-weight grown on paired paddocks.

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