

DEVELOPING AN EFFECTIVE MANAGEMENT PLAN FOR MEETING TARGET LEVELS OF REPRODUCTIVE PERFORMANCE

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Key messages

- Reproductive performance only improves when you sit down and work out a plan to improve it
- Mating performance is largely within my control, so I need to know what's going on
- The right type of data is required for effective decision-making and also to track progress towards my reproductive goals
- If necessary, use the people around you to help you plan your reproduction management
- You need to be committed to your plan.

Background

In 1995 I made the transition from Kaukapakapa to Waitaki, where I purchased 215 ha (158 effective) which I have farmed myself. I currently run 509 mixed breed cows in an all grass system, producing 1270 kgMS/ha in the 2005/06 season. My herd's reproductive performance is important to me, and I manage the herd to get as many cows in calf as quickly as possible. The value of a compact calving to me is more days in milk, and increased culling ability.

I have some overall goals for my herd, and I plan management strategies to achieve these goals. The goals are:

1. Calving over 9 weeks
2. 8% empty at 9 weeks
3. No inductions.

Last season I came close to achieving these goals with a 9.6% empty rate after 9 weeks of mating and no inductions. This season however, the herd empty rate increased to 15%. I have reviewed my management and performance for this season, using advisory support (vet, farm

Notes:

consultant and Dexcel), and have identified management areas that I can improve for next season. During this process, it became obvious to me how useful herd data is when you are trying to understand what went wrong.

Table 1: Herd reproductive performance for my herd for the last 3 seasons

| | 2004 / 05 | 2005 / 06 | 2006 / 07 | Industry target |
|--------------------------------------|-----------|-----------|-----------|-----------------|
| Total mating length, previous season | 12 | 11 | 9 | |
| % Herd induced | 5.5% | Nil | Nil | 0% |
| % Herd CIDR'd | 6% | 17% | 19% | <15% |
| % Calved at 6 weeks (Herd) | 91% | 90% | 94 % | 87% |
| % Calved at 9 weeks (Herd) | 98% | 98% | 100% | 98% |
| % Calved at 3 weeks (First calvers) | 67% | 71% | 74% | 75% |
| % Calved at 6 weeks (First calvers) | 85% | 92% | 95% | 92% |
| % At risk cows | 7% | 5% | 3% | < 8% |
| 3 Week submission rate | 90% | 92% | 90% | 90% |
| % 18 – 24 day returns | 56% | 60% | 53% | 70% |
| 6 Week in calf rate | ? | ? | ? | 78% |
| Final empty rate | 14% | 9.7% | 15% | 10% @ 9 wks |
| Weeks of AB | 6 | 6 | 6 | |
| Total mating length, this season | 11 | 9 | 9 | |

My reproduction management

My plan is essentially focused on managing seven key issues that impact on reproductive performance. These are calving spread, heat detection, cow health, young stock, bulls, body condition score and genetics. For each of these, I have identified the issues, and developed action plans which include collecting and managing the right type of data. Once the plan is set, it is up to me to ensure that it happens. I have realised over time what a difference the people around you can make, and I have been fortunate to have an excellent AI technician and support from my vet and farm consultant. There is always something new to learn and somewhere you can improve.

Calving spread

Data collected: calving dates.

I choose not to induce cows, so my final calving spread is determined by the number of weeks of mating. I want calving over in nine weeks so that most cows have time to cycle before

the planned start of mating, so I mate for nine weeks only. Planned start of mating 2006 was 22nd October and the bulls were out of the herd by 27 December.

The herd's calving spread is affected by most areas of reproduction management, so I try to maximise my in calf rates, and compress the calving period by managing all areas well.

Areas for improvement

My calving rates to date have been very good. The herd has been meeting or exceeding industry targets of 87% calved at six weeks and 98% by nine weeks. This is primarily due to the fact that I do not mate for more than nine weeks.

Heat Detection

Data collected: pre-mating heats, bull matings.

Pre-mating heats are determined by tail painting four weeks prior to the start of mating. This is essential as we use a CIDR programme and need to know who our non-cyclers are for early treatment. For the first round of mating we use Kmars, and after that we rely on tail paint. I do most of the picking of cows during the six week AB period. I observe cows as they come down the race to the shed. All cows that are drafted out for inseminating are put in a separate paddock near the shed. If we have missed any cows I can then spot them easily when I shut the rest of the herd away. I also make an effort to observe cows in the paddock during the day and the evening, as time permits.

Areas for improvement

We record all bull matings and load them into MINDApro, so we have more than seven weeks of recorded heats and are able to look at the Return Interval Analysis report to assess how good our heat detection is. We have been achieving on average 60% of return heats occurring within the desired 18–24 day return interval. These results suggest some room for improvement when compared with the industry target of 70%.

To date Kmars have been used in the first round to provide support when we are 'getting our eye in' at the beginning of the mating period. In the future however, I may consider moving the Kmars to the second round of mating, when fatigue may be affecting my accuracy.

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Cow Health

Data collected: list of at risk cows (difficult calvings, metabolics, twins, retained membranes, discharges etc.)

We keep a list of at risk cows as calving progresses. The whole herd is metrichecked prior to the start of mating, and metricured as necessary. Heifers are mated to Jersey bulls for ease of calving.

Areas for improvement

This season metrichecking only revealed 5% of the herd as dirty, many of which were already recorded as 'at risk' cows. Of this 5% we only needed to metricure 2.5% of the herd, and I am happy with our performance in this area.

Young stock management

Data collected: whole herd weights in May, calf weights, heifer weights.

I would like to see all young stock meeting my target weights. This is a challenge, particularly when they are grazed off-farm, and not always monitored as closely as they should be. My whole herd is weighed every year at dry off to establish the mature live weight (Herd avg. 505 kg in May), and based on that figure I have monthly targets which I expect the grazier to achieve. This season the calves weighed 120kg at 1 December when they went to grazing, and they have targets of 165kg at 6 months, 224kg at 9 months, 327kg at mating, and 485kg at calving.

During calf rearing, we aim to give every calf the best chance to reach targets, and run up to four mobs of calves based on age and size.

Areas for improvement

Last season I wasn't happy with the weights that the heifers calved at. I now make sure that checking the heifers at grazing is a priority, and I am present when they are weighed to check their progress against targets.

Bull management

Data collected: bull numbers, behaviour and rotation.

I lease 2 year old Friesian bulls. In the past I have had teams of 'wild' bulls which were very difficult to manage so now I make a point of leasing the bulls from a good breeder. During the season I run two herds: a young/light mob of 180 cows and a mature herd of 300. For the last couple of seasons I have had 8-10 bulls on the farm. Two bulls were in each mob at all times, with at least four resting. The bulls were regularly changed on a 12 hour rotation.

Areas for improvement

I recently looked at how much bull power I use, and probably haven't had enough bulls in the mature herd. Using the bull calculator on the Dexcel website, based on a 90% submission rate and a 55% conception rate, I actually need three bulls in the mature herd, and two in the young herd. This may have contributed to my final empty rate.

Body Condition Score (BCS)

Table 1: Data collected: Herd BCS average on a monthly basis

| Date | 17 July 06 | 14 Aug 06 | 11 Sept 06 | 16 Oct 06 | 13 Nov 06 | 15 Jan 07 |
|---------------|-----------------------|----------------------|-----------------------|------------------|----------------------|------------------|
| Avg. herd BCS | 4.9 | 4.8 | 4.7 | 4.6 | 4.5 | 4.6 |

My farm consultant scores some of the herd each month and gives me an average for the herd. Most seasons I get very close to achieving my target of BCS 5.0 average for the herd, at calving.

Most decisions around body condition score are made in the autumn. We start drying off light cows in April, and normally dry the whole herd off within three groups. In an effort to help cows partition feed to BCS rather than milk production, we feed our lowest quality silage to milkers in the autumn.

In the past, all the cows have been grazed off over the winter, but this season I will be keeping 100 of the lightest cows at home where I can focus on feeding them as well as possible.

Areas for improvement

Although I get regular data on the herd BCS average, I haven't paid much attention to the range within the herd. In the future, I aim to use this information to better identify when I have a tail end of cows that would benefit from some preferential treatment. I always have the option of putting these lighter cows in with the young mob where they won't have such strong competition for feed.

Genetics

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Data collected: breed composition of herd.

I have a mixed breed herd consisting of 50% Friesians, 35% Jersey, and 15% crossbreds. I am maintaining the current breeds, mating Friesian to Friesian, Jersey to Jersey, and using crossbred semen for the crossbreds. I use Bull of the Day.

My attitude toward improving reproductive performance

- Every day during the mating period there are cows on heat that will not be on heat again for another 21 days. Every cow I miss costs me time and money.
- If you want to improve your performance in any area of the farm business, it's important to be honest about your situation and be prepared to act on constructive advice from others.
- If you are dealing with accurate farm data, you can't hide from the facts, and you can learn a lot about improving the herd's performance.