

Extended Lactation

Farmer Case Studies

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Extended Lactation Case Study

Damian & Ann Coulthard, Tinamba, Gippsland

Background

- A seasonal calving (August) herd of 200 Holstein Friesian cows.
- 52 ha of irrigated pasture at Tinamba in Gippsland.
- A seasonal calving system is most suited to this single labour unit farm.

Comments about EL

- They have used EL every year since 1995 as they “do not want to loose elite, high producing cows, generally it was the younger cows that were not in calf by the February pregnancy test”. EL has reduced the need to cull good cows for fertility issues.
- From the herd of 200 cows, normally between 5 and 10 have been milked through using EL each year. In February 2007, 6 cows were not in calf when pregnancy tested, so they were milked through using EL, One cow did not make the 22 month lactation the other 5 have milked for 22 months.
- Floods in November 2007 affected the herd’s ability to get in calf and conception rates were reduced. In February 2008, 26 cows were not in calf when pregnancy tested, so they were milked through using EL. 24 of the cows were mated in October 2008, 21 of these have been pregnancy tested in calf (17 of which got in calf in the first 10 days) and 11 have milked right through to Mid June 2009 (10 went dry by May 2009). The remaining 3 cows were culled following the pregnancy test in February.
- Damian said “98 per cent of cows will milk for an 18 month EL and about 50 per cent milk for a 22 month lactation”
- Damian said that “heifers milk production tends to be more persistent during an EL than the mature cows”
- When Damian was asked what are the negatives of using EL he said “there are no negatives of EL as it has allowed him to retain more of the high producers in the herd”
- Being an irrigated dairy farm, Damian is able to supply adequate pasture to EL cows all year.



A Case Study - NIR

Keith, Pam, Anthony and Tanya Lawry, Dingee, Victoria

Background

The Lawry's currently milk around 400 Holstein cows on their 700 acre irrigation farm near Dingee in the Goulburn irrigation district of northern Victoria. They have a 750ML high reliability water right which the past couple of years they have only received around 30-50 per cent of right.

Keith is the father and in the last couple of years has been taking a step back from the day to day running of the farm to give his son Anthony a chance to run the farm his way.

They used to milk 520 cows but now milk 400 cows as a result of the drought. They will probably stay at this level.

The cows are large Holsteins with an AI history going back over 25 years. They have always used popular bulls that have been proven in Australia and focused on production. It is likely their herd has significant northern hemisphere genetic influence.

The cows averaged 7500L/561kg/MS last season for a 305 day lactation. They currently calve down 85 per cent of the cows in spring (starting August 1st) and the remaining 15 per cent in autumn (March).

Previous system

The Lawry's have always been seasonal spring calvers. They, like most dairy farmers, have had trouble getting cows back into calf in a 12 month system. So for quite a while they have milked cows that are of good genetic value (PI over 97) for 2 years provided they were milking well. They also only give these cows two chances to get into calf (ie. 2 breeding seasons). The cows have persisted quite well milking for 2 years. Most cows made it to the target dry off period (8 weeks prior to calving), and if not, nearly every cow made it to 21 months (12 weeks prior to calving).

New System

Last season, for the first time, the Lawry's joined cows to calve in autumn. They joined 60 cows that didn't get in calf for the spring joining period. These cows will calve 19 months after their previous calving. The Lawry's farm isn't very well set up to cope with milking cows over a wet winter. They feel that it is a risk to milk too many cows over winter. To avoid having too many autumn calvers, they will join these autumn calvers for a spring calving at the next joining. So they will have 17 month period between calvings.

EL has addressed a key area of concern about cows that fail to get into calf. They will now have another opportunity. With the 17/19 month calving intervals, they also don't have to wait as long to get the next opportunity. Also having some autumn calvers is suiting the current seasons well - dry winters, with most of the farm sown to annuals and much of the feed produced over the winter period due to the short rainfed seasons.

In the future, they will shorten their joining periods down from 12 weeks down to 8 weeks. If everything works out well they hope to stop using mop up bulls in the main herd. They also hope to deliberately delay the mating of some cows that are unlikely to get into calf in a 12 month calving system such as late calvers, some heifers and sick cows.

At this stage they have decided to continue to rear 25 per cent replacement rate of young stock. As EL is allowing them to retain more cows, the high replacement rate is giving them two opportunities. In good seasons it allows them to cull heavier into the herd while still maintaining numbers. In tough times it gives them the opportunity to sell young stock to markets like the export market.

How do the cows perform under EL?

So far this system seems to be working. The EL cows produced more than their herd mates with an average of 649kg MS when annualised (the amount they produced for one year when averaged out e.g. If calving every 18 months and producing 900kg/ms for the 18 months an annualised figure would be $900\text{kg} \times 2 / 3 \text{ years} = 600\text{kg/ms}$ on an annualised basis) compared to herd average of 561kg MS.

Looking back through their records to see how well cows performed after an EL; Keith was surprised with what he found. The cows over 6 years had an average PI of 102 during EL but the following season averaged 106. Cows under 6 had an average PI of 101 during EL and still had a PI of 101 the following season. The PI was averaged over 88 cows. Another interesting thing found on the Lawry's farm was that nearly all cows had completed an EL by the time they reached 7 years of age. So if the Lawry's hadn't been practicing EL, just about every cow would have been culled by the age of 7.

Issues with EL

One of the problems that they have faced using EL is that some cows become over conditioned. These over conditioned cows are having a higher incidence of metabolic problems at calving like displaced abdomens and ketosis. The Lawry's have just installed individual feeders in the dairy, with the hope that this may help to reduce this problem. Also they have started splitting the herd into two at important times of the year like when the autumn cows are fresh and towards the end of EL to reduce condition of these cows.

Where to in the future?

After attending the farmer forums and spending time going over there own records, Keith has been rethinking the way they might use EL. He is now considering calving all cows every second year. It would be done in split lots of 200, so in other words they would calve down 200 cows each year instead of 400. They would still autumn calve cows that missed getting into calf on the first joining period.



South West Case Study Farm

Craig and Tracy Thorburn – Simpson, South West Victoria

Farm system

- 400 cows;
- Fully feed cows for high production;
- Seeking production not components – liquid milk contract; and
- Keeping high producing cows important.

Calving and mating pattern

- Split calving with three distinct calvings per year (strictly 5 weeks each):
 - February 150
 - June 100
 - September 150
- Originally used their production as a key to whether to join them or not – they were not joined until below 48L/day.
- Short sharp joining period – synchronise all cows; this allows two opportunities per joining period.
- Now all cows skip a joining unless they calve in the first few days of their bracket.
- Aim is to have everything milking at least 15mth lactations, however need to balance it so not too many calving down in June.
- Average lactation has been about 350 days, however looking to push that out to 380 – 400 days.
- Cows are allowed to stretch out to a 2 year lactation (3 joining opportunities) if still not in calf – then culled.
- Heifers do better on extended lactations; virtually all of these do a 15 month lactation.

Benefits

- Only milking labour is employed – Craig and Tracy do majority of work.
- Great for labour – calving down 150 calves over a month is manageable:
 - calving is short and sharp – doesn't drag on
 - batches of 40 calves easier than 100 calves
- All calves born to AI, more selection available - greater potential to build up cow numbers.
- Spreads out the milk flow – necessary for milk contract

Other thoughts

- Individual feeding in dairy is valuable, allows the management of late lactation cows.
- To prevent cows getting too fat, some late lactation cows are split off in March/April and ran and fed separately to those recently calved cows.

Extended Lactation Case Study

Michael and Debbie Cole, Foster, Gippsland

Background

Michael and Debbie Cole, dairy farmers from Foster in Gippsland recently used EL to shift their calving pattern from spring to autumn.

There were multiple reasons for shifting the calving time including:

- To match winter milk incentive;
- To match pasture growth;
- Dryer conditions over May – July in recent years;
- Cows are dried off in February, when there is low pasture availability;
- Avoids calving down in a wet spring.

The system

The Coles milk 320 cows – 2/3 Friesian and 1/3 Friesian/Jersey cross. They used EL to move the whole herd from July 16 to April 2 start of calving (they were joining the cows from Oct 6, but are now joining from June 23). To achieve this, they did not calve the cows in July 2008, carrying them through to calve from April 2 2009 (simply by delaying mating).

The cows were dried off on February 15 2009 for a 6 week dry period. The herd had produced 170,000kg milk solids annually, they produced 135,000kg milk solids annually during the change over period, but additional income was made over the winter period as the cows were in milk longer. This highlights that, as with traditional 300 day lactations, less milk is produced in late lactation.

18 cows were culled in December 08, as their milk production dropped below 10 litres, and they became over conditioned. Michael was able to feed less silage in Feb to May.

Most of the cows conceived on the first joining of their EL with only 18 of the 320 cows being empty.

The cows finished the EL at about a condition score of 6, this was about 1 condition score higher than normal, this extra condition score was utilised by the cows in early lactation. The EL cows are currently (June 09) producing 2.2kg milk solids per day which is equal to their previous spring peak.

Comments about EL

Michael and Debbie said they would consider using EL with cows that he felt were “too good to sell”, they would see if their milk production persists for up to 22 months and if not they would cull cows once their milk production went below about 10 litres.