ONCE A DAY MILKING

Brian Frost

Our journey

We farm 74 effective hectares of consolidated peat at Tauhei north of Hamilton, Waikato. We started with a TAD milking system achieving 1772 kg MS/ha/year, at a stocking rate of 4.3 cows/ha, producing 416 kg MS/cow in 2003/04 changing to a full OAD milking system achieving 1460 kg MS/ha/year, at a stocking rate of 4.9 cows/ha (32% heifers) producing 300 kg MS/cow in 2005/06 - this wasn’t without great learning curves. Milksolids production per cow and per ha had reduced by 28% and 18% respectively with the switch to OAD milking. Andrew Goold (our farm consultant) and Brian were confident however, that with a lower proportion of heifers, a high BW of 138, a crossbred herd and high quality feed inputs, that we would see a return to the MS produced per ha under a TAD system. We bought a big number of heifers in those first years to increase the number of crossbred and high BW animals in the herd, not realising the effects of OAD on younger cows.

Our farm management aims to make full use of all pasture before supplements are used, and to use winter grazing-off to support the early calving date of 4th July with a compact calving spread. The high stocking rate allows spring pasture to be fed direct to cows with no pasture silage conserved, little topping, and N fertiliser used at rates up to a maximum of 260 kg N/ha as feed budgets dictate.

Turnips are used to provide a high quality summer supplement and to assist re-grassing with perennial ryegrass and tall fescue, the latter being grazed with a 20% shorter round length.

Our targets for the 07/08 year were to be 1800 kg MS/ha and 375kg MS/cow at a stocking rate of 4.8 cows/ha, and then following on in 08/09 season with 1800 kg MS/ha and 400kg MS/cow at a stocking rate of 4.5 cows/ha, but due to the drought of summer 08 and then the floods in winter 08 we had to rethink some of our directions. Our 07/08 year was extremely hard with the severe drought, but we chose to buy in more feed and milk as long as possible, which meant production was not down too much. The advantage of OAD during this year was also that we had less than 1% empty cows which meant we had stock to sell. The intention was always to continue this last season as an OAD system and started off this way, however,
because of the effects of the year before we had problems with SCC and so chose to milk less cows on a TAD system.

The table below shows where we have come from, and what we have achieved on the TAD system, and the OAD system, and the process in-between

**Table 1. Where we have come from**

<table>
<thead>
<tr>
<th></th>
<th>03/04</th>
<th>04/05</th>
<th>05/06</th>
<th>06/07</th>
<th>07/08</th>
<th>08/09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. number of cows milked</td>
<td>315</td>
<td>319</td>
<td>360 (32% heifers)</td>
<td>364</td>
<td>340</td>
<td>300</td>
</tr>
<tr>
<td>Cows/ha</td>
<td>4.26</td>
<td>4.31</td>
<td>4.86</td>
<td>4.92</td>
<td>4.5</td>
<td>4.05</td>
</tr>
<tr>
<td>Total MS</td>
<td>131,137</td>
<td>116,151</td>
<td>108073</td>
<td>125,000</td>
<td>119,019</td>
<td>132,750</td>
</tr>
<tr>
<td>Kg MS/ha</td>
<td>1,772</td>
<td>1,570</td>
<td>1460</td>
<td>1689</td>
<td>1610</td>
<td>1794</td>
</tr>
<tr>
<td>Kg MS/cow</td>
<td>416</td>
<td>364</td>
<td>300</td>
<td>345</td>
<td>350</td>
<td>440</td>
</tr>
<tr>
<td>OAD Milking</td>
<td>None</td>
<td>August onwards for 200 young XBred cows</td>
<td>100% of herd – All season</td>
<td>100% of herd – All season</td>
<td>All of herd until beginning of April 2008</td>
<td>Back to TAD from August 08</td>
</tr>
<tr>
<td>Total brought-in feed (t DM)</td>
<td>440</td>
<td>540</td>
<td>470</td>
<td>540</td>
<td>440</td>
<td>440</td>
</tr>
<tr>
<td>Empty rate (%)</td>
<td>7.6</td>
<td>3.5 for XBred, 9.5 Friesians</td>
<td>7</td>
<td>7</td>
<td>Less than 1%</td>
<td>6</td>
</tr>
<tr>
<td>Induced rate (%)</td>
<td>6.5</td>
<td>6</td>
<td>6</td>
<td>4.9</td>
<td>3.8</td>
<td>6.25</td>
</tr>
<tr>
<td>CIDR use (%)</td>
<td>18</td>
<td>3.5 for Xbreds, 7 for older Friesians</td>
<td>10</td>
<td>11.5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

**Feeding**

- Originally feeding vegetables and maize silage, and summer turnips
- Now PKE, maize silage and summer turnips. Increased turnips grown from 4.5ha to 10.5 ha
Breed

- Started with Friesian herd and now moving towards a Jersey Cross herd
- BW 107/48
- PW 131/75

Condition Scores

- Never been a problem on a OAD system due to the feed being converted to body weight. We have discussed trying to lessen this by overall feed reduction, or looking at TAD milking for a short period of time – this was also to stop the decline in production nearer to a TAD system

Pasture and supplement management

- No real differences to that of a TAD system. The cows were not in the paddock for 24 hrs but shifted the same as the TAD system would be.
- Targeting 1500 residuals just the same as TAD
- In the last four years we have moved from traditional rye grass/clover pastures to Advance Tall fescue/clover. This is due to the severe drought conditions in the Waikato area in the summer. There is different management needed for the fescue to remain in good growing condition – normal 24 day round is 18-20 days for fescue.
- PKE and Maize feed as needed on the pad
- Turnips in the paddock

Stocking rate

- Refer to table above
- Really tricky in the early spring to follow spring rotation planner
- Wintering has to be done off farm for some animals due to nutrient budget

Animal health

- All the same requirements as with TAD system
- Magnesium requirements (dusting) every 12 hours
- Mastitis. We have had problems with SCC and mastitis this past 2 years. Last year mostly because of the plant, and this year? (high stocking rate)

Notes:
• 24 hours is a long time between seeing and treating cows – this requires good stockmanship to recognize and treat animals

**Pitfalls or common misinformation**

• Lazy man’s farming – not at all
• Halving of expense costs i.e. power and feed – not at all
• Higher stocking rate – grazing costs etc.
  ‘If not a good farmer – high stocking rate OAD does not lesson the effects of poor results.’
  ‘Your weaknesses and strengths in your TAD farming system – will become heightened in a OAD system.’