Tools to help pasture renovation decisions

Lesley Irvine

Do paddocks need to be renovated?

In deciding whether a paddock needs to be renovated, there are a few factors to consider. Symon Jones from the TIA dairy extension team outlines these in a short video called “Pasture Health – Checking Plant Density”. The video can be found in the ‘Resources’ section of the TIA Dairy, Grains and Grazing Centre web pages or on YouTube.

Which cultivar to use

Use the Forage Value Index to select the best perennial ryegrass cultivars. The FVI provides a rating for different perennial ryegrass. As the Dairy Australia website explains “The FVI is based on independently-calculated Performance Values (PV) for seasonal dry matter production and Economic Values (EV). PVs are determined by trial data from the Pasture Variety Trial Network (PVTN), supplemented by data supplied by plant breeding companies that meet eligibility criteria. EVs are determined by economic analysis of case study farms in different dairying regions in south-east Australia.”

The FVI is available on the Dairy Australia website along with information about understanding how to use it. Make sure you use the Tasmanian FVI.

A note of caution: when making decisions regarding pasture renovation this year take into consideration the high likelihood of a drier Spring. Determine whether you have time to renovate pasture on rain-fed areas of the farm. Also consider the cost:benefit of taking an area out of the rotation for renovation when pasture growth is likely to slow earlier than usual.
Spring seasonal outlook

Lesley Irvine, TIA

Rainfall for July has been higher than the long-term median for most dairy farms in Tasmania (Figure 1). The rainfall for August (up to 23 August) has been higher than the long-term median for the north-west but close or below median as you progress towards the east coast. Hopefully, this means all dams are full, ready for the upcoming spring and summer, as a drier than average spring is forecast.

The Bureau of Meteorology is predicting less than 40% chance of exceeding median rainfall for the period September to November for most of Tasmania and less than 25% for the mid-north coast, the north-western tip of mainland Tasmania and King Island (Figure 2).

There is a relatively high chance of exceeding the median maximum temperature for most of Tasmania in September (the chance is highest the east, decreasing towards the west). October is also likely to be warmer although the likelihood is less with only a 50:50 probability in the north west.

For a more detailed climate outlook visit the Bureau of Meteorology website (www.bom.gov.au).

Figure 1: Rainfall anomalies (mm) for July 2018. Rainfall anomalies describe the difference in rainfall for this time period compared to the long term average.
Source: Bureau of Meteorology (accessed 24 August 2018)

Figure 2: The chance of exceeding above median rainfall from September to November.
Source: Bureau of Meteorology (accessed 24 August 2018)
Figure 3. The chance of exceeding the median maximum temperature for September to November.
Source: Bureau of Meteorology (accessed 24 August 2018)

What this means in terms of pasture management

Leaf emergence rate should be used to set rotation length to maximise the amount of pasture grown. Leaf emergence rates are determined by temperature and water. In September (before water becomes limiting) if the temperature is warmer than normal leaf emergence rates will be faster than normal. If pasture has access to good levels of nutrients (which determines the size of the leaves), growth rates should be higher than normal.

Figure 4. Predicted pasture growth rates for Smithton. The red line is predicted and the red shading the range. The blue line is the historical prediction (based on 30 years data). Please note individual farm growth rates will vary for many reasons including soil nutrient status and grazing management. Predicted growth rates should be used as a guide only.
Source: Sense-t Pasture Predictor (accessed 7 September 2018)

Continued over page
The Sense-t Pasture Predictor (http://dashboard.sense-t.org.au/) uses climatic data to predict pasture growth rates over a 3-month period. Figures 4, 5 & 6 show the predicted September pasture growth rates for Smithton, Burnie and Scottsdale respectively. Based on the climate predictions, most regions should experience close to average growth rates (slightly lower in the north west building to slightly higher in the north east). The important point to note is the earlier decrease in predicted growth rates as a result of lower rainfall predicted for Spring.

Preparing for a drier than average spring

While these are only predictions and predictions can be wrong, it is best to have a plan and be prepared. Some things to consider:

1. Prepare a feed budget. Look at a scenario with low rain-fed spring pasture growth rates. There are several dairy feed budgets available for free online. TIA has one available in the resources section of the Dairy, Grains & Grazing centre webpages (http://www.utas.edu.au/tia/dairy-grains-and-grazing/dairy/resources) or send an email to Lesley.Irvine@utas.edu.au and I will send you a copy. DairyNZ also has an online feed budget available. Knowing your feed requirements for the season will help you plan how much feed you will need to purchase.

2. Use nitrogen effectively. Nitrogen can boost pasture growth rates and is one of the lowest cost ‘supplements’ to purchase. Nitrogen should be applied at a rate of 30 to 50 kg/ha (if using urea this roughly equates to 60 to 100 kg/ha of urea). Apply as soon after grazing as possible. Dairy Australia has produced a short video with Richard Eckard on timing of nitrogen applications. It is available on YouTube. Nitrogen should only be applied to pasture which is actively growing. This means it is not an option on rain-fed areas of the farm once soil moisture is depleted.

3. Be ready for an earlier than usual irrigation start-up. Each day that irrigation start-up is delayed reduces the potential pasture grown by 105 kg DM/ha over the season. A delay of 5 days will reduce pasture grown on your farm by 0.5 tonne DM/ha for the season – this is costly. TIA produces a weekly pasture growth rates and evapotranspiration update (send an email to nathan.bakker@utas.edu.au if you would like to be added to the mailing list), which can be used as a guide for irrigation start-up, but it doesn’t replace having your own on-farm soil moisture monitoring tools or doing your own water budget.

4. Graze pasture to maximise quantity and quality. Set rotation speed based on grazing at the 2.5 to 3 leaf stage (or canopy closure if that is occurring earlier) through late winter/early spring period. When pasture starts becoming reproductive, shorten the rotation (typically to around the 2-leaf stage) so cows are grazing pasture before seed heads emerge. Once the grass’ reproductive period is over, extend the rotation to the 2.5-3 leaf stage and maximise the amount of pasture you will grow.

For a more detailed climate outlook visit the Bureau of Meteorology website (www.bom.gov.au)
DataGene

DataGene’s latest Australian Breeding Values (ABVs) were released recently. Dairy farmers have one more good reason – worth about $300 per cow – to focus on Balanced Performance Index (BPI) when selecting bulls.

The BPI is a blend of ABVs for the traits that influence a dairy cow’s contribution to the farm business: production, fertility, functional type, survival, cell count, workability and feed saved.

In a major study, the ImProving Herds project used actual data from commercial dairy herds to determine contribution of genetics to dairy farm businesses. The results showed that on average, the top 25% of cows in a herd (based on BPI) produce a margin over feed and herd costs of $300 per cow more than the bottom 25%.

Michelle Axford from DataGene said the findings held across different dairying regions and feeding systems.

“The message is clear: the daughters of high BPI bulls perform better under Australian conditions,” she said.

“A simple and effective way to put this into practice is to breed replacements from bulls that carry the Good Bulls logo and meet your breeding priorities.

“You can be confident that using Good Bulls will improve the Balanced Performance Index of your herd,” she said.

Bulls that carry the Good Bulls logo meet DataGene’s minimum criteria for BPI and reliability and are available for purchase.

“There is a wide range of Good Bulls, giving farmers plenty of choice for Good Bulls that meet their priorities for specific traits, budget and company preferences,” she said.

The August ABV release includes 1039 Holstein Good Bulls, 134 Jersey Good Bulls and a selection of Red Breed and Guernsey Good Bulls.

Lists of Good Bulls are available in the Good Bulls App (available from Google Play or the App Store) or the Good Bulls Guide which is available in pdf or excel format from DataGene’s website.

Visit www.datagene.com.au for the latest ABV results and more information about results from the ImProving Herds project.

DataGene is an initiative of Dairy Australia and the herd improvement industry.

“A simple and effective way to put this into practice is to breed replacements from bulls that carry the Good Bulls logo and meet your breeding priorities.”
Why and how to make high quality baled silage

Frank Mickan, Pasture and Fodder Conservation Specialist

Key Points

- Milk- and meat-producing pastures and crops of high quality, if ensiled correctly, will result in high animal production when fed
- Aim for quality NOT quantity!
- Mow, wilt, bale and wrap within 24–48 hours
- Bale well-compacted bales
- Seal bales airtight as soon as possible after bales are made
- Maintain the airtight seal and patch holes immediately with silage specific tape
- If your silage contains seed heads or is slimy, smelly, mouldy, unpalatable or is heating up once opened, you’re losing lots of $$$$$

Many farmers (and contractors) have been making silage for many years and know how to make and store good quality silage with minimal losses. So why do all feed testing laboratories report a wide variation in nutritive values in their annual summary of analyses for each season?

Many farmers accept the silage quality they end up with is all they can get, and a few holes here and there aren’t a big problem. But, do you know the nutritive value of your silage? And have you done a feed analysis on your silage?

There are many well-established guidelines for making high quality silage that are not being followed by farmers and contractors. In most situations, good quality silage is no more expensive to make than poor quality silage. Therefore, there are many new technological advances with which farmers/contractors are not yet fully acquainted. These can lift profits substantially.

Why make high quality silage?

High quality silage will allow your cows to maintain (or even increase) high levels of milk production at any time during lactation, not just at mid–late lactation. If high quality silage – 10.5 to 11.0 megajoules of metabolisable energy/kilogram dry matter (MJ ME/kg DM) – is fed, less quantity is needed to supply the same amount of energy as when feeding poorer quality silage. Feeding average quality silage (8.5–10 ME) should maintain or slightly increase milk production, but poor quality silage (<8.5 ME) will not maintain production unless supplemented with a higher quality and more expensive supplement, such as grain.

Always aim to make high quality silage, because factors (often outside your control) can lead to you ending up with average to poor quality silage. Such factors include bad weather before or after cutting, machinery breakdowns and contractor delays. However, many factors that can impact on quality and ARE in your control include:

- Mowing at the right time – before seed head emergence
- Having your plastic film on hand
- Having the laneways graded, paddocks cleared of obstacles, storage sites prepared, etc.
- Having your equipment serviced and ready to go well before starting cutting
- Communicating with your contractor early and regularly
- Checking the weather forecast
- Following ALL the best practices for making silage – no shortcuts!

Although silage may not be a major portion of the daily ration on many farms, profitability is substantially affected by silage quality and the losses that occur at various stages.

Table 1 shows the impact of improved quality and reduced losses on the additional value of milk production, as a marginal response, from 200t DM silage when milk is valued at $0.30/L and the conversion of energy in silage to milk is 8 MJ ME/L milk. Eight MJ ME is a conservative conversion rate to allow for some substitution and energy being used for walking, condition gain, etc.

Table 1. Impact of improving quality and reducing losses on additional milk value

<table>
<thead>
<tr>
<th>Losses (%)</th>
<th>Increase of Quality (MJ ME/kg DM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.3</td>
<td>10.3</td>
</tr>
<tr>
<td>25</td>
<td>$0</td>
</tr>
</tbody>
</table>
| 10         | $10,463                          | $17,213

If the quality of 200 t DM silage is improved by 1 MJ ME/kg DM, the increased value of milk production is about $5,600. If the total harvesting and storage losses are reduced from 25% to 10%, income provided from extra milk is increased by over $10,000. Achieving both equals a gain of over $17,000! How much extra investment is needed to achieve this? Possibly a new tedder, which could be paid off in the first year’s savings!

Research to back it up

Research conducted in Victoria, and indeed worldwide, repeatedly shows the better the silage quality, the better the milk production. New Zealand research (Table 2) shows the effect of silage quality on animal performance during various stages of lactation, when fed as a supplement to pasture.
Table 2. Responses to silage quality when fed to grazing cows as a supplement on pasture during various stages of lactation

<table>
<thead>
<tr>
<th>Silage Composition</th>
<th>Silage Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
</tr>
<tr>
<td>Energy (MJ ME/kg DM)</td>
<td>10.4</td>
</tr>
<tr>
<td>Crude Protein (%)</td>
<td>17.6</td>
</tr>
<tr>
<td>Neutral Detergent Fibre (%)</td>
<td>50</td>
</tr>
</tbody>
</table>

Animal Production

<table>
<thead>
<tr>
<th>Season</th>
<th>Milk production (kg/day)</th>
<th>Milk solids (kg/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18.4</td>
<td>17.9</td>
</tr>
<tr>
<td></td>
<td>1.78</td>
<td>1.67</td>
</tr>
<tr>
<td>Summer</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12.3</td>
<td>11.5</td>
</tr>
<tr>
<td></td>
<td>1.28</td>
<td>1.17</td>
</tr>
<tr>
<td>Autumn</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6.9</td>
<td>6.1</td>
</tr>
<tr>
<td></td>
<td>0.89</td>
<td>0.77</td>
</tr>
</tbody>
</table>

How do you determine silage quality?

If you have never had your silage analysed, you won’t know its quality. “My cows ate it, so it tells me it’s OK” is not sufficient! This just means you have done a good job of making silage that smells great and is palatable to animals. However, it could still range from very poor to very good quality silage, perhaps maintaining animals but sometimes not) to giving very good animal production.

If your cows dropped in milk yield when fed silage, was it due to a drop in intake (silage DM content possibly misjudged?), poorer quality silage (digestibility or ME lower than you thought?), or due to a palatability problem (cows don’t like it)? Knowing your silage quality allows the ration to be adjusted accordingly. Knowing the silage analyses also informs you of what needs to be done next season to improve quality.

Tips to producing high quality silage

Pasture silage quality is mostly influenced by stage of growth at cutting, timing and length of shut up, prevailing weather conditions and harvesting, storage and feedout management.

The single most important determinant of high quality silage is the stage of growth at cutting.

The more vegetative (leafier) the crop and the closer to the correct grazing stage (2.5–3 green leaves) it is at cutting, the closer the silage quality will be to the original pasture being ensiled. The analysis of this silage should be well over 10.5 MJ ME. Table 4 indicates the quality (ME) of ryegrass throughout its growth.

Table 4. Ryegrass quality at different stages of growth

<table>
<thead>
<tr>
<th>Description of ryegrass</th>
<th>Metabolisable Energy (MJ/kg DM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leafy tiller</td>
<td>11.5 - 12.5</td>
</tr>
<tr>
<td>Stem starting to develop, nodes &lt;5 cm from ground</td>
<td>10.5 - 11.5</td>
</tr>
<tr>
<td>Flag leaf appearing, nodes &gt;5 cm from ground</td>
<td>9 - 10</td>
</tr>
<tr>
<td>Seed head developing, 1 cm long</td>
<td>7 - 8</td>
</tr>
<tr>
<td>Seed head starts to emerge</td>
<td>6 - 7</td>
</tr>
<tr>
<td>Seed colour changes, seed starts to fill</td>
<td>6 - 8</td>
</tr>
<tr>
<td>Seed shedding</td>
<td>6 - 8</td>
</tr>
</tbody>
</table>

The earlier paddocks are set aside for silage and the shorter the shut-up period, the higher the nutritive value of silage, the better the regrowth and higher the overall spring pasture production. Quality is highest when paddocks are cut well ahead of when grasses are due to go to head. Yield will be down, but the quality of the silage and regrowth will be very good and will well and truly offset the higher cost of harvesting these lighter yields.

The longer the duration of closure, the more detrimental it is to pasture/silage quality, especially if occurring near the time ryegrass plants are starting to send up seed heads. At this stage, ryegrass can change from the vegetative stage to full ear within 10–14 days, and correspondingly, decline in quality very quickly. Once closed, pastures will decline about 0.3 MJ ME/kg DM and 1.9 % CP per week.

The cows were provided with enough pasture for an intake of 10 kg DM/cow/day during lactation and 5 kg DM/cow/day during the dry period. Silage was offered at 5 kg DM/cow/day during lactation and 3 kg DM/cow/day during the dry period.

The same principles apply to beef and sheep-meat producing animals! One tonne dry matter of high quality silage (10–11 MJ ME/kg DM) will produce 125–135 kg weaner beef and 120–130 kg lamb without grain, but 140–150 kg with some grain.

What is high quality silage?

High quality pasture silage (Table 3) allows animals to perform at slightly below what would occur if grazing the original parent material, if harvesting occurs at the vegetative stage and weather and storage management at all stages is spot on.

Table 3. Characteristics of high quality baled pasture silage

<table>
<thead>
<tr>
<th>Silage characteristic</th>
<th>Target levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM content (%)</td>
<td>40 - 50</td>
</tr>
<tr>
<td>Metabolisable Energy (MJ ME/kg DM)</td>
<td>&gt;10.5</td>
</tr>
<tr>
<td>Crude Protein (%)</td>
<td>&gt;15</td>
</tr>
<tr>
<td>Neutral Detergent Fibre (%)</td>
<td>&lt;50</td>
</tr>
<tr>
<td>pH (between 40% – 50% DM)</td>
<td>5.0 – 5.2</td>
</tr>
<tr>
<td>Ammonia – N (% of total N)</td>
<td>&lt;10, preferably &lt;5.0</td>
</tr>
</tbody>
</table>
Must do’s to maintain silage quality:

- **Mow once the morning dew has lifted.** A dew can contain 1–2 tonne water and is more easily evaporated off if the crop is still standing.
- **Bale within 24–48 hours.** Use a tedder immediately after mowing and again in the afternoon or next morning once the dew has lifted. If using a mower-conditioner, leave the swath boards as wide as possible to encourage less dense windrows which wilt quicker.
- **Bale well compacted/dense bales.** With the latest balers, a 1.2 m x 1.2 m (4’ X 4’) bale should weigh 650–750 kg wet weight. Bales well under these weights will contain way too much air (lost DM and quality) and cost more per tonne to harvest, store and feedout.
- **Use a silage additive.** These are especially worth the money invested if the material is slightly too wet and wilting conditions are not going to allow the DM content to reach 40+ per cent DM.
- **Wrap within 1–3 hours after baling.** The longer plastic is off the bale, the greater the DM and quality losses.
- **Wrap with 4–6 layers.** Use 6 layers if transporting bales after wrapping or baling a stemmy crop, or needing to extend the storage period out to two years. Ensure there are no windows in the film. Stretch film as stipulated (55 or 70% stretch).
- **Repair holes immediately once seen.** Inspect bales for damage from domestic animals, birds, vermin, possums, etc. Use tapes specifically developed for use on stretchwrap plastic, NOT duct tape. Before applying the tape, ensure the area is clean, dry, cool and like coloured tape is applied to like coloured film.

## Working with your silage and hay contractor

### Frank Mickan, Pasture and Fodder Conservation Specialist

There are three basic rules when dealing with silage and hay contractors. They are:

1. Communicate
2. Communicate
3. Communicate

The request, “Can you come tomorrow?” is not generally an effective tactic.

I hear and see much finger pointing from both sides of the farmer/contractor fence line, and only a little of it is justified! Much of the aggro can be minimised if all parties talk regularly, understand each other’s expectations and agree on the same outcomes for the harvest.

### Find a reliable contractor

To find a reliable contractor, you will need to do some research on the contractors in your area.

Check them out via your own networks – ask for recommendations from other farmers, machinery dealers, members or secretaries of the local Fodder Conservation Association. Be aware that poor feedback may sometimes occur, even for the “good” contractors – the issues may have actually been caused by unpredicted rainfall or machinery breakdown during harvest.

### Cost of the contractor’s service

Before harvest starts, make sure you know the basis on which the contractor will charge you. Does the contractor charge for the service:

- per area
- per tonne
- per hour, etc.?

If charging is on a per bale basis, what size bales are produced and are they heavy or light bales?

It may be difficult to compare rates. For example, a very high rate per hour may actually equate to a low price per tonne of dry matter in the stack due to the contractor’s high capacity equipment. Bigger and better quality gear will get the job done more efficiently – this means your silage will be higher quality because it is harvested quickly, and the risk of rain damage is substantially reduced.

### Which contractor can you afford?

There is the potential to increase quality AND reduce losses on many farms, and your silage or hay contractor may be able to help. However it’s important to determine which contractor work you need and can afford before employing extra help.

For example, there may be benefits to paying more for the contractor to use a tedder or mower conditioner (if you don’t have one). This will decrease the period of wilting (or curing time, for hay) by half to a full day and produce higher quality silage.

Table 1 may be useful for calculating what contractor rate you can afford, particularly when harvesting earlier at lighter yields.

### Clarify your contact

Make contact with your chosen contractor some months in advance to have time to build a rapport and give them a “picture” of the job on your farm. You both should then decide when and how often contact should be made after this to ensure you are both happy with progress.

---

**TOPFODDER WORKSHOPS IN SEP & OCT**

Two-day TopFodder workshops on how to make, store and feed-out silage will be held in:

- **Branxholm, 24-25 September**
- **Smithton, 8-9 October**

Please contact Sam Flight (TIA) on 0409 801 341 for more information.
Table 1 shows the effect of increased quality and reduced losses on milk income for every 100 tonne dry matter (~300 tonne fresh) of silage produced, based on a milk price of 25 cents per litre and 8 MJ ME (megajoules of metabolisable energy) required to produce the litre. The conversion of silage to milk is affected by many factors, such as substitution rate, quality and type of base feeds.

Table 1. Effect of silage quality or reduced losses on the value of additional milk produced from 100 t DM of silage

<table>
<thead>
<tr>
<th>Loss range</th>
<th>Quality range MJ/kgDM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8.50</td>
</tr>
<tr>
<td>20.00%</td>
<td>$0</td>
</tr>
<tr>
<td>10.00%</td>
<td>$2,656</td>
</tr>
</tbody>
</table>

Based on the figures provided, if a target quality of 10 MJ/kg DM and continued losses of 20% are achieved, there is an increase in milk income of $3750. Compare this to producing fodder of 8.5 MJ/kg DM with 20% losses. If losses can be reduced further, from 20% to 10%, then the increase in quality from 8.5 to 10 MJ/kg DM reaps an extra $6875.

“Casing” the job

The contractor will want to “case” or scope the job before starting. Topics that need to be discussed include:
- the location of the areas to be harvested
- access and distance between these and the storage site.
Make sure the contractor knows:
- the type(s) of pasture or crop to be harvested
- likely starting dates
- likely areas for harvest, and
- the timing of harvest for each area.

What about potential damage to equipment?

Make sure you know the procedure if the contractor’s equipment was damaged on your property.

Who supplies the equipment?

If you own some machinery, clarify who is supplying the machinery and doing each job. But first, ensure you are actually saving money by mowing your own.

Consider that a tandem mower might cut over 6 m wide, compared to your 5 rotor 2.5 m cut, and the contractor’s machine may have a conditioner to boot!

What if it rains?

Discuss the plan of attack if rain occurs during harvest. The contractor will have several farmers in their ear when it rains and it is a difficult time for them as well as for you. Owning or share-owning a tedder might be a good solution as it will speed up the rate of wilting after rain, or even before rain occurs!

Remember, communicate, communicate, communicate!
Dairy Culture Influencing Mastitis

Sam Flight, TIA

Damien & Natalie Carpenter have put the low cell count and minimal cases of clinical mastitis occurring on their Cuprona dairy farm down to good staff management and training.

Farm snapshot:
- Milking: 178 Cows
- Frequency: Once a day milking
- Calving: Autumn
- Cell Count: 78,000 BMCC

Damien and his staff completed Dairy Australia’s Cups On Cups Off course and say training is key to keeping cell counts down. Damien credits Dairy Australia’s Countdown course and the resources provided in getting crucial information to all staff.

Training doesn’t stop once completing an official program, and to work effectively needs to be followed up and practiced on farm. Damien and Natalie personally train their staff and believe this is the key to success. The correct routine in the dairy is non-negotiable and Damien has spent time building culture and attitudes that makes this approach work.

There are no bells and whistles in the dairy, no automatic cup removers, no automatic teat spray, no inline filters and no test buckets. The dairy is an 18 aside Herringbone with good cow flow and all staff have been well trained to work in the shed and follow proper routines.

Procedures in the dairy include:
- Wear gloves
- Maintain a calm environment
- Don’t wet the udder and if teats are wet, dry them before putting cups on
- Manual teat spray ensuring a drip is formed on the end of the teats
- Always check the filter for clots
- Monitor cow demeanour and behaviour
- Keep the platform clean, however, there is to be no hosing of the platform while cows are there
- Avoid over-milking and waiting for slow milkers to milk out

“Focus on teat end health and minimising cross infections”

Generally, the farm doesn’t have many cases of clinical mastitis and the philosophy is to focus on prevention.

If there is a notable change in a cow’s behaviour, change in milking order, cows are agitated or walking slowly behind the herd the identified cow will be hand stripped to determine if there is an issue.

Hand stripping is generally avoided unless it is suspected there is a cow with mastitis that is proving difficult to find. If there is a jump in cell count or a dirty filter sock that points to infection in one or more cows in the herd, extra measures are put in place to determine the cause. This includes checking the filter sock after each row and hand stripping the last 4 rows. Suspect cows are tested with a paddle mastitis test kit.

When a milking cluster is used on a mastitic cow in the main herd that cluster is disinfected and not used for the remainder of that milking. Dairy hygiene is paramount and sick cows or mastitic cows would generally be milked last each milking. All precautions are taken to avoid any cross contamination between cows.

“More than three cases of mastitis a month sets off alarm bells for Damien and staff”

Fewer infections for the farm means less antibiotic use, less cost and more milk that is saleable.

During wet weather use of the feed pad/calving pad can present issues. Mud and water are a habitat for infectious bacteria and muddy conditions promote environmental mastitis. To help combat these conditions cows are not pushed or rushed so to avoid splashing and contamination from the environment when on laneways or the feed pad. Cows are carefully managed on the feed pad and are moved when they begin to lie down.

Damien tests the milk from infected cows in his herd to identify the strain of bacteria causing the mastitis. On the farm *Streptococcus uberis*, an environmental mastitis (also known as Strep Uberis), has been identified as the main bacteria present. When purchasing cows a polymerase chain reaction (PCR) test is conducted to avoid bringing new bugs onto the farm. At dry-off a blanket dry cow treatment strategy is used. Teat seal is not used.

“More than three cases of mastitis a month sets off alarm bells for Damien and staff”

Machine maintenance is important but not the sole factor when dealing with mastitis issues. Vacuum pumps and liners are frequently checked to ensure there is no slippage and to avoid damage to teats.

“Focus on teat end health and minimising cross infections”

Generally, the farm doesn’t have many cases of clinical mastitis and the philosophy is to focus on prevention.

If there is a notable change in a cow’s behaviour, change in milking order, cows are agitated or walking slowly behind the herd the identified cow will be hand stripped to determine if there is an issue.

Hand stripping is generally avoided unless it is suspected there is a cow with mastitis that is proving difficult to find. If there is a jump in cell count or a dirty filter sock that points to infection in one or more cows in the herd, extra measures are put in place to determine the cause. This includes checking the filter sock after each row and hand stripping the last 4 rows. Suspect cows are tested with a paddle mastitis test kit.

When a milking cluster is used on a mastitic cow in the main herd that cluster is disinfected and not used for the remainder of that milking. Dairy hygiene is paramount and sick cows or mastitic cows would generally be milked last each milking. All precautions are taken to avoid any cross contamination between cows.

“More than three cases of mastitis a month sets off alarm bells for Damien and staff”

Fewer infections for the farm means less antibiotic use, less cost and more milk that is saleable.

During wet weather use of the feed pad/calving pad can present issues. Mud and water are a habitat for infectious bacteria and muddy conditions promote environmental mastitis. To help combat these conditions cows are not pushed or rushed so to avoid splashing and contamination from the environment when on laneways or the feed pad. Cows are carefully managed on the feed pad and are moved when they begin to lie down.

Damien tests the milk from infected cows in his herd to identify the strain of bacteria causing the mastitis. On the farm *Streptococcus uberis*, an environmental mastitis (also known as Strep Uberis), has been identified as the main bacteria present. When purchasing cows a polymerase chain reaction (PCR) test is conducted to avoid bringing new bugs onto the farm. At dry-off a blanket dry cow treatment strategy is used. Teat seal is not used.
DairyTas update

For more information contact DairyTas Executive Officer Jonathan Price, phone 6432 2233, email admin@dairytas.net.au, or go to the DairyTas website: www.dairytas.com.au.

What is happening at DairyTas?

Training courses

In the last 12 months, DairyTas, in conjunction with TasTAFE, has run over nine Cups On Cups Off courses and trained more than 90 people! DairyTas regularly works with training bodies, such as TasTAFE, to provide accredited courses that can help with upskilling you or members of your team. Other programs offered in conjunction with TasTAFE include Euthanase Livestock and Financial Literacy for Dairy Farmers. If you are interested in any of these courses, please contact TasTAFE to be put on a waiting list. This lets us know there is interest in the course – you will be contacted when the next one is organised.

Rainfall information

There has been a lot of media attention on the drought impacting some parts of mainland Australia. Locally, we recorded above average winter rainfall. The most recent BOM outlook for spring can be found on their website: (http://www.bom.gov.au/climate/outlooks/#/overview/summary). We are mindful that as grain prices increase and the availability of silage/hay within the state remains unknown, at this stage of the season we are encouraging all farmers to proactively plan for what may unfold. Dairy Australia has pulled together a number of resources that will aid dairy farmers in planning for the season. These cover input cost reports, Tips for Top Silage and effective nitrogen application.

These resources are available at https://dairyaustralia.com.au/farm/feedbase-and-animal-nutrition/feed-shortage or hard copies are available by contacting the DairyTas office.

Focus farm data online

Farm data is uploaded fortnightly on our website dairytas.com.au/projects/focus-farm/ and Facebook facebook.com/TasFocusFarm/.

Discussion groups – get involved with your local group and see what you can learn.

Discussion groups

DairyTas is also involved with helping discussion groups. Farmer discussion groups are a great way to learn more about how others manage their businesses successfully. In the 2017/18 financial year, DairyTas supported eight discussion groups across the State. If you are involved in a group of farmers that get together regularly to learn off each other, you may be eligible for funding support. To find out more, contact Liz at DairyTas: Elizabeth.Mann@dairyaustralia.com.au

Speaking of discussion groups, in Tasmania we have three groups specifically dedicated to dairy women. These groups are open to any women that work in the dairy industry – you don’t have to be directly on farm to join in. Over the past 12 months these groups have covered a variety of topics, including saving energy on farm, how robotic milking works and reading a milk income estimation. Get involved with your local group and see what you can learn.
**DISCLAIMER**

While the Tasmanian Institute of Agriculture (TIA) takes reasonable steps to ensure that the information in its publications is correct, it provides no warranty or guarantee that information is accurate, complete or up-to-date. TIA will not be liable for any loss, damage, cost or expense incurred or arising by reason of any person using or relying on the information contained in this publication. No person should act on the basis of the contents of this publication without first obtaining specific, independent, professional advice. TIA and contributors to this publication may identify products by proprietary or trade names to help readers identify particular types of products. We do not endorse or recommend the products of any manufacturer referred to. Other products may perform as well or better than the products of the manufacturer referred to.

---

**September**

18 & 19 Sept: Chainsaw training, Burnie (TasTAFE)
24 & 25 Sept: TopFodder silage workshop, Branxholm (TIA)
26 Sept: Farm Business Analysis training for Service Providers (DairyTas)
26&27 Sept: ChemCert, Launceston (TasTAFE)

**October**

1 Oct: Young Dairy Network and North East Legendairy Women’s Discussion Group dinner meeting, Anabels of Scottsdale (DairyTas)
3 Oct: "On the front foot" Focus Farm Open Day, Montagu (DairyTas)
4 Oct: Devonport Discussion Group, Ryan’s at 220 Squeaking Point Road, Thirlstane. 11:00 a.m. to 1:30 p.m. Lunch provided. Please RSVP to Sam Flight on 0409 801 341 (TIA)
8 & 9 Oct: TopFodder silage workshop, Smithton (TIA)

---

**Contact us**

Tassie Dairy News is provided free to all Tasmanian dairy farmers and is funded by TIA and Dairy Australia.

For more information, please contact a TIA Dairy extension officer, phone 6430 4953 or email tas.dairynews@utas.edu.au.

Electronic copies of this newsletter are available at www.utas.edu.au/tia/dairy.

---

**Facebook Group**

The TIA dairy extension team have started a Facebook group “TIA Dairy Discussions”.

Please join the group to stay up to date with what is happening and join in discussions on dairy related topics.

---

**DAIRY DIARY 2018**

DairyTas (03) 6432 2233
TIA (03) 6430 4953
Agritas (03) 6415 4100

---

**TASMANIAN INSTITUTE OF AGRICULTURE**

**Tassie Dairy News is provided free to all Tasmanian dairy farmers and is funded by TIA and Dairy Australia.**