

# Tassie Dairy News

www.utas.edu.au/tia/dairy | July 2018



## Inside the newsletter

Discussion Group Hot Topics	02
Average pasture cover and the spring rotation planner	04
DairyTas Update	06
Have your voice heard – Help shape Tasmania’s agrifood future	07
Proper care of downer cows	08
Dairy Diary 2018	08

## Changes at TIA's Dairy Research Facility

*Lesley Irvine, TIA*

There have been a few changes at TIA's Dairy Research Facility (TDRF) in recent months. Tom Snare, who had been managing the facility for three years, is now working on developing research projects. While he is involved in a range of projects, he is particularly enthusiastic about working on finding solutions to reduce the number of bobby calves needing to be sold.

Tom's changing role has meant a new manager for TDRF needed to be found. The successful applicant was Brad Millhouse. Brad had been employed at TDRF for 12 months prior to taking on

the manager's role. At the same time, two full-time dairy hand positions were advertised and were successfully filled. The TDRF team members are:

- Brad Millhouse (manager)
- Oliver Radford (2IC)
- Avril Stewart
- Ben Noble
- Amy Potter (casual)
- Karin Brodie (casual)

With calving 325 cows due to start in late July, the team have been busy getting set-up for the season. Modifications have been undertaken

on the auto-calf feeder shed to make more space in the pens. The auto-calf feeders will rear 90 calves. The remainder of the calves will be reared in a conventional calf-rearing system. All heifer and bulls calves will be reared at TDRF this year and more shed space has been set-up for calf rearing to allow for this.

The dry herd is being fed a diet of 4.5 kg DM turnips, 4 kg DM hay and 2 kg DM grass during the early dry period. Cows will be fed a commercial lead feed pellet 14-21 days prior to their predicted calving date along with hay and limited pasture.

While the TDRF weekly report has not been produced in the past few months, it will be starting again this season. If you would like to be added to the email list, please send an email to Lesley. Irvine@utas.edu.au.

# Discussion Group Hot Topics

Samantha Flight, TIA

**Discussion groups were recently held around the State. The topics below really got farmers talking.**

## Change feeding times to have fewer cows calving at night

If you could change the time of the day/night a cow calves, would this be of any value to you or your farm business? Fewer calvings during the night might mean more shut-eye for you and your team.

At the recent Devonport discussion group meeting at the Charleston's farm, Jude shared her tips and tricks for preparing and getting through calving with your sanity still intact.

At calving time, the Charllestons make a change to feeding times. The cows are fed late in the afternoon, which results in fewer cows calving at night.

Canadian research backs this up. It has shown:

- The later in the day that feeding occurs, the less likely cows are to calve at night, increasing the incidence of daytime calving (the mechanism behind this remains unclear).
- By calving in a warmer part of the day, calves have a better chance of survival.

## Warm your calves with a 'hot box'

The Charleston's have built a 'hot box' for warming cold, wet calves. The hot box is a small (about 1 m<sup>2</sup>) enclosed room in the calf shed with a heater. Any calves struggling with low body temperature are placed in the hot box to warm up. This has increased the survival rate.

Attach a few hooks around the box, and it is also a great place to dry (and warm) waterproof clothes!

## Test colostrum for quality

Jude has been testing colostrum with a refractometer before feeding it to her calves to ensure the calves are getting the best quality colostrum possible. Her ongoing successes with calf rearing can be attributed to the time, effort and attention to detail from Jude.

## Technology is useless!

"Technology is useless – unless it is being used properly." This was the take-home message from Duncan Macdonald at the recent Yolla/Wynyard discussion group. The group met at the Macdonald's Yolla farm to discuss outcomes from his Nuffield Scholarship and to see how Duncan is using technology on his farm.

Duncan is a strong advocate for good pasture management, and highlighted how important pasture is for his system. "When the team gets things wrong with pasture management, it can go wrong in a big way," he said. The cost falls onto the business, therefore it's critical to focus on pasture management and get every day right.

## Drone and satellite technology measures pasture

Duncan is incorporating new technology to help him with his pasture management decision making. He uses drone and satellite technology to assess individual paddock pasture covers.

The satellite technology is used in conjunction with NDVI (Normalised Difference Vegetation Index) analysis that is overlaid on the satellite imagery.

NDVI sensors measure the 'greenness' of pasture. Typically, as pasture grows more leaves, it becomes a darker green. NDVI fairly accurately measures the pasture cover up to about 2500 kg DM/ha. After this point, the changes in 'greenness' are small, so measurements are less accurate. For example, this type of sensor would have difficulty determining whether a paddock has 2800 kg DM/ha or 3200 kg DM/ha.

## Plate meter very helpful for pasture management

In addition to the whole farm measurement provided by drone and satellite, Duncan gets his team to use a plate meter to measure the:

- pre-grazing cover of the paddock the cows are about to graze
- residual of the paddock they have just grazed.

These measurements provide the two end points of the feed wedge. Duncan then uses an equation that takes into consideration growth rates to develop a 'live' feed wedge. The feed wedge is used to make decisions

The later in the day that feeding occurs, the less likely cows are to calve at night, increasing the incidence of daytime calving.

# A good average cover at calving is essential for feeding cows to peak lactation.



about the next paddocks for grazing. Regular measuring using a plate meter determines how much feed is available for the cows to eat, which gives Duncan confidence he is feeding the cows to meet their needs.

Duncan's message about usefulness of technology applies to pasture measurement tools such as the plate meter, drone and satellite (as well as a lot of other technology). If the tool is purchased and not used, or data is collected and not used, the technology is useless to that business. Duncan encouraged farmers considering investing in technology to plan how they would use it on the farm and then make sure it is used in order to make it a profitable investment.

## Pasture is everything for Tim Salter

Going into winter, there are many decisions to make daily on farm. It can be easy to forget about pastures, with 'distractions' from things like transition feeding and calving.

Tim is very pasture-focused and constantly looking at ways he can make the most milk from pasture. Pasture is measured regularly on the farm and pasture quality is tested so timely adjustments to supplementary feed can be made.

## Minimise pasture wastage with feed pads or sacrifice paddocks

Minimising wastage is important, and can be challenging in winter months, as soils become wet and livestock can pug paddocks easily. If cows are agisted or moved to a run-off area for the dry period, it greatly reduces the pugging damage that will take place on the milking area. However, some farmers keep their cows on the milking area over winter, and even if cows are away for their dry period, they need to come back at some point!

Feed pads, sacrifice paddocks and/or stand-off areas should be used to minimise the time spent in the

paddock. Cows will graze 70-90% of pasture in the first 2-4 hours, and after this, there is more walking and less intake. If cows can be taken off the paddock and fed hay or silage, there will be less damage.

## Extend the rotation and your pasture will thank you

Rotation length is critical, even at this time of the year. Tim aims for a 70-day rotation over winter. Leaf emergence rate typically slows to 20-30 days per leaf during this period.

Extending the rotation allows the pasture to reach the 2.5 to 3 leaf stage, which maximises growth and helps achieve the target average cover at calving. A good average cover at calving is essential for feeding cows to peak lactation.

A spring rotation planner can be a useful tool to help manage rotation length during late winter/early spring.

# Average pasture cover and the spring rotation planner

Symon Jones, TIA

Managing the grazing rotation to ensure the average pasture cover (APC) at calving is adequate should not be a last-minute decision.

APC is the amount of feed on the farm in kg DM/ha and tells you how much pasture you have. By monitoring APC, you'll know when you're increasing pasture quantity on farm or eating into what you have.

## How to calculate average pasture cover

APC is calculated by multiplying the cover on each paddock by its area, adding up the total, and dividing by total hectares measured. It is not the average of one paddock.

Average pasture cover is determined by growth rate, stocking rate, calving date and spread and grazing interval.

There are two important targets for APC:

1. APC at the start of calving. This should be around 2200 kg DM/ha. Aim to start the season with a sufficient quantity of good quality pasture for fresh milkers.
2. APC at breakeven (when pasture demand matches pasture growth rates) should be around 2000 kg DM/ha.

## Winter rotation for optimal APC

Slowing down the rotation during late autumn and through winter is critical to ensuring you reach an adequate APC at calving.

Grazing should occur at the 3-leaf stage. Leaf emergence rates are typically 20-30 days through winter, which means a grazing interval of 60-90 days.

If APC at calving is too low, cows will be underfed and future pasture growth affected. This often leads to faster rotations and less pasture growth.

If APC is too high, pasture quality declines in spring and milk production suffers.

The breakeven APC is an important goal for setting up the best pasture quality and quantity for the season.

The use of the Dairy NZ Spring Rotation Planning tool was discussed at the recent North West and North East discussion groups as it is a useful tool for achieving the desired target pasture cover at breakeven date.

The Spring Rotation Planner allows farmers to:

- monitor actual pasture cover against target cover
- allocate specific grazing areas
- speed up or slow down the grazing rotation to bring the cover back on target.

## Plan for break even now

While you can estimate the APC needed at break even, a useful calculation for this value is available from Dairy NZ.

## Example

### Step 1

Calculate the peak per cow intake.

$$\begin{array}{r} \text{Peak Per} \\ \text{Cow Intake} \\ \text{from Table 1} \end{array} \times 80\% = \begin{array}{r} \text{Cow} \\ \text{intake at} \\ \text{Breakeven} \\ \text{Date} \end{array}$$

17.8	x	0.80	=	14.3 A
------	---	------	---	--------

(assumes cows are up to 85% of peak intake by breakeven date and 95% of the cows have calved = 80%)

Table 1

	Peak Per Cow Production kg MS/cow/day							
	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3
400	13.9	14.5	15.1	15.7				
450		14.9	15.5	16.1	17.2		18.5	
500			16.5	17.1	17.8	18.6	19.1	19.8
550				17.5	18.2	18.8	19.5	20.2

These are actual intake figures (after 6% wastage). Feed offered to achieve these intakes will need to be higher in some grazing conditions when wastage will be much higher than 6%.



## Step 2

Enter the “cow intake at breakeven date” (Value A from Step 1) to the formula with estimated stocking rate and the grazing rotation length for your farm at breakeven date to calculate required APC.

(Cow Intake at Breakeven Date	x	Stocking Rate Cows/ha Treat dry cows as 0.5 of a milker	x	Rotation Length at Breakeven Date	x	0.5)	Target Grazing Residual at Breakeven Date (Normally 1400-1500 kg DM/ha)	=	APC at Breakeven Date Kg DM/ha
(A 14.3	x	3.3	x	23	x	0.5)	1450	=	2000 kg DM/ha

After calculating the required APC at breakeven, this number can then be used in the Spring Rotation Planner tool available on the DairyNZ website: [dairynz.co.nz](http://dairynz.co.nz)

## Your own farm spring rotation planner

You can print your own farm spring rotation planner, which will provide details of:

- Rotation length
- Number of hectares to allocate daily

To get best results, you need to do a daily observation and give attention to detail. This will help ensure you make the right decisions at the right time.

Spring Rotation Planner (Round Length in days)



Spring rotation planner – Area (ha) grazed per day



# DairyTas update

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



Your Levy at Work

## What is happening at DairyTas?

### EXPRESSIONS OF INTEREST:

#### 'Cups on, Cups off' courses

This two day course provides a refresher in best practice milk harvesting with emphasis on the detection, treatment and prevention of clinical mastitis.

Please phone Jocelyn at TasTAFE on 64777480

### Pay Rate changes effective 1 July

The Fair Work Commission has announced a 3.5% increase to minimum wages, which will apply from the first full pay period starting on or after 1 July 2018. The annual wage review directly affects employees in the national system who are:

- covered by a modern award or a transitional instrument
- not covered by neither an award nor an agreement.

### Focus Farm open day held at Montagu

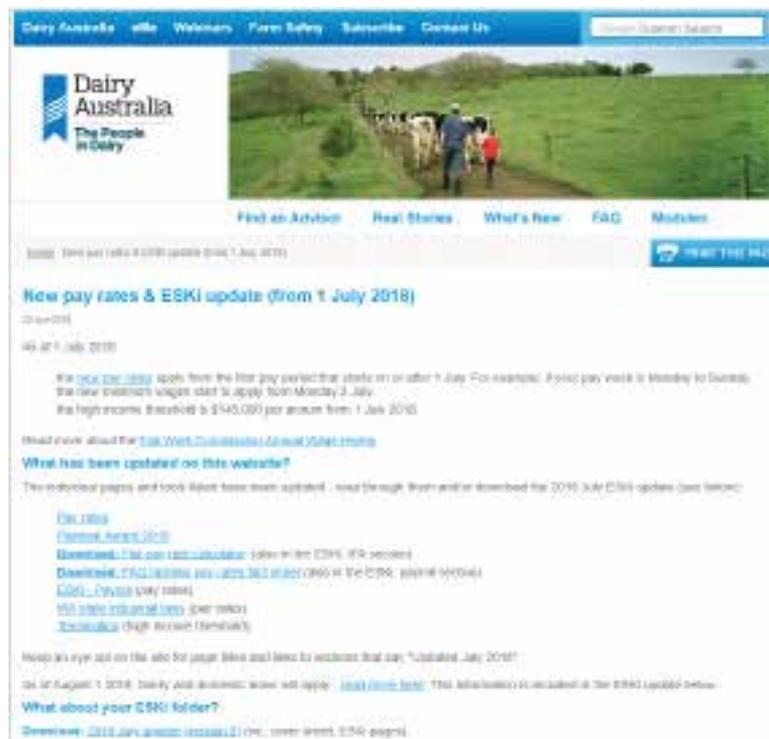
The Montagu Focus Farm open day was held on 14 June. Phil Jarvie and Andy Hancock (Zoetis) and Sam Flight (TIA) covered the lessons learned from this season and gave advice on setting up the farm, animals and facilities for next season. Theory and practical sessions included: teat scoring, teat seal and dry cow therapy demonstration, preventative vaccination programs and setting up pasture for spring. Farm data are uploaded fortnightly at [dairytas.com.au/projects/focus-farm/](http://dairytas.com.au/projects/focus-farm/) and [facebook.com/TasFocusFarm/](https://www.facebook.com/TasFocusFarm/).

### Update your details on ESKi

Changes are indicated on The People in Dairy website. Download the 2018 ESKi update from <https://www.thepeopleindairy.org.au/announcements/pay-rates-july2018>

**Note: Online documents are continually being updated to reflect the changes. The skilled migration occupation list review is currently taking submissions, so more changes are likely.**

- A marked up Pastoral Award 2010 and the high income threshold information will be added when it becomes available.
- Current pay rates are listed at the bottom of the 2018 July pay rate/ESKi update for easy reference.
- The TSS 482 VISA (replacing 457) and Labour Agreement documents have been updated, available at: <https://www.thepeopleindairy.org.au/announcements/tss-482-visa-labour-agreement>





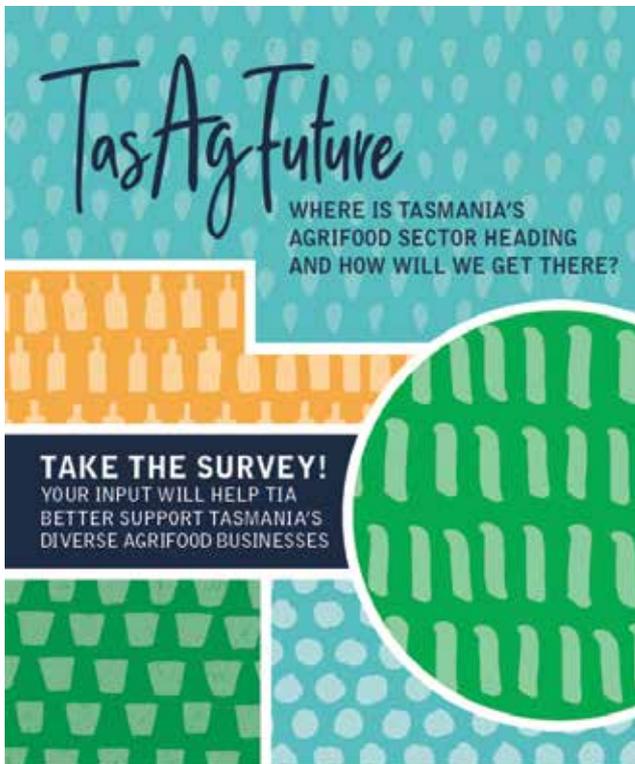
**tia**  
TASMANIAN  
INSTITUTE OF  
AGRICULTURE

TasAgFuture

## Have your voice heard – Help shape Tasmania’s agrifood future

Tasmanian farmers, and food and beverage manufacturers (and their employees) are invited to participate in the TasAgFuture survey. It’s part of a Tasmanian Institute of Agriculture (TIA) project.

Your input will help TIA better support Tasmania’s diverse agrifood businesses. TIA is keen to hear from everyone in the sector, including those voices that sometimes get missed. By participating, you’ll get a personalised report that compares your responses with those of your peers, and you’ll have the **chance to win** one of three iPads.



[utas.edu.au/tia/tasagfuture](http://utas.edu.au/tia/tasagfuture)



*TIA Researcher Dr Peat Leith is keen to hear from Tasmanian farmers, and food and beverage manufacturers.*

The TasAgFuture project is asking those directly involved in the agriculture and food sector: **What big factors are influencing your business decisions, now and into the future?** The project will help shape the future of Tasmania’s research, development and extension (RD&E) and inform policy.

The survey is following on from 100 in-depth interviews carried out by the project’s research team. They have interviewed a wide range of food producers and processors across the State about their goals, and factors that are hindering and helping them stay afloat in a competitive market.

By taking the survey, you are helping TIA better support the goals of Tasmania’s farmers and manufacturers of food and beverages.

### TAKE THE SURVEY

**Special survey link for dairy farmers:**

[sgiz.mobi/s3/TasAgFuture-Survey-TIAD](http://sgiz.mobi/s3/TasAgFuture-Survey-TIAD)

More information about the project, including contact details, are available at [utas.edu.au/tia/tasagfuture](http://utas.edu.au/tia/tasagfuture).

Project updates are posted on Facebook and Twitter using #TasAgFuture (just type #TasAgFuture in the Search bar).

# Proper care of downer cows

Now is a good time to review downer cow management. Making a correct assessment of the problem(s) and proper nursing are critical in determining whether a downer cow will recover. Dairy Australia has an excellent series of videos on downer cows including:

- How to assess what is wrong
- How to move a cow that is down
- How to lift a cow
- Good nursing to increase the chances of recovery.

These videos can be found in the animal welfare section of the Dairy Australia website.

The link is:

[https://www.dairyaustralia.com.au/farm/animal-management/animal-welfare/cow-welfare?section=managing\\_down\\_cows#accordion-1](https://www.dairyaustralia.com.au/farm/animal-management/animal-welfare/cow-welfare?section=managing_down_cows#accordion-1)



## DAIRY DIARY 2018

### August

**1 August:** North West Legendairy Women's Discussion Group, Rocky Cape (DairyTas)

**1&2 August:** ChemCert, Burnie (TasTAFE)

**6&7 August:** Pasture Management Workshop, Smithton (TIA)

**7 August:** Quad Bikes, Burnie (TasTAFE)

**14 August:** Quad Bikes, Smithton (TasTAFE)

**21 August:** Quad Bikes, Burnie (TasTAFE)

**22&23 August:** Diploma Series – Business Plans (TasTAFE)

**29 August:** Quad Bikes, Hagley (TasTAFE)

**30 August:** Quad Bikes, Hagley (TasTAFE)

**IFMA 22**  
22nd International Farm Management Congress

**Growing Agriculture @ 41 Degrees South**  
3-8 March 2019 | Launceston, Tasmania, Australia

The International Farm Management Congress is being held in Launceston from 3-8 March, 2019. For more information or to register visit <http://ifma22.org>

### 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](mailto:tas.dairynews@utas.edu.au).

Electronic copies of this newsletter are available at [www.utas.edu.au/tia/dairy](http://www.utas.edu.au/tia/dairy).

DairyTas (03) 6432 2233

TasTAFE 1300 655 307

TIA (03) 6430 4953

Agritas (03) 6415 4100



Your Levy at Work



#### 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.