

Tassie Dairy News

www.utas.edu.au/tia/dairy | February 2017



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Discussion group round-up

Symon Jones and Sam Flight, TIA Dairy Centre

North west discussion group

More than 20 local farmers and service providers met at Dave and Jane Field's property at Montagu in November.

The group members were impressed with the quality of the infrastructure including the 60-unit rotary dairy, calf shed, cow lane access and general farm layout.

Dave and Jane are in their second season on the farm since moving from New Zealand. The property consists of 800 ha with a milking area of 450 hectares and an irrigated area of around 250 hectares. The property currently supports around 1100 cows,

including 250 autumn calving cows and all replacement heifers. All stock are carried through the winter months.

The cows are managed as two herds to minimise the impact of the walking distance. The twice-a-day milking herd are grazed close to the dairy while the once-a-day herd graze the furthest paddocks from the dairy.

The group discussed the production and development plans for the business, including the current installation of a 10 span centre pivot irrigator watering 130 hectares and the potential for further irrigation development once water is secured from the new Duck River irrigation scheme.

On the farm walk, the pre and post grazing covers were measured in order to discuss the feed allocation and how it was meeting the maintenance and production requirements of the herd.

Production at the time was 1.65 kg MS/cow/day. The diet consisted of 15 kg DM/cow/day of pasture and 2 kg DM/cow/day of concentrate to balance the ration.

Pasture demand on the milking area was estimated at 36 kg DM/ha/day, compared to an estimated growth rate of 70 kg DM/ha/day. All surplus feed was conserved as silage and hay.

Irrigation management was the focus of the day with Dr Bill Cotching, TIA soil and irrigation expert, providing

practical advice on how to observe and assess soil moisture levels and how soil moisture and evaporation rates influence irrigation scheduling.

Yolla/Wynyard Discussion Group

The Yolla/Wynyard discussion group met in December at Robin Hill Dairy, Flowerdale. The property is owned and managed by the Roberts family, milking at peak 480 cows at a stocking rate of 4 cows/ha. A big focus on the farm is pasture measurement and monitoring.

Ollie Roberts provided an overview of the different software available to assist in pasture management. This included mapping programs to measure paddock sizes and split paddocks for accurate feed allocation (such as

Avenza PDF Maps, ArcGIS and QGIS). Ollie has also developed his own program, pasture.io, to record pasture measurements and allocate feed to the cows so their diet is balanced. As a result of the focus on pasture management, the amount of pasture grown on the farm has increased by 20 per cent over the past 10 years.

The group discussed the tools available to measure pasture – plate meters, C-Dax and drones. The C-Dax bike reader is the technology of choice used for measuring pastures at Robin Hill with a farm ride being undertaken every eight days.

David Squibb from PGG Wrightson Seeds provided insight into understanding diploid and tetraploid ryegrass, the different cultivar options (cultivars with different heading dates) and endophyte options. Endophytes are fungus found in some grasses that

produce chemical compounds that can enhance agronomic performance through protection from insect predation, drought tolerance and even overgrazing.

The farm's estimated pre-grazing cover at the time was 3000kg DM/ha and target residual cover was 1700kg DM/ha. Production at the time was 2.14kg MS/cow/day receiving 15kg DM of pasture and 7.5kg DM/cow/day of concentrate feed mix. Surplus feed was being conserved as silage.

For further information on the Yolla/Wynyard Discussion Group please contact Sam Flight on 0409 801 341.

TIA conducts dairy discussion groups in the Circular Head (north west), Yolla/Wynyard, Devonport, central north, north east and King Island as part of the Dairy On PAR project.

These groups are open to everyone.

Introducing turnips to your cows diet

Symon Jones, TIA Dairy Centre



When you introduce turnips into a cow's diet it is important to start slowly. This gives the cow time to adjust to the new feed and helps to avoid digestive upsets and other health problems.

Turnips should initially be offered at the rate of 2 kg DM/cow/day, and then increased gradually to 5 kg DM/cow/day over a 7-10 day period.

It is generally recommended that the intake of turnips does not exceed 5 kg DM/cow/day (1/3 of the diet). Cows can eat 5 kg DM of turnips in about 3 hours.

Potential issues

Be aware that cows can choke on the bulbs, especially if the bulbs are small and if cows are extremely hungry. Bloating can also occur.

While health problems from grazing brassica are relatively rare, there are risks of photosensitisation and nitrate poisoning.

Grazing crops prior to maturity can be one of the triggers for photosensitisation. Rapes and Kales are most commonly associated with this disorder, while turnips are less likely to cause a problem.

Nitrate poisoning occurs when excess levels of nitrates are consumed. Nitrates tend to accumulate in plant leaves when levels are high in the soil and there has been rainfall or irrigation after a prolonged dry period. Cool, overcast conditions can also cause nitrates to accumulate in leaves, particularly if nitrogenous fertilisers have been applied 6-8 weeks prior to grazing.

Gradually introducing stock to grazing the crop will minimise these potential health issues.

Nutritional value

Turnips are highly digestible and metabolisable energy (ME) levels are relatively high at 12.5-13 MJ ME/kg DM. Dry matter is low, around 10 per cent. However, protein and fibre levels in turnips are relatively low.

The low fibre and protein content of turnips are unlikely to cause nutritional problems, unless turnips are fed in conjunction with high intakes of cereal grain or when the protein and fibre levels in the ration as a whole are below dietary requirements.

Combining silage and summer pasture usually balances the deficiencies of protein and fibre in the turnips.

Measuring turnip yields

Follow these steps to measure your yields:

- Use a piece of wire bent into a square of 1m x 1m or a 3.54 m length of poly pipe joined into a circle – both of these are equivalent to 1.0 m²
- Using your wire square or polypipe circle, mark out a square metre in the crop and pull all the turnips (tops and bulbs) in that square

metre. Brush the dirt off and weigh the turnips within the square or circle. Record the weight.

- Repeat four times to get an average for the paddock. Don't just measure where the crop is the best.
- Add-up the weights from the five samples and divide by five to get the average (if you have taken six samples, you would divide by six and so on).
- The average kilograms of turnips from your square metre is equivalent to the tonnes of dry matter per hectare. If you have an average of 9 kg of turnips, your crop is yielding 9 tonne DM/ha.

Example

Sample number	Weight (kg)
1	13.2
2	9.6
3	12.5
4	11.9
5	10.8
TOTAL WEIGHT	58

In this example, the total weight of the turnips you have measured is 58.0 kg. To work out the average, divide this number by the number of samples (5):

$58 \div 5 = 11.6$ kg which is equivalent to 11.6 tonne DM/ha.

For those that are interested in how this is calculated. 11.6 kg is the wet weight or 'as fed' weight. Turnips are only 10 per cent dry matter so if you feed 11.6 kg of turnips the cows are getting 1.16 kg DM (11.6 x 10%).

You have measured the average amount of turnips in a square meter. To convert this to a hectare, multiply by 10,000 (1.16 kg DM x 10,000 = 11,600 kg DM/ha). To convert this to tonnes DM/ha divide by 1000 (11,600 kg DM/ha ÷ 1000 = 11.6 tonne DM/ha).

Area to feed cows

To get the most from your crop, it is best to graze from a long access face and give cows access to only a narrow strip. Two faces are better than one wide strip as this minimises trampling and fouling of the crop. This also improves access for younger, smaller cows.

Calculating the area (width of break)

	Follow formula	Example
Number of cows to feed	A	200 cows
Daily kg DM Turnip Allowance	B	5 kg DM/cow/day
Crop Yield	C	11.6 t DM/ha
Daily Area = (A x B) ÷ (C) x 10	D	200 x 5 = 1000 1000 ÷ 11.6 = 86 86 x 10 = 860 m ²
Break Width = D ÷ Length of Paddock		860 ÷ 200 m = 4.3m

Source: Dairy NZ Fact Sheet (1-67)Barkant Turnips Feeding the crop.)

Focus farm finale

Sam Flight, TIA Dairy Centre

More than 50 people attended the final focus farm field day at Limberlost at the end of January.

While every farm is different and there are no silver bullets, there are some principles that apply across all businesses.

One principle Peter highlighted was knowing individual farm milk price and cost of production so that strategies to maximise the gap between these two can be identified. Individual farm resources also need to be considered. For Limberlost this includes flat land and good drainage, the rotary which is capable of working as a one-person shed, feed pad, irrigation, cross-bred

cows, the farm team and the agistment option for replacement heifers soon after weaning through to 22 months of age.

Over the years, Peter and Jo have developed a simple system that maximises the use and efficiency of farm resources whilst keeping the work life balance for themselves and their team. Regular benchmarking and analysis of options to improve profitability are undertaken.

One of the guest speakers at the field day, Nikki Haywood from No.8 HR, outlined the results from a human resources audit which had been conducted at the farm. The audit provided an outside perspective and gave some recommendations to improve the people management aspect of the business. For Peter and

Jo, this included the need for a better record management system.

In the afternoon the group had a farm tour, which included a talk on pasture condition scoring by agronomist David Squibb from PGG Wrightson Seeds, a talk on Fert\$mart and irrigation by Sandra Bennet from Serve-Ag and a discussion on the farm's cow health and heifer rearing program facilitated by consultant Andrew Wright.

David Squibb discussed the process of assessing pastures on the Limberlost farm. Pasture condition scoring is a ranking system of 1–5. A ranking of five is an ideal pasture with a dense sward of desired grasses and clovers. At the other end of the scale, a ranking of one is a paddock which has a low density of desirable pasture species. In developing a pasture renovation



Focus Farm Update – Peter and Jo Jones

Liz Mann, Dairy Australia

program, the lowest ranked paddocks are priorities for pasture renovation, with the first step in pasture renovation always being to identify the issues that led to the need for renovation.

The cow health and heifer rearing session concluded the day. One of the major animal health issues the farm has faced in recent times has been Salmonella. One of the risk factors identified is the presence of birds in the dairy, so strategies to manage this are being investigated along with a Salmonella vaccination program for the herd.

This field day was the conclusion of the two-year Dairy Australia focus farm program at Limberlost. If you are interested in nominating your farm to be the new focus farm, contact DairyTas on 6432 2233.

This is the last farm update for Limberlost as the Tasmanian Dairy Focus Farm. We hope you have enjoyed the journey over the past two years with us.

The farm is ticking along nicely with consistent rainfall and plenty of irrigation water. Paddocks identified for renovation have been oversown and are expected to grow well with the current climatic conditions.

Peter and Jo are starting to get prepared for calving. Cows are being split into mobs based on calving dates. From two weeks before calving 3 kg of lead feed will be fed to springing cows. With so much grass available on the milking platform this year, Peter and Jo will be trialling a product that helps reduce milk fever in cows without the need for hay.

The project team would like to thank everyone for their attendance at the focus farm field days over the past two years. We hope you have found them informative. Also a big thank you from DairyTas to all those involved closely in the project over the past two years.

We are currently looking for a new focus farm. If you are interested please nominate yourself by contacting the DairyTas office. Updates from the new focus farm will commence in April.



Date	20 January 2016	
Number of Milkers	90	
Number of Dry Cows and Heifers	800	
Milk Production	1.51 kg MS/cow	
Average Pasture Cover	2213 kg DM/ha	
Diet (per day)	Milkers Pasture – 15 kg DM Pellets – 2.5 kg DM	Dries Pasture – 12 kg DM
Pasture Growth Rate	50 kg DM/ha	
Major management decisions	Continuing to oversow paddocks marked for renovation	
	Preparing cows for calving	
	Hosting the final field day	

DairyTas update

For more information contact DairyTas Executive Officer Mark Smith, phone 6432 2233, email admin@dairytas.net.au or view the website at www.dairytas.com.au.



Your Levy at Work

What is happening at DairyTas?

2017 is shaping up to be an action packed year. With some farms still talking about cutting hay or silage in January and fodder crops looking reasonable, things are looking up.

For DairyTas the big event coming on the Dairy Calendar this year is the **10th Annual Tasmanian Dairy Conference**. This year the conference is being held in Launceston for the first time. Save March 28 and 29 in your calendars now so you don't miss out on the fantastic program that is planned for you.

There will be a pre-conference tour, conference and awards dinner.

Early bird registrations close at the end of February. You can register at <https://www.regonline.com.au/tasdairyconf2017> or scan the QR code with your smart phone.



You can nominate yourself, or someone you know, for one of the following awards:

- Mondelez Young Farmer of the Year Award
- Moon Lake Safety Award
- Veolia Environmental Award

DairyTas has kicked the year off with the final focus farm field day for Limberlost Dairy with Peter and Jo Jones. Fifty people attended the day. Read the full story on page 4.

Tasmanian dairy conference and awards dinner

28–29 March 2017
Launceston Country Club Casino



With the focus farm project now finished on Limberlost we are looking for a new focus farmer. Being a focus farmer has many great benefits and can help fast track any business developments. If you are interested in being a focus farmer, or would like to know more about the project contact the DairyTas office.

Coming up in February is the commencement of the Financial Literacy course for Dairy Farmers. This year we will be conducting a number of business management events to help you build and grow a sustainable business. Get

yourself along to the TIA Dairy Business BiTES sessions to hear about how DairyBase and other business programs can help you do this.

Don't forget there is still funding available for Taking Stock of your business situation. Taking Stock allows you a half day personal visit from a consultant to help you look at your current business situation and start working on a plan for the future.

There is also the opportunity to have a Feed Budget visit from a consultant who can help you plan your feed needs.

Both of these programs come with the opportunity to complete a review, should you feel that you would like to go back and have another look at what you discussed with the consultant. Please contact DairyTas to register.

Don't forget the Australian Dairy Conference, this year being held in the Adelaide wine region from February 14 to 16. Also being held this year is the DeLaval Grasslands Robotics Conference in Launceston from March 20 to 23.

The in calf challenge

Grant Rogers BVSc, Dairy Systems

It's February and on many farms production is easing off. You already know (or will soon) which of your cows are empty and which will be keeping you company next season, so it's important to make sure they perform well for you next year.

Profitable, productive farming is all about forward thinking and now's the time to get your cows in the best condition for calving.

High 6 week in-calf rates deliver more early-season days in milk next year. Not only will that get your production off to a great start, but early days in milk are far more efficient than trying to squeeze in extra days at the tail end of the season.

Body Condition Score (BCS) is like the fuel gauge of your herd. Your cows' performance is completely dependent on what's sitting in their fuel tank. Fat is stored energy, and BCS is a measure of those energy reserves. It's critical to know when and how BCS should be managed, especially with the dry-off dates on the horizon for lots of farms.

When cows are dried off they're sitting ducks to put condition on, if – and only if – you give them enough time and feed to do so. So how can you do this? Firstly you'll need to know how much time and feed will be required. Do a herd BCS assessment and some feed budget planning now so you can make the right drying off decisions. We can also factor the drying off requirements into your dry cow therapy strategy. A common reason cows fail to reach BCS targets is not lack of feed, it's lack of time to gain enough condition.

In the current climate you'll need to select the most cost efficient option to meet BCS targets at next calving. Look closely at all the options including:

- Early dry off of all or part of the herd
- Changing milking frequency (once a day milking or three milkings in two days)
- Using the various feed input/ grazing off choices available

Whatever you choose, it is of paramount importance that those cows are at BCS target 5 (and 5.5 for first and second calvers) at calving, or it will cost you next year.

Managing BCS is a year-round game. Do your best to minimise condition loss after calving. Their reproductive bits shut down if they're too thin, and

go haywire if they're too fat; well-conditioned cows are the ones that are healthy and cycling well before mating starts. Low BCS cows will give you, your staff, and your bank account a hard time in the long run.



Calendar of events 2017

February

9 February: Commencement of Financial Literacy, Deloraine (Day 1 of 9) (DairyTas/TasTAFE)

9 February: North West Discussion Group, Gerard and Ria Mulder's Farm, 80 Jocks Road, Forest (TIA)

9 February: King Island Dairy Discussion and Dinner, King Island Club, 6:30-8:30pm (TIA)

10 February: King Island Discussion Group (TIA)

14-16 February: Australian Dairy Conference, Adelaide

15-16 February: Dairy On PAR-BUSINESS BITES sessions (TIA)

- **15 February:** Smithton Recreation Centre, Smithton, 11:30am to 2pm
- **15 February:** Wellers Inn, Burnie, 6:30pm to 8:30pm
- **16 February:** Imperial Hotel, Branxholm, 11:30am to 2pm
- **16 February:** Deloraine Hotel, Deloraine, 6:30pm to 8:30pm

20 February: Devonport Discussion Group at Sheffield School Farm (TIA)

20 February: Employing people on dairy farms, TasTAFE Smithton, 9:30am -2:00pm RSVP required by Feb 17 (DairyTas)

21 February: Employing people on dairy farms, TasTAFE Deloraine, 9:30am - 2:00pm RSVP required by Feb 17 (DairyTas)

23 February: Central North Discussion Group at Ashburton, 709 Dairy Plains Road, 11am-2pm (TIA)

27 February: Yolla/Wynyard Discussion Group (TIA)

TasTAFE courses available for farmers

- **14 & 15 February:** Chainsaws, Launceston
- **15 & 16 February:** Climate Risk Strategies, Deloraine
- **16 & 17 February:** Quad Bike Training, Burnie (2 courses)
- **23 & 24 February:** ChemCert, Burnie

March

20-23 March: DeLaval International Grassland Robotic Convention, Launceston Country Club Casino

22-24 March: Healthy Hooves (TBC) (DairyTas)

28 March: Pre-Conference Tour (DairyTas)

29 March: Tasmanian Dairy Conference and Dairy Awards Dinner, Launceston Country Club (DairyTas)

Register your interest in:

Cups On Cups Off training in all regions. Contact TasTAFE to register your interest.

Quad Bike or Side by Side vehicle training can be conducted on request at your farm provided there is enough participants. Contact TasTAFE for more information or to organise a course.

Becoming the next Tasmanian Dairy Focus Farm. Have an experienced dairy consultant to help with decision making on your farm for two years. Contact DairyTas for more information.

Certificate II, III & IV in Agriculture, Operate Quad Bikes, Operate & Maintain Chainsaws, Working at Heights and Confined Spaces Courses. Contact Agritas for more information.

Pasture Growth Rates and Evapotranspiration Rates Updates. If you would like to receive a weekly email with regional pasture growth rates and evapotranspiration rates, send your details to Nathan.Bakker@utas.edu.au

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 Centre adviser, phone 6430 4953 or email tas.dairynews@utas.edu.au.

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



Your Levy at Work



TIA is a joint venture of the University of Tasmania and the Tasmanian Government



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