Improving pasture consumption was the focus of recent pasture coaching groups organised by the Tasmanian Institute of Agriculture (TIA) Dairy Centre as part of the Dairy On PAR project.

Pasture is a very important part of the Tasmanian dairy industry with home grown feed forming an average 69 per cent of the metabolisable energy in the diet of a dairy cow. It is one of the key drivers of dairy farm profitability.

The exciting thing is that, unlike milk price (another key driver of profitability) it can be quite easy and cheap to improve pasture consumption.

Four groups, each with four to eight participants, met eight times over the last 12 months as part of TIA’s pasture coaching program. The participants varied in age, experience and role in the dairy industry but were all focussed on improving their grazing management skills in order to improve pasture consumption.

Participants worked through a series of exercises to help them:

- Work out the leaf stage of pasture and use this to set the grazing rotation
- Use a plate meter to measure average pasture cover, pre-grazing covers and post-grazing residuals
- Calculate cow requirements
- Determine how much cows are being fed from pasture and decide whether supplement needs to be provided and if so, which is the best supplement(s) to use
- Prepare a feed budget
- Monitor soil moisture and work out irrigation scheduling
- Use nitrogen effectively

All of the pasture coaching group sessions take place on-farms around Tasmania, which allows the exercises to be practical and realistic.

**What the participants say:**

A participant in a recent pasture coaching group, John Kelly of Sheffield, took part because he wanted to get the most out of his pasture. He said the pasture coaching sessions helped him to put numbers to his grazing management decisions, which has helped build confidence.

As a result of the pasture coaching sessions, John has started using a plate meter to measure pre-grazing...
pasture cover and check residuals. He is also using leaf emergence rate to guide rotation length decisions. All of this has helped his understanding of some of the key terms used in the dairy industry.

“I have been going to discussion groups for a while but haven’t really understood all the numbers that people talk about. But now I go along to discussion groups and it all makes sense and I can join in the discussion,” John said.

John has also found the on-farm aspect of the pasture coaching sessions useful as it has allowed him to see how other group members manage their pasture and pick-up tips on feeding cows.

Stuart Nailer is another farmer who has participated in the pasture coaching. Stuart milks 190 cows at Ringarooma. He attributes participating in the pasture coaching group with having a big impact on his farm’s milk production this year.

The spring pasture coaching session focuses on calculating the amount of pasture which is surplus to cow requirements. As a result of doing these calculations, Stuart cut a much larger area of the farm than he had planned. This helped maintain pasture quality and has helped them be 9000 kg MS ahead in their milk production to date this season.

Stuart has also found the cow requirement calculations helpful in making sure the cows are getting the feed they need.

The TIA Dairy Centre will be starting another round of pasture coaching groups in June. To find out more contact Sam Flight at Samantha.Flight@utas.edu.au or 0409 801 341.

**Feeding supplements in late lactation: North East Discussion Group**

Symon Jones, TIA Dairy Centre

The April meeting of the North East Discussion Group was held at Barry, Kathryn and Tom Forsyth’s property at Ringarooma, with a focus on seasonal conditions and the supplementary feeding of cows into late lactation.

The Forsyth family are great pasture managers and are constantly adjusting their irrigated and dryland grazing rotation length in line with the leaf appearance rate. This helps them to maximise the amount of feed they grow.

The information in the table below was collected on the Forsyth’s farm so that pasture management decisions could be reviewed on the day of the Discussion Group meeting.

With cooler autumn weather upon us, the discussion centred on the options the Forsyths had for extending the grazing rotation in order to increase pasture cover into the cooler months as leaf emergence rate and pasture growth rates slow down.

The group observed the pre-grazing and post grazing covers and the available pasture offered to the milking herd.

The grazing rotation for irrigation and dryland was at 31 days and 55 days respectively with a leaf appearance rate of 11 days on the irrigation and a leaf emergence rate on the dryland of 18 days.

<table>
<thead>
<tr>
<th>Growth rate</th>
<th>Leaf emergence rate</th>
<th>Area/ha</th>
<th>S/Rate 426 cows</th>
<th>Supp 1. (Grain)</th>
<th>Supp 2. (Silage/ hay)</th>
<th>Pasture intake</th>
<th>Total KgDM/ cow/day</th>
<th>Pasture Demand kg DM/ ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrigated</td>
<td>34</td>
<td>11</td>
<td>90</td>
<td>4.7</td>
<td>5 kg DM</td>
<td>6.3</td>
<td>15.5</td>
<td>30.0</td>
</tr>
<tr>
<td>Dryland</td>
<td>11</td>
<td>18</td>
<td>60</td>
<td>7.1</td>
<td>4 kg DM</td>
<td>1.8</td>
<td>1.8</td>
<td>13.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>17.3</td>
</tr>
</tbody>
</table>
The following calculations show how the available pasture is allocated and how irrigated and dryland areas are managed according to seasonal changes.

1. **Irrigated** pre grazing cover 2,500 kg DM/ha – residual cover 1,500 kg DM/ha = Available pasture 1000 kg DM/ha
2. **Dryland** pre grazing cover 2,000 kg DM/ha – residual cover 1,300 kg DM/ha = Available pasture 700 kg DM/ha

**Total available cover for irrigated and dryland**
(available pasture for the milking herd)

- Irrigated area 90 ha ÷ current rotation length 31 days = 2.9 ha x 1,000 kg DM/ha = 2,900 kg DM/ha
- Dryland area 60 ha ÷ current rotation length 55 days = 1.1 ha x 700 kgDM/ha = 770kg/DM/ha

Total pasture = 3,470 kg DM

**Total pasture per cow**
- Irrigated pasture 2,900 kg DM/ha ÷ 426 cows = 6.3 kg DM/cow
- Dryland pasture 770 kg DM/ha ÷ 426 cows = 1.8 kg DM/cow

Total pasture /cow = 8.1 kg DM

**Pasture demand per hectare Cows ÷ Area = Stocking Rate (SR)**
- Irrigated = stocking rate 4.7 cow/ha (426 cows ÷ 90 ha) x 6.3 kg DM pasture/cow = 30 kg DM/ha
- Dryland = stocking rate 7.1 cows/ha (426 ÷ 60 ha) x 1.8 kg DM pasture/cow = 13kg DM/ha

**Supplements Required**

Target requirements per cow 17.5 kg DM less pasture of 8.1 kg DM = 9.4kgDM as supplement.
- Grain = 5kgDM cow /day
- Silage/Hay = 4.4 kg DM/Cow/day

As there had been very little rain at the time of the visit and with not much rain forecast, it was suggested that the rotation length should be extended out to 33 days minimum for irrigated pasture and the dryland be held at 55 days.

In terms of allocation, this meant that the farm was almost in a breakeven position with growth rates matching pasture demand on the milking area. In order to extend the grazing rotation, supplements would need to be increased.

The type of supplement to be fed depends on a number of considerations, including:

1. Stage of lactation
2. The amount of supplement on hand
3. How much silage and hay will be required for late autumn, winter and through the calving period (requires a feed budget)
4. Price of grain or concentrate
5. Body condition of the cows
6. Best economic response to supplement
7. Soil temperature and moisture (when using nitrogen)

Milk responses to supplements such as grain are best when pasture intake is low. This is generally the situation on most farms through the autumn winter period.

Hay and silage were already being fed, so it was determined that there was already enough fibre in the diet with relatively unknown nutritional values. Therefore some of this could be replaced with a more consistent energy dense supplement that would provide a greater overall response in milk yield and live weight gain.

With pellets providing consistent quality in terms of energy and protein it was determined that a 1:1 milk response could be achieved more consistently than from the other supplements.

With the April milk price 20 per cent higher than the cost of the pellets being fed and increasing monthly, a good economic return from feeding concentrates could be achieved.

The group discussed that the other supplements stored on farm could be held over for the late autumn, winter and early spring requirements.

Nitrogen was also discussed as a cost effective supplement while pastures are actively growing. Best results are achieved when there is adequate moisture and when soil temperatures remain above seven degrees. While the response rate to nitrogen is more variable at this time of the year, nitrogen provides valuable additional feed to assist with extending the grazing rotation for lactation, building cow condition and providing winter feed.

The take home message was that all farms should be considering extending the grazing rotation now while pasture is actively growing in order to build pasture cover.

Kristy Evans and Deb Morice from Fonterra attended the discussion group meeting and provided some advice on feeding concentrates in late lactation and a brief update on the industry situation.

A special thankyou to Lester Rainbow from Incitec Pivot for providing a perfectly prepared barbeque lunch.

The North East Discussion Group is funded by the Dairy on PAR program and is open to all interested farmers.
Food for thought: Yolla/Wynyard Discussion Group

Sam Flight, TIA Dairy Centre

Dairy farmers are encouraged to share tips and ideas on technology use at the Flowerdale Valley Dairy later this month.

The next Yolla/Wynyard Discussion Group event, organised by TIA’s Dairy Centre, will be held at the Flowerdale Valley Dairy on May 25. The robotic dairy farm is owned by the Elphistone family and is currently undergoing conversion to organic dairy production, providing an interesting topic for the Discussion Group.

More than 15 local dairy farmers and service providers attended the previous Yolla/Wynyard Discussion Group event held at Gary and Sheryl van der Drift’s property in April. The focus of the event was profitable grain feeding in a pasture based system and included a presentation from TIA Feedbase and Nutrition Researcher, Dr Pieter Raedts.

Everyone in the group had been feeding some concentrate because they had identified they were able to make money from it given the lower concentrate price this season. Another reason farmers were feeding grain was to fill a feed gap or to drive milk production. Whatever the reason, to make the most of grain feeding it is important to understand key dietary relationships such as ME, digestibility and feed conversion efficiency.

ME stands for metabolisable energy and is the energy available in feed to be used by the animal. Not all energy is metabolisable as some is lost in excretions. The proportion of metabolisable energy is determined by the digestibility of the feed; the higher the digestibility, the more energy that is metabolisable. ME and digestibility of feeds can be found on a standard feed test.

The group had a productive discussion about differential feeding. Farmers in the group using differential feeding were mainly using condition score to determine what the cows should be fed.

The host farmer, Gary, told the group he regularly measures his pasture, generates a feed wedge and calculates the amount of pasture available in each paddock to determine the amount of supplement required. He had also undertaken feed testing this season, which helped him identify that silage quality was lower than desirable. Knowing this assisted him in feed planning.

The Yolla/Wynyard Discussion Group is open to all dairy farmers, so feel free to invite along anyone you think might be interested.

For more information please contact TIA Dairy Extension Officer Sam Flight at Samathana.Flight@utas.edu.au or 0409 801 341.

Growing more grass: Central North Discussion Group

Sam Flight, TIA Dairy Centre

Participants at the recent Central North Discussion Group meeting heard how a local dairy farmer has renovated pastures to support a planned farm expansion.

More than 25 people attended the April meeting of the Central North Discussion Group, organised by TIA’s Dairy Centre, held at Aylettes Dairy at Parkham. Farm Manager Carl Van Niekerk told the group about plans to increase the herd size to 950 cows being milked on 338 ha (with 167 ha irrigated with pivots). This season the farm milked 650 cows on 279 ha (with 45 ha of irrigation).

To support this expansion, additional stock water troughs and laneways have been completed and water storage capacity is being increased from 80ML to 400ML.

Basil Doonan from Macquarie Franklin is the consultant for Aylettes Dairy. He outlined the process that had been undertaken to renovate pastures on the farm and told the group that when the farm was taken over, 60 to 70 percent had poorly performing pasture due to low soil fertility and high wallaby pressure.

Since then, wallaby fencing has been installed, fertiliser applied and crops used as a break between the old pasture and new pasture. Diploid perennial ryegrass with a late flowering date was sown because of its ability to compete in the dry period. Cropping will not be an ongoing practice on the farm, but due to high levels of brown top and needing to balance the renovation process with still having feed in front of the cows, it has paid off.

Active pasture management

With the focus of the Discussion Group on pasture management, Brian Lawrence, one of the winners of the 2017 Pasture Consumption Awards, shared some useful points on grazing...
management to maximise production. He said that pastures need to be actively managed to be profitable.

Brian highlighted the importance of setting the right rotation for the time of year by making sure pasture is grazed at the 2.5-3 leaf stage. The exception to this is where canopy closure occurs before this point. When this happens, Brian grazes closer to the 2 leaf stage. He aims to have high quality pasture at each grazing and manages this by achieving a consistent residual of 1650-1750 kg DM/ha, topping if necessary.

When Brian and Michele Lawrence undertook their dairy conversion at Janefield, the farm was in a similar situation to Aylettes Dairy with low soil fertility and poor pastures. They found it important to soil test in order to develop a plan for improving soil fertility and have since taken part in the FertSmart program and continue to soil test regularly.

The next Central North Discussion Group will be held at the end of May and will focus on technology in the dairy. If you want to know more about the Central North discussion group or would like to be added to the mailing list, please contact Sam Flight at Samathana.Flight@utas.ed.au or 0409 801 341.

Sharing tips to improve productivity: North-West Discussion Group

Symon Jones, TIA Dairy Centre

Last month the North-West Discussion Group met at the Matthews’ dairy farm at Mella, near Smithton, to discuss current seasonal conditions, the management of fodder crops and management plans for the rest of the season.

The farm is managed by Hayden Matthews and milks 280 cows on a 78 hectare milking platform.

The Discussion Group meeting was very well attended with 24 farmers and service providers present.

Fodder crops

With only 12 per cent of the Matthews’ farm irrigated, fodder crops play an important role in the feedbase and the ability to provide additional feed to the dairy herd through the summer period. This year, 16 per cent of the milking area was cropped with chicory or turnips.

Hayden has found that chicory performs well as a short-term dryland fodder crop as it has very high summer production. It has an extensive taproot, which draws deep soil moisture to aid its growth and persistence.

Rob Snare from Serve-Ag provided some tips on managing chicory:

- It is important not to graze the crop below 5 cm to protect the crown of the plant
- It does not like heavy livestock traffic, as this will compromise plant density numbers
- Ensure fertility is adequate
- A pre-emergent herbicide is recommended prior to sowing
- Nitrogen is required for best results
- It can be sprayed out and over sown with ryegrass pasture in autumn

The cropping program has provided Hayden with an opportunity to renovate a large area of the farm each year. Hayden has used newer higher yielding ryegrass cultivars, which are providing high quality, feed throughout the season.

During the discussion about pasture renovation, to assist with the decision of which cultivar(s) to use, Rob Winter from Heritage Seeds outlined the different characteristics of tetraploids and diploids:

<table>
<thead>
<tr>
<th></th>
<th>Digestibility (%)</th>
<th>Energy (ME)</th>
<th>Crude Protein (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicory</td>
<td>70 - 80</td>
<td>9 - 11</td>
<td>14 - 24</td>
</tr>
</tbody>
</table>

Tetraploids (four sets of chromosomes):
- Fast to establish
- Tasty and palatable
- High dry matter intake
- Can be more open than diploids

Diploids (two sets of chromosomes):
- Densely tillered
- Competitive with weeds
- Cope with lower fertility
- Handle wetter conditions

Article continued over page
Body Condition

The Discussion Group observed and discussed cow condition and various options for managing the lighter cows in the herd.

Autumn is an ideal time to condition score and identify those cows that are below the condition score target.

Cows need to be in a condition score range of 4.5 – 5 at calving. Cows that meet this target by calving will have 12 per cent higher incalf rates and higher milk production.

Options discussed by the group were:

• Put lighter cows onto once a day milking and leave them in the milking herd
• Separate lighter cows into a once a day milking herd
• Dry off lighter cows early
• Preferentially feed lighter cows

Importantly it was noted that condition score gain takes time. It takes around 252 kg DM of extra feed to put one condition score on a medium to large frame cross bred and Friesian cow. Also, consider allowing 25 per cent over and above this for the extra energy lost in times of cold wet weather and subsequent wastage of feed.

*Divide 252 by the number of days you have left until calving and this will give you your daily allocation over and above maintenance, pregnancy and production.

TIA would like to thank Rob Winter from Heritage seeds and Rob Snare from Serve-Ag for their contribution to the North-West Discussion Group. A special thanks also goes to Troy Franks and Fonterra for providing lunch and an industry update.

The next meeting for the North-West Discussion Group will be at Steven and Sharon Fowlie’s farm at 110 Streets Road, South Forest on May 25th.

For further information please contact TIA Dairy Extension Officer Symon Jones on 0418 876 089.
The DairyTas Board travelled to Hamilton for its April meeting, spending the night and visiting the new Compass Agri farms – Clearview and Ivanhoe Farm – in the Derwent Valley. Ivanhoe is in the process of conversion and will supply milk in 2017/18 and Clearview is in its second season. The Board also had a catch up with local farmers over lunch to discuss activities and priorities coming into the 2017/18 season.

DairyTas has also been meeting with its regional farmer advisory groups to discuss programs and priorities for 2017/18. We are framing our Annual Operating Plan over the coming months. So far the focus will include continued delivery of financial and business workshops, fertility and animal health, Clean Rivers support for Circular Head, Young Dairy Network, Discussion Groups and the like.

Taking Stock and Feed Budgeting

With funding from Dairy Australia, State and Australian Government, farm management support is available for individual farmers under Taking Stock and Feed Budgeting up until the end of 2017/18. This includes follow up visits. DairyTas has a list of approved consultants. So far we have completed 144 Taking Stock visits and 56 feed budgets over the past 12 months.

Milk Production Update

Tasmania’s milk production is 6.5% below where it was at the same time last year. This is slightly better than the national situation which is -8.1%. For Tasmania, this represents a decrease of 46 million litres. It is expected by the end of the season, Tasmania will have produced 840 million litres (compared to 883 million litres in 2015/16) which is 9.5% of the national production.

Coming events include:

Financial Literacy Program

The next nine-day program will start on May 30 and run over the two months to June. The program has proved a great success with farmers in covering farm finances, tax compliance, dealing with your bank and basic accounting and cashflow management. The program also has mentors available to support farmers implement their learning.

InCalf Herd Fertility

A five-day course to help you design a fertility plan covering reproduction, calving and an efficient joining program. Two courses will be held at Devonport and Scottsdale in June/July (dates are in the calendar).

Business Governance Workshop

This two-day workshop to help improve your strategic management has been moved to late June (21-22) to accommodate more interested farmers. The workshop is aimed at dairy businesses who are looking to improve their strategic planning, risk management and governance. The workshop is delivered by rural advisor David Heinjus from South Australia.
Available at www.utas.edu.au/tia/dairy

Electronic copies of this newsletter are email tas.dairynews@utas.edu.au.

Dairy Centre adviser, phone 6430 4953 or TIA and Dairy Australia.

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May
May 9: Euthanase Livestock, King Island (DairyTas)
May 9: Southern Pasture Coaching Group, G & M Rogers, Ouse. 11am-2pm (TIA)
May 9: Stepping Up, Stepping Back with John Mulvany, Agritas, Smithton (DairyTas)
May 10: Using DairyBase to Understand Your Farm Business with John Mulvany, Devonport (Day 2 of 2) (DairyTas)
May 11: Stepping Up, Stepping Back with John Mulvany, Watters Inn, Burnie (DairyTas)
May 16: Euthanase Livestock, Smithton (DairyTas)
May 16 & 17: Pasture Management Workshop, KIRDO, King Island. 10:30am-2:30pm (TIA)
May 16: King Island Dinner & Discussion, King Island Club, 6:30-8:30pm. Please RSVP to Lesley.Irvine@utas.edu.au or 0428 880 287 (TIA & DairyTas)
May 16 & 17: 8 Steps Program, Scottsdale LINC. For more information contact Nicki Hayward 0477 334 080 (No.8HR)
May 17: Safety Award Winners Field Day (DairyTas)
May 17 & 18: ChemCert, Burnie (TasTAFE)
May 17 & 18: Cert IV/Diploma, Small Business Finance, Deloraine (TasTAFE)
May 19 & 26: Pasture Management Workshop, Circular Head Community & Recreation Centre, Smithton. 10:30am-2:30pm. (TIA)
May 23: Devonport Discussion Group, W & C Saward, Barrens Road, South Riana. 11am-2pm. (TIA)
May 23 & 30: Pasture Management Workshop, Scottsdale. 10:30am-2:30pm. (TIA)

May 24: 40 Year Celebration, Yolla (Yolla Farmers Co-Op)
May 24: Waste Water Forum, Tailrace Centre. Registration from 9am. Free event but please RSVP to terry.brient@gmail.com (TAPG)
May 24 & 25: ChemCert, Launceston (TasTAFE)
May 25: North West Discussion Group, S & S Fowlie, 110 Streets Road, South Forest. 11am-2pm. (TIA)
May 25: Yolla/Wynyard Discussion Group, Elphinston’s Flowerdale Valley Diary, Robin Hill Road, Flowerdale (TIA)
May 26: 4 Fundamentals Program, Agritas, Smithton. For more information contact Nicki Hayward 0477 334 080 (No.8HR)
May 30: Financial Literacy for Dairy Farmers (Day 1 of 7), Location TBA (DairyTas & TasTAFE)
May 31: Deloraine Region Pasture Coaching Group. First meeting – contact Sam Flight on 0409 801 341 if you wish to participate (TIA)

June
June 1 & 8: Pasture Management Workshop, TIA Dairy Research Facility, 124 Nunns Road, Elliott. 10:30am-2:30pm (TIA)
June 1: Legendary Women’s Discussion Group, Scottsdale (DairyTas)
June 6: Legendary Women’s Discussion Group, Smithton (DairyTas)
June 7: InCalf Hard Fertility Planning Workshops (Day 1 of 5), Devonport/Sheffield (DairyTas)
June 8: Legendary Women’s Discussion Group, Deloraine (DairyTas)
June 8: InCalf Hard Fertility Planning Workshops (Day 1 of 5), Scottsdale (DairyTas)
June 13: Euthanase Livestock, Scottsdale (DairyTas)
June 13: Transition Cow Management Workshop, Smithton (DairyTas)
June 13: 4 Fundamentals Program, Deloraine. For more information contact Nicki Hayward 0477 334 080 (No.8HR)
June 14: InCalf Hard Fertility Planning Workshops (Day 2 of 5), Devonport/Sheffield (DairyTas)
June 14 & 15: Quad Bike Training, Burnie (2 courses) (TasTAFE)
June 14 & 15: Weeds, Pests and Diseases, Deloraine (TasTAFE)
June 15: InCalf Hard Fertility Planning Workshops (Day 2 of 5), Scottsdale (DairyTas)
June 20 & 21: ChemCert, Launceston (TasTAFE)
June 28 & 29: ChemCert, Burnie (TasTAFE)
June 18 to 26: YDN New Zealand Tour (DairyTas)
June 20: Euthanase Livestock, Deloraine (DairyTas)
June 21: InCalf Hard Fertility Planning Workshops (Day 3 of 5), Devonport/Sheffield (DairyTas)
June 21: Dairy On PAR Field Day – Achieving Calf Rearing Success & Options for Bull Calves, Smithton & Burnie (TIA)
June 22: Dairy On PAR Field Day – Achieving Calf Rearing Success & Options for Bull Calves, Deloraine (TIA)
June 22: InCalf Hard Fertility Planning Workshops (Day 3 of 5), Scottsdale (DairyTas)
June 23: Dairy On PAR Field Day – Achieving Calf Rearing Success & Options for Bull Calves, Branxholm (TIA)
June 27 & 28: Beyond 8 Steps Program, Agritas, Smithton. For more information contact Nicki Hayward 0477 334 080 (No.8HR)
June 27 - 29: 2017/18 Seasonal Outlook Sessions (DairyTas)
June 28: InCalf Hard Fertility Planning Workshops (Day 4 of 5), Devonport/Sheffield (DairyTas)
June 29: InCalf Hard Fertility Planning Workshops (Day 4 of 5), Scottsdale (DairyTas)

Contact us

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

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