

# Tassie Dairy News

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

June 2018



## Inside the newsletter

The in calf challenge	03
Opportunity to help shape Tasmania's farming RD&E	03
Is farm safety a priority for your business?	04
DairyTas Update	06
Fence-free future for dairy farms	07
Dairy Diary 2018	08

## Score your cow on its condition going into the dry period

*Symon Jones, TIA*

If you haven't condition-scored your cows yet, now is a good time to do it.

Most Tasmanian dairy farms have experienced very positive autumn conditions, so cows should be in good condition going into the dry period, but it's worth doing the check. The aim is to have all cows in a condition score range of 4.5 to 5.5 by the start of calving. Condition score guides are available on the Dairy Australia website.

Levels of feeding in the first half of a cow's dry period should be aimed at maintaining (or improving if necessary) cow body condition score. However, maintaining condition does not mean

just feeding at maintenance levels – there are a few factors to consider.

### Feed requirement for pregnancy

Most obvious, is the extra energy needed to feed the growing unborn calf. The last trimester of pregnancy has the highest energy requirement as the calf dramatically increases in size.

A cow will need an extra 1 kg DM in her seventh month of pregnancy, an extra 2 kg DM in her eighth month of pregnancy and an extra 3 kg DM during the last two weeks of her pregnancy in order to properly feed the calf and not starve herself.

### Impact of cold weather

A cow can use up to 25% more energy in extreme conditions. The most energy draining weather conditions are when the cows are wet and cold – a typical Tasmanian winter!

### Feed wastage

Typically in winter, cows will be fed hay and/or silage to supplement any pasture they are grazing. A percentage of all feed is wasted regardless of how or where it is fed.

A minimum of 10% wastage occurs with all hay and silage supplements. However, depending on weather conditions and where the supplement is fed, the wastage can be as high as 25-50%.

### Improving condition

If you do need cows to gain condition, whether it be the whole herd or a small group, a significant amount of extra feed is necessary.

*Continued over page >*

A significant weight gain is needed to increase a cow's body condition score by just one point. A Friesian would need a weight gain of 42 kg and a Jersey would need a weight gain of 26 kg.

It requires 6 kg of dry matter to gain 1 kg of liveweight.

## Introducing metabolisable energy and dry matter

Metabolisable energy (ME) is the amount of energy in a feed that can be used. It is measured in megajoules (MJ). ME is a more accurate measure of cow requirements but because the energy content of feed is often unknown or estimated, we use a measurement that can be easily worked out on farm. This is kilograms of dry matter (kg DM).

For the calculations explained below, it is assumed each kg DM contains 10.5 MJ ME. (Assumptions, as always, should be applied with caution.)

## Metabolisable energy in pasture, silage and hay

Typically green, leafy pasture will have higher than 10.5 MJ ME/kg DM, which means if the whole of the cow's diet is high quality pasture, you could feed less dry matter and still meet their energy requirements.

Silage typically has around 10 MJ ME (can be a bit higher or a LOT lower). If the supplement has 10 MJ ME, it means cows will need to eat more than 1 kg DM to get 10.5 MJ ME.

Hay typically has 9-10 MJ ME, and can range widely. As with the silage example, a cow will need to eat more than 1 kg DM to get 10.5 MJ ME.

The kg DM used in this article is a 'rule of thumb' that takes into account cows are typically fed a less energy dense diet during the dry period. In other words, it assumes a dry cow diet is normally a mixture of pasture, silage and hay, rather than the higher energy diet usually fed to lactating cows.

If you want to be more accurate than the 'rule of thumb', you can have your feed tested so you know the energy content.

Regardless of how you work out your dry cow feed requirements – you should be monitoring condition score to make sure your feeding strategy is working.

## Calculating feed requirements

To work out the feed requirement for your cows, you need to add in all of the relevant factors:

### 1. Maintenance

Maintenance requirement is based on a cow's liveweight. The calculation is:

$$\text{liveweight} \div 100 + 1$$

Examples:

500 kg cow:  
 $500 \div 100 = 5 + 1 = 6$  kg DM

600 kg cow will have a higher maintenance requirement:  
 $600 \div 100 = 6 + 1 = 7$  kg DM

### 2. Pregnancy

In month 7, feed an extra 1 kg DM

In month 8, feed an extra 2 kg DM

In month 9, feed an extra 3 kg DM

### 3. Increasing body condition

Feed an extra 6 kg DM for each kilogram of liveweight gain that is needed.

Friesian example

A condition score for a Friesian is 42 kg. To gain a condition score over the dry period, the calculation would be:

$$42 \text{ kg} \times 6 \text{ kg DM} = 252 \text{ kg DM}$$

So, to gain a condition score during the dry period, she will need to be fed an extra 252 kg DM. This is equivalent to a bale of silage.

Jersey example

A condition score for a Jersey is 26 kg. To gain a condition score over the dry period, the calculation would be:

$$26 \text{ kg} \times 6 \text{ kg DM} = 152 \text{ kg DM}$$

So, a Jersey would need to be fed an extra 152 kg DM to gain a condition score over the dry period.

Estimating additional feed required

Divide the total kg of dry matter required to gain one body condition score by the number of days left until calving.

For example, a Friesian cow needs to be fed an extra 252 kg DM to gain one condition score. Therefore to gain half a condition score, she requires half of that, 126 kg DM. This extra feed is not fed all at once but worked out on a daily basis. For example if the cow has 60 days to gain 0.5 CS, the calculation for extra feed required per day is:

$$252 \text{ kg DM} \times 0.5 \text{ CS} = 126 \text{ kg DM} \div 60 \text{ days (time to calving)} = 2.1 \text{ kg DM/cow/day}$$

2.1 kg DM/cow/day would be the extra feed required.

## Requirements for a 500 kg dry cow gaining half a body condition score in a 60 day dry period, while being 8 months pregnant.

Requirement	kg DM
Maintenance	6
Pregnancy	2
Lactation	0
Change in body condition	2.1
Total requirements	10.1
Add on hay wastage factor of 20% (10.1 x 20%)	2
Add on extra for cold weather of 25% (10.1 x 25%)	2.5
<b>Total requirements in poor conditions</b>	<b>14.6</b>

# The in calf challenge

Grant Rogers, Dairy Systems



## Welcome back to the In Calf Challenge.

There are two key factors that impact on three week submission rates and six week in calf rates:

- cow-body condition score at calving, and
- days open from calving to mating.

Wintering is an important time in the dairy calendar and it doesn't take much for it to go pear-shaped. Setting yourself up for success started months ago. Now is the time to pull it all together and go into the calving period in good shape.

## Assess and monitor body condition

- Winter is a difficult time to put on condition, studies show the maximum animals generally put on is 0.5 BCS, so don't rely on a last minute rush to the finish line – the efforts should have happened up front! Having said that, animals that are below target should still be preferentially fed to give them the best chance of getting back in calf early in the calving period.
- R2s should be closer to BCS 5.0 in June. Now is the time to work on under-performing young stock, separating them out and preferentially feeding them.
- Ensure all stock's mineral levels are sufficient and supplement if not.

## Make sure feed requirements are being met

- Review your feed budgeting. Sit down and work through all the options with a team of respected, trusted rural professionals.
- Destocking is a good option. Culls should be gone by now. Consider reducing numbers of poor producing and late calving cows if feed budgets are too tight.

- For those on crops, the calculated yield of the crop must be as accurate as possible to measure and plan daily allocations. Make sure the person allocating the feed has a good understanding of what is being offered and how much crop and supplements are being eaten.
- The importance of transitioning cows between grass and winter feed seems to be well known but not necessarily adhered to. The number of days taken to transition does make a difference and no one likes seeing cows going down to nitrate poisoning.

## Maximising days open from calving to planned start of mating

It is well proven that cows calving in the first few weeks have a massive advantage when it comes to getting back in calf. The dice for this season coming was already thrown last mating but there are a few things that can be done to manipulate next season's results. This revolves around late calving cow management and to do this we need accurate mating/pregnancy data.

If late calvers are known, we can manipulate days open by culling or selling these animals (or a portion of them) or via a small percentage of inductions (remembering inductions are being phased out and other strategies need to be developed to maintain good reproductive performance).

If you are going to induce, it is essential it is done to industry standard. Plan to induce early, as cows induced at the end of calving rarely get back in calf in the desired timeframe. If you are going to be using inductions, ensure calving dates are known and correct, and that cows are young and in good health and body condition.

At the end of the day, the best way to achieve maximum days open is to focus on getting as many cows in calf as early as possible.

# Opportunity to help shape Tasmania's farming RD&E

Claire Baker, TIA Research  
Communications Officer

Tasmanian farmers, growers and food/beverage manufacturers are invited to participate in a state-wide survey, to be launched in July, as part of a TIA project called TasAgFuture. The survey is for everyone working in the agrifood sector – small to large businesses, their managers and employees.

Your input will help TIA better support Tasmania's diverse agrifood businesses. We are 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 answers with others in the sector, and you'll have the chance to win one of three iPads.

The TasAgFuture project is asking 'Where is Tasmania's agrifood sector going and how do we get there?'. The project aims to shape the future of Tasmania's 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 (including a sample of dairy farmers) about their goals, and factors that are hindering and helping them survive or thrive in a competitive market.

More information about the project, including contact details, are available at [utas.edu.au/tia/tasagfuture](http://utas.edu.au/tia/tasagfuture). A link to the survey will be available on the webpage from 27 June. We appreciate you telling others about the survey (flyer enclosed).



TasAgFuture researchers are keen to hear from dairy farmers.

Project updates are posted on Facebook and Twitter using #TasAgFuture

(just type #TasAgFuture in the Search bar).

# Is farm safety a priority for your business?

Symon Jones, TIA

The topic of farm safety, workplace compliance and developing a safety culture is important for all farming businesses and was discussed at an evening meeting held in Smithton

Guest speakers at the meeting were:

- Phil John, Safe Farming Tas
- Jo Shegog, Aon Risk Solutions
- Tony Barker, Rural Alive and Well

All speakers gave excellent presentations about our responsibilities as employers, employees or contractors.

In 2015-16, the agricultural industry comprised 2.3% of people in the workforce but accounted for 23% of worker fatalities. 66% of these deaths involved either a tractor or quad bike.

In 2010-2015, the Australian agricultural sector had 15.3 fatalities per 100,000 employees, compared to 1.9 fatalities per 100,000 employees in other industries ([safeworkaustralia.gov.au](http://safeworkaustralia.gov.au)).

During 2016, 63 accidental deaths occurred on Australian farms. This is a clear reminder that creating a farm safety system should be a priority for every farm business, as any accidental death is one death too many – it's always someone's husband or wife, or someone's son or daughter.

## A workplace health and safety system for your farm

A farm workplace health and safety system does not need to be complicated. It should encompass a good workplace culture, clear roles and responsibilities, an induction policy, safe operating procedures and an up-to-date list of workplace hazards.

- An induction process is about educating and training employees on their role, risks in the workplace, and the laws, regulations and policies that apply to their day-to-day responsibilities.
- Safe operating procedures/policies and an induction policy are all available as templates from the Safe Farming Handbook.

of workers were killed in a single vehicle incident



36% were driving a tractor, 16% were driving a quad bike, 7% were driving a truck, 7% were or foot and killed by a vehicle.

- Workplace and on farm hazards should be identified and made clearly visible to all employees and contractors working on the property.

While we pay attention to managing the environment, pastures, livestock and finances, it is just as important to include and manage a farm safety system as a part of the business.

## Insurance and Workers' Compensation

### Quick stats

In the 5-year period from 2009-2014 in Tasmania:

- 2018 Workers' Compensation claims were lodged
- In three of those years, three people didn't return home from work
- The total cost of these claims was just over \$24 million – at an average cost of \$11,406 per claim
- A total of 51,056 workdays were lost
- One fatality costs an average of \$4.5 million. One accident recently resulted in a civil case and a payout of almost \$12 million

### Effects of Workers' Compensation claims

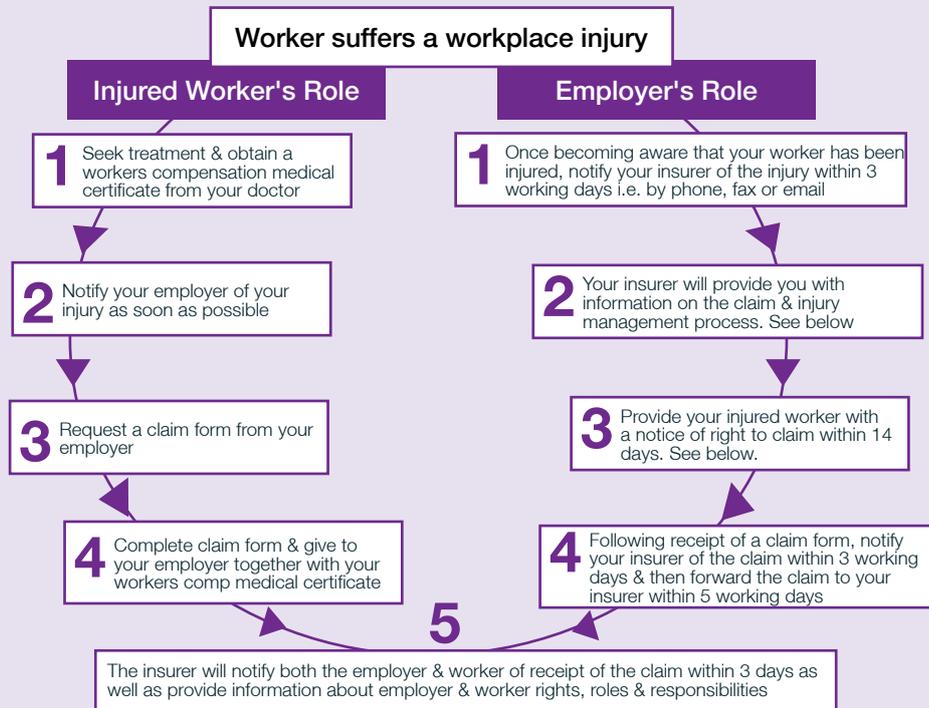
Jo Shegog from Aon Risk Solutions explained the effect that a claim can have on the business and the process to observe when dealing with a workplace injury.

Ensure that your Workers' Compensation and public liability policies are up-to-date and reviewed regularly.



# When An Incident Occurs – Workers Comp

(As per legislation)



A Workers' Compensation claim not only results in an increase in insurance premiums, but can also result in liability, with expensive fines causing stress and anxiety for both the employer and the employee.

Insurance premiums can rise significantly after a claim has been made and it takes five years without a claim to restore premiums to a reasonable level.

In the unfortunate event where farms have an incident, it is important to notify your insurer within three working days in order to activate the claim process.

## How to respond to a workplace incident

The flow chart above explains the steps to follow when responding to a workplace incident.

## Looking out for each other

Tony Barker, from Rural Alive and Well, discussed the importance of building a safety culture within the workplace – a culture where everyone looks out for each other.

We all intuitively use our observational skills for assessing things like the amount of pasture in a paddock, or if a cow is lame. So too, is the importance of observing the general behaviour, mood, activity and actions of all employees during the day. It is a valuable health and safety check on our personnel, and a practice which can prevent an accident from happening.

Everyone working in our business is important and should be valued for the job they do.

## How to create a positive farm safety culture

- Be positive about farm safety and involve the whole farm team in farm safety discussions
- Act on farm safety issues that have been identified
- Lead by example. If you expect your employees to wear a motor bike helmet, then wear one yourself!
- Assess the risk – observe and be mindful of risks at all times

- Encourage staff to focus on one thing at a time. If someone's mind is on other things, it increases the risk of an accident happening.
- Encourage open dialogue when physically safe to do so. The 'Speak up and stay chatty' campaign promotes open conversations, and spreads the message "Nothing is so bad that you can't talk about it."

## Resources

Helpful resources are available from DPIPW through the Safe Farming Tasmania program. These include a Safe Farming Induction Handbook, short safety videos that can be used as part of an induction or training program, and a Farming Safely in Tasmania guide.

Senior Workplace Health and Safety Consultant Phil John provides free, practical and confidential advice on improving farm safety. Phil can be contacted on 0407 015 400.

---

# 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?

# We're heading towards the end of the financial year at high speed!

---

### Events over the next few months:

---

#### YDN social nights

During June there will be Laser Tag & Pizza nights at Burnie & Launceston (and Hobart if there is sufficient support) - **FREE bus from Scottsdale and Smithton!** See our website [dairytas.com.au/projects/young-dairy-network/](http://dairytas.com.au/projects/young-dairy-network/) and Facebook page [facebook.com/ydntas/](https://facebook.com/ydntas/)

---

#### Focus Farm Open Day at Montagu

The next open day will be held on **14 June** – sponsored by Zoetis

Andy Hancock from Zoetis and Sam Flight from TIA will be looking at lessons learned from this season and setting up the farm, animals and facilities for next season. Theory and practical sessions will include: teat scoring, teat seal and dry cow therapy demonstration, preventative vaccination programs and setting up pasture for next Spring.

Farm data is uploaded fortnightly on our website [dairytas.com.au/projects/focus-farm/](http://dairytas.com.au/projects/focus-farm/) and Facebook [facebook.com/TasFocusFarm/](https://facebook.com/TasFocusFarm/).

---

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

These will be run in June and July in Smithton, Deloraine and Scottsdale.

This popular two day course is targeted for milkers. Come along for a refresher in best practice milk harvesting with emphasis on the detection, treatment and prevention of clinical mastitis. Details for this course are available at [dairytas.com.au/](http://dairytas.com.au/).

---

#### Transition Cow Management courses

These are being held in Smithton, Scottsdale and Deloraine in June. Transition cow management is one of the most significant advances in dairy nutrition and production over the past 20 years. For many Australian dairy farmers who are yet to implement a successful transition feeding program, it provides a major opportunity for improving cow health, milk production and reproductive performance. The workshop is designed for farm owners, managers and people working with transition dry cows to milking cows on farm.

#### What will you learn?

- What a transition diet looks like in a pasture based system
- The latest information on transition cow management
- Options for controlling milk fever
- Designing and implementing successful transition feeding programs
- How to identify and troubleshoot problems with transition feeding programs

Morning tea and lunch provided. **RSVPs are essential – please submit a form, which can be downloaded at [dairytas.com.au/](http://dairytas.com.au/)**



# Fence-free future for dairy farms



**Virtual herding technology has the potential to revolutionise the way dairy farms of the future operate, but the application of the technology to intensively manage grazing cattle is still largely unknown. Researchers at the Tasmanian Institute of Agriculture (TIA) are part of a national program to find out how virtual herding technology could be used to optimise livestock and pasture management for intensive dairy farms.**

TIA Research Fellow, Dr Megan Verdon, is conducting trials at TIA's Dairy Research Facility at Elliott in North-West Tasmania. During 2018, the trials have a focus on animal behaviour as Dr Verdon, an animal behaviour specialist, investigates how to effectively introduce the technology to animals on a commercial farm to ensure rapid association of the cues with long-term retention.

"The technology replaces a physical fence line with what we call a virtual fence line which a farmer can set and move from a computer or tablet based on GPS locations. The cow wears a collar which delivers an audio signal when she approaches the virtual fence line. If she continues to walk towards the fence line she receives an electrical

stimulus but if she stops walking or turns back around she won't receive any further sensory cues. Through this process of audio and electrical stimulus, the animals learn that the audio means they're approaching a fence line," Dr Verdon said.

"Once we know how animals respond and interact with the technology we can then explore how it can sustainably be used to increase dairy farm productivity through more tightly controlled stock movement."

Dr Verdon said virtual herding technology presented endless opportunities for intensive dairy farming, with potential benefits for productivity, profitability and sustainability.

"The benefits of using virtual herding technology could be quite substantial for farmers. It means farmers could implement more intensive or complex grazing regimes without the increased cost of labour or building the fences, you could fence-off riparian zones or environmentally sensitive areas, and more easily move animals away from waterlogged areas," Dr Verdon said.

"There's also opportunity for the technology to support the provision of pasture at a time when animals want to feed which is often at sunset

or sunrise. Through this interaction between the timing of pasture provision and how much pasture is provided, we could create an environment that results in increased productivity and better pasture utilisation."

Dr Verdon was awarded a Research Integrity and Ethics Award, by the University of Tasmania, for her work on the virtual herding project. The award recognises Dr Verdon for meeting the needs of diverse stakeholders while ensuring any potential implications of the technology on the welfare of dairy cattle is understood.

The project is funded through the Australian Government Department of Agriculture and Water Resources as part of its Rural R&D for Profit program. It is a partnership between CSIRO, the University of Sydney, University of New England, the Tasmanian Institute of Agriculture, the University of Melbourne and Agersens Pty Ltd, with further funding support from the dairy, beef, wool and pork industries and their respective RDCs; Dairy Australia, Meat and Livestock Australia, Australian Wool Innovation and Australian Pork Limited.

*This article appeared in Tasmanian Country on 16 March, 2018.*

# DAIRY DIARY 2018

## June

- 14 June:** Focus Farm Open Day, Montagu (DairyTas)
- 19 June:** InCalf Herd Fertility Course, Smithton. Day 4 of 5. (DairyTas)
- 19 June:** Transition Cow Workshop, Smithton (DairyTas)
- 19 June:** Euthanase Livestock, Devonport (TasTAFE)
- 20 June:** Transition Cow Workshop, North East (DairyTas)
- 20&21 June:** Financial Literacy for Dairy Farmers. Day 4 & 5 of 7. (TasTAFE & DairyTas)
- 20&21 June:** ChemCert, Burnie (TasTAFE)
- 21 June:** Transition Cow Workshop, Deloraine (DairyTas)
- 21 June:** Agribusiness Professional Breakfast, Cradle Coast Campus, University of Tasmania (TIA)
- 26 June:** InCalf Herd Fertility Course, Smithton. Day 5 of 5. (DairyTas)
- 26&27 June:** Cups On Cups Off, Deloraine (TasTAFE)
- 26&27 June:** Diploma Series – Breeding Strategies, Deloraine (TasTAFE)



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>

- 27 June:** Dairy Business Seminar, Hotel Grand Chancellor, Launceston 1-6pm. Cost: \$55 – tickets available [www.burnietickets.com.au](http://www.burnietickets.com.au). Organised by Leanne Gifford, Red Sky – contact [leanne@redskyagri.com](mailto:leanne@redskyagri.com) or 0499 206 396.
- 27&28 June:** Cups On Cups Off, Togari (TasTAFE)
- 28 June:** Financial Literacy for Dairy Farmers, Day 6 of 7. (TasTAFE & DairyTas)
- 28 June:** Central North Legendary Women's Group meeting (DairyTas)

- 3 July:** Healthy Calves workshop, Deloraine (TIA)
- 5 July:** Healthy Calves workshop, Burnie (TIA)
- 9 July:** Healthy Calves workshop, South (TIA)
- 10 July:** Healthy Calves workshop, Branxholm (TIA)
- 24 July:** Healthy Calves workshop, King Island (TIA)
- 24&25 July:** Healthy Calves, Burnie (TasTAFE)
- 25 July:** Euthanase Livestock, King Island (TasTAFE)
- 26 July:** Financial Literacy for Dairy Farmers, Day 7 of 7 (TasTAFE & DairyTas)

## July

- 2 July:** Healthy Calves 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](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).



Your Levy at Work



DairyTas (03) 6432 2233

TasTAFE 1300 655 307

TIA (03) 6430 4953

Agritas (03) 6415 4100



@TasInAg  
@TIADairy



TasInAg

## 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.