

New OJD plan in action

Following extensive consultation, the new National Ovine Johne's Disease (OJD) Management Plan came into effect on 1 July 2013.

Developed during the past two years, in collaboration with sheep industry stakeholders across Australia, the new Plan enables Tasmania's sheep producers to take greater responsibility for biosecurity.

DPIPWE Veterinary Officer, Rowena Bell says, "The changes recognise the regulatory approach taken in the past is no longer the best way to manage OJD and the way forward is to maximise the use of available tools to help minimise the impact on individual properties and reduce the spread of the disease."

What remains the same?

OJD remains a notifiable disease, so producers who suspect OJD must report their suspicions to DPIPWE.

A Sheep Health Statement is still required for any sheep coming into Tasmania.

What has changed?

OJD is now considered endemic in Tasmania and is common in most sheep-producing areas across the State. As a result, some of the legal requirements that applied to OJD during the past have changed.

"Other than the requirement for vendors to notify potential buyers or receivers of sheep if there is confirmed or suspected OJD infection, there are no longer any other regulatory controls that apply to the management of the disease within Tasmania," Rowena explained.

"In particular, all types of sheep can move freely between Flinders Island and mainland Tasmania, and from infected properties to other properties within Tasmania."

"A new National Sheep Health Statement (SHS) has been developed. While it is not compulsory to use the SHS in

Tasmania, except for sheep coming from the mainland, producers should insist sheep they buy or agist have a SHS. This is the best way to minimise the risk of introducing OJD."

Rowena explained that the Assurance Based Credit (ABC) scheme that has been used until now has been dropped from the new SHS.

"The system of OJD prevalence zones across Australia has been discontinued. As a result, there will be no nationally-recognised trading restrictions, zones or areas. But please note some other states with very low levels of OJD are maintaining formal requirements for OJD for importation of sheep," she said.

Producers can now make their own collective decisions about the management of OJD and the setting of biosecurity rules within their own local region. DPIPWE is on hand to assist any farming community wanting to do that, as well as provide guidance on the new SHS.

What's best practice?

According to Rowena, participating in the National Market Assurance Program (SheepMAP) is one of the best ways vendors can demonstrate their sheep have a low risk of being infected with OJD.

"Sheep breeders not participating in the Program, need to vaccinate all sheep under 16 weeks of age, other than terminal lambs," Rowena advised. "This will protect sheep at risk of being infected with OJD."

"They also need to identify 'approved' vaccinated sheep with a NLIS 'V' tag, only buy or agist sheep (including rams) that have a SHS, and vaccinate all breeding and store sheep against OJD." 🐏

Further information

- For more information on OJD, including transmission, infection, incubation, control and first aid, go the *Resources > Ovine Johne's disease* section on the *Sheep Connect Tasmania* website at www.sheepconnecttas.com.au
- For a copy of the new National OJD Management Plan 2013-18, go to www.animalhealthaustralia.com.au
- If you are keen to attend a *Safe and effective vaccination workshop*, contact James Tyson on 0409 006 774 or at james.tyson@utas.edu.au

Contact:

Rowena Bell, Veterinary Officer, DPIPWE
M: 0488 198 500
E: rowena.bell@dpiipwe.tas.gov.au

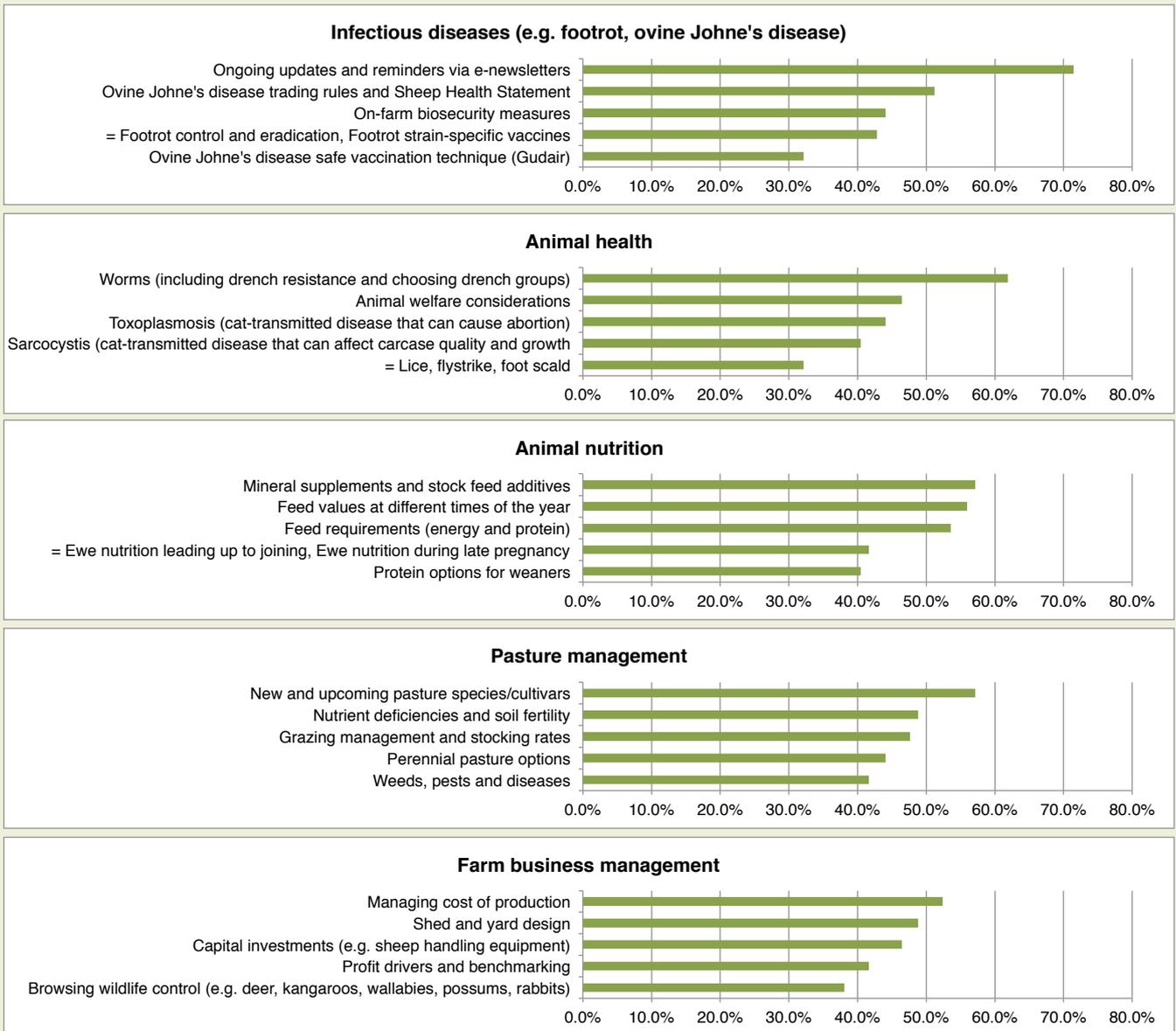
this issue

New OJD plan in action	1
Tasmanian sheep industry — the big issues	2
Savvy selection drives persistent profits	4
Shearing shed design	6
Stay focussed	8
Ram selection	8

Tasmanian sheep industry — the big issues

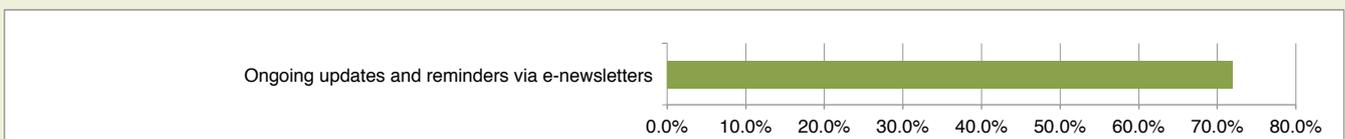
Following on from our autumn newsletter article, which outlined the top five areas you identified as important to your sheep business, we can now present the final results of our follow-up survey.

We had an outstanding response rate of more than 35 per cent. This is fantastic considering the national industry average is 10–12 per cent. The full details follow:



Understanding the results

In the below example where we asked what you want more information about in the key area of infectious diseases (e.g. footrot, ovine Johne's disease), more than 70% of respondents said ongoing updates and reminders via e-newsletters.



We act on your feedback

In line with the survey results, *Sheep Connect Tasmania* has recently delivered, or is planning to provide (*), the following information via interactive (workshops, meetings, field days) and passive (hardcopy newsletters, case studies, factsheets, e-newsletters, online information) delivery channels:

Infectious diseases

Ovine Johne's disease (OJD)

- Ongoing updates and reminders via e-newsletters and quarterly hardcopy newsletters covering the OJD National Management Plan, OJD trading rules and the revised Sheep Health Statement (SHS) (see the *Ovine Johne's disease update article in this newsletter on page 1*).
- Safe and effective vaccination (with Gudair): workshops* and webinars.

Footrot control and eradication and footrot strain-specific vaccines

- Collaboration with DPI/PWE on AWI-funded footrot project*, including promotion, updates, factsheets, articles, case studies, field days, workshops and an iPhone 'app'.

Animal health

Worm management (including combating drench resistance and choosing appropriate drench groups)

- Monthly Tasmanian worm update reports, drench decision guides and articles on grazing management (such as 'smart grazing') to manage worms (via e-newsletter) and *WormBoss* workshops*.

Animal welfare considerations

- Updates on livestock transport standards and distribution of *A national guide to the selection of animals fit to transport: Is it fit to load?* guide (via e-newsletter).
- Communications on public consultation period for animal welfare standards (via e-newsletter).
- Field days in response to Tasmanian bushfires that covered animal health and welfare topics.

Toxoplasmosis ('toxo') and sarcocystis ('sarco')

- *Cats create havoc with carcase contamination* article in our autumn 2013 hardcopy newsletter.
- Sarcocystis factsheet distributed (via e-newsletter and on the *Sheep Connect Tasmania* website).
- Regular tours through *Tasmanian Quality Meats* to look at the impact conditions such as sarco, sheep measles, cheesy gland and OJD have on carcase quality and producer returns.

Flystrike and lice

- Distribution of maggot-sampling kits for the AWI-funded national project on blowfly resistance to cyromazine, dicyclanil and ivermectin.
- Communication about the latest flystrike research, including liquid nitrogen and laser treatments (via e-newsletter).
- Promotion of the *Flystrike Assist* iPhone app that helps producers select appropriate chemicals to prevent flystrike while observing chemical withholding periods, and decision-support tools on the new *LiceBoss* website (via e-newsletter).

Lamb survival workshops

- *Your Lambs Your Profit* workshops held at *West Wyambi*, *Tomahawk*, *Bendevevon*, *Bothwell*, and *Nosswick*, *Blackwood Creek*, covering identifying causes of lamb losses and increasing lamb survival.

Animal nutrition

Mineral supplements

- Local producer case study *Mineral supplements — filling the gaps* and decision-support article *Mineral supplements — proceed with caution* in our autumn 2013 hardcopy newsletter.

Ewe nutrition leading up to joining and during late pregnancy

- Communication about managing for maximum reproductive performance, lamb survival tips including managing ewe condition scores, nutrition and mob sizes according to scanning results, and strategically managing timing of lambing (via e-newsletter).
- Pregnancy scanning workshops to ensure optimum lamb survival by better managing scanned ewes.
- Promotion and coordination of *Lifetime Ewe Management* and *Bred Well Fed Well** workshops.

Pasture management

New and upcoming pasture species/cultivars

- Dedicated section on the *Sheep Connect Tasmania* website that includes information on TIA's *Herbage Development Program*, covering a range of new perennial grass, annual legume and perennial legume and shrub cultivars.

Perennial pasture options

- Local producer case study *Perennials offer security in mixed farming system* in our summer 2012–13 hardcopy newsletter.

Farm business management

Managing cost of production

- *Better labour efficiency lifts more than just profits* article in our summer 2012–13 hardcopy newsletter.

Shed and yard design

- Communication about shearing shed and sheep yard design guidelines, which include labour-saving technologies, and productivity and work health and safety features (via e-newsletter, also see the *shearing shed design article in this newsletter on pages 6–7*).

Capital investments (e.g. sheep handling equipment)

- Electronic identification (eID) courses held at *Benham*, *Avoca*, and *Malahide*, *Fingal*, covering data collection, analysis and management, and implementing eID in enterprises.

Where to from here?

As you can see, your feedback and participation enables *Sheep Connect Tasmania* to continue to provide you with valuable, relevant and timely information.

Don't forget, if you would like to sign up to our regular e-newsletters, go to <http://eepurl.com/ss-ar> or contact James Tyson at james.tyson@utas.edu.au or on 0409 006 774. 📧

Savvy selection drives persistent profits

key points

- Flock fertility is driven by a combination of evolutionary, environmental and management factors, and working with nature drives maximum potential.
- The technology behind selection indexes takes the tough work out of ram selection, delivering a reliable outcome even for inexperienced producers.
- Choosing the right selection index to drive profit will be a factor of current flock structure and fleece attributes combined with a clear long-term objective.

According to agricultural consultants Phil Holmes and Sandy McEachern, there is nothing new about using objective data when it comes to breeding better Merinos. Speaking recently at a producer forum at Ashby, Ross, Phil and Sandy shared their experience with about 70 of the State's sheep producers, advisors and suppliers.

"Leading producers have been using objective data to make decisions for the past 40–50 years," Phil said. "There's nothing new in that."

But when it comes to fine-tuning a sheep-breeding program, Phil advised participants to first go back to basics and ensure they had a solid understanding of the evolution of sheep as a species.

Only when basic management strategies are in place will the significant benefits from savvy ram selection come into their own to drive profits across the wool-producing enterprise.

Defenceless prey

Sheep, at their most basic level, are defenceless prey that only survive through their ability to reproduce regularly and with multiple offspring per pregnancy. And it's the rams that drive overall fertility according to Phil.

"It's a numbers game," Phil explained. "Rams have the largest testicle size as a proportion of overall body size of any grazing mammal."

So essentially — size does matter.

On the other side of the gender fence, ewes are programmed to cycle to match overall feed supply during late pregnancy and early lactation — so during February through to May under Tasmanian conditions.

"During this time ewes are more likely to release a maximum number of eggs, leading to higher overall reproduction rates, all other things considered," Phil explained.



Photo: Australian Wool Innovation

Ram power: High quality rams underpin the success of any profitable Merino operation.

Coupled with this narrow cycling window is a unique "all-or-none" fertilisation phenomenon, whereby unless all released eggs are fertilised, the pregnancy will fail. In other words — a successful pregnancy will only occur in a ewe when all her released eggs in any given cycle are successfully fertilised. If only one, of say two, eggs is fertilised, the pregnancy will inevitably fail and the ewe will need to cycle again before a successful mating can occur.

"This is why producers will never get anywhere fast by culling mixed-aged ewes for being barren," Phil said.

"By all means cull dry and 'lambled-and-lost' maiden ewes, but if a ewe has successfully lambed previously, she is likely to be able to do so again."

"Failure to conceive following a previously successful pregnancy could be the result of a wide range of factors."

Ram power

The fastest way to boost fertility across a flock is through 'better' ram power according to Phil — and that doesn't necessarily mean 'more rams'.

"While a common rule of thumb is a joining rate of 2%," Phil said. "I encourage producers to consider a 1% joining rate with high-quality rams."

"So instead of investing in more rams, buy fewer 'better' rams with your money."

"This, combined with a tight joining period — two cycles (five weeks) — will ensure a tight lambing period (expect a 75% drop from the first cycle) that delivers management benefits at lambing and a lower weight distribution across lambs at weaning."

To achieve high conception rates across a short joining period, Phil emphasises that rams must be "ready to go" when they are set loose on the ewes.

"In any given ewe flock, six ewes in every hundred will be in full oestrus (releasing eggs) on any given day," Phil explained.

"A high-libido ram will serve each of these ewes three times in a single day, which equates to about 30 ejaculations per day."

"For success, each ejaculation must contain 100 million sperm — the ram needs to be in top shape," Phil said.

A handy checklist for producers looking to select superior rams from their own flock (or from another breeder) would include:

- Optimal scrotal size (> 32cm for a 1% and 20–32cm for a 2% joining).
- Testicle tone (firm and consistent with no identifiable lumps or lesions).
- Clear face (minimal wool cover).
- Sound feet (no observable lameness, footrot or abscesses).
- Free from skin pigmentation.
- Free from fleece fault or derangement (disorder).

Mature testicle size is reached at about 15 months of age according to Phil, so producers can start determining whether their young rams measure up from around this age.

Although a long way from the business end of the ram, face cover has an impact on ram fertility.

"There is a well-understood correlation between face cover and low fertility," Phil said.

Although the science behind this relationship is not well understood, Phil suggests it may have something to do with the relationship between face cover and wool cover on the testicles.

"The less wool around the testicles the better," Phil explained. "For viable sperm the testicles need to be cool and well away from body heat."

It's all in the genes

When the physical attributes have been given the all clear, the ability of a ram to pass down superior genetics is more difficult to observe — no matter what the pundits say. This is where objective measurement, Australian Sheep Breeding Values (ASBV) and selection indexes (SI) come into their own.

Unfortunately fertility is one trait that is not only hard to select for, but essentially non-heritable (with a heritability of about 0.1–0.2) according to the experts.

"And while bodyweight directly correlates to fertility, there is no correlation between fleece traits and fertility," Phil said.

What this does mean is that producers will have little impact on flock fertility regardless of whether their selection focus is on fleece weight, micron or other factors such as staple strength.

Sandy McEachern, believes selection indexes (developed using ASBV for a specific combination of traits) make sheep breeding easy for even the most novice of producers.

"A selection index allows anyone to breed sheep successfully without a lifetime of experience," Sandy claimed.

As Sandy admits, there is more than one way to breed your way to profits — and they all work — the important question is which one will be the most effective for your enterprise (see Figure 1).

"Technology (breeding values and resultant selection indexes) just makes it easy," Sandy said.

"Selection indexes are proven; they negate the need for experience — in effect they are sheep breeding for dummies and it doesn't have to be hard."

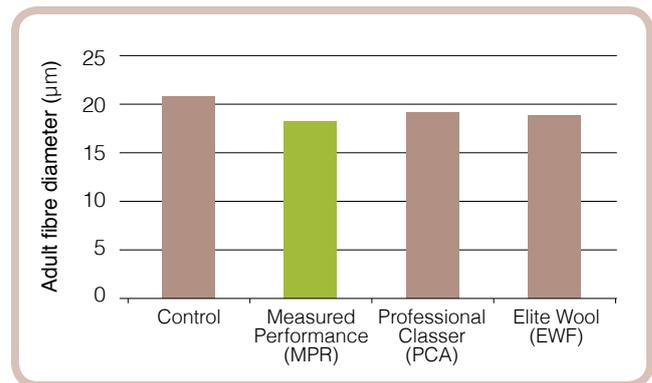


Figure 1 Change in fibre diameter over 10 years with varying selection methods

The important thing for producers to remember across all breeding systems, is that they do not preclude you from culling for unmeasured traits — face cover, lameness, testicle size and so on.

"The added bonus of a selection index is they help producers avoid distraction — allowing them to focus on core profit drivers."

"But at the end of the day, some strategy is better than none," Sandy admitted.

Picking a winner

Perhaps the most challenging aspect of using selection indexes to support ram purchases is choosing which index is best for your business. Both Phil and Sandy recognize this is the ram buyer's greatest dilemma. Sandy's advice to producers is that any index is better than no index.

"Producers need to remember genetics is a long-term strategy," Sandy said.

"Progress is permanent and so it is important to not jump at shadows in terms of profit drivers over the long term."

While many producers are choosing to focus on fleece weights over fibre diameter due to low premiums for finer fleeces in recent years, Phil cautions producers that the long-term evidence demonstrates the market is cyclical in nature.

"Unless you are down there (<17.5µm) ready to capture the decadal booms — you'll miss out."

Phil takes his advice one step further and reminds producers that overall profit will be driven by wool value. This is a combination of quality and quantity driven by genetics and flock structure.

"The important thing is to evaluate the fleece value of each age group and type of animal (ewes vs wethers) across a flock and maximise the proportion of profitable animals (high return:low cost)," Phil said.

"This proportion will vary depending on average fibre diameter across the flock and market conditions."

Contact:

Sandy McEachern

E: sandy@holmessackett.com.au

Shearing shed design — careful consideration boosts shearing efficiency

key points

- Planning pays off when investing in long-term infrastructure such as shearing sheds.
- Getting the basic elements right will improve efficiency, safety and general job satisfaction.
- Often small changes can make significant differences in labour efficiency and operator comfort.

Are you thinking about renovating an existing shearing shed or building a new one? Careful planning and design can:

- Improve efficiency (reduce costs).
- Make the job easier.
- Improve operator safety.

It's no secret that shearing sheds are costly to build. They are also extremely busy places and the focus of most sheep enterprises.

During the past, shearing sheds tended to be largely single-purpose sheds — used for just a few weeks of the year at most. More recently, shearing sheds have become multipurpose structures to spread the cost across a range of functions and, in some cases, enterprises — from shearing, general sheep handling through to equipment storage.

Before you start

Closely examine your situation before deciding whether to rebuild or renovate, as there are likely to be three driving forces at play when considering whether to renovate an existing shed or build from scratch.

- A desire to increase productivity and reduce per-unit costs.
- A concern about workplace health and safety and performance ergonomics.
- A concern about animal welfare.



Photo: Jonathan Barnes

Efficiency in mind: Whether building from scratch or renovating an existing shed, consider both the needs of the sheep and those of staff to maximise efficiency and operator comfort.

Features to consider include:

- Location and orientation of the shed.
- Lighting.
- Ventilation.
- Staff facilities, washroom, lunchroom and toilets.

The location of a shearing shed influences the overall working environment. Some points to consider include:

- Access to electricity and water.
- External drainage to ensure surrounding areas remain relatively dry in wet conditions.
- Orientation — run the long axis of the shed in an east-west direction to maximise the use of natural light and to assist ventilation.
- Design yards so sheep walk past the entrance to the shed to return to their paddock — sheep will always head back towards their own paddock if they get the chance. Walking through the shed is even better. Locate entry points and loading ramps so sheep think they are heading back to their paddock.
- Consider the role of prevailing winds in terms of animal welfare. Position the shed and yards so sheep are offered protection from prevailing winds immediately post shearing.

Ensure natural lighting is as even as possible — indirect or diffuse is best — especially in the pen area to reduce contrasts; helping sheep move easily between pens. Translucent sheets on southern walls can be advantageous.

Locate lighting over the board so shearers (either left or right-handed) do not cast a shadow over the belly or crutch of the sheep as they shear.

Shearing is physically demanding and adequate ventilation is critical for an optimal working environment. The key is to be able to control ventilation — managing cold draughts during cooler conditions or early in the mornings and allowing hot air to escape during hotter conditions or later in the day.

Air vents on the shed roof allow hot moist air to escape and sliding doors and louvre windows help control airflow. Draughts can also come up from under the shed, especially through the chute. A curtain of heavy plastic over the chute can minimise this.

Staff facilities

Shearing is hard work. Most employees do not expect lavish working conditions, however access to a safe, clean and comfortable working environment will boost positivity among staff and contractors and will maximise productivity.

Every shearing shed needs to provide access to the following basic staff facilities:

- A wash basin with running water, ideally both hot and cold.
- Comfortable chairs for all staff during breaks.
- A table of sufficient size to accommodate all staff during meal breaks.
- Access to clean and fresh drinking water.

- An urn or kettle for boiling water.
- A refrigerator for storing cool drinks or food.
- Clean toilet facilities for both men and women, which are maintained throughout shearing.
- A microwave oven is an optional consideration.

Try to house staff facilities in a room separated from the main shearing and wool handling area. This area also needs to be well lit with adequate ventilation.

The extent of the amenities provided can depend on whether the shearing team live on the property during shearing or commute to the shed each day. When teams stay on the property a broader range of facilities is required including sleeping accommodation, shower and bathroom facilities and cooking facilities.

Additional considerations

Additional commonsense considerations include:

- Locate chemicals used and stored in the shed away from staff amenities.
- Separate any working machinery (including grinders) from staff amenities.
- Provide a fully-resourced first-aid kit for the shearing shed.
- Locate a secured grinder in a well-lit, enclosed location away from other staff facilities.

It is critical to understand the relevant work health and safety (WHS) legislation that can impact the type and extent of the facilities provided. Contact *WorkCover* in your state for further information.

Australian Wool Innovation has compiled a comprehensive range of resources related to shearing on their new-look website, including: shearing shed and sheep yard designs, safety resources and the latest information about upcoming shearer and wool handler training workshops. 📄

Go to: www.wool.com/en/on-farm-research-and-development/wool-harvesting-and-quality-preparation

New shed boosts efficiency

While farm manager Greg Sheather has more than 20 years of shearing experience under his belt, he spent 4–5 years carrying out extensive research and planning with property owners Helen and Max Cameron before they engage the services of Proway to design and construct a new shearing shed at *Wesley Dale*, Chudleigh.

“While there are cheaper ways to go, companies such as Proway have built a lot of sheds and are prepared to work closely with producers to tailor a design that meets their needs. They worked with us to deliver a multi-purpose shed that ticks all our boxes: it’s labour-efficient, safe and pleasant to work in,” Greg said.

According to Greg, the new shed has reduced labour significantly in their crossbred operation.

“When crutching in our old three-stand shed, the dogs and I were flat out keeping the sheep up to shearers and we were all bugged and irritable at the end of the day,” Greg said.

“In our new shed I don’t even need the dogs to keep sheep up to five shearers and spend a bit of time on the board as well.”

“Our increased throughput and reduced shearing time (one week vs four) means we are now shearing twice a year, which has both animal health and profit advantages.”

“With the new shed and cover over our yards we can keep more than 2500 sheep dry, which also reduces the risk of delayed shearing — a common challenge for Tasmanian producers.”

The key features of the new shed include:

- Each stand has a built-in attachment for a harness and an emergency stop switch.
- Sloping catching pens fill at 45° for improved sheep flow.
- A central wool press (fleeces don’t require skirting) increases efficiency of the wool handling operation.

The shed is built over three levels and allows for multipurpose use throughout the year. The lower-level cement floor includes a workshop area and separate facilities for shearing staff, but also for farm staff throughout the year.

Amenities include a fridge, microwave, sandwich toaster, sink, toilet and shower.

The grinding room is separated from other work areas and also allows room for storing items such as drench and tags.

Steel grating for all the pens is 2m off the ground, which allows for easy cleaning underneath.

Now considering a new shed at a second property, *Strowan*, Nile, the Camerons, along with Greg, are again keen to engage the expertise of Proway.

For others looking to build from scratch, Greg recommends visiting other sheds, talking with shearers and working with a company that understands the challenges and has a dedicated business around livestock handling facilities.

“I’m sure there are cheaper ways to go, but when you look around Tasmania there are plenty of shearing sheds that have been there for a hundred years. And if it’s going to be there for a hundred years it’s worth spending a bit extra to get it right,” Greg said. 📄

Contact:

Greg Sheather, Manager, *Strowan/Wesley Dale*

M: 0439 311 621

For a case study of a producer who has taken the path of renovation over rebuilding, see Beyond the Bale Issue 53 December 2012.



Photo: Catriona Nicholls



useful links



- Australian Wool Innovation www.wool.com
- Meat and Livestock Australia www.mla.com.au
- Sheep CRC www.sheepcrc.org.au
- LiceBoss www.liceboss.com.au
- WormBoss www.wormboss.com.au
- Making More from Sheep www.makingmorefromsheep.com.au
- Sheep Genetics Australia www.sheepgenetics.org.au
- Australian Merino Superior Sires www.merinosuperiorsires.com.au
- Beyond the Bale digital.wool.com.au
- EverGraze www.evergraze.com.au
- Latest market information (beef and sheepmeat) www.mla.com.au/Prices-and-markets
- Latest market information (wool) wool.landmark.com.au/daily-wool-prices-and-sales-roster/
- Latest weather www.bom.gov.au
- FarmPoint www.farmpoint.tas.gov.au

Stay focussed

As spring gets well and truly underway and lambs abound, keep in mind that vaccinations for OJD are ideally given at lamb marking, when lambs are restrained and operator safety is maximised.

For a reminder on safe and effective vaccination techniques and OJD management visit the *Sheep Connect Tasmania* website at www.sheepconnecttas.com.au

Ram selection

Many producers will be looking to invest in new rams in the coming months. Making a purchase with the best information at hand will ensure the future genetic gains made will be aligned with business objectives.

To support decision making, *Sheep Connect Tasmania* is working with the Sheep CRC to deliver Ram Select workshops in the coming months.

For more information or to register your interest in attending a Ram Select workshop, contact James Tyson on 0409 006 774 or at james.tyson@utas.edu.au

Alternatively, subscribe to our e-newsletters at <http://eepurl.com/ss-ar> and keep an eye out for workshop dates and locations.

Change of details or subscription

To make sure our database is up-to-date and we are only delivering information to those who really want it, please take five minutes to update your details if we have them wrong.

- Please update my contact details as per below
- I no longer wish to receive the *Sheep Connect Tasmania* hardcopy newsletter

Title _____ First name _____

Surname _____

Company _____

Address _____

Town _____

State _____ Post code _____

Fax or post your details to:

James Tyson PO Box 46
F: (03) 6336 5395 KINGS MEADOWS 7249

You have subscribed to this newsletter as a stakeholder in the future of the Tasmanian wool industry. If you do not wish to continue receiving emails or hard copy newsletters from the *Sheep Connect Tasmania* team, contact James Tyson at james.tyson@utas.edu.au

To subscribe to the *Sheep Connect Tasmania* email newsletters or update your details, scan the QR code on the right or type the following address into your internet browser address bar:
<http://eepurl.com/ss-ar>



This newsletter is published by TIA and AWI.



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



Design and layout Redtail Graphic Design