New footrot project underway

A Tasmanian study on the economics of using specific footrot vaccines (SFV) to eradicate footrot is underway.

A key outcome from the project will be a decision-support tool individual producers can use to assess whether an attempt to eradicate footrot using SFV is worthwhile.

To obtain on-farm data for the AWI-funded study, the Department of Primary Industries, Parks, Water and Environment (DPIPWE) is seeking interest from producers:

- who have attempted to eradicate virulent footrot in their flock
- whose flock is currently affected by virulent footrot
- whose flock is not affected by virulent footrot.

Participating producers whose flocks have been affected by footrot will be asked to provide information during an on-farm interview — taking about an hour — about the costs and production losses due to footrot, flock structure, and the cost of eradication attempts using conventional methods and/or SFV.

Producers whose flocks have not been affected by footrot will provide baseline information for the study.

Data collected for all groups will be strictly confidential.

The study will analyse individual farm benefits and costs, the merits of eradication using conventional methods (foot bathing, paring), SFV and the potential benefits of establishing footrot-free areas.

A calculator will be developed to help producers and advisors to determine whether an attempt to eradicate footrot is worthwhile under individual circumstances.

Support from producers is vital to achieving effective footrot control in Tasmania.

Further information
If you are interested in participating in the study, please contact Bruce Jackson on 0407 872 520.

Tasmanian sheep industry — 2014 survey

With an outstanding response rate of more than 35 per cent to our 2013 survey, we’re running it again this year to gain important feedback on the key areas of priority for Sheep Connect Tasmania and the Tasmanian sheep industry.

Put together in collaboration with our Producer Advisory Panel and industry stakeholders, the survey covers topics including:

- infectious diseases (e.g. footrot, OJD)
- animal health
- animal nutrition
- pasture management
- farm business management.

Responding to the survey will ensure we continue to provide you with valuable, relevant and timely information; via interactive (workshops, meetings, field days) and passive (hardcopy newsletters, case studies, factsheets, e-newsletters, online information) delivery channels.

For the final results of our 2013 survey, take a look at pages 2–3 of our Spring 2013 hardcopy newsletter, which can also be viewed online at www.sheepconnecttas.com.au

To complete the survey, simply go to www.surveymonkey.com/s/9HFX7D3

To go into the draw to win the book *Around the Sheds*, by one of Australia’s finest photographers, Andrew Chapman, simply enter your contact details when prompted at the end of the survey.
Lamb survival the key to reproductive success

Case study: Sam Hood
Location: Waterhouse and Tomahawk, Tasmania
Size: 4000ha (550ha irrigated crops and pastures)
Mean annual rainfall: 710–760mm
Enterprises: Sheepmeat, beef (1000 breeding cows) and cropping
Pastures: Fodder brassicas, Italian ryegrass, with clovers and plantain (irrigated) rescue and cocksfoot-based permanent pastures (dryland)

Creese North East manager, Sam Hood is looking to improve his already impressive lamb marking percentages across his maternal and terminal sheepmeat enterprises by increasing the focus on ewe condition, shelter at lambing and limiting mob size during the coming year.

According to Sam, high conception rates are all good and well, but it is the number of lambs that make it to the marking cradle that really drives the enterprise's bottom line. And it is the gap between conception and marking percentages that Sam and his team are keen to close.

"Last year our adult ewes scanned between 167–177% (excluding triplets), but at lamb marking this dropped back to 136–141%, so we are losing about 30% of our embryos," Sam said. "We still have some work to do."

"After scanning each year I budget for how many lambs we will have available to sell in June and I generally budget for 70% embryo survival. But if I can get that up to 75% or higher, embryo survival becomes a real profit driver."

"We are joining 12,500 ewes this year (4300 maidens, which includes 3300 ewe lambs), so if I can lift marking percentages by 5% that is significant increase in profit."

A complex challenge
As Sam points out, maximising lamb survival is a fine balance between maximising conception rates and ensuring there is enough feed and shelter to protect those ewes and lambs through embryo development and through to marking.

"We need to increase our conception rates above 170%, but the challenge is that the higher the scanning rate the lower the embryo survival rate because you have more twins and they require better feed and shelter," he said.

"If you know you can provide an optimal combination of shelter, mob size and ewe condition, survival rates can be high — we had a mob that scanned 150% and their survival was 80%, because the mob size was right, the feed was there and they were in a paddock with plenty of protection.

"Somewhere in there I have got to find a happy medium. I don’t really want my ewes scanning at 190% because we don’t have enough paddocks with adequate shelter to cater for that many twins.

“There is going to be a point where it becomes inefficient to go higher because you can’t control weather events — you can get a storm and lose 10% of your embryos in one day.

"Weather is just one of those things we can’t control — but at the end of the day it is not worth worrying about. Our job is to get our ewes in as good as condition as we can, with plenty of food and shelter where possible.

“It is a fairly hostile environment across the far-north-east coast of Tasmania — it can get pretty windy. Time and labour are limited in a mixed farming operation of our size but we do as much as we can each year.

“We predominantly use radiata pines, but we have experimented with natives — I would prefer to grow native shelterbelts, but it is hit and miss in terms of establishment.

“Game pressure (especially wombats), chemical costs, fencing and establishment are expensive and we only want to do it once — natives just don’t stack up compared with the pines.”

Sam also highlights the importance of minimal intervention on lamb survival — particularly during bad weather.

"We don’t pester our ewes during lambing— we don’t drive around them all the time, especially during the scuddy days. The last thing we want to be doing is driving ewes into shelter and leaving their lambs behind."

Fine tuning: Events such as Sheep Connect Tasmania and Making More from Sheep’s Bred Well Fed Well workshops help producers like Sam Hood and his team evaluate and fine tune their management operations to maximise flock fertility and enterprise profits.

Size does matter
According to Sam mob size matters — smaller is better — particularly at lambing.

“Currently our mob size at lambing for twin-bearing ewes is 200–250,” Sam explained. “We have done lots of trials and I would like it to be smaller (ideally 50) but we physically don’t have the paddocks – we just don’t have enough.
“But we give our twin-bearing ewes the preference on sheltered paddocks and plenty of food on offer. And our twin-bearing ewe lambs get the best paddocks we have.”

**Condition is king**
Sam believes the success of his maternal and terminal enterprises is a balance between maximising conception rates and embryo retention (lamb survival) and being able to manage and feed all the mouths he produces.

“Before we increased our stocking rates we never used to supplementary feed — now we are running higher stocking rates we utilise all our pastures earlier in the season and we need to have a good handle on feed availability and animal condition,” Sam said.

Sam and his team are vigilant about condition scoring ewes at weaning and managing mobs accordingly leading up to joining.

“The key factor we can control is ewe condition across our flock,” Sam said. “And it all starts at weaning.”

“We drench everything at weaning — lambs and ewes — and give our lambs a dose of trace elements to get them off to quick start in terms of growth.

“While we have the adult ewes in the yards we assess their condition score and they are allocated paddocks accordingly — lighter ewes get better pastures.

“Our aim is to have all our ewes — adults and ewe lambs — at condition score three right throughout their reproductive cycle.”

Of course maintaining ewe condition depends on seasonal conditions. Sam and his team continue to monitor feed availability and ewe condition throughout summer and early autumn and if either starts to slip then supplementary feeding starts.

“This year I will probably condition score again after shearing (we shear eight weeks before lambing) and sort according to condition so any poorer twin-bearing ewes are given absolute preference for feed and shelter,” Sam said.

**Ewe lambs drive flock fertility**
Sam and his team are looking to join about 3300 ewe lambs this year. According to Sam, the reproductive success of his ewe lambs is the cornerstone of both operations.

“Our ewe lambs drive the fertility of our entire flock over time,” Sam explained.

“In that first year we see marking percentages of about 80%, but the following year, as two-tooths, this climbs to 120%.

“We have been joining our ewe lambs ever since we made the switch to a self-replacing maternal enterprise about five years ago.

“Last year we joined 2400 ewe lambs, which scanned at 129% (12.5% dry, 46% single and 42% twins).

“From that we ended up with an 80% weaning rate — we lost 50% of our embryos. Traditionally we lose about 30%, but I am pretty sure we had a campylobacter outbreak. We have vaccinated against campylobacter this year.”

**Ram management**
Sam and his team actively manage their rams to maximise conception rates.

“We shear our rams 12 weeks before they go out with the ewes and assess their feet, testicles and general health,” Sam said.

“We also give them a dose of trace elements, a drench and vaccination.”

Sam employs a 1% joining percentage with his mature rams and 2% with his ram lambs, over a six-week joining period.

“Because we are joining 12,000 ewes we put our rams out on three different dates, to achieve a split lambing — terminals first, then maternals followed by ewe lambs.

“This allows us to manage marking more easily across three mobs.

“Lambing starts at the end of August and goes into September, with 70–80% of lambs dropped during the first 10 days of the lambing cycle in each joining mob.

“We hardly see any lambs born in that last week, so I think this year we will tighten joining from six weeks to five weeks.

“Last year we had virtually no dries in our adult ewes (3.5%). We get rid of any dry ewes straight away, both adult ewes and ewe lambs. If they are dry as a ewe lamb they are fattened and sold — nothing gets a second chance here.”

**Opportunities for improvement**
Sam and his team have attended several Sheep Connect Tasmania and Making More from Sheep workshops, including Bred Well Fed Well and the recent Your Lambs Your Profit lamb survival workshop.

Sam believes these workshops are invaluable to brush up on best practice management tools and allow him and his team to evaluate their current game plans.

“It is good to keep getting refreshed and I take all my employees in the sheep side of the operation so they understand what we are trying to achieve, Sam said.

“They are the ones in the yards condition scoring, so they need to understand the importance of what they are doing in terms of the impacts down the track.

“I share all our figures with the team. They get a spreadsheet after scanning and also after lambing — they get a spreadsheet of ewes lambed in every paddock, how many lambs in every mob and the percentage of lambs weaned.

“We sit down and compare our results with last year and work out where our best lambing paddocks are and maybe the ones that aren’t so good and how we can make changes that will improve our results the following year.”

**Further Information**
Sam Hood:
M: 0418 369 329
E: sam@creesenortheast.com.au
Step-by-step guide to the National Sheep Health Statement (SHS)

National animal health statements ask livestock producers to provide information about the health status of their animals. Always request a copy before buying or agisting livestock and use the information provided to determine the health risks associated with the animals for sale.

The Sheep Health Statement (SHS) is the most important disease risk management tool livestock owners have available to them. It enables them to assess the risk for ovine Johne’s disease (OJD) and a range of other biosecurity risks, including footrot, lice and ovine brucellosis.

The Statement recognises vaccination history and flock testing results, and features a series of ‘yes/no’ questions to allow buyers to quickly make informed biosecurity decisions.

Following is a step-by-step guide to completing the National Sheep Health Statement:

**HANDY TIP:** Remove the centre staples and place this guide on your office wall or somewhere convenient.

### B1. VIRULENT FOOTROT

Footrot is a bacterial disease affecting sheep, which can result in significant production loss, deaths and reduced trading options. Only tick ‘yes’ to this question if:

- you are confident there have never been outbreaks of footrot (more than 10% of affected sheep with score 3 or 4 under-run hoof horn – see example below) on your property
- or you have eradicated the disease effectively (i.e. no outbreak during at least one period conducive to spread in the absence of suppressive treatments).

### B2. LICE

Sheep body lice are small insects (up to 2mm long) that live on skin cells, wax and bacteria on the sheep’s skin, which cause itching, rubbing and significant wool damage. Lice infestations are hard to detect early. Only tick ‘yes’ to this question if:

- you are confident there has not been any flyce pull (or if there has, you have checked with negative results) since the last effective treatment
- or you have eradicated lice effectively (i.e. all sheep on the property treated with effective chemical within the protection period of the chemical).

### B3. OVINE BRUCELLOSIS

Ovine brucellosis is a bacterial disease of the reproductive tract of rams and wethers, causing blockages in the epididymis and reduced ram fertility. The disease is rare in Tasmania. Only tick ‘yes’ to this question if:

- you are currently accredited in the Ovine Brucellosis-free Accreditation Scheme.

### C1. SheepMAP must be current.

### C2. Faecal 350: SheepMAP vet takes a pellet from each of 50 sheep from 7 mobs more than 2 years of age that have been on the property for 2 years or more. Abattoir 500/150: Owner should receive a letter from DPIFWE (or contact them on (03) 6777 2115) for a report.

Other: SheepMAP vet autopsy, other abattoir results etc.

### C3. Only tick ‘yes’ to this question if:

- the livestock have not been in contact with an infected flock, or contaminated land or facilities
- screening tests have returned negative
- there are effective barriers between infected neighbouring properties
- there are no clinical signs of OJD.

### C4. T’ tag lambs: Terminal lambs identified with an NLIS ‘T’ tag and to be slaughtered before it cuts its first two permanent teeth.

### C5. Approved Vaccine: Tagged with an NLIS ‘V’ tag and 1) vaccinated with Gudair by 16 weeks of age 2) or, vaccinated with Gudair after 16 weeks of age when the flock was: in SheepMAP or had Faecal 350 or Abattoir 500 status within past 2 years.

For a copy of the latest Sheep Health Statement, go to the Farm Biosecurity website at www.farmbiosecurity.com.au/toolkit/declarations-and-statements/ or call 1800 332 312.
Ewe nutrition boosts fertility rates

**key points**

- Managing ewe nutrition is the most important factor to ensure reproductive success.
- The actual condition score of the ewes is the most important determinant of ovulation rate.
- Minimum condition score 3 is the target for ewes at joining.
- The target condition score at joining is a balance between reproductive performance, stocking rate and the cost of feeding.

It’s been a long dry summer, the challenge is on to keep ewes and ewe lambs in shape for joining.

Managing ewe nutrition is the key to ensuring optimum conception and lamb survival. Condition scoring is a quick and reliable tool to manage ewes to meet production targets and enable timely decisions to optimize reproduction rates.

The target condition score is a balance between reproductive performance, stocking rate and supplementary feeding costs. Minimum condition score 3 is the target for ewes at joining.

To a large degree the horse has already bolted this season for producers who have let the condition of their ewes slip during summer — it is easier and more cost-effective to maintain condition than to gain condition — nevertheless it is worth keeping in mind the key strategies to manage ewes for higher condition score at joining:

- Wean lambs at 14 weeks after the start of lambing to ensure ewes can gain weight on green pasture before next joining.

**Length of joining**

Join rams with ewes for two 17-day cycles or five weeks. If your joining paddocks are large, join ewes for six to seven weeks, or five weeks if teasers are used. Most ewes get pregnant in two cycles.

On more intensively-run farms, extending the joining for longer periods is not recommended because the 2-4% of extra lambs holds up completion of important management events such as marking and weaning.

Delaying weaning for a few late lambs can result in serious worm burdens, leading to weight loss in both ewes and lambs.

**Joining maiden ewes (ewe lambs)**

Joining ewe lambs (7–8 months of age) can provide additional lambs in spring with relatively little increased input (as has been shown with previous Sheep Connect Tasmania case studies).

Bodyweight is the critical factor. Management practices such as regular monitoring of bodyweight and condition score are essential for a successful joining and a higher percentage of lambs weaned to ewes joined.

Maiden Merino ewes need to be at least 75–80% of mature liveweight for successful joining. Maiden crossbred ewes can be successfully joined at 7–9 months at a minimum of 45kg bodyweight at joining, provided they have access to good quality feed during pregnancy to ensure they are condition score 3 at lambing.

Do not attempt joining at 7–9 months if adequate feed cannot be provided.

Consider an extended joining period for ewe lambs (nine weeks) to allow ewes to start cycling effectively, ensuring maximum conception rates.

Select rams of a suitable size and conformation for ewe lambs.

See pages 2 and 3 to see how Creese North East farm manager Sam Hood is achieving weaning percentages in excess of 140%. 🐐
Simple biosecurity measures provide cost-effective protection

Most on-farm biosecurity measures are free — or very cost effective — to implement and protect farm profits by reducing the risk of introducing pests and diseases, such as ovine Johne’s disease (OJD), footrot, lice and worms; all of which can have severe economic impacts on a livestock operation.

Australia — and Tasmania even more so — is in an enviable position as its geographical isolation renders it safe from many livestock diseases. This relative disease-free status allows us access to most export markets.

Following are some simple actions that can be incorporated into an on-farm biosecurity plan.

- **Request a Sheep Health Statement (SHS):** View a health statement before buying livestock. These documents are statements from the seller declaring the health status of the livestock being sold. The statement includes information such as whether the livestock have been vaccinated for OJD. See our step-by-step guide to understanding a Sheep Health Statement on pages 4–5.

- **Isolate new or returning livestock:** When introducing livestock to the farm (either recently purchased or those returning after agistment) isolate them from existing stock for at least 10 days. Inspect the isolated stock regularly for any symptoms of lice, disease (in particular check for signs of footrot) or ill thrift, before introducing them to existing mobs — it is easier and more cost-effective to treat isolated animals before they infect existing livestock. A quarantine drench and walk through a footbath is worth considering, even if no signs of disease are observed. Containing weed seeds in faeces to a confined area is also another benefit of this temporary quarantine approach.

- **Keep different flocks separate:** Keep at least one paddock between livestock that have different purposes (e.g. breeding ewes and weaners). Well-maintained fences reduce the possibility of stray or neighbouring livestock entering paddocks. It is useful to have an agreement between neighbours about how or whether stray livestock should be returned if there is the risk they may have been exposed to a pest or disease.

- **Keep records:** Note anything unusual, any changes made, activities and livestock treatments. Use a pocket diary, mobile phone app or a recording template (available at www.farmbiosecurity.com.au). Having accurate historical information on hand can also assist disease diagnosis.

- **Keep a visitor register:** Having visitors sign a register can help trace the source or spread of a pest or disease. Such a register also allows you to notify visitors of any biosecurity risks they should be aware of. Consider limiting visitor access to your livestock — limit contact to essential visitors to reduce risk of unintended infection.

- **Request visitors do the right thing:** Stock agents and vets are examples of two high-risk farm visitors due to their close contact with livestock across numerous properties. Ensure high-risk visitors follow appropriate cleaning and disinfection procedures so they don’t transfer diseases from farm to farm. In an ideal world, all visitors would thoroughly clean their vehicles and boots upon arrival and departure of a farm, preferably at a designated wash bay. However, the need for vehicle washing can be avoided by restricting traffic to limited entry points, having designated parking areas and transporting visitors in a farm vehicle. Visitors’ boots should be scrubbed with disinfectant.

**NOTE:** A commonly-used disinfectant is Hunters Quad Hygelene (quaternary ammonium).

- **Maintain effective sanitisation:** Undertake stock work according to age, pest and disease status, and change equipment as frequently as possible. Ask a vet for practical advice, as some diseases can be spread via blood on vaccination needles. Avoid borrowing or lending equipment where possible.

- **Use signage:** Erect a biosecurity sign at all entry points to the farm, and develop an active biosecurity plan to support them. This alerts visitors to the importance of effective on-farm biosecurity practices and risk management. 🚪

**Further information**

For more information about on-farm biosecurity, go to the Livestock Biosecurity Network website at www.lbn.org.au, or the Farm Biosecurity website at www.farmbiosecurity.com.au

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**VISITORS**

**PLEASE RESPECT FARM BIOSECURITY**

Please contact the manager before entering.

Do not enter property without prior approval.
Keep to roadways and laneways.

Alert visitors: Farm biosecurity signs can be ordered at www.farmbiosecurity.com.au
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

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http://eepurl.com/ss-ar

Stay focussed

Managing ewe nutrition during pregnancy is the most important factor in maximising reproductive performance; having ewes in condition score 3 at joining will maximise conception rates and set the scene for optimum lambing rates heading into spring.

Pregnancy scanning will identify multiple pregnancies and allow producers to better manage twin-bearing ewes and identify and remove barren ewes. Skilled contractors can scan ewes to age the foetuses conceived either in the first or second cycle. This information can be used to better allocate feed for pregnant ewes, and manage mob size accordingly at lambing.

Before investing in scanning, carefully consider the costs and benefits, management impacts and potential economic gains. For more information on managing ewes at joining and during pregnancy, the advantages and disadvantages of pregnancy scanning, and timing of routine husbandry practices, go to http://tinyurl.com/m9dxb5x

Also refer to Module 10: wean more lambs of the Making More from Sheep manual at www.makingmorefromsheep.com.au