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ASHEEP NEWS

asheep Esperance

Case Study: Wes & Fran Graham's approach to cattle and sheep

ASHEEP interviews Wes Graham

Wes and Fran Graham run a mixed farming enterprise spread across four properties from Monjingup to the north of Dalyup. They are well known for the quality of their livestock and thanks goes to Wes for taking the time to give us an insight into their operation.

Can you give us a quick overview of your system?

Wes generally describes his approach to farming as KISS (Keep it Simple Stupid). "First we farm according to soil/rainfall, so that puts us mainly in a livestock zone. It has traditionally been too wet for cropping but we feel cropping can complement the livestock enterprise by grazing and supplying stubbles for the summer and autumn. Cropping has always been the weakest part of our business because of water logging, so we ventured into raised bed cropping, which worked okay, but brought in problems with running stock on them.

We then phased into grazing crops and after cultivating out the beds have been adding a lot of surface draining systems to try and protect us from the waterlogging losses. After avoiding growing Canola for many years, I have now found it to be a great tool in improving the returns in the cropping enterprise

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Image: The Graham's Black Angus cattle are finished off property.

Highlights

Continued from cover.

and for helping to clean out the bad grasses from the pastures for the livestock."

What types of pasture do you run?

"We run a perennial mix with annuals on the higher rainfall cattle properties. Due to the variability of soils we have a mix of Serradellas and Sub Clovers, with Kikuyu and Veldt on the sand plain.

On the mixed farms we have had a Sub Clover/Rye Grass base, but have been adding a mix of Serradellas in the last 15 years. Again, with that land located around the Dalyup river systems we have a huge mix of soil types from deeper sands, to good sand plains, to gravelly sands and some loamy soils on the east sides of the rivers. This means we have a shotgun approach with pastures performing differently according to soil type.

We have trialled other perennials over the years but feel Kike is best suited and easiest to establish. We have not grown other Rye Grass options because although they are impressive in the spring, that is not when we require feed (as everything else is good then). Our feed gap continues to be in the autumn and Kike responds great to rain then."

Farm Snapshot

Location: Monjingup area to north of Dalyup (farm spread over four sections totalling 6000 ha).

Enterprise Mix: Half of the area is south of South Coast Highway & based mostly in cattle. The balance north of the highway is full mixed farming - sheep, cattle, cropping. Cropping is wheat, canola, barley, lupins, oats for hay, over 1200 ha.

Rainfall: 600mm on southern sectors to 500mm, across a full mix of soil types.

Stock: Angus breeding herd 2000 head, sheep flock all mated to Poll Dorsets 2200 head, Poll Dorset stud flock 220 head.

Your key focus for running a successful operation?

"To me the simple rule with livestock is “Quality” and that is based on genetics. The genetics you buy today influences the returns of your business forever.

It was in the 1980’s that EBV’s in the Angus breed began, adding an extra selection tool to just visual selection, and adding the production criteria.

We are being paid by the kilogram so KILO’s are KING. Therefore, we selected hard on growth, but the art breeding for growth and maintaining the maternal traits of the herd walks a fine line. I travel the state to purchase bulls that are able to achieve my aims.

It’s this ideal that led us to the enterprise direction we are now in. Although the majority of our beef system was to finish our animals off grass, there were times we needed to sell off to feedlots. This was when we got feedback from stockies that we were throwing away money by selling to feedlots as they performed so well."

How did you then adapt your finishing system to increase return?

"Through the influence of the Ag Department's work and Enoch Bergman [Swan's Veterinary Services], we changed from autumn to winter calving to better match feed requirements of the cow and calf. This later calving put a different influence to a grass finishing system.

In a tough season we needed to offload and we sent 200 steers to agistment down south and 200 to a feedlot on a custom feeding agreement. The poor season meant the agistment line of steers were sold into the market later in the year not quite finished and we were caned on the price.

The custom fed line performed fantastically and at a great profit. From then on I decided to never take a discount again. The fact that our genetics selection of high growth was performing in the feedlot meant this was an easy decision.

That feedlot actually approached us about the custom feeding option and wanted to get my cattle going through his supply agreements, because they performed so well and also because of the carcass quality at the end. This has led to my surplus heifers also going through this process which upgrades them to the same as steer grading and they are not discounted, as heifers often are.

This means we are basically backgrounding the steers and heifers at higher stocking rates as we are not striving to put much weight on at the farm and just setting them up for the finishing period at the feedlot. Most of the steers are going through a special 100 day Angus Coles Finest Contract, which is a premium (30-40c) market Australia wide and this feedlot won the WA contract.

They leave the farm at about 350kg but also need some maturity as we want to get them to 300kg dressed. They generally average over 2kg/day but last year the dry conditions lead them to be 50 kg lighter going into the lot, but with compensatory growth were doing 2.5kg/day. That is where genetic potential comes to the fore."

Relationships and partnerships are key.

Wes describes their relationships / partnerships with abattoirs, feedlots, stockies, and other grazing businesses as being of critical importance to achieving production goals. "My custom feed arrangement with Kylagh Feedlot means I know at the start of the year what is happening and we can manage the farm with that plan in place. It is a win-win, as he can source my cattle through the winter/spring when he found it hard to find quality at that time in the market."

Continued from Page 2.

How do you manage your lambs?

"My lamb production is based on a similar process to the cattle business in the way we are early-winter lambing and then backgrounding the lambs during the summer/autumn. We then shear them (the once), ready for the finishing period based on grass from the opening rains (grain assist the past 2 years) into the high price winter yearling lamb market. These are a heavier weight product, so it is through WAMMCO for a special contract into Canada. This is a similar to Coles - a hormone and additive free contract - with a feeding system that doesn't include pellets that have those additives.

With this system we have averaged weights of 27kgs dressed in the last 10 years, mostly off grass, selling in the highest price per kilogram period of the year. The new dentition rules for lambs gives us a few more weeks to keep more of these quality animals into the prime lamb trade.

Obviously, it is also based on the quality growth genetics from our Monjingup Poll Dorset stud. The selection in the stud is based on sire selection through ASBV's.

The Poll Dorset breed have led the industry in the use of ASBV's to select a superior animal. We don't do any supplementary feeding in the stud, allowing the ones that have highest 'doing ability' to express their genetics naturally - a trait which I think contributes to our finishing on grass system.

We mate all our ewes to the Poll Dorset so therefore need to buy in some replacements. This has generally been easy in the past, but with demand hot as the east comes out of drought, this may be a challenge going forward. Bringing in replacements also presents a risk from a biosecurity perspective, with the potential to bring issues onto the farm. This again is an opportunity to create a regular relationship with another grower to source replacements of known history."

Above: Wes and Fran, spotted on the supermarket shelf by a friend visiting Canada.

Below: A selection of the Poll Dorset stud flock.

The importance of the team.

"With the upscaling of the farming business over the years, the importance of our staff has become so relevant. Five years ago I was the youngest man on the farm and well into my 50's, so I needed to find younger staff to share the physical requirements of a mixed farm and for my own good.

Finding a potential manager like Scott Watkins, who quickly took on day to day management of the Dalyup end of the farm, allowed me to focus on the business more as a whole than on each job at hand. The balance of staffing was also becoming relevant to our type of enterprise. Giving each staff member an increased level of responsibility in each enterprise has helped that balance and hopefully job focus and enjoyment. With Scott also managing cropping, we have two stock overseers/maintenance, and a machine operator/mechanic across the farms, giving more of a team environment.

Although I have been a Keep it Simple farmer, I am happy for my men to challenge my thinking by trying some new ideas, and concepts our from our industry partners, that develop over time.

Good contract business relationships to do the fertiliser spreading, shearing, repairs, spraying and transport jobs are important and needed, so they have your interests included. Add your rural suppliers and agronomists, machinery dealers, and your accountants and banks. Without all these relationships our businesses have little chance to prosper."

Do you see any challenges ahead?

"Challenges are ahead to maintain our Right to Farm, so we must continue to sell the good story of Australian farmers that lead the world in ethical livestock management and quality.

The COVID-19 crisis proved how agriculture and our partnerships are the lifeblood of our communities, and how essential it is for city folk respect us and how we do it.

Although meat replacement technologies appear a threat, I think that natural food sources will remain the preference."

Once again, a huge thanks from ASHEEP to Wes Graham for his time and for the information above that he has been happy to share with us.

From the ASHEEP desk

Sarah Brown, Executive Officer, ASHEEP

Since February's ASHEEP newsletter, the world has largely revolved around ramping up COVID-19 restrictions, winding them down again, and hoping that's where they stay. In the spirit of this, ASHEEP is moving ahead with planning for a series of field days over the coming months. Look out for invitations to our Cattle Field Day, Winter Walk and Spring Field Day. We'll be combining the AGM with one of these as we have chosen not to go ahead with the traditional AGM / Conference combination due to the pandemic restrictions.

Recent great news is that ASHEEP has had a "Pasture Variety Trial" MLA Producer Demonstration Site project approved. Sites have been sown in Neridup, Grass Patch and Salmon Gums - they are all greening up and will be worth a look at coming field days.

With the help of Enoch Bergman, ASHEEP has also put in an application for MLA funding for a joint project with Swans Veterinary Services. The project is looking at preventing Bovine Herpesvirus through vaccination. We should hear back on that in July.

A couple of projects that have wrapped up include the P-Efficient Pasture Project and the Wormboss Drench Resistance Project - but read on through the newsletter to find out about a testing project we are working on with Elanco. We're also working with AgPro Management to connect ASHEEP members to their new MLA project to assist producers to transition to non-mulese systems.

The annual ASHEEP Census had a good turn out - thank you to all those who took part. We are shaping up the data so that we can share some of the key areas. If you have any ideas of content you'd like to see in newsletters or the e-news please get in touch - I'm always keen for ideas.

Welcome WSD Agribusiness - New bronze sponsor

WSDA is a WA animal health company that has been proudly manufacturing and supplying quality products to farmers around Australia for nearly fifty years. WSDA produces a range of products for cattle, sheep, goats, horse and pigs and is continually adding new products to an extensive range.

Now a subsidiary of global animal health and agricultural chemical company Zagro, WSDA has grown substantially in the past few years and is now exporting to New Zealand.

WSDA Territory Manager, Marcia Devenney, said: “We are delighted to be a sponsor of the ASHEEP group this year. Although we are all feeling the impact of the COVID-19 pandemic, we are supporting our farmers, clients and stores and we have been working hard to ensure supply of all our products.”

Based in Perth, WSDA manufacture various drenches, liquid mineral supplements including Vitamin E, dry licks with Vitamin E and Selenium, fly control products and Trough Blox.

WSDA also manufactures the Zagro Animal Health range, including Eureka Gold back-line lice treatment for sheep. Eureka Gold is still the only lice management product for sheep that has no known resistance in Australia.

Alongside Eureka Gold, Zagro products in the Warrior sheep range include Hercules (Imidocloprid) for lice control, Striker (Dicyclonil) for fly control and the liquid disinfectant Ultraxide.

Cattle products include Bovipour DT (Doramectin) as well as Eprigard (Eprinomectin) and Maximo (Moxidectin).

WSDA and Zagro partner with farmers and industry bodies to conduct trials and support education in agriculture. Zagro also owns Pacific Laboratories, and scientists there conduct ongoing testing of chemicals and products in animal health, pharmaceuticals and agronomy.

“We look forward to a really exciting year ahead and we offer all the help we can to the group, its members and farmers in the Esperance region,” said Marcia.

For more information on the complete range from WSDA and Zagro visit www.wsdagribusiness.com or contact Marcia Devenney on 0429 922 393.

Momentum building on sustainable beef

Angus Gidley-Baird, Senior Analyst, Rabobank

Beef production globally is coming under increasing scrutiny, with questions raised about its impact on animals and the environment, creating pressure on beef supply chains to meet higher standards. While the concept of sustainable beef is not new, the past 18 months have seen a marked increase in sustainable beef-related activities across the globe – and we expect even more to come.

Defining Sustainable Beef

Since 2012, leading beef industry stakeholders have been working together to define and promote the concept of sustainable beef through the Global Roundtable for Sustainable Beef (GRSB).[1] The GRSB defines sustainable beef as "a socially responsible, environmentally sound, and economically viable product that prioritizes: Planet, People, Animal, and Progress." The exact performance criteria vary between regions, depending on the specific environmental, social, cultural, and economic conditions. The GRSB movement has grown steadily since inception, and today, it covers the major beef-producing countries of the world (see Figure 1).

Sustainability Initiatives on the Rise

Prior to the current focus of Covid-19, the preceding 12 months saw a noticeable step up in the number and variety of sustainable beef-related initiatives across the globe. The majority of these are market-driven initiatives, either with food retailers and foodservice companies in the lead, or initiated by beef processors and producers in response to these changing market dynamics. Some examples include:

- At a global level, McDonald's has committed to purchasing sustainable beef based on the principles and criteria established by the GRSB. Specific performance standards for McDonald's top 10 beef-sourcing countries have been, or are being, developed.
- In 2018, Tyson, a large US beef processor, launched 'Progressive Beef,' a cattle sustainability program verified through USDA-approved auditors.
- In early 2019, the US Beef Industry Sustainability Framework was adopted by the US Roundtable for Sustainable Beef.
- The Brazilian Association of Carbon-Neutral Meat Producers was created in February 2019 to develop both supply of, and demand for, carbon-neutral beef.
- Cargill announced in July 2019 that it would reduce greenhouse gas emissions from its beef production chain in North America by 30% by 2030.
- In 2017, Meat & Livestock Australia set the ambitious goal for Australian red meat to be carbon-neutral by 2030.

Some regulators are also tightening control over beef production systems, with significant implications. For example, the New Zealand government's Zero Carbon Bill will require livestock producers to reduce total gross methane emissions by between 24% and 47% below 2017 levels by 2050. To help achieve this target, the government has proposed introducing a farm-level price on livestock by 2025.

Pace of Change to Only Increase

Rabobank expects this pace of change around sustainability in beef supply chains to increase further. The market will continue to be the main driver of change in most parts of the world, supported by the actions of governments, NGOs, pressure groups, as well as investors and the rise of alternative proteins.

Figure 1: Sustainable beef regional roundtables and initiatives
Source: GRSB 2019

[1] Rabobank has been a GRSB member since inception.

Aus Stock Transport

Aus Stock Transport is your first choice for an Esperance owned and based local carrier of livestock and bulk goods.

We have sheep carting configurations from Semi, B-Train and Road Train.

Furthermore, we have bulk tippers available for fertilizer, lime, gypsum, sand, blue metal and grain cartage.

Aus Stock Transport is a member of the Livestock & Rural Transport Association of WA (Inc) and receives updates relative to our industry. We are also members of Transafe WA.

Aus Stock Transport is a corporate member of ASHEEP. We also proudly sponsor the Esperance show, various sporting clubs and associations throughout the Esperance and Ravensthorpe districts.

Aus Stock Transport relies on experienced operators to use 'best practices' when loading, unloading and carting of animals.

For all your cartage requirements call Peter Holdman on **0419 948 475** or email ausstock@outlook.com

Think you don't have a drench resistance problem? Might be worth a check.

ASHEEP's involvement in the Wormboss Drench Resistance project has now come to an end, with the project wrapping up earlier this year. The project concluded that there is no question that drench resistance is a real and constant threat to sheep producers in the Esperance district.

This has been the case for some time, with some of the earliest reported cases of Ivermectin resistance being recorded in the area in the 1990s. Most farmers are aware of this but do not know exactly how effective each drench group is in 2020.

The project had challenges and we did not get the number of results anticipated, not helped by a run of seasonal conditions that kept worm numbers typically below the threshold required for testing. Three tests were able to be run through to completion, with results demonstrating that resistance is creeping in. With prudent management, the risk of further damage can be delayed by implementing practices recommended by Wormboss.

Esperance Result snapshot:

- **Farm A: Significant resistance in Teladorsagia across most drench groups**. This test is a great example of how valuable it is to know your resistance status. The farmer can now work with their animal health consultant to plan future drench group rotations.
- **Farm B**: **Red flags for small brown stomach worm**, with only 2 actives showing 100% control. The test demonstrated 88% effectiveness for Moxidectin which can be an issue for lambs treated with an injectable at weaning.
- **Farm C:** It was encouraging to see Abamectin and Moxidectin still have 100% efficacy on Farm C. However, **Albendazolle and Levamisole were compromised**.

So, **all three tests demonstrated resistance** - but when we asked ASHEEP's membership "Did you experience issues with drench resistance in 2019?", 100% of respondents said NO.

You can't necessarily see if you have a problem, or if one is developing. Check out the Elanco / ASHEEP Drench Resistance testing program on the next page. Get involved, stay ahead of the game.

2020 Drench Resistance Testing Program with ASHEEP

As a follow up to the recent Drench Resistance Testing program, Elanco is offering a revised program with the objective of assisting ASHEEP members to continue carry out this important work into the future.

ASHEEP will be involved in promoting the program and in sharing the results for group members. Individual member / business names won't be identified.

Elanco has set up an arrangement with Swans Veterinary Services, to cover the cost of monitoring Worm Egg Counts for members participating in the program. ASHEEP members will need to get involved in collection of monitoring samples and getting them to Swans for counting.

We have also had conversations with the local retailers about helping out in the collection and transport of samples as needed, and they have indicated their willingness to assist on request.

Elanco will provide all the drenches and other kit needed for the actual Resistance Test and Dave Howey will be involved in that as well.

The protocols we use will be available for those members interested to discuss, but broadly are the most complete protocols in use, as recommended by Wormboss.

We will be targeting young sheep with the most limited drench history we can find, but while undrenched weaner sheep are the "gold standard' for this type of trial, we are open to other opportunities especially if members run into particular issues where a drench appears to have been ineffective.

We would need a group of a minimum of 120 sheep with a common drench history. Ideally, we would like them to be separated from large mobs at the start of any Resistance test, as it makes the final faecal sampling much more efficient.

Obviously, the significant challenges posed by the Covid-19 virus will mean that we will need to be prepared to change our practices in accordance with the best advice we have at the time.

To get involved all you need to do initially is get in touch with Dave Howey at Elanco on 0439 988 953 or via email at david.howey@elanco.com.

Agro Spot: Know your Clovers

Theo Oorschot, Esperance Rural Supplies, 0427 715166

Last year I took up the opportunity to send a number of sub-clover samples to be identified and tested for isoflavone levels through the MLA and UWA project "Maximising the reproductive potential of the meat sheep industry by eliminating high oestrogen clovers, more live lambs on the ground." This project was managed by Dr Kevin Foster, whom was a guest speaker at an ASHEEP conference a year or two ago.

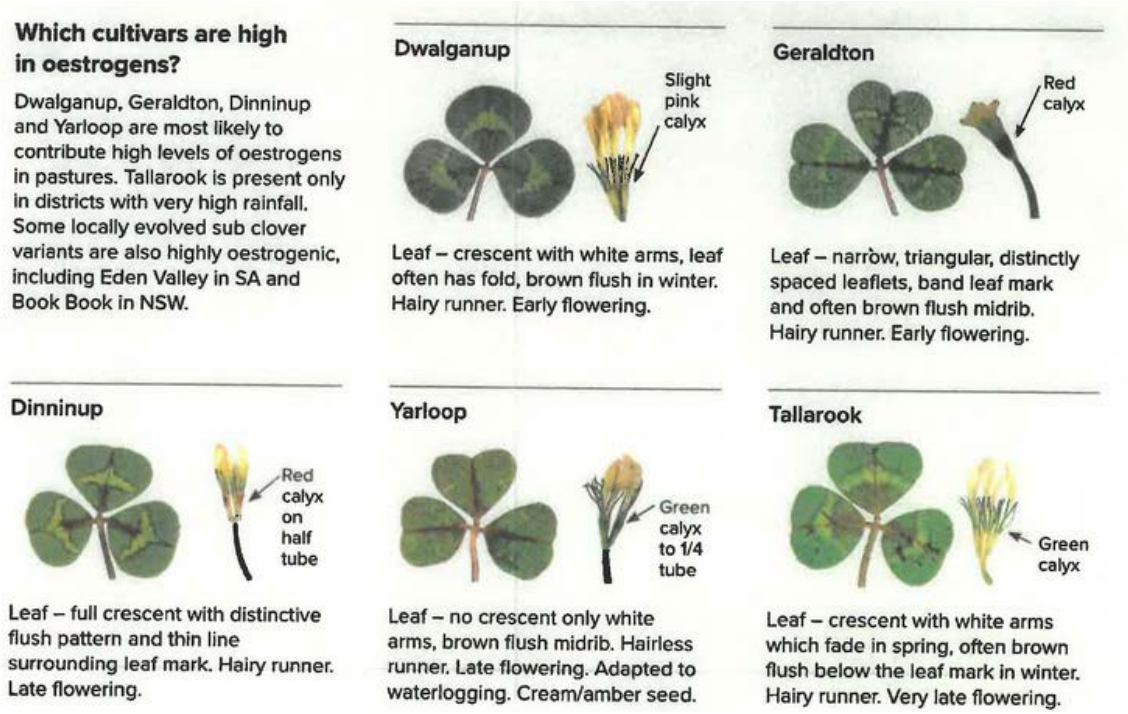
Clover disease, as is also called, is caused by oestrogenic isoflavones, which are compounds formed in the green leaves of subterranean clover. Some of the problems that can be associated with oestrogenic clovers include dystokia, death rate increases and uterine prolapse in ewes and post-natal lamb deaths.

On collection of the samples and upon arrival, the green leaves are tested for isoflavone levels and this determines whether the samples of clover are considered within the safe levels. Identification of sub clover types are based on the "experienced eye" and the levels of isoflavones to match varieties that are knowingly high oestrogenic types.

My observations and testing have been only on a small sample, but shows that we need to be concerned. Identification is not always easy, but leaf markings are strongest in winter and early spring. Even though we believe that Dalkeith is a prolific variety, Seaton Park came up a number of times in the sampling. Both these varieties are considered "safe" types. However, Dinninup was represented in all but one of the samples collected. Dinninup was very popular in the 1960's because of its tendency to dominate pastures. Poor palatability, was in part, the reason of its dominance. **Dinninnup is high in isoflavones!**

The sampling also showed up two other high oestrogenic clovers Dwalganup and Geraldton. When high oestrogenic sub clovers contribute to more than 20% of the total biomass of the pasture, then this is considered a problem.

MLA and UWA have a 2-page A4 information fact sheet outlining how to identify and help manage the problem, should it occur. Below is a pictorial copy on how to identify these clovers.



Increased likelihood of sub clover red leaf syndrome in pastures

Paul Sanford, Senior Research Scientist - Pastures, DPIRD

Recent rainfall and warm conditions in some parts of the south west of WA may lead to aphids spreading the Soybean dwarf virus (SbDV) and causing an outbreak of sub clover red leaf syndrome. Symptoms include red leaves, stunted plants and even premature plant death.

Farmers who suspect red leaf syndrome in their subterranean clover can access free testing by DPIRD. **To arrange free testing, contact Paul Sanford at paul.sanford@dpird.wa.gov.au or Kevin Foster at kevin.foster@uwa.edu.au.**

Autumn control options include spraying for aphids using an anti-feeding insecticide at two and six weeks after sub clover seedlings emerge. Oats can also be sown as a barrier around pasture paddocks to disperse aphids and slow early spread into pasture from outside sources.

A higher risk is dependent on an aphid population being present when sub clover emerges. It is actually quite hard to spot aphids in pasture. The risk is greatest for growers with sub clover dominant pastures or those sowing sub clover as they could lose a lot of pasture production or fail to establish a new sub clover base.

In these cases it is worth considering anti feeding insecticides (outlined on the DAFWA website). For those producers with diverse permanent pastures they will potentially lose the sub clover component but not all of their pasture production so the risk is less.

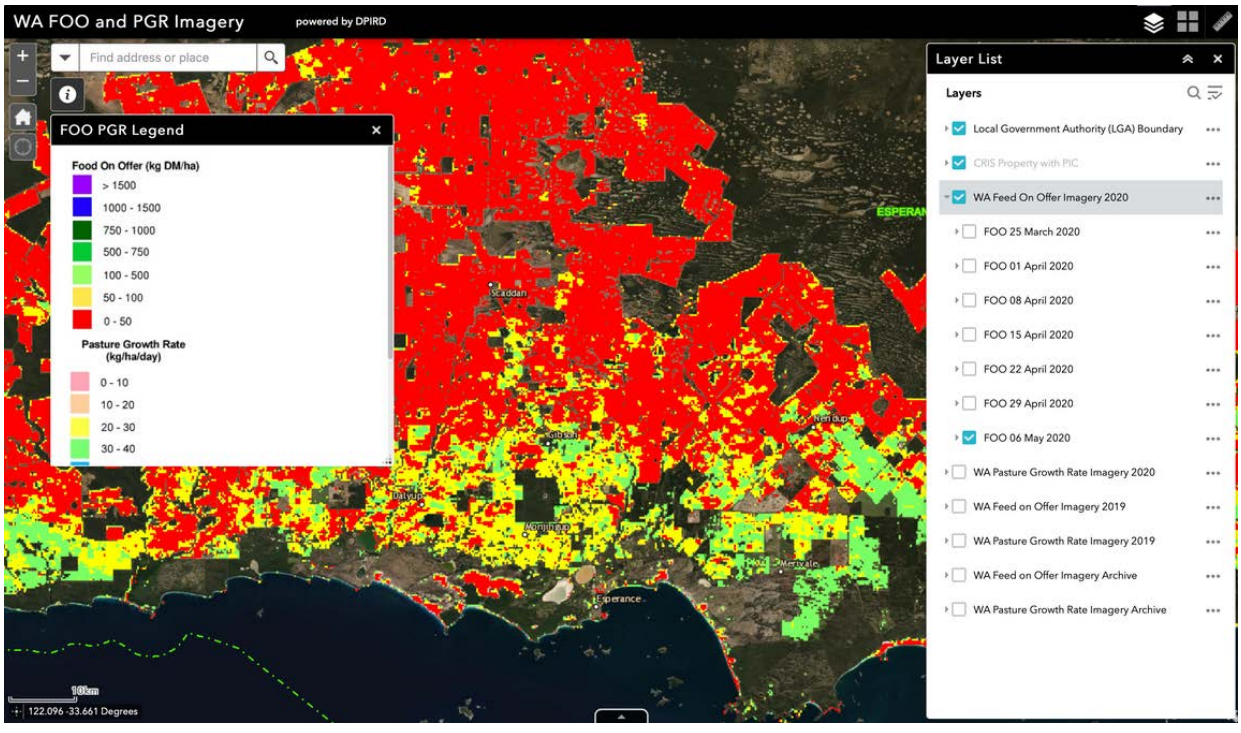
More detailed information, including how to identify and manage the impacts of subterranean clover red leaf syndrome, is available from the department website.

This work is being done in collaboration with a GRDC project examining virus threats to the grain pulse industry.DPIRD officer's Paul Sanford and Ben Congdon along with UWA researcher Kevin Foster are co-leading the work.

Pastures from Space

If driving your vehicle over bumpy paddocks and trying to remember what the pastures looked like this time last year is growing tired, DPIRD's 'Pastures from Space' online service could be just the thing for you.

The Pastures from Space service estimates pasture feed on offer (FOO) and plant (pasture and crop) growth rates (PGR) for the south-west of Western Australia each week during the growing season. The services uses satellite imagery and on-ground measurements over a number of sites and years to calibrate the growth rate and FOO of pastures. The PGR calculation also uses soil and weather inputs.



Visit *www.agric.wa.gov.au/feeding-nutrition/pasture-feed-offer-foo-and-growth-rate-maps-wa* to have a play.

Vet Spot: Bladder Stones and Urolithiasis

Dr. Katie Kreutz BSc BVMS, Swans Veterinary Service

Urinary tract blockages are a problem known to occur in both small and large ruminants. Males are more susceptible to blockages due to having a longer urinary tract, which becomes narrower as it approaches the urethral process at the end of the penis. The blockages are due to stones, which form in the bladder, and become lodged within the urinary tract. The stones form due to an excess of a particular mineral, most commonly phosphorus or calcium. A blockage may cause abdominal distention and pain and the appearance of struggling to urinate. If the blockage persists a rupture can occur resulting in the urine leaking outside of the urinary tract (water belly) and can progress to sepsis or death.

Bladder stones and uroliths are a nutritional problem. An unbalanced amount of phosphorus and calcium can precipitate the formation of stones. This is more common on feedlot animals being fed cereal grains. However, uroliths can also be formed due to lush pasture containing higher amounts of calcium such as subterranean clover. Of particular concerns is when multiple males in a herd develop uroliths suggesting all males on that feeding system are at risk. Additional risk factors include early castration which reduces the urethral diameter, reduced access to water which can cause a buildup of minerals and deficiency in Vitamin A.

If uroliths are suspected due to one or more animals straining to urinate, confirmed diagnosis of other males in the herd, or simply the presence of calculus around the hairs of the prepuce, early treatment yields far better outcomes than attempting to combat a ruptured urinary tract. Diet change where possible is the best solution for resolving stones. This may involve adding calcium to a feedlot ration to balance out high phosphorus or conversely reducing access to pastures rich in calcium. It is important that stock have enough access to water in order to dilute their urine and reduce the formation of stones. Salt licks or the addition of 1-4% salt to the feed is beneficial in encouraging animals to drink more water. If an animal is struggling to urinate it is best to consult with a vet before administering medication. Occasionally these animals will be able to pass a blockage with the help of anti-inflammatories and smooth muscle relaxers. Additional treatments may include a drench of or feeding out ammonium chloride to dissolve the stones. At Swans Veterinary Services we are happy to help guide treatment whether that be attempted medical management for individual animals or herds, or surgery (invasive and non-invasive options) for valued ruminant pets or breeding stock.

Image left: Calculus on prepuce hairs.

Image right: Water belly in a ram.

Images: https://www.hilarispublisher.com/open-access/urinalysis--a-diagnostic-factor-for-urolithiasis-and-prognostic-factor-for-its-recurrence-in-young-ruminants-2157-7579-1000336.pdf , https://prosites-keller55.homestead.com/UrinaryCalculi.html

Contact:
Dr. Katie Kreutz
Swans Veterinary Service
08 9071 5777
katie.k@swansvet.com

Best practice for mulesing and tail docking

For those who are currently mulesing or who are including it as part of their program during a transition phase, MLA recommends the following as best practice for mulesing and tail docking.

Information on breeding sheep with less breech wrinkle or cover is available on the MERINOSELECT, Australian Wool Innovation, FlyBoss and Sheep CRC websites. Producers who plan to continue mulesing in the short-term should engage an accredited mulesing contractor or have undertaken training themselves to become accredited.

Mulesing and tail docking should be performed when lambs are as young as possible, ideally two weeks after the end of lambing and before 3 months of age.

Mulesing and tail docking are both surgical procedures and care needs to be taken to ensure the best outcome.

To help ensure best practice, producers should pay attention to the following:

- Reduce stress before, during and after the procedure by:
  1. Good planning and preparation.
  2. Having adequate numbers of well-trained staff to do the job.
  3. Using well-maintained equipment.
  4. Using low-stress stock handling.
  5. Using pain relief products – Tri-Solfen®, Buccalgesic® and Metacam® are registered for use in sheep.
  6. Reducing the time lambs are separated from their mothers.
  7. Releasing lambs from the yards as quickly as possible into a well-shaded holding paddock with fodder and water available.
  8. Avoiding immediately walking or moving ewes and lambs over large distances to paddocks.
- Minimise dehydration by avoiding hot weather. Allow animals to rest in the yards after mustering and providing fresh water between mustering and the procedure and minimise the time animals are off water and perform the procedures in the coolest part of the day.
- Minimise bleeding by using good technique and taking steps to ensure livestock are not hot at the time of the procedure. Always allow animals to settle and cool after yarding, handle them calmly and perform the procedures in the coolest part of the day.
- Reducing the risk of infection through strict attention to hygiene, and use of disinfectants, minimising dust in the work area and providing adequate protection against tetanus.

Information on best practice techniques for tail docking lambs is available in MLA's Sheep Husbandry Guide.

The legal requirements are known as the Standards and can be found in The Australian Animal Welfare Standards and Guidelines for Sheep: www.animalwelfarestandards.net.au/sheep

Reprinted with thanks to MLA. Source: www.mla.com.au/research-and-development/animal-health-welfare-and-biosecurity/husbandry/tail-docking-and-mulesing/#

Ewe abortion & newborn lamb deaths surveillance program

The Department of Primary Industries and Regional Development is again promoting their ewe abortion and newborn lamb deaths surveillance program in the lead-up to lambing.

The program encourages producers to collect samples of placenta or liver from aborted lambs as the losses occur. Producers freeze samples then submit them to DAFWA Diagnostic Laboratory Service (DDLS) for testing for endemic and exotic infectious causes of ovine abortion.

The program is not intended to replace cases where a full veterinary investigation is appropriate, such as abortion storms or if adult sheep are unwell: it is for clients who tend to see a few abortions each season which they may not consider significant and which are typically difficult to sample and diagnose. It would also be suitable for those who had a problem last year and would like something on hand in case it happens again.

The program will help producers identify where infectious causes may be contributing to abortions and new born lamb mortality in a flock, but also provides them with an opportunity to consider management factors if no infectious cause is identified.

Samples are also tested for some significant causes of sheep abortion that do not occur in Australia. The negative test results will be used to show that WA and Australia continue to be free of those exotic diseases. This ‘proof of freedom’ is required for sheep to be exported to existing or new markets.

DAFWA is supplying the kits free of charge. Kits are available from Swans Veterinary Services. For more info you can contact Dr David Swan on 0427 715 787 or Dr Anna Erickson at DPIRD in Narrogin on 9881 0211.

Supporting shifts to non-mulese systems

A new project is coming to ASHEEP, run by Ed Riggall and Georgia Reid of AgPro Management. The MLA-funded project involves groups of producers (or grower groups!) across the medium and high rainfall zones of WA. It aims to demonstrate best practice for non-mulese systems and provide support for producers wanting to shift to, or trial, not mulesing.

It's all about supporting producers through the transition, coming up with a plan and involving producers who have already shifted to non-mulese. This way, producers can draw on each others' experiences, anticipate the challenges and support each other.

The project has come about due to the lack of support currently available for those wishing to cease mulesing, or even just wanting to know what the challenges and benefits could be. Following the threats of a mulesing ban in the mid-2000's, many producers started on the path to stopping mulesing either genetically or through ceasing the practice. Some were successful and have continued to do so, however many failed to sustain change due to management issues & lack of support networks to help the transition. Currently, the national wool clip under 24.5microns is 7% unmulesed, with WA at even lower rates. The project aims to connect these producers with those wanting to investigate the change on their own properties. It is a great opportunity for producers to see how ready they and their business is for when the inevitable ban comes.

The most common changes required when a farm ceases mulesing is an increase in worm and fly control chemicals, or additional crutching or shearing. There is also of course breeding measures: selecting for low breech & body wrinkle, low dag scores and high worm resistance. In WA, most sheep already have low wrinkle, but this is the first aspect to consider before committing to a shift to cease mulesing.

It is important to analyse a business before making the decision- each farm is unique and require different levels of change, both before and during a shift to non-mulese. It's also vital to have the right attitude, this will be harder initially than mulesing and will require commitment to be successful.

TIPS FOR SUCCESSFUL SHIFTS:

- Each property is different. Consider not just climate, sheep characteristics and husbandry timing, but also management skills and commitment to the shift.
- PLAN. Make a plan and review it regularly.
- Be flexible: the plan may need to change.
- Genetics – what's the potential for change?
- What decision making tools are at your disposal? eg ParaBoss
- Have you got the equipment and yards? Increased husbandry means sheep handlers, or better jetting equipment, may save you a lot of time.

As mentioned, worm and dag management are key for managing non-mulesed flocks in WA. If you're considering the shift , one thing that can be managed now is the worm burden in your sheep and pastures.

If you're interested in learning more about shifting to a non-mulese enterprise, or wanting to trial it yourself at either a mob or farm level, get in contact!

The project is commencing after seeding, and we'd love for you to be involved.

Further info on non-mulese enterprises can be found at the link below, or by searching "Planning for a Non-Mulesed Merino Enterprise AWI"
https://www.wool.com/globalassets/wool/sheep/welfare/breech-flystrike/breeding-for-breech-strike-resistance/planning-for-a-non-mulesed-merino-enterprise.pdf

Contact Georgia Reid, AgPro Management to get involved in the project.
044 752 3110 or georgia@agpromanagement.com

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Market Report: Wool

Danny Burkett, Auctioneer/Key Account Manager, Westcoast Wools

As we stand today 22nd May 2020 the wool market for merino wool 19.5 to 22.0 micron has fallen back to trading ranges the market witnessed in 2011 to 2017, 1100 cents clean as the floor and 1500 cents clean as the ceiling. The 1500 cents level is a very significant level.

Looking at 20.0 micron closing at 1270 cents clean, given the current economic backdrop around the wool consuming countries, it could be a lot worse. If you view the merino market as a combination of fleece types currently averaging 18.6 micron in Australian currency terms from 1987 to April 2020 end, the first time it broke the 1500 cent barrier was in 2002 only for a day, the next time was the start of the surge in prices in 2017. The market is now back below the 1500 as it has been for nearly 30 years.

Looking forward we can only look at the facts we know today that are likely to affect the market as I see it, we have three wool positions to work through when demand increases. The first at retail level, sales of woollen textiles produced all the way from semi processed wool through to finished goods at retail level were virtually frozen when the virus hit. The second position is the building to semi processed wools within China that are being produced as we speak to keep hungry machines working with no market to move them on too. Lastly, is the rapidly building grower greasy stocks within Australia that predominantly consists of Merino fleece wool with lower than normal yields due to the tight seasonal conditions in the East.

When you forward into the coming months the forward market is trading at today's levels out till December, and at a slight discount into 2021. One positive point is the forward prices into later this year are holding their ground, I feel due to the expectation of better yielding wools coming onto to market from September onwards.

Another positive for the finer merino wools is, in general not always is their recovery in price can be quicker then medium microns after a significate market shock.

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Image: Provided to ASHEEP courtesy of Leigh and Karina West.

Sheep Fertility, Genetics or Management - The Booroola Story

Bob Reed, ASHEEP Committee Member

In 2007, on our second ASHEEP trip to the South Island of New Zealand, we got to spend half a day with the scientists at the Inverdale site of the Dunedin University. These were the people who had relatively recently cracked the full sheep genome, the first people in the world to do it. They had already established three gene markers, one of which was a fertility gene the Inverdale gene, which gave a 25% lift in lambs on the first cross. Unfortunately, when ewe lamb progeny from the first cross (i.e. maiden ewes carrying the Inverdale gene) were mated to the same rams the lambing outcome became recessive. Basically they could lock in the 25% but they couldn't add to it.

The above was early days with sheep genetics but it was great for us to revisit them in 2017 and see that they had maintained their passion for quality genetic research and development.

Now we are told that fertility in sheep has a relativly low rate of heritability and lambing outcomes are mostly down to management and nutrition. Is that necessarily so and does the breeding history of the Austrailian Merino tell us that? Not necessarily so. When farmers are making real progress with lifting twinning rates we need to hear what they are saying and what they are saying might sound a bit like this - *"I don't like to say twinning is highly heritable, but that with proper care, it is highly repeatable."*

The Booroola story is not necessarily well known but it has always fascinated me. I cannot understand why more wasn't done with these sheep when they went to the CSIRO and Trangie in 1960. I can only speculate that it was all about wool in that era when farmers and pastoralists were happy with enough lambs to provide replacements and a bit of room for classing. Australia's average lambing percentage was under 70% and yet many in the industry couldn't get excited by 200%!

Be it as it may, here is the Booroola story as I understand it.

The Booroola Story

The Booroola strain of merino was developed by members of the Seears families in the Cooma district of NSW. This Booroola strain was a unique development for it represented a very definite genetic entity of extremely high fertility, evolved and fixed by two generations of commercial breeders on adjoining properties between 1916 and 1960.

The originator, Bert Seears, began selecting sheep on multiple births when he segregated a ewe that had experienced repeated multiple births and bred on from her and her progeny alone in a separated flock. By the 1930s, Seears had a number of ewes regularly producing triplets and quads. One ewe gave birth to 27 lambs in her lifetime and another (named Incubator!) once had seven lambs in a litter. Apparently Bert spent most of his days fostering these lambs onto surrogate mothers to preserve their unique genetics. His own ram replacements were bred from within this closed flock.

In 1945, Bert gave two of his precious high-fertility ewes to his nephews Jack and Dick Seears who became devoted to continue the work commenced by Bert. They did however vary the mating procedures by using Egelabra rams on the separated and growing flock of their own and also spent most of their days fostering progeny. Obviously the Egelabra influence did not wash out all of the fecundity of this ongoing Booroola flock as by 1960 their special ewe flock of 232 ewes, directly descended from the two ewes given by Bert 15 years earlier, were still lambing over 200%.

Effectively, the Seears families had isolated, concentrated and perpetuated a major gene function which had been discarded by long past merino breeders. By this stage the CSIRO had begun research into twinning at Deniliquin and had acquired some ewes from the Seears brothers and went on after the Seears' deaths to aquire around half the Seeras flock. Likewise the NSW Department of Agriculture took on the other half of the flock at the Trangie Research Station.

Ultimately, it was the CSIRO via the recognition by some scientists (particularly Dr Helen Newton Turner) that the high fertility of the Seears flock was not a genetic mutation but instead probably traced back to the highly fecund Bengal sheep brought into Australia in the early days of the colony. These sheep, primarily brought in for rations, were also bred from and eventually crossed to Merino rams in John Macarthur's time (1800-1820). Early historic colony references point to the Bengal sheep having high levels of multiple births.

These Bengal sheep were also small and scrawny which probably led to later sheep classers heavily culling their crosses and throwbacks. Luckily, some 100 years later, this fertility gene was found at Cooma and valued for its potential in future breeding programs.

The Trangie Booroola remnants eventually came to WA where Dr Don Robertson ran them on a small farm at Gidgegannup. Don was lecturing at Muresk at the time and fully appreciated their background and genetic value. I was lucky enough to visit his farm in 1977 and Don kindly ran through their history for me. They certainly were fairly small sheep but robust and were lambing at the time, plenty of multiples as I recall.

In later times, 1996, I visited the Trangie Research Station with a few of the old Esperance Rural Properties team. We saw their high fecundity flock which carried Booroola input from earlier times mixed with a lot of other genetics. I didn't think this project was still a high priority for them. I understand the CSIRO flock got shifted to Armidale (NSW). The last known sources of Booroola genetics known to me were Don Robertson and CSIRO Armidale but that's all a long time ago now.

I can remember talking to Mike Overhue about Booroola in my early days at Esperance. I know he aquired some stock from Don Robertson but I don't know where it went from there.

However, we now know 100 years of backcrossing Macarthur's initial Bengal / Merino to Merino couldn't fully remove the Bengals fertility gene. We also know that Jack and Dick's special flock were still lambing at or above 200% after being continuously mated for 15 years to Egelabra rams up to 1960 - 140 years after Macarthur. One would hope we have't lost touch with the Booroola genetics after all the work those Cooma Cockies did the hard way.

And it wasn't only the Bengal influence that got into the Australian Merino. As they pushed sheep further west, into the drier Riverina and beyond, Macarthur's small merinos lacked the constitution to handle the environment. Astute SA and Riverina breeders began to add, after 1850, large framed long stapled English Leicester and Lincoln blood to their breeding mix. These genetics, after backcrossing back to the merino, supercharged the Australian Merino in respect to size, staple length, wool cut and constitution.

In conclusion, the modern Australian Merino is not the pure aristocrat it is put up to be and it's all the better for it. There have been many and varied genetic introductions along the way leaving traits which could still be retrievable. Better genetic fertility could still be a prize?

Bob Reed
References: Charles Massy, 'The Australian Merino', Dr Don Robertson

Determining Cause of Death - Lambs

In past years, ASHEEP has brought a workshop down to Esperance; "What Killed my Lamb". The workshop was tailored to assist producers in idenitifying cause of lamb death to limit future loss. COVID-19 put a damper on running a course this year, but if you are interested in brushing up there is a great resource available from NSW Department of Primary Industries. Good news is it comes with all of the detailed imagery to walk you through an autopsy, with none of the smell.

Following is an extract of the online resource "**Lamb Autopsy - Notes on a procedure for determining cause of death**" by Peter J Holst, reprinted here with thanks to the NSW Department of Primary Industries. This extract gives you taste of what to expect. **For the full resource visit *www.dpi.nsw.gov.au/animals-and-livestock/sheep/health/other/lamb-autopsy*.**

Document Extract: Pg 8 - 10 "PROCEDURES" (Note only a small sample of the descriptive imagery available is shown)

The autopsy starts, for a right-handed operator, with the lamb placed on its right (off) side with the central abdomen and feet toward the operator. A general examination of the unopened lamb follows:

- *lamb cleaned or not cleaned (showing maternal behaviour)*
- *presence of meconium staining (foetal faeces may indicate foetal distress during parturition)*
- *decomposition*
- *congenital abnormalities (particularly of the buccal and perineal regions)*
- *membranes of hooves (wear may indicate walking or bird pick)*
- *predation – location, severity, species*
- *subcutaneous oedema of head or shoulders (showing physical trauma during birth).*

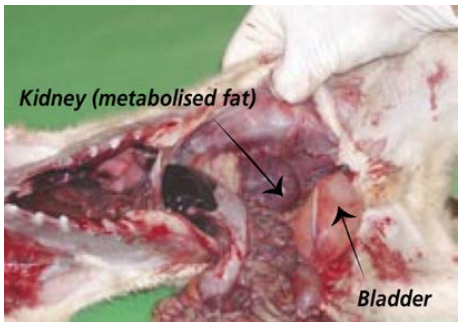
The skin on each side of the neck is incised and reflected and the skin and neck examined for:

- *punctures consistent with fox or dog predation (can also check thoracic vertebra)*
- *subcutaneous oedema*
- *haemorrhage.*

Hooves wear indicates lamb has walked.

Kidney with good fat cover.

Hooves lack of wear indicates lamb has not walked.



Not fed, starving, fat metabolised.

If hypothermia is suspected as a result of cold, wet, windy weather in the preceding 30 hours, skin from the medial to lateral aspect of the hind legs should be reflected. The presence of yellow subcutaneous oedema signifies possible cold exposure (this may be primary or secondary).

The lamb is then placed on its back and the hind and fore limbs spread laterally to give balance. The skin 5 cm caudal to the navel is grasped in the left hand to use the weight of the lamb to put strain on it. Make an incision so as to begin... [want to learn more? Visit the web address above or watch for the next ASHEEP e-news and we'll send out the link].

Esperance Fixed Time AI Project Proves Investing in your Heifers Pays Big Dividends

Dr. Enoch Bergmen DVM, Swans Veterinary Service

The ASHEEP/Swans Veterinary Services Meat and Livestock Australia Producer Demonstration Site (ASHEEP/SVS/MLA PDS) is wrapping up. Our project was designed to demonstrate the value of integrating fixed time artificial insemination (FTAI) into the heifer breeding programs of commercial beef producers with the goal of improving conception rates, reducing dystocia, reducing calf mortality, reducing heifer mortality, improving calf weaning weights and improving heifer rebreeding rates. The project was secondarily designed to emphasize the value of both ensuring adequate heifer premating weights and of condensing the calving pattern of first-time calving heifers.

As we near the finish line, we have a significant amount of data collated that we can now share with you.

The setup of the PDS was fairly simple. We randomly hi-jacked approximately half of the heifers from a number of producers over three production years, synchronized them, and inseminated them on their traditional mating start date. Their sisters were put straight out with the bulls on the same day. The heifers which were enrolled in the AI program joined their naturally mated siblings ten days later for roughly an additional six weeks. We then measured the performance of the two groups in order to develop the potential value of integrating FTAI into commercial heifer mating programs.

Using the results from the PDS to date, each pregnancy returned an additional $64.76, after costs, per pregnancy to the producer, before factoring in genetic improvement or cow performance beyond her second pregnancy. Awesome stuff!

Having accounted for all AI mating costs to the producers for semen, pharmaceuticals, technician time, and travel, the average cost to each producer would have been $24.99 more to AI and back up at 2% bulls than to naturally join at 3%. Producer labour was estimated at 40 hours at $30 per hour per 100 heifers AI'd over the course of the AI program. Pregnant heifers were valued at an additional $100 per animal compared to empty heifers. Dystocia events were estimated to average $200 in labour and/or veterinary costs per case. Deceased calves were valued at $500 and deceased heifers at $1500. Kilograms of calf weaned were valued at $3.50 per kilo. Lastly, empty 2nd calvers were devalued by $1000 per animal should the be empty at their second pregnancy test.

	FTAI Integrated	Syndicate	Difference	Potential Value	Totals
Average Mating Cost	$144.06	$119.08	($24.98)	($24.98)	($24.99)
Labour Costs in Hours Per 100 Head AI'd	40.00	0.00	($40.00)	$30.00/hr	($12.00)
Heifer Empty Rate	17.3%	18.1%	0.80%	$100.00	$0.80
Dystocia Events	5.4%	6.7%	1.30%	$200.00	$2.60
Calf Mortality	3.2%	5.1%	1.90%	$500.00	$9.50
Heifer Mortality	0.5%	0.9%	0.40%	$1,500.00	$6.00
Weaning Weights of Calves (5 Producers)			13.1 Kg	$3.50	$45.85
Rebreeding Empty Rate (1st Calvers)	10.6%	14.3%	3.70%	$1,000.00	$37.00
Profit Returned to Producer Per Heifer Pregnant in AI Group Not Including Genetic Improvement					$64.76

Each of the parameters used for the financial analysis were collected from the PDS and the values associated with each difference were developed in consultation with groups of Esperance producers.

Table 1: Economic estimate of the value of integrating FTAI per pregnancy.

Conception Rate

The final conception rate of the heifers which had been enrolled in the FTAI program were marginally better than the conception rate of their naturally mated sisters. Overall there was a measurable 0.8% improvement in conception rate overall for the FTAI groups, equating to a 4.6% reduction in the number of empty heifers.

	Integrated FTAI			Syndicate Mated			
Farm	Preg Tested	Empty	% Empty	Preg Tested	Empty	% Empty	% Reduction in Empties
A.1	173	28	16.2%	218	41	18.8%	13.9%
B.1	19	0	0.0%	19	1	5.3%	100.0%
C.1	25	6	24.0%	25	5	20.0%	-20.0%
D.1	25	3	12.0%	24	3	12.5%	4.0%
E.1	71	16	22.5%	73	18	24.7%	8.6%
F.1	58	5	8.6%	51	6	11.8%	26.7%
G.1	102	11	10.8%	102	8	7.8%	-37.5%
A.2	177	33	18.6%	173	21	12.1%	-53.6%
F.2	45	3	6.7%	44	5	11.4%	41.3%
C.2	85	14	16.5%	86	16	18.6%	11.5%
A.3	174	35	20.1%	192	51	26.6%	24.3%
G.3	118	25	21.2%	99	22	22.2%	4.7%
H.3	106	28	26.4%	114	23	20.2%	-30.9%
I.3	15	1	6.7%	7	2	28.6%	76.7%
J.3	14	1	7.1%	13	3	23.1%	69.0%
Total	1207	209	17.3%	1240	225	18.1%	4.6%

Table 2: The number of heifers joined per farm per group over 3 years and the pregnancy rate statistics per farm between FTAI integrated and syndicate mated heifers.

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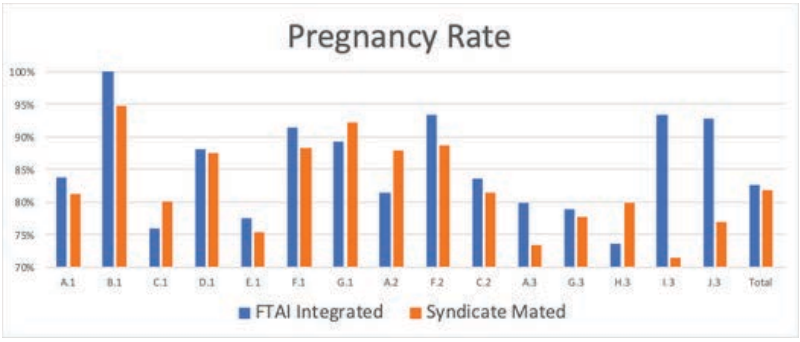
Figure 1: The pregnancy rate statistics per farm between FTAI integrated and syndicate mated heifers over 3 years.



Dystocia Indicators

Once calving commenced, some producers measured profound reductions in dystocia indicators whilst others saw little or no difference. We feel this was driven not only by bull selection each season but also by the maternal genetics on individual properties. The sires chosen for the AI program were significantly better calving ease sires as well as superior in growth characteristics.

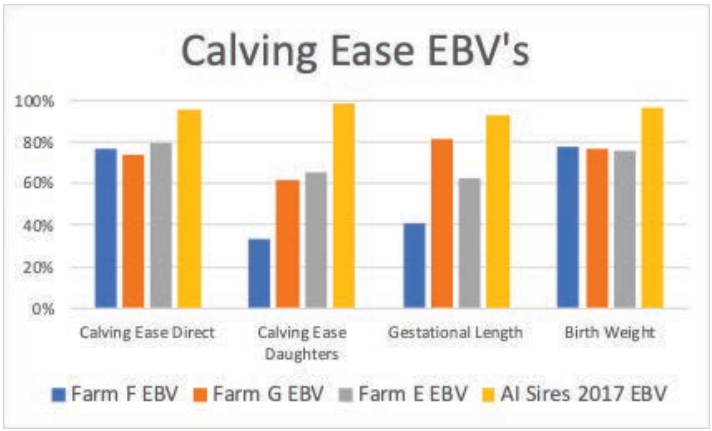


Figure 2 and 3: EBV averages of AI vs. natural sires in 1st year from 3 farms.

Dystocia, calf mortality, and heifer mortality were reduced on most properties and overall in the trial. Year 3 statistics are still being compiled. Overall, dystocia was reduced by 1.3% for a reduction of 18.9% compared to naturally mated heifers; calf mortality was reduced by 1.9% for a reduction of 37.4%; and heifer mortality was reduced by 0.4% for a reduction of 40.7%.

Calf Mortality	Integrated FTAI			Syndicate Mated			
Farm	Observed Calvings	Calf Mortality	% Mortality	Observed Calvings	Calf Mortality	% Mortality	Mortality Reduction %
A.1	128	8	6.3%	147	10	6.8%	8.1%
B.1	19	0	0.0%	18	0	0.0%	0.0%
C.1	19	0	0.0%	20	2	10.0%	100.0%
D.1	22	1	4.6%	22	3	13.6%	66.7%
E.1	29	0	0.0%	21	3	14.3%	100.0%
F.1	42	0	0.0%	31	0	0.0%	0.0%
G.1	89	4	6.7%	88	6	4.6%	-48.3%
A.2	131	2	1.5%	135	1	0.7%	-106.1%
F.2	41	2	4.9%	34	1	2.9%	-65.9%
G.2	73	2	2.7%	70	4	5.7%	52.1%
Total	593	19	3.2%	586	30	5.1%	37.4%

Table 3: 2018 and 2019 combined dystocia statistics per property between FTAI integrated and syndicate mated heifers

Dystocia Events	Integrated FTAI			Syndicate Mated			
Farm	Observed Calvings	Dystocia	% Dystocia	Observed Calvings	Dystocia	% Dystocia	Dystocia Reduction %
A.1	128	13	10.2%	147	10	6.8%	-49.3%
B.1	19	0	0.0%	18	0	0.0%	0.0%
C.1	19	0	0.0%	20	4	20.0%	100.0%
D.1	22	1	4.6%	22	7	31.8%	85.7%
E.1	29	2	6.9%	21	6	28.6%	75.9%
F.1	42	1	2.4%	31	0	0.0%	-100.0%
G.1	89	5	5.6%	88	4	4.6%	-23.6%
A.2	131	4	3.1%	135	2	1.5%	-106.1%
F.2	41	2	4.9%	34	0	0.0%	Div/0
G.2	73	4	5.5%	70	6	8.6%	36.1%
Total	593	32	5.4%	586	39	6.7%	18.9%

Table 4: 2018 and 2019 combined calf mortality statistics per property between FTAI integrated and syndicate mated heifers

Heifer Mortality	Integrated FTAI			Syndicate Mated			
Farm	Observed Calvings	Heifer Mortality	% Mortality	Observed Calvings	Heifer Mortality	% Mortality	Mortality Reduction %
A.1	128	2	1.6%	147	2	1.4%	-14.8%
B.1	19	0	0.0%	18	0	0.0%	0.0%
C.1	19	0	0.0%	20	0	0.0%	0.0%
D.1	22	0	0.0%	22	2	9.1%	100.0%
E.1	29	0	0.0%	21	0	0.0%	0.0%
F.1	42	0	0.0%	31	0	0.0%	0.0%
G.1	89	0	0.0%	88	1	1.1%	100.0%
A.2	131	1	0.8%	135	0	0.0%	Div/0
F.2	41	0	0.0%	34	0	0.0%	0.0%
G.2	73	0	0.0%	70	0	0.0%	0.0%
Total	593	3	0.5%	586	5	0.9%	40.7%

Table 5: 2018 and 2019 combined heifer mortality statistics per property between FTAI integrated and syndicate mated heifers.

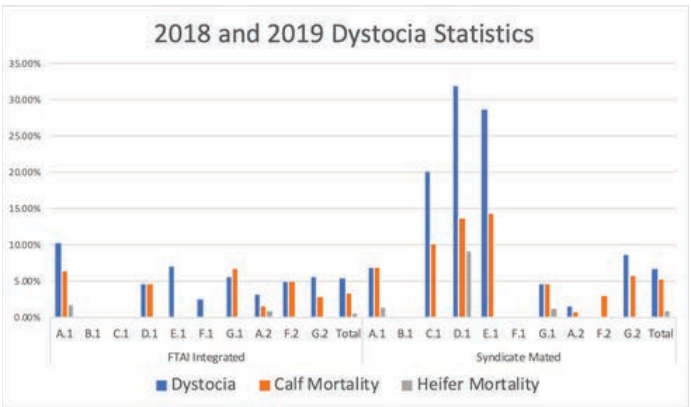


Figure 4: 2018 and 2019 combined dystocia and mortality statistics per property between FTAI integrated and syndicate mated heifers.

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Weaning Weights

Whilst it wasn't specifically part of the trial due to the logistics involved, we were able to collect weaning data from 5 sets of calves allowing us to estimate weaning weight advantages from the calves born from the heifers enrolled in the FTAI group w/ natural cover vs the calves born from the heifers which were only naturally mated. The average weaning weight advantage to the calves born from the FTAI group was 14.3 kilos, with a weighted average of 13.1 kilos.

	FTAI Integrated		Syndicate Mated		
	Number	Average Weight	Number	Average Weight	Difference
Farm D.1	20	305	18	285.7	19.3
Farm F.1	42	345	31	329.5	15.5
Farm G.1	75	335.1	81	329.1	6
Farm F.2	**39**	**313.9**	**34**	**303.9**	**10**
Farm G.2	**64**	**313.6**	**62**	**293**	**20.6**
Farm Average		322.5		308.2	14.3
Weighted Average	240	325.1	226	312.0	13.1

Table 6: Weaning weight averages from calves born from 5 properties in Year 1 and 2.

Rebreeding Rates

One of the most critical hurdles in a young cows life is getting back in calf the second time. The synchronization program associated with the FTAI groups brought the average calving date forward significantly. Close to 70% of the calves were born before the due date from the heifers enrolled in the FTAI program and backed up with bulls compared to those only naturally mated.

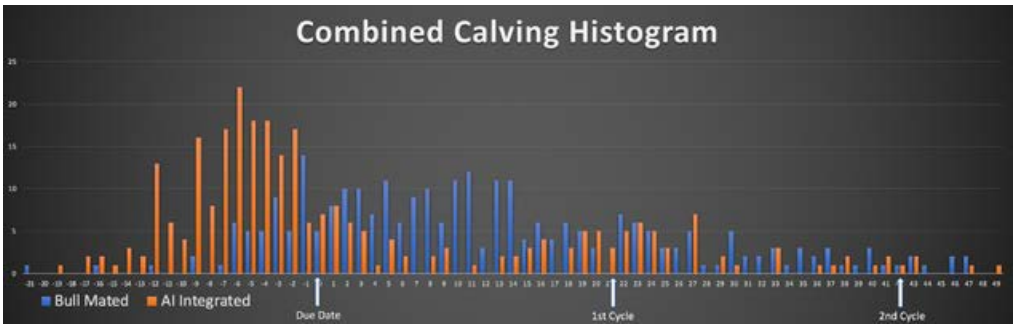


Figure 5: Combined calving distribution of the heifers enrolled in the FTAI program backed up by bulls vs. heifers mated exclusively to bulls over the same mating period from Year 1.

The subsequent conception rate of the heifers were significantly better amongst the FTAI integrated heifers vs. those naturally mated. 3.7% more of the 1st calvers which had been AI'd as heifers went on to get back in calf their second time for an overall improvement of 25.8% fewer empty heifers compared to those naturally mated as heifers.

The PDS has been a great success here in Esperance. All producers involved in the PDS have expressed strong interest to continue integrating FTAI in their commercial heifer mating programs. In fact, many producers pulled out of the program, forgoing subsidies, in order to integrate FTAI over their entire heifer mating programs prior to the close of the PDS! The results of this PDS are already having a profound impact here in Esperance, but may influence beef producers across the entire country and possibly further!

Good on ya Esperance Beef Producers!

	FTAI Integrated			Syndicate Mated			
Farm	Joined	Empty	% Empty	Joined	Empty	% Empty	% Reduction in Empties
A.1	126	6	4.8%	145	9	6.2%	23.3%
C.1	**21**	**3**	**14.3%**	**21**	**4**	**19.0%**	**25.0%**
D.1	22	0	0.0%	22	1	4.5%	100.0%
E.1	55	3	5.5%	55	11	20.0%	72.7%
F.1	34	6	17.6%	37	5	13.5%	-30.6%
G.1	86	6	7.0%	83	7	8.4%	17.3%
A.2	**138**	**29**	**21.0%**	**148**	**34**	**23.0%**	**8.5%**
F.2	**40**	**7**	**17.5%**	**35**	**4**	**11.4%**	**-53.1%**
G.2	**70**	**3**	**4.3%**	**54**	**11**	**20.4%**	**79.0%**
Total	592	63	10.6%	600	86	14.3%	25.8%

Table 7: The number of 1st calvers joined per farm and the pregnancy rate statistics per farm between those in the FTAI integrated or syndicate mated group as heifers

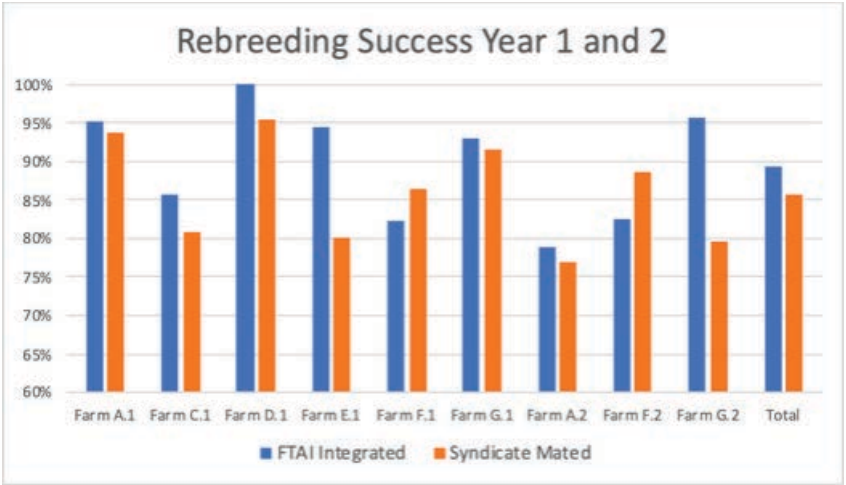


Figure X: Pregnancy rates at second breeding opportunity as 1st calvers as a function of management strategy as heifers.

Contact:
Dr. Enoch Bergmen
0427 716 907
Swans Veterinary Service

Swans Veterinary Services

Balancing Pasture Growth for Grazing

Article by Summit Fertilizers

In nitrogen (N) deficient pasture situations, ryegrass will respond well to autumn and winter applications of 1-2 units of N/ha/day. We'd recommend farmers let their ryegrass grow to 2.5 to 3 leaves/tiller before grazing, not only for better overall pasture production, but also for animal health reasons.

Deferring grazing of ryegrass reduces the risk of grazing animals contracting HypoMagnesia (Grass Tetany - when serum magnesium levels fall below a critical level) and Hypocalcemia (milk fever - reduced blood calcium levels).

That's because important cations (positively charged ions) like potassium (K), calcium (Ca) and magnesium (Mg) compete for uptake into small ryegrass plants. K uptake occurs readily from the soil if supply is good and this is usually to the detriment of Ca and Mg uptake.

K is usually in abundance in small ryegrass plants. As the ryegrass plant continues to grow and is allowed to reach the 3 leaf stage, Ca and Mg concentration in the plant increases, effectively diluting the K concentration, which in turn reduces the risk of animals grazing the ryegrass succumbing to the metabolic issues mentioned above.

Clover in the Pasture

Many growers like to see clover in their pastures and believe 30 to 40% legume content provides a more healthy and balanced diet than a straight grass pasture.

Regular applications of N fertilizer or N released by soil mineralisation generally favours grasses and broadleaf weeds at the expense of legumes, and the legume content will be reduced by this faster growing competition.

Another factor to consider is that including legumes in mixtures with grass lowers the amount of N fertilizer required for the pasture. Growers need to adjust their rates to accommodate for this and make sure phosphorus (P), K and sulphur availability is good.

Analysis

So when considering the nutritional needs of pastures, it's difficult to generalise without knowing the location, soil type, growers objectives and any occurrence of specific nutrient deficiencies. Soils are inherently variable due to both geological processes and historic fertilizer applications.

For these reasons, soil and plant testing is essential to determine which nutrients are needed and in what amounts for optimal production.

Summit has an extensive range of pasture fertilizers that can be viewed on the Summit website, or growers can contact Tim Donkin or Nick Donkin for more information.

Nick Donkin – Area Manager: Esperance East, 0428 715 045, ndonkin@summitfertz.com.au
Tim Donkin – Area Manager: Esperance West, 0408 092 355, tdonkin@summitfertz.com.au

Keep horns trimmed to prevent injury

Article by DPIRD

The Department of Primary Industries and Regional Development advises livestock producers to keep the horns of cattle and sheep trimmed, particularly in animals where there is a risk of the horn becoming ingrown. Trimming the ends of horns is a straight-forward procedure and helps ensure the horn doesn't penetrate the skin, resulting in a painful injury.

If left untreated, injuries such as these can eventually penetrate the animal's skull. Transporting an animal in this condition can then cause further suffering.

Horn trimming should be undertaken with care, following the relevant Codes of Practice. The Model Code of Practice for the Welfare of Animals: Cattle and the Code of Practice for Sheep in Western Australia: Sheep advise that inward growing horns should be trimmed appropriately to avoid injury to the animal, and without cutting into sensitive horn tissue.

Failing to trim the horn is a possible offence under Section 19(3)(h) of the Animal Welfare Act 2002. On conviction, the offence carries a minimum penalty of $2000 and a maximum penalty of $50,000 and five years' imprisonment.

Owners of livestock need to regularly check their animals for any potential welfare issues and, more importantly, take action if they notice something. However, transporters also have a responsibility to ensure that animals they received are fit for transport.

Any animals that are presented with an ingrown horn should not be transported until they have had the horn trimmed and have recovered from any injuries.

If the horn has penetrated the skull, it should be trimmed in accordance with the advice of a veterinarian, or the animal should be humanely euthanised. Ultimately, if there is any doubt, animals should not be accepted for transport.

Ag Department looking to increase disease surveillance

Dr. Katie Kreutz BSc BVMS, Swans Veterinary Service

Swan's Veterinary Services have received notice that the Department of Primary Industries and Regional Development (DPIRD) is looking to increase its disease surveillance through post mortems.

If any producers are experiencing unusual symptoms or multiple deaths in their herds we urge them to contact us at Swans Vet as DPIRD's "Significant Disease Investigation" subsidy covers almost all costs associated with investigation and laboratory work and in these times travel subsidy may exceed the standard 200kms.

Biosecurity and the power of the one

Article by Jennifer Manyweathers (Charles Sturt University) and Erica Ayres

You don't need to look far to see the power of individuals in the control of diseases. The decisions you've made to stay home and physically stand apart have paid off with the massive reduction in active cases of COVID-19 around Australia. That's how biosecurity works.

Biosecurity actions decrease the likelihood that a disease will come into the country, region or your farm. If it does come, biosecurity actions minimise the spread. COVID-19 has given us a chance to experience the power of biosecurity actions.

Animal diseases work in the same way. With African swine fever in Timor Leste and Papua New Guinea, and the threat of foot-and-mouth disease (FMD) ever present, it is a good time to think about how your enterprise can prevent disease entry and minimise spread.

For ASHEEP member Erica Ayres, these issues has been front of mind for some time, through her participation in the FMD Ready Project's* sheep pilot group in Esperance. This pilot group is one of five across Australia - one for each FMD-susceptible livestock species – that is working to improve livestock surveillance at the farm level.

In February, Erica joined producers from the other pilot groups at a workshop in Canberra. The chief veterinary officers from Western Australia, Queensland and New South Wales and other government and industry representatives were also in attendance. Discussions topics included the progress of the pilot groups in strengthening relationships between government, industry and producers.

Erica came away from the workshop with some key insights about her region's preparedness for an emergency animal disease. "The meeting reflected the very powerful position our district is in with regard to educating and actioning good biosecurity practices. ASHEEP being an already established and active group of producers and other industry members is a huge advantage," said Erica.

"The broad cross section of the pilot group has helped identify new risks and mitigating strategies not previously considered. We have educated around FMD itself but also the vital importance of strengthening surveillance systems on farms when unusual signs of disease are seen."

"Our biggest ongoing challenge is the lack of government representation at a local level. Local knowledge and trusting relationships between producers and government representation is critical."

With the FMD Ready project due to be completed at the end of 2020, the pilot group is developing strategies to build strong, trusting, sustainable relationships, crucial for a rapid and effective response to any disease outbreak.

For more information about the project, visit https://research.csiro.au/fmd/.

*This project is supported by Meat and Livestock Australia, through funding from the Australian Government Department of Agriculture, Water and the Environment as part of its Rural R&D for Profit program and by producer levies from Australian FMD-susceptible livestock (cattle, sheep, goats and pigs) industries and Charles Sturt University (CSU), leveraging significant in-kind support from the research partners. The research partners for this project are the Commonwealth Science and Industrial Research Organisation (CSIRO), CSU through the Graham Centre for Agricultural Innovation, the Bureau of Meteorology (BOM) and the Australian Department of Agriculture, Water and the Environment, supported by Animal Health Australia (AHA). The project commenced in July 2016 and will conclude in June 2020.

Charles Sturt University

WA Shearing Industry Association Update

Valerie Pretzel, WA Shearing Industry Association (Inc)

Workforce Matters A Priority

WASIA is working with the State and Federal Governments to find solutions to allow seasonal shearing staff from New Zealand to come and work in WA for the spring shearing season. The shearing industry is reliant on seasonal shearing staff from New Zealand to bolster the local shearing workforce.

Obviously come July when we start up for the busy Spring shearing season, the current WA state border closure will have an impact on servicing the State's wool harvesting requirements.

We ran a survey amongst shearing contractors to get data on the number of New Zealand shearing staff required, numbers of shearers and shed staff and timing. From 48 responses we found that 341 shearing and shed staff would be needed from New Zealand, with most being needed from July/August.

Government is being asked for assistance in considering solutions that will allow shearing staff from New Zealand with jobs to come to, exemptions to enter Australia and WA based on "specialist skills not available in WA". We will be competing with other states for this workforce, however many NZ workers have a history of working with particular WA contractors every year.

WASIA is working with the National Agricultural Labour Advisory Committee with Wool Producers Australia, Sheep Producers Australia, the National Farmers Federation, the AWU and the Federal Department of Agriculture to discuss this issue at a Federal level.

Support from woolgrowers will assist in highlighting this issue to the government so any letters to your local members citing the efforts of WASIA would be helpful. We hope to progress these strategies such that we can prepare our workforce in time for Spring shearing.

COVID-19 Shearing Protocols

WASIA has been very proactive with members during the COVID-19 emergency and developed Shearing Protocols that allowed teams to continue operating as essential services. The ASHEEP office receives all of these tools and guidelines and these are available to all ASHEEP members.

Annual General Meeting

WASIA is hoping to run the AGM on July 26 and as group member's of WASIA, ASHEEP members are welcome to come along. Details will be sent out by ASHEEP nearer to the time.

ASHEEP is a group member of the WA Shearing Industry Association and full details of WASIA services are available from the website www.wasia.com.au or you can contact the WASIA office by calling 0412 227 252 or emailing to admin@wasia.com.au.

Shearing Protocols in response to COVID-19

WA SHEARING INDUSTRY ASSOCIATION (INC)

- ➔ Your health & safety is the priority
- ➔ Follow Government guidance – 1.5m social distancing requirement
- ➔ We expect you to work safely, work safely or don't work at all
- ➔ If you are unwell you need to 'stay home'
- ➔ Only essential operating personnel in sheds
- ➔ Follow strict hygiene - make it your normal routine

What YOU need to do to keep healthy

1. Maintain a 1.5 Meter Distance between each other at all times in the shed and quarters

- ❑ Consider that you will need to slow down and be mindful of other people
- ❑ Accept lower productivity– your safety & welfare takes precedence over tallys in this environment
- ❑ You are under no obligation to continue to work - If you are nervous and don't want to go to work, please talk to us, so we can plan for future work
- ❑ You are free to bring your own food if you choose – let us know
- ❑ Remember to isolate each night and on the weekends in town – go home, don't visit mates & extended family, no congregating at the quarters for any reason
- ❑ Wear gloves or wash hands after you go to the roadhouse on the way to work

2. Practice strict personal hygiene regimes

- ❑ Wash frequently with soap and water, before and after eating, smoking and after using the toilet
- ❑ Bring your own soap & towel to work
- ❑ Don't share cups, water bottles, towels, smokes or shearing gear
- ❑ Bring your towels and gear in a bag. Don't fling towels over the seats in the bus. Keep gear separated.
- ❑ If you sneeze or cough do it into a towel, alternatively lift your singlet /shirt and place over your nose
- ❑ Meals/smokos – ensure you maintain 1.5meter spacing in all eating areas this may mean we have to eat in shifts in the mess
- ❑ Absolutely NO spitting anywhere

What WE are doing to keep you healthy

1. Changes to normal shed practice

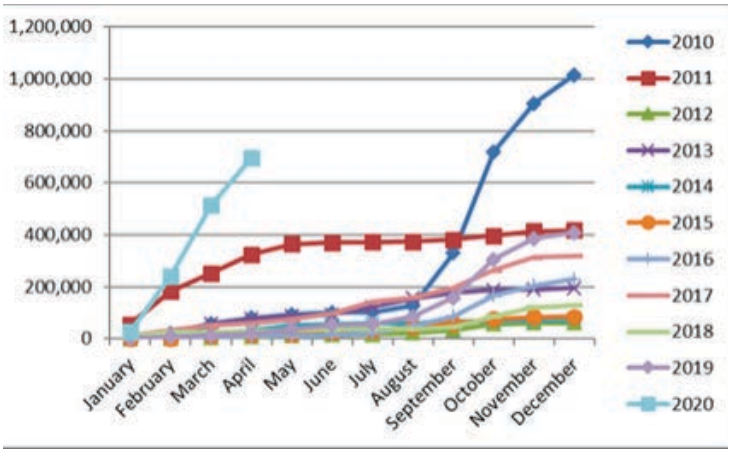
- ❑ Maintain a 1.5m personal distance while travelling, the big buses can provide 1.5m space.
- ❑ Staff that reside together may travel together in a private vehicle if they choose, no one else from another residence in a private vehicle.
- ❑ Woolhandlers wait until the shearer is in the catching pen before they pick-up
- ❑ Woolhandlers not to bend down and remove crutches – use the broom and your foot
- ❑ Only using every second shearing stand if there is not a 1.5m distance between stands
- ❑ Shearer must wait for roustabouts to clear their stand by 1.5m before they drag out of pen
- ❑ Woolhandlers must not press a shearers counter or turn off a stand
- ❑ Woolpressers are the only ones to touch the lunchbox and they will lay out the food.
- ❑ We are encouraging the growers to communicate with pressers and classers by phone – and not come into the shearing shed, especially older farmers, farm staff and families

Sheep numbers going over east

Good prices and strong demand has seen an increase in the flow of sheep from WA to the eastern states. ASHEEP asked DPIRD Research Officer, Kate Pritchett, for an update earlier this month and the answer that came back was that interstate trade has been going 'gangbusters' this year.

As of 19th May 2020, Kate reported that COVID-19 had not impacted the interstate trade at all. Since the rain in the east and also due to the dry summer/autumn in WA, sheep have been flowing out across the border.

In April, 182 400 sheep were transferred east from WA, down from 274 300 in March. This brings the 2020 total so far (Jan-April) to 696 200. Of this, approximately 55% have been lambs and 45% have been adult sheep. On a financial year basis we have surpassed the 1 million mark, with a total of 1.05 million sheep and lambs trucked east between July and April 2019/20. The only year with a higher rate of transfer was 2010/11, when 1.24 million had moved by this time of year. At time of print, May figures were yet to be released and it will be interesting to see if recent rains in WA have slowed the transfer down.



Q Fever: Notice from WorkSafe WA

Julii Gaunt of WorkSafe, WA, has recently shared the following information related to the risks of Q fever in the livestock industry. Julii reported that although there are not a large number of reported cases in WA, occasional outbreaks occur from time to time and it is appropriate to conduct a risk assessment for the risks in your workplaces.

Q fever is a bacterial infection that spreads to people from animals, commonly causing a flu-like illness that can be severe. In some people it can cause ongoing and potentially serious health issues such as chronic Q fever, post Q fever fatigue syndrome and pregnancy complications. People most commonly become infected with Q fever from contact with cattle, sheep and goats but other animals, including some domestic, native and feral animals can also spread infection to people.

The bacteria are found in the urine, faeces, milk and birth products of infected animals and are very hardy, surviving for a long time in the environment. People usually become infected by breathing in infectious dust and aerosols. In a workplace, a person should not be exposed to a hazard, therefore in relation to the hazards of zoonoses in animals, an inoculation is given to the animals to prevent them from contracting diseases.

In the case of Q fever, there is no inoculation available for the animals, but persons can be inoculated, once that person has been tested to determine whether they have had previously been exposed to the disease, and have therefore developed an immunity.

As to the measure of actual risk to a person in a workplace, an Employer should access the information from the Department of Health WA, in conjunction with reading any related documents and then make an informed decision on how to eliminate, or manage the identified risk. I include links to assist you.

- Dept. of Health https://ww2.health.wa.gov.au/Articles/N_R/Notifiable-infectious-disease-report?report=Q_fever
- WorkSafe https://www.commerce.wa.gov.au/worksafe/zoonoses

Vaccination eliminates the risk, however good hygiene habits can minimise the risk.

A risk assessment for your workplace will assist you in determining the level of risk for persons in your industry, and the most practicable means to mitigate the risks.

Safe Work Practices

You should implement safe work practices, such as those below, to help eliminate or reduce the risk of Q fever transmission:

- Provide necessary information, instruction, training and supervision about Q fever to enable your employees to perform their work in a way that is safe and without risks to health.
- Arrange for personal clothing to be stored away from any work clothing that may be contaminated (work clothing should not be taken out of the workplace to prevent Q fever exposure to others outside the workplace).
- Prohibit eating, drinking, smoking, and nail-biting in animal holding or processing areas.
- Require employees to thoroughly wash their hands before eating, drinking, smoking in designated areas, before going to the toilet and at the end of each shift (to prevent Q fever exposure to others outside the workplace).
- Clean and disinfect work areas regularly and ensure drainage is adequate.
- Implement an appropriate first aid program to ensure employees with open wounds are treated quickly.

Contact Julii Gaunt for further information on 08 9722 2834, 0429 010 402 or julii.gaunt@dmirs.wa.gov.au

Notice of Upcoming AGM

COVID-19 has prevented some ASHEEP field days and events from being held in the usual order of things. The annual AGM and Conference typically held in June will not be going ahead.

ASHEEP's constitution allows for the AGM to be held later in the year and as such the Committee has made the decision for the AGM to be combined with an upcoming field day.

At this stage we plan to hold a Cattle Field Day, Winter Walk and Spring Field Day in coming months, COVID-19 restrictions allowing. Notice will be provided of the date of the AGM in due course and we hope you will be able to join us.

If COVID-19 restrictions fail to lift or are re-tightened, we have the option of holding the AGM via Zoom videoconferencing. So everyone be vigilant with social distancing and stay COVID-free so that it doesn't come to that!

WALRC Newsletter

Subscribe to the WA Livestock Research Council newsletter.

www.walrc.com.au
admin@walrc.com.au
0418 931 938

JUNE

Next ASHEEP Committee Meeting is scheduled for June 2020.

Contact a committee or staff member by 5th June to raise an item.

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