Heather Field:

Our webinar today is on managing seasonal variability in the Victorian sheep industry. In this webinar, Dr Jason Trompf from Lambs Alive will discuss the impacts of climate variability on farming businesses and highlight opportunities to improve business resilience in a variable environment.

Heather Field:

Following Jason's presentation, we will also hear from Tim Gubbins, who is the Farm Manager at Terinallum, who will tell us a bit about his property and share what flexible strategies he has applied in his business and what tactical decisions he has made to adapt to the variable seasons.

Heather Field:

So a bit about Jason, Jason Trompf has been working as an agricultural consultant for over 20 years. Working nationally, Jason has had significant input into the design, delivery, and evaluation of a range of farm management programs which are widely recognized for the impacts that they have achieved by lifting productivity and profitability on farm. Jason has extensive experience in lamb survival, consulting with and presenting to producers around Australia and New Zealand. Jason has been also associated with BestWool/BestLamb and Better Beef programs since their inception as a group coordinator and, in recent years, the Producer Chair of the network programs.

Heather Field:

We are very excited to have Jason present for us today, and with over 100 people registering there's definitely a lot of interest in this area. So over to you, Jason.

Jason Trompf:

Am I coming through loud and clear, Heather?

Heather Field:

You certainly are.

Jason Trompf:

No worries, thank you and thanks very much to you and the Ag Vic team for getting me organized and I know Lyndon Kubeil will be listening in the background as well. Thank you very much for having me part of your forum today, this topic area of trying to be productive but adaptable is a real passion of mine.

Jason Trompf:

I know lots of farmers throughout Victoria, particularly in the sheep industry, we are presented with this task of really having a highly productive system but one that can flex with seasons. That variability of the seasonal conditions is something that has been apparent for a long time but appears to be being exacerbated as time goes on. Particularly things like temperatures rising and the impacts that that's having on the shoulders of our growing season, the net result being in a lot of cases it's shortening up the length of our growing seasons with more variable autumns and cut off springs.

Jason Trompf:

The challenge is how do we play our game in relation to this variability? I know a lot of the listeners that are on aren't necessarily sheep farmers from Victoria and it's really great that you're getting the chance to have a look at what a range of industries are doing. I do feel that the sheep industry throughout South-East Australia is this adaptability focus is a flavor that's been running for a while. I think it's something the industry is reasonably progressed in but still lots of room for improvement.

Jason Trompf:

Probably what I'll do in the first instance is just talk a little about the need to be adaptable, i.e. how variable seasonal conditions can be. Now obviously I can't talk to every listener out there and exactly their environment so I'm just striking for a 500mls median rainfall environment. Some listeners will be getting more, some listeners will be getting less on an annual basis but the purpose of the first part of my talk is to talk about what we call knowing your enemy. How variable is in your environment and what's the implications of that potentially on your system?

Jason Trompf:

Then I'll talk to you a bit more about the components of a production system that we can really introduce this adaptability in. A big part of that is around the mindset of the producer but there's a lot of different components we'll talk about.

Jason Trompf:

So if we kick things off, if my slides will progress, which is not great... Yes, thank you. In all production systems we know there's a desire to run more animals. The slide is titled "We know there's money in stocking rate" but to a point. This is for a 500mls rainfall environment, so no need to worry about the detail on the axis. Stocking rate, the profit generated from running more animals, increases to a point and then eventually the marginal return from running those animals is outweighed by the marginal cost. Typically, this is how things have been presented over time. What I'm more interested in is the variability around that so, rather than looking at the long-run average season, how does the system flex when you get really varying seasons.

Jason Trompf:

This is actual pasture growth rate measured from the 500ml rainfall environment. What you can see across this dataset that runs for 30 years, if you look at the green year they've grown 10 ton of drying matter per hectare in that year yet in 2009, being the red year, they've grown five ton in exactly the same environment. Here we have this need to be highly productive, but one year you could grow twice as much feed as another time based on the rainfall and the seasonal conditions. Clearly when it grows and when it rains during the season is of great value as well and something, Heather, that we talk about in a bit more detail when we're breaking this up in a smaller workshop environment.

Jason Trompf:

This is where you look around the average pasture growth rates across the season on a monthly basis. If we highlight what the green and red year looked like around that average, I want you to picture you're a sheep farmer that's lambing in the first of June. What you can see is in the green year, which I think was 2011, you could lamb down those ewes with no supplementary feed. You had nearly three months of, on average, 30 kilos of growth rate per hectare per day so you had 1500 kilos of feed. Yet in 2009, the first of June basically all of you've got is bare ground, it's interesting. I mentioned the time of reproduction because that's one of things and how that interacts with this variability that's a real challenge.

Jason Trompf:

You can also see in both those years, one year we had a green Christmas, the other we were dried off in this environment by the first of November. Easily you can have a two to, at times, three months range in when your pastures due to when the season finishes. That has huge implications on production system.

Jason Trompf:

What I've thrown up here is some modeling work that John Young has done, looking at median rainfall environment. There's a bit of detail in this slide but basically what he's done is look at the long-run average rainfall of around the 500mls, how many tons were grown on average, which was about eight ton, and the optimum stocking rate through his modeling is around 15 DSE per hectare or 14 and delivering a handsome stocking rate. You'll see if you throw at the same location a good year, where they get nearly 700mls of rainfall, that the optimum stocking rate then would be up near 20 and if you throw the worst year, or a poor year, and you only get 300 odd mls of rainfall in that environment then the optimum stocking rate is around 5 DSE per hectare.

Jason Trompf:

So what is a plus or minus 30 per cent difference in rainfall and pastoral production is exacerbated way beyond that when you look at it in light of the number of animals that can be run and the profit that's generated. What was interesting with this modeling was allowing the system to optimize to each of those systems individually. It wasn't taking the fixed settings that most farms have, that had generated their settings to suit the 500ml typical rainfall. In this case, he was really allowing the modeling to really tailor its solutions to that high or low rainfall year.

Jason Trompf:

If we progress from this point I suppose in reality it's not possible to hold your stocking rate to exactly match season but it is highly rewarding in a profit, in a coping sense, in a whole range of perspectives, to be able to proactively adjust stocking rate in a timely manner to meet seasonal variability, and it does impact on profit.

Jason Trompf:

What I wanted to do was re-present the black line we saw at the start, which was the typical relationship between stocking rate and farm profit, and that's typically how it's shared with farmers. Let's assume you'd heard one of those presentations and you said "Well, I'm going to set up my system to run about 12 DSE per hectare. Maybe not the 14 up at the peak of that curve but I'm going to set it up around 12." Then if we run that system, which in this case was a merino self-replacing flock, shearing the wethers twice and selling them at 17 months, if you were stocked at 12 DSE you can see that in the good year with those settings you'd make about $250,000 and in the bad year you'd lose almost $100,000. Hopefully my arrow is indicating that.

Jason Trompf:

The challenge we've got is yes, your long-run average profit goes up as you run more stock, to a point, but so does the variability of that return. So the challenge to the producer is as they intensify their system in the pursuit of being more productive, and particularly today when our land value has grown so much, labor time, the value of inputs and so on, the need to be productive is ever present but as is the need to be adaptable. We can see here that if we can manage those downside years a bit more effectively that will encourage us to be a little more productive over time and obviously minimize those losses in those tough times. There's a whole range of strategies to try and embark on, that's what I'll touch on today.

Jason Trompf:

In order to match your feed supply and demand, most systems have thought through what their optimum stocking rate is. We're spoiled in the sheep world, we have great work from the likes of Geoff Saul, done at the Hamilton Pastoral and Veterinary Institute and a whole lot of other researchers for a long period of time. They build on what was called the red trench model, where for every inch or 25mls above 10 inches, or 250mls, you could basically one DSE, that was the rule of thumb. So for every 25mls above 250mls, you could run one DSE. They've done a lot more work to look at fine tuning that to the length of the growing season, the size of the paddocks on the farm, and the soil fertility. You can go down into a tool like this and work out for your growing season environment what your optimum stocking rate would be.

Jason Trompf:

I know we're skipping through this today but there will be farmers online that are looking at this and they might think well, from the typical break to the typical time it dries off I'm in a six month growing season environment. I've got relatively small paddocks and I've done a lot of work on my soil fertility, that optimum stocking rate could be very similar if not a bit higher than the modeling we've been discussing. The message from this slide is that the closer you stock to the optimum, the greater the need to be adaptable because you've got more animals, a little bit more intensification of the system, but it's how you go about playing your game and adapting to that variability. Picture that environment, in one year you could grow 10 ton of feed, in another year you could grow five, and in a lot of cases we have thousands of animals dependent on the decisions that we're making.

Jason Trompf:

What we did in a piece of work close to 10 years ago. If Graham Anderson is online, he was part of other projects and our project team for the Australian government. We did a piece of work called More Lambs, More Often that really looked at what were the features of farms that were able to be productive in varying seasons. We combined benchmarking datasets and looked at... I think it was about 80 sheep farms in mixed farming zones, so there was some cropping overlay, and they were almost all merino enterprises. What we found was that when we studied the top 20 per cent of farmers, not in one year that's typically presented in benchmarking, but over a five or six year period, we found that what set the top performers apart was a consistently higher stocking rate in the order of about five to seven per cent, so they're productive.

Jason Trompf:

Interestingly a lot of benchmarking one year analysis land marking percentages are not associated with profit. In this case, the farms that were making better long run average profit they had, on average, 10 per cent higher marking percentage and on average they sold their surplus sheep and lambs for about 10 per cent higher than the average of the dataset. The conclusion of that was 80 per cent of the difference between the top profit farms and the rest over a five or six year period was tied up in their livestock trading profit, regardless of sheep breed type or enterprise type. So that's how many sheep you run, how many animals you can generate and then offer to the market.

Jason Trompf:

One of the great things we've got in the meat side of the market is a real diversity where you can sell those animals for a whole range of weights and ages. There appears to be, even for the oldest product in mutton, a insatiable demand globally for that product. We're producing an article that the world likes to consume, which is great.

Jason Trompf:

That's what sets the top farmers apart but how do they do it? What are the little things they do? I had the pleasure of interviewing a lot of these farms and what we learned was there was a whole series of strategies they implemented that allowed them to be more flexible. Things like they tended to lamb slightly later than the average of the dataset, where there was many farmers in the dataset who were lambing in the autumn or around the time of the average autumn break, whereas these farmers tended to be more winter and late winter lambers in the environments they were in. Genuine spring lambing was probably a little too late for these medium rainfall environments. Certainly some were lambing out in late August and the start of the lambing.

Jason Trompf:

The later lambing allows you to manipulate feed covers to hit your pasture targets for all those lambing ewes. What does that do? That means you can drive stocking rates, it means in the long run average you'll have a lower cost of production due to less supplementary feeding, you'll tend to have higher reproduction rates due to scanning and better lamb survival because you're in the breeding window a bit more. So there's a whole range of things that come together there but, in the theme of this subject, it's basically saying that what farmers are saying is typically it will rain a few weeks, sometimes a couple of months before I lamb. I've got time to manipulate the feed available to hit those pasture targets for lambing.

Jason Trompf:

Reproduction rates, what does that mean? Over time it means that you've got more animals to sell but, in the light of variability, if you're forced to sell down your breeding base at all due to bad seasons, you can rebound back to full production much quicker. If ewe long run average marking rate is around 80 per cent or less, you're barely self-replacing over time. What that means is if you're forced to sell down the breeding base, it's really hard to build back to full productivity or full flock structure in a quick period of time, whereas someone that's more like 110, 120 or more lambs marked, they've got some real adaptability.

Jason Trompf:

There's a few other themes there that I'm going to touch upon in the next part of this presentation, so I'll jump on to those, but certainly the genetics one is one of themes that I'll cover in a moment. If you do have any questions, type them in the chat box and we'll have a discussion about it.

Jason Trompf:

On farm strategies that enable flexibility, flexibility does allow greater consistency of profit. I think it's easy to be a downhill skier and, as a farmer, the good seasons to be productive and make money. It's the production systems that are allowed to get to make good profitability and make good sustainability decisions in most years that are the winners. It's about having strategies that will allow you to adapt really quickly to that varying circumstance. That could be within a season, from month-to-month, or it very much is from one growing season to the next, each one is unique.

Jason Trompf:

What we've done is we've built this program that coaches farmers through, and when Tim comes on in 10 minutes on so, he was one of the farmers that came through these workshops. It was about bulletproofing their businesses to climatic variability. The first component we talked about was knowing your enemy. So in this case, your enemy is this variability and varying seasons. I presented the medium rainfall message. We have information for lower rainfall and higher rainfall communities and part of why Heather's got the survey at the end is for any producers that are on there's an opportunity in that to highlight in any of questions whether you'd like to come to any of our follow up workshops this autumn and into the future.

Jason Trompf:

Where we spend most of the time in the workshop is on this section called adjusting your sights. I liken this whole package to the song "The Gambler"; it's about building your deck of cards and knowing when to hold them and knowing when to fold them. In this adjustability section it's about building your farm systems so there's a series of strategies in place that you can utilize if things are varied, and they're going to. A good example of that that's been widespread adoption, that Agriculture Victoria has promoted widely and supported of is the use of containment areas. I like using them as an example, and we've got some pictures of those coming up shortly, because they're a fantastic tool that most people have originally put in to protect their landscape.

Jason Trompf:

If it's a failed spring and the farm gets a bit bare in the summer or the autumn, we move the animals once we get into maybe, say, 20 per cent bare ground or so and the feed covers are getting down. We move them in to containment and it's much more efficient, it saves about 10 or 15 per cent of energy to feed an animal in that environment, it's not walking all over your farm wrecking your pastures and blowing all your topsoil away. People think stock containment areas is a tool to be used in drought years, if I use that term. Well absolutely not, the farmers that have put this in place are also using it, for example, you might be an early lamber and you've been fortunate to get some of these early rains or post your usual autumn break and you contain animals to build a pasture feed wedge like the dairy industry has done effectively for years.

Jason Trompf:

I liken some of these tools, like a stock containment area, to a great halfback flanker in football; they're someone that can tie down their payer if things are going against you but they can also turn the tide and give you a lot of drive in the other direction. As we're walking through this stuff and talking to Tim, I want you to think about the fact there's this ongoing need to be productive but there's this ongoing need to be adaptable. The other thing is, we've pinpointed when that hit your target section come hell or high water there's some key targets you need to hit, and particularly in the area of reproduction. Most sheep farms have moved towards all year lamb flocks. Nationally, 20 odd years ago, we used to have 55 million wethers. Now we have about five million. A much greater proportion of the Australian sheep flock are ewes and lambs. With that inherently becomes a set of challenges because you've got what we call reproductive DSEs and therefore we need to be really good at our proactive management.

Jason Trompf:

Dodging a bullet is about having a series of tactics you can implement because you've got the right strategies in place in the first place, tactic you can deploy when things go against you, and stock containment is just one. We built a tool called the flexibility indicator and the farmers, and we'll have Tim on shortly, he's got his chart and he's got his series of scores. We go through for a whole range of things, it will be hard to read that print, but for a whole range of areas for the business, such as enterprise structure, your feed demand profile and your time of reproduction and selling, your infrastructure, your animal management, your feed base, your genetics. All these perspectives were tried over a view of this productive system as to how adaptable it is.

Jason Trompf:

Before I jump into a few pictures of some of the tools that you can implement, the first and primary thing I think that's key that I mentioned up the front is the mindset and capability of those that are in control of management in the system. With this variability sure, you might have plan A and you might say well, I'm a prime lamb flock and I'm a winter lamber and we're targeting the supermarket trade with our progeny and we joined a few ewe lamps, for example. We've got to have plan B, C, and D up our sleeve because things change and they vary over time. Part of this score sheet really gets into the psyche of the farmer and their willingness to adjust things like time of sale, their willingness to pinpoint animals that may need to be sold if things don't work out.

Jason Trompf:

I'll run through a few pictures and then we'll have a chat to Tim. Enterprise structure is absolutely key, if you've not retained a wether flock at all or any dry DSEs, we need to have some tools up our sleeve if your flock is predominantly ewes and lambs. That's where the money's been so from a profit analysis running more ewes looks great, but from a flexibility perspective, it's not so great. So what are some of the things we can do to offset that? Such as the second dot point down here, identifying those lower quality ewes that can be sold first if the season goes against you. Part of the way of doing that in a self-replacing flock is to have some ewes go to terminal sires so at least they're anointed as being animals that if things did turn, you might have to sell them, they're not joined to your maternal matings that you're intending to keep the daughters.

Jason Trompf:

Having a trading enterprise as part of your DSEs is what we talked through. How far should you backfill your total DSEs in breeding DSEs versus something that's more flexible? So enterprise structure is just one of many areas we examine. We've already talked about that one. The need to match feed demand to supply, really thinking about your time of reproduction is something we discussed in a lot of detail.

Jason Trompf:

I understand the desire of people to lamb early in the season. Things like it ties into cropping, you're not in a long season environment, the other one that was very common is trying to really hit the early premium market for prime lambs. While I think on all of those cases I'd encourage any listeners that are lambing around or before their average autumn break to really consider the long-term implications of that. The market premiums for that August-September lamb are not what they used to be. If you study the last five years or so, with the advent of finishing systems in the lamb system has sort of spread out supply and demand. The lambs, I would really encourage people to consider the benefits of lambing a few weeks at least after their average autumn break for their region.

Jason Trompf:

For me where I farm up near Benalla, Wangaratta, the average break is mid-May, we commence lambing in the middle of June. That's still early because if we have a late break there's a challenge there. So we have some lambing in the middle of June and some lambing more in the middle of August. Split lambing is one of those things farmers can use as a risk management tool. You really need to walk through and examine your willing to flex in that situation with time of lambing, your willingness to sell animals at different times and so on. Infrastructure's another area we review these farmers on. Trying to understand their capability to protect their soil and pasture and be able to feed them efficiently. Water's another key resource. I'm flicking through this quite quickly just now but it's the sort of thing we go into detail in in the workshop.

Jason Trompf:

I just want to show a few pictures and then we'll get Tim on for a discussion. If I skip through a few of these photos, so here's the stock containment set up with young merino sheep, it has a bit of a troughing arrangement for feeding the animals. You can't see the farm but obviously the farm's pretty dry and in need of protecting that landscape and it's a very efficient way of feeding those animals. We look at the same sort of farm in a different time and the feed covers that are available and another adaptable tool is the use of electric fencing. These sorts of things are tools that farmers need to look at using and this helps to minimize mob size to drive lamb survival.

Jason Trompf:

Then there's a whole series of management practice tools, like condition scoring, like being able to energy budget, like pregnancy scanning your ewes so you understand their nutritional requirement of dry, single, or triplet, or twin bearing ewes and tailoring their nutrition to suit those things.

Jason Trompf:

I've just put a slide up of a farmer that was part of Lambs Alive network. This was in a merino flock, there's a lot of detail on this slide, but he scanned 157 per cent of fetus assisted ewes joined and he marked 141 per cent of lambs. That represented a 10 per cent lamb loss, which is about a third of what's normal. These sorts of tools can be used to build really high reproduction rates regardless of breed type and with that comes the ability to be really flexible. If you're challenged with converting those fetuses into live lambs there's a whole series of practices to help with that. And part of that, if I skip forward for a moment, is having a really productive pasture base, so really working on your feed base so when it does rain you grow feed. Here's some pictures side-by-side of farmed through the fence versus a productive pasture. There's a difference in density, there's a difference in species, in quality and therefore the amount of animals you can run and the quality of fodder you can conserve. Productive pastures is absolutely critical along with soil fertility and grazing management.

Jason Trompf:

The one I'll just finish on before I hand over to Tim is the need to build flexible genotypes and have animals that have multiple streams of income, grow and mature quite quick so they're like Black Caviar, not Phar Lap, so they're straight out of the box and give you options. Improve the reproduction rates of these animals and have the ability to come with the nutritional stress. In many cases that's required redesigning the animals, from the ram that's on the left to the ram that's on the right.

Jason Trompf:

One of the challenges in the merino industry is getting the balance right with wool production and doing ability. You can over wool an animal for its production environment, a resource savvy trade and something that has implications on the animal's ability to adapt. You effectively see progeny from those two different rams and we've been able to breed much more resilient ewes where we've got less wrinkle, appropriate wool production, much higher carcass merit, growth rate, and also robustness of things like worm egg count. We're building an animal that can cope with these varying times. You can even take that a step further and there's a merino ewe lamb with her twin lambs at foot having lambed down at 12 or 13 months of age. There'd be many listeners online that would be using more of a meat sheep and being able to achieve this sort of thing is much more doable, but we are doing research to understand some of the gaps.

Jason Trompf:

I might stop the presentation at this point, with this little picture, but certainly we need to be able to manipulate stocking rate quickly. We in many cases have got all ewe and lamb systems, what are your options to deal with that? There's a few listed there but I'm certainly not that flexible physically, Tim! As old mate on that slide, but the idea is in our mindset to be able to adapt as things change. I might just stop sharing the screen, Heather. You can still hear me Heather, everything going well?

Heather Field:

Yes

Jason Trompf:

Sit in there.

Heather Field:

It's going well. Thanks Jason for your great presentation. It's great to hear some of those ways that farmers are adapting and changing practices so they can manage those poorer years and still remain profitable. Its been great to hear that presentation and look forward to hearing what Tim's been up to. Welcome Tim.

Jason Trompf:

No worries, Yeah, thanks for joining us Tim. Tim and I have just been out condition scoring about 1,400 ewe lambs that we started on in a trial here 12 months ago, so they're just on their second joining. Tim, just explain to the listeners where we are on the map here today and the property that you're managing.

Tim Gubbins:

Yeah, so we're in South-West Victoria, sort of in between Derrinallum and Mortlake, about a 580ml rainfall, the farm's called Terinallum. Predominantly a composite ewe flock-

Jason Trompf:

About 10,000 ewes?

Tim Gubbins:

Yeah, yeah. We're joining a shade under 10,000 mature ewes and then a varying number of ewe lambs. We have a cropping program, there's a lot of good fertile cropping soil here that's quite arable. We probably crop anywhere from five to 900 hectares depending on what sort of feed we're looking for as well. We have a cattle trading operation as well, whether it's purchasing and selling cattle or agistment.

Jason Trompf:

Tim, we had a little bit of a crash course as you heard, you came to one of our workshops where we spend a whole day on all of those components and 50 or 80 people in the room and a whole lot of questions, which is great because each farm is unique, each location has its own set of circumstances. What would you say in your time of farming and managing farms on a large scale and with a team of staff. If you could pick three or four of the components that you think are critical before we get in to the review of you improving, are critical foundations to building a productive but adaptable sheep enterprise here in Victoria.

Tim Gubbins:

I suppose you start at the very basics and you have to quantify what you have. You can't manage something you haven't measured so those fundamentals have always been the same anywhere I've worked or where I grew up.

Jason Trompf:

Give us some quick examples of that measure to manage where you've actually, rather than just a drive-by, measured it rather than guessing it.

Tim Gubbins:

Very simply, you start with your pasture base; what is it, is it a rank annual sort of quick growing barley grass or have we got a good, robust, perennial Phalaris?

Jason Trompf:

I'm smiling about barley grass, it's good feed for half a year.

Tim Gubbins:

It is, very good feed. So, identifying that. We use pasture cages here and that's something that has come into the system. Part of this course-

Jason Trompf:

So with pasture cages, they're exploration cages so you take out the error of what the animals are consuming and you look at the pasture between two points in time so you can get monthly pasture growth rates.

Tim Gubbins:

Yep. I heard Jason talking earlier about the variability of seasons, so some years we'll grow on a highly vigorous annual rye grass nearly 10 ton of dry matter per hectare and some years we'll be growing three and a half to four ton. That's what we need to know, so it's taken a few years for me learning the system and learning from other managers and farmers.

Jason Trompf:

Pasture base is critical, measure to manage of that and the animals is critical. What else?

Tim Gubbins:

Absolutely. Once we've quantified that we work out what sort of enterprise we're running, so I've predominantly worked with sheep, and what sort of sheep are we running? I've come from a merino background and now running composites, and I'm actually feeling a bit intimidated by that merino slide you put up.

Jason Trompf:

Twin lambs.

Tim Gubbins:

With this composite we want to know how many we can officially run that's going to utilize our pasture base without eroding it.

Jason Trompf:

They are a very aggressive grazing animals, forage well one would say but there's times where they work your place a bit hard so things like containment areas, good infrastructure to handle the animal physically but also to be able to contain the animal if needed.

Tim Gubbins:

Absolutely! Infrastructure is those critical pillars, your pasture base, your stock base, your infrastructure is critical, and it's not just sheep handling facilities but your water and your ability to hold those animals on your farm. Good fencing, particularly for these animals that are good foragers, they'll forage the neighbor's place as well so you've got to have that infrastructure under control. I guess overarching this is really good passionate staff, good people.

Jason Trompf:

Testing their skills and abilities.

Tim Gubbins:

If you've got those other things right, people will want and work with you and they'll want to stay and learn.

Jason Trompf:

We're talking a bit about the reproduction period, Tim here did a Nuffield Scholarship on lamb survival. Clearly I am really passionate about lamb survival, as many of the listeners would know. Where do you think that fits in the spectrum of A) running a productive farm but an adaptable farm, this whole reproduction unit?

Tim Gubbins:

It provides you with your surplus stock, it gets you your selection pressure, your genetics, so you're actually really nailing what genetics you want, rather than putting up with-

Jason Trompf:

It gives you a choice.

Tim Gubbins:

-It gives you choice, yeah. We can talk about lamb survival and it's at times quite a hard thing to achieve, it's a cyclic thing, so you get your conception right and then you work on what's going to get you a good survival and then you get the selection pressure on those good animals that have lambs that survive and on it goes. Ultimately what's important, nutrition and lamb birth weight, basically.

Jason Trompf:

And a bit of work he's also done here in understanding his farm is the third pillar of lamb survival, around privacy and protection and really understanding how the animals behave here with the prevailing winds, some of the unique rock barriers... you call them amphitheaters, yeah?

Tim Gubbins:

Yeah, we do. When I first came here I had no idea what we were going to do with these rock barriers. It didn't grow a lot of grass but what it provided was an incredible shelter belt, because there's not many trees on this farm, it's actually treeless being a volcanic clay. We realized once we fenced them off into small areas, five to 10 hectares, it didn't actually matter the number of ewes we ran in there to a point, survival was phenomenal. We've been really targeting over the last few years, how do we make the best use of those areas?

Jason Trompf:

Conversely out in an open paddock we see with the prevailing wind and rain and chill factor that mobs of animal will congregate in a corner of the paddock and that compromises the privacy of the ewe and lamb bond as they lamb, whereas in Tim's amphitheaters it can be the worst conditions, I'd describe it as a rock barrier and then the animals are down in a lower areas underneath that barrier. Because they're not got those drafts and winds and that, they spread out and do their own thing.

Tim Gubbins:

This year was a phenomenal example, we had some really bad weather come through in September, we had a bit of snow, which is super rare, and we had all these electric fences set up to keep mob sizes low and stop mob drift so that ewe and lamb could vocalize. If the paddock's too big or there's an obstacle in that paddock, the second they lose sight or sound of each other that bond is pretty much gone. I saw this year, I went out in that weather, we had ewes that had drifted to the electric fence. Had that not been there we'd have just one giant mob in the corner of the paddock with all their lambs left behind.

Jason Trompf:

Absolutely, and then of course if that goes on for a day or two they keep lambing and it's not more fresh lambs. We're trying to really build a good effective nursery environment. Tim came along for his workshop and he's got the old homework sheet from a year or so ago, and we'll just have a quick chat about this and then the last ten minutes or so we'll open up for questions.

Jason Trompf:

Tim, what were the things that came up as your area of strength and then we'll talk about your areas of improvement. I think it's important, you need to be able to capitalize at what you're good at and then maybe fold in some of the edges to improve things. What are the areas you invested in, either you or the farm, that you are strong in?

Tim Gubbins:

We came up really well... and I've spent a lifetime's work trying to get it right, we came up strong in animal management, so that was something that's always been a strong focus of mine.

Jason Trompf:

So that's like scanning the ewes, feed budgeting, being able to do the whole measure to manage, a whole range of things there, with a total score out of 70, self-assessed of course, Tim, you gave it about 68 or 70.

Tim Gubbins:

So we're happy with that but I bumped it as a perfect score because they never happen.

Jason Trompf:

And your feed base, this farm's got awesome soil fertility.

Tim Gubbins:

This farm is a phenomenal farm for growing good high quality grass. We can have a very tight finish here though, and that's where I have wanted to increase the area of deep-rooted perennial, essentially just to extend that growing season.

Jason Trompf:

So if we extend from that literally to where you needed to become a bit more adaptable and your scoring didn't go as well, part of the area was in this volume of animals, 10,000 ewes and their progeny, plus the other stuff, and this fact that the springs can fluctuate a bit and you grow a lot of grass as a proportion of year in the spring. What did this review encourage you to look at there?

Tim Gubbins:

I was taking on a lot of agistment to capitalize on the grass I'd grown in the good spring and early autumn breaks in the spring. Problem was, I wasn't getting them off quick enough, I was coming in to the end of spring with a huge DSE loading on this farm. And the other big one, we have recognized it but we keep seeing this little bit of feed, we think well, we'll keep more store lambs on and finish them and every year it cruels us. We think yep, we can finish these and we can-

Jason Trompf:

You went and saw some opportunity today-

Tim Gubbins:

Yeah, we did, absolutely-

Jason Trompf:

-Where the young, recovering ewe should be taking a place on your finishing pastures or your summer crop or chasing the rain.

Tim Gubbins:

Unfortunately, for whatever reason, we go hard early on stores and then think oh, we've got a good feed. And we do, we've got a good budget but what we've probably not got a great handle on is how much moisture is under that summer feed we've put in and how quickly we are actually getting through that feed base.

Jason Trompf:

Certainly with the advent, again, Agriculture Victoria's done a lot of great work with the soil moisture monitors, we're part of the network on our own farm up in the North-East, it's a way of quantifying that and I think it's an area the cropping industry is a step ahead of us. I think that's great with the forum Heather's organized today, we've got different industries looking at things.

Jason Trompf:

I think things where we've progressed a bit is in pragmatic tools that farmers can review things, rather than talk about it, and think about how they can deal their deck of cards a bit better, but I do think we can learn in the sheep industry, for sure, from other industries about, again, soil moisture monitoring. You can use it as an attacking tool, what response would we get to the use of a growth promotant if we've got the right soil temperature, moisture and so on. Conversely we can use it to inform how quick that spring's failing. Around final times for footy it's make or break for footy, it's make or break for your rainfall, and so we can use the combination of that soil moisture monitoring with the forecasting, and I see Graham Anderson slipped a comment into the chat and have you got any words on the seasonal forecasting? Is that a tool in the spring you'll look at it a little bit?

Tim Gubbins:

I'll give you a classic example, there was a La Niña forecast this year and we knew there was a La Niña forecast so we increased our summer cropping area to grow grazing grass, we increased that by 100 per cent. We've got close to 300 hectares of summer crop in purely based on the long-term forecast.

Jason Trompf:

There was a quick question about what's the size of your small electric fence paddocks and how many ewes are in them so maybe just give us a typical example of one?

Tim Gubbins:

I've sort of mucked around with it, around that....

Jason Trompf:

70?

Tim Gubbins:

Yep, 70 ewes but seven to 10 twin bearing ewes to the hectare, and no more than a hundred. 100 is a key number, no more twin bearing ewes than a hundred, but we match it to feed. It might come right back down to 40-

Jason Trompf:

Depending on the ..

Tim Gubbins:

-Yeah, but those electric fence paddocks, we split a 25 hectare paddock into four because the feed base in there was actually so good. It was an oat [inaudible 00:46:28] mix, it was actually going to provide some shelter in itself, so we used that as welt.

Jason Trompf:

I was wondering generally how flexible sheep farmers are in terms of making adjustments for climatic variability. Also, do farmers have enough awareness of these strategies and tactic?

Jason Trompf:

Maybe talking in general, how do you fill other producer in the community about the need to be flexible?

Tim Gubbins:

I'll give you a great example, I've got a new management and with that has come a lot more talk about containment, and so containment answers that question precisely. You said earlier you don't want to go too deep into your breeding ewes so it gives you an opportunity to protect your natural assets, you're leaving some ground cover so you're not getting erosion. We've seen the language with sheep farmers in general change. You go down to the milk bar, down to the pub, whatever, and people are talking about food, so feed on offer, they're talking about conditions for their animals and they're talking about how much they feed, how much they've had, how much it's measuring and how they're going to manage it into the autumn break. That language has changed in probably now the last 10 years, I'd say. I'd say there's general awareness. Whether its been implemented.... But there's general awareness.

Jason Trompf:

One thing we're going to have to do, we're going to have to move a little bit towards some power, we'll go this way. I thought we were going to make it through, Heather, but Tim's been so entertaining he's draining all the power!

Heather Field:

No, thank you, we're getting through our questions there so if anyone has a question for either Jason or Tim on some of their strategies, please pop them through on the chat.

Jason Trompf:

While we're loading up any thoughts, the main thing we did skip over that came out of this, you sat down as a team didn't you? Ownership and management, and you made some big decisions off the back of this.

Tim Gubbins:

We actually did-

Jason Trompf:

So you used it as a real reflection tool. What was one of the areas where you were probably a bit more exposed than you realized? You started to go into it before.

Tim Gubbins:

We had really four, and we talked about infrastructure as one of the key pillars, we had a very poor storage for any sort of drought reserve. We basically had minimal hay sheds, very limited silo space, and no long term silage in the ground. Any silage we made was fed out within that 12 months. So one of the key decisions we made, and the people I work for now have been on the farm for two years but they cane from essentially drought ravaged New South Wales and particularly sensitive to drought. We were able to secure some really cost effective fodder and we may have made a long-term silage bunker. That's enough to get our ewes through about six months, they'll need a bit of extra supplement but the point was we were very exposed, these guys were very aware of it, this tool helped us identify it, and we put it in action.

Jason Trompf:

It's great and I suppose one of things we've talked about on the back of that, and again I use this example of defence and attack. You said to me I suppose Jason I need to make money out of this silage when we drag it out but I think part of what it can do is if you've got a good defense a la the Richmond Tigers they can run the gauntlet a bit more. What I mean by that is Tim could make a choice with that backing behind him in either last growing season or the next one, whatever it might be, to choose to run some additional stock and go into that season saying look, we're going to run 10 per cent more than usual but we have this reserve up our sleeve, whereas without it you'd probably err on the side of caution and suddenly the gap between what you do and what you could run could be substantial.

Tim Gubbins:

Absolutely. I think the classic example is with our cattle trading, we were actually able to take more cattle on that we might've and get them through with the knowledge that we have that silage in the pit. At the time, feed was quite well priced so we were able to capitalize and go a little bit harder on that trade and, as it turned out, it worked quite well for us given the price of cattle where it was and where it is now.

Jason Trompf:

Yeah, you did well! So Heather, we've got about five minutes, is it chat-based only questions you're seeking? You're not taking people off mute or whatever?

Heather Field:

Yes, yes, we're just taking questions in the chat so we haven't got any other questions at the moment but Jason, if you just wanted to mention the workshops that are available, we have got about 30 farmers who have registered for today so they might be interested in the details.

Jason Trompf:

Yeah. We did a series of these workshops about being climate smart and producing more in varying seasons that we did about 12 months ago. Along with Ag Vic, we're looking to do some more this autumn. Encourage any farmers that are interested to go into your feedback component or, if they've got my contact or Lyndon Kubeils contact, they can contact us directly.

Jason Trompf:

We're probably going to have to keep the workshops a little smaller this year in scale so we can really workshop this in a bit more detail and also follow on some producers and do some mentoring with them in their individual systems to help tailor solutions to their situations. It's myself with Lambs Alive in conjunction with Ag Vic bringing this to the Victorian community of producers. It enables us to bring together a lot of aspects that Heather, your organization is invested in along with other private practitioners across the state and heaps of farmers. You do work actively in the forecasting, you do work actively in the soil moisture monitoring area, you do work actively promoting stock containment and having productive animals that you manage well. Market access is another key component of what Ag Vic does as well and part of the game here for us, Tim, as producers is to produce an animal in a matter that domestically is demanded, globally is demanded, because if we don't have the markets we've got real strife because that's where the money has been injected into the value chain.

Jason Trompf:

There's a whole gamut of things which come together in those workshops but we really make it practical. I'm reflecting on Tim's score sheet and I can see here he had less than half a year's feed supply up his sleeve, more like a quarter to a third of the year, and you get to one out of 10 for that. We turned it into some practical things so you can give it a score and say what can I do to improve that? There's other areas where he got a 10 out of 10.

Jason Trompf:

One of things we didn't talk too much Tim, in the last couple of minutes, is building a productive but adaptable animal, and that's something you've been passionate about genetically as well.

Tim Gubbins:

A big focus on resilience within animals, so the ability to convert what they're eating into stored energy, essentially, that they can later call on when they are under a bit of duress.

Jason Trompf:

But it's about building an animal that can build.... It's like selling the camel with two humps, she can eat herself beyond three score and then carry that haystack on her back. She fills the feed gap by eating more in the spring time and then carrying that over and utilizing that off her back in the autumn. We've got those sorts of things that we can really work on and review, that's just one component along with worm resistance and stuff like that.

Jason Trompf:

Heather, did we get any questions in the chat?

Heather Field:

No, no, we haven't had any further questions but its been a great discussion and its worked really well having the two of you together to bounce the conversation off each other so really appreciate your time, and I know it's a busy time for both of you at the moment, and we really appreciate you making the time to talk to our subscribers of today's webinar. We did have just over 50 people online and we have had a number who couldn't make it today but are keen to watch the recording, so we'll definitely be making that available to everyone who has subscribed today.

Jason Trompf:

If we did have our own TV show Heather, like Graham Anderson reckons, you'd think Tim would have time to have a shave! Mind you, I was in the same boat until about three hours ago.

Tim Gubbins:

It's sheep yard dust!

Jason Trompf:

Sheep yard dust!

Heather Field:

Keeping it real!

Jason Trompf:

Anyway, keeping it real and thanks for having us, it is an area where there's a whole network of farmers that are passionate about this and those that are service providers that are really supporting sheep producers right across Victoria to make more informed decisions and roll with the punches a bit. We need the production to rebuild the national flock, we need the production to sustain our markets, and to drive our own people's cash flows but we need to be able to do that in a manner which protects the human, protects the landscape and the animals. It's about being productive but doing it in a highly adaptable manner, so thanks for Ag Vic's support. Great to be a part of it.

Heather Field:

Great. Thank you both for that. We have had a couple of questions just come in at the end here, which I might just hold over, unless you've got time to answer them?

Jason Trompf:

We can give them a quick answer. I'm going to ignore Graham Anderson's commentary for now.

Heather Field:

We've got one: is moving ewes and lambs into shedding or shelter pre and post lambing effective from a cost-benefit basis?

Jason Trompf:

For the whole lambing period I think it will take that question?

Heather Field:

I think so, yes.

Jason Trompf:

Just re-read the question.

Heather Field:

is moving ewes and lambs into shedding or shelter pre and post lambing effective from a cost-benefit basis?

Tim Gubbins:

I haven't seen it. There are a few studs doing it with a high value stock-

Jason Trompf:

We're balking a bit focusing on the shedding piece, it's something that actually Lyndon wrote a project quite some time ago that hasn't been conducted to try and review the cost-benefit of shelter infrastructure, whether it's shedding or use of hay bales or whatever. So we're balking a little bit at the cost-benefit on the shedding component. If it's going to pay it's going to be most likely to pay in something like triplet bearing ewes where the ewes are of high value and we know that, in certain situations, loss rates of the ewes and their lambs in shedding can be quite challenging. But I'd go on the other foot for utilizing natural shelter or stuff you've grown on the farm and ewe management and placement with multiple bearers. I think there's a great pay off to better utilize the resources we've got, it's a different question you've asked about the shedding, Heather.

Tim Gubbins:

Yeah, I would say too Jase that there's a lot to get right before you would look... that's the last step, isn't it?

Jason Trompf:

Yeah, and certainly to compare the cost-benefit there we want to be making sure we're looking at it against a best practice lambing situation environment outdoors versus the indoors scenario. To round that one off, Heather, in UK in sheds they lose somewhere between seven to nine per cent of lambs and we've got farming systems outdoors adopting best practice that are getting down to ten per cent lamb loss, and not just one or two farmers, a few. We can match a best practice global outdoors here but we've really got to be on the job.

Jason Trompf:

I see one last question there, Heather. We run first cross ewes, border merino, and self replace and I'm very concerned about the cost of replacement ewes, the price just keeps going up, it would take quite a few years before we will actually be making money from these ewes. Tim can have the last say here but depreciation costs on your vehicle, being your breeding ewe, is something we need to be really aware of and last time I had a look at it with that first cross model, if you're buying them in at somewhere between three and 400 dollars, depends on what you're selling your ewe for, but maybe you do your budget on 150, sometimes you'll get more. 350 to 150 is $200 and if you get four or five years out of her, that's about 50 bucks depreciation a year. That's getting up there as far as before you start your car, she owes you 50 bucks per annum. What's your thoughts about that Tim? And maybe you can talk about being self replacing meat flock.

Tim Gubbins:

There are costs with being a self replacing flock, you naturally have animals you don't want to breed from or shouldn't breed from so they're part of that wastage.

Jason Trompf:

You have a young animal that you've got to develop into a breeding-

Tim Gubbins:

Absolutely, and there's a lot of input into that so you're probably looking at $60 to get that lamb to a mature ewe to join. I look at the first cross Boarder Lester merino has got a great salvage value if you exit her with one to two years left to breed with, so there is a good salvage value there and I think it's higher than composites. I suppose from a composite point of view where it's a lot lower, they're actually a good animal.

Jason Trompf:

There's a lot of depreciation costs and I think the main thing is you're in control of your genes a bit more. So where that question is coming from, Heather, it's one thing paying good money but I think you need to focus on the value and make sure both the merino ewe base and the Boarder Lester genetics that are used really meet the objective you've got on your farm. Understand what's under the cutters.

Tim Gubbins:

That's it and that's where making sure you're maximizing that conception and survival. You get that depreciation cost come down significantly.

Jason Trompf:

And it ties in with more progeny.

Jason Trompf:

All right Heather, we better wrap up because I'm keeping up my reputation of going over time.

Heather Field:

No, very, very much appreciate both your time today and thanks for hanging around to answer those last couple of questions. I just want to remind those who are still online, and we still have a few online, that we do have a survey at the end of today's webinar that will pop-up on your screen when you exit, really appreciate you completing that, and if you are interested in those workshops that Jase mentioned, there is a question there where you can express your interest or, alternatively, feel free to send either Jason or myself an email and I'll make sure I pass that on. We are planning a webinar, hopefully for later this month, looking at stubble straw carbon and alternative uses, such as building panels and pallets, so stayed tuned for that one, we will be sending out some more information in regards to that.

Heather Field:

Thanks again Jason and Tim for your presentation and discussions today and look forward to our next webinar in a few weeks time. Thanks everyone.

Tim Gubbins:

Thanks Heather.

Jason Trompf:

Thanks heaps Heather, see you.