The Regen Report Episode #2 April 2021

Alexandra de Blas:

Hello and welcome to The Regen Report, a monthly podcast about taking regenerative agriculture to scale and diversifying life on the land. I'm Alexandra de Blas.

Tas Ag Co Transitions to Beyond Sustainable Beef

Alexandra de Blas:

In this episode, we head south to Tasmania, to meet Sam and Steph Trethewey, founders of Tas Ag Co, a regenerative startup business producing beyond sustainable beef. And we look at proposed rule changes for soil carbon, which would allow farmers to receive annual payments for their soil carbon projects. Sam and Steph Trethewey, the founders and directors of the Tasmanian Agricultural Company. Almost two years ago, they moved on to their new farm in north central Tassie, and began the conversion to a regenerative system. In June last year, they were the first farmers in the state to register a soil carbon project under the emissions reduction fund. And just a couple of months ago, they launched their regenerative beef product through Hill Street Grocer stores across Tasmania. I caught up with Sam and Steph on their property, overlooking spectacular mountains, green rolling hills, and mobs of thriving cattle.

So Sam, we're here on the top of your farm in central north Tasmania. It's a beautiful location, it's really stunning. You can see the Great Western Tiers to the south, we've got-

Sam Trethewey:

Mount Roland due west, to the southwest, we've got the Gog Range. Not many people know about it. It's pretty spectacular. I haven't done it myself yet, but apparently it's a pretty epic bushwalk.

Alexandra de Blas:

It looks like it would be. It's very beautiful. Give me some background about what led you to come to Tasmania, and what you were doing before, that led you come to the position where you thought, "Yeah, I want to set up a startup in Tasmania and produce beyond sustainable beef."

I grew up here. And as is often the case, home is where the heart is. I was in my early to mid-30s and wanted to come home. Bringing up children down here's amazing. And that was kind of where Steph and I were headed. There was I suppose a personal reason there. Had enough of the mainland, and what we're doing was a culmination of my experience, of some passions. There's some interests and passions there for Steph around food and some environmental stuff alongside marketing and branding, storytelling. It was this kind of, matrix of a lot of different moving parts.

Discussions started on our honeymoon sitting in a pool in Thailand. Actually it was where the original ideas kind of came from, and it obviously evolved enormously since then. But yeah, I mean, here we are kind of 18 months on after having moved here. Incredibly happy and content with our decision. But of course, churning and pedaling like crazy to try and get things happening.

But no, it is a beautiful location. I suppose for us, we didn't buy it because it was so beautiful, though that's an absolute bonus. But it was really an environmental, and I suppose, a lifestyle choice. And when I say lifestyle, it was like we wanted to be close to major centers, close to airports, all of our family now,

most of them are all on the mainland. But it had to still have that good, reliable rainfall. All of a sudden you start to narrow down the area, and here we are.

Alexandra de Blas:

But tell me a bit about your regen experience prior to setting up, because it takes courage to come and do what you've done. So how much background did you have?

Sam Trethewey:

I've grown up, I suppose in and around the RCS Grazing Principles. Dad was one of the first to do Terry McCosker's course , I think back in the 80s. And so I've kind of been around that. The biggest thing about regenerative farming, it's not what we do, it's more why you do it. Charlie Arnott talks about the paddock between your ears. That type of mentality is really important. It's kind of why you do it. And for me, the conventional system never made sense. I never felt comfortable with many aspects of it. And in everything that I've done in my life, all the way through back to stupid school projects, I always had to be different. I always had to ask why. Why do we do it like that? I've never ever taken the status quo at face value, and just said, "Yes," and got on with it.

So when it came to the regen approach, yeah, I suppose I've grown up asking questions around how we manage farms, why we managed farms, what we're actually managing for, what we're actually producing and the RCS principles will start to shift your mindset around those types of things. And then I was actually running a little business helping small landholders around Melbourne. People that have got 5, 10, 20, 50, 100 acres, a place to open a bottle of bubbles on the weekend type of stuff. Of course, they're quite environmentally focused and they don't quite understand why we have to use all these chemicals and synthetic pesticides. They don't understand why you put something that's man made on a natural system and so it's amazing once you're around people that aren't farmers. How freshly they look at things and usually the regenerative organic scene is quite easily picked up by smaller farmers. So I was around a lot of these guys, right.

And that's kind of where, to give credit where credit is due is, farming secrets - Hugo and Helen Disler. This is 10 or 15 years ago. Maarten Stapper, all these kind of guys that were talking about this stuff before it was even a whisper. I used to follow them and watch it and listen and learn. Yeah, I suppose to fast track, I then went and worked on conventional farms all around Australia and some parts overseas. And then we came back into building this out. Beef, became the punching bag of all debates around climate change. And I was like, "Well, hang on here. We've sequestered a lot of carbon on our farms over the years, through regenerative grazing principles. There's a lot of now really cool information on other tools that you can use on your farm to get your soil up and going. And so it all kind of come together. And I think now's the time that we need a really, really, beyond sustainable beef product, not just from a consumer point of view, but from a farm production point of view."

And then for me, just quickly, it was around building data. Like, if we're going to do this and scale this into an economically viable, commercially sustainable enterprise, and attract large amounts of capital in the future, and hopefully, we can start to produce food like this on scale around the world, we're not going to be able to do that without data. And then I suppose coming from my tech background, with startups, it was around building data where we can around that. We just started getting going. I don't have any enormous amount of evidence to show, but things are kind of going well, at this stage, although it's incredibly tough work.

Alexandra de Blas:

When you say building data, what do you mean by that?

Sam Trethewey:

Basically, if I can create a data point around it, I'll do it. Let's start off with the carbon piece. It's one of the main reasons I went with AgriProve, it's because it's got that internationally validated, signed off on UN Paris Agreement, Australian Emission Reduction Fund testing methodology. And so there's two pieces around that. It's the most rigorous testing methodology. And so if we're going to be kind of held in the consumer market, and or criticized or questioned on our ability to claim certain things around carbon, well, if I've got the world's best practice methodology to lean back and go, "This is what we do. You've got nowhere to go." So that was one of the main reasons.

Sam Trethewey:

The second reason, I just enjoyed working with the AgriProve team. I suppose the last reason for me is, as every market evolves, the carbon market needs to grow up, it needs to become a lot more mature. Like, ag tech and other sectors, there's a lot of cowboys running around making claims and doing this and doing that. And the Wagyu game, which we're kind of involved with is a great example. After 30 odd years now, it's gaining some maturity. And what I mean is, if can use the analogy of the Wagyu Game is that the guys are focused on data and breeding good animals and focusing on good production and good commercial stuff. And as I said, focused on that data, that genetics and estimated breeding values and all that stuff, is they're the ones now in a mature market that are being rewarded and are fetching big money for their genetics and their carcasses and whatnot, right? Whereas the guys that just joined anything, and got anything pregnant, because it was a Wagyu, they're the ones that can't keep up and are going broke.

And I would say the same is the same for the carbon pieces. Given the testing methodology that AgriProve use, that in time as more maturity comes into the carbon market, they will be a high value carbon credit. They will be the credits that are internationally recognized, that we can sell and pitch and make more money from, as opposed to some that perhaps don't have the same level of rigorous testing methodology.

Without digressing the conversation too much and getting back on to your original question as to what data points - everything. We do blood tests on animals, we do feed tests, we do plant tissue tests, we do soil tests. Linking up what trace elements and minerals are available in the soil, but aren't available to the plant. And then if they don't pop up in the plant, sometimes they pop up in the animal, so what does that look like? Why does that happen? Commercial data like, let's talk kilos of beef produced per hectare, or our gross margin per hectare. That's what farmers understand.

Sam Trethewey:

Any and all of those environmental /farm production and commercial data points that we can build and trace. As I said, in five years, we can turn around and go, "Well, we do produce as much, or more, or whatever kilos of beef per hectare. Our inputs are 20 or 30%, or whatever they are , compared to the conventional system. And then we're producing, we believe, a better quality product, and/or even if it's the same quality product with less inputs. While we're maintaining productivity and we're having a net positive impact on our farm environment. Why wouldn't you do it?" That's why we're building the data, and they're some of the data points we're working on.

Alexandra de Blas:

Looking across the farm, you've been here for 18 months. How's it going?

Sam Trethewey:

It's tough. It's really tough. Anyone that tells you the regenerative agriculture is easy, or there's a lot of hot air, and I think, stretched truths and promises in this space. And that takes me back to my earlier point around cowboys in this space. I'd argue that the regen ag sectors has got its fair share of cowboys as well. And some of them aren't actually, or usually always, they're not on farm. They're kind of just out there as true believers. It's wonderful to have them but they're perhaps making claims and saying things that really on farm, in practice, aren't actually true.

Sam Trethewey:

So in answer to your question, it's tough. We're changing ecosystems and natural systems, and that takes time. We live in an instant gratification world and I'd argue that conventional agriculture is a great example of that. I need a fix, I chuck on X amount of fert and I get that response immediately. I don't think farmers sit down generally and start making plans for their environment three, four or five years out. You're generally focused on your next crop cycle. And that's a generalization, but I think that it is tough. We've got weed burdens, and we're not wanting to use a lot of pesticides. This place has traditionally had a lot of nitrogen applied at least once a year. And it would seem from the soil tests, that not a lot of else was put on. And so I suppose when you've got heaps of nitrogen going on, the place looks great. It grows lots of grass, but perhaps-

Alexandra de Blas:

You haven't got as many micro organisms in your soil doing the work that provides the soil structure, and underpins a regenerative system.

Sam Trethewey:

Yeah, and you're not replacing other nutrients. It's just like if you're only eating carbohydrates every day, and you're not eating any protein or fat. It might work for a while, but sooner or later things get out of whack, and that's what we've got a problem with here. And because you put a heap of nitrogen and the place looks great, but underneath it all, you've actually got an enormous ,which we do, phosphorus deficiency. Like I mean a significantly high phosphorus deficiency.

And then that then plays into microbes, and then they're asleep or not working for other reasons. And there's all these things that are obviously all interconnected and related, that we're all just trying to get up and going. To answer your question, if you're driving past the farm, and you're looking at all the other farms near and you drive past here you think, "Jesus, what are those guys doing?"

Alexandra de Blas:

It's not that bad!

Sam Trethewey:

No, it's not that bad. No, no, you're right. No, I suppose, if you don't know-

Alexandra de Blas:

It looks pretty beautiful actually.

Sam Trethewey:

Yeah, it's actually beautiful, but I suppose if you're a farmer, and you're looking at the place, you'd go, "Oh, that place looks like it's struggling a bit." But look, we're still running good stocking rates, we're

putting off a great quality beef product, which is the main thing, but we are changing natural system. In two or three years, I hope that when you ask me the same question, we can say, "Look, the place is flying. We're producing shitloads of feed. The cattle are happy. Things are cranking and we've got our bacteria /fungi ratios back in go, and it's all happening."

Sam Trethewey:

It's always the way when you convert a farm. This is the fifth farm that I've converted. I think just to that point, a lot of critics of the regenerative agriculture piece, and not a lot of them have actually ever converted a farm. They've never actually taken on a piece of land and completely and utterly changed the way that that place is managed. From fertilizer, chemicals, through to species, the whole lot. I think that that's something that it's easy to judge on, but it's an incredibly difficult process to undergo, and we're in the middle of it.

Alexandra de Blas:

You've got a three pronged approach to converting to regen ag here. Multi species, pasture cropping, time-controlled grazing and reducing your use of the cides. The fungicide, pesticide, and herbicide.

Sam Trethewey:

Yes.

Alexandra de Blas:

So how are you integrating those approaches? How does it work in practice?

Sam Trethewey:

Yeah, sure. I mean, like anything in nature, it's pretty messy and blotchy. And, look, we're just putting in multispecies kind of where we can. Putting in a lot of annual and perennial species, and the whole thing with multi species is there's no perfection around the, "You got to put this in that and what mix." It's really just got to have diversity in it. So we're just chucking that in, wherever we can, knowing that when we put it into a paddock, that we can't have that paddock being grazed for 6, 8, or 10 weeks, or whatever it is, which means that comes out of rotation. We do have a lot of animals on here at the moment, so it's kind of difficult to lock up those paddocks and store them.

Alexandra de Blas:

So what's the size of the property? How many animals?

Sam Trethewey:

All up, we own about two and a half thousand head. We do have a few farms that we're working with on more of a short term basis just to carry some animals for us, whilst we're growing. We run ourselves just under 1400 acres, across two locations that are very close by. And we lease a lot of land in and around that as well, which is included in that total. And so, I suppose that's got its own challenges. You've got some guys that we lease off nearby and they have expectations around how the land should be managed, which perhaps isn't coming from a regenerative approach. That's always a little bit tricky. But we just try and communicate and do what we can do and work through that.

Sam Trethewey:

Time controlled grazing. The farm's always been generally quite well run in that regard. It's always had a good solid rotation. They're dairy farmers by background. so they already have the paddocks set up for that, although, our mob sizes and operation's very different. So this erection, rip out nearly every single fence and start again. And so we've got some major infrastructure upgrades to happen.

Sam Trethewey:

And then the last piece is yeah, just reducing the use of chemicals. To be completely upfront, we do on occasion, spot spray in the odd spot. Which I think, as far as it hitting or knocking back microbiology or impacting our animal performance, it'd be drawing a pretty longbow to say that that's impacting those things. I think, hyper concentrated areas, as and when required, as we go through this transition program is acceptable. I think that's one of the great things about the regenerative movement at the moment. I say at the moment. There's no, "This is right, this is wrong type of thing, unlike organics, where there's a kind of blanket, yes, no, right, wrong, black and white." So I suppose it's helpful to have those tools when you need them, but of course, the idea is to move away from them completely.

Alexandra de Blas:

What numbers of species are you including in your multi species pasture crops?

Sam Trethewey:

Some of them range between seven or eight in the mix, through to, I think we've had up to 34 in a mix. It's a little bit of a contest that happens in regen ag with how many species you've got in. And like I said, there's no perfect number. You just need that diversity of brassicas, legumes, cereals, grasses and some chenopods. And so yeah, that's really the secret sauce. It really depends on what we're doing. So we've got our winter forage crop, wwhere we've got lots of turnip and kale and stuff like that. We're trying to kind of grow out to 20 - 30 tonne of dry matter per hectare. That's only got six or seven things in it, because to be honest, I mean a little bit of diversity, it's all good, but really, we're trying to grow out that bulk feed for the cattle in the middle of winter. But of course, those paddocks that we're just trying to improve and trickle up and excite, we're happy to throw as much in there as we can.

Alexandra de Blas:

And how are they performing?

Sam Trethewey:

Okay, and I mean, okay, only because, obviously, due to this kind of transition of shifting the farm off some forms of management that have been heavily reliant on certain types of fertilizer into other approaches. This farm is not humming right now. Phosphorus is significantly responsible for root development and things like that. It's pretty hard to kind of turn around and be too hard on the multispecies. And say they're not performing because I don't think our soils and our soil structures and microbiology and nutrition is where it needs to be. We've worked pretty hard on that at the moment.

But yeah, look, they're going really well. We've got an old fella who works with us on the farm, who's just been an amazing support. He's actually been on this farm for over 30 years. He provides me with a bit of wisdom, and kind of keeps us on track as to how we're going and multispecies and lot of things we do completely fly in the face of everything that he's ever been told or practiced. But even he's kind of saying, "This is pretty exciting. We're seeing some pretty awesome results. It's exciting. You go out to a paddock that you might not have seen for a month, and all of a sudden there's something else coming

through that you sowed maybe nine months ago, that you didn't expect to come through." So yeah, he's enjoying the ride, too. It's great.

Alexandra de Blas:

Are you just planting in the autumn or are you planting twice?

Sam Trethewey:

Yeah.

Alexandra de Blas:

How are you working it?

Sam Trethewey:

If I was a normal farm, I'd be doing two plantings. I'd do a spring-summer and a autumn plant. Because we're vertically integrated, and we've got a whole brand happening around our business, we're actually going to be planting every month. Now we won't be planting it I think between May and August. Because we get days down down here that are a top of six or eight degrees and not a lot grows. But we're going to be planting every month. So we've always got fresh paddocks coming through. I'm starting to get some pretty high profile people wanting to come and look at the farm and do stuff. Going back to my startup days, providing a bit of a theatrical support to what we're doing is good and we need to have fresh crops coming through all the time. And we're managing that as well.

Alexandra de Blas:

Okay, well, why don't we leave this high perch, and go down and look at some of the nuts and bolts.

Sam Trethewey:

Yeah, no problems.

Sam Trethewey:

Dogs, get up. Get up, come on.

Alexandra de Blas:

Bit of a jump into the back of the ute there.

Driving

Alexandra de Blas:

Here we are. So, we're standing in front of a herd of cattle. Who have we got here in front of us?

Sam Trethewey:

This is actually the market mob. This is the mob that gets brought in every week and five lucky candidates get pulled out and sent off to the abattoir every Monday night. Yeah, basically, they get a good run of some of the best paddocks. They've always got ad-lib silage and they're at or very close to weight. So yeah, that's kind of a bitter, sweet little mob, really.

Alexandra de Blas:

Yeah, they look very healthy and shiny.

Sam Trethewey:

They're good. They're great. And as I said, as tough as the transition is into changing up farming systems on this new farm and better understanding how we can use, some of the more proven regenerative principles, but at the end the day the cattle are growing beautifully. They look fantastic. And they're actually eating really, really well. So that's all we can hope for.

Alexandra de Blas:

What weight do you process them at?

Sam Trethewey:

Once they hit 500 kilos, they make it into this mob here. So 500 kilos is the number.

Alexandra de Blas:

How old are the cattle?

Sam Trethewey:

22 months old. Some of them might be getting close to 23 months, some of them will be 20 months. This red tag here, for instance, he's only 18 months. He's done exceptionally well. But yeah, most of them are just under two years.

Alexandra de Blas:

You've got a fascinating business structure. You're working with nine Tasmanian dairy farmers. Tell me how the system works.

Sam Trethewey:

One of the ways that we work is, we provide high growth Wagyu genetics to dairies, and we buy those calves back. For me it was, how can I produce beef without owning a cow? Much like, how does Uber offer transport without owning a car? That was a way for us to kind of get started. I wasn't handed a family asset, which is fine. No problems there. So I had to try and come up with smart, clever ways of getting up and going with the least amount of capital as possible. And this is the way we've been able to do that. And what we end up with is, 50% Wagyu, 50% dairy animal. So they are a Wagyu cross. And they're grown out in a regenerative system on multi-species pastures where we can. All other times more just the usual rye, grass, clover mix.

Alexandra de Blas:

So you take bulls out to the various farms or a mix of AI and bulls?

Sam Trethewey:

That's right. We take out live bulls and we also send out semen as well. Some farmers like both, some farmers just like one. It just really depends. That's how we do it, which means I've only got to run 60 -70 odd bulls and I don't have to run any cows.

Alexandra de Blas:

Excellent. There's a bit of activity with the dog. (Barking)

Sam Trethewey:

Give me a sec. Oxley get up. Ute, both of you, get up. Ute get on the ute. Get up. Lottie, get up. Problem is the cattle get inquisitive, then the dogs get defensive. And so you can't blame the dogs because they're just trying to defend themselves, but the cattle are kind of, yeah. Now that's the other thing. Because they've been born on a dairy, they get hand-reared. And so they are, by their nature, very calm and not very afraid of us. So they're very, very inquisitive. They like having big dogs around all the time. So it just means when you come into paddocks with other dogs and other animals, they're not very afraid of anything.

Alexandra de Blas:

They're very close and personal here!

Sam Trethewey:

Yeah, they're very close and personal. Absolutely

Alexandra de Blas:

Gorgeous. Yeah. How do the cattle like the multispecies crops?

Sam Trethewey:

They love them. And it's no surprise. Again, one of those things about the conventional system, if I made you eat spaghetti bolognese all day, every day for the rest of your life, you get pretty sick of it, right? So it's kind of, "Why would we want an animal that's evolved as a herbivore, imagine they would have grazed on all different types of stuff." So I suppose my point is, with the multi-species because we've got brassicas, we've got different types of legumes, we've got cereals and whatnot in here. Of course, they absolutely love it. It's adding diversity to their diet. They get to eat, a bit of tillage radish, which you and I can have a chew on in a sec, if you want it. It's quite spicy. It is a radish. It's called daikon radish, if you bought at the supermarket. They love it. And so they'll often hit the multi-species first and then then they'll start to go on to the boring stuff after.

Alexandra de Blas:

You've had a big change in the fertilizer application on this property compared to how it was managed before.

Sam Trethewey:

Yes.

Alexandra de Blas:

What are you applying, and how are you managing the transition?

Sam Trethewey:

Delicately, up into some points, unsuccessfully, and now kind of on the right track. Again, it's that whole transitioning a farm to a different type of system. I kind of did the wrong thing by the farm and pulled it off conventional synthetic fertilizers all of a sudden. I really believe it's just fallen flat on its face. I suppose, you often hear the analogy in the regenerative or organic systems around being like a drug addict. We need this, we put it on. We need this, you just put it on. You ultimately treat the soil as something you stand a plant up in, not as a living organism with a whole bunch of different dynamic and complex relationships.

Sam Trethewey:

I went on to organic based stuff straightaway, which I don't think did the farm any great service, other than make me feel better about things. We've started to use a little bit more of the synthetic stuff, just for a point in time to get the place up and going. And we can then wean it off it again, if you know what I mean. We have a massive phosphorus deficiency, so we have been using a little bit of single super. And I mean a little, kind of 40 - 50 kilos per hectare. But we are starting to use more and more rock phosphate. We've got 300 cubic meters of chicken manure here, we're about to put out which is high in P. So we're absolutely 100% committed to moving towards more organic stuff, but we have, where required and where needed, been using a little bit of the synthetic stuff, just because we needed that water soluble, high impacts immediate shot in the arm. And we needed that for a number of different reasons. But I suppose in time we're transitioning out of that.

Alexandra de Blas:

Now you strike me as incredibly busy with this whole startup business. I was having an interesting chat with Rebecca Gorman the other day, she's a regen beef producer from the Gundagai in New South Wales. And also plays an important role in Land to Market. We were talking about that mechanistic worldview versus a holistic worldview. A lot of the farmers in her producer group, talk about a really important aspect of regen agriculture, is removing the amount of stress in the system. When you've got a lower input, more natural based System, part of it is moving away from that grind. As you're in the transition process, how do you see that sort of dynamic and that thinking?

Sam Trethewey:

I can see, once you're up and going and things are humming, in a couple of years perhaps it will be less stress, perhaps. I'm not producing a commodity product here. I suppose that's the other thing, is I don't have kind of that commercial pressure on me. Yes, we try and keep our inputs low and make sure I can sell my meat at a market price and still make money. I don't have huge, expensive kind of input costs. But I suppose I'm not looking at cattle markets worried about kind of what's happening. I certainly wouldn't be at the moment.

Sam Trethewey:

And then, I think if you look at mental health and human health and how that's increasingly being linked to what we eat, how we eat, some of the chemicals and other things that we use in our food systems, we're only going to see more and more of that in time. And then you look at regenerative or organic farmers, and they often are very relaxed and easygoing. I think perhaps are healthier because they don't use those chemicals. They're not around them. I've been covered in round up. I've been covered in all that shit before and I've lost my hair from it and all other types of stuff. And I think that perhaps we're going to see more and more research come out about that. I think that does play into mental health,

stress, pressure, and you've only got to listen to Zack Bush in the US to see what they're finding out over in the US and how that works.

Sam Trethewey:

I think I can see in some ways. To be completely upfront and talking from a farming perspective, it is an incredibly difficult system. There is no support. I cannot ring up my local agronomist, I cannot ring up my local farm supply store. I have no technical support locally, at all. I think it's an absolute illusion, to consider that regenerative farming is less stress, I think it may be and will be, once we get up and going, once I work out what I'm doing, but it's a pretty lonely ride. A lot of the time, you're trying to use these different teas and compost bits and bobs, you're kind of going back to year 10 Science. You have to buy your own microscope and try and work out, is what you're doing a waste of time. Can I see protozoa in this particular input. It's so easy to ring up your local rural supply store, have them drop off 1000 litres of whatever, or 20 litres of this, or a couple of tonne of that and chuck it on. It is easy. Conventional farming is easy. There is no doubt about it.

Sam Trethewey:

And the reason it's so successful and so widely adopted is because it's easy. Not saying it's an easy run, farming is tough. You're dealing with a lot of uncontrollables. But as far as managing your inputs, and actually working on your agronomy, it's a pretty simple formula. And that's why it's been so effective and so powerful. And now all of a sudden, we're having to create the wheel. And there's a lot of trial and error.

I suppose, just to wrap that up, the great thing about regenerative agriculture is there's so much support. All be it only online, but you've got great networks with Twitter and Facebook and all this, where there are people and it's very much all inclusive, a rising tide floats all boats. I don't think there's a lot of competition. Everyone's trying to help each other and they're doing it for the greater good. They're doing it for land, human health, environmental health. And with that comes a lot of collaboration and support. It is a lonely ride every day of the week, but I know that I've got, on my phone, access to some people around Australia and New Zealand and overseas, who are running incredibly top notch, fast-moving, competitive, commodity-based businesses with regenerative practices, and that they're there when I need them. But day-to-day, it's a very different experience.

Alexandra de Blas:

If we want to transition at scale, what's the challenge for agriculture in order to enable that transition?

Sam Trethewey:

Well, I think the good thing about the conventional system is it's generally systematized. An agronomist in Victoria is going to give you a similar kind of analysis and reading of a soil test from an agronomist in Northern New South Wales. They're trained the same, it's all very systematized. I think regenerative is going to not have to move to that system, because that's that reductionist kind of approach where we can break things down into simple things, to easily manage. It's great for the human brain. But from a natural system point of view, we compromise things left, right and center.

Sam Trethewey:

But I have to say that there are some things in the regenerative space that could perhaps be systematized or moved around or changed to make it kind of easier to get on with. But, I don't know, to answer your question. And I think that's why we're building data. If we can show that it's better, or that

it's as good and it's cheaper, or it's more effective, or all those things, people will find a way of making it happen. And I think increasingly now we're starting to see some great consumer focus communications and brands and stuff get out there to spread the good word. And as there is more demand, there will be more supply and farmers will find a way of making it happen. I generally find there's a lot of people, especially in my age group, that have decided to look at this and think, "Okay, what is this? And what's this going to be, and how's it going to work?" And they're interested, and I think that's fantastic.

Alexandra de Blas:

Sam, it's been great. Thank you for taking me around the farm and explaining things. I'm just going to go inside and have a chat with Steph about marketing.

Sam Trethewey:

No, thanks very much for your time. It's always good to share our story. And I suppose if people can take away some lessons or learnings and whatnot from what we're doing, a big part of what we're doing is trying to help other people understand the ups and downs and ins and outs of the regenerative approach. So happy to help out.

Alexandra de Blas:

Thanks very much. It's been a pleasure.

Sam Trethewey:

Thank you.

Sam Trethewey:

I'll just come in here. She might be at the front room, so if you want to duck out there. I'll just send her a message.

Alexandra de Blas:

Okay, thanks, Sam. Cheers.

Hi, Steph. How are you?

Stephanie Trethewey:

Hi, lovely to have you. Good. Thanks. How are you?

Alexandra de Blas:

Good. What a stunning room. It's like you've got your own home cinema live streaming the mountains here.

Stephanie Trethewey:

It is. Yeah, definitely the favorite room in the house. Yeah, it's beautiful here.

Alexandra de Blas:

Yeah, I want to strap on a backpack and go hiking.

Stephanie Trethewey:

Well, feel free to do so. I don't hike but I love enjoying the view.

Alexandra de Blas:

So Steph, you're the Director of Brand and Marketing at Tas Ag Co. You launched your beef product two months ago and you're now in 10 Hill Street Grocer stores around Tasmania. How did it feel to finally do the launch?

Stephanie Trethewey:

Yeah, it was a massive relief, to be honest. We've been working so hard on this business from concept right through to being on a plate. It's taken pretty much three years of hard work to finally get product to market. As you know, cattle take a while to grow, and it's not an easy process. It's not a quick process. So it was really rewarding, and it is really rewarding to start to see some of our hard work pay off.

Alexandra de Blas:

How's it going now that you're two months in?

Stephanie Trethewey:

Yeah, it's going well. We're actually really excited to be looking at some other markets outside Tassie. So that's our focus at the moment. We're chatting to a butcher in Melbourne and a few others around the place, to take our regenerative beef to the mainland. So that's really exciting. Just starting to spread our wings and constantly learning and growing. And yeah, it's been a bit of a journey.

Alexandra de Blas:

What about restaurants? Are you looking to target those at all?

Stephanie Trethewey:

Yeah, definitely. It's funny, our initial strategy before COVID hit was focused predominantly on restaurants and butchers and then COVID hit, and obviously. Which was a blessing for us in terms of the timing that it happened, because if it was right now, it would have been a disaster. But for us, we were really lucky because it was pre-launch. So we kind of just pivoted our strategy. And obviously, retail has been pumping, because people couldn't go to restaurants at that time, but they could still have to go to the supermarket. Hopefully, we're seeing the end of that. Yeah, we're definitely looking at restaurants around the country. And I suppose, being quite careful with who we work with. It's about working with like-minded people and people that understand the regenerative space, whose customers are going to want regenerative produce. That's not going to be everyone. It's about aligning ourselves with the right type of people.

Alexandra de Blas:

What role does having a soil carbon project play in marketing to the consumer and to restaurants ?

Stephanie Trethewey:

An enormous role. We've seen in many different industries, many different things that come and go, it is a lot of greenwashing, particularly when it comes to marketing. That's something that we've been really wary of. We really want to build a brand that has a lot of integrity behind it. And data is key. You can't

fight the science and you can't fight the data. So for us, the ways we farm are regenerative, but where's the data to show it? So we've been doing our own testing on farm. We're collecting data, everything from plant tissue tests, blood tests of our animals, our own soil tests.

Stephanie Trethewey:

But then at the heart of that, our mission is to eventually be truly carbon positive. And what that means as you would know is, basically proving that we can sequester more carbon than our entire operation emits and doing that through regenerative farming. And the way to measure that obviously, is through our soil carbon project, which we selected AgriProve to do that, because it was the only one with protocol that was eligible under the UN Paris Agreement through the Emissions Reduction Fund. And that was really important to us. Particularly from a consumer point of view, because we need to have that credibility behind us, and we don't want to be out saying things, if we can't prove it.

Alexandra de Blas:

I love the videos that you've produced for Tes Ag Co. They're so luscious, and cinematic. You were a TV journalist prior to farming, how has that influenced your approach to the business?

Stephanie Trethewey:

Initially, I wasn't sure how I would fit into the business because it's pretty intimidating going from the city and the bright lights of the city and TV to living on a farm. And I guess being a farmer in many ways. I wasn't sure how I'd fit into this business. But it became pretty clear pretty quickly that, a lot of the value of our business is in the brand. And we'll be in the regenerative space. And marketing is so critical to that. I love telling stories. It's my passion. I'm really excited that we're able to build a business-to-consumer brand that can connect with people and tell our story. And that's where a lot of the fun is for me in my role, so I'm really enjoying it.

Alexandra de Blas:

You've been tracing your journey on social media through Facebook and Instagram. How valuable has it been for you to share your journey in this way?

Stephanie Trethewey:

It's been such a blessing that we started sharing our journey before we even had a product that was in market. Initially I was like, "Oh, is it worth it?" But it's really nice to have that backstory and to take people on that journey with us. It's a really powerful tool. We've had, butchers, chefs, restaurants, approach us via social media, purely because they've been following us or they've seen our video, or whatnot. And funnily enough, we've actually recently just hired a full time worker, Tom, a young guy who's joined us. He found us through Instagram, and he sent us a message and said, "I'm really interested in the regenerative space. I love what you guys are doing. Do you need help? Have you got any vacancies?" We're a startup, we're a small business, and we didn't really at the time. But Sam in particular, needed the help, and now he's working for us full time. That's powerful, and that's the power of social media.

Alexandra de Blas:

Have you ever felt a little exposed sharing so much of yourselves, particularly before you had actually produced anything?

Stephanie Trethewey:

I'm used to... Not used to oversharing but I suppose being in journalism for most of my career, that's where the emotion is. In being honest, open and transparent. And that's really important. Yeah, I suppose, especially in the regenerative space, it's quite a new concept and haters are going to hate, there's people that are skeptical about it and whatever. We've just sort of taken the approach, you do you, we'll do us. This is what we believe in. This is our journey. Take it or leave it but for the people that enjoy following us, we'd have made a real effort to, I guess, bring them along for the ride. It's not always easy. The Instagram photos look great, but for anyone who's watched our trailer, our trailer video we released a couple months ago, it's been hard too. And we've tried to be open with some of the emotional stuff as well, I think that's really important.

Alexandra de Blas:

What is your biggest challenge from the marketing perspective?

Stephanie Trethewey:

I think our biggest challenge is educating the consumers and the market about what regen ag is. It's a very new and immature concept, I suppose. People have been farming regeneratively for hundreds, thousands of years. It's not like it's new to the regenerative farmers that do it. It's just new, that it's kind of becoming a bit more of a mainstream thing, and people are talking about it more. I think with that comes a lot of confusion. I think there will be confusion before there's clarity. But certainly from a marketing perspective, our biggest challenge is trying to educate consumers on what regen ag is, and without demand from them, more and more producers won't jump on board. So we need demand for supply.

Alexandra de Blas:

How do you see the regen ag movement moving forward?

Stephanie Trethewey:

I think the next year or probably the next two years are going to be really interesting to see how it all evolves in market. We're seeing a lot of big businesses, the likes of Harris Farm Markets, they're starting to take notice. They're launching their own kind of soil focus in terms of marketing. People are listening, and people realize that it is the next thing that I think in 10 -15 years time, regenerative farming will be just almost normal. That is what will be demanded, that we regenerate our land and we sequester carbon. I think that will be the norm. Now, it's not the norm, and so it's going to be really interesting to see how the market adapts to it, how consumers adopt it. And yeah, it's going to be a really interesting next couple of years, I think.

Alexandra de Blas:

Well, Steph, thanks very much for having me on your farm today and telling me all about your business.

Stephanie Trethewey:

Thank you so much. Been lovely to have you.

Alexandra de Blas:

Stephanie Trethewey, Co-Founder and Director of Tas Ag Co.

Vountary Carbon Credits Verses ACCUs

Alexandra de Blas:

The team behind AgriProve, the soil carbon company that supports this podcast, has been out and about at events over the last month. Including Farm World in Gippsland, and the Farming Matters conference in Albury. Matthew Warnken, AgriProve's Managing Director, particularly enjoyed catching up with some pioneers in the regen space. Previously, they were locked out of soil carbon projects, but that has now changed. The sticking point, was how to measure the effectiveness of activities that build soil carbon. To be eligible for a project, you have to do something new or materially different. AgriProve has done a lot of work on quantifying material difference in the field. And this has opened up new opportunities for those early adopters of regenerative agriculture.

Matthew Warnken:

So last year, we did a lot of work around showing materially different land management practices, as opposed to new. Now this may sound like administrative technicalities, but the great thing about those farmer conversations was that now there is an opportunity for those pioneers to participate in projects, because they are doing things that are materially different and will be materially different over the next 10 years. So we're seeing a lot of enthusiasm to take up that opportunity, to get farms baselined and create that ability to participate in the carbon market.

Alexandra de Blas:

To be paid for carbon credits under the Emissions Reduction Fund, you need to be registered for a project with the government's Clean Energy Regulator. But there are also voluntary markets and a range of independent verification systems. It can be a bit confusing, and one of the most recent high profile announcements has been the $500,000 soil carbon deal, between New England Grazier Wilmott Cattle Company, and Microsoft, the IT giant. For people who are wanting to wrap their heads around the carbon market, how would you explain what's happening at the moment?

Matthew Warnken:

So what's really positive is the focus and the attention that soil carbon is receiving, both from a land management practice to improve farm productivity, and also as a way of generating additional on-farm revenue. I guess there's two key aspects that we talk about with landholders looking at entering into those markets, and one is the certification program, and then the second is who's buying. With the Australian program, the certification is from the Australian Government. So it's actually a compliance based certification program. So every carbon credit issued comes with the full backing of the Australian Government. It's not a voluntary certification program where the backing is provided by whoever is doing the certification of the certificates.

Matthew Warnken:

The main point for landholders is looking at the quality of the certification. So you've got to program, backed by the Australian Government, in terms of those ACCUs (Australian Carbon Credit Units) being issued. And what that means is that there'll be compliance buyers, they'll be government buyers, and there'll also be voluntary market buyers. Whereas with a voluntary certification program, (whoever's running that certification program) the credits can only ever be purchased under a voluntary

arrangement. That's where you run into potential issues about the future demand for those voluntary certified carbon credits. If the buyers are limited, future demand and price could be affected.

For AgriProve, we firmly believe the best no regrets scenario for landholders to maximize their future earnings from carbon markets, is to go with a compliance certified program, such as the emissions reduction fund where the credits issued count towards Paris and count towards our national targets.

Labs Respond to Escalating Demand for Soil Carbon Testing

Alexandra de Blas:

If you're a farmer waiting on results from your soil carbon sapling tests, you may have been waiting a little longer than expected. Labs around the country are scaling up to meet the growing demand for testing, as the interest in soil carbon projects escalates. I caught up with Graham Lancaster, Head of the Environmental Labs at Southern Cross University, at the Farming Matters Conference, to find out how they're handling the extra workload.

Graham Lancaster:

I'm the Managing Director of the Environmental Analysis Laboratory at Southern Cross University. I started off as a student 30 years ago, and now we've got over 50 staff. It's a very busy job. We're a commercial research and teaching laboratory at the university, so owned and operated by the university, but to support all the research and teaching in the new regen ag degree as well, so a big task.

Alexandra de Blas:

Now what sort of testing do you do, because a lot of regen farmers, and certainly AgriProve sends a lot of its soil samples to you?

Graham Lancaster:

We really do anything. We do from contamination, to agronomy, soils, plants, human hair testing, animal hair testing, and right through to the carbon, which has really ramped up in the last three to six months. We just can't keep up with it. It's huge, and we just can't see an endpoint to it. Things are stretching out. We're trying to get ahead and the university is helping us, but with a bit of a catch up period there.

Alexandra de Blas:

So tell me what's involved in doing the testing for soil carbon.

Graham Lancaster:

Soil carbon, to dry the samples, they come as cores often, so they're a metre long for the metre samples. We got a container, a full container and turn it into a drying oven. We dry all the samples straightaway, but then we've got to go through a huge crushing process. A lot of work involved, to separate out the two millimeter fraction from the rest, the rock from the carbon. And then we've got a homogenize the core down to a powder. And then we've got to treat it with acid to remove the carbonates. And then we put it through a LECO combustion analyzer for the organic carbon. It's all accredited testing. It's a lot of procedure and a lot of work involved.

Alexandra de Blas:

How long does it take to test each sample?

Graham Lancaster:

The testing goes through a whole process. So generally, a sample and a core takes about a week to test. But we've got such a backlog and they go through in batches. We're getting anywhere from 500 to 1000 samples a week. We've got three LECO carbon analyzers at the moment, and we've got another two on order. And that'll ramp us up a little bit. I'm sure that won't get us ahead. It's just a continual battle, trying to keep up with the market.

Alexandra de Blas:

How many samples were you getting a year ago?

Graham Lancaster:

A year ago, we were probably only getting 100 to 200 a week. It's probably 5 fold to10 fold, to what we were. We service all of Australia. We've got clients coming to us now promising 17,000 samples this year, another client with 10,000. And those sort of numbers are just scary.

Alexandra de Blas:

How do you see this industry evolving from the sampling side of things, because measurement is a key element of having a soil carbon project in Australia under the Emissions Reduction Fund?

Graham Lancaster:

It's so important getting this measurement right. We're all accredited for and we put a lot of time and effort in doing it right, and it's needed by the industry to get the right numbers. There's a lot of quality control through the whole process. Because we're associated with the Regen Ag degree, we also have a vested interest. We want to help regenerative agriculture, and we want to help farming in Australia. There's such a huge potential benefit for farmers that the wins are all going to be in the industry.

Alexandra de Blas:

Will labs across Australia need to ramp up to be able to deal with the demand for soil sampling for carbon?

Graham Lancaster:

I think a lot of labs are looking at it at the moment. But they do need to get this NATA accreditation. It's the National Association of Testing Authorities. They've got to ramp up their quality control as well. And we really, we don't want backyard labs doing this. They've got to be proper labs and do it seriously. It's for the best of the farmers and the best of the industry to do it properly. And there is, like I say, a big procedure to it.

Alexandra de Blas:

So you're getting a couple more LECO combustion analyzers. How are you dealing with the increase in demand?

Graham Lancaster:

We're putting on staff every day basically. It's just constant. A lot of laboring staff just for crushing soils and putting it through special grinders, for the sample preparation and sieving the samples at two mls. It's very intensive work, but we also have a lot of specialized analysis, so we're putting more analysts on as well. We've got a lot of students coming through. Who can move into analysis as well while they're between jobs or looking where they want to go after university. We have a staffing base there which works really well with the university.

Alexandra de Blas:

How many more staff do you think you've put on to deal with this carbon demand?

Graham Lancaster:

I'd say at least 10 staff at the moment are specialized to that project, and we're still only ramping up and tapping the surface of what we need. We're running out of space. We're in a university, teaching is a priority. We get space while we can, but there's big limitations there.

Alexandra de Blas:

Well, Graham, great to speak to you. Good luck with keeping up with the demand. And I'm sure there are a lot of farmers who are waiting very expectantly for the results.

Graham Lancaster:

We're doing our best and we're there to help them.

Alexandra de Blas:

Thank you.

Graham Lancaster:

Thank you.

Alexandra de Blas:

Graham Lancaster, Managing Director of the Environmental Analysis Laboratory at Southern Cross University's Lismore Campus.

New Soil Carbon Methodology Proposed for 2021

Alexandra de Blas:

Soil carbon projects under the Emissions Reduction Fund, are governed by the Carbon Farming Initiative legislation, and specifically the Agricultural Systems Methodology of 2018. In order to be paid for building soil carbon, a farmer needs to physically baseline the carbon in the soil and then measure it again within five years. After the soil is sampled in the paddock, it's sent to the lab for analysis. Once the results are complete, they go through a set of around 160 calculations, before the results are submitted to the regulator, and the farmer can be issued with their carbon credits. It's a time consuming and expensive business. To improve efficiencies and reduce costs, the regulator and the industry are looking to update the system. Moving from a measure and measure approach to a measure-model-measure

system. The modeling component would enable farmers to receive annual payments for sequestering carbon.

After the initial baseline, remote sensing satellite data would be used to estimate increases in soil carbon, before the next field test in the paddock. The soil carbon industry is involved through the Soil Carbon Taskforce of the Carbon Market Institute. Matthew Warnken co-chairs the task force.

Matthew Warnken:

Under the current setup, credits are only issued when there's a measured increase in soil carbon, which requires you to go out and do a physical round of sampling. The new proposed changes or updates in the 2021 method would bring onboard satellite remote sensing technology, which would enable annual issuance of credits. For example, using satellite data that's highly correlated to soil carbon and using that data to show that there's been an increase in soil carbon opens the opportunity for lower costs and the annual issuance of credits. This would improve the overall economics and attractiveness of running a soil carbon project - making it even easier to participate.

Alexandra de Blas:

So that means that farmers could be paid once a year rather than once every five years?

Matthew Warnken:

Yeah, exactly. As you can imagine, there's a lot of technical detail to go through. But the other thing that's exciting about this approach of integrating remote sensing satellite technologies, is the improved data that we'll get not only for carbon, but for a number of other aspects to do with natural capital or ecosystem services. That will reduce the costs of measuring and monitoring ecosystem services and give us better information about how landscapes are performing over time. Now, what that means to farmers is as we get better at measuring these kinds of indicators, and things like biodiversity, things like water quality, even potentially things like soil organic nitrogen, which will have a bearing on overall landscape function, as we get better at measuring that data, and those changes, we'll soon be able to get better monetizing that or opening up new markets. Such as the Queensland Land Restoration Fund, where the Queensland Government was paying landholders for those associated co-benefits ecosystem services with running soil carbon projects.

Matthew Warnken:

The new method, new improved data, lower cost data, remote sensing, annual issuance of carbon credits and opening up access to new market opportunities like biodiversity, like water quality, and so on. We see a lot of upside in early participation, and in helping to frame and access to those new markets.

Alexandra de Blas:

If you'd like to know more about the science of soil carbon, we've had great feedback about the series of webinars on growing top soils by Declan McDonald. You'll find links to it in the show notes. If you've got any ideas you'd like to share for the podcast, email me at alexandra@agriprove.io. Next month, we'll be out in the field in the upper Murray. Until then, if you haven't already, subscribe wherever you get your podcasts and share it with your friends and colleagues on socials. I'm Alexandra de Blas, and this is The Regen Report. I'll catch you next time.