# GRDC PODCAST TRANSCRIPT

**INDICATORS FOR REGENERATIVE AGRICULTURE**

[00:00:05] **Sally Maguire** This is a GRDC podcast.

[00:00:11] **Tim McClelland** It is controversial because there's a movement out there which we're calling the regenerative agriculture movement and, by implication, those of us in conventional agriculture have been doing the wrong thing for many years, and that the regenerative agriculture movement believes that they'll do things better for the Earth and more sustainable.

[00:00:27] **Sally Maguire** Hi there. I'm Sally Maguire, and that's southern grower Tim McClelland, tackling the tricky subject of regenerative agriculture - buzz words that will either make you want to high-five the farmer next to you, or send you running for the hills. But here's a newsflash if you're an Aussie grower, there's a good chance you're already engaging in some of these so-called regenerative practices designed to improve soil health because, as we all know, better soils equal better yields and who doesn't want that? All this brings us to GRDC's latest investment, which is around understanding the intent, practices, benefits, and challenges of Regen Ag and growers we need your help. So now let's hear from Dr Hanabeth Luke from Southern Cross University who is leading this project.

[00:01:17] **Dr Hanabeth Luke** Step one - what we need for this project is to recruit 60 growers who are implementing a whole range of practices that may relate to regenerative agriculture. So, we want 60 growers. We know from some of our previous research. My PhD student Matt, who's just finished, looked at growers on the Eyre Peninsula, for example and we found that at that point, although only six per cent of farmers saw themselves as regenerative farmers, about half of farmers on the Eyre Peninsula were implementing practices that, very closely relate to regenerative agriculture. So, people might not see themselves as doing regenerative agriculture, but we're still interested in people who are applying all those practices that are aimed at building soil health and farm resilience. And once we've got our 60 farmers, we will be doing baseline study on the farms and monitoring, which will take place over a three-year period. And being a part of the project, I think it's really important that farmers and growers can learn from each other as we go so there'll be regular community of practice type meetings where you can come together and people can talk about what's working for them and not in terms of I guess practices and indicators, but to actually get involved in the study we are asking people to fill in an online survey, and everyone loves an online survey. But this is really important for us to get a sense of who growers are, but also so we can select those 60 growers so we can get a really nice representative group from across different soil types, across different regions, different rainfall zones, who might be doing one or a whole range of different practices.

[00:02:47] **Sally Maguire** So what might some of these indicators be, and I guess why aren't they out there already?

[00:02:52] **Dr Hanabeth Luke** So I think it's really important that we're looking at indicators that are not just looking at productivity. We're not just looking at agronomic, we're not just looking at soils. We're trying to bring together indicators across a range of different disciplines and that's why we have quite a multidisciplinary team at Southern Cross University with Associate Professor Mick Rose, Associate Professor Jacqui Williams and those two particularly have been working with myself and Dr Adam Canning to understand what's already out there. We're not trying to reinvent the wheel because there already are a lot of useful indicators that are out there as a part of ESG systems, natural capital accounting, agronomics, EOV - a whole range of things that are there so what is useful in relation to this project is what we want to know and the GRDC are interested in how can we understand whether a farming system is moving in the right direction. And that can be in relation to soil health, building soil, it might be building soil carbon, might be around looking at the supportive biodiversity on the farm. Also, early indications from the survey are showing that two of the most important things to farmers are farming resilience and profitability, not necessarily productivity. So how can we see that farms are moving in the direction that's going to improve resilience? And I think that does link into more, more extreme weather that we're seeing across the country, but also some of the things that are popping out as important to farmers are things like the wellbeing of farmers, things like work life balance, some of the early indicators are popping out - what's an indicator for you in terms of how your family is going on that farm and going fishing more is one of the things that popped up more than once. So we're trying to be, I guess, holistic in the approach that we take to selecting these indicators. But we're not just asking farmers about what's useful to them, we're also doing a very comprehensive review and that's been the work of Jacqui and Mick and Adam and myself to understand what are the indicators that are out there now and what's going to be useful for this project.

[00:04:52] **Sally Maguire** Grower Tim McClelland has already stuck his hand up to be involved in this project. So, Tim, do you consider yourself to be in the business of regenerative farming?

[00:05:03] **Tim McClelland** Absolutely, I mean, I consider myself and I'm sure lots of other growers out there to be conservation farmers. So we live in and love the land that we work on and so we want to make it better for our future generations as well. In essence, I feel as though I'm a regenerative agriculturalist because I'm improving the resources that we've got here on our farm.

[00:05:26] **Sally Maguire** So what would be some of the practices that you yourself engage in your business that would be considered regenerative? What are some of the indicators that tell you that.

[00:05:37] **Tim McClelland** If you actually look at the principles of regenerative farming, there's five key principles that they have. And so I'll just go through each one of those one by one. Reduced soil disturbance is one of the principles that they use. We are exactly the same in conventional ag, no till farming or direct drilling is very common across Australia. So already we're adhering to that sort of first principle. We do the minimum number of cultivation passes or sowing passes as we can as it degrades our soil structure and those types of things. So, we're already doing that. Keep cover on the soil - this is also extremely common. We basically plant our crops and then we retain the stubble to be able to help us retain moisture over the summer. So, it's pretty rare for a farmer to allow their soil to not have cover over the top. We do that to prevent wind erosion and also to help us to store soil water. The third principle I have is keep living roots in the soil as much as possible. This is one where we try and grow and be as productive as we possibly can on our farm, so we keep living roots throughout the growing season, obviously, but depending on whether you're in the high, medium or low rainfall zones, it can be often challenging to keep growing plants going through the soil all the way through the summer. But we definitely keeping soil cover. Create as much diversity as possible. So I'm a livestock farmer, so we grow pasture mixtures which have canola, barley and lentils in the mix. So, I use diversity in that pasture system and then we have a rotation of other crops through our normal rotation. So, wheat, barley, canola, lentils and our pasture phase. And as I said the fifth principle they have is integrate animals into the system. We have sheep on the farm. So, if you actually look at the five key principles of regenerative farming, we're pretty much ticking all of the boxes. So, I genuinely think that I'm a regenerative farmer and can claim that with a clear conscience.

[00:07:23] **Sally Maguire** So I guess, what's your summary message to growers who might have a bit of a mindset barrier there about regenerative agriculture and even participating in this kind of project?

[00:07:34] **Tim McClelland** So we need to wrestle back the term regenerative from the regenerative agriculture movement. We care about the environment, we care about the products, we eat them as well. So, we need to get involved in the project to put some science behind both systems so that we can get a better handle and a better understanding of what both systems are doing. And even in fact, if they are exactly the same in doing the same thing. So, let's work together and work out the best farming systems that we possibly can. And the best way to learn about your farming system is to get involved in projects like this, where they'll come and take measurements and give you indications of where you're going in the right direction and where you're going in the wrong direction, which will only help us to make better decisions in the future.

[00:08:15] **Sally Maguire** That's grower Tim McClelland, and now for the final word, it's back to Dr Hanabeth Luke.

[00:08:22] **Dr Hanabeth Luke** We spent, you know, the last 20 to 30 years talking about sustainability and, you know, you look at the definition of sustainability because you know, being an academic I like dictionary definitions and things like that. And it talks about keeping things the way they are, trying to preserve things for future generations and what we're seeing with the regenerative term is that it's sort of acknowledging - yeah, look, well, some things we haven't really kept things as they were, so how do we improve that system? I think across the world agricultural industries are saying, yeah, that sounds like a good idea, let's get on with it. Whereas in other places the terminology has different meanings, and some people are a bit more reticent to associate themselves with that and I think that has happened in Australia for some reason or other. But I think that the world is moving towards regenerative agriculture as an important terminology and yes, look, it's just a word, but a word can be very important. I personally like it because I see it as we're not just sustaining, we're actually trying to improve and to grow and the landscapes might not look like how they did two or 300 years ago, but we're still creating a healthy landscape that is also productive and what farmer doesn't want that.

[00:09:33] **Sally Maguire** That was Dr Hanabeth Luke from Southern Cross University. And if you're a grower out there who would like to contribute to this current GRDC investment - set up to better understand regenerative agriculture practices, their benefits and challenges, then the survey link can be found online at grdc.com.au as well as in the description box of this podcast. I'm Sally Maguire, this has been a GRDC podcast. Thanks for listening.