

# Ep 20 - Tech on Farm

**Sarah Thorne:** [00:00:00] Catchment Convos with Thriving Southland, your link to Southland catchment groups and their impactful projects. Each episode, we'll dive into grassroot efforts by local farmers and communities that are driving change and sustainability in our region. Listen in for inspiring stories and insight. Real people, real change, the Southland way.

Welcome back to Catchment Convos, the podcast where we dive into the work of passionate people driving change in our catchments and communities. I'm your host, Sarah Thorne, one of the Thriving Southland catchment coordinators, and joining me on today's episode are Craig Steenson and Nick Wadworth.

Craig and Nick are core members of their local catchment groups, Greater Dipton and Makarewa Headwaters, and together we'll talk about what tech they use on their farms and how it helps them get the best outcomes for their land, water, teams, and businesses. So let's get into it.

Welcome to Catchment Convos, [00:01:00] Craig and Nick. It's lovely to have you on our podcast today. I've heard so many stories about how you're using tech on your farms, and I can't wait to hear more about it. So it'd be wonderful if you could introduce yourselves to our listeners and tell us a bit about your farms.

**Nick Wadworth:** Yeah. G'day, it's Nick Wadworth here. I'm farming with my wife Alexis, and daughters Addison and Jodie. My dad's on the farm as well, which is quite handy from time to time. We're running a sheep and beef breeding unit with spring and autumn calving beef herds.

I guess some of our values lead into this tech podcast quite well. Our values are stewardship, courage, and kaizen. Stewardship meaning looking after the land and the people. Courage, having the confidence to do new things. And kaizen, which is my favorite one, is the [00:02:00] continuous improvement and efficiency in our business.

**Sarah Thorne:** And Craig?

**Craig Steenson:** Hi, I'm Craig, and dairy farm up in Dipton West with my fiance, Alana, and our two kids, Alice and George.

We contract milk 140 cows in a barn system. Yeah, running a system five. It's our first season winter milking on this farm. So yeah, third season on this farm, first season trying winter milking, so there's a fair bit going on staff-wise. We've got four full-timers on farm at the moment, and always looking at ways to kinda maximize the hours in the day, efficiency, make sure staff are having an easy day, but we're still managing to get that downtime, but get through all of our jobs as well.

**Sarah Thorne:** That sounds amazing, and it sounds like a great link to our first [00:03:00] question. Could you tell us more about some of the tech that you've incorporated into your farms and how it adds value to your farms?

**Craig Steenson:** So our dairy shed is quite kitted out with technology. We've got some great farm owners that heavily invested some time and money into setting up our cow shed quite well. So milk meters for measuring litres, milk solids daily. Um somatic cell count sensors. Protrack drafting, Protrack InBale, which links with our Protrack feed system, and cow collars for mating. So every day those cows come through the shed, they're getting their milk litres, yields, milk solids measured, uh, somatics. It's all linked back into Minda, and that flows through to how we feed these animals as well. So high producing cows are getting their daily [00:04:00] requirements met via all this automation and the feed levels we set in the sheds. So takes a lot of, I guess, that manual work out of it.

So that helps with your staff. Cows come in, you get alerts for dropped milk liters if there's something wrong, somatic cell count. So you're getting all these animal health benefits, straight to staff right there at cups on. That definitely helps minimize that workload and searching for these cows especially around somatics.

So stuff from this morning's milking will flow through, and if they've produced more milk from this morning, that will flow through till this afternoon's milking, and that will allow them to have more in-shed feed to hopefully continue increasing in milk solids.

It ensures efficiency so we're feeding the correct cows the correct feed. The cows that are making milk are getting fed [00:05:00] to have their daily requirements met. We're not just blanket feeding everything and pouring feed into cows that don't necessarily need it.

**Sarah Thorne:** That sounds like clever farming. And I heard on the grapevine that you might have set up an intranet to help your farm systems and staff coordinate information.

**Craig Steenson:** Bit of a work in progress still. It's an intranet, and we have set that up alongside Google Drive, and that pulls in a joint calendar so we can put all sorts of scheduled events we have into this shared calendar.

So on the homepage of our intranet, for the business, point blank, right in the center is a calendar there which updates as soon as you put stuff into it. And we've got all sorts of other tabs on there, so you can go through and people can find rosters. So milking times, who's milking, days off, people on annual leave. All of that is linked through from what we [00:06:00] enter into Google Drive. We've got SOPs in there, so you can find all your SOPs for motorbikes, tractors, all of that. Slideshows, so setting up the cow shed. So someone could pretty much walk in, follow the slideshow and open the vat, turn the machines on, close this, open that, and away they go.

A bit of health and safety on there as well as an emergency kind of response page. , Everything's kind of there ready to grab if you need it. It's still a bit of a work in progress 'cause you can add so much to it.

Some cell phones are working better with that than others, so yeah, a bit of that stuff isn't quite 100% at the moment, but we're trying to work our way through that and just trying to get away from paper. So just trying to simplify everything. Everyone's got a phone nowadays. It's always in your pocket. You can do it then and there, and it's done.

**Sarah Thorne:** That sounds so efficient and sensible, [00:07:00] and it takes it out of people's heads and gets it somewhere everyone can access it.

And Nick.

**Nick Wadworth:** Yeah. I guess the, one of the earlier things we adopted, and I'm probably preaching to the converted, but we invested in a direct drill, so that's just a machinery thing that saves a lot of time and money driving tractors around the hills basically to develop pasture or crops. So that, that was the first big purchase we decided to do, and it's been very valuable, for the last six years. We can't really go back to the normal cultivation that we used to do.

It would've been about four or five years ago, we invested in a drone, a very basic model, and the original motivation was to get away from doing a lambing

beat basically, and checking sheep every day on a bike sort of didn't really tickle our fancy, especially in the poor weather that we get. The drone has been not only great for saving time [00:08:00] and maintenance on bikes and fuel but also just understanding what the stock are doing before those weather events that are coming through. So I'd fly it out, you check about 1,000 sheep in half an hour and, you know, there might be a couple of cast ones, but more often than not there's no cast, so you don't have to go too far and you're not disturbing all those animals pre a storm event. Saves a lot of time.

I guess Craig mentioned it before with everyone's got a phone on them, and I carry a phone as well. There's multiple apps that we use. The main one that we've used for quite some time is the Resolution app, which is basically a farm diary on your phone, and that's very cust-customized to your operation. So I think we've had it about five years as well which is quite fascinating looking back at those records.

[00:09:00] A recent app that we're trialing is called Stock Score. We were just using that the other day when we were scanning our ewes. So just another wee efficiency.

We're in an area where we've never had cell phone coverage. We, installed our own internet tower on the top of our hill . And then obviously time goes on and now we've got Starlink and that pings internet or good solid internet to the buildings around the farm.

And then with the Spark satellite plan on your phone now, we can use , our Halter app anywhere on the farm and also send messages. You can't call very well, but you can use data through like WhatsApp to make a phone call especially if you're in trouble.

So it is, there's a health and safety element there as well. So things have changed quite a lot. Sort of went from being used to not having any internet and couldn't call anyone to being able to do most things [00:10:00] while you're getting around the farm now, which is another ef- efficiency.

There's another couple of things. Pests are obviously an issue up here. We've invested in some of those NZ Auto Traps. We just Bluetooth our phone to the trap to see how many kills it's had which is, quite interesting.

And then the last thing is we've got Halter on our beef cows for fencing basically.

**Sarah Thorne:** That's amazing. You both mentioned it, but it seems to me that it's critical to upskill and support your staff for any new tech and systems on your farm. How have you guys supported your staff to understand and use the new technology?

**Nick Wadworth:** We usually get a summer student in some temporary workers in. So to support them using an app like Resolution for example, in the drenching race would have a wee, poster, next to the drenching race and they would walk them through how to record drenching animals, like what they got drenched, how many, the weight of them and dosage, et [00:11:00] cetera.

There is a wee bit of manual handling with it but with those younger employees, you've sort of gotta start somewhere. You do that once and you just say, "Look here this is what you do." And as long as they actually use the technology, that's probably the biggest challenge is to get them to get in that frame of mind of actually using it all the time so the information's going in and they're not waiting till the end of the day or the end of the week to put in what they've done.

**Craig Steenson:** Agree there, Nick. The uptake, I think, from staff can be quite a challenge. We're a little bit slow sometimes. Probably for my guys it's more of a what's he done now? What's he created now? Or here's something else that he wants done. But I think, there's a lot of technology out there. We keep getting more and more, but we almost need to try and consolidate a bit of it so it's kind of just there, it's all accessible, it's kind of [00:12:00] one. We just end up with apps everywhere and apps for everything.

We'll try and sit down when we do our staff meetings and something might have changed or I might have removed a few things from that website or inspection forms, just trying to make things a bit easier for everyone. We'll discuss it and go through it, and there's always something that comes up or doesn't work or everyone's wanting to get rid of or wanting to know a bit more about, so yeah.

**Nick Wadworth:** Carrying on from that, Craig with all the apps and the tech that is coming, I do feel like I'm gonna be obsolete in 10 years.

I only feel that way because, well, both Craig and I have started at the bottom with the nuts and bolts of it. If you've got a younger one coming in and they see all this tech, they're not gonna understand all the real nuts and bolts stuff of grass and cows, potentially. For example, and I've definitely stolen this quote from somebody, and they'll know who it is if they listen to this, but, "A halter collar isn't going to make your cows bigger or grow [00:13:00] faster. You've

got to be able to use it correctly." And making all the tech that is coming through too complicated for someone coming into the industry, you could run into trouble, but understanding the nuts and bolts, before you get into it is still crucial.

**Craig Steenson:** I think that's where we just need to try and keep it simple. Everything's just simple to use, it's quick, and it's efficient- Yeah ... and then you can just carry on with your day. We've got a lot of good technology now, and there's gonna be a lot of great stuff coming in the future. I've been in this industry since I left school at 17, and from when I started it was just cows, motorbikes, grass. You know, you had a fence, reel, and standard as well. Now, you can sit there on your couch, have a coffee, and shift your animals, or give them another break. the technology is amazing and how it's progressing. It's definitely helped a lot of people out especially some of these small dairy [00:14:00] farms, family, husband and wife team, no staff, they do it themselves. So it's exciting to see where we're gonna end up and how it's gonna keep affecting us.

**Sarah Thorne:** It's combining that tech with really good solid knowledge that you have of your farms and your farming operations is often to get the best outcomes. So it's great that you guys are thinking about that with your staff.

You guys have mentioned so many things you're doing already and so many ideas, but where do you get your ideas from, and what helps that idea get picked and go from an idea to actually happening?

**Craig Steenson:** It's an issue that's, that you need to resolve for me is probably the biggest thing. With those inspection forms you got so much machinery going around, tractors, mixer wagons, motorbikes you know, if we have accidents, you gotta be able to provide all these answers and just for the fact that, you know, people are using them and they are getting maintained. So that was my big thing around the inspection forms.

And then I guess the other [00:15:00] one that's probably been trying to work on, and I think we've run out of capacity with Excel, was a automated staff rostering tool to try and get rid of so many hours sitting in front of a computer at night trying to do a roster, whether that be it for the whole month or just the next fortnight. With the help of ChatGPT and Excel and I have made something.

Something I'd like to try and pursue a bit more is a little bit more automation on guess your daily jobs and that admin side for us to make sure everyone's tasked

with the jobs that they like and the jobs that need doing, and it's kind of kept even across the playing field.

**Sarah Thorne:** That's just brilliant, and hilarious that you broke Excel.

How about you, Nick?

**Nick Wadworth:** Yeah. Look, it's probably similar to Craig with you're going about your daily jobs [00:16:00] and, you're like, "Oh, there must be a better way of doing this." That's basically what I'm thinking most of the time is there must be an easier way or more efficient way.

Even just listening to a podcast or something, there's quite a few, few farming themed ones on my phone and, you start picking things up from overseas and everywhere really. And, if you can apply it to your farm, then you may as well do a few figures and try and pursue it, I guess.

**Sarah Thorne:** So I feel like you've probably answered this already, but what have you found to be the benefits of incorporating new tech on your farms?

**Nick Wadworth:** I guess it has been ef-efficiency through time saving has been massive. It's pretty hard to calculate that. For a long time I used to count fence posts in crop paddocks to sort of get a rough area of the break that, say, the hoggets would go in.

And now through the Resolution app, you can draw it like to the hectare or [00:17:00] point-0.1 of a hectare and then you're not having to go out there and roll your break lines with a tractor more than once. And then it's also like the accuracy that that brings with break fencing example.

**Craig Steenson:** Like Nick said, the efficiency, the time saving. Just off the top of my head, with Protrack, just drafting cows. There's no more manual drafting, manual sorting. You punch in the numbers of the cows you need or with the the collars on our cows when you come to mating, all that information flows through and you can turn up and you've got all your cows there ready to go for the AI tech.

There's no more labor unit standing, standing on a stand. It's just the time saving and that person could be off doing something else on farm. You're now getting through more jobs in a day because , you've automated one process, or you've taken them away from a job that you used to have to stand there for [00:18:00] three hours and do.

**Nick Wadworth:** It's also a headspace thing. Once you start putting data into, like Resolution, for example, you don't have to worry about remembering everything. If you enter the data into something you no longer have to worry about it, and you revisit when you need to.

**Sarah Thorne:** There's so many great points there. Have there been any unexpected challenges that you've learnt from?

**Nick Wadworth:** I guess for a start, like anything new is gonna be hard to what you've been used to. I haven't worked this out yet, but like cattle behavior in some of our hill blocks we're obviously giving them a daily shift with the halter collars, but the way animals behave, they always wanna go up to a stock camp. You know, that's where it's warmest. They're not getting that at the moment. They're staying in their wee break, so that's mentally taxing for me wondering what they're up to in their little confines of, the break. But I guess that's something you sort of gotta get [00:19:00] used to.

But I guess the main challenge is we still have to be smart to use the tech. Like , if you're not gonna be jumping full bore with it, then you won't get, the use out of it .

**Sarah Thorne:** Love it. How about you, Craig?

**Craig Steenson:** Yeah, no, the same. Probably the challenge is just all that change.

There's always new stuff coming through, and it's often changing so quick. It's just trying to keep staff onto those changes or whatever's changing.

**Sarah Thorne:** So if someone is listening and thinking, "I really like that idea," what would you recommend as their first step?

**Craig Steenson:** I think it depends what it is. Like, if it's something you can pay for in a subscription, I guess just contact the reps really and have a chat with them, see if it is something that's gonna suit. It's probably just knowing your business wants or needs ? And is it gonna really save you the time? And what's the return on that investment really at the end of the day is probably the [00:20:00] biggest thing.

Then if it's anything smaller, you know, , I've done a lot of Googling or ChatGPT. It's, so good at coming up with different stuff and you just sit there and tell it what you want and, and you can just take things out of it. You can get

it to create it for you fully or you can just grab ideas . There's so much out there that you can use nowadays to help yourself build something . And if it doesn't suit you, then move on .

**Nick Wadworth:** Yeah, you're right, Craig. People that are adopting new tech are willing to share what they're doing anyway. So if you know someone, just pick up the phone and have a chat and that's pretty grassroots and you hear it straight from someone that's trialing something.

**Sarah Thorne:** That's awesome. So looking to the future, is there any new tech that you're keen to explore?

**Nick Wadworth:** It sounds like Craig's already using it, but we've started using AI just at the moment actually. So we're using that to help speed up the mundane process [00:21:00] or clunky jobs of analyzing data. Alexis is mainly heading it up, but we are doing our stock reconciliations, and it's also helping with doing reports and things from our accounting software.

**Sarah Thorne:** That's terrific. How about you, Craig?

**Craig Steenson:** Oh, I'd love to find something to replace me. That would be great. Um, no, probably I think just focusing on what we've got. You can grab something with every reach, and you can have all this stuff, but are you actually using it to its full potential?

And, you know, if you're paying for it, are you getting your money's worth out of it? So probably just working with what we've got at the moment and just trying to make sure everything is working properly and staff are happy to use it, it's easy to use, and it is actually just getting done. So that's, that's probably our focus at the moment, and just try and get all that sorted.

**Sarah Thorne:** Sounds like an excellent [00:22:00] focus. So before we wrap up is there anything else you would like to share with our listeners on using technology on-farm?

**Nick Wadworth:** Yeah there was. Thriving Southland do a good agri-tech day. I don't know when that's coming up next, but that's very valuable if you wanna see some new things going on. I've been to it twice now myself and picked up something every time, so it's been very valuable.

**Sarah Thorne:** And you, Craig, is there anything else you'd like to say?

**Craig Steenson:** I guess it's... just get on the phone. You'll find that a lot of people, especially farmers, are willing to tell you pretty straight, how it is, if it works or it doesn't work.

Just try something like ChatGPT. Start somewhere like that, see how it goes, and if it's something that's gonna work, and just progress from there .

**Sarah Thorne:** That's brilliant.

Thank you so much for joining me today, and sharing your knowledge and expertise. It's been a really inspiring episode, and I'm just blown away by all the tech you're using and how it's helping your farming operations. I hope our listeners have picked up some great ideas today too, [00:23:00] and after listening to you guys, feel a bit more confident to make them happen on their farm.

And that's a wrap for another episode of Catchment Convos, brought to you by Thriving Southland. A big thanks to our guests for being part of the conversation on today's episode, and to you guys for tuning in. We appreciate your support. Don't forget to like, subscribe, and follow us wherever you get your podcasts from so you can stay up to date with all the latest episodes as they're released.

For more information on this episode, check out the show notes or head to the Thriving Southland website, where you can also learn more about the awesome work happening across the catchment groups here in Southland. And if you've got a project or an idea you want to share, don't be shy, reach out. So until next time, keep up the good work out there on the land, and as always, stay connected and keep driving those changes for a thriving Southland.