

“Walk the Talk” with David Stewart

Farm Safety

David Stewart: Thanks very much for having me here today. Really good to come to a really well organised setup with people in the room and a lot of interesting chat as well. I can't help but go back a little bit to the previous two subjects which have just been discussed, and just make a couple of comments. When Benita was mentioning the importance of water supply in farms and some of the key issues and Michael mentioned just slowing water down, which is one of my favourite topics as well, I remember some years ago coming across this statement where someone has said, "Keep the water as high as you can, for as long as you can."

And the thing about the macro and the micro level, it just makes a whole lot of sense. It means, you know, slowing the water from running off your paddocks, having sufficient cover on your paddocks to actually let the water penetrate and when it gets into the soil, having enough organic matter to actually hold the water in the soil. Just that one statement, you know, "Keep the water as high as you can, for as long as you can" makes a whole lot of sense in farming.

It also reminded me of ... I did farm in north Victoria for a number of years and I had an acre of wheat, our place was only a few hundred acres, it was quite a small farm and we ran prime lambs. We very quickly set the place up as a reticulated water system because I didn't like, there's only two dams in the whole place, and my next door neighbour had about two or three thousand acres running cattle and sheep. His watering system during the drought, which ran from 2002 to 2010, pretty much was, you cart water. And he had no reticulation, he had no troughs, he had no tanks, really good operator, fantastic cattle, beautiful pastures.

But all through that period, particularly through the summer period, he had a truck, a 2000-liter truck, tanker which went up and down the road past our place to a local bore about five K's away. He'd fill the tanker up, then come back to the farm and fill the water into a dam. And so imagine how big that puddle was in the dam! It was just enough to actually evaporate by the next day, so it's just this constant back-and-forth. And I thought, "Gee, you know, you think at some stage, someone's going to think perhaps this isn't such a great idea," but it just went on for years and years until this day, I don't think they've still got a reticulated water system. So yeah, just things to think about.

All right David, I'll get onto my topic now, which ... Got a fair bit to get through today, which is ... I'm not sure I'm going to make it, but we'll see how we go. Farm safety's one of my pet subjects. We talk about sustainable agriculture and sustainable farming systems. Well, believe me, if you have a serious accident on a farm, as an injury or a death, it does a whole lot to your sustainable agriculture as in it completely shuts the whole system down very quickly. I did some talks some years ago where there's a local community group called the Wellington Farm Safety Action Group which is down the Wellington Shire and they got some money to go round and give some running talks on farm safety. And the only way they get people in the room is to run it at the pub and have a free meal. And people just turned up in their droves, it was fantastic. Otherwise you mention farm safety, and they just shoot out the door and go have a beer.

So that worked quite well. I want to just go through and this could be confronting in a sense but to make you think about farm safety. I don't need to put up gory photos, that doesn't work at all, you can go onto the internet if you want to see that sort of thing. But just to talk about things which perhaps we are in denial about. Some of the data on farm safety and injuries and deaths comes from basically from media monitors, because they actually, nowadays they're capturing all the information about deaths on farms. Unless it shows up in the press, it's not regionally caught that well, but this is the best data we can have, and it's collected by the group up at the farm safe people up in Dubbo who run the organisation called the Australian Centre for Agricultural Health and Safety.

In 2015, there were 69 deaths on farms. What would you think would be ... I'm going to look at the top five, the headline acts for this sort of thing. What do you think would be the main things that are causing farm deaths?

Speaker 2: Quad bikes.

David Stewart: Quad bikes. Excellent. Number one, 15 quad bike deaths. Number two?

Speaker 3: Tractors?

David Stewart: Excellent. 13. All right. That is true, until quite recently tractors always sat on top. It didn't matter if you were in grain farming, horticulture, vineyards, sheep and cattle, dairy, whatever it might be, it was always tractors. Well, now it's quad bikes. And there's far too many instances occurring in recent times as well. Number three, what do you think might be next?

Speaker 4: Farm machinery.

David Stewart: Down the bottom, farm machinery's just generally farm machinery, so not just tractors on their own, but farm machinery. Keep on going. Tree felling, also one of my favourite

subjects. Chainsaws. Motorcycles are on the bottom. So, the old two-wheel version, which is actually my preferred way of getting around when I'm mustering stock anyway, I prefer to be on a two-wheeler bike for manoeuvrability rather than a quad bike, but that's the top five.

Okay, so that's the deaths on farms, have we looked at actually injuries on farms? Up here, quad bikes again. Now this is just in the media, so this is a complete understating what's actually going on out there, because lots of people present at hospital with injuries, but they don't necessarily ask them, "Well, gee, what happened here?" and put a documentation together that then goes off to someone who's collecting that sort of data. This is just what's turned up in the media. Quad bikes, 43. Tractors, 8. Less injuries with tractors because they tend to kill you rather than just having injury. Cattle, 9, okay that make sense? Farm machinery 6, and motorcycles 4.

So the same sort of culprits but with livestock coming here as well. I've decided to come straight today on just these sorts of things. So what are the main hazards? So what do you think are the just from a few, what do you think the main hazards on farms? Left on the back, young fellow.

Speaker 5: Steep hills and muddy ground.

David Stewart: Steep hills and muddy ground. Good point. We're on a very steep hill here, in fact I almost got vertigo walking around this place a couple weeks ago, it was so steep. I'm used to farming on flat country, so ... Yeah, steep hills and muddy ground. What's the problem with muddy ground?

Speaker 5: Slip over?

David Stewart: Yeah. Slips sideways. Okay. Good. Anything else?

Speaker 2: Vehicles

David Stewart: Yeah, okay.

Speaker 2: [inaudible 00:06:02]

David Stewart: Rolling backwards.

Speaker 2: And the vehicle's brakes.

David Stewart: Yeah. Tractor brakes. I farmed on flat country a long time where tractor brakes didn't matter very much, because you were just on the flat country. Up here you have to have

really good brakes on your tractors because they go off on their own a bit. Okay. Young fellow's got another one!

Speaker 5: Let your kids to drive them!

David Stewart: Very good point! And he had doxed dad in here at the ‘’ or you just ...

Speaker 4: He'd probably do a better job!

David Stewart: Yeah, you can see there's no shyness from me here. I've got lots of pictures of kids on tractors, which to me is just, it's a no-go zone. All right. Rollover protection. Major cause of death with tractors is rollover protection systems are not in place, ROPS we call them, Rollover Protection Structures. When tractors roll over and people get killed underneath them, it's usually pretty the much same story every time. Most of the tractors these days have these things we call ROPS here, they can be retrofitted, they can be four posts, they can be two posts, and the whole idea is if the tractor does roll over, at least it's not going to squash you, we hope, so long as you stay somewhere in the zone that's being protected by the rollover frame and you're not going to fall outside that in the same way.

We look at a lot of modern tractors these days, they've got these little collapsible-type ROPS frames here as well, which are designed for going underneath trees, or that type of thing or in orchards. What I am concerned about with tractors, a lot of these newer tractors, particularly these imported ones, compared to the old Masseys and the John Deeres, they're actually pretty light, okay, and often they've got a hydraulics which are sort of beyond the ballast capacity of the tractor, so I'm quite concerned about, and I'll go to the next photo here. When we start to put a fair little load on them and we start to lift the centre of gravity up on these machines, they become very unstable very quickly. And particularly in hill country.

So we've got to really think about what we're doing when we carting things like hay around on tractors where you've got this [inaudible 00:07:55]. if you're driving that tractor with probably 350 kilos in the front and on the back, that thing's just going to be rocking backwards and forwards as you go across the paddock. And so we need to start thinking a little bit about well, this is all very well, you've got a more efficient system of cutting hay out there because you can do two bales at the one time, but is it actually a really smart thing to do, given that you're actually going across the paddock, and the level of instability.

One step in here, once we start to lift bales up, what becomes the problem?

Speaker 2: Centre of gravity.

David Stewart: Centre of gravity goes up. As our centre of gravity goes up, we lose stability. A lot of the earlier deaths with round bales is with the early, no spikes in the bases, just a fork that just went underneath the bale to lift it up, was the bales would come up and they'd roll off the back of the front end loader come down across the canopy, hit the person sitting on the tractor and either break their neck or kill them, okay? Now for the most part, most tractors have these spikes which go into them, and that's a good thing too. Also there's some of these level-load-type things which actually keeps the load level rather than going up too high.

So what's going on with rollovers? I've talked a bit so far just about centre of gravity, but we also have to look at what can go wrong with a tractor when it comes to flipping over for other reasons. It's not all just about steep hills, this thing can happen on flat country as well. What we've got here is a tractor that's basically pulling itself over, and we've got this thing here at a critical point of no return, which you call a moment of inertia. About three-quarters of a second to get to there, about one and a half seconds to go the whole way.

Go to the next one. So what's actually going on here, this is a nice little image which is, actually, needless to say, not a real person there, and there's a remote control guy over here. And the person is trying to pull an immovable object here, so what's happened to the tractor? Why is the tractor doing that? I'm not going to let you answer any more questions because you ...

Speaker 2: [crosstalk 00:09:43] on the top linkage.

David Stewart: It's hooked onto the top linkage, but why is the tractor turning?

Speaker 3: [crosstalk 00:09:46] Wheels just stall

David Stewart: Yeah, the wheels, the tractor can't go forward so all the power's being applied to actually rotate the tractor around the wheel. Okay, so quite ... plenty of tractors are quite capable of doing that. What, and someone's mentioned about the back here, the chain is actually hooked up to the top link, so it's actually up above the back axle which means it's far more likely to actually spin it over in that situation. So, we need to be really careful when we work in any country, flat or hilly, that we don't go hooking onto the wrong part of the tractor just to do a simple job trying to pull something.

Once again, tractors don't need to be on the steep hilly country to roll over. In this case here, the tractor once again being remotely controlled, is just going down a gentle sort of slope, he's been going downhill, all the momentum for that machine is, it just wants

to go down. You've got two and a half tonnes, it just wants to go down the hill. You try and turn it too quickly, down there, and this is quite often happening what's going to be happening, you might be on a hay baler or a mower, you're down the bottom of the hill, you're at the end of the head lane, you need to =turn around and go back up the other way, you're going too fast at the time, you hit your turning brakes to go around, all the sudden you're rolling over. Okay. Doesn't have to be really hilly country to do that. Another thing. Don't assume that tractor cabins have ROPs, right? There's plenty of old tractors out there which have the old cabs on them. They're not actually a ROPS-type cab, they're just a cab to keep the sun and the rain out. Okay? So don't assume, if you've got an older-type tractor, it actually has a ROPS fitted to it.

Because your tractor has ROPS doesn't make it safe for children and passengers. I spent most of my life farming and I've got two sons now who've survived it, and they're now in their thirties, and I can honestly say they never got on a tractor until they were about 16 years of age, okay, because they were not capable of driving a tractor till they were that sort of age, in terms of the controls, reaching the peddles, all those sort of things, having the confidence.

I've got a very vivid memory of working for, in my early days of jackarooing in South Australia for a farmer who, we'd finished harvesting for the year, we were bringing, I was bringing back the header back and he was driving another tractor back, and he needed to get one of the bins back and he had an old tractor which he had hooked up to the bin, and the bin was driving ... Sorry, was going to drive down the paddock about 500 metres to the gate and stop there. So he put his five-year-old daughter on the tractor seat, got the tractor going and said, "You just steer towards the gate."

So you've got a five-year-old child driving a tractor, pulling a bin behind it, going towards ... Yeah, do you think, even I, I mean I was a young lad back then, I thought, "This is just insane," but he thought that was the quickest way to get the bin back there, because the kid, she's pretty good, she can handle a tractor. But five-year-olds are a bit inclined to lose interest sometimes and want to go and do something else. So, survived it, but yeah, kids and tractors don't go together.

Rider mowers. She'd been in the same rollover hazard as tractors. All right, so clearly we have someone here, we can't see thankfully, but has pinned themselves underneath their rider mower. There's something interesting there that you might see, down the bottom right hand corner, which I think has a factor in this one as well. What's going on here?

Speaker 2: [inaudible 00:12:38]

David Stewart: Yeah, thanks Mike That actually has, not all rider mowers have ROPS on them, this one does, but the person, probably because they're going under a trees with a mower, has actually folded it back, so they've lost the full engineering strength of that ROPS in the process.

All right, is your tractor roadworthy and registered? Sometimes bad days just get worse for you. I can't even work out what's happened here, but there's obviously ...

But much as I laughed when I saw it, it actually reminded me, there was an incident some years ago, where once again, we had an old tractor which was being towed into town by the farmer, and the person driving the tractor was an exchange student or a backpacker, whatever it might be, and towing the tractor into town behind a Land Rover with a big long chain, and typically tractors don't have very good brakes so when the vehicle slowed down the tractor couldn't slow down at the same speed, and so the tractor kept on going, eventually went over the top of the chain and the Land Rover took off, and the chain was dragged over the back of the tractor, straight across the back of the person and broke their back and killed them instantly, pretty much.

So it's just sometimes a case of, have you really thought this through, what you're doing? And is the person on the tractor very experienced anyway, and where can it go wrong? And if that's the case you will sometimes just have a bad day, and it changes everyone's lives after that.

Okay, the other big killer with tractors other than rollovers is just power take-off shafts. What's the issue with power takeoff shaft?

Speaker 4: Death.

David Stewart: Death, yeah, caused by?

Speaker 4: Caused by loose trailing cord.

David Stewart: Loose trailing cord, something getting caught up in the power take-off, and at 540 RPMS, it's a pretty one-sided fight. That's an uncovered power take-off shaft, we'll go to what we want to have on tractors, is covered power take-off shafts like this, where you've got that's the cover there, you got a chain actually anchoring that cover so it can't spin round as well, to make it a safer piece of equipment.

Having said all that, to me you should never be getting off a tractor when the power take-off's going anyway. It should be stopped. There are horrible images which I'm not going to show any blood, I saw a terrible one the other day, of a person who got caught in a power take-off shaft, and they looked like a piece of wound-up cable, right around their body. It was just twisted up like that.

So I said 540 RPMs, 60 horsepower, all it takes is something getting caught up in it, and I've got two contacts I've had over the past years where someone who, one's a dairy farmer who literally had his parka got caught up in it, and the first time I saw him he was standing there, and he had two little prosthesis for arms, so he was a lucky guy because all it did was rip his arms out, and he said, "I can remember seeing my arms going up in the air."

Okay? But he was still there with his family, and he was still dairy farming with no arms. And another bloke who I thought was really stiff, was actually, it wasn't actually a power take-off shaft as such, he was fencing an old fence line where they thought they pulled out the old fence but under the dirt was some old netting. And when he put the post auger into the ground, it just sucked him down, and he lost both his legs in the process, so ... But they both survived, so lucky day or not, I'm not sure.

Don't often get to see someone who survived one of these things. This bloke lectures around America and you can see he's got a prosthesis on this side, so he's lost one of his arms. Who can remember that story, on Australian Story? Pretty amazing young girl, pretty amazing bloke, and a terrible tragedy. Remember she's got this arm here, which is pretty much useless to her, and you can't see her other arm, because it's actually not there, it's just an empty socket up where her shoulder is. When that came on TV I remember really clearly, they started to tell, the husband is saying, "We were doing some fencing around the house," and you already knew what happened to her, and I thought, "I bet you this is about a post auger of some sort," and sure enough it was.

What's the problem with post augers? It's not about the power take-off shaft. So this part here, this is a nice new pretty machine, a lot ones are really old ones, and almost all of them have a little shear pin here. And almost always the shear pin goes at some stage, so what do cockies do when the shear pin goes? You go straight for the spare parts and buy the exact same thing, don't you? That's what you do, you go out and buy ...

Speaker 2: Go to the toolbox.

David Stewart: You go to the toolbox, you find a bolt that fits in, you stick it in there. Okay? It doesn't matter how long the bolt is, as long as it does the job we can keep on going with the job. And she got caught up in a bolt, which was you know, obviously proud of the machine and just caught her up and she got wrapped around it and got her arms taken off. So there's just these things, we know they happen and they happen over and over again, but the message doesn't always get out there.

All right, we'll get to the main one. Quad bikes. All-terrain vehicles. Who's ever taken their kid on a motorbike or a quad bike? Come on, you gutless lot! I can say I was back

in the days when my kids were young, and they didn't go on tractors but they did go on, it was mainly the first son, because when my wife was in the hospital having the second son, I had to look after the kid because that's what you do on farms, don't you? You look after the kids when mum's away. So he had to learn to ride on the front of the bike with me.

And I knew I was in trouble when a few weeks after my wife got home from hospital, she looked at his little rubber gumboots and said, "What happened to his boot?" I said, "What do you mean?" And of course he'd burnt all the side of the boot on the exhaust pipe. It didn't hurt him at the time, but she knew something had happened and I had to explain myself, and that was a bad day for me. So kids on motorbikes, kids on quad bikes, just got to rethink the whole thing.

We know, through the Victorian government there are now rebates for these types of bars, the quad bar, and the life guard, okay. There's a \$600 rebate, so if you've got a quad bike or one of these types of machines and you haven't done something about it, there's a pretty good incentive to go and do something about it now.

Speaker 3: The rebate is not for lifestyle farmers.

David Stewart: Yeah, I haven't gone into that for myself, I know what you're saying, because I don't own my own property either. I'm currently leasing a place, and I've got a quad bike and I don't have a bar put onto it, so I'm going to go experiment, and go and find out what the hell situation, it's crazy to me that you can't get one.

Speaker 3: [inaudible 00:18:53] quad bike

David Stewart: Yeah, to me it should be for, like quad bikes don't distinguish ... To me, the most likely person to ride a quad bike is a kid on a lifestyle farm. The place they need it most. This image here, just once again, highlights this whole interface of farming and families. There is no industry where you take your kid to work with you that I can think of, in an industrial sort of sense. Yet in farming, because of the nature of what we do, we've often got children in a workplace. Whereas the builders who go to build houses don't take the kids along with them, the bloke who goes to the factory doesn't take the kids into the factory, but we in farming have seriously dangerous machinery, in the vicinity of children. And we've just got to really think about that, and what that means to their health and safety and their own.

Manufacturers' instructions state that they're not supposed to be ridden by kids under 16. Well, there's a kid that can ride pretty well, so what's the problem?

Speaker 2: [inaudible 00:19:48]

David Stewart: Obviously moving along a bit, but it's actually written on the side of the bike here, "Under 16 Not To Ride." Kids at that size, they can't control it. They can't manage it properly, they might be able to ride the bike but they can't control it in all situations. Put this one up, this is quite recent. A fellow, a little kid called Connor Irvin, was killed by a quad bike, sorry, 7, 8th of January, so not even two months ago, this little fellow here. He was riding one of those little kid's bikes. He was wearing a helmet, he was wearing gloves, and they came off and came unstuck, his brother survived but he died. Okay?

So don't think that because it's just, it looks like a little kiddies' bike, that somehow it's going to be okay. You've really got to think about your kids and think about the safety zone. I know you see kids are riding quad bikes and bikes in competitions and that sort of thing, but really, just think about the repercussions. So this little fellow, he's not going to go beyond his seventh birthday.

Politicians and photo opportunities. So you can always count on someone to give you a chance to talk about something. What's the problem with this image?

Speaker 4: Passenger, no helmets.

David Stewart: No helmets. Passenger. Yeah, okay. I know they've got big long seats in them, but what's the long seat for? To move your weight forwards and backwards so's when you're on hilly country you can move your weights forward and back and adjust where you are on the bike because you're trying to control that centre of gravity. They're not for carrying people around the back of. It's a pretty unfair fight when you take them onto a road as well and you hit a Land Cruiser, so they're not for on-road use, they're for off-road use.

Also once we start putting things on the back of them, we totally change their stability again. The problem with quad bikes is, they look like a stable platform, they sit low to the ground, they look like they've got big wide tyres, that looks like a nice stable platform. Well, they're not.

Speaker 3: How do you think side-by-sides compare in that?

David Stewart: Vast improvement, yeah. And that's why we're getting, starting, we expect a reduction of this because people will move away from quad bikes and move towards side-by-side. Yeah, because you're sitting inside. Now that assumes you're going to stay inside if something happens, if you have no seatbelt on you're probably going to, you might get caught underneath anyway. But it's a vast improvement. That's why lots of people are now moving to those, particularly on this sort of country here, because you give yourself a better chance.

What's that I've got there? Stability, someone pulling a sprayer, and there's lots of these on the market now. I've mentioned, you'll find that all your quad bike manufacturers who fought the whole thing of roll bars, remember, they didn't want to know about roll bars, "No, they're not designed for that, they're recreational bikes only," they don't sell any equipment which is to be attached. Quad bikes, and these things, don't go together very well, because you've got a tank that's probably twice the weight of the quad bike itself, so once again, you start going down a hill, and you try and turn, it's going to keep on going the same direction.

Also I've got this image here because that's what they pretty much say a quad bike is of a similar stability to a double-decker bus, and this professor from the Road Safety Research Centre at New South Wales University said these machines have a very low stability, they're equivalent to driving a heavily laden, overladen truck on bumpy, undulating ground." So that was his summation based on young Irvin's death.

Chainsaws. One of my favourite subjects again. Which camp do you sit in, this camp here or this camp here?

Speaker 2: [inaudible 00:23:10] torque?

David Stewart: What I'm getting at is, that's, David if you just hold up in that little box next to you there, I always bring props which I'm not going to have time to use, one of those and also below that there should be ... Who's got one of those? Okay. And down below that, underneath the same section there, there's a whole set of chaps. There you go. There's my dirty old chaps. Who's got a set of those? Good to see.

Speaker 4: [inaudible 00:23:37]

David Stewart: No, I'm just, I think a much smarter bloke than that would never suggested that. Yeah, chainsaws and not putting protective equipment on, it's just crazy. We see too many people losing their limbs. If we look at this image here, this shows where most of the injuries occur, either head and up around here, which is all about kickback, saw comes back this way, hits you in the head, and if hit in the head it's usually a pretty one-sided fight again, upper body, hands, around the chain itself, but particularly down the lower leg, which is why we wear chaps. Okay.

If you're not going to wear ... Sorry, if you're going to chainsaw, and you're not going to wear protective equipment, you're the same as a person riding on a motorbike in their bathers and their thongs. Pretty much end up in the same hospital with the same sorts of injuries. And there's probably a few of these around the place too, the old saw bench, they're very sought-after.

Oh, now here somebody's got some safety-glasses on, that's good. The good thing here is he's actually throwing the wood across to this heap over here, mostly you just let the wood fall down as you cut it, and eventually that wood starts to stack up and stack up and eventually gets caught up in the blade, that then flies out and hits you in the head in the process, so ...

Well, I think my time's nearly up and I've got through one of my subjects, and I think that poster probably says a lot:

“It's easier to bury a tradition than to bury a child.”

Speaker 2: Well, thank you, David.

David Stewart: Thank you, Dave