



A Sustainable Future

Mid North Coast, NSW
Natural Resource Management



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Biological Farming

It's all in the soil



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Chris Eggert Transcription on why and how they turned their Dairy into an Organic Dairy Farm.

CHRIS: Chris Eggert, I'm in partnership with my parents Jenny & Paul and wife Anne and we have been organic dairy farmers now for 7 years

Q: What was this dairy farm like before you went organic?

CHRIS: Oh, the dairy farm was a very conventional farm, traditional farm, very high input of inorganic fertilisers. We used to feed lots of grain and protein supplements and things like that. We had a very high milk production per cow. Everything was focused on producing high litres per cow and we did what ever it took to do that.

Q: And why did you decide to go organicwhat was the stimulus to change?

CHRIS: When the industry deregulated we could see that maybe we had a future in organics as research showed that the organic market was increasing and that there were not many dairy farms about. There were organic vegetables and things like that. It was the time of deregulation when we turned organic. The way we were farming at that stage, we just realised that with the low price of milk it wouldn't be sustainable for us financially. Organic market was increasing. We'd been joking about it for a little while so yeah, we pretty much just put our big toe in overnight and did it, straight away it just changed over and I think August 2000 was the last time we used urea... and potassium chloride, fertiliser and chemicals and things like that so we just started from there, organic farming. We haven't been using antibiotics and things like that as well. We had to follow a certain set of rules for the BFA who we are certified with, Biological Farmers of Australia at this stage.

Q: And was it a difficult transition for your family?

CHRIS: It was really, it was a really difficult transition, like really difficult - our farm just go used to the fertilisers that we were using and without us really knowing it, the soil had become really hard and there was not much life in it and that is the only thing that could make grass grow. We used to have to use more and more of it to get the same sort of results for that pasture.

Q: When you started to change over what was the first thing you did to start the process to turn organic?

CHRIS: We started the process by using chicken manure and we did that for 2 or three years and we didn't do a real good job of it - but it was hard to keep the smell under control ... it was a real lack of knowledge early on that was our Achilles heel I think. We really just didn't know what we were doing and why I suppose... and then ...what really got the process going was just learning and reading, going to seminars, going to conferences, talking to people, having an open mind, just changing some of the paradigms we always had and from then on it started to improve, slowly and each little improvement compounds, gets better and better, its just like compound interest in your soil and your farm.

Q: Would you take us through, step by step, the process that you undertook starting with the sawdust.

CHRIS: One of the easiest things we do now we never used to do - we plant a diverse range of species in our pastures, where as before we used to run on monocultures, basically rye grass, kikuyu, corn, a bit of Lucerne here and there. Now we plant oats, rye grass, lucernes, chicory, plantain, perry grass, 3 different types of clover in our pasture and obviously we fertilise those pastures differently and we find that they last a lot longer. And the longer plants can last the better it is for your soil ... as that gets better the soil improves and that means, yeh you've got more organic matter in your soil, it holds on to the water better, it holds onto the nutrients better, recovers from, wet time,

dry times quicker. Yeah I guess it's just better; and we find the health of our cows is a lot better. That is one of the biggest things we found when we stopped using inorganic fertilisers...the health of our cows improved. Also we didn't feed such high levels of grains so it probably is a combination of those two things, that's helped a lot.

Q: Can you explain the change to the laying down of the sawdust in the shed?

CHRIS: Well, the chook manure thing really had to change, so we stopped using it and started just using foliage sprays like fish emulsion and kelp and things like that but it really wasn't addressing the underlying cause, which was the soil. It was helping a little bit but not as much as compost can help and lime and rock phosphate and things like that....I thought it's just chooks, the compost is just chooks on sawdust and we have this cow yard here and there is cows standing on it for nearly 5 hours a day why don't we put sawdust on the yard. So we did that and what we got was a bit of mixed success and some people said it was no good and some said it was great and then one day a bloke took some away and tested it and he came back and he said it was a grade test for the food soil test that we had, so we just ramped it up, we did it all the time and we have been doing it now for 3 years, flat out and we find now we don't have to buy any chook manure, any nitrogen on the farm like, that is what we have learnt

We can grow our own nitrogen on the farm and we can grow our own carbon in the soils but obviously we need a bit extra because our farm is fairly flogged out, so we are still using the compost to increase the organic matter, to increase the diversity of microbes in the soil, as well. We are also doing grazing a lot differently, we don't like to graze when our grass is really short. We like to have it fairly long, probably longer than what most text books tell you to have, but it means you are getting a deeper root system under the ground. All we were looking at before was what was on top of the ground, now I try and visualise what is under the ground. Quite often I dig with a shovel in the soil to see what's there, where the roots are and what colour they arewhat kind of animal is there, what kind of diversity is there, what sort of biology's there. Is there ants, is there spiders, is there worms, slaters, so it's sort of self monitoring.

Q: Can you describe how the cows act as sunlight filters?

CHRIS: Instead of seeing the cows as just something that produce milk and that's it, we now look at them as just like a sunlight converter. They are just converting the sunlight - well the plants convert the sunlight into sugar and that helps protein and that sort of thing and the cows eat that. But what comes back out of the cow is probably the most important thing and if we can use that properly then that will improve our soil. That's what they are, they are just big recyclers and if we can take the carbon out of the atmosphere through the process of photosynthesis and store it in the soil then surely that is going to take CO2 out of the atmosphere and in the big picture.....so we see it this way that farming is a way to help the environment in a big way and we can store carbon in the soil, you know it helps to improve our waterways if the soil and the plants are healthier, then the animals are healthier and whoever drinks or eats the products... then it should be healthier for them. It should be just a win win situation. If we can look after the environment it will look after us.

Q: You also mentioned that your cows are healthier, you have less veterinary problems, you have less pulling calves?

CHRIS: When we were conventional we used to have to pull a lot of calves out, we used to have a lot of retained after-birth, mastitis, footrot and things like that. We still do have some of those problems, but we are working towards not having as many problems - so obviously we still got a lot of work to do.

Q: How much has it reduced your problem though, what would your percentage be?

CHRIS: I think the last vet bill we had when we were conventional was about \$19,000, now it might be \$1000, lucky to be \$1000, but we don't produce as much milk either. But most of our milk is coming from grass and that's the cheapest thing you can do, get milk from grass rather than grain and hay. And now we don't spend money on fertilisers that come and go - like urea, potassium chloride and things like that. When we put compost on the farm, that's like building a house or a shed, that's the capital improvement. Because if you improve your soil, that will stay there forever.

Q: So are you now actually getting financial gain from the change over?

CHRIS: Yes I guess we do, but we still seem to spend the money. But we are spending it more on things that we think are sustainable for the farm. We still have problems on the farm that we are trying to address the cause of....you know before we used to use just a bit of lime now I use quite a lot, not in big slugs but little bits regularly. I still have a calcium magnesium ratio problem where it's not white enough, but it's getting whiter. All these things just don't happen overnight, that's one of the biggest lessons we've learnt, that it takes time, it all takes time.

Q: And to what market do you send your milk?

CHRIS: All the milk goes to Norco near Coffs Harbour, yeah 100% goes to there at the moment, it's going to be good I think. We are just trying to produce the healthiest product we can. Because we realised that people will pay a premium for it, and we respect that.

Q: What is the actual process with the compost?

CHRIS: Okay, we put the sawdust on the yard, and two or three days later we take that sawdust out of the yard, obviously it's a bit wet and it's got some manure on it, then we stock pile it and we turn it with a compost turner. It gets a bit hot 60 – 70 degrees in a few days. We turn that to get oxygen into the pile and then after 4 months we spread it out on the farm. You know there is no offensive smells, smells good, feels good and the grass responds to it.

Q: And the process of adding the woodchip?

CHRIS: Yeah we also add woodchip to the pile so that air can get to the pile. If you have plenty of air in the pile it means you've got aerobic microbes working in there and that's what we want. The smell comes from anaerobic microbes, that's what we don't want. In the composting process we sift the woodchip out of the compost so we have a fairly fine compost to put out. If there is any rocks or anything like that they get sifted out as well because it tends to break the spreader if rocks get in it and then we can put that woodchip back in the new piles and it reinoculates those piles with microbes. Yeah we are reusing the resource over and over again.

Q: Now you seed the pasture with the compost?

CHRIS: Yeah, when we plant pasture we put the seed in the compost. Mix the seed through the compost and the microbes get on the seed and we found that that works really well. The seed gets a good start, providing there is moisture about.

Q: What is your grazing process – you let pastures alone?

CHRIS: We try – we are trying to use a method called time control grazing. Part of a course I did 5 years ago called holistic management, which was probably a huge turn around for us, a huge stepping stone to where we are now. You got to see it a bit differently – we still not great practitioners at it for sure we're working on it. But that uses a time control process where in good times we go around a faster rotation of the farm but when things get tough we slow our rotation right down. If we go around fast, that's good, that means there is generally a good bulk of feed left. It is difficult to balance with dairy cows, energy and protein and that sort of thing, we are still working on it and still making mistakes that's for sure. But it's definitely helped in a big way.

Q: Good and the bad times?

CHRIS: Not too sure about the difference between conventional and organic, before we used to grow a fair bit of silage to buffer ourselves against floods and droughts and that was a hard thing when we first started organic farming we just could not grow the feed to make silage and also it was drought, so we went through some tough times. We just didn't know what to do to feed those cows. Because we had done this course we realised that if we keep nipping grass off when it's short you're not growing any root system and you can't improve the soil. This biological system is just all about improving the soil and you have to do everything to it, 'cause if it falls over I can't run to the shop and get a rescue bag of urea and throw it in there.

Q: Would you ever go back to traditional farming?

CHRIS: The effort that's gone into the organic farming or our system of farming – I shouldn't keep saying organic all the time because it is just a process ... and the research and the trips I've made and the people we have talked to and the mistakes we have made have been so worth it - although I still have a lot of things I want to do and I want to see improve because I am nowhere near what it should be, still got faults but it is certainly improving the soil. It is pretty satisfying you know, you can grow good pasture and there is decent bags of milk on them and you know you have grown that pretty much through natural means, as natural as we can anyway you know at the moment. Yeah you dig the soil up and see a heap of worms at the moment or see fungus growing on top of the soil, like healthy fungus, white root hair, clover, lucernes, you know solid stem, oats with solid stems. You see the things that the books say should happen are starting to happen that's great.

Q: Waste?

CHRIS: Yeah before, the manure was just something you had to get rid of, to satisfy an environmental law I suppose, but now we spend probably 3 out of 7 days a week making compost getting it back on the paddocks and that sort of thing. Yeah so, we spend a lot of time with cow manure....it isn't waste. If I see cow manure on the laneway or something like that it's like a solidified dollar notes sitting there I suppose.

Q: Future for your kids?

CHRIS: Yeah we can see a future for my kids James and Lachlan - on the farm if they wish to, I know I really enjoy it now, it used to be a bit of a chore but now I really love doing what I'm doing, this type of farming is really good. I suppose if they see me happy doing it they might be more inclined to do it but if they don't like to, that's their prerogative. Hopefully the farm will be in a position where they can do something with it and that's what we need to fix, that is what I call sustainable. That in another 15 to 20 years time we can make a go of it, we can have a good lifestyle of it, make a bit of money whatever and enjoy doing what we do.

Q: What about the greater community?

CHRIS: I don't think we have to all be organic farmers to make a difference to the soil. I think we have got to get off the way of thinking that nitrogen, potassium and phosphate are the only thing that grows grass – a little bit more calcium, carbon and the trace nutrients and things like that because if we can improve those things in the soil, it improves our water cycles, our mineral cycles and it has just got to be better for the environment and better for our farms. We just can't keep bashing our heads against a brick wall, like growing unbalanced food on unbalanced soil, which means we will get lots of weeds, lots of disease and lots of problems. I've done that, it's not much fun.

CHRIS: It has greater ramifications in the food we eat. I think if your farm is organic sustainable, like you can be organic and not do anything and I don't really agree with that either, but if you farm biologically to improve your farm and improve the soil and your animals or your crops or whatever you are doing then that's got to be better for the environment and for people, its just got to be. I know what we used to feed them and what we feed them now and what the soil was and what it is now and what it could become and I don't need a scientist or the CSIRO or whatever to convince me that it is better or it is worse , I know it's better, it's got to be better because I've done it, you know its practical.

CHRIS: It is biological farming, it's about the living things in the soil. Like this morning when I was shifting the fence I saw this little eagle bird, hadn't seen it before, and I thought, what's it doing? I looked down there– it had a big rat, it's guts were everywhere and it was just hammering it. I thought – with the trees we plant and stuff, you got to have something for those animals to live to be able to do that on the ground that's how you get rid of your pests and that. It's like snakes you know if you see one, for every snake you see there is ten you didn't, you know, just little things like that, before I would have just kept driving, I wouldn't have stopped like I am right into it.

CHRIS: Biological farmers are trying to look after the biology, in the soil, in the air... I am trying to look after the biology in the animal's stomach just like I am trying to look after the biology in the earth's stomach which is the soil. Whatever we are doing on the farm, say if you plough up a paddock I make sure that I use compost to buffer, buffer against you know the negatives of things. I am trying to look after the life in the soil, whereas before I couldn't see that, it was just something that held up a plant.

Q: You just said a moment ago that you are worried about criticising traditional farmers?

CHRIS: It's not about who is right and who is wrong. In our farm system we still have some massive flaws but it is just realising that if you see you are on a treadmill like you got to try and get off somewhere, pick a point, try and get off it. And this biological farming stuff, if you are thinking about doing it or you are not happy in the way things are going or you want to make a change, just, I've done it and I know other people who have done it and they are just like me they wouldn't go back. It is a really good thing to do, it's satisfying and it works.