# Inspiring practice change - the value of conducting soil health trials

## Trialling new soil management techniques through the Farming for Sustainable Soils Project



Vetch and canola cropping trial

#### "I'm doing the trials myself now. That's the thing about the Project, it really gets you motivated to get out there and do it." (participating farmer)

Providing funding and support for farmers to undertake soil management trials on their properties is the cornerstone of the Farming for Sustainable Soils (FSS) Project. Opportunities to test alternative farming techniques through the FSS Project have given farmers in north central Victoria the confidence to adopt new farming practices and improve the health of their soils.

Melanie Watts was the Community Facilitator for the Charlton FSS Group between 2011 and 2014. She explains how the Project encouraged practice change through trials:

"A lot of [the farmers] said, 'I've always wanted to do this but I haven't had the confidence'. So I gently pushed them and they said, 'Let's give it a go and I'm willing to donate a bit of my land to the Project, so let's give it a shot'."

#### Seeing what works

Through the FSS Project, farmer Geoff Repper was supported to conduct grains trials on his property in the Wycheproof/Glenloth East area:

"We did field trials with a few different grains - outback oats and Moby barley, and the tillage radish. We put them in to see what the sheep would eat. Trialling the feed [...] I enjoyed doing it."

This, in turn, has motivated Geoff to continue undertaking his own trials. Following on from the FSS Project, Geoff plans to trial forage brassica as a sheep feed: "you can sow it and crop it the next year, and then you can let it go from there, so we're going to trial that". He says:

"We're trying to work out as many different cereals as we can that we can actually harvest after the sheep have been grazing."



Summer cotton trial







The Farming for Sustainable Soils Project is funded by the Australian Government's National Landcare Program and delivered by the North Central Catchment Management Authority in collaboration with local farming communities.

#### Getting more bang for your buck

Community Facilitator of the Wycheproof/ Glenloth East FSS Group, Craig Cossar, explains how conducting trials through the Project has helped farmers understand the productivity of various soil types on their properties:

"One farmer had two paddocks with different soil types, so we did the trial on both paddocks. He said, 'Paddock A always yields 20% better than Paddock B and I don't know why'."

Through the Project, it was discovered that "hostile soils in Paddock B were 10-15 centimetres closer to the surface than Paddock A". Through learnings from the trials and soil testing, Craig explains that this farmer now treats the two paddocks differently - using different crops and putting fertiliser on the more productive soils where he will "get better bang for his buck." For Craig, "that's a great example of what the Project has done".



Deep ripping trial

### Sometimes it's what you shouldn't do, not what you should do

Mark Ipsen is a famer in the Timor West area whose soils range from heavy black clays to granitic sands. He reflects that the value of conducting trials through the FSS Project helped him to decide whether it is worthwhile trying new approaches on his own property:

"The best thing about some of these trials was that we could see if things would work. [...] It's probably more what I didn't do, not so much as what I did do. There were things I was going to do then everyone did it and it didn't work, so I decided not to waste my time and money on doing them."

Deep ripping trials have helped Mark balance the decision to try this practice on his farm: "I'm still considering [it], but it's a big cost in pulling up clays from down deep to get more structure into the sandy soils".

#### **Supporting investment decisions**

As a farmer in the Wycheproof/Glenloth East FSS Group, Andrew Jones also saw the value of deep ripping trials conducted through the Project. On his property, Andrew manages soil health issues like hard setting red clays and sandy soils that are prone to erosion. On the "harder red setting country, we had a deep ripping trial done here, and that year there were various other trials at people's places that we attended".

Through the trial conducted on his own property and observing the results of other trials through the area, Andrew decided that he wouldn't continue deep ripping, but he discovered that "there's other methods you can do to get the same results". Through the trial, Andrew learned that deep ripping is most effective in paddocks that have been non-productive for a number of years, and that he can do gradual ripping to achieve the soil structure improvements he was aiming for: "I think the whole group learned something out of it". But for Andrew, "probably the biggest thing to come out of the trials is that we bought a new air seeder".

"It confirmed what we were thinking of doing and gave us confidence to do what we wanted - to improve soil management through stubble retention and better seed placement."



Precision seeder, cropping trial

While the outcomes of these new practices learned through trials will continue to emerge over time, the FSS Project "gave us a clearer pathway for what we needed to do".

Other trials conducted through the FSS Project include a cotton summer cropping trial, subsoil manuring trials, legume cropping trials and other ameliorant trials throughout north central Victoria.