



Testing topsoils in the foothills

Clifton Creek dairy farmers Ron and Vicki Cornall felt the effects of the 2007 drought hard and knew that they needed to re-think their methods to keep their herd and their business growing.

Their move, a decade ago, to a system of long rotation grazing has now become a case study under the National Landcare Programme's Topsoils initiative for the local Foothills Focus Group.

The program is funded by the Federal Government and administered by East Gippsland Catchment Management Authority.

"The Topsoils project, developed to help farmers improve agricultural practices through soil management, involves a number of partner organisations including three Landcare networks, Greening Australia, Southern Farming Systems, the Department for Economic Development, Jobs, Transport and Resources (DED-JTR) and the EGCA. All of us are working together to provide information and opportunities for local farmers to learn about their own soil and look at ways to better manage their soil resources," Graeme Dear, EGCA chief executive officer, said.

"We realised during the '97 drought that our paddocks were falling to bits," Ron said.

"There were a few tussocks of cocksfoot and lots of open bare patches between them."

Where traditional methods focus on grazing pasture at its most nutritious, maximising an animal's weight and ultimately the return, Ron had a different thought. What about the soil?

Something had to change so Ron and his local Landcare group got together to start a sustainable soils group.

"We developed an idea



Vicki and Ron Cornall have changed their pasture management practices over the past decade with encouraging results. (PS)

that extending the grazing rotation of our paddocks was the best option for keeping pasture in our erratic climate and with our soil make up," he said.

Rather than grazing to three or four leaf stage, Ron is allowing his pasture to grow longer and waiting for the plants to fully recover before he turns his herd of 300 back into a paddock.

The system requires smaller paddocks, which means more fencing and more watering points, but it gives more control over timing and the grazing pressure that's applied to the paddocks.

Declan McDonald, senior soil scientist at SESL Australia, is using his expertise to support the Topsoils focus groups around East

Gippsland.

"What happens when we let a plant grow long? What happens underneath the ground and how does that influence carbon cycling, nutrient cycling, and biological activity? When piecing together information it starts making sense to give the plants a longer rest," he said.

"From a soils point of view this means we're allowing plants to grow bigger, and therefore deeper, root systems. We want them to exploit as much of the soil volume as possible and work their way down deep to access moisture. Essentially it extends the growing season, if plants are able to access the soil moisture then they'll stay greener for longer reducing the pres-

sure on the soil and the need to hand feed."

Ron said East Gippsland often has long dry periods and then four inches of rain in one hit.

"It's not much good if all of that just runs away. In our circumstances, we were managing the pasture but we weren't improving it. Now we grow a lot more feed and keep better coverage on our hillsides, which are fairly steep. The cover helps absorb rainfall when it does occur," he said.

The Cornalls' grazing theory is more about protecting the plant to protect its full yield. The cows get fully fed, but Ron and Vicki make up whatever difference is needed by hand feeding.

"We don't want to get the cows to their full potential

by sacrificing the pasture. The priority is about the plant recovery regardless of what system you use or what you call it," they said.

The last decade has seen some of the best years that local farmers can recall, especially when compared to the previous 20.

"We've had to buy very little feed and still increased production. You'd think we've done really well but we know that the seasons have helped us," Ron said.

"I think the benefit has still been that we've been able to grow more total feed whatever the conditions are and we're getting more out of the resources we've got while keeping the costs down to stay economic."