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Soils tests aid dairy expansion

Surrounded mostly by non-dairy farming operations, the Bloomfield dairy farm near Lucindale in south-east South Australia is showing what can be achieved with a bit of ambition and some soil nutrient tips.

The farm was converted from a beef operation three years ago and is building towards a goal of 1000 cows producing 10 million litres of milk a year.

Share farmers Andy Vickers and Belinda Wright came on board when owner Russ Robinson decided on the conversion. Vickers had been share farming at Callendale Station some years earlier, and also helping out with the Tumbe Munda beef operation.

The owners were looking for more return from their land and thought dairy would be the answer. After three years they are starting to realise their ambitions.

"Things are starting to roll now; this is the first year we have heifers coming in," Vickers said.

The farm has a dairy block of 540ha, including about 170ha under irrigation. The property averages about 28 inches of rain a year and irrigation is important to their success.

It started with 800 Holstein Friesian cows, but because there were no heifers coming through, dropped back on that number before growing again to almost 900 this year with the influx of heifers.

"The goal is to have 1000 cows producing 10 million litres," Vickers said. "This year we're about eight million litres with an average per cow production of about 10,500 litres, so with the heifers coming through we should be able to achieve that."

"We want to breed more heifers rather than buy in more cows so we know what we're dealing with," he added.

The per-cow production has improved over the past few years from around 9000 litres as management practices advance and the herd has settled in.

The farm has a perennial ryegrass pasture-based system and brings in wheat as first preference, or barley if wheat prices are too high. Each cow is fed a little over 2.2 tonnes.

"The farm's biggest asset is its dryland because of the yields we can get," he said. "We've got up to 12 tonne utilisation which is a great result."

Vickers and Wright are joined by three full time staff, plus a part-timer and a casual.

The farm benefits from new infrastructure, including a 60 stand Rotary platform, 32,000 litre vat capable of holding daily milk production in peak periods, four centre pivots for irrigation, a 100 per cent recyclable irrigation system and well built cow tracks and fenced laneways, pivots and paddocks.

The dry land is strip grazed to ensure adequate grazing measures for both cows and pastures.

The farm has also benefited from a soil nutrient project run by DairySA for more than 40 dairy farms in the mid and upper areas of south east South Australia.

Soil tests were paid for on Bloomfield as part of the project and revealed huge variations in nutrient levels between paddocks, often including neighbouring plots.

"I guess the soil type changes very rapidly in south-east South Australia," Vickers said. "We've got about 20 different paddocks and the tests showed us we needed to make some changes to our nutrient management to get the balance right."

The farm had phosphorus levels down from 70 and some as low as 20 and very high levels of potassium.

"On one pivot we had three different phosphorus levels even though the grass grew the same and you couldn't really see the difference," he said. "Some paddocks had high P, some had none."

"We had to adjust the amount of fertiliser to level it out."

The test results were used to adjust the fertiliser regime to make it more efficient and economical.

"Off the top of my head I'd say we're using about a third less phosphorus now," he said. "Nitrogen has stayed about the same but there has been a big saving in phosphorus."

The success of the tests and the resulting savings prompted Vickers and Wright to pay for similar tests on their own cattle rearing farm.

"In today's economic environment it's another tool to help you save some money," he said.

"It has given us a true indication where we are going. If it helps you grow more grass, the more profit you can make."

Follow-up soil tests have been carried out on the farm but the results are not yet available. "It will be interesting to see the changes in the soil after we adjusted our fertiliser rates," he said.

"It's definitely worth doing the program. The potential for dairy in this area is huge. There's no magic thing to make it work but anything like this helps to implement changes for the better. It looks like being a good season for us."

He added that the soil test program would benefit from more follow-up work to ensure necessary changes are implemented on farms.

"It would be good to go one step further and have an agronomist come in behind the test results and give professional recommendations on what you should do about them to fix up any problems," he said.

Project coordinator Kylie Boston said the three-year and \$300,000 Reducing Soil Acidification Through Nutrient Management in SA program was helping dairy farmers to reduce salinity and the risk of nutrient loss while maintaining fertility.

The program is funded by the Department of Agriculture Fisheries and Forestry: Caring for Our Country and runs till 2013.

"It sets the scene for farmers to adopt management strategies to improve their soil acidity and their productivity," Boston said.

In total, 42 farms have been involved in the project. Its next phase involves assessing the impacts of changes to farm nutrient application and fertiliser plans.

"This summer we will do more soil tests, which will be about two years after the first tests, to see what improvements have been made from their change nutrient management," Boston said.

The project is due to finish in June 2013.

