



Daryl Larsen in the crop where the trial is taking place.



Adam Royle of HCPSL chats with Herbert grower Daryl Larsen.

## Project NEMO delivers practical on-ground results for nutrient management

*Nutrient management is the focus of an Australian and Queensland Government funded program called Project NEMO, taking place in the Herbert and the Burdekin. By Brad Pfeiffer*

Herbert cane grower Daryl Larsen is keen to get the most from every kilogram of fertiliser that is applied to his property.

With that in mind, Mr Larsen is participating in a demonstration trial being run by Herbert Cane Productivity Services Limited (HCPSL) that will look at new enhanced efficiency fertilisers (EEF) and their performance.

The demonstration, which is part of project NEMO (nitrogen efficiency management on-farm) will compare conventional urea applied at his SIX EASY STEPS™ rate to applications of eNtrench and Entec.

The small trial covers plots of just over half of one hectare for each treatment and is in MQ239<sup>®</sup>. It is on traditionally poorer soil that is prone to flooding.

"We want to use the same amount of fertiliser that we have been using, but see if the nitrogen can last longer and give us more tonnes at the end of the day," Mr Larsen said.

"I want to see if I can make up the difference in the cost of these new fertilisers and pick up some profit by using them.

"We have the trial in a lower block which usually would run water over it, and therefore we would hopefully notice more of a difference. Although this year it has been dry and at the moment (May) there is no visual difference.

"The block can yield okay in a dry year because it holds the moisture, but it is part of the farm that usually has less return from it as it would submerge under water a couple of times per year. This year that hasn't happened at all."

The real test will come when the harvester enters the paddock later this year, and Mr Larsen said he was keen to pursue the work for a couple of years to get a very clear picture.

"We have to keep trying new things and we have to keep being as efficient as possible. This trial is a way to assess that," Mr Larsen said

"And Entec and eNtrench are two products that we hear a lot of growers talk about their performance and impact on soil biology. We wanted to try and see the results for ourselves and sort out what is true and what is not."

Adam Royle manages Project NEMO for HCPSL in the Herbert and said that Mr Larsen's aim was about trying to grow more cane – and therefore being more efficient with his applied nitrogen.

“When it comes to efficiency, some growers are looking at efficiency in terms of reducing the fertiliser rate to grow the same cane, while Daryl is looking at the same rate to grow a bigger crop. Relative to the amount of cane produced, the nitrogen use is more efficient,” Mr Royle said.

“These products are not new, but there is an increasing interest from growers. Some see it as risk management. Some years they may not see much difference in yield, but when they get adverse conditions, it tends to take out the big dips in their yield.

“Often growers using these products want to improve productivity without increasing nitrogen use.”

SRA is currently funding a three-year research project being conducted by Kirsten Verburg from CSIRO on controlled-release fertilisers. The project is titled *Role of controlled release fertiliser in Australian sugarcane systems* and is to run until July 2017. Results from this research, which is separate to project NEMO and the work on Daryl’s farm, will be detailed in future editions of *CaneConnection*.

It builds on previous work on EEF conducted across the Australian sugarcane industry, along with other existing projects.

Mr Royle said the work through project NEMO, on Mr Larsen’s farm, was an example of the practical activity that formed part of Project NEMO. The project uses a mix of trials and demonstrations with a strong extension component that includes economic data related to any practice change.

“There has been a huge interest,” Mr Royle said. “In one region alone through initiatives such as Project NEMO growers have made a quantum leap from spreading conventional urea on the surface to applying a nitrogen use efficient product, subsurface. The essence of this project is about extension, and to be able to extend that information we need to demonstrate to growers in a rigorous way that these practices work.”

“The work at Daryl’s farm is just one example of this demonstration.”

Project NEMO is funded by the Queensland and Australian Governments.

**Below:** HCPSL continues to hold activities across the region to update growers on activities that are part of Project Nemo.

