

Soil Testing the Key to Improving Productivity and Sustainability

For Herbert cane grower Ramon Jayo, it starts with soil testing. Quite simply, he says that soil testing is the best first step for ensuring sustainable and productive nutrient management - and a solid crop of cane.

For this reason, he has worked closely with Herbert Cane Productivity Services Ltd (HCPSL) on regular soil testing and interpreting the results to develop Nutrient Management Plans (NMPs) for the two properties he runs, which total about 140 hectares in the Macknade area.

In recent years, this work has seen him participate in a major project called Project CaNE, which has extension staff from HCPSL working with growers across the region to refine and improve their nutrient management while looking at the bigger picture of overall farm productivity and sustainability.

“You need to know what your soil is doing, as that is where we get the data to make decisions,” Ramon explained. “There is too much variability between the seasons to look at yields and CCS or how the crop is looking. One year we’ll have floods, other years it rains too much at the wrong time, and then it doesn’t rain at the right time.

“It is important to look at soil tests and develop an NMP that responds to what your paddocks need, and then fine-tune things like reductions in rates for plant cane when it follows a legume fallow.”

Ramon added that a critical part of sustainable nutrient management is ensuring maximum production in line with the SIX EASY STEPS.

“In the past, I’ve been involved in projects that looked at rates slightly below SIX EASY STEPS and my crops suffered and I wasn’t satisfied with the results. The soil tests showed I was mining my soil.”



Above: Project CaNE grower Ramon Jayo on his family farm in the Lower Herbert.

Ramon described his work with Project CaNE as providing a service to help his farm’s productivity and sustainability.

Through collaboration in the project, he said nutrient rates were now meeting the crop’s requirements, ensuring strong production while balancing environmental sustainability.

He also cites multiple sediment ponds on his property as examples of environmental sustainability in action.

Left: WQ monitoring site established adjacent to Jayo farm.

“Here in the lower Herbert, we are on the doorstep of the Great Barrier Reef, so it’s important that everyone is environmentally conscious,” he said. “Those sediment ponds catch all my runoff water. They are very healthy, full of fish, water lilies and a few crocodiles.

“Through nutrient management planning with the help of Project CaNE, we are showing that we can be commercially viable and environmentally sustainable.”

The project is led by HCPSL and is funded through the partnership between the Australian Government’s Reef Trust and the Great Barrier Reef Foundation and supported by TropWater and DAF Queensland.

Ramon said that just as he was a big supporter of the science of nutrient management, he also applied this to other parts of the farm, including disease.

He cited ratoon stunting disease (RSD) as a significant risk for the district and something that every grower needed to help prevent. He said the first step was with clean planting material, and that he sources clean cane from HCPSL for his seed plot each year.

“You have to follow that with farm hygiene,” he said. “You could have clean seed but if your machinery is dirty, then you could end up with RSD straight away. Or if the harvester is dirty, 12 months after you plant that block could end up with RSD.

“So I’m big on hygiene and I spray everything between cultivations, especially the stool splitter, and then the harvester when it comes onto the farm.

“I accept that it is [...difficult] to fully sterilise a harvester, but cleaning where you can, particularly the base cutters that come in contact with the stool, must make a little difference to my way of thinking.

“My belief is based on observing the hygiene habits of the best producers in the district. That’s got to be telling you something. It is also something that if more of us took action with then it would have more of an impact.

“The science is there from HCPSL and SRA - we as growers need to increase the adoption [of best farming practices].”

Ramon also juggles plenty of activity off farm, as he is mayor of the Hinchinbrook Shire Council. He says the off-farm work is not that different to that of many other farmers in the region, who were also balancing jobs such as working in the mill or the mines.

“Being mayor requires a major portion of the working week in town,” he said. “So I do a lot of weekend work although there is also a lot you can do on the phone or computer while in the tractor now that we are all GPS-savvy.

“I contract out the planting and the harvesting, but with controlled traffic farming and trash blanketing, the hardest part now is just planning ahead and having the weather cooperate.”



Right: Planting of next year's crop is underway in the Herbert.