

## Soil health of utmost importance to Burdekin grower



Burdekin sugarcane grower Joe Sibson sees soil health of great importance on his farm, which has suffered from nematodes and includes marginal land which he has converted into a wetland. *Photos by Beth Macmahon*

### By Jasmine Hunt

Deep beneath towering sugarcane, thousands of different organisms live within the soil. Some of these hinder crop development, such as cane grubs and nematodes; and some work to help the crop prosper.

One Burdekin cane grower and cattle farmer is learning just how important soil health can be, after he started experimenting with a live bacteria product.

Although he doesn't have scientific evidence, Mr Sibson is seeing great results from using the product, which has a trade name of Bactivate. He decided to trial the product after seeing an article about it in a magazine.

"We have always had bad nematodes, and one day my dad came in and asked me what I had done about it. I hadn't done anything about them yet so, he

then showed me a magazine article featuring the product," he said.

"I rang the supplier in Melbourne, he had no idea where the Burdekin was or how cane was grown.

"Until then, the product was only ever used in the vegetable industry, where they bury it under the ground and then dig it back out after three months. They were trialling it in wheat and corn and were getting results, but nothing had been tried in cane.

"So I ordered a tonne of it and started playing around with it. Everywhere I plant cane; I put two bags to the acre. It's \$60 a bag plus GST - it's not cheap but you get at least four years out of it [until you replant]."

Mr Sibson said there have been no scientific trials with the product on cane; however he is experiencing promising results. He said he would more than

### Farmers *teaching* farmers

#### Key learnings

- Joe Sibson has been experimenting with a live bacteria product in an effort to improve soil health on his Burdekin sugarcane and cattle farm.
- Although there is no scientific evidence, Mr Sibson is gaining higher cane yields in the marginal soil on his farm that have been treated with the product.
- Mr Sibson has also converted part of his farm into a wetland, which has helped stop the salt creep from the neighbouring mangroves.





Top left: Joe Sibson and his father Les.  
 Above: The bacteria product Mr Sibson is trialling.  
 Left: The bacteria product is applied below the surface at the time of planting.

welcome someone who would like to run some laboratory tests on its effectiveness.

"In the good soils I have had a two tonne to the acre increase in cane, however in the poor soils I've been getting thirty tonnes increase. You don't get the results in the good soils as you do in the poorer soils," he said.

The company that markets Bactivate, Bioasis, said Bactivate works by adding beneficial bacteria into the soil and improving soil structure and aeration.

"It's basically just living bacteria that has been made to 'go to sleep' onto coal dust, then when it is put into the soil it comes back to life. It's adding bacteria back into the soil, and I'm not a scientist, but it seems to suppress the nematodes."

Mr Sibson said he has also noticed that where the crop has been planted with



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the Bactivate, there is no yellow canopy syndrome, which has affected other parts of his farm and neighbouring farms.

So far escaping the wrath of yellowing cane, Mr Sibson's farm was affected badly by orange rust, however luckily Mr Sibson had removed all of the mostly susceptible varieties before sugarcane smut took hold. Nematodes have always

been a problem in certain parts of the farm, and prior to trialling the Bactivate, Mr Sibson had tried nearly everything to prevent them.

"We tried mill mud and other commercial products to get rid of the nematodes, but nothing seemed to be effective," he said.

The other treatment is to keep the ground clean, which Mr Sibson does, however it is ▶





Left: Joe Sibson does most of the on-farm work himself, with the help of two employees. His two brothers are also part of the farming business. Right: Part of the wetland on Mr Sibson's farm, which neighbours a mangrove and river system.

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not effective during rain events.

At the moment, the Bactivate is keeping the nematodes, which affect the root of the sugarcane plant, at bay.

Mr Sibson said last year he planted 145 ha (360 acres) with the product, especially in the marginal country.

"I went from harvesting about 30 tonnes per acre [72 tonnes per ha] in the poorer soils to about 60 tonnes [144 tonnes per ha] now," he said.

He has trialled the bacteria product with all varieties, and he currently grows KQ228, Q208 and Q200.

The product, which is a similar granular size to urea, is applied at time of planting, under the surface, along with Suscon for grub control and fertiliser.

A big supporter of Ravensdown, Mr Sibson purchases most of his fertiliser through the company.

Spraying on the Sibson farm only takes place just after planting, when Mr Sibson sprays with gramoxone, and then no spraying is done after that.

He completes most of the on-farm work himself, with the help of two employees. His two brothers are also part of the farm – Greg runs a cattle station in Collinsville (Mr Sibson also breeds bulls to be sent out to the property), and Scott is an accountant in town. Scott also does the farm's accounts.

Living on the cane farm just outside Home Hill is Joe, wife Kylie and their three children Katelyn (19) Bradley (17), and Thomas (14).

Caitlin went to Emerald agricultural college for two years and currently works in town; Bradley will soon begin accountancy study; and Thomas looks like he might be interested in farming.

Joe says the youngest is probably the most interested in farming out of the children; however Kylie says she hopes he will complete a trade first.

Joe's mother and father still have an interest in the farm.

Mr Sibson has expanded the farm over the years, to ensure the farm is big enough to support the three brothers, and the parents.

One of the farms backs onto a mangrove and a popular local fishing spot. Part of the land was suffering with too much salt, so Mr Sibson decided to make it into a wetland.

Now, the picturesque wetland supports a wide variety of wildlife, including birds and fish; and the cattle sometimes run on part of it.

"The cows love it, and the birds love it, and it's stopped the salt from reaching the farm," he said. ■