

HEALTHY SOILS

Microbial message at Armidale

FOR New England grazier, Marcus Laurie, the discovery of the benefits of soil biology has changed his approach to pastures and tree plantings.

Since 2003, Mr Laurie has been using the Bio-Start range of microbe-friendly products, and has seen much better growth in his tree plantings, and pasture and cattle performance.

"I've seen pastures put out a big fibrous root mass quite unlike anything in untreated areas, and significant weight gains in cattle treated with enzymes," said Mr Laurie, who has no commercial ties with Bio-Start.

Mr Laurie and wife, Dominique, live on 1200-hectare "Palaroo", east of Armidale, and contribute to the running of the 5200ha Laurie family property, "Rawdonvale", at Gloucester.

Mr Laurie started down the "biological" route in 2003, when he tried a drum of the Bio-Start ThatchBusta, a brew the New Zealand manufacturer says is designed to stimulate the suite of microbes that convert dead plant material into humus.

The product is designed to go out with glyphosate, and Mr Laurie used it while spraying out a paddock that was resown with a cover crop of oats over the new pasture.

"Everybody who saw that paddock later went out and bought some of the product," he said.

"The result just hit you in the face - you could distinctly see where the boom spray had been with the ThatchBusta."

Examining the paddock later, Mr Laurie found plants in the treated section had produced large masses of white feeder roots, which are essential in feeding the plant.

In recent years he has soil test-

By MATTHEW CAWOOD

ed treated and untreated paddocks, and found that while there was a change in the quantity of some minor elements, the mineral content of the soil was largely unchanged.

"But I think because of the root mass on the treated plants, they are taking up whatever nutrient is available in the soil," Mr Laurie said.

Other results through the years have firmly convinced him microbial action needs to be engaged for the best result.

Using a Bio-Start microbial drench on steers gave him a 0.4 kilogram per day weight gain advantage over untreated stock.

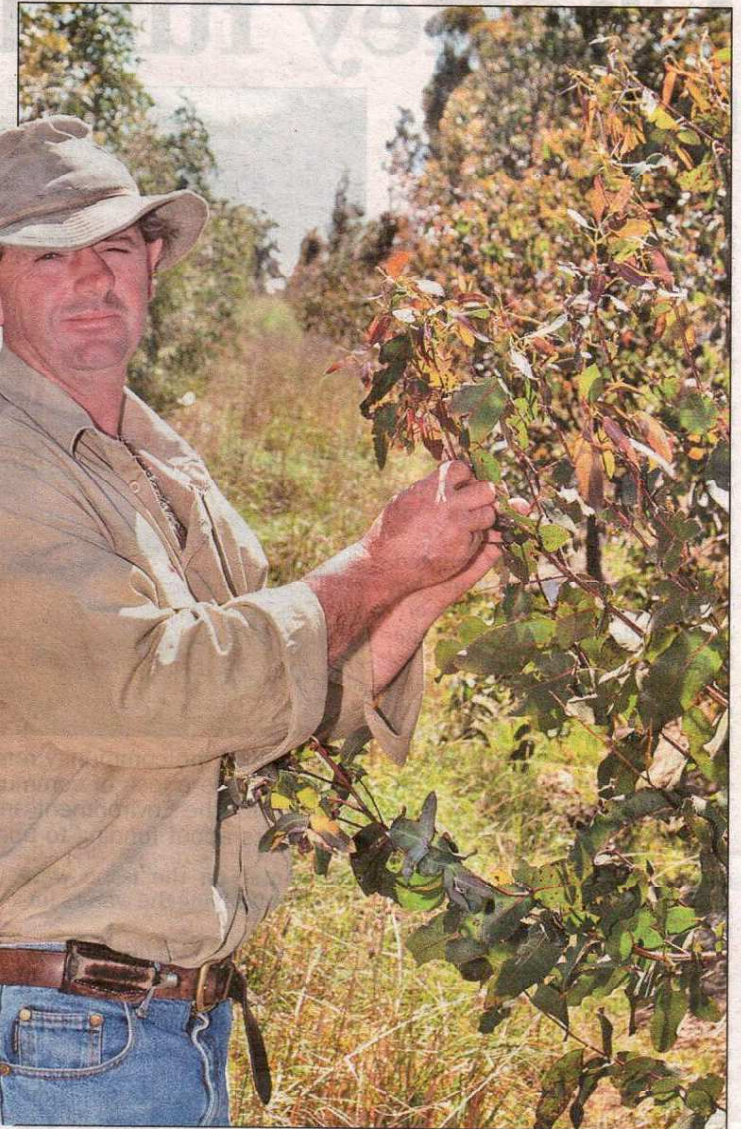
Mr Laurie now drenches stock whenever they are moved to fresh feed as an effective insurance against scouring.

At Gloucester, ThatchBusta is flown on with helicopter, most recently over a rough 500ha paddock that was only carrying about 60 cows.

About 400 heifers have since been grazing the robust shotgun mix of clovers and pasture grasses that were sown into the paddock.

In the past few years, Mr Laurie has also started an extensive shelter belt planting program to spoil wind flow over "Palaroo".

Trees planted using Bio-Start's microbial root- and soil-stimulating products, Foliacin and Mycorrcin, seemed to power



Marcus Laurie, "Palaroo", east of Armidale, says the use of microbe-friendly products on the property has resulted in much better tree growth, including in the two-year-old stand he's pictured in.

out of the ground, Mr Laurie said.

Three-year-old Shining Gum planted using the products were now over six metres high, and survival across the many tree and shrub species he has used in their thousands stands at well above 90 per cent.

The main thing standing in the way of further adoption of biological agents was cost and variable results, Mr Laurie said.

At about \$30/ha for ThatchBusta, it was not a cheap process, and results could range from outstanding to invis-

ible, with no clue about what caused the difference.

Like most land managers working with biological agents, Mr Laurie has seen variable results, from "hit you in the eye" growth to nothing at all.

"It's the nature of biology that you get different results in different soils in different years," he said.

"I'm prepared to cop that, because I know it works.

"Even if we're not excited about a result, how much worse off would we have been by not using it?"