

From plastic to fence post

By Gerald Piddock

A Waikato dairy farmer has used No 8 wire ingenuity to turn one of society's most environmentally damaging substances into an essential piece of farm equipment.

The latest covid-19 lockdown has forced Future Post founder Jerome Wenzlick to delay a planned expansion of the Waiuku-based business.

The Thames dairy farmer and founder of the award-winning company that turns plastic waste into fence posts was planning to add in a new production line in its factory when the latest lockdown occurred.

Being located inside the Auckland border and classified as a non-essential business meant the business was still in Level 4 lockdown when Dairy Farmer spoke with Wenzlick.

He is stoically dealing with the frustration as best as he can.

"We have people wanting posts, we're sold out of what's here and we can't make any more obviously," Wenzlick says.

The reality of the lockdown was that it was costing him thousands of dollars to keep the business afloat while it was not receiving any income. The wage subsidy, which Future Posts uses, did little to balance out his costs.

Overwhelming demand for the posts is the reason why he wants another production line.

Since its launch in 2019, demand for the posts has seen Future Post grow from two people to a team of 17 at the Waiuku factory in South Auckland. Once the lockdown is lifted and the new line is installed, it will grow staff numbers to 23.

Production-wise, it will enable it to produce around 1600 posts a day from 20 tonnes of plastic.

"That's a lot of posts but when you think of it, you drive from Hamilton to Taumarunui, count how many posts you drive past – there's millions of them. It's a good problem to have that we can't make enough of them," he says.

The posts are sold in all of the major retailers and hardware stores, as well as directly from the factory. Those in residential areas use the posts for fencing or as mailbox stands and square posts



Future Post founder Jerome Wenzlick with the first post they produced made from plastic waste.

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are popular as a base for garden beds.

In farming, the posts are popular across all sectors – pastoral, equine horticulture, viticulture – and even aquaculture, with inquiries from oyster farmers.

"It's certainly not just one market they're going to," he says.

"My whole aim was to bring the cost

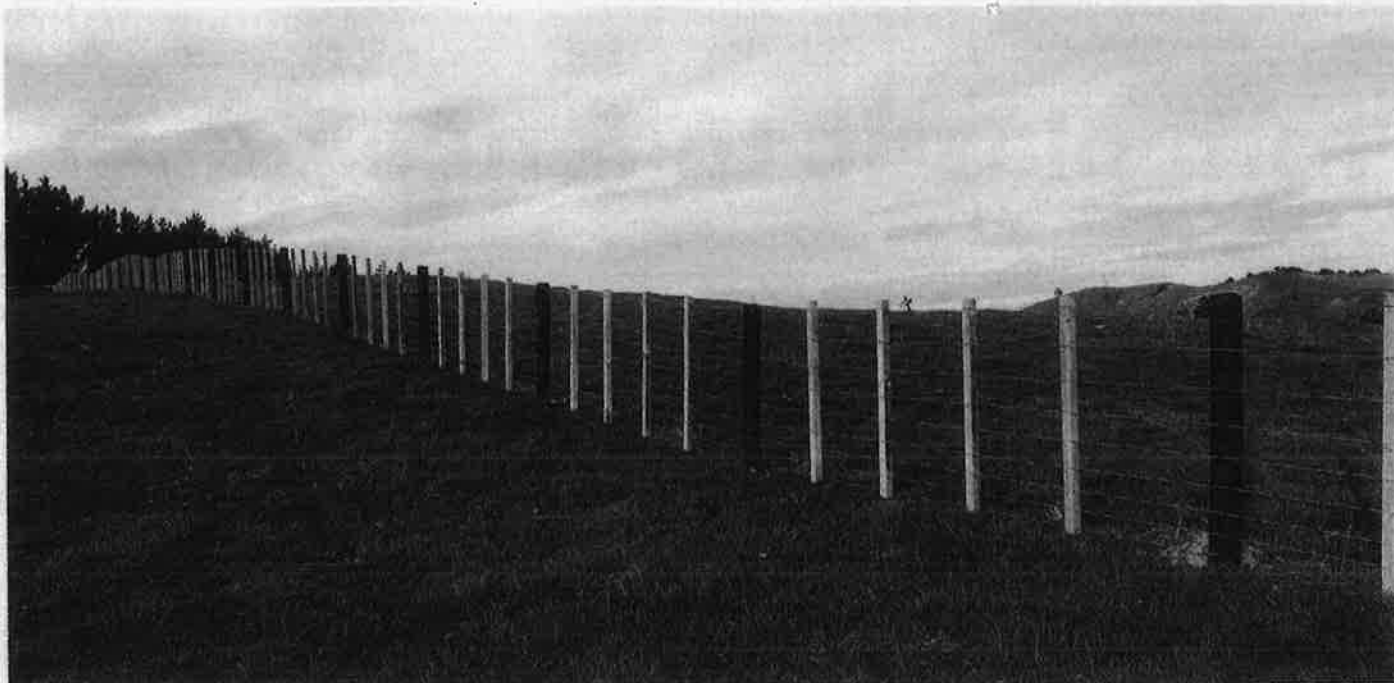
of the post below wood, which now we have done and that's been the difference. At the start our posts were more expensive, and people still used them, but the price was always an issue.

"To be able to get that price back down where it should be, has made a huge difference."

Prior to lockdown, the factory had a 14-15-week backlog of orders, which would be reduced once the second line was up and running.

In the future he wants to establish a plant in the South Island to better service its farmers down there. The transport costs of sending the posts over Cook Strait currently make it a hard market to crack, he says.

He also believes the concept of building material made from waste plastic could be utilised in the building industry for industrial, residential and commercial construction and has fielded inquiries from builders asking about this.



Future Posts made from recycled household and commercial plastics and are being used on farms across New Zealand, as well as in other industries.

As well as being suitable for organic farming, for Wenzlick the biggest advantage of the posts are their durability.

"You put these in the ground and that's it. They're not going to rot in the ground," he says.

Wenzlick grew up in the Far North on

a sheep and cattle farm, but has been dairying for the past 20-plus years and

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Jerome Wenzlick is a dairy farmer at Thames and has been fencing for about 25 years. He created Future Post after trying to ram a post into the ground full of plastic waste.

has been fencing for even longer.

The origins of Future Post began in late 2017, when he was installing a wooden post on a paddock near a rubbish heap on his farm at Thames.

The post would not go in because the ground was filled with plastic waste.

It then occurred to him that why couldn't fence posts be created from all of this plastic waste that was filling up refuse dumps?

"I went away and thought about it and thought about it some more and convinced myself maybe it could work and try and make it happen, which we did," he says.

He travelled to the US after learning that a company in that country was making plastic fence posts. At the time, he thought he could buy one of their machines to make the posts, but those machines proved to be completely unsuitable for what he wanted to accomplish.

"That's when we decided if we're going to still do this, we have to think of some other way to make posts and make it happen," he says.

That meant constructing their own mould to create fence posts tailor-made for New Zealand farming conditions.

A big early challenge was that no one in NZ had ever made such a machine and he got Tokoroa-based South Waikato Precision Engineers to build the bulk of the mould prototype.

Once that process was completed,

there was a lot of trial and error to make a fence post that was suitable for the job.

"You can't really build a small trial line. We had to think about it and use our brains a bit to decide what we needed. It wasn't one of those things where you can build a mini one to test it," he says.

"It was a year of fixing one problem and creating two more."

His farming and time as a fencing

contractor also proved invaluable in developing the posts.

He still remembers when he finally cracked it in late 2018 and the mould produced a post he was happy with.

"I still have that first post," he says.

The following year, he won the Launch NZ Innovation Award at the Fieldays. Winning that award gave the then fledgling business a huge shot in the



The waste plastic arrives at the factory in bales before being cut into fine chips and mixed together, fed into an extruder and then into the mould machine that makes the posts.

arm and greatly increased its profile.

Their plastic is sourced from Fonterra, the nationwide soft plastic scheme, local government collections and a handful of private businesses. It arrives at the factory separated into its respective grades and types.

"You put these in the ground and that's it. They're not going to rot in the ground."

Wenzlick describes the fence post-making process as akin to following a recipe.

"What we have worked out is that you need a percentage of this and you need a percentage of that to make it work," he says.

The plastic is cut into fine chips and mixed together and fed into an extruder and then into the mould machine that makes the posts.

"It's basically like, if you can imagine,

a big meat mincer with a big screw in the middle and the plastic gets fed into that. As it goes through the screw it gets melted, it gets mixed together and it binds together and pressurised into a mould," he explains.

That mould can change depending on the type of post being made. Currently, Future Post can make four different kinds of posts.

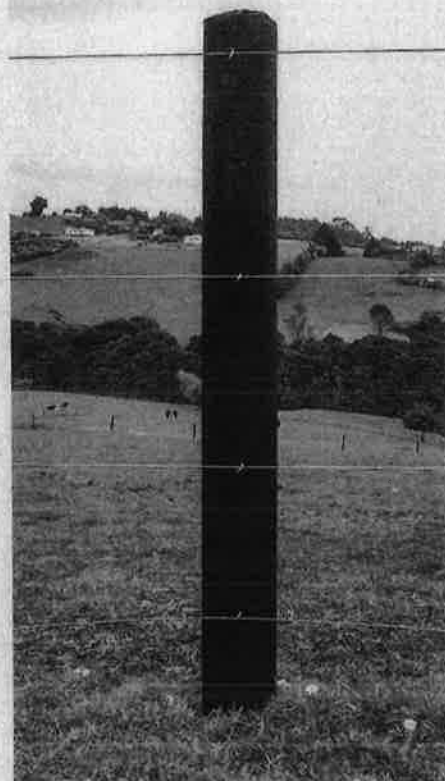
Depending on the kinds of posts being created, the factory can process 500kg of plastic per hour. On a typical 20-hour running time, which the factory was operating at prior to the lockdown, the mould machine can convert almost 10 tonnes of plastic into the posts.

"It's a lot of plastic but the thing is, we're not even touching the sides of what's out there, of how much plastic waste is out there," he says.

Around 320 milk bottles and 1200 plastic bags go into making the average 125mm round pointed post.

"That's a bloody big pile of plastic," he says.

"And it is a great feeling to know we are keeping that huge pile out of landfills and putting it to good use."



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