

Taupō firm provides novel ways to get stock moving

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Novel Ways Limited owner Graham Lynch (left) and main contractor Duncan Piesse with a Batt-Latch gate release timer. Photo / Laurilee McMichael



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Do not call Graham Lynch an inventor. He's an electronics engineer, a designer, a finder of solutions.

And while the Taupō entrepreneur, who has a Master's degree in physics, has worked alongside others on 40 or 50 innovative products over his career, it's been in agriculture that he's found his greatest long-term success.

Graham, who owns Novel Ways Limited, devised a product called the Batt-Latch after a farming colleague came to him with a problem.

He wanted something that would let the cows out, and envisaged it could be used for break-feeding - where stock graze one part of a paddock and can then be moved to other parts section by section.

Presented with the problem, Graham came up with a prototype of the Batt-Latch gate release timer. Essentially, the Batt-Latch holds a spring gate shut under tension. At a pre-programmed time, the electronics activate a gearbox which releases the gate so the stock can leave the eaten-out area.

But the Batt-Latch soon turned out to have other benefits, too.

Dairy farmers quickly realised that if there were some way to automate gate opening, the cows would soon learn to find their way to the dairy platform or feed pad by themselves.

That would save time in the mornings, which could be used elsewhere on the farm, or even just for a bit more sleep, a precious commodity during milking season.

"It was the dairy farmers that picked it up and said 'I wonder if the cows would come to the dairy platform by themselves?' and they did," Graham says.

"On a dairy farm you have these big steel gates. So we supply a gate spring. There's a solar panel on the back [of the Batt-Latch] to keep it charged. Five minutes of full sun gives you the energy you need to release the spring gate. During setup, you open up the steel gate and secure it out of the way. You then close the herd in with the spring gate and Batt-Latch. Before the next milking, at the time that you set it up, it lets the cows out."



Cows wait for the batt-latch to release the spring gate and let them out of the paddock. Photo / Supplied

Graham says if cows know there's a feed pad or in-shed feeder awaiting them, they'll all begin making their way to it.

"The farmers will load up the feed pads, with palm kernel, maize silage, or whatever they're using, and go home. For morning milkings, they know at 3am the cows will be trotting up that race and getting to the feed pad and staying there for an hour. And by the time you get to them, they've had a good feed."

He says they know farmers who have changed their whole farming practice by using the Batt-Latch.

Allowing cows to make their way along the race in their own time has also had a spin-off benefit in avoiding lameness.

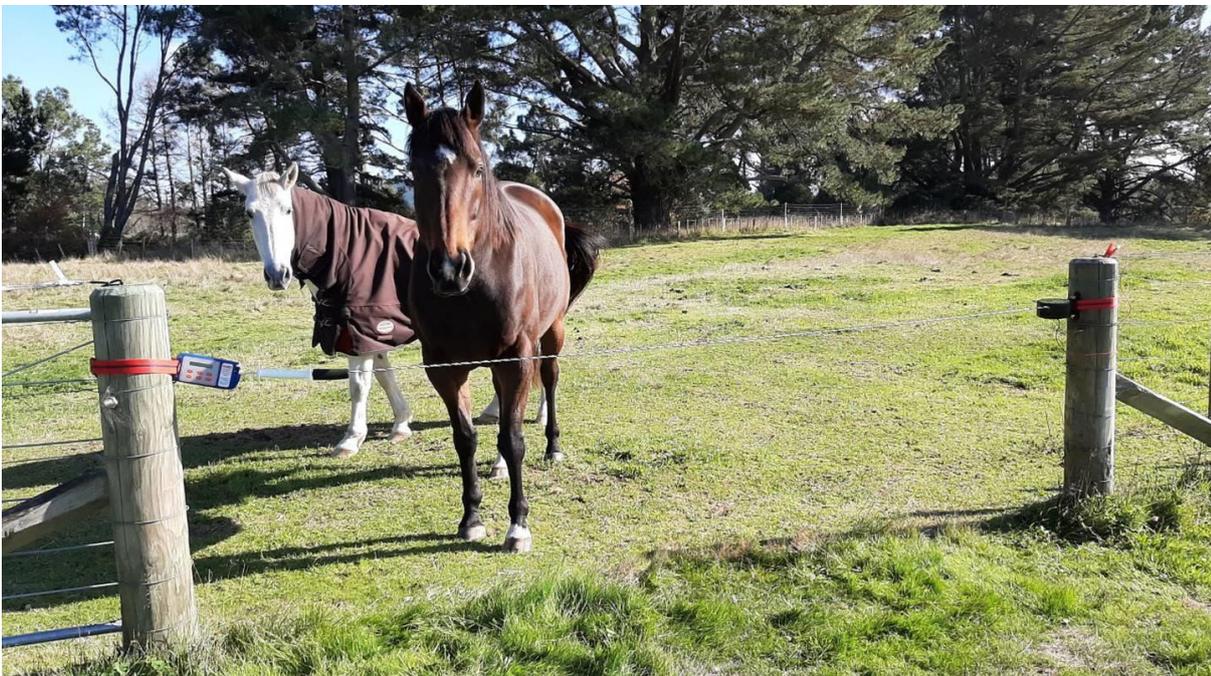
"If you get a farm worker with a dog or on a bike pushing cows along a race, they fan out, and some go on to the edges with the stones and mud, and some go lame. By letting them pick their own walking pace in the race, it will save probably 70 per cent of annual lameness costs, which are substantial."

Another use farmers have found is for catching deer, Graham says.

"I know of a few people that have a farm near a bush block, and have deer coming on to their farms. They'll put a feed in there for a few nights. And then, whammy, in the middle of the night it [the Batt-Latch] will swing the gate shut as long as it's under a bit of tension to pull it closed. Sometimes they catch dozens [of deer]."

The Batt-Latch has also proved popular overseas, exported to Ireland, the UK, France, the Netherlands, Australia, the US and Canada, and somewhat surprisingly, Iceland. Small Icelandic ponies are popular home pets and Graham says pony owners have found the Batt-Latch a useful tool.

"The ponies have to be fed every four or five hours, so if you work, you've got to come home at lunchtime and give them some feed and go back to work again. The idea of the timer is you can let them into another bit of the paddock, often using a quieter roller-gate, not a spring." Or, for other applications, the Batt-Latch opens access to more hay in a feeder bin.



Novel Ways has sold its batt-latch gate release timer around the world. Photo / Supplied

The idea is simple but it's a product that's been through several iterations in its 25 years of production. The Batt-Latch has to be robust because stock push against it, farmers drop it, or run it over, and it's out in all weathers. It has to have a long battery life, something solved with the use of solar panels. It can be programmed for up to four different repeating release times and set remotely via a modem or texting version.

They are made, sold and serviced at Novel Ways' workshop in Taupō. The part-completed circuit boards come from overseas (they are made to Novel Ways' design and specifications), the moulded plastic outer cases are produced in New Zealand and the Batt-Latch units are assembled and tested before being sent all over the world. In all, Novel Ways has four or five local part-time contractors who do the manufacturing and repairs.

Graham started his career in electrical engineering, repairing computers and industrial equipment, and then moved into developing microprocessor-based equipment with other engineering staff in Hamilton.

Novel Ways' most successful product was a vibration overload control system that monitored vibrations and temperatures on Barmac industrial rock crushers and was exported worldwide. Basically, it would alert the user if the machine was in danger of shaking itself to pieces and Graham says every time it was activated, it saved the owner \$20,000 in repair costs.

Graham says he believes there is still room for more efficiency in New Zealand farming and has developed a dry-matter measuring instrument called the GrassMaster Pro, which he says gives more accurate results than estimating by eye or using a plate meter.

"[A farmer's] main feed is grass, it's the cheapest feed and a recent research paper shows you can get an extra 26 per cent production out of an average paddock if you measure it properly. Without the data you can't be near your potential, you might be talking \$100,000 per dairy farm extra profit per annum just for doing a bit of extra work - and that's sending someone out for two or three hours a week [to monitor the grass].

"On drystock farms it could amount to a doubling in annual profit. If you want a quantitative method for measuring standing dry-matter I don't think there's anything better than what we have."

Novel Ways was originally based at the old Newstead dairy factory near Hamilton but in 2018, Graham sold the design development part of the business and brought the goodwill and intellectual property for the Batt-Latch and the Grassmaster Pro to Taupō. He and wife Jane Hamblyn are now happily established and busier than ever.

"We had strong connections with Taupō. I've come down here since I was a kid to my grandparents' bach. I like trout fishing and we've involved ourselves in a few community projects. We thought Taupō would be a really good place to bring this enterprise, and it has turned out to be a great move."

<https://www.nzherald.co.nz/rotorua-daily-post/news/taupo-firm-provides-novel-ways-to-get-stock-moving/ZJH4WEYVQNSN5INUILBWHS4PJM/>

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