

WHAT'S NEW AT NOVEL WAYS?

ELECTRONIC MANUFACTURING AND DEVELOPMENT NEWS

www.novel.co.nz

February 2017



BATT-LATCH UPDATE

- Batt-Latch a proven time-saver
- Batt-Latch developments
- Text your Batt-Latch from anywhere

OTHER FEATURES

- The GrassMaster Pro developments
- Possum research
- JustCool Chiller Alarm

The Batt-Latch Text/Cellular Remote

*We are excited to report that a **3G cellular modem option** is now available for the Batt-Latch.*

Using an internal aerial and modem module, each unit fitted with the add-on has a cellphone address on an internal SIM card. You can text it from any cellphone and ask it to release immediately, check its status, delay or cancel the next release time, or set new release times. Great for the second herd, adjustable milking times, extreme weather events.

Any cellphone on the farm can be used as the remote control for one or multiple Batt-Latch timers if needed. Each timer has a unique phone number. The Batt-Latch can respond to messages by texting back. For farms without good cell coverage, consider the Batt-Latch Boss (Radio Frequency) system – see our website for details of this option.



We'll upgrade your newer version Batt-Latch with a cellular modem, a \$20 SIM card and internal aerial, operation manual, for \$295 + GST, 2 yr warranty (or new Batt-Latch timer kit with modem, \$690 + GST).

The Batt-Latch – A Time Saver!

Our Batt-Latch timer is increasingly popular (NZ and overseas), and during the last year we have sourced rugged components to make them even more reliable. Now with the latest optional extra, you can control the timer with your mobile. Great for late milkings!

Over the last few years, the Batt-Latch (designed and manufactured by Novel Ways in Hamilton), has been making life a lot more pleasant for many dairy and drystock farmers all through New Zealand.



The Batt-Latch gate timer is usually used with the supplied portable spring gate kit to hold the herd back in a paddock, raceway or feedpad.

At your preset time the temporary gate's handle is released by the timer's gearbox, and the spring contracts onto the opposite post, alerting the stock that it's time to go. All timers come with a 2 year warranty.

Making the first timers and showing them at National Fieldays over 20 years ago was the start of a huge learning curve for the business. Farmers were moderately interested in using the Batt-Latch for break-feeding over winter, which was the main job it was designed for. Soon dairy farmers tried the timers with their milking herd, and in most cases the cows walked happily to the dairy. More recently, all-grass dairy farming is morphing into larger grass-based systems with supplements, usually placed near the dairy on feedpads. Grass is still the main feed.

CALL NOVEL WAYS TODAY!

 Freephone **0800 003 003**

 Website **www.novel.co.nz**

**Payback period for one Batt-Latch timer
is estimated to be as quick as
just 15-16 days!**

Save \$20,000 a year with each Batt-Latch Timer

Many pioneering farmers changed their farm practices to use their Batt-Latch timers more effectively.

Cows can be released from the paddock at 2am or earlier, to a feedpad preloaded the night before. They may **pass under a shock cord gate** at the feedpad entrance, which is held up in the middle by another timer. At a time when all of the cows have normally passed through, that gate is released back to the normal horizontal position, holding the cows on the feedpad until milking time if required. The herd can be held up in the race or next paddock gateway after milking by another timer, so they all get to the next paddock or a crop allocation at the same time. All of these clever adaptations, and many more, were fed back to us by farmers and incorporated into the design.

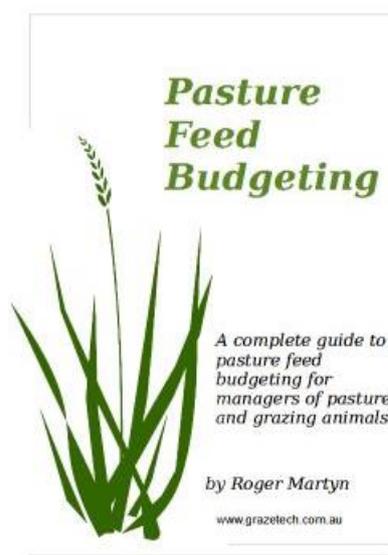
When Novel Ways started asking farmers about the benefits of using the timers, some startling answers were given. Several farmers reported **up to 60% lameness reductions** in their herds, and time-savings of **hundreds of hours** per year. While little documented research has been done on the Batt-Latch, cows being allowed to walk at their own pace down races that may be long (and perhaps in less than perfect condition), saves worker time and wear on hooves. One timer used with a 400 cow herd can save upwards of \$20,000 in costs every year.

Drystock and runoff farms also suit the Batt-Latch timers. The timer can wait for up to two weeks before releasing, so a small set of timers can be used to move drystock every few days, saving big travelling distances to remote runoffs. Remarkably, at least one **drystock farmer** reported to Novel Ways that if bulls and steers are given more frequent unattended pasture breaks by their timers, they put on weight faster and don't damage fences and paddocks as much. Ideal for cell grazing, technograzing.

Pasture Feed Budgeting Book

*Spiral bound hard copy
by Roger Martyn*

We recommend this 21 chapter, 350 page comprehensive manual on feed budgeting for pastoral managers written by our business associate Roger Martyn (BAgSci). It is accompanied by a CD which contains an e-book version and a suite of powerful spreadsheet templates for paddock records, feed wedges and full forecast feed budgets.



Written in plain and simple language for easy reading, this book covers every aspect of pasture feed budgeting, including an explanation of pasture dry matter (see the GrassMaster article on the following page) and how to carry out full forecast feed budgeting.

Each chapter contains photos, illustrations, tables and check lists of key points in order to keep everything simple, practical and easy to remember and understand – allowing you to effectively apply it to your pasture and maximise your profits.

See the Grazetech website below to view the introduction, chapter one, chapter four and the table of contents. The collection of appendices contains all of the technical resources you will ever be likely to need for pasture feed budgeting.

Perfect for students, new and experienced farmers, research scientists, farm consultants and extension officers.

Spiral bound hard copy available for \$60 AUD from www.grazetech.com.au



Check out the new brochure on our website:
novel.co.nz/downloads

World-leading Pasture Drymatter Instrument

*The **GrassMaster Pro** uses the well-established capacitance method to estimate drymatter. It is highly portable and easy to use, is not affected by pugged pasture or hills, and can be used in damp conditions.*

Grass is the major crop in New Zealand. It underpins our agricultural economy and blankets a large proportion of the landscape. Despite this, there are widely held concerns that the management of pasture, drymatter quality and production could be improved quite easily using new tools.



Since 1996, Novel Ways engineers have been involved in the development of an instrument (the GrassMaster) to estimate the drymatter content of pasture.

Using electronic signals, the hand-held GrassMaster probe

senses the water trapped inside the nearby grass blades, and uses a fresh quadrat estimate calibration to give a repeatable average of the measurements, quickly taken across the paddock on a walk. The resulting figure is usually given in kilograms of drymatter per hectare (kgDM/Ha).

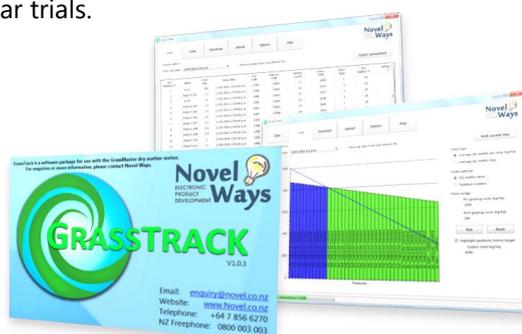
The rugged and dependable GrassMaster Pro holds the average drymatter figure for the entire farm, and this very useful information can be read off the screen or downloaded to a computer.

Extra profitability on farms can result from:

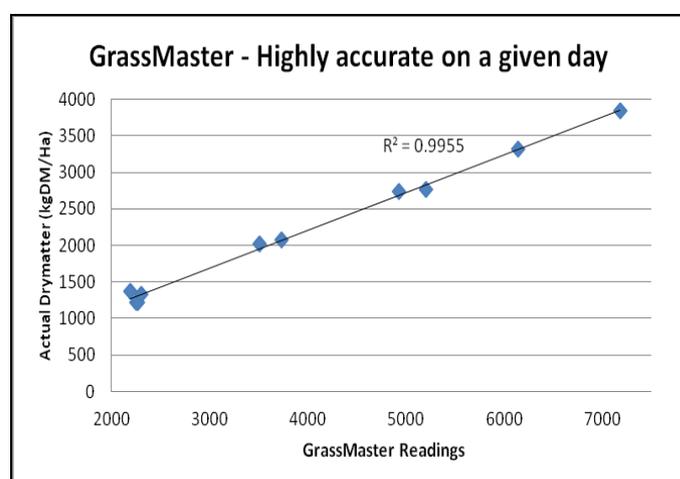
- using better grass cultivars,
- having less pugging and damage from improved stock and pasture management,
- reducing reliance on supplements,
- using fertilizers carefully,
- improving ME of the grass grown, and
- increasing top-soil depth and quality.

Many of these outcomes rely on initial monitoring of the current situation, and accurately measuring changes and improvements. At RRP \$1,995 + GST, the GrassMaster Pro drymatter instrument should be a highly cost-effective starting point.

The GrassMaster Pro is usually calibrated at the start of the walk by both measuring and carefully estimating kgDM/ha in one low cover area and one area with high forage cover. The instrument then generates its own equation that can be validated. Once the farm walk is completed by any staff member (you can take data from the side of a quad bike too), the GrassMaster information can be used to quickly create a feed wedge graph, total feed available, and a host of other trending data. We now have a new software package that links up with all of the GrassMaster products, called GrassTrack. This software is free for use, and also exports data to Excel spreadsheets. GrassTrack has been improved to support the storage of 800 paddocks, suitable for larger farms and forage cultivar trials.



The drymatter readings are taken by an impartial instrument, so they can be relied on year after year. Recent trials also indicate that once calibrated, the GrassMaster Pro will closely match even highly experienced whole paddock visual assessments of similar forage mixes.



These quadrat readings were taken on a chicory/ryegrass/clover mix paddock and then compared to actual weighed drymatter.

The GrassMaster is quite simply the best instrument of its type in the world!

The MD Lure – Pest Control

Leading edge research

Possoms cause extensive damage to native trees and wildlife, and are carriers of the highly contagious bovine tuberculosis. The disease is endemic in possums across about 38% of New Zealand (known as 'vector risk areas'). In these areas, nearly 70% of new herd infections can be traced back to possums or ferrets.

We have developed an audio-visual lure, the MD Lure, to attract possums (and possibly other pests) to bait stations or kill traps. This internal research project follows on from the Multi-Trap work that we have done with help from government part-funding and several university students over the years. TBFree NZ (formerly AHB) funded a research trial that started in May 2015. Thirty of the MD Lures were placed on a 9km long line around the bush fringe on Mt Taranaki, and moved every four days by Qualmons' staff. The last part of the trial was completed in 2016 in Coroglen, Coromandel.

The MD Lure utilises light patterns and sounds stored on a flash drive to attract possums. Through our scientific research trial, some light patterns and sounds were identified as more effective than the standard flour blaze lure by itself.

The use of the MD Lure's most effective tone and LED sequence in addition to a flour blaze lure resulted in a 100% increase in the number of bites to the detection Wax Tags, when compared with the flour blaze on its own. We're looking to test the MD Lure on mustelids and rats soon.

Many thanks to



Eradicating bovine tuberculosis from cattle, deer and wildlife in New Zealand.



The MD Lure



Native bird nest under attack



Cattle investigate an infected possum