

WHAT'S NEW AT NOVEL WAYS?

AGRITECH INNOVATION REPORT

www.novel.co.nz

Taupo, New Zealand

2019/2020 Edition



FEATURES

- Regenerative farming ideas
- When sustainability is NOT enough
- Pasture measurement and management

BATT-LATCH UPDATE

- Innovative uses for the Batt-Latch
- Batt-Latch product developments
- Does your Batt-Latch need repair?

Opinion - Regenerative Farming & Sustainability

Is it possible that dairy and drystock farmers in NZ could sequester the equivalent carbon estimated to be emitted from all of NZ's sources, in their soils? Some experts say that's possible. By making relatively easy changes to existing farm practices, the net stored carbon held in pastoral soils in NZ could be added to, in a 'soil carbon sponge'.

We have had connections with regenerative farming for several years. We still sell Brix meter kits for measuring the soluble sugar levels in forages, and our GrassMaster Pro is probably the world's most accurate instrument for measuring drymatter in standing pasture forage. These tools can't (by themselves) solve the pressing issue of climate change, but now it's possible that pastoral farmers could be a big part of the solution to the government's net zero carbon target by 2050.

In a nutshell, ***the topsoil under every square meter of grassland in NZ would need to store an extra 1kg of carbon each year, to offset all of the country's net emissions.***

Some peat soils already hold 30kg of carbon/m², and most pastoral soils haven't reached their theoretical maximum storage.

When sustainability is NOT enough

Walter Jehne (Healthy Soils Australia), author of the 'Regenerate Earth' article listed, is speaking at the ODPG Conference in March 2020:

The Regenerative Soil Solution – ODPG* Conference

7&8 March 2020 - Lincoln University

An impressive line-up of local and international speakers and farming practitioners

<https://organicpastoral.co.nz/event/the-regenerative-soil-solution-odpg-conference-2020/>

*Organic Dairy and Pastoral Group (NZ)

Regenerative farming rules should assist with carbon storage, and these are shown below:



Source: The Spinoff – see the reading list, below

These rules will increase the water storage in soils and build the topsoil layer so farms are more productive, with less nutrient runoff.

This is a huge topic – and an exciting one! Read more at:
<https://thespinoff.co.nz/business/04-11-2019/with-the-walls-closing-in-regenerative-farming-is-a-way-forward-for-agriculture/>
<https://www.nzagrc.org.nz/soil-carbon/listing,595,grassland-soils-have-potential-to-offset-ghg-emissions.html>
<http://www.globalcoolingearth.org/regenerate-earth/>
<https://www.nzagrc.org.nz/knowledge.html>

Another progressive idea would be to introduce dung beetles to your pastures - 11 tested exotic species are recommended and NZ-approved for year-round activity, encouraging earthworms and deeper plant roots. Read more about this solution for revitalising our soils and pastures, and rehabilitating New Zealand's waterways.
<https://dungbeetles.co.nz/>

- Graham Lynch, Novel Ways Limited owner

To discuss this article, please contact me at
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CALL NOVEL WAYS LIMITED TODAY!

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BATT-LATCH NEWS

Innovative Uses for the Batt-Latch

From New Zealand and around the world we hear about new and innovative ways of using our solar powered automatic gate timer. Read more about these, and other applications, on our website.

Icelandic Horses

Our agent in Denmark, Ole Trier (Smartfold ApS), was excited to tell us about his customers' use of the Batt-Latch with Icelandic horses.



Photo: <https://www.icelandtravel.is/blog/the-incredible-icelandic-horse/>

When teamed up with a Roller Gate (see below) the horses are released to a new feed area.



We're told that horses need regular feeding opportunities not only to maintain energy levels, but the right feeding frequency helps to control physiological, digestive, and behavioural issues.

Utilising the Roller Gate –mounted either permanently or temporarily in a gateway, or on fence standards for break feeding – gives you all of the functionality of the Batt-Latch or Modem Batt-Latch, along with the tidy and safe retraction of a roller gate.

Resellers in the UK and Europe also report that the Batt-Latch has been successfully used with horses for releasing or allowing them access to new pasture or hard feed, meaning the owner can control the weight gain and condition of the animal. Horse owners find the Batt-Latch useful, as often they are 'absentee owners' for much of the time each day.

Roller Gates are available from Smartfold ApS:

<http://www.smartfold.dk/>

or we have a limited number of these specialised gates for potential NZ customers.

See our website products page at:

<https://www.novel.co.nz/>

Cell Grazing

Cell or mob-grazing, also trademarked as TechnoGrazing and Technosystem in NZ, is a technique of using semi-permanent electric fences to hold a mob of animals in a confined space for a short time, before moving them to the next break.

A set of Batt-Latch timers can be set up to open sequentially, over a period of several days, to move the stock for the farmer. Water must always be available, and baleage can be pre-fed into each cell, but otherwise the farmer need not be present – perfect for a remotely-run operation. You can get an idea of how it works, from the diagram below:



The Usmar family run a drystock unit in Feilding, using this technique, and kindly shared their example with us.

Drystock handled this way tend to be more settled and gain weight faster, while improving poorer quality pasture. Read more about a NZ example here: <https://agrihq.co.nz/section/beef/view/grazing-system-cleans-up>

A grazing gateway kit

Our USA distributor, MSF Farm (Mike and Sharon Fries), developed the MSF Grazer gateway, a portable gateway kit suitable for cell grazing, for use with the Batt-Latch.



Note the gateway is in the middle of an energised fenceline.

Enquiries to: <https://msffarm.com/>

Got any bright ideas?

We are always happy to hear from Batt-Latch users and innovators.

Apart from applications with dairy, dry stock, horses, and (yes!) sheep, we've adapted a unit to release seed for quail. In 2020, watch out for our Bring it On! Batt-Latch competition. Show us your bright ideas and be in to win.





The Batt-Latch Modem Unit

Text/Cellular Remote



The modem version of the Batt-Latch timers can be controlled with text commands.

Communicating by mobile phone makes the unit very flexible for changing situations. To start you off, they are supplied in NZ with a pre-paid SIM card (specify Spark or Vodafone) but you must remember to top up online at least once every 12 months, or, for greater convenience, add it to your current service provider's plan.

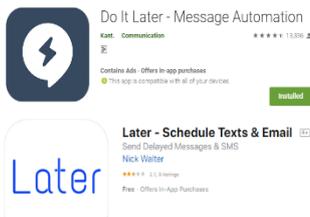
For overseas purchasers, a local SIM card will need to be installed – choose a reputable local provider to ensure the best possible service/reception. Instructions are on our website.

See our website products page at:

<https://www.novel.co.nz/>

Do It Later!

We all put off things we are supposed to do now... but here is an App which encourages you to do just that!



Do It Later (Android) or Later (iOS) Apps allow you to pre-program and schedule a text message to be sent out at a specified time. You can also set up recurring messages.

This can extend the functionality of the Batt-Latch Modem Unit. For example, you can schedule a job for more than seven days in the future, edit or change a message before it goes out, or ask for a periodic status update.

Search in the Play Store or App store for details.

Batt-Latch Servicing and Repairs

We've published a handy guide for when your Batt-Latch timer needs service or a repair.

<https://www.novel.co.nz/>

Please ensure that any timer returned to our Taupo workshop for repair:

- is clean, so we don't spread anything around
- includes contact details and a description of the issue(s)
- identifies any new or additional spare parts required, for example, a strap, full spring gate kit

Warranty

While each new Batt-Latch has a two-year warranty, we will charge for damage caused by extreme external forces, even if the unit is otherwise within a warranty period. *See our guide for details.*

The Batt-Latch – A Time Saver!

Our Batt-Latch timer is increasingly popular (in NZ and overseas), and we are continuing the process of sourcing rugged components to make them even more reliable.

Over nearly 25 years, the Batt-Latch (designed and manufactured by Novel Ways Limited), has been making life a lot more pleasant for many dairy and drystock farmers all through NZ and, increasingly, overseas.



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

At your pre-set 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 two-year warranty. The manual (if you lose yours) is available to download from our website: <https://www.novel.co.nz/downloads.html>

Making the first timers and showing them at National Fieldays over 24 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. In New Zealand, 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.

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





PASTURE MEASUREMENT and MANAGEMENT

GrassMaster Pro

Manufactured exclusively by Novel Ways, 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.



Using electronic signals, the hand-held GrassMaster probe senses the water trapped inside the nearby grass blades, and uses a recent calibration to give a repeatable average of the drymatter in the paddock. 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 all paddocks on the 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 Metabolisable Energy of the grass grown
- increasing top-soil depth and quality.

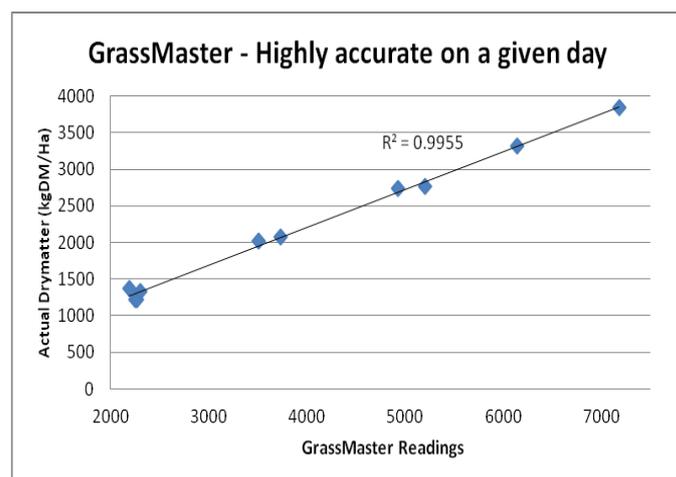
Many of these outcomes rely on initial monitoring of the current situation, and accurately measuring changes and improvements. At RRP \$1,995 + GST, the GrassMaster Pro drymatter instrument should be a highly cost-effective starting point.

The GrassMaster Pro is usually calibrated within minutes at the start of the walk by both probe measuring and carefully estimating kgDM/ha in one low cover area and one area with high forage cover. Once the brisk 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.



Free for use with all GrassMaster products, GrassTrack supports the storage of 800 paddocks, suitable for larger farms and forage cultivar trials. It imports and exports data to EXCEL.

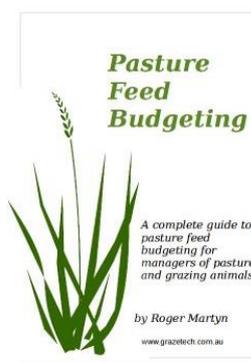
Recent trials also indicate that, once calibrated, the GrassMaster Pro will closely match even highly experienced whole paddock visual assessments of similar forage mixes. Put simply, it's great at grading paddocks!



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

Pasture Feed Budgeting

A book 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).

See the Grazetech website below to preview and order your own copy.

www.grazetech.com.au

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