

DONAGHYS

LessN

Nitrogen utilisation enhancer

Learning the 'LessN'

Donaghys LessN® monthly update

SEPTEMBER 2010

Welcome to the September edition of Learning the LessN. With the official arrival of spring, it is great to know we are heading towards warmer days and have hopefully left the vagaries of winter behind us.

For those of us living in Canterbury, the events of the morning of Saturday 4th September will be etched in our minds for a long time to come. While many have lost homes and precious belongings, we should all be thankful that the earthquake caused no loss of life. I hope all the farms affected have been able to continue operating with little difficulty and that you can still make the most of the spring ahead.

It is great to see significant price lifts in Fonterra's internet auction of commodity milk powders recently, and this has set the scene for the start of NZX trading in global dairy futures contracts.

Equally pleasing to see has been the strong prices for both sheep and cattle around the country. With prime lambs at Canterbury Park reaching \$160/head, let's hope these prices remain high, and sheep and beef farmers get the returns they richly deserve.

All the best for the month ahead.

Nigel Johnson, Biotechnology Manager, Donaghys Industries.



Donaghys LessN® - Farmer of the month



Harry Schatt
Tepirita
Canterbury

Harry has been in the dairy industry for 25 years and is currently farming in the Tepirita area in Canterbury. Harry has been on his current farm for the last 13 years and is milking 720 cows on 224ha.

He also sharemilks a neighbouring property which consists of 265ha and milks 900 cows.

Harry has been using the LessN system for about a year with great results. "I have noticed that the clover growth is more stimulated and the grass responds much quicker in comparison to using solid Urea. We definitely grow more grass per kilogram of urea applied. The grass growth in the paddocks appears to be

more even and the cows are cleaning the paddocks up evenly as well".

"LessN is definitely a wonder feed for grass. I grazed a paddock and sprayed LessN behind the cows. A fortnight later I had a cover of 3000kg DM per ha. I've also used LessN on rape and young grass and had terrific results with that as well. My spraying contractor has even commented on the difference this product has made".

Research Update - LessN – Mycotak Compatibility Trial

With the acquisition by Donaghys of the Coast Biologicals fungicide range (see back page) it is timely that we review the previous research conducted that evaluated LessN's compatibility with Mycotak.

The first trial on Mycotak and LessN was conducted in the Waikato in February 2010 on a Te Awamutu dairy farm. The pasture grown by the LessN system was around 24kg dry matter for each kg of nitrogen fertiliser applied. This is around double the normal expected nitrogen fertiliser response and highlights the significant benefits that LessN can provide to pasture growth. These results occurred with or without fungicide added, meaning that there was no detrimental effect on the efficiency of LessN.

At the end of the trial moderate facial eczema spore counts were present in the control and LessN system only treatments, but where the Mycotak was applied with or without LessN, no

spores were evident in the samples analysed. This successfully showed that the incorporation of LessN with Mycotak also had no negative effect on the efficacy of Mycotak.

Table 1: Pasture Dry matter (kg/ha) and Facial Eczema spore count on Day 27 after treatment application

	Day 0	Day 27	DM	Per day	Final Spore Count
Control	1298a	3812	2514a	93	25000
U40LN	1387a	4341	2955b	109	30000
U40LN+MT	1366a	4341	2975b	110	0
MT	1385a	3995	2610ab	97	0
F Value prob	0.328	0.078	0.098		
LSD (p<0.05)	114	476	448		
CV	6.1	8.4	12		

U40LN = 40 kg urea per hectare sprayed plus 3 L per hectare LessN
MT = Mycotak®



Donaghys LessN[®] - News Update

LessN fielddays proving a great success

The first in a series of LessN fielddays that are being held up and down the country kicked off in the Northern North Island at the beginning of the month. The first of many successful on-farm fielddays began in Kerikeri on the 6th September and was followed by days in Dargaville, Whangarei, Morrinsville, Taupiri, Thames, Te Poi and Reporoa.

The fielddays are a great way to educate farmers and industry people on the benefits of using LessN. As the days are based on farms which are already using LessN, it is a great opportunity for farmers to hear directly from other farmers who are already gaining the benefits of using the LessN system.

The LessN fielddays are due to continue next week in the southern Waikato, Taranaki and Manawatu and will conclude in the South Island in early October.

The dates, times and location for the Southern North Island fielddays are as follows:



Farmers attending the LessN Fielddays at Dean and Gillian Bertlings Thames property inspecting a LessN Mixing Station

MONDAY 20TH SEPTEMBER	TUESDAY 21ST SEPTEMBER	WEDNESDAY 22ND SEPTEMBER	THURSDAY 23RD SEPTEMBER
Don Schimanski Puketarata Road Otorohanga Dairy # 74370 Time: 11.00am	Kevin & Jackie Honeyfield 257 Lower Timaru Road Okato Dairy # 42713 Time: 10.30am	Gary & Sandra Fredrickson 524 Upper Glen Rd Manaia Dairy # 42047 Time: 11.00am	Chris & Denise Satherley Millricks Line Linton, Palmerston North Dairy # 45638 Time: 11.00am
	Chris & Joelene Cox 1105 Mangorei Road New Plymouth Dairy # 43082 Time: 1.00pm	Waverley Rugby Clubrooms Chester Street Waverley Time: 7.00pm	Grant & Katrina Barber Himatangi Station 611 SH1, Foxton Dairy # 26223 Time: 1.00pm

The dates and locations for the South Island fielddays will be announced in late September.

Australasian Dairy Science Symposium highlights the need for Nitrogen utilisation technology.

The 4th annual Australasian Dairy Science Symposium was held at Lincoln University from the 30th August – 1st September. Attended mostly by scientist from leading New Zealand

and Australian agricultural research institutes and universities, the first day of the conference was centred around environmentally sustainable dairy production. Some of the research

papers presented in this section included: ‘A systems approach to mitigating the environmental impacts of Nitrogen on dairy farming’, ‘Nitrogen discharges and methane emission



from grazing cows' and 'Soil based approaches to reducing nitrogen losses from dairy farms'.

While many of the papers discussed the need for further research and new technologies to be developed to reduce the environmental impact, those already using the LessN system would be thinking that they have already got everything they need. While it is not as simple as using just one system, the use of LessN goes a long way to contributing to reducing the environmental effect of nitrogen. The simple fact that farmers only have to

apply half of their normal nitrogen rates when using LessN means that they have already significantly contributed to reducing the impacts of nitrogen fertilisers.

As well as halving urea use, the LessN system means that the majority of nitrogen in sprayed urea is utilised by the plant for growth, meaning the levels of nitrate and nitrous oxide loss to the environment through the likes of volatilisation and leaching is greatly reduced.

Another discussion point at the conference was on the need to increase

production without increasing nitrogen inputs. To many this is seen as a viable option to reduce the environmental impact of dairying, as it means that farms are more 'nitrogen efficient'. Again LessN has a huge role to play in this scenario given its ability to increase pasture production without increasing nitrogen use. In fact the research has shown that the incorporation of LessN into a farm system will not just increase pasture production by around 14%, but it achieves these production levels with half the nitrogen input – a win:win situation!

Donaghys LessN® - Tip of the month



Strategic use of GibbSTART.

At this time of the year one way to get an extra boost in pasture production is to include Donaghys GibbSTART (Gibberellic Acid) to applications of LessN. Donaghys research has shown that half rates of GibbSTART (5g/ha) with the inclusion of LessN (3L/ha) and dissolved urea (40kg/ha) can significantly increase pasture production at the 'shoulders' (late winter/early spring and late autumn/early winter) of the season.

Ongoing use of GibbSTART (or any Gibberillic Acid) should be avoided as overuse can be detrimental to plants. Once soil temperatures have reached levels (12°C +) that can sustain good nitrogen response and growth, GibbSTART should be removed from the mix and just LessN and dissolved urea used until soil temperatures dip in late autumn.

Donaghys Territory Manager of the Month

60 Seconds with Mick Withers

Territory you cover for Donaghys?
Ellesmere/Mid Canterbury

How long have you worked for Donaghys?
2.5 years

Favourite part of the job?
Promoting Donaghys products to help farmers in their business

Interests outside of work?
Running, tennis

Greatest achievement outside of work?
Completing the Christchurch marathon in 2009

Dream job?
Quality control officer at the Glenfiddich distillery

If you could change one thing about the New Zealand agricultural industry what would it be?
Remove the inefficiency's within the meat industry



Other news from Donaghys -

Donaghys continues expansion with purchase of fungicide business

Donaghys Industries has continued its growth in the agriculture sector with the purchase of the Coast Biologicals fungicide business. The purchase which incorporates the products Mycotak, Myco-RF and Mycowet emphasizes the investment which Donaghys is putting into the New Zealand agricultural sector and strengthens their already large technically focused product range.

The purchase of the Coast Biologicals fungicide business now means that the Donaghys Animal and Plant product range has the ability to provide up to \$30,000 worth of products to the average sized dairy farm or \$90 per cow.

Being 'pasture applied' products these fungicides will compliment Donaghys flagship pasture product – LessN, with successful trials already completed on the compatibility of these products.

Mycotak is a fungicide developed to control Facial Eczema in pasture - a major animal health issue facing farmers in the North Island. Facial Eczema is caused by the presence of the fungal spore *Pithomyces chartarum* in pasture between December and May. It can significantly affect animal production and in serious cases cause death. It

is estimated that Facial Eczema costs farmers thousands of dollars in lost production each year, and in the major outbreak of 1981 lost production was estimated to cost \$58.4 million dollars (Smith and Towers).

Myco-RF is a fungicide for the control of rust and fusarium spores in pasture and crown and stem rust in grass seed crops. The presence of these spores inhibit pasture growth and can cause animal health issues. Many farmers are unaware of the impact that rust and fusarium can have on their pasture and animal production, with the presence of these diseases often going unnoticed.

The third product in the range, Mycowet, is an organosilicone based 'Super-spreader' specifically designed to be used in conjunction with Mycotak and Myco-RF to enhance the spreading and foliage deposition of these fungicides.

Donaghys will provide an independent service to farmers to assist in the identification of these diseases as well as monitoring the severity. This will enable the corrective measures to be put in place to remedy the issues as appropriate.

Donaghys Managing Director Jeremy Silva said the rationale behind the



purchase of this business is the synergies with the LessN system and Donaghys increasing involvement in the dairy and sheep/beef sectors.

“The uptake of LessN in the past few seasons has been enormous and farmers are really seeing the benefits of using the LessN system. A combination of LessN and a product like Mycotak or MYCO-RF is great news for farmers, as they will be able to apply two beneficial systems at once thus saving on application costs” said Mr Silva.



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