

# Learning the 'LessN'

## Donaghys LessN® monthly update

MARCH 2011

Welcome to the March edition of Learning the LessN.

It is difficult to think what to write in this space after the devastation of February's earthquake. Our hearts go out to all of those who have lost so much during this time. We here in the Christchurch office are thankful we were spared any major damage to our building, but we, like all in Christchurch, the Canterbury region and New Zealand have all been affected in one way or the other.

All that we can hope now is that the worst of the earthquakes are over, and the region and its people can get on rebuilding both the city and their lives as best they can.

*Nigel Johnston, Business Manager Biotechnology, Donaghys.*



## Donaghys LessN® - Farmer of the month

**Kevin Harvey**  
**Inchbonnie, West Coast, South Island**  
**470 cows, 220ha**

"We have been using LessN and urea in conjunction with 2,4-D for the control of thistles and ragwort in pasture. I have found it to increase growth rates considerably with the added bonus of wiping out weeds as well. The cost of putting LessN on is nil as I have to spray the farm anyway. LessN is going to be a major part of our farm operation. This farm is in the Lake Brunner catchment area which means less urea in runoff water and more urea uptake from pasture. I also believe the weeds have a better kill rate from the added intake from both LessN and urea".



*One of Kevin Harvey's paddocks after an application of LessN and urea*

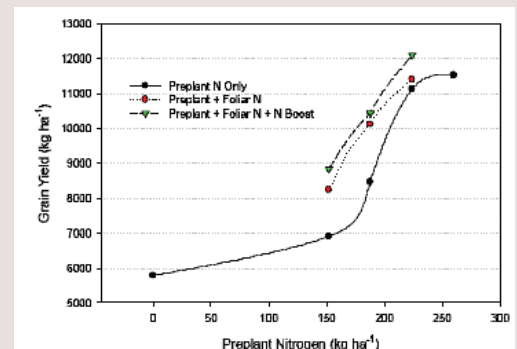
## Research Update - USA Maize study highlights benefits of LessN

A recent trial out of the University of Nebraska has proven the benefits of adding LessN to nitrogen fertiliser to increase Maize yields.

The study was conducted primarily to evaluate the potential for foliar application of urea ammonium nitrate solution to irrigated maize, and the inclusion of LessN with foliar N application on grain yield and N use efficiency. The study was located at the University of Nebraska's South Central Agricultural Laboratory near Clay Centre, Nebraska. The study was a randomised block design with four

replications. Individual plot dimensions were 8 rows (6.1 m) wide by 15.2 m long. The study was conducted on the Pioneer brand cultivar 33P83.

The results of the trial showed there were generally significant effects of pre plant N rate on all parameters of interest other than plant population. Foliar N application significantly increased grain yield and grain N uptake. The use of LessN (N Boost) significantly increased grain yield and grain N uptake. There was a trend for increased fertiliser N recovery with the use of LessN (N Boost).



*Figure 1. Treatment effect on grain yield with combinations of pre-plant N only, pre-plant N + foliar N, and pre-plant N plus foliar N and N-Boost (LessN is called N-Boost in USA)*



# Donaghys LessN® - News Update

## South Island LessN field days continue in March

The first in a series of South Island LessN field days kicked off in Canterbury last month. The first of the on-farm field days began at Greg Meadows' Methven dairy property and was followed by days in Otaio (South Canterbury), Rakaia, and Geraldine.

The field days 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 South Island LessN field days are due to continue next month in Otago, Southland and the West Coast.

The dates, times and location for the Otago, Southland and West Coast LessN field days are as follows:

WEDNESDAY 16TH MARCH	THURSDAY 17TH MARCH	WEDNESDAY 30TH MARCH
Wayne Pilgrim 108 Ardmore Rd	Shaun Kneely 33 Crook Rd	Kevin Harvey 2848 Kumara Inchbonnie Rd
Heriot	Invercargill	Kumara
Time: 10.30am	Dairy # 31213 Time: 10.30am	Dairy # 342 Time: 10.30am

## LessN providing West Otago contractor with plenty of work

Wayne Pilgrim is being kept extremely busy with the spraying side of his West Otago contracting business – all thanks to Donaghys LessN®. The interest in LessN has increased significantly in the last few years and Wayne now estimates that 25% of his work is taken up spraying LessN. One neighbouring dairy farm has Wayne spraying LessN on their property every week, highlighting the results that farmers using LessN are getting.

Because of all of this work, Wayne has seen first hand the outstanding results of spraying LessN and dissolved urea around the region. Wayne is also using LessN on his home farm near Heriot and in early December set up a demonstration block in Barley to assess the benefits of LessN on this crop.

As part of the demonstration, Wayne applied three different Nitrogen fertiliser



*“The LessN treated barley block (left) produced a considerably taller and denser crop than the solid urea treatment block (right)”.*

systems to the crop. One part received a ‘traditional’ nitrogen treatment, with 80kg/ha of solid urea applied. A second block received 40kg/ha of dissolved urea, while the third block received 40kg/ha of dissolved urea plus 3 litres of LessN (the LessN System). The two dissolved urea treatments were sprayed on at 125L water per hectare.

The results of the three treatments have

shown up some interesting results. “The LessN area was clearly ahead of the other two blocks, with there being a clear line between the treatments. The LessN area was much taller and thicker” explained

Wayne. “You see a much quicker response when using LessN compared to solid urea. Within a week you can see a difference”.



Another advantage of the LessN applied area over the solid urea treatment was seen in the soil test results which were taken six weeks after the treatments were applied. The soil test results showed that the LessN area had almost double the amount of Nitrate-Nitrogen, Ammoniacal Nitrogen and Mineral Nitrogen in the soil than solid urea.

Apart from the quicker responses and increased yields from using LessN, the greatest advantage for Wayne is the ability to mix other chemicals into the LessN/dissolved urea mix and

do multiple jobs in one pass. "Under traditional practises, solid urea would have to be applied separately from the chemicals, meaning more time and money. The beauty with the LessN System is that you can do it all in just one pass" says Wayne.

Wayne has successfully added a number of herbicides and fungicides into various LessN mixes on cereals, brassicas and pastures with tremendous results.

A similar demonstration area with the same treatments has also been

established on a brassica crop. The results of this demonstration will be able to be viewed at an upcoming LessN field day on Wayne's property on Wednesday 16th March, starting at 10.30am. The field day will give local farmers a chance to learn more about the benefits of the Donaghys LessN System® and hear first hand from farmers who are already using the product.

For more information on the field day, please contact local Donaghys Territory Manager Allister Gaudie on 027 432 5754.

## Donaghys LessN® - Tip of the month

### Don't forget to add Mycotak for facial eczema prevention!!

With autumn upon us, the threat of facial eczema in the North Island is still a considerable issue. History tells us that facial eczema spores can still be at high and dangerous levels through to late April, meaning this deadly disease can still strike even though temperatures may be cooling off.

As mentioned last month, Donaghys new pasture fungicide Mycotak, is a proven solution to preventing Facial Eczema.

Mycotak provides up to six weeks protection from facial eczema and also reduces the need for zinc treatments.

One huge bonus of Mycotak is that it is compatible with Donaghys LessN®. The combination of LessN and Mycotak into one spray mix means that two jobs can be done at once, reducing the need to treat facial eczema separately.



## Donaghys Territory Manager of the Month

### 60 Seconds with Allister Gaudie

*Territory you cover for Donaghys?* South Otago, West Otago and part of Eastern Southland.

*How long have you worked for Donaghys?* 5 months.

*Favourite part of the job?* Meeting and getting to know so many people.

*Interests outside of work?* Family, Hunting, Fishing, Scouts and the early Ford V8 club.

*Greatest achievement outside of work?* Helping my wife to raise our four children.

*Dream job?* To work at the Tui factory.

*If you could change one thing about the New Zealand agricultural industry what would it be?* To bring the goal posts back into line so young farmers can get farm ownership a wee bit easier because there is not the same young guys coming through.



# Other news from Donaghys

## Rust Never Sleeps

The destructive effects of pasture rust should not be underestimated. When grass is yellowed and on closer inspection has the orange of rust spores, that's crown rust (*Puccinia coronata*). And it's a royal pain for your pasture from late spring to mid autumn leaving lasting effects.

The bad news is the orange spores erupting through pustules are just the tip of the iceberg. Within each affected blade of grass is a tangle of fungal threads making their way through the leaf tissue, piercing cells to rob energy from the plant. Heavy rust infection has been shown to reduce dry matter growth by as much as 40 % and the struggling plants leave more space for weeds to take hold.

The rust depletes energy reserves of the plant and the loss of chlorophyll (seen as the yellowing around rust infection) means less replenishment of these reserves. From a heavy autumn disease pressure, spring re-growth can be compromised significantly, in one study spring dry matter production was 20% reduced.

Much pasture rust goes unnoticed in our pastures until the orange of rust spores are seen to coat gumboots. But



before this stage the rust will already be holding back pasture growth and quality. Rust infected grass is not just lower in metabolisable energy but has been shown to have reduced palatability and a higher level of dead and dying leaves. These prematurely dying leaves are a prime site for facial eczema fungi and mycotoxin production highlighting even greater risk.

Methods for rust management include heavy grazing on badly affected pastures which will at least reduce the spore load and to find the balance between keeping the pasture unstressed from dry conditions and not irrigating too often or under the wrong conditions such that

prolonged humidity encourages the fungus. Modern cultivars will also offer some resistance to rust though the rust has ways of adapting to new hosts.

Fortunately there is a proven solution for pasture rust issues. Myco-RF is registered for the control of both rust fungi and mycotoxin producing *Fusarium* fungi in New Zealand pastures. Best practice is to begin early, before the pasture has been overly damaged. Spray after the paddock has regained pasture cover from grazing. With the aid of Mycowet surfactant, the spray goes through the leaf surface to release the plant cells from the fungal parasite.

**Myco-RF**

Myco-RF is a systemic fungicide for the control of Rust and *Fusarium* spp. in pasture and crown rust and stem rust in blind seed in ryegrass seed crops.

**CONTAINS**  
800g/Kg tebuconazole in the form of a wettable powder.

**REGISTRATION**  
Registered pursuant to the ACVM Act 1997, No P7625  
See [www.nzfsa.govt.nz/acvm/](http://www.nzfsa.govt.nz/acvm/) for registration conditions.  
Approved pursuant to the HSNO Act 1996.  
Approval Code: HSR 07810.

**HARMFUL. KEEP OUT OF THE REACH OF CHILDREN. ECOTOXIC.**



DONAGHY'S INDUSTRIES LIMITED

16 Sheffield Crescent, Harewood

PO Box 20 449, Christchurch

Freephone: 0800 942 006 Freefax: 0800 945 779

Email: [njo@donaghys.co.nz](mailto:njo@donaghys.co.nz)

Web: [www.donaghys.com](http://www.donaghys.com)

**DONAGHY'S**  
PERFORMANCE FIRST