



## P for grass - cattle slurry v chemical

**Romain Hebert, PhD Student**

Edited by  
**Tom O'Connell,**  
ACP Communications  
Officer

Is Phosphorous from organic manures just as effective as that supplied from chemical fertiliser? In an effort to answer this question, in 2017 a grass production response trial was established in four catchments:

- Ballycanew, Co. Wexford
- Cregduff, Co. Mayo
- Dunleer, Co. Louth
- Timoleague, Co. Cork

In each catchment a representative grassland field was selected with a series of 28 plots in total. In order to make a comparison, each plot received its P requirement either in the form of chemical or organic fertiliser.

Half of the plots received chemical and the other fourteen got cattle slurry. The total annual P applied was 21 kg/ha.

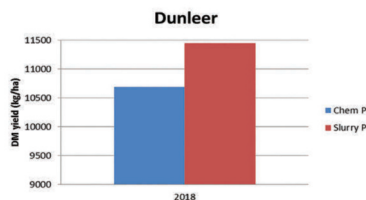
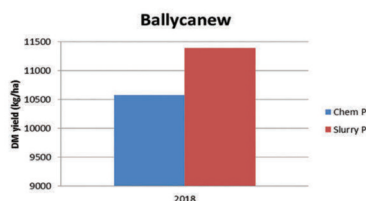
*Visitors to the Timoleague plots*

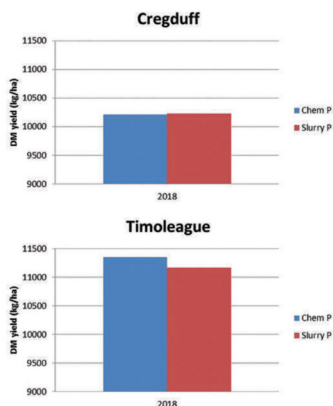


Typical of a silage fertilisation regime this was split over two applications – May and July.

All plots received adequate nitrogen (N), potassium (K) and sulphur (S) so that these nutrients were not limiting. The grass from the plots was harvested each month and the grass dry matter (DM) yields and nutrient (N, P, K, S) uptake also determined. Soil samples are also taken in autumn of each year to track any soil fertility changes.

Total annual yield DM yield (kg/ha) for 2018 are shown in the below graphs.





### Preliminary findings

- For all sites over the two years, average annual yield was 11,400 kg DM/ha.
- Ballycanew was the highest yielding site for both chemical and slurry.
- Total cumulative yield over the two years was higher where slurry was applied.



Marking out the Cregduff plots

## New weather website

### Una Cullen, Data Technologist

We recently set up a website displaying up-to-date weather from the met stations that are in each of the catchments. The website shows the figures for:

- Air & soil temperature
- Rainfall
- Wind speed and direction
- Evapotranspiration

Average annual rainfall across all six catchments ranges from 847 to 1096 mm. Cregduff is the wettest. Which catchment has the lowest rainfall? The answer at the end of this newsletter.

We hope you find the website [www.acpmet.ie](http://www.acpmet.ie) useful and feel free to contact us with your queries or suggestions for further improvement.

## Rain slows Dunleer harvest

### Ryan Gibbons, Advisor

With the harvest season underway across the country, the sound of combines is alive and well in our Dunleer catchment. Barley crops are coming to an end with oats starting to wrap up also. Prices for barley so far this year are hard to establish but it has been quoted at €145-155/tonne. Straw round bales have been making €12-14 with large square bales quoted at €45 each.

Pat and Tony McGuinness with Ryan Gibbons (Advisor) in centre



Talking with farmers in the Dunleer catchment, demand for straw seems to be down on previous years.

As with many farmers in the north-east, the McGuinness family grow a wide range of crops. Speaking with them about this year's poor harvest prices, they feel a number of factors are in play. Fears over Brexit and world surplus grain stocks are not helping matters. On the other hand, grain yields are holding up reasonably well and are as least as good as last year.

On a personal note, being from a suckler beef background in Co. Galway, there

was only one career path for me and thankfully I have been able to pursue that. In the two years prior to my current role, I worked with FRS as a derogation and GLAS advisor in various locations from Cork to Donegal.

I am based in the Teagasc office in Drogheda and look forward to working closely with all farmers in both catchments. For the challenges ahead, sharing the office with an experienced team of advisors will also be a big help to me.

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## Nitrates Derogation Review 2019

**Edward Burgess, Manager**

The Department of Agriculture, Food and the Marine (DAFM) recently carried out a review of the Nitrates Derogation currently being implemented in Ireland. The Nitrates Directive runs on a four year cycle. At the start of each period, countries can apply for permission to allow their farmers exceed the 170 kg N/ha stocking rate limit, which is equivalent to two dairy cows per hectare.

In 2018, almost 7,000 farmers applied for derogation in Ireland. This current derogation review is slightly unusual as it is taking place in the middle of the current four year Nitrates cycle, which ends on 31 December 2021. Also, it was started by our own government departments and not the European Commission.

The reason for this is that the derogation process is not taken for granted and the Irish government wants to be proactive in achieving sustainable and environmentally friendly agriculture. All this is taking place against the backdrop of national

greenhouse gas / ammonia emissions targets, trends in water quality and a significant increase in the size of Ireland's dairy cow herd following milk quota abolition.

The primary function of the Agricultural Catchments Programme (ACP) is the evaluation of the Nitrates Directive measures in Ireland. We were significantly involved in the submission by Teagasc for this derogation review. In total, there were 75 submissions received from various organisations and individuals.

New measures likely to be required by derogation and other farms with a stocking rate above 170 kg N/ha include:

- Compulsory liming
- Nutrient management and water quality training
- Low emission spreading for all slurry
- Grassland management training
- Inclusion of clover in new grass reseed

## Gallery



*Mass rock in Corduff*



*The outlet in Ballycanew*



*Beans in Dunleer*

## Keep in Touch

**Web:** [www.teagasc.ie/agcatchments](http://www.teagasc.ie/agcatchments)

**Twitter:** @TeagascACP

**YouTube:** Teagasc Ag Catchments

### Advisors

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We hope you enjoyed our first newsletter and found the information helpful.

The Agricultural Catchments Programme (ACP) is a DAFM-funded project and this newsletter is edited by Tom O'Connell, ACP Communications Officer.

Please feel free to contact Tom on 087 0609620 or [tom.oconnell@teagasc.ie](mailto:tom.oconnell@teagasc.ie) for further information or with any suggestions for future newsletters.

*Answer: Dunleer has the lowest annual rainfall*