

## Teagasc Notes for week ending Friday 5<sup>th</sup> March 2021

### **Nitrates Derogation – Influencing Ireland’s Application for its Continuation, The Role of the Agricultural Catchments Programme**

Teagasc’s Agricultural Catchments Programme (ACP) has been monitoring water quality in six locations across Ireland of contrasting soil type and farming for the past 12 years. The catchments are located at Dunleer, Co.Louth, Sreenty / Corduff, Co. Monaghan, Cregduff, Co. Mayo, Ballycanew and Castledockerell, Co. Wexford and Timoleague, Co. Cork. The purpose of the ACP programme is to investigate the impact of agriculture on water quality in these catchments. Its principal objective is assessing the effectiveness of the measures being implemented in Ireland under the Nitrates Directive. Water quality readings are continuously collected at the outlet-points in each catchment at 10 minute intervals for the last 12 years. Ground-water readings are collected in a series of deep water wells located in each catchment. Surface-water is sampled every month along with ecological analysis and identification of critical-source pathways. All this information allows scientists to form a holistic picture of the water quality story in the catchments.

In 2006, the Good Agricultural Practice regulations (GAP) were introduced, bringing the European directive into law in Ireland. This regulation aims to protect water quality from agricultural sources of pollution. To be more specific, the directive focuses on “Nitrates” and “Eutrophication”. Too much nitrate can make water unsafe to drink and a limit has been set at 11.3 mg N / litre, below which it is considered not to be a risk to human health.

The GAP regulations are reviewed and changed every four years and so far, on these anniversaries, Ireland has applied for and received permission for its farmers to exceed the 170 kg N / hectare stocking rate limit set out in the directive.

The scientific information collected in the 6 catchments, is used to demonstrate the effectiveness of the Nitrates Derogation and to underline Ireland’s case to renew the Nitrates Derogation to farm at a stocking rate of above 170 kg/ha. There are many factors including stocking rate that impact the concentration of nutrients in streams. These include: land drainage; depth of the underlying water table; soil moisture deficit (how wet or dry the soil is); farm nutrient management; soil pH; chemical nitrogen and organic fertiliser application rates and timing; re-seeding; ploughing; grazing intensity; soil type and geology. All of these factors are reflected in the scientific information collected in the catchments across the country.

Ireland is required to report annually on the water quality in our rivers and streams and the Agricultural Catchment Programme (ACP) contributes to this report. While the ACP has very detailed scientific results from six catchments, water quality from over 1,800 catchments compiled by the EPA show declining trends since 2017. This does not help the application for derogation renewal, which takes place later this year. If Ireland is to continue to receive permission to allow farmers exceed the 170 kg stocking rate limit, farm practice may need to be tailored to suit the local soil conditions and weather.

The review will present changes to the Nitrates derogation for farmers across. Spreading chemical and organic manure at the right time, rate and location will be required, if we are to maintain our exemption. Decisions on where and when to spread slurry can no longer be based on tanks being full, and the driest ground available at that time. We must make the best use of nutrients in slurry and reduce chemical applications accordingly to achieve balance. The consensus among the decision makers when it comes to legislation is that to date, this has not been achieved to a satisfactory level. Slurry storage and ensuring that these facilities on each farm are sufficient will strongly influence the nitrates derogation continuation. It is important for farmers to assess the quantity of slurry storage in relation to the number of animals that are kept over the winter and make use of the grant aid available while also taking account of the capital allowances available on the taxation side to put additional storage in place where required.

