

Teagasc Notes for week ending Friday 15th May 2020

Buffer Strips for Fertiliser Applications - Chemical and Organic

All farmers must take responsibility for preventing excess fertiliser nutrient loss to watercourses on their own farms. If every farmer takes personal responsibility, embraces the advice and puts it into practice on their own farm, they will add greatly to the collective effort to improve water quality in Kilkenny and Waterford. Quite simply, that is what is required to make a difference.

Why do this? The first big picture in all this is the environment and this current generation of farmers leaving the countryside to the next generation in the same healthy state in which they inherited it.

A very close second big picture is that we are food producers and the large bulk of that produce is exported abroad. How do we set ourselves apart from the very intense competition for international markets? In order to beat the competition and obtain premium prices for our products, our farming systems must be sustainable from an environmental perspective. Otherwise, our produce ends up in less lucrative markets which directly impacts on the price that our co-ops and food processors can give for milk, meat, lamb and grain.

The loss of organic and chemical fertiliser nutrients to our waters is causing a decline in water quality nationally. As a country we are required to have all our waters achieving “good status” by 2027 which is a goal we must all collectively work towards. Everybody has a part to play and farmers are no different. Nitrogen and Phosphorous are the most vulnerable soil nutrients in terms of losses through overland flow or leaching through the soil and therefore contribute greatly to the decline in water quality. They are also very expensive farm inputs so prudent use of them can directly impact on farm profitability.

During the growing season, farmers begin to apply organic and chemical fertilisers to their lands. Organic fertiliser includes soiled water, effluents, farmyard manure, slurry etc. As well as abiding by the regulations governing good practice when deciding to apply these fertilisers, the farmer must keep out from open drains, rivers, streams, lakes and ditches. These un-spread areas are known as “buffer zones”. Leaving a buffer zone greatly reduces the loss of fertilisers to water courses and therefore, is one of the key measures in protecting water quality.

Nutrient enrichment occurs when excess nutrients from organic and chemical fertilisers are not retained on land or used by growing crops and subsequently are lost to water bodies. Phosphorous is most prone to loss from poorly drained soils or soils which are peaty in nature. This loss occurs through overland flow of water which carries sediment and phosphorus along with it into drains and surface waters. Nitrogen is the opposite; losses occur from free draining and light soils as nitrogen does not bind tightly to soil. The application of more nitrogen than the growing plant can take up leads to losses through leaching downwards through the soil into springs and nearby drains and streams.

To minimise or prevent the loss of Phosphorus to waters every farmer must “Break the Pathway” through the use of buffer strips. A buffer strip may be fenced or unfenced, planted with trees or just grass, but in all cases the buffer acts to catch and take up excess nutrients before they reach a watercourse. Buffer strips are no spread zones for fertiliser nutrients. Open drains and small streams are designed to remove water from fields but they also act as corridors and connecting pathways for fertiliser nutrients to rivers and lakes. So buffer strips must be sited along these areas of potential and critical areas for fertiliser nutrient loss. The following buffer strips must be maintained:

You Must Not Spread:

- Chemical fertiliser on land within 2m of surface waters

You Must Not Spread Organic Manure Within:

- 5 metres of surface waters (extends to 10m for first 2 and last 2 weeks of the spreading season)
- 10 metres of surface waters where the slope towards water exceeds 10%
- 15 metres of exposed cavernous or karst features such as swallow holes and exposed rock
- 20 metres of a lake shoreline
- 25 – 200 metres of a water abstraction point for human consumption

The buffer strips listed above are the minimum required. However, if you have land which is sensitive to loss of nutrients, you should consider extending the buffer zone to protect nearby watercourses. Please contact your local Teagasc advisor prior to application of fertilisers if you are in any doubt about which buffer zone you should abide by.

Deadlines

BPS is closing on Friday the 15th May. If you haven't yet spoken to your adviser about submitting your application, please do so today.

The new BEEP scheme is closing on Friday the 15th May. If beef farmers haven't yet spoken to their adviser about submitting an application for the scheme, please do so today. Even if you were in the scheme in 2019, you will need to apply again in 2020.

