

TILLAGE

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Nitrate regulations – green cover on tillage ground

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The Government has recently published Ireland's Fifth Nitrates Action Programme, which contains specific measures to protect water from nutrient losses arising from agricultural sources. One of the important changes concerning tillage farmers is the establishment of a green cover through natural regeneration techniques on tillage ground. High nitrate levels in rivers have been recorded by the Environmental Protection Agency in predominantly tillage areas in the south east. While there are many sources of nitrate loss to ground water, surplus nitrogen in the soil at harvest time, not used by growing crops, can contribute to these losses. Early-sown catch crops and establishment of green cover can help capture some of this nitrogen, which could otherwise be leached to ground water by rainfall. Essentially, tillage farmers are now required to take measures to establish green



Cultivate within 14 days of harvest.

cover as soon as possible post harvest to protect waters from nutrient losses. The regulation states: "Shallow cultivation or

sowing of a crop must take place within seven days of baling of straw post harvest. Where straw is chopped, shallow cultivation or sowing a crop must take place within seven days of harvest. In all circumstances, shallow cultivation or sowing of a crop must take place within 14 days of harvesting. In certain weather conditions, the Minister, in discussion with the

Minister for Agriculture, Food and the Marine, may advise when this should not apply”.

It is recognised that some uncultivated cover must be retained through the winter period to support seed-eating birds. Consequently, there may be small changes to the requirement for shallow cultivation on all harvested crops. Details on this will be available in early July.

Straw Incorporation Measure (SIM)

The SIM is a welcome measure to help improve soil quality by adding carbon, and will also deliver reductions in GHG emissions. For farmers who applied for the SIM, all eligible crops applied for must be harvested, the straw must be chopped, spread evenly, and incorporated into the soil as soon as possible after harvest.

In terms of incorporation, the following methods are deemed acceptable:

- discing;
- tined cultivators that can successfully incorporate the quantity of straw present; and,
- straw rakes as required in strip till no till situations.

Ploughing of straw without prior incorporation with soil is not permitted under the SIM.

Good incorporation is essential to reduce pest problems, particularly slugs, and to avoid poor crop establishment.

- Ensure that straw is chopped and spread evenly across the combine header width.
- Incorporation needs to be shallow, but deep enough to get a good mix with soil.
- Avoid deep cultivation, as this will inhibit the germination of grass weeds/volunteer cereals and will make soil difficult to work in the autumn after heavy rain.
- Rolling is not a requirement of the scheme but would conserve moisture and help germination of grass weeds.

Grass weeds

Blackgrass is an increasing problem on tillage farms. The problem normally starts with a very small number of plants but multiplies very quickly. One blackgrass plant per square metre can return six million seeds per hectare so it is vital to walk crops prior to harvest.

July is the perfect month to assess the level of grass weeds on your farm and to put an

integrated pest management (IPM) control plan in place. Identify the weeds present and record their location in the field. Identification is easier when grass weeds are headed out but if you are not sure, contact Teagasc or any agronomist for help. Hand rogueing can be done if the population is low, or desiccate larger areas if seeds have not already been set in the head. If you suspect that you have a resistance issue, contact your local Teagasc advisor to arrange testing.

Walking crops between now and harvest provides an ideal opportunity to identify and rogue grass weeds.



Soft brome.



Sterile brome.



Blackgrass.



Canary grass.

Stop spread with good machinery hygiene

Good machinery hygiene is the most critical factor in stopping the spread of grass weeds across your farm. Most grass weed problems start inside the gate where the contaminated machine starts working. Always take time to clean down the machine following working in a field with a grass weed problem. While this is a chore and takes up valuable time during a busy

harvest, it could save thousands of Euro, and later man hours, in controlling grass weeds in the future.

Finally, draw up an IPM control plan. The control plan will have many elements to it but it will be largely based on cultural control. This may involve autumn cultivations, rotation, sowing dates, crop choice, and primary cultivation method.

Planning for Harvest 2023

Cereal varieties

July is a good month to view and compare varieties for next season. Variety selection is becoming increasingly important as an IPM tool for tillage farmers as the challenge from diseases increases. For example, selecting a variety that is weak on yellow rust can add significant cost and risk for the farmer. Good resistance to rhynchosporium can make the difference between two or three fungicide applications in winter barley. The DAFM has many of their variety trials on farm and if there is one in your area it may be worth a visit.

Winter oilseed rape

The area of winter oilseed rape is expected to increase this autumn, primarily due to the substantial increase in the price of oilseeds. Other attractions to winter oilseed rape for tillage farmers are the potential nitrogen savings when good growth and development is achieved in the autumn/winter period, along with alternative weed control options.

Winter oilseed rape can be profitable in its own right but profitability should be viewed across the entire rotation. Yield increases in winter wheat of up to 19% after breaks for disease have been recorded in Teagasc experiments when compared to continuous wheat.

HEALTH & SAFETY

The most dangerous month

July is the month with the highest levels of farm workplace deaths based on past records. Let us change this trend in 2022. Children on the farm, long working hours, and managing tractors and machinery are particular safety concerns during July. It is important to be vigilant and carry out tasks with safety in mind.

Farm Safety Week starts on Monday, July 18, when the official launch occurs. Daily themes are:

Tuesday 19 – Childhood Safety; Wednesday 20 – Farm Safety Champions and Farm Accident Survivors; Thursday 21 – Respiratory Health; Friday 22 – Mental Health Awareness. The week is a combined UK and Ireland event. In Ireland, the week will be co-ordinated by the IFA Farm Families and Social Affairs Committee. Follow Farm Safety Week messages in the media. The hashtag is #FarmSafetyWeek.



Teagasc tillage podcast

For all the latest tillage news, the Teagasc tillage podcast is available on the Teagasc website, Apple Podcast, Spotify or on the QR code shown.

