

# TILLAGE

July 2024

## Water quality

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*Sow cover crops early to reap the benefits.*

### Cover crops

Cover crops improve nutrient cycling and serve as a mitigation measure to reduce nitrate leaching. Nitrate leaching can occur on all tillage soils, but is likely to be greatest on intensive spring-sowing tillage farms where the land remains fallow during the winter.

The sowing date of cover crops is crucial. The more growth that takes place, the more nitrate will be taken up. Large biomass production is vital to maximise the benefits of cover crops and early sowing is essential to achieve good autumn growth and subsequent large biomass.



COVER CROPS –  
**2t** DM/ha

loss for each  
three-week  
sowing delay in  
Teagasc  
experiments.

# TEAGASC ADVISORY NEWSLETTER

## TILLAGE

Experiments at Teagasc Oak Park to demonstrate the effects of sowing date on biomass production showed that there was a linear reduction in the amount of biomass produced as sowing date was delayed (Figure 1). The mustard in the experiment lost 2t DM/ha for each three-week delay in sowing, so the clear message is to plant cover crops as soon as straw is removed to reap the benefits.

Other benefits from cover crops include improved soil structure, reduced compaction, increased water infiltration, and reduced risk of soil loss in periods of heavy rainfall. Soil compaction is very common this year following wet conditions this spring, and deep-rooting cover crops can play a role in alleviating some of these problems.

### Conditionality – green cover

Conditionality refers to a set of baseline conditions, which all beneficiaries of the Basic Income Support for Sustainability (BISS) scheme, and other area-based schemes, must adhere to.

As part of conditionality, tillage farmers are required to take measures to establish green cover as soon as possible post harvest to prevent the pollution of waters caused by nitrates.

Shallow cultivation or sowing of a crop/catch crop must take place within 10 days of the baling of straw or, where straw is chopped, within 10 days of harvest. In all circumstances, shallow cultivation or sowing of a crop/catch crop must take place within 14 days of harvesting.

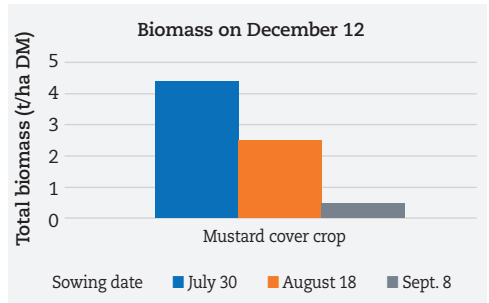


FIGURE 1: There was a linear reduction in the amount of biomass produced as sowing date was delayed.

Situations where shallow cultivation is not required include:

- land destined for winter combinable crops, which are sown before October 31;
- late-harvested crops, including beet, potatoes, maize and beans/cereals harvested after September 15; and,
- certified organic holdings.

A minimum of 20% and a maximum of 25% of cereal land on each holding shall not be subject to shallow cultivation post harvest to avoid possible negative impacts on farmland bird species. Unless a crop has subsequently been established, this land shall not be subject to the use of any herbicides until at least February 1 in the following year.

Shallow cultivation is only applicable to counties: Carlow; Cork; Dublin; Kildare; Kilkenny; Laois; Louth; Meath; Offaly; Tipperary; Waterford; Westmeath; Wexford; and, Wicklow.

Soil consolidation as an alternative to shallow cultivation may apply in situations following oilseed rape or where the Land

Parcel Identification System (LPIS) parcel has been certified by a Farm Advisory System (FAS) approved advisor as containing certain grass weeds (brome species and black grass). If soil

consolidation is practised as an alternative to shallow cultivation, it must also take place within 14 days of harvesting. Avoid cultivations where water flowing over the land surface can enter a watercourse.

## Glyphosate label changes

As a result of the re-registration of the glyphosate products, there are some significant changes to the labels (including changes in PCS numbers), which will impact on the use of glyphosate.

### Summary of main changes (rates based on 360g/L product):

- harvest management on oilseed rape is not allowed – now weed control only, same as cereals;
- pre-harvest use on beans is not allowed in any circumstance;
- pre-harvest weed control is only allowed when the crop is greater than BBCH 87 and grain/seed moisture is less than 30%;

- grassland destruction maximum rate is now 4L/ha – it was 6L/ha;
- for post-planting and pre-crop emergence, the maximum rate is now 1.33L;
- the maximum rate for non-crop areas is now 5L/ha – it was 6L/ha.

Authorisations for the 'old' label products expired on March 31, 2024. However, existing stocks of these products can be used up until September 30, 2025.



## Avoid long working hours

July is a particularly busy month on farms, with long hours of hard and high-risk work, usually involving tractors and machinery. Farmers and contractors must never underestimate the impact of excessively long working hours. Long hours can lead to long-term embedded fatigue and mistakes that would not otherwise happen. Always seek help and manage workload. With children at home from school, their safety also needs special attention.



## HEALTH & SAFETY

Seek help to keep your workload manageable at this busy time.

## Resistance testing

The results of herbicide resistance testing from 2023 harvest samples paint a worrying picture. Greater than 75% of blackgrass or Italian ryegrass tested was resistant to ACCase (Axial, Falcon, Stratos) and/or ALS (Pacifica, Broadway) herbicides. We also found chickweed, corn marigold and speedwell resistant to ALS-type (Ally Max) herbicides, and poppy resistant or tolerant to ALS and/or hormone type (2,4-D, Zypar) herbicides.

Teagasc has initiated a Weed Watch campaign with the *Irish Farmers Journal* to encourage growers and industry to test their resistance-suspect grass or broadleaved weeds (specifically, blackgrass, Italian ryegrass, poppy or speedwell). The programme uses Oak Park's unique free testing service to identify an effective herbicide programme to be used in conjunction with integrated approaches. Good sample collection is essential for

successful testing. Contact your advisor, scan the QR code using your smartphone, or follow the instructions on: <https://bit.ly/3MrlcgR>.



Contact Teagasc if you suspect herbicide resistance.

**Are your weeds herbicide resistant?**

Avail of free resistance testing to know best control options to control your suspect weed (grass or broad-leaved) in your tillage crops.

For further information, contact your Advisor or scan the QR code

## Teagasc tillage podcast

For all the latest tillage news the Teagasc tillage podcast is available on the Teagasc website, Apple Podcasts, Spotify or by scanning the QR code.



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