

TILLAGE

September 2024

Tillage Forum

EDITED BY
CIARAN COLLINS,
TILLAGE SPECIALIST



The Tillage Forum will look at how we can improve soils.

Wednesday, September 11, 2024, at 2.00pm
Keadeen Hotel, Newbridge, Co. Kildare, W12 T925

Join us for the Tillage Forum. Session one will have the latest information on cereal varieties for the 2024/25 season, in addition to autumn agronomy updates, including a presentation on take-all. In session two, there will be a focus on soils and how we can improve them after two difficult seasons.



**WHEAT AFTER
A BREAK CROP
YIELDS**

11-19%

**more than wheat
after another
cereal.**

Autumn planting

After two exceptionally wet autumns, there is a natural temptation to begin planting cereals earlier than usual. However, striking the right balance between taking advantage of better sowing conditions by planting early, and the risks posed by barley yellow dwarf virus (BYDV), take-all, grass weeds and increased disease pressure can be challenging.

Cropping plan

The advantage of an autumn cropping plan is that it enables the grower to strategically place the appropriate crop in the optimal location. Factors such as crop rotation, soil type, and aspect, as well as available machinery and labour, are all crucial elements of any effective cropping strategy. Keeping a good rotation on farm is central to profitability. Research work from Teagasc Oak Park showed that wheat grown after a break crop yielded between 11% and 19% more than wheat after another cereal. The margin from any break crop should not be considered in isolation but rather across the entire rotation.

Oilseed rape

Oilseed rape can be sown until mid September in the south and a week earlier further north. The key to successful establishment at this time of year is a good seedbed. It is also an ideal opportunity to apply organic manure and this will aid establishment. Choose a variety with good autumn vigour and increase seed rate by 10% if sowing late.



Drilling early may be tempting but disease and weed risk is a factor.

Rye

Before considering rye, consult your local agricultural merchant, as not all are equipped to handle it. There is growing interest in rye because it can be sown from mid September, taking advantage of favourable seedbed conditions.

Rye has high yield potential, comparable to wheat, and has good tolerance to take-all. While straw yields are high, lodging requires careful management. Modern hybrid varieties carry a low risk of ergot, but it is important to watch out for slug damage.

Rye is best suited for planting at the end of the rotation due to its take-all tolerance. This allows volunteers to be controlled in the succeeding crop, e.g., bean/oilseed rape. Seed rate is 200 seeds/m² but be careful not to sow too deep, maximum 2-3cm.

Wheat

Sowing wheat after break crops reduces the risk of take-all and provides the best opportunity for high yields. However, while take-all risk is reduced, early sowing still leaves it vulnerable to BYDV and grass weeds. Additionally, a growing concern with the current wheat varieties is their poor resistance to septoria, a problem that is exacerbated by early sowing.

Barley

Over one-third of the seed available this autumn is likely to be a BYDV-tolerant variety. Results from Department of Agriculture, Food and the Marine (DAFM) variety trials indicate that in the presence of BYDV there is a benefit to using a BYDV-tolerant variety. However, the risk from

take-all remains, so delay sowing in a take-all risky slot. Seed dressings for take-all were of limited benefit in Teagasc winter barley trials.

Given the increasing risk of septoria in wheat some growers may opt to plant winter barley after a break crop and use a BYDV-tolerant variety to increase the sowing window.

Cereal crop P and K requirements

Winter cereals have a demand for phosphorus (P) and potassium (K), which ensures that crops are well established in terms of rooting and tiller development entering the winter period. Index 3 soils will have a good supply of P and K for crop establishment; therefore, omit P and K applications until spring. For index 1 or 2 soils apply nutrients as shown in **Table 1**. A fertiliser product such as 0-10-20 or 0-7-30 will supply the correct balance of P and K at this stage. Apply at sowing and incorporate into the seedbed. Complete fertiliser P applications by October 31.



Slurry is a good source of P and K.

Where organic manures are available they should be considered as a source of P and K for winter cereals. For example, farmyard manure (FYM)/cattle slurry/mushroom compost are all suitable organic manures, as they are low in nitrogen (N) and will supply good levels of organic matter.

Table 1: Autumn P and K requirements for winter cereals (build-up).

| Soil index | P (kg/ha) | K (kg/ha) | Suggested fertiliser product and rate (kg/ha) |
|------------|-----------|-----------|---|
| 1 | 20 | 30 | 200kg 0-10-20 |
| 2 | 10 | 15 | 100kg 0-10-20 |

PTO shaft cover grant

The National Farm Safety Measure 2024 provides a financial contribution to participating farmers for up to four PTO shaft covers.

Closing date for applications is November 1, 2024. The grant aid will

be at a rate of 60% subject to a maximum eligible cost of €100 per PTO shaft cover. For further information talk to your advisor or go to: <http://www.gov.ie/farmsafety>.

**HEALTH AND
SAFETY**

Soil structure assessment

After a wet season now is a good time to take out the spade and assess soil structure. This involves digging a number of shallow soil pits (50cm deep) around the field. Take out the top 25cm (topsoil) and assess the shape, size, strength, colour and friability of the soil particles. Examine rooting activity and earthworm numbers in this top zone. This will help classify it as having good, medium or poor soil quality. It will help identify the presence of soil compaction and how it may be dealt with depending on its position. Take out the next 25cm of soil and repeat the same again to assess soil quality and whether a compacted layer is present or not. For example, a plough pan is



Examine soil structure to assess its quality.

often present from the continuous operation of cultivation equipment at the same depth year after year. Aim to alternate the cultivation depth by using different tillage strategies or equipment. More information is available by scanning the QR code or at: www.teagasc.ie/crops/soil--soil-fertility/soil-quality.



Shallow cultivation of post-harvest stubbles

Shallow cultivation must take place within 10 days of baling or, where straw is chopped, within 10 days of harvest. In all circumstances, shallow cultivation must take place within 14 days of harvesting. Shallow cultivation is not required on certified organic holdings, after the harvesting of root crops or late-harvested crops, where cereals are under sown with another crop, where cereals or beans are harvested after September 15, or on lands destined for winter-combinable crops that are sown before October 31. However, where



Stubble cultivation must take place within 14 days of harvest.

shallow cultivation is required, then a minimum of 20% and a maximum of 25% of cereal land must not be subject to shallow cultivation after harvest. This is to provide available winter foraging habitat for seed-eating birds and mammals. The 20-25% of land that is not shallow cultivated must not have any herbicides applied until at least February 1 the following year, unless a crop has been planted.