Teagasc
Advisory
Newsletter

TILLAGE

February 2021

Cover crops

Edited by
Shay Phelan
Tillage Specialist

As the days get longer, many farmers begin to think and plan for the spring drilling season ahead, with crops like beans and spring wheat being the first to be drilled. However, for many, getting ready to drill means firstly dealing with the existing cover crop. The popularity of growing these crops over the winter months has increased significantly in recent years due to the Green Low-carbon Agri-environment Scheme (GLAS). Depending on the crop type, how well it has grown or the drilling system, there are various ways of dealing with the destruction of the crop. Many farmers have opted to graze them off with light cattle and sheep, this is a very good way of recycling the crop and nutrients back into the ground; however, it is not without its risks to soil structure. Over grazing or use of ring feeders can cause poaching, which can be difficult to rectify in the short term. Strip or block grazing tends to reduce soil compaction or run-off issues.

Most farmers opt to simply destruct the crop with glyphosate or flails before ploughing for the next crop, but beware that if there are significant numbers of volunteer cereals in the crop, you may be harbouring diseases like net blotch, rhynchosporium, take-all and/or aphids. Ideally you should allow six to eight weeks for the crop to die down before you drill the next crop. This will help to reduce the risk of direct transfer across to the new crop.

Growers who are in direct drill systems are more commonly drilling directly into the cover crop and then "burning them off" with glyphosate. This method has many benefits (provided you have a drill that can handle the cover crop) from helping soil structure to reducing weed competition; however, again where there are significant numbers of volunteer cereals in the crop, there is also a risk of increased disease pressure on the following cereal crop. Whichever system is used, have a plan to deal with the crop, otherwise the benefits of growing them in the first place will be reduced.

teagasc
Agriculture and Food Development Authority

Beans require careful planning.

Spring beans

The area of spring beans rose significantly in 2020 due to the lower area of winter cereals planted in the autumn of 2019. While many crops performed reasonably, others performed very poorly, with some decimated by the drought in April and May. Before deciding to grow beans again in 2021 growers need to consider a number of points.

1. **Suitable soils** – beans like moisture-retentive soils. Soils that are prone to drying out during a normal summer are not ideal and should be avoided. However, beans also perform best when they are drilled early, i.e., early March, so soils need to be suitable to cultivate at this time, especially when using direct drill systems.
2. **Nutrition** – beans perform well where the soil indices for phosphorus (P) and potassium (K) are high. Trials from Oak Park have clearly shown where beans are sown in index 1 or 2 soils for P and K, they never yield as well as those sown in index 3 soils, regardless of how much fertiliser is used.
3. **Rotation** – the area of proteins has increased on many farms since 2015, and on some they may have completed a full farm rotation at this stage. Ideally, beans should only be drilled in the same field every five to six years, and from a disease point of view, the longer between crops the better.
4. **April planting** – beans rarely perform well when planted late in the season and later planting also results in later harvesting, which can cause a number of problems, such as increased moisture, soil trafficability for the combine, and reduced quality.
5. **Weed spectrum** – the choice of herbicides for beans is quite limited, especially for broadleaved weeds where most control is achieved using pre-emergence herbicides, so knowledge of the predominant weeds in the field is essential.
6. **Combine capacity** – as a general rule of thumb, only drill an area that you can comfortably harvest in two to three days. Remember, you will be harvesting in the second half of September when days are short and ground conditions are starting to deteriorate.
7. **Protein Aid Scheme** – while the Scheme is available again in 2021, this should not be the deciding factor in growing the crop. The crop will have to have the capacity to deliver a good yield. From Teagasc figures, a 5t/ha crop of beans will leave a similar margin to a 7.5t/ha crop of spring feed barley.

Winter oilseed rape

Most crops have grown relatively well over the winter months, however pigeon grazing is now evident in some. Efforts to limit the damage by pigeons such as scarecrows, bangers, etc., need to be stepped up in the coming weeks. The effect of pigeon grazing will determine how much nitrogen (N) is needed for the crop in the coming weeks. Remember that N is stored in the leaves of oilseed rape and when pigeons graze them, they are taking away that N.

GAI 0.5.

The size of the canopy can be measured by using the green area index (GAI) app on your smart phone. Where crops have a GAI of 1, you have approximately the equivalent of 50kg/ha of N already in the crop. This is a real saving in terms of fertiliser costs.

Therefore, assess your canopy size before deciding on a fertiliser regime for the crop. **Table 1** shows the N requirement and strategies at different GAIs.

Sulphur is often forgotten when fertilising oilseed rape, even though the crop has a relatively high requirement of 30-35kg/ha. Use N fertilisers that have a relatively high level of sulphur, e.g., ASN. Apply sulphur in the first two splits if possible.

Very few crops received any fungicide in the autumn, so it is highly likely that light leaf spot is present in most crops. Take samples of leaves and put them in a plastic bag and then put the bag in a warm room, e.g., a hotpress, for 24-48 hours. You should then see the tell-tale signs of the little white salt-like lesions on the leaves. Where you see light leaf spot lesions, use a fungicide containing prothioconazole (e.g., Proline), metconazole (Juventus) or tebuconazole (Fezan) for control. Note that prothioconazole-based products will not have a growth regulator effect on the crop, whereas the other two actives will have some level of effect. In the video link here, Steven Kildea talks about disease control in oilseed rape: https://www.youtube.com/watch?v=4HhfEGY_ARY&t=8s.

GAI 1.00.

Table 1: Nitrogen requirement for crops with different GAIs.

Crop GAI	Total N (kg/ha)	Early split (late February or early March)	Main split (mid March)	Seed fill (late March/early April)
2.0	130	0	70kg/ha	60kg/ha
1.5	190	40kg/ha (March)	90kg/ha	60kg/ha
1.0	210	50kg/ha (March)	100kg/ha	60kg/ha
<1.0	225	70kg/ha (February)	120kg/ha	35kg/ha

Note: Can add 30kg/ha for target yield of 5.0t/ha where farm fertiliser plans allow.

Upcoming Teagasc events

Teagasc is hosting a number of webinars during February, which are well worth attending for the most up to date information. See **Table 2** for details. For more details on each event log on to: https://www.teagasc.ie/tillagemonth/.

Table 2: Teagasc webinars in February – all held at 11.30am

Feb 3	National Tillage Conference day 1
Feb 9	Winter Crop Walk webinar 1
Feb 17	National Tillage Conference day 2
Feb 23	Malting Barley Conference

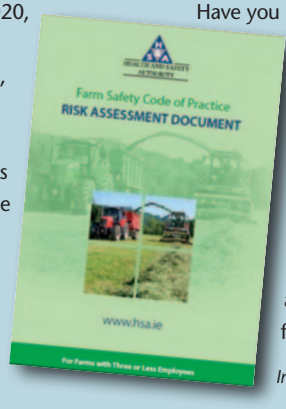
Teagasc Tillage Podcast

Our *Tillage Edge* podcast is again available to listen to for the latest tillage issues. You can access it on the Teagasc website, Apple Podcasts, Spotify or through the QR code here.

HEALTH & SAFETY

Review your risk assessment

February brings an increase in workload and associated risk to the farm. In 2020, 19 farm workplace deaths occurred, three in the childhood, six in the 17-64 years, and 10 in the 65 year old or higher age categories. Each of these fatalities is a huge tragedy. Let us all in the farming sector aim for zero accidents and make every possible effort to prevent deaths and serious injuries in 2021. This involves being alert to possible dangers and taking preventative action. Have you reviewed your risk assessment document for 2021? It is a legal duty to do this at least annually. Farmers tend to mainly use the farm vehicle, machinery and buildings pages. To do a comprehensive risk assessment review, go through the complete document, particularly the children and older farmers risk assessment section. Most importantly, follow-up with actions.



Implement your risk assessment.

Design by Think Media.