



Update Number 4 2023

Last Updated May 29th 2023

Teagasc Specialist TILLAGE CROPS REPORT



Winter Wheat	3
Winter Barley	5
Winter Oilseed Rape	7
Winter Oats	8
Spring Barley	9
Plant Protection Product Tables 2023	11
Spring crop walks	12
National Liming Programme 2023	13

All information is provided as a guideline only. The definitive information is on the product label which should be read and adhered to before using or recommending products.

Winter Wheat

Wheat crops have grown well in the last week despite the wet weather. Many crops only received their first application of fertilizer last week, the impact of this delay nitrogen application is not clear yet but may well impact yield later in the season. Teagasc monitor crops are reporting high levels of septoria which will be the target at leaf 3 fungicide application near the end of April. There are a few reports of yellow rust in Graham in recent days and this will be targeted at leaf 4 timing.

Fertilizer Where crops have yet to receive N,P & K fertilizer this should be a priority over the coming week this will be followed shortly by the main nitrogen application (50-60% of total) by GS 31/32. See the [winter wheat fertilizer strategy](#) for more details.

Weed control Most crops have received herbicides at this stage but in certain fields that may be low lying, for example, weeds still have not been controlled. Look at target weeds and if grass weeds need to be controlled then either Broadway Star or Pacifica Plus are the best options depending on what species need to be control. Broadway will not control annual meadow grass but has a wider broadleaf spectrum than Pacifica. Click on the [Teagasc herbicide susceptibility chart](#) for details of which weeds are controlled by the different herbicides, this should help to inform product choice.

PGR Most crops are now at GS 30 and should receive a PGR application over the next week or so. Many crops are showing signs of stress at the moment so avoid using PGR's until they have recovered. Options include Trinexapac ethyl (Moddus, Moxa etc.) 0.2 l/ha plus 75% CCC 1.0 l/ha or Meddax Max can be used instead of the Moddus products. A second application at GS 31/32 will reduce the lodging risk. For more details click [here](#).

Disease control It has become accepted practice by many growers to use T0 (Leaf 4) applications as a type of insurance against septoria especially where Chlorothalonil was available, however since it's loss the role of alternatives really needs to be questioned. We know that strobilurin fungicides give no control of septoria and so in the absence of yellow rust then they are of no benefit. Using a straight azole (prothioconazole, tebuconazole or metconazole) will start the selection process and result in poorer activity later in the season therefore this should be avoided at all costs. There are however a few reports crops of JB Diego, Torp and Bennington that are starting to show signs of yellow rust in these cases then a T0 is justified options include Fezan + Comet at full rates. Click on [disease control strategies](#) for further details

Monitor crops 2023

Location	Variety	Drilling Date	Rotation	Growth Stage	Comments
Carlow 1 Oak Park	Costello Graham	October 7/8	Oats	GS 30 GS 30	Costello - thin and somewhat backward Graham first application of N delayed
Athy 1	Graham	October 7	WOSR	GS 31	Received pig slurry in March low levels of Septoria
Athy 2	Graham	October 7	2nd after ley	GS 32 L4 60%	10% septoria on L3
Kildare 1	Graham	October 3/4	WOSR	GS 30/31	Low levels of disease 1st N only applied this week
Kildare 2	Graham Conros	October 10 October 1	WOSR WOSR	GS 30/31 GS 31	Septoria on lower leaves
Kildalton	Graham	October 11	WOSR	GS 31	Leaf 5 is 80% emerged. Leaf 7 has 25% septoria
Laois	Graham Graham	October 15 October 22	W Oats WOSR	GS 30 GS 30	Septoria low, on older leaves
Carlow 2	Graham	October 13	Beans	GS 30	Septoria on lower leaves
Midleton	Graham	November 10	WOSR & Oats	GS 24 (ear not at 1cm yet)	Some septoria visible on older leaves
Wicklow - Newtown	Graham	October 7	Beans	GS 30	Low level of Septoria

Location	Variety	Drilling Date	Rotation	Growth Stage	Comments
Kilkenny - Ballyragget	Graham	September 26	Beans	GS 31	Low level of Septoria
Kilkenny - Ballyragget	Graham	September 26	Oats	GS 30	Low level of Septoria - slower developing - chopped straw having an impact?
Mallow	Graham	October 2	Beans	GS 31	Septoria on L5
Killeagh	Graham	October 22	Beans	GS 31	Above average septoria for sowing date, location and GS

Winter barley

Winter barley has responded to the main split of nitrogen fertiliser and recent growth with most crops now at GS 31. Shoot counts are satisfactory in crops unaffected by water logging but there are more poorer patches in fields this year than normal. Overall disease levels are low but there have been some reports of brown rust from a few weeks ago there are some reports of rhynchosporium, mainly in susceptible varieties like Cassia, Casting and to a lesser extent in Joyau. First fungicide application has been delayed in most crops due to wet weather.

Monitor crops - Monday 3 & Tuesday 4 April

Location	Variety	Drilling Date	Rotation	Growth Stage	Comments
Carlow 1 Oak Park	Cassia	7/8 October	W Barley	GS 30/31	Ryncho on old leaves No evidence of fresh disease
Carlow 2	Tardis	10 October	W Barley	GS 30	V low level of ryncho
Athy 1	Cassia	5 October	W Oats	GS 30/31	Relatively Clean
Athy 2	Joyau	30 September	W Barley	GS 31	Mildew
Kildare 1	Tardis	25 September	W Wheat	GS 30/31	Plenty of mildew evident
Kildalton	Tardis	October 10	W Oats	GS 31	None
Kildare 2	Cassia	11 October	W Wheat	GS 30	Low level of ryncho
Laois	Cassia Tardis	October 15 October 21	W Wheat S Barley	GS 30 GS 30	Clean- evidence of old mildew Clean- trace amounts S Nodorum
Kilkenny - Ballyragget	Joyau	October 3	Beans	GS 31	V. Low - very small amount of old mildew on old leaves
Kilkenny - Ballyragget	Tardis	October 2	Oats	GS 30	No disease
Midleton	Cassia & Tardis	November 4	WW & WB	GS 24 (ear not at 1cm yet)	None
Clonmel	Joyau	September 22	S. Barley	GS 31	Clean
Nenagh	Belfry	October 6	W.Oats	GS 31	Low levels Rhynco
Fermoy	Belfry	October 7	S Barley	GS 31	No disease
Killeagh	Joyau	October 10	S Wheat	GS 31	Lots of leaf scarring, possibly a reaction to old disease

Disease Control

- [Varietal disease characteristics](#) and evidence of disease will dictate fungicide choice and rate.
- [Fungicide at GS 31-32 and GS 39/45](#) will give the best response in unsprayed crops.

Winter barley disease ratings

	Bazooka	Belfry	KWS Cassia	KWS Infinity	KWS Joyau	KWS Tardis	LG Casting	Bordeaux	Sy Armadillo
Mildew	6	6	5	5	5	6	8	(5)	(6)
Rhyncho	8	8	4	7	6	7	5	(5)	(8)
Brown Rust	6	7	7	6	7	6	7	(7)	(5)
Net Blotch	7	7	7	7	7	7	7	(6)	(7)

- All recommended varieties are rated 7 for net blotch so no specific treatment required, watch out for net blotch in

continuous winter barley

- Target control of rhynchosporium in Cassia (4), LG Casting (5) and Bordeaux (5), eg. Prothioconazole + SDHI (fluxapyroxad etc.)
- Cassia (5), Infinity (5), Joyau (5) & Bordeaux (5) are all moderately susceptible to mildew therefore include prothioconazole (50%) at first fungicide timing.
- Ramularia will be an issue for all varieties therefore include Folpet and prothioconazole/ Mefentrifluconazole at final timing (no response from SDHI/Stob).
- Take advantage of clean crops. Fungicide spend on varieties with good disease resistance (Belfry, Bazooka, and Tardis) and late planted crops should be lower than other varieties.
- Teagasc trials show that there is no response to >50% application rates of individual components of a fungicide mix in a 2/3 spray programme.

Example fungicide programmes based on disease risk

Low disease pressure	Medium disease pressure	High disease pressure
Decoy/Comet pack 7.5ha	Decoy/Comet pack 6ha	Decoy Comet pack 5ha
Elatus Era 0.5L	Elatus Era 0.65L	Elatus Era 0.8L
Boogie 0.8L	Boogie 1.0L	Boogie 1.2L
*Proline 0.35L + *Amistar 0.4L	*Proline 0.4L + Imtrex 1.0L	*Proline 0.5 + Imtrex 1.2L

**Generic options available*

Match fungicide rate to disease risk. Excessive rates increases resistance risk and reduces return on investment.



Mildew in KWS Tardis

Winter Oilseed Rape

The last few weeks have proven to be very difficult to get fertilizer spread on oilseed rape crops, many advanced crops are now flowering and will soon be too tall to spread fertilizer accurately unless the disks can be raised above the canopy.

Nitrogen Many crops are now too tall to achieve accurate spreading of granular fertilizer however most have in excess of 125 kg N/ha (100 Units/ac), whether this is adequate for the crop will depend largely on the canopy. Where the canopy is 3.5 or greater then experience from previous years suggest that this will be enough, however where you feel more is needed than liquid fertilizer is still an option. Some work from the AHDB shows yield increases of up to 0.75 t/ha where less than optimal nitrogen was applied to the crop already. Apply liquid N in temperatures below 19°C otherwise it can scorch. Options include melting granular Urea or liquid fertilizer such as Omex. For more details click [here](#).

Pollen beetle There have been no reports of pollen beetle damage at the green bud stage and therefore there is no need to apply an insecticide at this stage.

Disease control Most crops have received a fungicide at this stage for light leaf spot control. It is now too late also for Caryx on most crop to prevent lodging and to give some disease control. With a significant increase in area this year there may well be an increased risk of sclerotinia where rotations are tight. However it is too early yet to apply a fungicide just yet wait until early petal fall before applying Filan 0.5 kg/ha.

Clubroot is showing up again in some crops this year. In light of the increased area of winter oilseed rape drilled this year and the popularity of catch crops, Steven Kildea has recently published a video on the risk and control measures for clubroot. You can view this video [here](#).



Healthy plant (left) vs infected (right)

Winter Oats

Crops have started to grow quite rapidly in the last week or so especially where compound fertilisers were applied. Some crops only recently received fertiliser this week and are somewhat backward. Disease levels are generally low although mildew is evident in some forward crops.

Fertiliser Complete the first application of fertiliser as soon as possible. Generally a 50:50split of nitrogen on oats has been shown to produce the best yield response, the first application should be on by GS 30 and the second application should be completed by GS 32. For further details click [here](#).

PGR Most crops are now at GS 30/31 and many will receive a PGR application in the coming days options include Moddus 0.2 l/ha (or Meddax Max 0.2kg/ha) + 75 % CCC 1.0 L/ha or Ceraide/K2 (CCC + adjuvants) 1.5 L/ha which are easier on the crop but can work at lower temperatures.

Disease control Mildew is evident on forward crops at the moment. where there is significant pressure include a mildewicide e.g. Midas 0.2-0.3 L/ha (Tern or Winger are options also but have 15 m buffer) plus Proline 0.5l/ha and Comet 0.5 L/ha for crown rust prevention. Talus is also an option where there is no mildew at the moment but will help to prevent it. For further details click on [winter oat disease control strategy](#)

Monitor crops

Location	Variety	Drilling Date	Rotation	Growth Stage	Comments
Carlow Oak Park	Husky	October 10-15	Winter wheat	GS 30/31	Relatively clean
Athy 1	Isabel	October 16	Peas	GS 30/31	Very clean
Kildare 1	Husky	October 15	Winter Wheat	GS 30	Only received first N this week
Athy 2	Husky	October 15	Winter Wheat	GS 32	Mildew visible on lower canopy
Laois	Isabel	October 15	Beans	GS 31	Some septoria avenae on lower leaves

Spring barley

Some farmers on dry land availed of good ground conditions in early March to plant spring barley however it is estimated that only about 15% of this years spring barley is planted. Establishment in these earlier planted crops is variable. Dry free draining land not subject to water logging is fine but there are some instances of patchy establishment where water lodged after planting and on some 'tight' headlands.

Seed rates need to be increased to 325 seed/m² if planting is delayed into mid April. Incorporation of N,P and K into the seedbed is crucial from now on and there is a strong case to increase nitrogen rate in the seedbed.

Seed rate. Aim to establish a minimum of 300 seeds/m² but increase to 325 seed/m² if sowing is delayed into April. [Seed rates](#) in table below are based on DAFM 2022 harvest trials but actual TGW may be higher so important to check bag before you sow. Useful interactive seed rate calculator available [here](#)

Seed rates (kg/ha)

		Early to mid-April	Late April
		300	325
Variety	TGW	85%	90%
Gangway	49.7	175	179
RGT Planet	53.2	188	192
SY Errigal	52.8	186	191
Geraldine	52.3	185	189
Skyway	53.0	187	191
SY Amity	56.1	198	203
Rockway	52.5	185	190
Gretchen	55.3	195	200

Seed rates (st/ac)

		St/ac	
Gangway	49.7	11.2	11.4
RGT Planet	53.2	12.0	12.2
SY Errigal	52.8	11.9	12.1
Geraldine	52.3	11.8	12.0
Skyway	53.0	11.9	12.2
SY Amity	56.1	12.6	12.9
Rockway	52.5	11.8	12.1
Gretchen	55.3	12.4	12.7

Fertiliser. It is vital to [incorporate N,P & K](#) in seedbed from now on. There is a risk of a dry spell after the current broken weather and incorporating a high proportion of nitrogen in the seedbed worked well in 2018 when sowing was delayed.

Combine drilling high rates of urea (protected or not) should be avoided, max 75kg/ha, as high levels of ammonia can

negatively affect germination. However incorporation into the seed bed has worked well in Teagasc trials.

Plant Protection Product Tables 2023

See the links below to the updates tables containing the latest on each product which is available to farmers.

[Trace Elements](#)



[Spring Cereal Herbicides](#)

[Wild Oats Herbicides](#)

[Plant Growth Regulators](#)

[Cereal Fungicides](#)

Teagasc Spring Crop Walks

This years spring crop walks will take place over the coming weeks. With the delayed spring in many areas the walks will be delayed until spring crops have emerged however there are two walks due to take place in the coming weeks in areas where some spring crops were drilled in late February.

County	Venue	Eircode	Date	Time
Carlow	Teagasc, Oak Park, Carlow	R93 XE12	Thursday 13 April	11.00 am
Laois/Kildare	Tom Phelan, Dunbrin, Athy, Co. Kildare	R14 PN88	Tuesday 18 April	11.00 am

More events are planned for the following weeks details to follow.

National Liming Programme 2023

Apply for National Liming Programme before April 20 to be eligible for €16/t payment

There is a large demand for lime on tillage farms. From 4,325 soil samples analysed on tillage farms in 2022 39% of tillage had a soil pH <6.5.

Correct soil pH is crucial for nutrient use efficiency on all farms. Maintaining the soil pH at the optimum level will increase the microbiological activity of the soil, and result in better soil nutrient recycling and release. Soil pH is also critical for maximising the availability of nutrients (N, P & K) applied in organic and chemical fertilisers. Estimates also show that soils with the correct pH will release up to 80kg of N/ha/yr.

The recently announced [National Liming Programme](#) is a welcome incentive which will provide a financial contribution of €16 to participating farmers per tonne of lime delivered and spread on their holding.

The aim of the programme is to incentivise farmers to purchase and spread Calcium ground limestone/Magnesium ground limestone, in accordance with the lime requirement stated in the soil analysis report.

Some key points for tillage farmers in relation to the liming programme;

- Applicants (or their advisor) must complete an online Application Form on agfood.ie
- Application closing date is April 20 2023.
- Farmers with a grassland stocking rate above 170kg livestock manure nitrogen/ha prior to export in 2022 are not eligible as liming is a mandatory requirement on these farms
- Farmer who are participating or intend to participate in the 2023 Eco-Scheme practice relating to soil sampling and liming are not eligible to participate in this programme given this action would be already supported under that measure.
- Payment will only be made on valid claims relating to a minimum of 10 tonnes of ground limestone and a maximum of 200 tonnes.
- Must have soil test reports for the land (within the last 4 years from date of purchase) that indicates a lime requirement.
- Maximum application rate is 7.5t/ha.
- The ground limestone must be purchased directly from a licenced quarry. A list of licenced quarries is available at <https://www.gov.ie/en/publication/30b1d-trade-imports-exports-fertilisers-and-limestone/#list-of-active-limestone-quarries>.
- Claims for payment must be submitted by 31st October 2023.