

TILLAGE

April 2021

Winter wheat

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April is a very important month for winter wheat crops, as they start to form their upper canopy. The crop has to be fed with nitrogen (N), and straw has to be strengthened and shortened. As well as this, it is the month when the foundations of good disease control programmes are put in place. Remember, 80% of the yield comes from the top half of the canopy, so getting the timings and applications correct is very important.

Nitrogen

Complete the main N application before GS32. This generally equates to half the total amount of N for the crop if a three-split programme is being used, and is typically in the range of 100-125kg/ha (80-100 units/ac). Apply the final split at flag leaf. Where a two-split programme is used, the application at GS32 should bring the crop up to its final amount, e.g., 150kg N/ha.

PGR

Apply plant growth regulator (PGR) by the first node (GS31). Options include: CCC 75% 2.0

L/ha plus or minus Adjuvant; K2 1.8L/ha; and, CCC 1L/ha plus Moddus 0.2L/ha or Meddax Max 0.2kg/ha. Temperatures need to be >8°C for best effect.

Fungicide

Leaf 4 spray (T0): normally we would advise that an application at this stage is not needed as long-term Teagasc trials have shown little or no yield response to the T0. However, this year we have already noticed yellow rust in susceptible varieties (Bennington, JB Diego, etc.), which if the conditions are favourable, can destroy a crop in a very short space of time. If needed, options include an azole (e.g., Fezan) plus a strobilurin (e.g., Comet). However, be aware that using an azole at this timing will affect the efficacy of some of the azole fungicides used later to control septoria.

Leaf 3 spray (T1): Apply when third last leaf is fully emerged. Growth stage may not be an accurate indicator of the actual leaves present in

the crop, so dissecting plants and identifying the correct leaf to apply the first fungicide is critical for optimum septoria control. Where yellow rust persists, select a fungicide with good activity to control it.

Winter barley

The final barley yield will be determined in April, so again prioritise crops for inputs.

Nutrition: The total amount of N allowed at index 1 is 180kg/ha (144u/ac) at a reference yield of 8.5t/ha (3.4t/ac). Where there is evidence of higher yields in the last three years, you can apply an extra 20kg N for every one tonne/ha above the reference yield. If you plan to go above 180kg/ha, apply the last split before GS32, as barley does not use late N well and needs its N working before you see the flag leaf. Manganese deficiency is common and needs attention.

Fungicide: The decision to use a two- or three-spray strategy will depend on the variety and location. Use a three-spray programme on susceptible varieties, e.g., Cassia, where disease levels are moderate or high, especially in southern counties. On crops in more northerly counties and on clean varieties two applications

Include the multisite Folpet 1.5L/ha plus 80-100% of SDHI/Qii mixes, e.g., Questar, Revystar XL, Adexar, Elatus Era, Ascra Xpro. Add a mildewicide where mildew is present (check variety ratings).

may be sufficient.

First spray – GS30

Second spray – GS31-33

Third spray – GS39-49

Options include: Siltra 0.6L/ha; Decoy co-packs; Elatus Era 0.8L/ha; and, MacFare Xpro 0.8L/ha or Proline 0.4L/ha plus SDHI (Imtrex, Zulu, etc.)/strob. Where mildew is evident, include a mildewicide. Add Folpet to the last spray to control ramularia.

PGR: Aim to apply a PGR on two-row varieties between GS32 and GS37 for effective shortening, e.g., Terpal 1.2-1.5L/ha, Cerone 0.5-0.7L/ha, Meddax Max 0.3-0.5kg/ha. For six-row varieties or two-row varieties on very fertile sites, two applications are generally required; consider Moddus 0.2L/ha plus CCC 1.0L/ha at GS30/31, followed by the normal timing at GS32-37. Watch the weather when applying PGRs, as frost will lessen the effect and increase the chance of scorching. Avoid complicated mixes, as crops are still quite delicate.

Products expiring

2021 is a year when many more common products including some popular fungicides will expire. All products containing the active ingredient epoxiconazole, e.g., Adexar, Ceriax, Gleam, Rubric, will expire before the end of the year. Many of these products will still be in farmers' stores at the moment, so before you construct fungicide programmes with your

advisor, make a list of all the chemicals in the store and include all products that are due to expire this year in your programmes for the various crops. It is always easier to do this at the start of the season than at the end. It will also help to reduce the need to buy additional products and so will reduce the cost. If these products are in the store at the end of the season, they will have to be disposed of in an appropriate facility, which will cost you money.

Spring crops

Sowing of wheat, oats and beans should be complete at this stage while there is still plenty of time to sow barley. Increase barley seed rate as you drill later into April. Aim to sow approximately 350 seeds to establish 300 plants.

Fertiliser key points for spring cereals:

- select a suitable fertiliser to deliver sufficient seedbed N for early establishment and sufficient phosphorus (P) and potassium (K) for crop yield;
- P trials in spring barley indicate the benefits of placing P fertiliser on P index 1 soils in terms of rapid root and tiller development;
- recent work in spring barley has also shown the higher rates of K (80-100kg/ha) can also help to reduce brackling in barley;
- reduce the chemical fertiliser rates where organic manures have been applied;
- apply ~30% of the crop's N requirement at sowing;
- apply remaining N at mid tillering or alternatively split the remaining crop N as follows – two-thirds at early tillering and the remaining third by GS31/32 to reduce the risk of N loss in feeding barley – for malting, apply all the top dressing as soon as tramlines are visible; and.
- watch crops closely for signs of manganese deficiency and treat as soon as symptoms appear. Tillers can be lost very quickly and the crops will not have time to recover.

Aphids

March-sown crops do not need an aphicide, except in areas with a history of barley yellow

dwarf virus (BYDV) or near the coast. April-/May-sown crops should receive an aphicide at the 3-4 leaf stage for optimum effect. Use full label rates to get best control but monitor after spraying to assess for resistant aphids.

Weed control:

- early application (4-5 leaf stage of crop) using reduced rates will save money;
- best results when the weed and crop are growing actively;
- weather before spraying will influence how well the weed takes up the chemical – ideally wait for two to three warm days before spraying; and,
- **Table 1** shows available options.

Table 1: Popular weed control options for spring cereal crops.

Suggested rates and products
Sulfonyleurea – e.g., Ally Max or Cameo Max or Harmony Max at a half to two-thirds rate
plus
Mecoprop P 1.5L/ha or fluroxypyr 0.75L/ha or Galaxy 0.75L/ha or Pixxaro 0.375L/ha
or
Zypar 0.75-1.0L/ha can be considered almost as a one-can solution for many spring-germinating weeds. Check weed spectrum.

Wild oats

Pinoxaden (Axial Pro 0.6L/ha/Croplink Avena Nova) or fenoxaprop (Foxtrot/Farmco Wild Oats) can be applied with certain herbicides on different crops, so check each label for restrictions. Where wild oat sprays are applied separately, obey intervals to maximise the efficacy of the wild oat spray.

Winter oats

Winter oats have progressed reasonably well given the weather, with most crops around GS30 by April 1. Disease levels, especially mildew, are relatively low, but as usual include a fungicide that will control mildew.

Nitrogen

All crops should receive their full N by the first node (GS31/32). Do not apply more than 150kg/ha, as this will increase lodging pressure and trials from Oak Park also indicate that it will reduce yield and quality.

PGR

Many crops will already have received a PGR;

however, Teagasc trials show that the best growth regulation is achieved when the crop is at the second node (GS32-33).

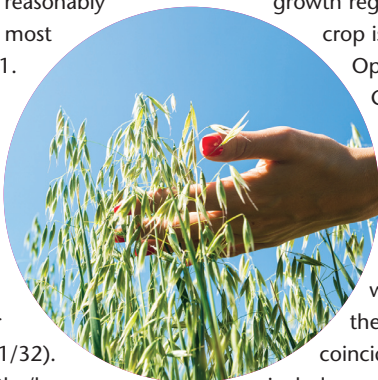
Options include: CCC 75% 2.0L/ha; Ceraide 1.4L/ha; or, CCC 1L/ha plus Moddus 0.2L/ha or Meddax Max 0.2kg/ha, etc.

Fungicides

Disease control should start early with the first signs of mildew and the first two applications generally coincide with PGR applications. Options

include:

- Talius 0.2L/ha plus or minus Fezan/Tebucur 0.5L/ha;
- Fezan 0.5L/ha plus Midas 0.25L/ha or Tern/Winger 0.25L/ha; and,
- Proline 0.5L/ha plus Comet 0.5L/ha or Cello 0.6-0.75L/ha.



HEALTH & SAFETY

Spreading and spraying hazards

Spraying and fertiliser spreading are high-risk jobs carried out in April. With fertiliser, always operate the machine controls from the tractor seat or another safely designed position. Watch out for trap zones, possible collapse of heavy loads and prevent musculoskeletal injury. Use and store

pesticides safely. Make sure that the power drives of all machines are fully covered. Always stay well clear of machine moving parts. Pay particular attention to the safety of persons in farmyards and roadways, as tractor and machine movements can kill as a result of knockdowns.

Stay clear of machine moving parts.

