

TILLAGE

June 2023

Teagasc Crops Open Day 2023

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This year's Teagasc Crops Open Day will be held, in conjunction with the *Irish Farmers Journal*, at Oak Park on Wednesday, June 21. The theme of this year's event is 'Crops and Cover Crop Cultivations'. The event will incorporate machinery demonstrations as well as outputs from the Crops Research Programme, which will be on display across field trials and active demonstrations. Attendees will hear from research staff leading projects on crop nutrition, increasing the use of integrated pest management (IPM) for future pest control, and demonstrating added value opportunities for plant protein. Volatile markets, reduced pesticide efficacy and increasing environmental constraints underline the importance of the ongoing research, and make adoption of the latest proven technologies essential for future sustainability goals. The central arena will focus on different methods of stubble cultivation and cover crop planting, and will include *Irish Farmers Journal* and Teagasc



Teagasc Crops Open Day takes place on June 21.

commentary on the working machines. Cover crop area has been increasing in recent years, with cover crops affording a range of environmental and agronomic benefits. However, if not managed correctly, they can have a negative effect on profitability and their potential environmental benefit will not be fully realised. With this in mind, the day will be a critical source of information to farmers implementing new stubble management legislation and planting cover crops. There will also be an added dimension as Teagasc's horticultural team will display some of the latest technology in weeding, including robotic and camera-guided hoes.

Spring barley

Disease control

Some early-drilled crops have already received their final fungicide; however, most of the later-sown crops still have to receive their final application. Late-season disease control in spring barley is designed to control diseases such as rhynchosporium, net blotch and ramularia.

The risk of infection with rhynchosporium, net blotch and mildew will largely be determined by the disease rating of each individual variety; however, in the case of ramularia it is normally caused by stress in the crop. While different varieties have differing levels of tolerance to ramularia, being able to predict which varieties are going to show signs of infection is very difficult. For this reason, we would recommend that growers protect all barley crops from ramularia.

Trials in Oak Park indicate that the multisite folpet (Arizona, Stavento, Mirror, etc.) has some activity on ramularia, and when it is used with the azole, e.g., prothioconazole (Proline), we can expect reasonably good control. However, timing of the application is critical as the fungicides are preventive only.

These trials have also clearly shown that from flag leaf fully emerged to the awns peeping is the optimum timing for applying the final fungicide, but that waiting for the heads to come fully out and start flowering, i.e., 10-14 days later, can reduce yields by 0.3-0.4t/ha. The rationale for going in early, rather than waiting for the head to come out, is that all the products that are available will only work preventively – they will not cure it when it is visible.

Therefore, by applying a fungicide early we are trying to delay the infection from occurring for as long as possible. Eventually, the crop will become infected with ramularia, but by delaying that infection occurring we are seeing a yield benefit.

That second fungicide at awns peeping or what has become called the 'paintbrush stage' will consist of the multisite folpet (Arizona) 1.5L/ha plus [half rate triazole plus strob/SDHI mix] (Table 1).

Teagasc trials consistently show that 50% rates of any triazole plus SDHI/strobilurin mix are adequate to control diseases such as rhynchosporium and net blotch.

Table 1: Spring barley fungicide options.

T2 timing: Flag leaf to awns visible (GS37-49)
Folpet 1.5L/ha
(Arizona/Stavento/Mirror/Freedom/Kingman/Lamast)
+
Half to three-quarters rate SDHI/azole mix
(Siltra, Elatus Era, Macfare Xpro, Decoy packs, etc.)
Or
Folpet 1.5L/ha
+
Half to three-quarters rate azole (Proline, Decoy, Pride, etc.)
+
Half rate SDHI (Imtrex)
or half rate strobilurin (Amistar, Comet/Modem)

Winter wheat

Disease control

Septoria is very visible in most crops; however, the infection is reasonably well controlled in crops where the leaf 3 and flag leaf fungicide applications were applied on time. Yellow rust

has been a smaller problem this year and is largely found in susceptible varieties.

Time the final fungicide application at early flowering, which is normally three weeks after the flag leaf spray.

Head spray options in winter wheat:

Head (T3) GS51-60	Septoria? Rust? Fusarium?	Triazole, e.g., Prosaro, Jade, Protendo Extra 80-100% rate Low pressure sites: tebuconazole (Fezan, etc.)
Date Early-mid June	Mildew?	+/- strobilurin (50-80% rate) Include mildewcide half rate

Spring oats

Many crops were drilled late this year and these are moving through the growth stages quite quickly. Growth regulation should be used between the second and third node. Apply CCC 750g/L at 1.5-2.0L/ha. Ceraide, Medax Max or Moddus are also options here.

Disease: Mildew again will be the biggest threat especially in broken weather. Rusts and

mildew require a broad-spectrum fungicide such as Elatus Era, Opera, or a triazole such as Proline plus a strobilurin, e.g., Comet. Include a specific mildewcide if it is visible in the crop. This should be added to the plant growth regulator (PGR) at GS32. The final fungicide should be applied when the crop is starting to head out.

Beans

Foliar diseases such as chocolate spot, downy mildew and rusts must be controlled to keep the foliage for as long as possible. All diseases develop quickly in warm humid conditions. For chocolate spot control, fungicides need to be applied before the disease develops. Therefore, apply a fungicide at the first signs of disease or in any case at the start of flowering and repeat two to three weeks later. Signum 0.5-0.75kg/ha can be applied at both timings for good control. Elatus Era is also an option and has approval for a single

application on beans at 0.66L/ha. For downy mildew, there are no fungicides currently available that will give control; however, Basfoliar Active and Nutriphite PGA, which are bio-stimulants, both claim to give some control. Beans offer growers a good opportunity to control problematic grass weeds such as bromes, ryegrasses and wild oats with graminicide-type herbicides. Options include Fusilade Max (1.0-3.0L/ha), Stratos Ultra (1.5-4.0L/ha) or Falcon (0.7-1.5L/ha).

Spring wheat

PGR and disease control

Apply CCC from GS30-31 for maximum effect. The rate is dependent on the risk of lodging but will generally be in the range CCC 75% 1.0L/ha. Check product labels for total dose of CCC and/or consider Medax Max or Moddus to GS32. Flag leaf applications are now due on many crops. Mildew tends to be the biggest threat in

spring wheat, although the newer varieties KWS Helium and WPB Duncan have good resistance, while septoria is usually less of an issue than in winter wheat.

Use folpet (Arizona) 1.25-1.5L/ha plus mildewicide plus azole/SDHI mix, e.g., Ascra Expro (70-80% rate) at flag leaf fully emerged followed by a triazole mix at the final timing.

Get weed samples tested for resistance now

The results of herbicide resistance testing from 2022 samples paint a worrying picture, where >70% of blackgrass or Italian ryegrass tested were resistant to both ACCase and ALS herbicides. We also found poppies resistant to ALS and/or hormone type (2,4-D) herbicides. If you suspect that you may have herbicide resistance in grass or broad-leaved weeds (specifically blackgrass, Italian ryegrass or poppy) in your fields, use this unique free

testing service to check it, allowing you to identify an effective herbicide programme to be used in conjunction with integrated weed management strategies. Good sample collection is essential for successful testing.

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



HEALTH & SAFETY

Organise to stay safe

Three farm workplace fatalities have been reported to the HSA in 2023. Over 4,500 farm workplace injuries occur annually, with 80% requiring medical treatment. Farms get busier in June, especially with machinery. Organising work is crucial to prevent injuries.

Keep safety to the fore by having all guards in place and using safe work practices. It is vital that farmers and contractors communicate closely about schedules and safety. As June progresses, school holidays arrive, so make preparations for child safety.

