

Spring barley

Edited by
Shay Phelan,
Tillage Specialist

Disease control

Late season disease control in spring barley is designed to control diseases such as rhynchosporium, net blotch and ramularia. Mildew has not been much of an issue in recent years.

The risk of infection of rhynchosporium or net blotch 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) has some activity on ramularia and when it is used with an azole, e.g., prothioconazole (Proline, etc.), we can expect reasonably good control.



Protect all barley crops from ramularia.

However, timing of the application is critical as the fungicides are preventative only (**Table 1**). Again, Teagasc trials have 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.

Barley crops that have received their first fungicide at late tillering should have good



Apply the second fungicide at awns peeping.

coverage for about three weeks, especially if an azole plus strob/SDHI mix was applied. Some crops were sprayed a little later due to spraying conditions being tricky in mid May; however, avoid the temptation to delay the second fungicide application until the three weeks are up, as this could result in the incorrect timing for that second fungicide.

The second fungicide at awns peeping or what has become called the “paintbrush stage” will consist of the multisite folpet (Arizona) 1.5L/ha plus a half rate azole plus strob/SDHI mix. Various options are available but once you have the basic components in the mix (folpet plus

azole plus strob/SDHI), you should expect good control of diseases. Teagasc trials consistently show that 50% rates of any azole plus an SDHI/strob mix are adequate to control diseases such as rhynchosporium and net blotch.

Table 1: Spring barley fungicide options.

Timings and products

T2 timing: flag leaf to awns visible (GS37-49)
 Folpet 1.5L/ha
 (Arizona/Stavento/Mirror/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 levels are relatively low in most crops where leaf 3 and flag leaf fungicide applications were applied on time. Yellow rust has not been a problem this year except in the few crops of Bennington that are still being grown.

The final head spray (**Table 2**) has two purposes: it tops up control of disease on the important flag leaf; and, it also gives some protection against fusarium and other ear diseases, especially if the weather is broken during flowering. Time the final fungicide application at early flowering, which is normally three to three and a half weeks after the flag leaf spray.

Table 2: Head spray options in winter wheat.

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

Spring oats

Crops are moving through the growth stages quite quickly, so visit them regularly, otherwise key timings could be missed. Growth regulation should be used between the second and third nodes (GS32/33). Apply CCC 750g/L at 1.5-2.0L/ha. Ceraide, Meddax 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, or an azole such as Proline/Decoy, plus a strobilurin, e.g., Comet. Include a specific mildewicide if not included in your main product.

This should be added to the PGR at GS32-33. The final fungicide should be applied when the crop is starting to head out. Options are the same as for the first spray.

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 at 0.5-0.75kg/ha can be applied at both timings for good control. Elatus Era is also an option this year and has approval for a single application on beans at 0.66L/ha.

For downy mildew control both mancozeb and

metalaxyl are not available in 2022; however, Basfoliar Aktiv and Nutri-Phite 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. It is important to take the opportunity now to reduce the problem in the following cereal crop. Good control can be achieved where products such as Fusilade Max (1.0-3.0L/ha), Stratos Ultra (1.5-4.0L/ha), or Falcon (0.7-1.5L/ha) are used in time. Generally, they need to be applied before flowering has commenced for best control.

Spring wheat

PGR and disease control

Apply CCC between GS30 and GS31 for maximum effect. Rate is dependent on risk of lodging, but will generally be around CCC 75% at 1.0L/ha. Check product labels for total dose of CCC and/or consider Medax Max or Moddus to GS32 or Terpal at GS37-39. Avoid mepiquat products (Terpal) where the straw is destined for the mushroom industry.

Crops have received their first fungicide and the focus now is on the flag leaf application.

Mildew tends to be the biggest threat in spring wheat, while septoria is usually less of an issue than in winter wheat. Use a folpet (Arizona) at 1.25-1.5L/ha plus a mildewicide plus an azole/SDHI mix, e.g., Ascra Expro (70-80% rate) at flag leaf fully emerged, followed by an azole mix at the final timing, e.g., Prosaro/Jade.

A reduced rate of the azole/SDHI mixes and mildewicides should help to keep costs down. Target total spend at approximately €141 plus VAT per hectare.

New nitrates rules for harvest 2022

The new Nitrates Directive (SI 113 of 2022) was published in March of this year. The directive is focused on protecting water across the country and there has been a number of changes to all sections of agriculture from previous versions.

While there have been no changes to the fertiliser amounts allowed on tillage crops, there are two changes that will impact on tillage farmers.

Firstly, there is the requirement to stubble cultivate all land after harvest this year. Farmers are required to shallow cultivate the soil or sow a crop within seven days of baling of straw. Where straw is chopped again, shallow cultivation or sowing must take place within seven days of harvest. In all cases, cultivation or sowing must take place within 14 days of harvest. The idea of this is to trap any residual nitrogen (N) left behind in the soil after the crop has been



Stubble cultivate all land after harvest this year. harvested. Where there are no plants using this N, it is being washed out into ground water. The second issue that is written into the document is in relation to late-harvested crops (e.g., beet, potatoes, maize) or late-harvested spring cereal crops. A minimum buffer of 6m shall be in place to protect any intersecting watercourses. The aim of this measure is to prevent surface runoff from fields into rivers and streams. While these new regulations will add considerable pressure to tillage farmers at what is already a very busy time, growers need to be aware that they are now law and plan for them.

HEALTH & SAFETY

Keeping children safe on the farm



The health and safety of children is paramount on farms, especially during the busy summer months. In recent years, there has been an increase in children dying on farms. What can be done? Firstly, a farm childhood safety

code of practice is available on the Health and Safety Authority (HSA) website, giving authoritative guidance. Parents or guardians have the key role to play in motivating, instructing and guiding children and youth about farm safety. A

recent Canadian study clearly shows the positive motivational influence of parents. Key approaches include ensuring that farmyards are free of hazards to children, and that they do not have access to farm locations when hazardous work is in progress. A secure play area is a crucial requirement for younger children. The Teagasc Jessy's Smart Kids newsletter series for children can be downloaded from the Teagasc website. These provide enjoyable and motivating puzzles and quizzes for kids related to farm safety.