Teagasc
Advisory
Newsletter

# TILLAGE

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## Spring barley

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*There is no benefit to repeat insecticide application for control of BYDV.*

The majority of spring barley will emerge in May. This brings different management challenges compared to barley emerging in March/April. Disease levels in late-sown barley tend to be lower. Nitrogen (N) rate needs to be managed in line with yield expectations and the risk of barley yellow dwarf virus (BYDV) is higher.

### BYDV management in spring cereals

BYDV is a major challenge on late-sown cereal crops. Aphid numbers increase with temperatures, so cereals emerging in May are at a high risk. Grain aphids, a major vector of BYDV, have developed partial resistance (knock down resistance – KDR) to pyrethroid insecticides (Karate Zeon, Decis Protech,

**BEST CONTROL**

**of BYDV comes from a single spray at the**

**4**

**leaf stage.**

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etc.). Therefore, insecticide use needs to be planned and targeted for best effect.
Barley sown after mid April has a high probability of becoming infected with BYDV. The percentage of tillers with symptoms can exceed 30%, and a yield reduction of the order of 1.3t/ha is likely.
Teagasc research on late-April-sown spring barley has shown that one application of a pyrethroid insecticide at the 4 leaf stage will give the best control of aphids from a single spray. Multiple applications do not increase the level of control and will exacerbate the problem at local level.

*Apply any remaining nitrogen as soon as possible.*

### Weed control

Late-sown crops present an opportunity to make savings on weed control due to faster development. Low rates of herbicides can be effective but successful control is dependent on applying herbicides to small weeds, which are actively growing. For later-sown crops this can be done with the aphicide following a period of good growth.

### Fertiliser

Any remaining N needs to be applied as soon as conditions allow. Where lower yield potential is expected, reduce the total N applied. A 6.5t/ha crop has a requirement for 135kg/ha (108 units). Increase N by 20kg/ha for every tonne expected over 6.5t/ha.

### Disease control

The average yield response from a two-spray fungicide programme in Teagasc trials is 1.3t/ha, but can range from 0.5-2.75t/ha, depending on the season. The expected response will be lower on late-sown crops, so the fungicide spend can be reduced. Oak Park trials have shown two half-rate fungicides (combined product) will give the maximum economic return. The first fungicide should be timed before GS30.

## Teagasc events

Teagasc will hold a series of crop walks in May. Consult the Teagasc website for details of crop walks in your area.

# Winter cereals

### Winter wheat

Fungicide timing is the key determinant of successful disease control in wheat. A fully emerged leaf 1 (flag leaf) and leaf 3 are the key timings. Research has shown that plus or minus seven days of a fully emerged leaf 1 can make a significant difference in high disease pressure situations. Septoria control in winter wheat will be based around the azole, Revysol, and QiI Inatreq. Both products have performed well against septoria in Teagasc trials and in the field. However, both are at risk of resistance and should only be used once per crop, at the rate required and in mixtures with a multisite like folpet. Older products (Ascra Xpro, Elatus Era, etc.) still have a role in disease control but the foundation of good disease control is still applying products at the correct timings (**Table 1**).

### Winter barley

The latest stage to safely use a plant growth regulator (PGR) is the awns peeping stage. Terpal 1.2-1.5L/ha or Cerone 0.6-0.7L/ha are options but watch the latest timing. The final fungicide needs to be timed at the awns emerging stage. It should consist of an azole plus an SDHI/strob and 1.5L/ha of folpet to assist in the control of ramularia.

*Awns emerging is a crucial timing for control of ramularia.*

Recent Teagasc experiments on the control of ramularia show that the best timing for control comes between GS45 (boots swollen) and GS49 (first awns visible). An application of folpet at GS59 (ear emergence complete) did not contribute to control.

### Winter oats

The final fungicide timing as the ear emerges from the boot in winter oats is to target rust and mildew, and prolong green leaf area. Suitable product mixes include azole/SDHI/strob, e.g., Elatus Era 0.75-0.8L/ha or Proline 0.5L plus Amistar/Comet 0.5L plus or minus a mildewicide or Boogie 1.0L/ha.

**Table 1: Winter wheat fungicide programme.**

| Timing | Product |
|---|---|
| Leaf 3 | Folpet 1.5L/ha plus 80-100 % (azole/SDHI/QiI) |
| Leaf 1 (Flag leaf) | Folpet 1.5L/ha plus 80-100 % (azole/SDHI/QiI) |
| Start of flowering | Azole mix |

# Beans

Beans were generally sown late this year, which may decrease disease pressure and offer savings on fungicides. However, the first fungicide at the start of flowering is crucial, especially if it is wet at the time. An assessment can then be made on the requirement for a second fungicide two to three weeks after the first. Apply Elatus Era 0.66L/ha (only once) or Signum 0.5-0.75L/ha or Amistar 0.5L/ha plus tebuconazole 0.75L/ha at the start of flowering.

*Apply fungicide to beans before flowering to control chocolate spot.*

HEALTH & SAFETY

# Safety in mind at this busy time

Delayed spring field work combined with silage making and other field work will increase machinery operations. Drive at a speed that is appropriate and be vigilant of hazards like blind spots. Drivers must have a clear view as they enter/exit public roads. Talk to your contractor in advance to plan work and inform them of hazards. Keep children and people not involved in work clear of moving machinery. Tidy farmyards will help.

*Keep children away from machinery.*

# Teagasc tillage podcast

For all the latest tillage news the Teagasc tillage podcast is available on the Teagasc website, Apple Podcasts, Spotify or on the QR code here.

The Tillage Edge
Crops Podcast

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