

CROP MONITOR

Operation Lapwing

The number of lapwing pairs nesting on Northern Ireland's farmland has declined by over two-thirds in the last twenty years to under 1700 pairs. You can help change this. Lapwing nest on bare ground or fields with very short sward in mid-March; spring cereals, set-aside and newly ploughed land are all potential nesting sites.

Follow our five-point plan to benefit lapwings on your farm:

- identify at least one field each year that you can manage to help lapwings. Grow a spring cereal or root crop in this field.
- choose a large, unenclosed field away from mature hedgerows and woodland.
- choose a field that contains or is close to chick feeding sites – wet/ boggy areas, pasture or set-aside.
- try to carry out all machinery operations by 31 March, or consider marking nests so you can avoid them. Alternatively completing all operations within 10 days will allow lapwings to re-nest successfully.
- create a 1-2 ha fallow nest plot in the centre of the field by ploughing or discing in late February. You may be able to use a set-aside derogation for this work, or enter DARD's Countryside Management Scheme which offers incentives to farms with breeding lapwings.

Operation Lapwing is a project run by the RSPB in conjunction with UFU to provide advice to farmers on managing for lapwings within the farming system. The Northern Ireland 'Lapwing Champion' winner will this year receive £200 and the chance to go forward to the UK final with a top prize of £1000 sponsored by Jordan's Cereals.

To receive your free lapwing pack and/or enter the competition contact the RSPB on 02890 491547 or the UFU on 02890 370222. For further advice on DARD's Countryside Management Scheme, contact your local DARD office.



*Lapwing, Vanellus vanellus standing in furrows of spring
Bob Glover and rspb-images.com wheat*

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Winter Wheat

The main disease in Northern Ireland affecting wheat is *Septoria tritici*. From the Recommended Cereal List the average yield response to disease control is 3.0t/ha, equivalent to almost £330/ha at today's prices.

Septoria tritici can show no visible symptoms for up to 10 days following infection and therefore a planned approach to disease control ensures products are available and on-farm, enabling growers to take maximum benefit of spraying opportunities. Fungicides should be applied as close as possible to the growth stages outlined below rather than waiting for any visible symptoms of the disease.

T1 options (Leaf 3 emerging GS32 (Late April/Early May))

A triazole at T1 offers good eradicator value and the inclusion of chlorothalonil is a good resistance strategy. Varieties susceptible to *Septoria* such as Richmond, Einstein and Glasgow should be targeted as a priority. The inclusion of a strobilurin at T1 offers little benefits to yield in terms of foliar disease but some evidence suggests that there is a benefit in Take-all control.

Product choice

Septoria tritici

- Chlorothalonil	e.g. Bravo	
- Triazoles	epoxiconazole prothiconazole metconazole fluquinconazole	e.g. Opus, e.g. Proline, e.g. Caramba, e.g. Flamenco, Galmano

T2 options (Flag leaf emerged – (20-30 May))

This is the most important spray as the flag leaf can contribute up to 40% of the final yield. The inclusion of a triazole at T2 at a good dose rate will ensure good eradication and protection against disease. The inclusion of chlorothalonil does not add to eradicator control but adds protectant activity on the flag leaf and leaf 2, and will reduce disease spreading onto the ear. Strobilurins add to disease control and increased yield due to greening effects but should not be relied solely upon to control *Septoria*. Some strobilurins are only available as mixtures with triazoles offering good control against *Septoria*.

Product choice

Septoria tritici

- Chlorothalonil	e.g. Bravo	
- Triazoles	epoxiconazole prothiconazole metconazole fluquinconazole	e.g. Opus, e.g. Proline e.g. Caramba e.g. Flamenco, Galmano
- Triazole mixtures	epoxiconazole + boscalid	e.g. Tracker
- Strobilurin mixtures	dimoxystrobin + epoxiconazole fluoxastrobin + prothiconazole kresoxim-methyl + epoxiconazole	eg Swing Gold e.g. Fandango e.g. Landmark

T3 options (Early to mid flowering – GS63-65 (Mid June))

The “ear” spray targets ear diseases but also gives additional control on the top two leaves. Wet weather during flowering can lead to Fusarium ear blight and possible mycotoxins and discoloured grain. Sooty moulds cause discoloured grain but have little effect on yield and a specific treatment would only be necessary for high quality markets.

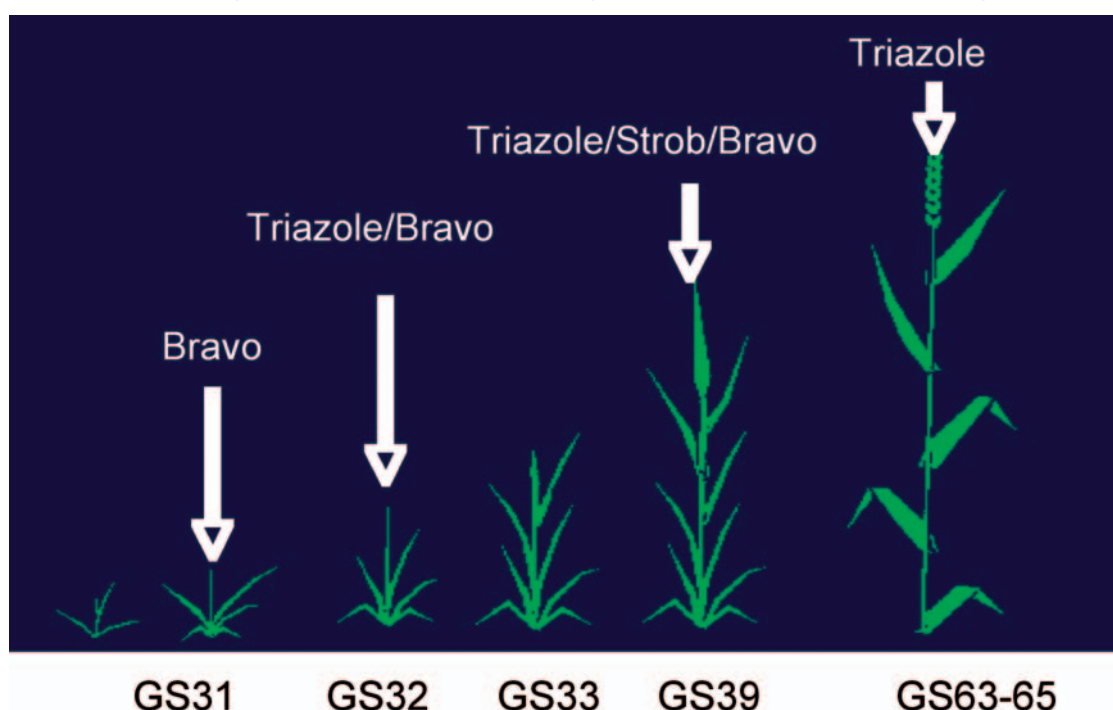
Triazoles or triazole mixtures should be the base fungicide for T3 offering good control of Fusarium ear blight and maintaining disease control on leaf 1 and 2. Most strobilurins do not add to the control of Fusarium ear blight, but do control other ear diseases like *Septoria nodorum*, sooty moulds and rusts, and give cleaner grain. The inclusion of a strobilurin will help prolong grain filling by maintaining a crop greener for longer.

Product choice

Septoria nodorum

- Triazoles	epoxiconazole prothiconazole	e.g. Opus e.g. Proline
- Strobilurins	azoxystrobin pyraclostrobin trifloxystrobin	e.g. Amistar e.g. Comet, Tucana, Vivid e.g. Twist, Swift
Fusarium ear blight		
- Triazoles	metaconazole prothiconazole tebuconazole	e.g. Carambe e.g. Proline e.g. Folicur
- Strobilurins	epoxiconazole + dimoxystrobin	e.g. Swing Gold
Sooty moulds		
- Triazoles	tebuconazole	e.g. Folicur
- Strobilurins	azoxystrobin pyraclostrobin	e.g. Amistar e.g. Comet, Tucana, Vivid

Summary of product types and timings



Spring Barley

The main diseases affecting spring barley in Northern Ireland are Rhynchosporium (leaf blotch), Ramularia, and to a lesser extent net blotch and powdery mildew. As with all disease control it is important to control the disease **before** symptoms are visible and hence reduce the risk of losing green leaf area and ultimately yield. Rhynchosporium is a difficult disease to eradicate and a preventative fungicide programme will ensure that the disease does not develop rapidly within the crop.

There are two main timings for the control of disease in spring barley.

T1 (GS 25 – 30)

This is the main time to apply a protectant fungicide to the crop to prevent any build up of disease. This fungicide application should be based on a triazole fungicide (e.g. Proline or Opus) with chlorothalonil (e.g. Bravo). Alternatively a strobilurin may also be included. A morpholine (e.g. Corbel or Torch extra) product would only need to be included if Rhynchosporium or mildew were established.

T2 (GS 45 – 49)

This is the optimum timing to protect the crop from the second peak of Rhynchosporium infection leaf spots and Ramularia. A mixture of a triazole (e.g. Opus or Proline) with chlorothalonil (e.g. Bravo) and a strobilurin (e.g. Amistar or Comet).

For some varieties with good resistance to Rhynchosporium and mildew (e.g. Westminster) a single treatment may only be required where disease risk has been low at the start of the season. The most appropriate growth stage for this application would be GS 37-39 (Flag leaf emerging/emerged). A triazole fungicide (e.g. Proline) and chlorothalonil (e.g. Bravo) would be a good base programme with the addition of a mildew fungicide or a strobilurin in high disease risk situations. Mixtures of fungicides are also available such as fluxastrobin and prothiconazole (e.g. Fandango), pyraclostrobin and fenpropimorph (e.g. Jenton), cyprodinil (e.g. Kayak) and boscalid and epoxiconazole (e.g. Tracker) which provide good control of the main diseases in barley.

Always consult your buyer protocols before using any chemical

New Agricultural waste laws

The Waste Management Regulations (Northern Ireland) 2006, come into operation on 31 July 2006. These Regulations form an important part of the Department's commitment to protect the environment.

The main purpose of the Regulations is to extend to agricultural waste, the waste management controls already in place within Northern Ireland to comply with the Waste Framework Directive and the Landfill Directive.

At present most agricultural waste is disposed of on farm in "farm dumps/tips" or by open burning. The Regulations will ensure that agricultural waste is recovered or disposed of in ways which protect the environment and human health. The controls will be enforced by Environment and Heritage Service (EHS) who will issue guidance to assist farmers to meet the obligations of the Regulations. This guidance will outline the correct management of agricultural waste, the exemptions available, how to go about applying for exemptions and the possible implications of contravening the Regulations. The guidance is available on the EHS website (www.ehsni.gov.uk).

Following the introduction of the Regulations, farmers will have a number of options for dealing with their waste.

- Store their waste, pending collection, on the site where it is produced for up to 12 months.
- Take the waste for recovery or disposal off-farm at an appropriately licensed site.
- Transfer their waste to someone else for recovery or disposal off-farm at an appropriately licensed site.
- Register an exemption from waste management licensing with the Department to recover or dispose of their waste on-farm.
- Apply to the Department for a waste management licence or a landfill permit to recover or dispose of their waste on-farm.

The Regulations contain transitional provisions which allow anyone wishing to transport agricultural waste on a professional basis or to act as a dealer or broker for such waste up to 31 January 2007 to register with EHS; and allow farmers up to 31 July 2007 to apply to EHS for waste management licences to dispose of or recover agricultural waste on-farm, or to register licensing exemptions.

However, some controls will apply immediately namely:-

- the duty of care which requires all holders of controlled waste to take all reasonable steps to ensure the waste is handled properly and is only transferred to someone who is authorised to take it;
- a prohibition on the keeping, recovering or disposal of waste in a manner likely to cause pollution of the environment or harm to human health e.g. unregulated burning or burial or deposit of waste;
- the controls necessary to comply with the Landfill Directive and which apply to farm dumps and tips.

If a farmer wants to use their farm dump for on-farm disposal on or after the day on which the Regulations come into operation then they will have to apply to the Department for a landfill permit. The farm dump will then have to meet the stringent requirements of the Landfill Directive. Landfill permits are also very expensive and a serious undertaking. Farmers wishing to avoid this situation must stop using their farm dumps.

Crop Protection Management Plans

The Ulster Farmers' Union, urge farmers to participate and complete 'Crop Protection Management Plans' (CPMP). This document was devised as part of their continued contribution to the Voluntary Initiative (VI), a programme of measures, agreed by Government to minimise environmental impacts of pesticides.

What is a Crop Protection Management Plan?

A CPMP helps put environmental protection at the heart of crop protection. At an individual farm level, the process of building a CPMP identifies the environmental risks to water, insects, plants, animals and biodiversity on the farm, and seeks to relate the crop protection practices to minimising risks.

It should address the farm's:

- crop protection policy
- water protection measures
- commitment to improve operator competency
- direct and indirect impact of plant protection products on non-target species.

It is important to note that this information submitted will be confidential and be held by the farming Unions. Your participation is important to help demonstrate that a sound awareness and improvement in farm practice is prevalent in Northern Ireland.

Who should complete a CPMP?

All farmers are encouraged to participate, including mixed or livestock farms that occasionally spray grassland or grow a small acreage of cereals for stock feed or grow maize for silage. Participation in this project will improve the environment for future generations.

How to complete the proforma CPMP – easy quick access www.voluntaryinitiative.org.uk

- Ideally the farmer or grower should draw up a CPMP with their agronomist or by themselves.
- The proforma is based on a large table. It is divided into four sections (general, biodiversity, water and action plans) subdivided into specific activities.
- Four scenarios of environmental practices are then given for each activity (poor, basic, good and best). The list of ‘activities’ (rows) is far from exhaustive and should not be seen as prescriptive. Ignore any activity not relevant to your business.
- Having decided which scenario best equates to your unit’s situation/practice, note it by entering a numeric 1 in the small box in the bottom right corner.
- The ‘scenarios’ are meant to be incremental, i.e. the proforma works on the assumption that when moving from ‘good’ to ‘best’ that you are doing everything in the ‘good’ scenario category.
- At the end of each section your performance ‘profile’ needs to be calculated. These can be used for comparative purposes in the future.
- A CPMP should be reviewed annually so after the initial set up session, only a short annual review will be needed.
- When you have completed your CPMP, tell your agronomist and/or your assurance scheme. Make sure your agronomist knows about your profile and your action plan priorities.

Completed forms can be registered using the online crop protection management plan return form available on The Voluntary Initiative website (www.voluntaryinitiative.org.uk) or for application forms or further information contact, Patricia Erwin at UFU Headquarters 028 90 370222.

All previous editions of Crop Monitor and Crop Management Notes are available on-line at www.ruralni.gov.uk/crops.

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