

# Wheat bulb fly damage could be higher than predicted last autumn

- Predictions rely on annual grower survey
- Allow savings on unnecessary treatments
- Drilling delays may see greater risk of damage



By Sarah Henly

■ Wheat bulb fly larvae could take wheat growers by surprise this season by damaging backward crops, warns Steve Ellis of ADAS, who co-ordinates the annual survey of pest incidence.

“We concluded last autumn that this season would be a low-risk year across the country, based on egg numbers in the field in September. But several factors could make it a significant year for wheat bulb fly damage in late-sown wheat crops.”

The 2012 survey recorded the lowest number of eggs laid in bare ground, or in crops with exposed soil, for decades. In only 3% of fields sampled was the pest threshold of 2.5m eggs/ha (250/sq m) exceeded. Very few crops fell into the high-risk category, unlike in 2010 when up to half of all wheat crops were high or very high risk.

The survey of 30 fields under high-risk crops – including sugar

beet, potatoes and vining peas – suggested that one in two in the east of England would fall into the moderate risk category (1-2.5m eggs/ha). It was one in four in the North.

With that information, Dr Ellis believes few growers would have ordered insecticide-treated seed unless they were planning to drill after November, when the threshold becomes 1m eggs/ha (100/sq m).

Caroline Nicholls, HGCA research and knowledge transfer manager, explains: “Not treating would have been the right decision back in September. However, the adverse autumn weather meant many wheat crops were drilled much later than anticipated, commonly into November. Those crops are likely to have low tiller numbers now. Larvae hatching this month potentially have only to attack one or two tillers to kill a backward plant.”

Furthermore, crops that were

sown early but developed slowly in poor conditions will also be at risk this month, and may require an egg hatch spray even where egg numbers are in the moderate risk category, stresses Miss Nicholls.

Dr Ellis suggests that to achieve effective control, chlorpyrifos (such as Dursban) must be applied before larvae leave the soil and burrow into tillers. Depending on how the weather has affected the progress of egg hatch, it may already be too late by now, he suggests.

“If you have on average only two tillers per plant, consider the crop high risk and be sure to check egg hatch information supplied by Pestwatch on the Dow AgroSciences website or by ADAS in Crop Action. This will indicate the optimum timing for a treatment, if necessary.”

If bad weather prevents the use of an egg hatch spray, a dead-heart treatment of dimethoate is the only

## CROPS perspective

■ The problem with wheat bulb fly is its inconsistency. Surveying egg numbers is critical to risk assessment. It's comforting to know growers have annual updates to help them determine the need for an insecticide seed treatment – the most reliable and cost-effective approach to preventing pest damage.

Interim report available on HGCA website [www.hgca.com](http://www.hgca.com). More information on risk assessment and control options for wheat bulb fly can be found in HGCA Topic Sheet 118.

## HGCA PERSPECTIVE

- Wheat bulb fly levels vary annually, with yield loss as high as 50%
- Weather and cropping interact to create different levels of risk
- Routine seed treatment may not be cost-effective
- Spring control often difficult
- Annual surveys and risk assessment critical to pesticide decision-making



## Summary

- Project no. 3758: Autumn survey of wheat bulb fly incidence; ADAS, Syngenta (2011 only); from August 2011 to August 2014.
- HGCA invested £21,450 over the three years.

remaining option. Dimethoate may have some activity when applied according to recommendations at the optimum timing, usually in March, though its cost-effectiveness is uncertain, he says.

“You could argue that this season's survey was misleading by predicting a low risk when the opposite is now true for late-established crops.

“However, without the survey we would have little idea of the proportion of crops potentially now at risk,” says Dr Ellis.  
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