

Risk assessment for fusarium mycotoxins

Check you are using the right version for harvest 2010

Very wet conditions meant 2008 was a record breaking year for fusarium mycotoxins. This led to the risk assessment being revised in 2009. This revised 2009 version is the one you should use for harvest 2010 (see overleaf).

Please note the risk assessment overleaf replaces the version on page 5 of HGCA's existing 'Guidelines to minimise risk of fusarium mycotoxins in cereals' and the map below replaces that on page 3 of the guide.

Instructions

To assess the risk of fusarium mycotoxins in wheat (for single or multiple fields) enter data into the green cells of the risk assessment sheet overleaf. Please photocopy the form if necessary.

Entry cells are available for: farm name, town, county and postcode.

Below the address enter details of the store (store name) into which wheat from a single or multiple fields has been placed. Then enter individual field names (field name). Fields can be grouped if grown with the same agronomy.

For each field enter the appropriate risk score for the factors stated.

Cultivation

Crop debris is an important source of fusarium. Complete burial by ploughing reduces risk to the greatest extent while risk is highest with direct drilling. Intensive non-inversion tillage (3 or more cultivations with discs, tines or chisel plough) is more effective at reducing risk than standard non-inversion tillage (1 or 2 cultivations).

Note that several cultivations may be achieved in a single pass using appropriate machinery.

Wheat variety

Enter according to the HGCA Recommended List rating for fusarium ear blight. If score is not known, assume susceptible and allocate score of 1.

T3 fungicide

The benefit of using an appropriate rate of a T3 fungicide recommended against fusarium and/or mycotoxin production results in a negative score. Current recommended fungicides are products containing dimoxystrobin, metconazole, prothioconazole, tebuconazole or bromuconazole.

Rainfall at flowering

Wet weather promotes fusarium development. The score is based on total rainfall during flowering (GS59-69 – full ear emergence to end of flowering).

Rainfall pre-harvest

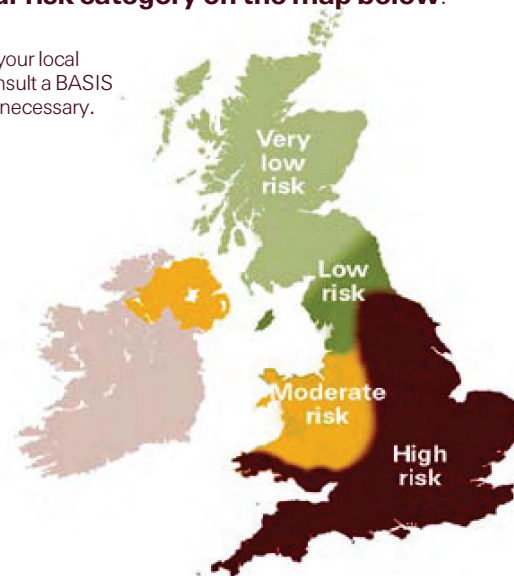
Based on total rainfall from crop starting to ripen (GS87 – hard dough) to harvest.

Map of risk areas

The high risk area now includes all parts of southern Welsh counties, Gloucestershire, Leicestershire, Derbyshire, Nottinghamshire, Warwickshire, Northamptonshire and Yorkshire.

Your regional risk may have changed so it is important to locate your risk category on the map below.

*Always consider your local conditions and consult a BASIS qualified adviser if necessary.



Resources

Recommended List 2010/11 – www.hgca.com/varieties

Guidelines to minimise risk of fusarium mycotoxins in cereals 2007 (G34) – www.hgca.com/mycotoxins

Online risk assessment – www.hgca.com/mycotoxins

For hard copies of these guides call 0845 245 0009.

Harvest 2010 mycotoxin risk assessment sheet

Please refer to the HGCA 'Guidelines to minimise risk of fusarium mycotoxins' prior to completing your risk assessment (see resources overleaf).
Note that the risk assessment below replaces the version on page 5 of this guide.

| | |
|-----------|--|
| Farm name | |
| Town | |
| County | |
| Postcode | |

| Factor | Store name | | Field name | Score | Field name | Score | Field name | Score | Field name | Score | Field name | Score |
|--|--|------|------------|-------|------------|-------|------------|-------|------------|-------|------------|-------|
| | Details | Risk | | | | | | | | | | |
| Region (see 2009 revised map overleaf) | High | 4 | | | | | | | | | | |
| | Moderate | 2 | | | | | | | | | | |
| | Low | -2 | | | | | | | | | | |
| | Very low | -4 | | | | | | | | | | |
| Previous crop | Maize | 6 | | | | | | | | | | |
| | Other | 0 | | | | | | | | | | |
| Cultivation | Direct-drilled | 4 | | | | | | | | | | |
| | Standard non-inversion tillage | 3 | | | | | | | | | | |
| | Intensive non-inversion tillage | 2 | | | | | | | | | | |
| | Plough (soil inversion) | 0 | | | | | | | | | | |
| | Recommended List resistance rating 1-5 | 1 | | | | | | | | | | |
| Wheat variety | Recommended List resistance rating 6-9 | 0 | | | | | | | | | | |
| Your pre-flowering score | | | | | | | | | | | | |
| T3 fungicide | Under 50% rate of recommended product | 0 | | | | | | | | | | |
| | 50-74% rate of recommended product | -2 | | | | | | | | | | |
| | 75% or above rate of recommended product | -3 | | | | | | | | | | |
| Rainfall at flowering (GS 59-69) | More than 80 mm | 9 | | | | | | | | | | |
| | 40-80 mm | 6 | | | | | | | | | | |
| | 10-40 mm | 3 | | | | | | | | | | |
| | Less than 10 mm | 0 | | | | | | | | | | |
| Rainfall pre-harvest (GS87 to harvest) | More than 120 mm | 12 | | | | | | | | | | |
| | 80-120 mm | 9 | | | | | | | | | | |
| | 40-80 mm | 6 | | | | | | | | | | |
| | 20-40 mm | 3 | | | | | | | | | | |
| | Less than 20 mm | 0 | | | | | | | | | | |
| Your final risk score | | | | | | | | | | | | |



Test your grain:
 - if final risk score exceeds 15
 - if standing crop has high fusarium incidence
Record final risk score on your grain passport.

Date: _____ Signature: _____

For more information on grain storage and sampling visit www.hgca.com/grainstorage

