

Fungicide performance



Figure 1. Fungicide performance barley trial plots at Lanark, Scotland (2018)

About

AHDB's fungicide performance work provides high-quality, independent information on the efficacy of new and established fungicides against key diseases in wheat, barley and oilseed rape.

Fungicide performance trials are located in areas most likely to produce high disease pressure for the target disease(s). Varieties that are highly susceptible to the target disease(s) are grown.

Fungicide performance information has been generated for many years – wheat since 1994, barley since 2002 and oilseed rape since 2006. The long-term data generated from the trials allows trends in the performance of products and active ingredients to be monitored.

The UK agrochemical manufacturing industry also supplies fungicides in their preregistration development phase. This allows them to be tested and performance information released upon registration.

Results are published annually and can be used to build fungicide programmes – based on mixtures of active ingredients and products – appropriate to the local disease threat profile and in keeping with best practice anti-resistance guidelines.

Key disease targets*	
Wheat	Septoria tritici, yellow rust, brown rust and head blight
Barley	Rhynchosporium, net blotch and ramularia
Oilseed rape	Light leaf spot and phoma

*Historic information for barley mildew and oilseed rape sclerotinia is also available



Dose-response graphs

Generally, when more fungicide is applied, less disease will be present in a crop. The visible disease present at a range of doses can be shown as a dose-response graph (see example, right).

Separate dose-response graphs for the key disease targets in the fungicide performance trials are available from the AHDB website. Curves are published for 'protectant' and 'eradicator' situations, where applicable.

The website also hosts many other sources of information, including indicative performance ratings for fungicides, disease management guides and fungicide resistance guidelines.

Fungicide resistance

Fungicide resistance occurs when a pathogen becomes so insensitive to a fungicide that the fungicide's field performance is impaired. Resistance management is vital to maintain control and prolong the effectiveness of fungicides.

AHDB supports research to optimise resistance management and works with the industry, through the Fungicide Resistance Action Group UK (FRAG-UK), to provide robust, up-to-date best practice anti-resistance guidelines to growers and agronomists.

Fungicide performance information

For the latest information on fungicide performance, head to our dedicated web page:

ahdb.org.uk/knowledge-library/fungicide-performance



Figure 3. Yellow rust symptoms in wheat at a fungicide performance trial site

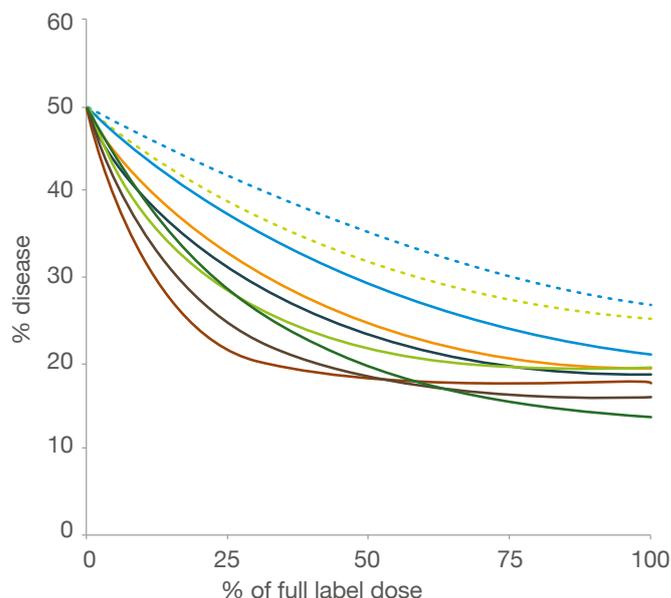


Figure 2. Example of a dose-response graph

AHDB manages the fungicide performance project, guided by a group of agronomists and academics (the Fungicides Working Group).

Trial management is undertaken by a consortium of project partners (ADAS, NIAB, SRUC and Harper Adams).

Additional trials are conducted and funded by Teagasc (Agriculture and Food Development Authority – Eire) under the same trial protocols.

Analysis of results is undertaken by AHDB staff in consultation with the Fungicides Working Group.

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Fungicide Futures is an initiative led by AHDB and FRAG-UK to help put good anti-resistance practice at the heart of fungicide programmes. We give you the facts, so you can maximise your return on investment and protect chemistry.

