### Active ingredients for wheat disease control

<table>
<thead>
<tr>
<th>Product</th>
<th>Triazole</th>
<th>Strobilurin</th>
<th>Strobilurin (QoI)</th>
<th>Spiroketalamine</th>
<th>Quinazolinone</th>
<th>MBC</th>
<th>Chloronitrile</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

### Fungicide activity and performance in wheat

#### Choosing fungicides

Fungicides should be matched to the primary disease risk, which depends mainly on variety, sowing date, location and local weather. Mixture and alternation of fungicides with different modes of action, from different fungicide groups, are often most effective and reduce the likelihood that fungicide resistance will develop in target pathogens. Resistance poses a significant threat to the ongoing performance of fungicides and resistance management must be taken into account when planning fungicide programmes.

Fungicides are tested by HGCA in specific performance trials and in other research projects targeting specific diseases. Performance ratings are indicative and are dependent on dose rate and timing.

#### Control level

- 2 = High level
- 1 = Moderate level
- 0 = Low level
- blank = insufficient data

#### Activity rating

- 4 = Excellent
- 3 = Good
- 2 = Moderate
- 1 = Poor
- 0 = Insufficient

#### Chemical group

- Triazole
- Strobilurin
- Strobilurin (QoI)
- Spiroketalamine
- Quinazolinone
- MBC
- Chloronitrile

#### Active ingredient

- Azoxystrobin
- Bixafen
- Carbendazim
- Cyflufenamid
- Cyprodinil
- Difenoconazole
- Fenpropidin
- Fenpropimorph
- Fluquinconazole
- Flusilazole
- Flutriafol
- Kresoxim-methyl
- Metconazole
- Penthiopyrad
- Pyraclostrobin
- Pyrimethanil
- Thiophanate-methyl
- Triadimenol
- Trioxystrobin

#### Specific diseases

- Eyespot (Mildew Septoria Yellow Brown Ear)
- Basal rot
- Black spot
- Black stem rust
- Black leaf rust
- Brown spot
- Brown rust
- Ear blight
- Fusarium ear rot
- Red leaf spot
- Septoria leaf spot
- Septoria stem blight
- Stem canker
- Yellow spot

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Note: *Products used in Fungicide-Performance trials.
  ** Products subject to a withdrawal notice and all existing stocks must be used or disposed of by 12 October 2014.

[Information Sheet 26](#)

![Image](image-url)
**Crop protection options**

Fungicide dose-response curves

Fungicides are typically tested in HGCA-funded trials. Each year, a summary chart presents a single disease on varieties that are very susceptible to each major disease and in cases where disease pressure is high. Disease levels are observed before symptoms become evident. Performance of individual active ingredients can be assessed by comparing dose-response curves. These show average performance measured across a range of sites, seasons and leaf stages.

**Seed treatment options**

**Seed-borne diseases**

- **Obligatory**
  - Bunt Seedling
  - Ergot

- **Seed-borne diseases**
  - Blackleg

- **Other diseases**
  - **Pests**
  - **Seed-borne diseases**
  - Tilletia
  - Bunt Seedling
  - Ergot

- **Other diseases**
  - **Pests**
  - **Seed-borne diseases**
  - Tilletia
  - Bunt Seedling
  - Ergot

**Wheat disease management guide**

This Information Sheet is an annual updated supplement to the Wheat disease management guide. The guide includes information on symptoms and risk factors for the main wheat diseases. See www.hgca.com/publications

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**Information Sheet 26 Winter 2013/14**

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