An Agricultural fungicide for the control of stem-base, foliar and ear diseases in winter and spring barley and oats.

An emulsifiable concentrate formulation containing 100 g/L prothioconazole and 100 g/L fluoxastrobin.

For professional use only

Authorisation holder: Bayer CropScience Ltd.
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Bayer Ltd
The Atrium
Blackthorn Road
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Dublin 18

Safety information
METTLE
Contains 100 g/L prothioconazole and 100 g/L fluoxastrobin.

Danger
Harmful if inhaled.
Causes serious eye damage.
Very toxic to aquatic life with long lasting effects.

Wear protective gloves/protective clothing/eye protection/face protection.

IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do.
Continue rinsing.
Immediately call a POISON CENTER or doctor/physician.
Protect from sunlight.
Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for triple rinsed empty containers which can be disposed of as non-hazardous waste.

Contains 2-[2-(1-chlorocyclopropyl)-2-hydroxy-3-phenylpropyl]-2,4-dihydro-3H-1,2,4-triazole-3-thione.
May produce an allergic reaction.

To avoid risks to human health and the environment, comply with the instructions for use.

PCS No. 03788
SAFETY PRECAUTIONS

Operator Protection
Wear suitable protective clothing, gloves, and eye protection/face protection.

Environmental Protection
Do not contaminate water with the product or its container. (Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads).
To protect aquatic organisms respect an unsprayed buffer zone of 5 m to surface water bodies. Spray must be aimed away from water.

Storage and Disposal
Do not re-use container for any other purpose and dispose of safely.
Keep out of reach of children.
Keep away from food, drink and animal feedingstuffs.
RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of safely.
PROTECT FROM FROST
STORE IN A COOL DRY PLACE
READ ALL INSTRUCTIONS CAREFULLY BEFORE USE

To access the Safety Data Sheet for this product scan the code or use the link below: www.bayercropscience.ie/sds/mettle.pdf or alternatively contact your supplier
DIRECTIONS FOR USE

IMPORTANT: This information is approved as part of the Product Label. All instructions within this section must be read carefully in order to obtain safe and successful use of this product.

Mettle is a mixture of a strobilurin and a triazolinthione fungicide recommended for control of a wide range of diseases on winter and spring barley and oats.

RATE OF USE

<table>
<thead>
<tr>
<th></th>
<th>Winter and spring barley and oats</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maximum individual dose:</strong></td>
<td>1.25 litres product per hectare</td>
</tr>
<tr>
<td><strong>Maximum number of applications:</strong></td>
<td>2 per season</td>
</tr>
<tr>
<td><strong>Maximum total dose:</strong></td>
<td>2.5 litres product per hectare</td>
</tr>
<tr>
<td><strong>Latest time of application:</strong></td>
<td>At any stage before beginning of flowering (GS 61)</td>
</tr>
<tr>
<td><strong>Method of application:</strong></td>
<td>Tractor mounted/trailed sprayer</td>
</tr>
</tbody>
</table>

A spray pressure of 2-3 bar is recommended. Apply Mettle in 100-300 litres per hectare water. Apply as a medium spray quality.

Apply Mettle in 100 to 300 litres of water per hectare. The higher spray volumes are recommended where the crop is dense or disease pressure / risk is high to ensure good penetration to the lower leaves and stem bases. Disease control may be compromised by reducing water volumes, where good spray coverage is difficult to achieve.

<table>
<thead>
<tr>
<th>DISEASES CONTROLLED</th>
<th>Barley</th>
<th>Oats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eyespot (Oculimacula spp.)</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Sharp eyespot (Rhizoctonia cerealis)</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Take-all (Gaeumannomyces graminis)</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Fusarium foot rot (Fusarium culmorum, Microdochium nivale var nivale and majus)</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Powdery mildew (Blumeria graminis)</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Brown rust</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Crown rust</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td><em>Rhynchosporium</em> Leaf blotch</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Net blotch</td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

R = Reduction  C = Control
APPLICATION TIMING
Stem Base Disease Complex and Take-all

Eyespot (Oculimacula spp.)
Sharp eyespot (Rhizoctonia cerealis)
Take-all (Gaeumannomyces graminis)

Fusarium foot rot (Fusarium culmorum, Microdochium nivale var nivale and majus)
Spray in the spring at the first sign of disease, from when the leaf sheaths begin to become erect until the 2nd node is detectable (GS 30-32).

Powdery Mildew (Blumeria graminis)
Strains of powdery mildew resistant to Qol fungicides are common in Ireland.
Where specific control of wheat mildew is required, this should be achieved through a pro-
gramme of measures, including products with recommendations for control of mildew that contain different active substances used in mixture or sequence.

Brown Rust (Puccinia hordei)
Apply Mettle at the first signs of disease. A second application may be made 2-3 weeks later if re-infection occurs. Applications made to established infections are likely to be less effective.

Crown Rust (Puccinia coronata)
Apply Mettle at the first signs of disease. A second application may be made 2-3 weeks later if re-infection occurs. Applications made to established infections are likely to be less effective.

Leaf Blotch (Rhynchosporium secalis)
Apply Mettle in spring at the first signs of disease. For severe infections a second application may be necessary 2-3 weeks later.

Net Blotch (Pyrenophora teres)
Apply Mettle at the first signs of disease in spring/early summer. For severe infections, a second application 2-3 weeks later will give most effective control when conditions remain favourable for disease development.

CAUTION: The possible development of disease strains resistant to Mettle cannot be excluded or predicted. Where such resistant strains occur, Mettle is unlikely to give satisfactory control.

MANAGEMENT STRATEGY TO MINIMISE THE LIKELIHOOD OF RESISTANCE
Apply fungicides according to manufacturer’s recommendations for the target disease (or complex) at the specific crop growth stage indicated. Effective disease management is a critical parameter in delaying the build-up of resistant pathogen populations. Mettle is a mixture of two fungicides with different modes of action, a strobilurin and a triazolinthione.

Mettle contains fluoxastrobin, a member of the Qol cross-resistance group. Mettle should be used preventatively and should not be relied on for its curative potential.
Use Mettle as part of an Integrated Crop Management (ICM) strategy incorporating other methods of control, including where appropriate other fungicides with a different mode of action. You must not apply more than two foliar applications of QoI-containing products to any cereal crop.

The Fungicide Resistance Action Committee (FRAC) produces recommendations that may be consulted for additional information.

FACTORS AFFECTING CROP SAFETY
Occasionally, after the application of Mettle, some transient leaf chlorosis on barley may occur, but these symptoms have not been shown to adversely affect yield responses accruing from the benefits of disease control.

CROP SPECIFIC INFORMATION
Mettle may be used on all commercial varieties of winter and spring barley and winter and spring oats.

Mixing
Thoroughly shake the pack before use.
Add the required quantity of Mettle to the half-filled spray tank with the agitation system in operation and then fill to the required level. Continue agitation at all times during spraying and stoppages until the tank is completely empty. Spray immediately after mixing.

General
Sprayers should be thoroughly cleaned before use, and filters and jets checked for damage and blockages.

Boom height should be adjusted to ensure even coverage of the crop, particularly at later growth stages. The correct height is one at which the spray from alternate nozzles meets just above the crop, in dense crops, at later growth stages, higher water volumes should be used.

Spray equipment should be thoroughly cleaned with detergent after use.

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