



  
**Propel**<sup>®</sup>  
Xpro

5L e



## Fungicide

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

In cereal crops Propel<sub>Xpro</sub> can increase chlorophyll content/photosynthesis in treated plants, and extend duration of green leaf area retention, for yield increases above that resulting from disease control alone.

### MAPP 19352

An emulsifiable concentrate formulation containing 50 g/L bixafen and 100 g/L prothioconazole and 250 g/L spiroxamine.

The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work.

Bayer CropScience Limited  
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Telephone: 00800 1020 3333



## PROPEL<sub>x</sub>pro

Contains 50 g/L bixafen,  
100 g/L prothioconazole,  
250 g/L spiroxamine and  
N,N-Dimethyl decanamide



## Danger

Harmful if swallowed or if inhaled.  
Causes serious eye damage.  
May cause respiratory irritation.  
May cause damage to organs through prolonged or repeated exposure.  
Suspected of damaging the unborn child.  
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 empty clean containers which can be disposed of as non-hazardous waste.

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

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

## IMPORTANT INFORMATION FOR USE ONLY AS AN AGRICULTURAL FUNGICIDE

<b>Crops:</b>	Barley and oats
<b>Maximum individual dose:</b>	1.5 litres product per hectare
<b>Maximum number of treatments:</b>	2 with a 21 day spray interval
<b>Latest time of application:</b>	Up to beginning of anthesis
<b>Aquatic buffer zone distance:</b>	6 metres
<b>Other specific restrictions:</b>	There must be a 21 day interval between treatments. Only one application may be made before 30 April followed by a second application after 1 May Alternatively two applications can be made after 1 May. When used on crops with a greater than 5 m aquatic buffer zone, this product must not be applied via hand-held equipment.

**READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.**



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To access the **Safety Data Sheet** for this product scan the code or use the link below:

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# SAFETY PRECAUTIONS

## Operator Protection

Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), FACE PROTECTION (FACESHIELD) AND SUITABLE PROTECTIVE GLOVES ) when handling the concentrate.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) when applying the product.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling contaminated surfaces.

However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.

WHEN USING DO NOT EAT, DRINK OR SMOKE.

WASH ANY CONTAMINATION from eyes immediately.

WASH HANDS AND EXPOSED SKIN before meals and after work.

IF YOU FEEL UNWELL, seek medical advice (show the label where possible).

Do not apply by hand held equipment.

## 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 to surface water bodies as specified for the crop. HORIZONTAL BOOM SPRAYERS MUST BE FITTED WITH THREE STAR DRIFT REDUCTION TECHNOLOGY. Low drift spraying equipment must be operated according to the specific conditions stated in the official three star rating for that equipment as published on HSE Chemicals Regulation Directorate's website. Maintain three star operating conditions until 30 m from the top of the bank of any surface water bodies.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within the distance specified for the crop to the top of the bank of a static or flowing water body, or within 1 m of the top of a ditch which is dry at the time of application. Aim spray away from water. NOTE: BUFFER ZONES OF MORE THAN 5 M CANNOT BE REDUCED UNDER THE LOCAL ENVIRONMENT RISK ASSESSMENT FOR PESTICIDES (LERAP) SCHEME.

The statutory buffer zone must be maintained and the distance recorded in Section A of the LERAP record form. The LERAP record form must be kept available for three years.

## Storage and Disposal

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.

KEEP OUT OF REACH OF CHILDREN

KEEP IN ORIGINAL CONTAINER tightly closed in a safe place.

WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely.

DO NOT RE-USE CONTAINER for any purpose.

## 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.

Propel<sub>xpro</sub> is a mixture of bixafen (a SDH Inhibitor), prothioconazole (a triazolinthione fungicide) and spiroxamine (a spiroketoalamine) fungicides recommended for control of a wide range of diseases on winter and spring barley and oats.

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### CROPS

Propel<sub>xpro</sub> may be used on all commercial varieties of winter and spring barley and oats.

### RATE OF USE

Apply Propel<sub>xpro</sub> at 1.5 litre per hectare in cereals.

The maximum number of applications is two per crop.

### APPLICATION

#### Water volume

Apply Propel<sub>xpro</sub> in 100–300 litres 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.

A spray pressure of 2–3 bar is recommended.

Effectiveness using three star drift reduction technology may be reduced.

### Spray quality

Apply as a MEDIUM spray quality (as defined by BCPC).

### Latest Permitted Timing

Propel<sub>xpro</sub> may be applied at any stage before grain milky ripe stage.

### Mixing

Thoroughly shake the pack before use.

Add the required quantity of Propel<sub>xpro</sub> 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 with water and detergent after 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.

### DISEASES CONTROLLED.

#### Barley

Powdery mildew, yellow rust, brown rust, *Rhynchosporium*, net blotch, *Ramularia*.

#### Oats

Crown rust

## APPLICATION TIMING

In cereal crops Propel<sub>xpro</sub> can increase chlorophyll content/photosynthesis in treated plants, and extend duration of green leaf area retention, for yield increases above that resulting from disease control alone.

Only one application may be made before 30<sup>th</sup> April followed by a second application after 1<sup>st</sup> May. Alternatively two applications can be made after 1<sup>st</sup> May.

There must be a 21 day interval between treatments.

## CEREALS

### **Powdery Mildew (*Blumeria graminis*)**

Apply Propel<sub>xpro</sub> at the first signs of disease. Where disease pressure remains high application may be repeated.

### **Yellow Rust (*Puccinia striiformis*)**

Apply Propel<sub>xpro</sub> at the first signs of disease. A second application may be made 3 weeks later if re-infection occurs. Applications made to established infections are likely to be less effective.

### **Brown Rust (*P. hordei*)**

Apply Propel<sub>xpro</sub> at the first signs of disease. A second application may be made 3 weeks later if re-infection occurs. Applications made to established infections are likely to be less effective.

### **Crown Rust (*Puccinia coronata*)**

Apply Propel<sub>xpro</sub> at the first signs of disease. Propel<sub>xpro</sub> controls crown rust in winter and spring oats. 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 Propel<sub>xpro</sub> 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 Propel<sub>xpro</sub> 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.

### **Ramularia (*R collo-cygni*)**

Apply Propel<sub>xpro</sub> at the first signs of disease. Applications made to established infections are likely to be less effective.

## RESISTANCE STRATEGY

Tank mixtures or alternation with fungicides having a different mode of action against the diseases present have been shown to protect against the development of resistant forms of disease.

No more than two applications of SDH inhibitors must be applied to the same cereal crop.

Bixafen is a SDH inhibitor and prothioconazole is a triazolinthione (triazole).

**CAUTION:** The possible development of disease strains resistant to Propel<sub>xpro</sub> cannot be excluded or predicted. Where such resistant strains occur, Propel<sub>xpro</sub> is unlikely to give satisfactory control.

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