# HUBBLE®

## MAPP 16089 PCS 05288

## A fungicide for the control of foliar late blight (*Phytophthora infestans*) in potatoes.

A suspension concentrate formulation containing 200 g/l (17.4% w/w) dimethomorph and 200 g/l (17.4% w/w) fluazinam.

### FOR PROFESSIONAL USE ONLY UFI: X70W-7CNV-7V07-8TKW

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r Safety Data Sheet or use weblink: https://bit.lv/2l6bNLY

## Danger

way dam 19 fertility. Suspected of damaging the unborn child. Very toxic to iquatic life with long lasting effects. Contains fluazinam and 1,2-benzisothiazolin-3-one. May produce an allergic reaction.

Keep out of reach of children.

We ar protective gloves/protective clothing.

Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for triple rinsed, empty, clean containers which can be disposed of as non-hazardous waste. Ireland only: to protect aquatic organisms, respect an unsprayed buffer zone of 5 m to surface water bodies.

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

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For advice on medical emergencies, fires or major spills telephone the UK National Chemical Emergency Centre on +44 (0)1865 407333

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#### SHAKE WELL BEFORE USE

UK only - The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work. L21550IPWB\_

Batch No.: see packaging

#### This leaflet is part of the approved label.

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## IMPORTANT INFORMATION

FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL FUNGICIDE

Сгор	Maximum individual dose (litres product/ha)	Maximum number of applications	Latest time of application
Potato	0.75	Five per crop	7 days before harvest

#### Other specific restrictions:

This product must not be applied via hand-held equipment.

A minimum interval of 7 days must be observed between applications.

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

## 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) AND SUITABLE PROTECTIVE GLOVES when handling the concentrate or handling conto ninated surfaces. WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) when applying by vehicle-mounted or trailed equipment.

UK only: However, engineering contro's may replace personal protective equipment in a COSHH assessment shows they provide an qual or higher standard of protection.

TAKE OFF IMMEDIATELY all contaminated clothing. WASH CONCENTRATE from skin and eyes immediately. WASH ALL PROTECTIVE CLOTHING thoroughly after use, especially the insides of gloves.

WASH HANDS AND EXPOSED SKIN before meals and after work.

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

#### Environmentel Protection

Do not contaminate water with the product or its containe. Do not clean application equipment near surface water. Avoid contamination via drains from fairm ards and roads.

IK only: To protect aquatic organisms respect an unsprayed buffer zone to surface water bodies in line with LERAP requirements. DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 6 metres of the top of the bank of a static or flowing water-body, or within 1 metre of the top of a ditch which is dry at the time of application. Aim spray away from water. THIS CROP IS NOT ELIGIBLE FOR BUFFER ZONE REDUCTION UNDER THE LERAP HORIZONTAL BOOM SPRAYERS SCHEME.

UK only: This product qualifies for inclusion within the Local Environmental Risk Assessment for Pesticides (LERAP) scheme. The statutory buffer zone must be maintained and the distance recorded in the LERAP record form. The LERAP record form must be kept available for three years.

#### Storage and Disposal

KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.

DO NOT RE-USE CONTAINER FOR ANY PURPOSE. This material and its container must be disposed of in a safe way.

## **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.

#### **RESTRICTIONS OR WARNINGS**

Do not apply HUBBLE® if rain or irrigation is imminent. Avoid spray drift onto non-target crop areas. Crops should not be re-entered until spray residues are dry.

#### **RESISTANCE MANAGEMENT**

HUBBLE contains dimethomorph which belongs to the carboxylic acid amide (CAA) chemical group and fluazinam, a multi-site contact fungicide from the dinitroaniline group. Up to 5 applications of HUBBLE making up no more than half the intended total number of sprays to control late blight may be applied per season. No more than 3 applications of HUBBLE should be applied in sequence.

Strains of blight resistant to phenylamides will be controlled by HUBBLE and no cross resistance has been observed. However, disease control may be reduced if strains of *Phytophthora infestar* less resistant to dimethomorph or fluazinam cevelop.

If an intensive blight control programme i necessary, include products with different modes of action. When fungicides with the same mode of action are used repeatedly of ar several years in the same field, naturally occurring less sersitive strains may survive, propagate and become dominant in that field. It is therefore advised that wherever possible spray programmes should include fungicides with differing modes of action.

To minimise the risk of resistance occurring, HUBBLE must only be used at its recommended rate in a blight programme.

For further advice, on resistance management for potato blight (*Phytophthora infestans*) contact your agronomist or specialist advisor and/or visit the FRAG-UK (UK only) and Potato Council websites.

#### RESISTANCE

Disease control may be reduced if strains of pathogens less sensitive to HUBBLE develop.

#### PROCESSORS

Consult processors before using on crops grown for processing.

#### DISEASES CONTROLLED

HUBBLE is used for control of foliar late blight (*Phytophthora infestans*) in all varieties of early and maincrop potatoes. It is a foliar fungicide with protectant and translaminar activity. It is applied before the disease appears and is followed by a programme of repeat sprays. If disease is already established, the control may be reduced.

#### **CROP SPECIFIC INFORMATION**

HUBBLE may be applied to all varieties of early and maincrop potatoes.

#### TIME OF APPLICATION First Application Tim r.g

Apply as soon as conditions favour disease incidence, or when disease warning is given, but before any disease appears. In the absence of weath from Jucive to disease development, the first opplication should be made just before foliage of caucent plants meets across the rows.

Second and Repeat Applications Timings

Low Disease Risk: Spray at 14 day intervals or as soon as conditions favour disease.

High Disease Risk: Spray at 10 day intervals. A 7 day interval may be used under exceptional circumstances when disease risk is high and rain is forecast when the next 10 day spray is due, when blight has been identified in neighbouring fields or potato dumps or when there is continuous humid weather/irrigation or during rapid growth.

Do not exceed 5 applications per crop.

#### DOSE RATE

Apply HUBBLE at 0.75 L/ha in a 200-400 litres water/ha. Use higher water volumes when foliage is dense to give good coverage of the crop. A MEDIUM spray quality (as defined by the BCPC) should be used.

#### FOLLOWING CROPS

Do not sow clover until the spring following application.

#### MIXING AND SPRAYING

For application by tractor mounted/trailed sprayer only.

Half-fill the spray tank with clean water and begin agitation. Add the recommended amount of HUBBLE and the remainder of the water. Continue agitation until spraying is complete. Do not leave spray mixture in the tank for long periods such as during breaks or overnight.

Wash all equipment and personal protective equipment after use, avoiding contact with unprotected skin. Wash all measuring and spray equipment thoroughly after use. Triple rinsing is required.

On emptying the container, 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 container safely.

#### HUBBLE MANAGEMENT ADVICE

To avoid the spread of blight and help with antiresistance management, it is recommended that growers use the following agronomic practice.

- Use cultivars with a high disease resistance where possible. Current disease resistance ratings for listed cultivars can be obtained from the UK's British Potato Council's website at: www.potato.org.uk. Where possible, avoid growing large areas of highly susceptible cultivars, particularly in location, where there is a history of high risk from late blight.
- Destroy all ground-keepers and potato dumps.
- Use disease-free seed.
- Make a timely start to spray programmes i.e. when there is a warning of isk, or as crops meet across the rows.
- Once spraying is under way, and where practical, adjust intervals according to risk (weather conditions/crop growth). Do not allow intervals to become too extended.
- Do not apply fungicides when disease is well established in the crop. Consider burning off the crop to avoid spread of inoculum.
- Use a mix of active ingredients with different modes of action or from different fungicide families, or target specific products in blocks at appropriate growth stages.
- Desiccate the crop prior to harvest to avoid spread when potatoes are lifted.

The crop is at highest risk of disease under warm, humid conditions. Growers should also look out for blight warnings. Location can also affect the disease. Areas of high potato production and those where climate is warm and humid have the highest disease incidence, particularly (in the UK) East Anglia, the Fens and the South West.

#### DISCLAIMER/CONDITIONS OF SUPPLY

The specified properties of our products and the mode of application stated on this label have been established on the basis of research and experience. Products conform to specification at the time of delivery but, as we exercise no control over their subsequent storage, handling, mixing or use or the weather conditions before, during and after application, all of which may affect the performance of the products, no responsibility or liability will be accepted by us or our re-sellers for any failule in performance, damage or injury to person or property whatsoever arising from the storage handling, application or use of the products. These conditions cannot be varied by our staff o: agents whether or not they supervise or assist in or make recommendations concerning the use of such products. We recommend you contact your dealer to request advice on the suitability of this product for any new and/or unusual growing methods or for new varieties not listed on this label.

#### Marketed by

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