

Dithane 945

A wettable powder containing 80% w/w mancozeb.

A protectant fungicide for the control of Blight in potatoes and certain cereal diseases.

Dithane 945

PRODUCT BENEFITS

- Multi-site mode of action combating resistance.
- Provides trace elements through Mn and Zinc in the formulation.
- A strong alternative to chlorothalonil.

Lerap category: B

Pack size: 25 kg

Storage: PROTECT FROM FROST



Grow a better tomorrow.

IMPORTANT INFORMATION

FOR USE ONLY AS AN AGRICULTURAL FUNGICIDE.

Crop	Maximum individual dose	Maximum no. of applications	Latest time of application
Potato	2.0 kg/ha	Eight per crop. (See Other Specific Restrictions)	Seven days before harvest
Wheat, durum wheat		Three per crop	Before milky grain ripe stage (GS 65)

Other specific restriction:

- A minimum interval of seven days must be observed between applications to potatoes.

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.

MAPP 14621

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

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.

NOTES

Avoid spray overlap or excessive application.

The best available application technique, which minimises off-target drift, should be used to reduce potential effects on non-target insects or other arthropods.

Allow foliage to dry before applying DITHANE 945 after rainfall or irrigation.

Do not apply DITHANE 945 if rain is expected within four hours of application.

It is important to keep containers tightly closed and stored in a cool, dry place.

Keep away from fire and sparks.

Once the container has been opened the material should not be kept over from one season to the next.

RESISTANCE

According to FRAC guidance Potato blight is considered to be a disease with a moderate to high risk of developing resistance to fungicides. DITHANE 945 is a multi-site contact fungicide and because of this the risk of resistance development is reduced, however it is in your interest and best practice to plan a programme of treatments using fungicides with different modes of action throughout the season for all crops.

CROP SPECIFIC INFORMATION

Potatoes

Pest

Control of Late blight (*Phytophthora infestans*) and Early blight (*Alternaria solani*).

Dose

2.0 kg/ha.

Water volume

150–600 l/ha .

Timing

Applications must be made preventively as part of a Blight control programme with regard to Blight Infection Periods or local Blight warnings. In the absence of any warnings, applications should commence when the crop meets along the row. If a Blight warning is issued for the area, apply the first spray immediately, irrespective of the growth stage of the crop.

In common with all protectant fungicides, it is essential to spray DITHANE 945 before Blight appears in the crop. For this reason a regular spraying programme should be carried out.

DITHANE 945 is not a curative product so do not use if Blight is present in the crop. If sprays are delayed due to poor weather and Blight risk is severe then consider applying DITHANE 945 in tank mixture with an active ingredient that offers 'kick back' activity such as cymoxanil.

Interval between applications

Minimum seven days.

Apply DITHANE 945 on a 7–10 day spray interval, depending on disease pressure. As disease pressure and the risk of Late blight infection increases, the interval should be shortened.

Situations classed as high risk would be:

- Irrigated crops
- Extended periods of warm, humid weather and
- Areas where main crop and early potatoes are a commonly grown crop or
- Areas where local weather conditions allow for an increased threat of Blight epidemics, e.g. the West and South West of England/Wales and East Anglia
- Where Blight has been identified in nearby potato crops or on volunteer potatoes or on potato dumps.

Maximum number of applications

Eight per crop.

Latest time of application

Seven days before harvest.

Winter and spring wheat, durum wheat

Pest

Reduction of Leaf spot (*Septoria tritici*) and useful control of light to moderate attacks Brown rust (*Puccinia recondita*).

Dose

2.0 kg/ha.

Water volume

200–400 l/ha.

Timing

DITHANE 945 is a protectant fungicide and will not control established disease infections. If Leaf spot or Brown rust is already established or 'kick-back' activity is required DITHANE 945 should be applied in combination with appropriate fungicide with curative activity.

Leaf spot

A programme of two applications of DITHANE 945 with a 14 day spray interval, normally starting between GS 31 and GS 37, should be made to prevent the disease reaching the flag leaf and leaves two and three, though in high risk situations a third application may be required after a further interval of 14 days. It is essential for best results to apply before any disease is well established.

Brown rust

One or two sprays of DITHANE 945 should be made beginning at the onset of disease infection.

Interval between applications

14 days.

Maximum number of applications

Three per crop.

Latest time of application

Before milky grain ripe stage (GS 65).

APPLICATION EQUIPMENT

DITHANE 945 should be applied through hydraulic sprayers providing they are in good working order and have been calibrated according to the manufacturer's recommendations.

SPRAY QUALITY

Use a MEDIUM quality spray (as defined by the BCPC) at two–three bar in a suitable water volume to ensure complete cover of the foliage. Spray fans should overlap just before the top of the crop.

WATER VOLUMES

DITHANE 945 should be applied in a minimum of 150 litres of water per hectare. Refer to individual crop recommendations for specific advice.

MIXING

Add half the required volume of water to the spray tank and begin agitation. Add the recommended quantity of powder into a clean bucket. Add a little water and stir thoroughly into a thin cream, ensuring all lumps are broken down. Pour and rinse the cream into the tank through the filter. Continue agitation while topping up the tank and during spraying and transport operations.

When tank mixing with other products add the DITHANE 945 after the other product has already dispersed in the spray tank.

COMPATIBILITY

For information about compatible tank mixtures please consult your distributor/adviser.

DITHANE is a trademark of Dow AgroSciences LLC.

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WARNING

Irritating to the respiratory system.

May cause sensitisation by skin contact.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Wear suitable protective clothing and gloves.

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

Avoid contact with skin.

Keep out of reach of children.

This material and its container must be disposed of in a safe way.

Use appropriate containment to avoid environmental contamination.

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), SUITABLE PROTECTIVE GLOVES AND SUITABLE RESPIRATORY PROTECTIVE EQUIPMENT (FFP3) when handling the product.

WEAR 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 HANDS AND EXPOSED SKIN before meals and after work.

Environmental protection

DO NOT CONTAMINATE SURFACE WATERS OR DITCHES with the product or used 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 in line with the LERAP requirements.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 metres of the top of the bank of a static or flowing water body, unless a Local Environment Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1 metre of the top of a ditch which is dry at the time of application. Aim spray away from water. This product qualifies for

inclusion within the Local Environment Risk Assessment for Pesticides (LERAP) scheme. Before each spraying operation from a horizontal boom sprayer, either a LERAP must be carried out in accordance with CRD's published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for three years.

Storage and disposal

KEEP OUT OF REACH OF CHILDREN.

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDSTUFFS.

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

EMPTY CONTAINER COMPLETELY and dispose of safely.

*Disposable filtering facepiece respirator to at least EN 149 FFP2 or equivalent.