



# REVUS<sup>®</sup>

syngenta<sup>®</sup>

Product registration number: MAPP 17443

A suspension concentrate containing 250 g/l (23.4% w/w) mandipropamid.



For the control of Foliar blight (*Phytophthora infestans*) and protection against tuber blight in potatoes and the control of downy mildew on protected and outdoor lettuce, lamb's lettuce, endives (including frisee, escarole and radicchio), rocket, red mustard, baby leaf crops, spinach, land cress, cress, purslane, spinach beet leaves (chard) and herbs.

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

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**In case of toxic or transport emergency ring +44 (0) 1484 538444 any time.**

PROTECT FROM FROST.  
SHAKE WELL BEFORE USE.  
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This product label is compliant with the CPA Voluntary Initiative (VI) guidance.

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## 10 litres



®

**REVUS**

A suspension concentrate containing 250 g/l (23.4% w/w) mandipropamid.



Toxic to aquatic life with long lasting effects.

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Do not eat, drink or smoke when using this product.

Avoid release to the environment.

Collect spillage.

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 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.

**MAPP 17443**

**IMPORTANT INFORMATION****FOR USE ONLY AS AN AGRICULTURAL/HORTICULTURAL FUNGICIDE**

For use on potatoes, protected and outdoor lettuce, lamb's lettuce, endives (including frisee, escarole and radicchio), rocket, red mustard, baby leaf crops, spinach, land cress, cress, purslane, spinach beet leaves (chard) and herbs.

| Crop   | Maximum Individual Dose        | Maximum Number of Treatments | Latest Time of Application |
|--|--------------------------------|------------------------------|----------------------------|
| Potatoes   | 0.6 litres product per hectare | Four per crop                | 3 days before harvest      |
| Protected lettuce, lamb's lettuce, endives (including frisee, escarole and radicchio), rocket, red mustard, baby leaf crops*, spinach, land cress, cress, purslane, spinach beet leaves (chard) and herbs# | 0.6 litres product per hectare | One per crop                 | 7 days before harvest      |
| Outdoor lettuce, lamb's lettuce, endives (including frisee, escarole and radicchio), rocket, red mustard, baby leaf crops*, spinach, land cress, cress, purslane, spinach beet leaves (chard) and herbs#   | 0.6 litres product per hectare | Two per crop                 | 7 days before harvest      |

Other Specific Restriction: For outdoor crops and protected crops that are grown under a temporary cover, the maximum total dose must not exceed 1.2 L product/ha/year on any single area of land.

\* crops harvested no later than the 8 true leaf stage

# please refer to the full list of herbs included at the back of the label

**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.**

**SAFETY PRECAUTIONS****(a) Operator protection**

WASH HANDS AND EXPOSED SKIN before eating, drinking and after work.

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

**(b) 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.

**(c) Storage and disposal**

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

DO NOT RE-USE CONTAINER for any purpose.

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.

This leaflet is part of the approved Product Label.

## **DIRECTIONS FOR USE**

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

## **PROPERTIES OF REVUS**

REVUS is a foliar fungicide for the preventative control of late blight (*Phytophthora infestans*) in potatoes and downy mildew in lettuce and is highly active against spore germination. Uptake into the leaf tissue assures good translaminar activity and inhibits mycelial growth during the incubation period.

## **DISEASE CONTROLLED**

For the control of Foliar blight (*Phytophthora infestans*) and protection against tuber blight in potatoes.

For the control of downy mildew on protected and outdoor lettuce, lamb's lettuce, endives (including frisee, escarole and radicchio), rocket, purslane and herbs

For the moderate control of downy mildew on protected and outdoor red mustard, baby leaf crops, spinach, land cress, cress and spinach beet leaves (chard).

## **POTATOES**

REVUS can be used on all varieties of potatoes including seed potatoes.

## **BACKGROUND TO POTATO BLIGHT CONTROL**

Late blight (*Phytophthora infestans*) is potentially a devastating disease of potatoes. In commercial production, a season long **disease prevention** policy is essential. First of all ensure that other control methods are being satisfactorily applied:

1. Prevent re-growth on potato dumps.
2. Destroy all groundkeepers.
3. Plant disease free seed.
4. Use generous soil ridges to protect tubers.

Integrate this approach with a fungicide programme :

### **Early Crops**

In first and second early potato crops, particularly those grown in the same locality as main crop potatoes, an adequate and full blight protection programme should be applied right up to harvesting or haulm desiccation. This will protect the early crop while helping to reduce disease risk to later crops.

### **Maincrops**

Disease prevention programmes require regular and season long fungicide use to limit foliar blight development. However, as an effective fungicide programme will preserve leaf area there may be more risk of infecting tubers at harvest, particularly during "heavy" blight years. Completion of the control programme should therefore include a complete haulm desiccant. Lifting of the crop should not take place for at least 10 days after **COMPLETE KILL** of the haulm. Crops intended for storage should not be lifted while there is any green tissue **AT ALL** on the leaves or stem bases.

### **Blight Risk Assessment**

The risk of disease is affected by **weather conditions** (during the crop life) and **crop location**:

**Weather Conditions** - Spread of disease occurs under warm, humid conditions. Preferably use a reliable decision support system to determine what frequency of fungicide treatment is appropriate and fungicide type required.

Note: Blight forecasting has often been based on the occurrence of "Smith periods". A "Smith period" is a 48 hour period in which the minimum temperature is 10°C or more and the relative humidity exceeds 90% for at least 11 hours during the first 24 hours and for at least 11 hours again during the final 24 hours. However, any period of warm, humid weather increases blight risk.

**Crop Location** - Locations with the highest probability of blight problems are:

1. Areas of the country where extensive main crop or early production takes place e.g. East Anglia, the south west or the west.
2. Areas where climatic conditions that encourage disease development occur on a frequent basis e.g. The south west, the west and the Fens.

## **TIMING**

REVUS is a protectant fungicide and therefore the spray programme must start BEFORE blight enters the crop. Commence spraying at the first blight warning or when local weather conditions are favourable for the disease.

Intervals between applications of REVUS should be reduced as blight risk increases, so that **protection** of the crop can be maintained.

Applications of REVUS should be made at 7-10 day intervals depending on disease pressure. As disease pressure and the risk of late blight infection increase, the interval should be shortened.

## **Rates of Use**

Apply REVUS at 0.6 litres product per hectare. Up to four applications may be made per crop

Applications of REVUS can be made up to 3 days before harvest.

## **RESISTANCE MANAGEMENT**

Revus contains a CAA fungicide (FRAC code no. 40). It does not contain a formulated partner mixture, e.g. mancozeb, for resistant management purposes. To minimise the risk of resistance development in the pathogen population the following guidelines for CAA fungicides (based on an average number of 12 fungicide applications/season for potato blight control) should be followed:-

- 1 Where possible, use formulated/tank mixtures or an alternating strategy using fungicides from different mode of action groups.
- 2 Where CAA fungicides are applied as a mixture (co-formulated or as a tank mix) a maximum of 50% of the total number of applications may be made per crop or season. In potatoes up to six applications may be made.
- 3 Where CAA fungicides are applied alone (without a co-formulant or tank mix partner) a maximum of 33% of the total number of applications may be made per crop or season. In potatoes a maximum of four applications may be made.
- 4 No more than 3 applications of any CAA fungicide should be made consecutively
- 5 Further information on suitable tank mix products and resistance management strategies is available from FRAG and BPC websites.

## **LETTUCE, LAMB'S LETTUCE, ENDIVES (INCLUDING FRISEE, ESCAROLE AND RADICCHIO), ROCKET, RED MUSTARD, BABY LEAF CROPS, SPINACH, LAND CRESS, CRESS, PURSLANE, SPINACH BEET LEAVES (CHARD) AND HERBS**

## **TIMING**

Before applying REVUS, ensure the crop is free from any stress caused by environmental or agronomic effects. Always inspect crops to assess disease development immediately before spraying. Best results will be achieved from applications made in the earliest stage of disease development or as a protectant treatment following a disease risk assessment or the use of appropriate decision support systems.

Protected crops - Only one application of REVUS should be made per crop.

Outdoor crops - Two applications of REVUS can be made per crop. Allow a minimum interval of 7 days between applications.

For outdoor crops and protected crops that are grown under a temporary cover, the maximum total dose must not exceed 1.2 L product/ha/year on any single area of land.

Applications of REVUS can be made up to 7 days before harvest.

## **Rates of Use**

Apply REVUS at 0.6 litres product per hectare.

## **RESISTANCE MANAGEMENT**

To minimise the risk of resistance developing REVUS may be applied in tank mixture or alternating using a fungicide with a different mode of action at a rate that is effective against downy mildew. Further information on suitable tank mix products and resistance management strategies is available on the FRAG website.

Use in alternation with fungicides with another mode of action.

## MIXING AND SPRAYING

Apply through a conventional hydraulic sprayer calibrated to give an even application at the correct volume.

Application to outdoor crops of potatoes, lettuce and associated crops should be made via a tractor mounted, trailed or self-propelled sprayer or alternatively through a knapsack sprayer.

The application to indoor lettuce and associated crops should be made via a hydraulic nozzle applicator e.g. motorised sprayer with hand or boom lance or via a knapsack sprayer.

### Spray Volume

Potatoes : Apply REVUS in at least 200 litres of water per hectare

Lettuce and similar: Apply REVUS in 200-600 litres of water per hectare

### Spray Nozzles

A medium quality spray\* is preferred for application of REVUS (\* as defined by The British Crop Protection Council). A spray pressure of 2 - 3 bar is recommended.

### Mixing

Make sure the sprayer is clean and set to give an even application at the correct volume

Fill the spray tank with half the required volume of clean water and start agitation. Add the required amount of REVUS and continue agitation whilst adding the rest of the water.

Agitate the mixture thoroughly before use and continue agitation during spraying and any stoppages

Thoroughly wash all spray equipment with water immediately after use

Do not leave the spray liquid in the sprayer for long periods (such as during meal breaks or overnight).

## COMPATIBILITY

The following products may be tank mixed with REVUS at the recommended rates of use.

### Potatoes

Dithane NT Dry Flowable (MAPP 14704)

Shirlan (MAPP 10573)

Before using any tank mixture also consult and comply with the recommendations of the partner product. The products should be added separately to the bulk of water in the spray tank. Continuous agitation should be maintained and the products used immediately after mixing.

**This product is to be used only in accordance with the recommendations and instructions given on the label provided with this pack**

## FULL LIST OF HERBS

| Scientific Name                    | Common Name   |
|------------------------------------|---------------|
| <i>Allium schoenoprasum</i>        | Chives        |
| <i>Anethum graveolens</i>          | Dill leaves   |
| <i>Angelica archangelica</i>       | Angelica      |
| <i>Anthriscus cerefolium</i>       | Chervil       |
| <i>Artemisia dracunculus</i>       | Tarragon      |
| <i>Calendula officinalis</i>       | Marigold      |
| <i>Coriandrum sativum</i>          | Coriander     |
| <i>Foeniculum vulgare</i>          | Fennel leaves |
| <i>Helichrysum angust/italicum</i> | Curry Plant   |

|                                  |                |
|----------------------------------|----------------|
| <i>Hyssopus officinalis</i>      | Hyssop         |
| <i>Laurus nobilis</i>            | Bay            |
| <i>Levisticum officinalis</i>    | Lovage leaves  |
| <i>Melissa officinalis</i>       | Balm           |
| <i>Mentha spp.</i>               | Mint           |
| <i>Ocimum basilicum</i>          | Basil          |
| <i>Origanum heracleoticum</i>    | Oregano        |
| <i>Origanum majorana</i>         | Marjoram       |
| <i>Origanum vulgare</i>          | Oregano        |
| <i>Petroselinum crispum</i>      | Parsley        |
| <i>Poterium sanguisorba</i>      | Burnet (salad) |
| <i>Rosmarinus officinalis</i>    | Rosemary       |
| <i>Rumex acetosa</i>             | Sorrel         |
| <i>Ruta graveolens</i>           | Rue            |
| <i>Salvia officinalis</i>        | Sage           |
| <i>Satureja spp.</i>             | Savory         |
| <i>Thymus spp.</i>               | Thyme          |
| <i>Trigonella foenum-graecum</i> | Fenugreek      |
| <i>Tropaeolum majar</i>          | Nasturtium     |
| <i>Urtica dioica</i>             | Nettle         |
| <i>Viola odorata</i>             | Violet         |

## COMPANY ADVISORY INFORMATION

As part of our Product Stewardship policy, Syngenta recommends the following precautions should also be observed:

Wear appropriate clothing – cotton overall and rubber gloves, when handling the concentrate.

Since the occurrence of resistance cannot be forecast, neither Syngenta UK Limited nor its distributors can accept responsibility for any loss or damage to crops caused by the failure of REVUS to control resistant strains.

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