## Grisu

#### **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.

Avoid spraying within 5m of the field boundary to reduce effects on non-target insects and other arthropods.

## Disease Control Notes & Warnings:

Consult processors before using on crops intended for processing. Avoid spray drift onto neighbouring crops, especially oats.

#### **Resistance Management:**

Strains of several diseases including *Botrytis cinerea* resistant to dicarboximide fungicides are known in various crops in the Ireland. Where strains of fungi resistant to dicarboximide fungicides (such as iprodione) occur, Grisu may not be effective. In order to minimise the risk of resistance development, use Grisu in accordance with FRAC resistance management advice for dicarboximide fungicides.

Grisu contains a dicarboximide fungicide.

To reduce the risk of resistant strains adversely affecting control:

- Avoid the use of consecutive applications of dicarboximide fungicides whether applied
- alone or in tank mix.
- Restrict applications to those times when Botrytis infection pressure is high

Maintain regular prolonged times when dicarboximides are not used.
 Where resistance is suspected, use Grisu in mixture with other fungicides from a different mode of action effective against the same diseases.

#### **CROPS**

#### **Protected Tomatoes**

#### Time and rate of Application

For the control of *Botrytis cinerea*, apply Grisu at 100ml/100L water and apply to run off in protected crops.

Commence application of Grisu at the start of flowering on the second truss and repeat at 14 day intervals or when conditions favour the spread of *Botrytis*.

A maximum of 5 applications may be made observing a minimum spray interval of 7 days for *Botrytis*.

#### Outdoor and Protected Strawberries Time and rate of Application

For the control of *Botrytis cinerea* apply Grisu at 1.5 litres/ha in outdoor or protected crops.

Use of higher water volumes will assist coverage in dense crops.

Apply in 600-1000 litres of water per hectare ensuring good blossom coverage. The use of directed nozzles can assist good coverage.

Make a first application of 1.5 l/ha at the white bud stage and repeat at 10-14 day intervals during the flowering period, up to a maximum of four applications in outdoor crops and glasshouse crops.

#### Winter and spring oilseed rape.

#### Time and rate of Application

Apply Grisu at 1.0 -1.5 l/ha in 200 - 600 litres per hectare of water as a fine spray (BCPC category), except where drift is a hazard when a medium spray should be used. Use of higher water volumes will assist coverage

in dense crops.

### Dark leaf spot and pod spot: Alternaria spp (control)

**Protectant applications** 

For best results apply Grisu at 1.0/ha as a protectant spray between mid flower, i.e when 20 pods that are 2.5 cm in length have formed on the main raceme, and the end of flowering.

#### Grey mould: Botrytis cinerea (Moderate control)

Applying Grisu at 1.0 l/ha as a protectant spray at mid flower for the control of *Alternaria* spp., application will also control grey mould. Later applications at the end of flowering are unlikely to give satisfactory control. *Sclerotinia* (control):

To achieve control, Apply Grisu at 1.5 I/ha between full flowering and when 30% of pods have reached the final size (BBCH 65 to BBCH 73).

#### Brussel sprouts and cauliflower

Time and rate of Application

For the control of Alternaria brassicae and A. brassicicola.

Apply at a rate of 1.0 l Grisu in 200 to 600 litres of water per hectare as a programme of sprays starting at the onset of disease on the leaves.

A total of 3 applications may be made.

A minimum spray interval of 21 days must be observed.

#### Lettuce (Protected and Outdoor)

#### Time and rate of Application

For the control of *Botrytis cinerea*, apply Grisu at a rate of 0.05 L per 100 litres of water. Do not exceed a volume of 1000 litres per hectare (equivalent to a maximum of 0.5 L/ha).

As a guide for protected lettuce, newly planted lettuce with three leaves require 5 litres of spray to 22,000 plants. At a later stage of growth, e.g. up to six to eight leaves, 5 litres should treat about 5000 plants. The final spray, before cutting, will require 5 litres of spray to approximately 1100 plants.

For outdoor and protected lettuce a maximum of 3 applications may be made. A minimum spray interval of 14 days must be observed between treatments.

#### Raspberries

#### Time and rate of Application

For the control of *Botrytis cinerea*, apply Grisu at 1.5 litres in 1000 litres of water per hectare.

A minimum of three sprays over the flowering period is recommended, beginning at early flowering and repeating every two weeks.

Use on raspberry must only be applied via broadcast air-assisted sprayers.

A maximum of 4 sprays may be made per year.

A minimum spray interval of 15 days must be observed between treatments.

#### **Ornamental Pot Plants**

#### Time and rate of Application

For the control of *Botrytis cinerea*, apply Grisu at a rate of 1 L per 1000 litres of water. Apply at the onset of disease, then repeat at 21 day intervals as necessary. Apply to the point of run off, ensuring good coverage of the plants. Good tolerance to Grisu has been shown by the following pot plant species: *Aralia sieboldii Azalea* spp. *Begonia rex* (cv *Fireglow*) *Chrysanthemum* (all year round cultivars) *Cineraria* (Senecio sp.) *Croton* (Codiaeum sp. cv Bravo) Cyclamen spp. Dracaena sp. (cv Redege) Ficus robusta Fuchsia spp. Hedera minor Hedera majorImpatiens parviflora Kalanchoe spp. Neanthe bella Pelargonium sp. Philodendron scandens Pilea cadierei (cv Nana) Poinsettia (Euphorbia pulcherrima) Senecio macroglossus variegatus Sinningia spp. (Gloxinia)

Tolerance of other species should be checked before making large scale applications.

#### Salad onions

#### Time and rate of Application

For the control of (Botrytis cinerea).

Apply at a rate of 1.0 l Grisu in 300 to 600 litres of water per hectare as a programme of sprays. For over wintered salad onion crops commence spraying at the crook stage and repeat at monthly intervals. For spring and summer sown salad onions commence spraying at the crook stage and repeat at 17 day intervals.

A total of 4 applications may be made.

#### MIXING AND SPRAYING

Apply as a FINE-MEDIUM spray, as defined by BCPC. Half fill the tank with clean water and start agitation. Shake the product container before use. Add the required amount of Grisu to the spray tank while re-circulating. Add the remainder of the water and continue agitation until spraying is complete. Use immediately after mixing, do not retain or store diluted product for long periods or overnight. On emptying the product 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.

Grisu can be used in tractor and/or knapsack sprayers.

#### KNAPSACK RATE ESTIMATOR

Apply GRISU as a MEDIUM spray.

Calibrate equipment before an actual application.

A full 20 litre knapsack sprayer applying spray at 600 l/ha will treat 333 m²

GRISU recommendation

GRISU ml per 20 litres spray mixture

1.0 l/ha in 600 l/ha water

33 ml 50 ml For example at nozzle operating width 50 cm and forward speed of 5 km/h (20m forward travel in 30 seconds) each nozzle must deliver 1200 ml per minute, e.g. Teeiet TT11003 or equivalent

#### **CLEANING SPRAY EQUIPMENT**

Following use of Grisu spray equipment should be thoroughly cleaned. There are no specific requirements for cleaning following use of Grisu. Growers should consult manufacturer's guidance for procedures for their specific equipment, and use a combination of triple rinsing and agitation with clean water.

Equipment washings should be disposed of safely.

#### Storage and disposal

Keep away from food, drink and animal feeding stuffs.

Keep in original container, tightly closed, in a safe place.

Wash out container thoroughly, empty washings into the spray tank and dispose of safely.

Do not re-use container for any purpose.

# Grisu

### A suspension concentrate formulation containing 500 gms per litre iprodione

A fungicide for the control of *Alternaria* in Oilseed Rape, Brussels sprout and cauliflower, of *Botrytis cinerea* in strawberry (outdoor & protected), tomato (protected), salad onions, lettuce (protected), lettuce (outdoor), raspberry and ornamentals, of *Sclerotinia* in Oilseed rape and moderate control of *Botrytis cinerea* in Oilseed Rape

RISK AND SAFETY INFORMATION - 24 Hour Emergency Number: +44 (0)1763 212100



Harmful Harmful, Limited evidence of a carcinogenic effect



Dangerous for the Environment Toxic to aquatic organisms. May cause long term adverse effects in the aquatic environment.

Keep out of reach of children.

Keep away from food drink and animal feedingstuffs

Do not breathe spray

Wear suitable protective clothing and gloves

If swallowed, seek medical advice immediately and show this container or label.

Use appropriate containment to avoid environmental contamination.

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

Users must not allow direct spray from broadcast air-assisted sprayers to fall within 15 m of the top of the bank of a static or flowing waterbody or within 5 m of a ditch which is dry at the time of application. Users must not allow direct spray from horizontal boom sprayers to fall within 5 m of 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. Spray from hand-held sprayers must not be allowed to fall within 1 m of the top of the bank of a static or flowing waterbody.

Spray must be aimed away from water.

PCS 04836

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

Quantity: 10 Litre Batch Number

## FOR PROFESSIONAL USE ONLY DIRECTIONS FOR USE FOR USE ONLY AS AN AGRICULTURAL/HORTICULTURAL FUNGICIDE, AS DIRECTED BELOW

Crops	Maximum individual Dose	Maximum number of applications	Maximum total Dose	Latest time of application
Oilseed Rape (winter and spring)	1.5 l/ha	1 per crop	1.5 l/ha	8 weeks before harvest
Tomato (protected)	100ml/100 litre water	5 per crop	-	2 days before harvest
Strawberry (outdoor and protected)	1.5 l/ha	4 per crop	6.0 l/ha	2 days before harvest
Brussels sprout and cauliflower	1.0 l/ha	3 per crop	3.0 l/ha	14 days before harvest
Salad onions	1.0 l/ha	4 per crop	4.0 l/ha	7 days before harvest
Lettuce (protected)	0.5 l/ha 50ml/100l water	3 per crop	1.5 l/ha	14 days before harvest
Lettuce (outdoor)	0.5 l/ha 50ml/100l water	3 per crop	1.5 l/ha	21 days before harvest
Raspberry (outdoor)	1.5 l/ha	4 per crop	-	7 days before harvest
Outdoor and protected flower/foliage and woody ornamentals	1.0I/1000 litres water	5 per year		Not applicable

#### Specific diseases controlled:

Oilseed rape: Control of Alternaria brassicae and Alternaria brassicola and Moderate control of Botrytis at 1.0l/ha. Control of Sclerotinia at 1.5 l/ha

Strawberry (outdoor and protected), tomato (protected), salad onions, lettuce (protected), lettuce (outdoor), raspberry, ornamentals: Control of *Botrytis cinerea* 

Brussels sprout, cauliflower: Control of Alternaria brassicae and Alternaria brassicola

READ THE LABEL BEFORE USE.

APPROVAL HOLIDER: OXON Italia S.p.A., Via Sempione 195, 20016 Pero (MI), Milan, Italy.

MARKETING COMPANY: SIPCAM UK Ltd., 4C Archway House, The Lanterns, Melbourn Street, Royston, Herts, SG8 7BX.

Tal: +44 (In)T63 212100 Fax: +44 (In)T63 212101

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