

## DIRECTIONS FOR USE

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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.

### RESTRICTIONS

Do not apply TOPAS in more than 2000 litres of water per hectare.

### DISEASES CONTROLLED

TOPAS is an emulsifiable concentrate containing 100 g (10.6% w/w) penconazole per litre, for the control of powdery mildew (*Podosphaera leucotricha*) in apples, powdery mildew (*Sphaerotheca macularis*) in hops, powdery mildew (*Podosphaera mors-uvae*) in blackcurrants, powdery mildew and scab in ornamental Malus for plant production and for the control of rust in roses grown for plant production.

#### Disease Control

##### Apple Powdery Mildew

TOPAS will reduce the spread of powdery mildew from primary infections and will also control the spread of secondary mildew.

Mildew carry over: Primary infections of powdery mildew in the following year are best reduced by the use of a mixed chemistry fungicide programme including TOPAS.

##### Hop Powdery Mildew

TOPAS used as a protective foliar spray will control powdery mildew in hops.

##### Rose Rust

TOPAS should be used at the first sign of rust infection and repeat treatments made if rust infection pressure continues.

##### Ornamental Malus – Powdery Mildew and Scab

TOPAS used as a protective foliar spray will control leaf scab. It should be used at the first sign of powdery mildew infection.

#### Integrated Pest Control

For the latest information consult your specialist advisor. Where insect pests are a problem, a specific insecticide should be used.

#### Harvesting Interval

A minimum period of 14 days in apples and hops and 28 days in blackcurrants should elapse between the last spray and picking the crop.

### CROP SPECIFIC INFORMATION

#### APPLES

##### Timing

TOPAS should be applied as a foliar spray from green cluster and continue until extension growth ceases.

##### Interval

Every 10–14 days.

Every 7 days – in weather periods with very high infection levels (warm humid weather).

## F U N G I C I D E

**Dose**

INTERVAL	DOSE PER HECTARE	SPRAYING TO 'RUN-OFF'
10–14 days	0.5 litre/ha	25 ml/100 litres of water
7 days	0.3 litre/ha	15 ml/100 litres of water

**Conventional Volume**

Apply TOPAS in a minimum of 500 litres and a maximum of 2000 litres of water per hectare.

**Application**

It is important to ensure complete coverage of the plant at all growth stages.

NOTE: A programme of apple sprays should not include more than 10 sprays of TOPAS (TOPAS at 0.5 litres per hectare in any one season).

**HOPS**

TOPAS should be used as a protective foliar spray. Little or no activity will be seen on established powdery mildew.

**Timing**

TOPAS should be applied once the first hop shoots have reached 10–15 cm.

**Interval**

Every 10–14 days.

The interval between sprays should be 10 days in weather periods of high infection pressure (warm, humid weather).

**Dose and Volume**

The dose of TOPAS should increase throughout the season according to the growth stage of the hop plant (see tables).

**Application**

It is important to ensure complete coverage of the hop plant at all growth stages.

Do not apply TOPAS in less than 1000 litres of water per hectare at full bine development.

Do not apply TOPAS in more than 2000 litres of water per hectare.

HOP GROWTH STAGE	QUANTITY OF TOPAS APPLIED	TYPICAL SPRAY VOLUME
Shoots 10–15 cm	124 ml per hectare	250 l/ha band spray
Training	250 ml per hectare	350–500 l/ha band spray
Bines 2 m long	300 ml per hectare	500–600 l/ha
Bines 3.5 m long	375 ml per hectare	600–750 l/ha
Full bine and subsequently	750 ml per hectare	1000–2000 l/ha

NOTE: A programme of hop sprays should not include more than 6 sprays of TOPAS in any one season.

**Application Guide**

Quantity of TOPAS required to treat 2 hectares

HOP GROWTH STAGE	QUANTITY OF TOPAS PER 2 HECTARES
Shoots 10–15 cm	0.25 litres (250 ml)
Training	0.5 litres (500 ml)

**F U N G I C I D E**

Bines 2 m long	0.6 litres (600 ml)
Bines 3.5 m long	0.75 litres (750 ml)
Full bine and subsequently	1.5 litres (1500 ml)

NOTE: It is important to ensure complete coverage of the plant at all growth stages

**BLACKCURRANTS**

**Timing**

TOPAS should be used as a protective spray commencing at the first sign of disease (usually mid-late flowering) and continue at 10–14 day intervals until four weeks before harvest. A further application can be made after harvest to protect plants further. A maximum of four applications of TOPAS should be made in any one cropping year.

**Dose**

TOPAS should be used at the rate of 0.5 litres per hectare.

**Volume**

Apply TOPAS in a water volume of 1000–2000 l/ha or as necessary to achieve good coverage of the foliage without excessive run off.

**Application**

It is important to ensure complete coverage of the plant at all growth stages.

**ORNAMENTAL MALUS – ORNAMENTAL PLANT PRODUCTION**

**Timing**

Apply TOPAS at the first sign of powdery mildew infection or as a protective foliar spray against leaf scab.

**Interval**

10–14 days.

7 days in weather periods with very high infection pressure (e.g. mildew: warm, humid; scab: warm, wet).

**Dose**

INTERVAL	DOSE PER HECTARE
10–14 days	0.5 litre/ha
7 days	0.3 litre/ha

**Volume**

Apply TOPAS in a minimum of 500 litres and a maximum of 2000 litres of water per hectare.

**ROSES – ORNAMENTAL PLANT PRODUCTION**

**Crop Tolerance**

TOPAS has been successfully used at the recommended doses on a range of varieties without crop damage. However, because of the large number of species and varieties and the variations in growing conditions, the varietal susceptibility should always be checked by treating a small number of plants in the first instance.

NOTE: For reasons of potential leaf scorch do not use TOPAS on the variety Dearest (or similar).

**Timing**

Apply TOPAS at the first sign of rust infection. If infection pressure continues, repeat applications should be made at 14 day intervals.

**F U N G I C I D E****Dose and Volume**

Apply a maximum concentration of 150 ml of TOPAS in 100 litres of water as a high volume spray. This mixture should be sprayed to 'run-off'. Apply sufficient spray to obtain complete coverage of the crop.

**MIXING AND SPRAYING**

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

Fill the spray tank with half the required volume of water and begin agitation. Add the required amount of TOPAS and continue agitation while adding the rest of the water.

Agitate the mixture thoroughly before use and continue agitation during spraying.

Thoroughly wash all spraying and measuring equipment with water and a wetting agent immediately after use.

**Where application is by air-blast orchard sprayer:**

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

**Where application is by hand-held sprayer:**

Minimise drift away from target area to reduce effects on non-target insects or other arthropods.

PROTECT FROM FROST

STORE IN A COOL DRY, PLACE

**SAFETY PRECAUTIONS**

Precautions marked \* are a legal requirement.

**(a) Operator protection**

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

\* WEAR SUITABLE PROTECTIVE GLOVES AND FACE PROTECTION (FACESHIELD) when handling the concentrate.

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

WASH ALL PROTECTIVE CLOTHING thoroughly after use especially inside of gloves.

WASH CONCENTRATE from skin or eyes immediately.

WASH HANDS AND EXPOSED SKIN before meals and after work.

IF SWALLOWED, do not induce vomiting: seek medical advice immediately and show this container or label.

**(b) Environmental protection**

Do not contaminate surface waters or ditches with chemical or used container.

**(c) Storage and disposal**

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

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.

**TOPAS**



**IRRITANT**



**DANGEROUS  
FOR THE  
ENVIRONMENT**

TOPAS is an emulsifiable concentrate containing 100 g/l (10.6% w/w) penconazole

**IRRITATING TO EYES.**

**TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.**

Keep out of the reach of children.

When using do not eat, drink or smoke.

Keep away from food, drink and animal feeding stuffs.

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

Use appropriate containment to avoid environmental contamination.

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

## F U N G I C I D E

THE (COSHH) CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS MAY APPLY TO THE USE OF THIS PRODUCT AT WORK

**IMPORTANT INFORMATION**

FOR USE ONLY AS A HORTICULTURAL FUNGICIDE

For use on:

<b>Crops</b>	<b>Maximum individual dose</b>	<b>Maximum no. of treatments</b>	<b>Latest time of application</b>
Apples	0.5 l product/ha	10 per year	14 days
Hops	0.75 l product/ha	6 per year	14 days
Blackcurrants	0.5 l product/ha	4 per year	28 days
Ornamental plant production – Malus	0.5 l product/ha	–	–
Ornamental plant production – roses	See 'Other specific restrictions'	–	–

Other specific restrictions:

When applied to roses, the maximum concentration must not exceed 150 ml product per 100 litres water as a high volume spray

**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.**

Syngenta Crop Protection UK Limited, CPC4, Capital Park, Fulbourn, Cambridge CB21 5XE  
Tel: Cambridge (01223) 883400

**In case of toxic or transport emergency ring 01484 538444 any time.**