

CAUTION

KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Penncozeb[®] 420 SC

Fungicide

ACTIVE CONSTITUENT: 420 g/L MANCOZEB

GROUP **Y** FUNGICIDE

For the control of Leaf spot and suppression of other diseases on bananas and control of fungal diseases of cucurbits, potatoes, tomatoes, almonds, grape vines, chickpeas, faba beans, lentils, oilseed poppy and turf as shown in the DIRECTIONS FOR USE table.

IMPORTANT: READ THE ATTACHED LEAFLET BEFORE USE.

Contents 5L

10L

15L

20L

200L

800L

1000L

Distributed by:
Nufarm Australia Limited
ACN 004 377 780
103-105 Pipe Road
Laverton North Victoria 3026
Tel: (03) 9282 1000
Fax: (03) 9282 1001



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STORAGE AND DISPOSAL

Store in the closed, original container, in a well-ventilated area, building or room, as cool as possible. Do NOT store for prolonged periods in direct sunlight. Empty contents fully into application equipment. Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, puncture and bury empty containers in a local authority landfill. If not available bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

Refillable Containers (800L, 1000L): Empty contents fully into application equipment. Close all valves and return to point of sale for refill or storage.

SAFETY DIRECTIONS

Harmful if inhaled or swallowed. Will irritate the eyes, nose, throat and skin. Avoid contact with eyes and skin. Avoid inhaling vapour or spray mist. When preparing the spray, wear cotton overalls buttoned to the neck and wrist, a washable hat, and elbow-length PVC gloves and face shield or goggles. When using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), a washable hat and elbow length butyl rubber gloves. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and face shield or goggles and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26. If swallowed do not induce vomiting. Give glass of water. Avoid giving alcohol.

MATERIAL SAFETY DATA SHEET

Additional information is listed in the Material Safety Data Sheet.

CONDITIONS OF SALE

"Any provisions or rights under the Trade Practices Act 1974 or relevant state legislation which cannot be excluded by those statutes or by law are not intended to be excluded by these conditions of sale. Subject to the foregoing, all warranties, conditions, rights and remedies, expressed or implied under common law, statute or otherwise, in relation to the sale, supply, use or application of this product, are excluded. Nufarm Australia Limited and/or its affiliates ("Nufarm") shall not accept any liability whatsoever (including consequential loss), or howsoever arising (including negligence) for any damage, injury or death connected with the sale, supply, use or application of this product except for liability which cannot be excluded by statute."

In case of emergency: Phone 1800 033 498
Ask for shift supervisor. Toll free 24 hours.

Batch No:
DOM:

**EXPIRY DATE: TWO YEARS AFTER THE DATE
OF MANUFACTURE**

APVMA Approval No.: 49487/5L/0906
APVMA Approval No.: 49487/10L/0906
APVMA Approval No.: 49487/15L/0906
APVMA Approval No.: 49487/20L/0906
APVMA Approval No.: 49487/200L/0906
APVMA Approval No.: 49487/800L/0906
APVMA Approval No.: 49487/1000L/0906



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DIRECTIONS FOR USE:

RESTRAINTS

DO NOT apply to table grapes or grapes for drying, after flowering has commenced.

CROP	DISEASE	STATE	RATE	WHP	CRITICAL COMMENTS
Bananas	Control: Leaf spot Suppression: Leaf speckle Fruit speckle Cordana leaf spot Black pit	QLD, NSW, NT, WA only	3 to 3.5L plus 4L spraying oil per hectare OR 3.5L/ha	Nil	Apply when weather conditions favour disease outbreak. Sth Qld, NSW, WA: Apply at three weekly intervals from December or January to May. North Queensland, Northern Territory: Apply every two weeks during the wet season. Extend to three weeks after this and then four to five weeks during the drier months. Return to three week spray intervals prior to the next wet season. Use the higher rate plus spraying oil under high disease pressure. Under low disease pressure 3.5L/ha Penncozeb 420 SC alone will suffice.
Almonds	Brown rot (Blossom blight)	All states	<u>Dilute spraying</u> 270 to 350 mL/100L <u>Concentrate spraying</u> Refer to Application section	14 days	Apply at early bloom (1-10%), then repeat at mid to full bloom (50-100%); at petal fall and shuck fall. Continue with a protective spray programme at two week intervals. Apply higher rate and/or the shorter spray interval under conditions of heavy disease pressure.
Cucurbits Cucumber Cantaloupe Pumpkin Melons Zucchini Squash	Downy mildew	All states	350 mL/100L	7 days	Apply when disease symptoms first appear and then repeat at 7 to 10 day intervals. Use the shorter spray interval during conditions favourable to disease development.
Potatoes	Late blight, Early blight (Target spot)	All states	2.5 to 3.5L/ha	14 days	Apply when disease symptoms first appear and then repeat at 7 to 10 day intervals. Use the shorter spray interval during conditions favourable to disease development.
Tomatoes	Target spot	All states	270 to 350 mL/100L	7 days	Apply when disease symptoms first appear and then repeat at 7 to 10 day intervals. Use the higher rate and/or the shorter spray interval when conditions favour disease development.

CROP	DISEASE	STATE	RATE	WHP	CRITICAL COMMENTS
Grape vines (not table grapes, or grapes for drying, after flowering has commenced)	Downy mildew (<i>Plasmopara viticola</i>) Phomopsis cane and leaf spot	All states	<u>Dilute Spraying</u> 250 to 350 mL/100L water <u>Concentrate Spraying</u> Refer to the Application section	14 days (wine grapes only) 30 days (table grapes and grapes for drying)	For table grapes and grapes for drying, DO NOT apply after flowering has commenced. If Downy mildew is expected begin spray application at 10-15 cm stage of shoot growth. Continue a programme of application every 10 to 14 days until the risk of infection diminishes. Use the higher rate when infection levels are particularly high. For control of phomopsis apply at budburst and then 7 to 10 days later. Apply by dilute or concentrate spraying equipment. Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods.
Poppies	Downy mildew	Tas only	3.5L/ha	7 weeks	Apply as a protectant spray when weather conditions favour disease development. Repeat spray on 14 day intervals if conditions persist.
Faba beans	Chocolate spot	All states	3.5L/ha	<u>Harvest</u> 28 days <u>Grazing</u> 14 days	Apply when disease symptoms first appear and repeat at 7 to 10 day intervals while warm rainy conditions prevail.
Chickpeas	Ascochyta Blight (<i>Ascochyta rabiei</i>)	All states	1.8 to 3.95L/ha	<u>Harvest</u> 28 days <u>Grazing</u> 14 days	Early application is critical in restricting the early development and spread of Ascochyta in young chickpeas. Spray when weather conditions are likely to remain humid or wet and favour disease development. If disease pressure is severe and conditions favour spread of disease, repeat sprays at 2-3 weeks to protect new growth and developing pods. Repeat more frequently if severe disease persists. Use the higher rate and/or shorter spray interval when conditions favour disease development.
Lentils	Ascochyta Blight (<i>Ascochyta lentis</i>)	All states	2.5L/ha	<u>Harvest</u> 28 days <u>Grazing</u> 14 days	Reduction in seed blemish and spread of disease in the crop canopy due to Ascochyta will be obtained with application of this product prior to and during podding.
Turf	Fusarium Rhizoctonia (<i>Helminthosporium</i>)	All states	335 - 415mL/100m ²	-	Apply in sufficient water for adequate coverage. Use 660 - 1300L water/ha, increasing in heavy growth to ensure thorough coverage. Apply at 7 day intervals during susceptible season. Treatment should begin prior to disease infection and continue until the threat of disease has passed. Repeated applications are necessary to protect new plant growth. Reduce the spray interval when weather conditions favour disease development. DO NOT feed grass clippings from treated areas to poultry or animals.

NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION

WITHHOLDING PERIODS (WHP)

BANANAS: NOT REQUIRED WHEN USED AS DIRECTED.

CUCURBITS, TOMATOES: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION.

POTATOES: DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION.

ALMONDS: DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION.

GRAPE VINES (WINE GRAPES ONLY): DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION.

GRAPE VINES (TABLE GRAPES AND GRAPES FOR DRYING ONLY): DO NOT HARVEST FOR 30 DAYS AFTER APPLICATION.

POPPIES: DO NOT HARVEST FOR 7 WEEKS AFTER APPLICATION.

FABA BEANS: HARVEST: DO NOT HARVEST FOR 28 DAYS AFTER APPLICATION.

GRAZING: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 14 DAYS AFTER LAST APPLICATION.

CHICKPEAS, LENTILS: HARVEST: DO NOT HARVEST FOR 28 DAYS AFTER APPLICATION.

GRAZING: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 14 DAYS AFTER LAST APPLICATION.

GENERAL INSTRUCTIONS:

PENNCOZEB 420 SC is a protectant fungicide for the control of certain fungus diseases in various crops.

MIXING

Add the required quantity of **PENNCOZEB 420 SC** to water in the spray tank and mix thoroughly. Maintain agitation during mixing and application.

APPLICATION:

Aerial application

PENNCOZEB 420 SC may be applied by aircraft to bananas, poppies, potatoes and faba beans. Apply in at least 30 to 50 litres of spray volume per hectare.

Ground application

PENNCOZEB 420 SC should be applied as directed to crop foliage. Thorough coverage is required to ensure adequate control. For almonds and grape vines see instructions below.

Grape vines, almonds

Dilute spraying

- Use a sprayer designed to apply high volumes of water up to the point of runoff and matched to the crop being sprayed.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy. Apply sufficient water to cover the crop to the point of runoff. Avoid excessive run-off.
- The required water volume may be determined by applying different test volumes, using different settings on the sprayer, from industry guidelines or expert advice.
- Add the amount of product specified in the Directions for Use table for each 100 L of water. Spray to the point of run-off.
- The required dilute spray volume will change and the sprayer set up and operation may also need to be changed, as the crop grows.

Concentrate spraying

- (a) Use a sprayer designed and set up for concentrate spraying (that is a sprayer which applies water volumes less than those required to reach the point of runoff) and matched to the crop being sprayed.
- (b) Set up and operate the sprayer to achieve even coverage throughout the crop canopy using your chosen water volume.
- (c) Determine an appropriate dilute spray volume (See Dilute Spraying above) for the crop canopy. This is needed to calculate the concentrate mixing rate.
- (d) The mixing rate for concentrate spraying can then be calculated in the following way:

EXAMPLE ONLY

- (i) Dilute spray volume as determined above:
For example 1000 L/ha
 - (ii) Your chosen concentrate spray volume:
For example 500 L/ha
 - (iii) The concentration factor in this example is:
 $2 \times$ (i.e. $1000 \text{ L} \div 500 \text{ L} = 2$)
 - (iv) If the dilute label rate is 250 mL/100 L, then the concentrate rate becomes 2×250 , that is 500 mL/100 L of concentrate spray.
- (e) The chosen spray volume, amount of product per 100 L of water, and the sprayer set up and operation may need to be changed as the crop grows.
 - (f) For further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.

COMPATIBILITY:

Penncozeb 420 SC Fungicide may be harmful to *Typhlodromus pyri*, and its use in orchards where integrated control is practiced should be avoided.

This product is compatible with formulations of most commonly used fungicides, insecticides and miticides. Check compatibility before using by preparing a test solution of the required proportions and observing stability over several minutes. Use mixtures containing emulsifiable concentrate (EC) formulations promptly and maintain constant agitation during use.

DO NOT mix with Bordeaux mixture or Lime Sulphur.

FUNGICIDE RESISTANCE WARNING

GROUP Y FUNGICIDE

For fungicide resistance management **Penncozeb 420 SC Fungicide** is a Group Y fungicide.

Some naturally occurring individual fungi resistant to the product and other Group Y fungicides may exist through normal genetic variability in any fungal population. The resistant individuals can eventually dominate the fungal population if these fungicides are used repeatedly. These resistant fungi will not be controlled by this product or other Group Y fungicides, thus resulting in a reduction in efficacy and possible yield loss.

Since the occurrence of resistant fungi is difficult to detect prior to use, Nufarm Australia Limited accepts no liability for any losses that may result from the failure of this product to control resistant fungi.

PROTECTION OF LIVESTOCK, WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Dangerous to fish. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighbouring areas. Do NOT contaminate ponds, waterways and drains with the chemical or used containers.

DO NOT feed grass clippings from treated areas to poultry or animals.

STORAGE AND DISPOSAL

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