



Australian Government
Australian Pesticides and
Veterinary Medicines Authority

Approved label

READ SAFETY DIRECTIONS BEFORE OPENING OR USING

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT:

DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

STORAGE AND DISPOSAL:

KEEP OUT OF REACH OF CHILDREN.

Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. All containers containing the concentrated product must be sealed properly once opened to prevent loss of ammonia and possible formation of crystals.

Triple or (preferably) pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. If recycling 1, 5, 20, 25 & 200 L containers, replace cap and return clean containers to recycler or designated collection point.

If recycling 250, 500, 800 & 1000 L containers, empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is 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.

SAFETY DIRECTIONS:

May irritate the eyes and skin. Avoid contact with eyes and skin. Wash hands after use.

FIRST AID:

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone 13 11 26.

MATERIAL SAFETY DATA SHEET:

Additional information is listed in the Material Safety Data Sheet (MSDS) available from agVantage on 1300 255 347 or www.agvantage.com.au

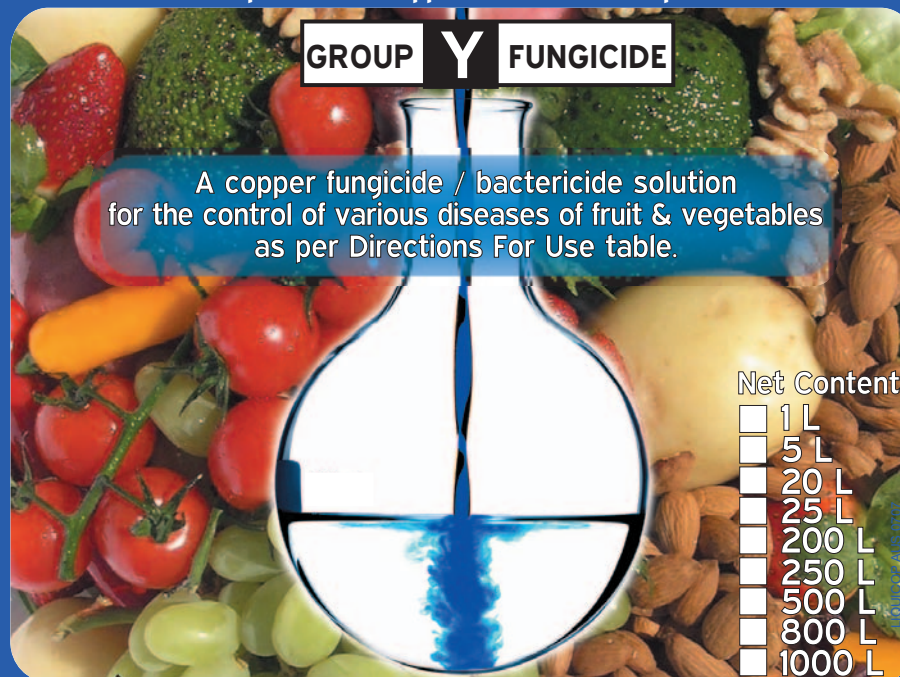
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LIQUICOP[®]

COPPER FUNGICIDE



ACTIVE CONSTITUENT: 93 g/L COPPER (Cu)
present as Copper Ammonium Complex



GROUP Y FUNGICIDE

- Net Contents**
- 1 L
 - 5 L
 - 20 L
 - 25 L
 - 200 L
 - 250 L
 - 500 L
 - 800 L
 - 1000 L

IMPORTANT: READ THE ATTACHED BOOKLET BEFORE USE

COMPANY WARRANTY:

Although this remedy has been extensively tested under a large variety of conditions the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be affected by factors such as abnormal climatic and storage conditions; quality of dilution water; compatibility with other substances not indicated on the label and the occurrence of resistance of the disease against the remedy concerned as well as by the method, time and accuracy of application. The registration holder furthermore does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animal or the lack of performance of the remedy concerned due to failure of the user to follow the label instructions or to the occurrence of conditions which could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

This product is not classified as a dangerous good under the Australian Dangerous Goods Code, 6th Edition, for Transport by Rail and Road.

IN EMERGENCY ONLY, PHONE

1800 033 111

24 hours, Australia wide



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 innovative solutions

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BN :

DOM:

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READ SAFETY DIRECTIONS BEFORE OPENING OR USING

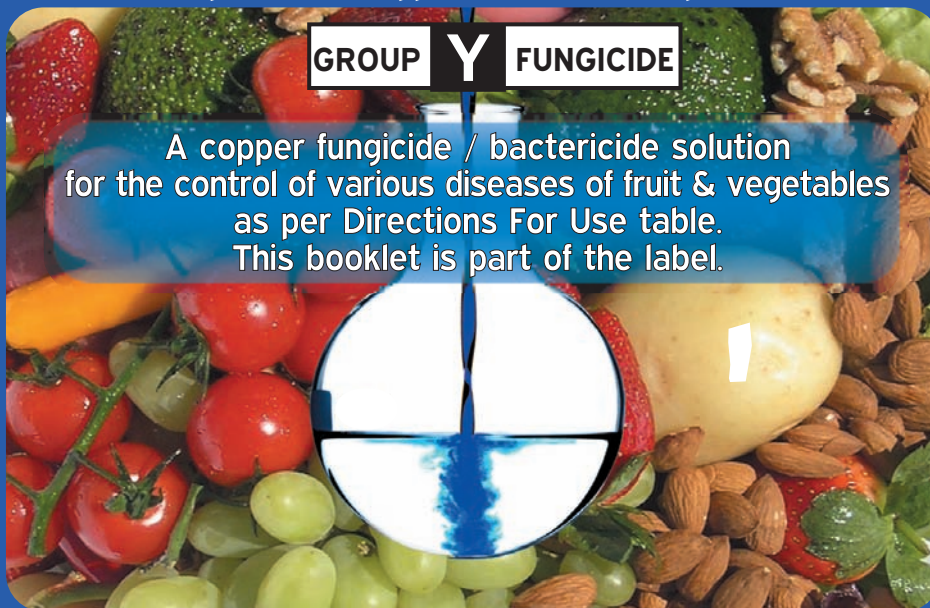
LIQUICOP[®]

COPPER FUNGICIDE

ACTIVE CONSTITUENT: 93 g/L COPPER (Cu)
present as Copper Ammonium Complex

GROUP **Y** FUNGICIDE

A copper fungicide / bactericide solution
for the control of various diseases of fruit & vegetables
as per Directions For Use table.
This booklet is part of the label.



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Scale: 100% on A4 paper
Date: 21/4/08



DIRECTIONS FOR USE:

RESTRAINTS:

DO NOT apply when either hot (above 35°C) or frost prone conditions prevail.

DO NOT apply when poor drying conditions exist or if it is likely to rain before the spray is dry.

DO NOT apply to wet crops.

DO NOT apply to copper-shy crops or cultivars.

DO NOT mix with acidifying/buffering agents unless they are required to maintain the pH between 6 & 7. The stability and efficacy of Liquicop[®] is pH dependent (refer Mixing Instructions). **DO NOT** mix with phosphate-based acidifiers or buffers.

NON TREE AND VINE CROPS

| CROP | DISEASE | RATE (by high volume sprayer, > 500 L/ha) | RATE (by air or ultra low volume sprayer, < 500 L/ha) | CRITICAL COMMENTS |
|--|--|--|--|---|
| VEGETABLES | | | | |
| BEANS | Common blight (<i>Xanthomonas campestris</i> pv. <i>phaseoli</i>) | 500 mL / 100 L water | 2.5 L/ha* | Apply at the first sign of infection or as a preventative spray. Repeat every 7 - 14 days depending on the disease pressure. Spray immediately after heavy rains, hail or dust storms |
| | Bacterial brown spot (<i>Pseudomonas syringae</i> pv. <i>syringae</i>) | | | Apply within 21 days of emergence and repeat every 10 - 14 days depending on the disease pressure. |
| | Chocolate spot (<i>Botrytis</i> spp.) Rust (<i>Uromyces</i> spp.) | | | Spray at first sign of infection. Repeat every 10 - 14 days while conditions allow infection. |
| | Halo blight (<i>Pseudomonas syringae</i> pv. <i>phaseolicola</i>) | 500 - 750 mL / 100 L water | 2.5 - 2.9 L/ha* | Apply every 10 - 14 days from the time the crop is 15 - 30 cm high, while conditions allow infection. Use the higher rate when conditions are highly favourable for infection. |
| * AERIAL APPLICATION: Apply in 40 L water in a preventative program as for ground applications. | | | | |
| BRASSICAS (including broccoli, brussels sprouts, cabbage, cauliflower, chinese cabbage, collards, kale, kohlrabi, mustard, rape, turnip) | Downy mildew (<i>Peronospora parasitica</i>) Black rot (<i>Xanthomonas campestris</i> pv. <i>campestris</i>) Peppery leaf spot (<i>Pseudomonas syringae</i> pv. <i>maculicola</i>) Ring spot (<i>Mycosphaerella brassicicola</i>) | 500 mL / 100 L water | 2.5 L/ha | Begin spraying from the seedling stage until maturity. Spray every 10 - 14 days depending on weather conditions and disease pressure. Do not use on copper sensitive varieties. |

| CROP | DISEASE | RATE (by high volume sprayer, > 500 L/ha) | RATE (by air or ultra low volume sprayer, < 500 L/ha) | CRITICAL COMMENTS |
|---|---|--|--|--|
| BROCCOLI | See BRASSICAS | | | |
| BRUSSELS SPROUTS | See BRASSICAS | | | |
| BUTTERNUT | See CUCURBITS | | | |
| CABBAGE | See BRASSICAS | | | |
| CAPSICUMS | Bacterial spot (<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i>) Bacterial canker (<i>Corynebacterium michiganense</i> pv. <i>michiganense</i>) | 500 mL / 100 L water | 2.5 L/ha | SEED BEDS: Apply every 7 days during wet weather FIELD CROPS: Begin spraying at first sign of disease and repeat every 7 - 14 days depending on weather conditions and disease pressure. Use the shortest interval when conditions are highly favourable for infection. These applications will reduce the spread of bacterial canker but they will not control seed or soil-borne infection. |
| CARROTS | Leaf spot (<i>Alternaria, Cercospora, Septoria</i>) | 500 mL / 100 L water | 2.5 L/ha | Begin spraying at first sign of disease and repeat every 10 - 14 days depending on weather conditions and disease pressure. |
| CAULIFLOWER | See BRASSICAS | | | |
| CELERY | Leaf spot (<i>Septoria apiicola</i>) Bacterial soft rot (<i>Erwinia carotovora</i> pv. <i>carotovora</i>) | 500 mL / 100 L water | 2.5 L/ha | Spray every 7 - 14 days. Use the shortest interval when weather conditions favour disease (i.e. cool and wet weather). |
| CHINESE CABBAGE | See BRASSICAS | | | |
| CUCUMBERS | See CUCURBITS | | | |
| CUCURBITS (including cucumbers, melons, pumpkin, squash, watermelon, zucchini, etc) | Downy mildew (<i>Pseudoperonospora cubensis</i>) | 400 mL / 100 L water | 2.5 L/ha | Spray at early vineing stage or when infestation is expected. Only use as a preventative spray. After the disease has established itself, a systemic fungicide must be used. Do not spray when plants are under stress, i.e. hot, dry conditions. |
| | Angular leaf spot (<i>Pseudomonas syringae</i> pv. <i>lachrymans</i>) Bacterial leaf spot (<i>Xanthomonas campestris</i> pv. <i>cucurbitae</i>) | 500 mL / 100 L water | | Spray at first sign of disease and repeat every 7 - 10 days. |



| CROP | DISEASE | RATE (by high volume sprayer, > 500 L/ha) | RATE (by air or ultra low volume sprayer, < 500 L/ha) | CRITICAL COMMENTS |
|----------|--|--|---|--|
| LETTUCE | Downy mildew (<i>Bremia lactucae</i>) Bacterial leaf spot (<i>Xanthomonas campestris</i> pv. <i>vitiensis</i>) Anthracnose (<i>Microdochium panattonianum</i>) | 300 mL / 100 L water | 1 L/ha maximum | Begin spraying at first sign of disease and repeat every 7 - 10 days depending on weather conditions and disease pressure. This product predisposes lettuce to frost damage. Lettuce should not be treated with this product if frosts are likely since crop damage may occur. Do not use on copper sensitive varieties. |
| MELONS | See CUCURBITS | | | |
| ONIONS | Downy mildew (<i>Peronospora destructor</i>) | 500 mL / 100 L water | 2.5 L/ha | Begin spraying at first sign of disease and repeat every 10 days depending on weather conditions and disease pressure. |
| PARSNIPS | Leaf spot (<i>Septoria</i> spp.) | 500 mL / 100 L water | 2.5 L/ha | Begin spraying at first sign of disease and repeat every 10 - 14 days depending on weather conditions and disease pressure. |
| PEAS | Ascochyta blight (<i>Ascochyta</i> spp.) Bacterial blight (<i>Pseudomonas syringae</i> pv. <i>pisii</i>) | 500 mL / 100 L water | 2.5 L/ha* | Begin spraying at first sign of disease and repeat every 10 - 14 days depending on weather conditions and disease pressure. * AERIAL APPLICATION: Apply in 40 L water in a preventative program as for ground applications. |
| POTATOES | Early blight / Target spot (<i>Alternaria solani</i>) | 500 mL / 100 L water | 2.5 L/ha | Apply from crop emergence to maturity at 7 - 10 days intervals while conditions favour development of this disease. |
| | Late blight / Irish blight (<i>Phytophthora infestans</i>) | 500 mL plus 200 g mancozeb / 100 L water | 2.5 L/ha plus 1 kg/ha mancozeb | Depending on plant size, apply in high enough water volume to ensure good coverage. Ensure that both upper and lower surfaces are treated. |
| | Early & Late blight | - | 2.5 L/ha | AERIAL APPLICATION: Apply in 40L of water in a preventative program. Commence application at the 5 leaf stage and repeat at 7-10 day intervals. |
| PUMPKIN | See CUCURBITS | | | |
| RED BEET | Downy mildew (<i>Peronospora farinosa</i>) Rust (<i>Uromyces betae</i>) | 500 mL / 100 L water | 2.5 L/ha | Apply every 10 - 14 days, from the seedling stage until maturity, while conditions allow infection. |
| RHUBARB | Crown rot (<i>Phytophthora</i> spp.) | 500 mL / 100 L water | - | Dip rhubarb crowns before planting. |
| | Downy mildew (<i>Peronospora jaapiana</i>) | 500 mL / 100 L water | 2.5 L/ha | Spray at 14 day intervals, from the seedling stage until maturity, while conditions allow infection. |

| CROP | DISEASE | RATE (by high volume sprayer, > 500 L/ha) | RATE (by air or ultra low volume sprayer, < 500 L/ha) | CRITICAL COMMENTS |
|------------------|--|--|--|---|
| SILVER BEET | Downy mildew (<i>Peronospora farinosa</i>) | 500 mL / 100 L water | 2.5 L/ha | Begin spraying from the seedling stage until maturity and repeat every 10 - 14 days depending on weather conditions and disease pressure. Do not use on copper sensitive varieties. |
| SQUASH | See CUCURBITS | | | |
| SPINACH | Downy mildew (<i>Peronospora farinosa</i>) | 500 mL / 100 L water | 2.5 L/ha | Begin spraying at first sign of disease and repeat every 10 - 14 days depending on weather conditions and disease pressure. |
| TOMATOES | Bacterial spot (<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i>) Bacterial speck (<i>Pseudomonas syringae</i> pv. <i>tomato</i>) Bacterial canker (<i>Clavibacter michiganensis</i> pv. <i>michiganensis</i>) | 500 mL / 100 L water | 2.5 L/ha | Apply as a preventative spray at 7 - 10 day intervals. Depending on plant size, apply spray at a high enough volume to ensure good coverage. Ensure that both the upper and lower surfaces are treated. The shortest interval should be used when conditions are very favourable for infection, ie, during wet weather and when inoculum levels are high. These applications will reduce the spread of bacterial canker but they will not control seed or soil borne infection. |
| | Early blight / Target spot (<i>Alternaria solani</i>) Septoria leaf spot (<i>Septoria</i> spp.) | | | Start application shortly after transplant when plants are 15 cm high and before symptoms appear. Apply every 7 - 10 days depending on weather conditions favourable for development of the disease. Depending on plant size, apply spray at a high enough volume to ensure good coverage. Ensure that both the upper and lower surfaces are treated. The shortest interval should be used when conditions are highly favourable for infection, ie, during wet weather and when inoculum levels are high. |
| | Late blight / Irish blight (<i>Phytophthora infestans</i>) | | | Begin spraying at first sign of disease and repeat every 10 - 14 days. |
| Tomato seedlings | Bacterial speck (<i>Pseudomonas syringae</i> pv. <i>tomato</i>) | 500 mL / 100 L water (5 mL/L water) | - | Spray seedlings at weekly intervals with a hollow cone spray. Ensure that both the upper and lower surfaces are treated. |
| WATERMELON | See CUCURBITS | | | |
| ZUCCHINI | See CUCURBITS | | | |



| CROP | DISEASE | RATE (by high volume sprayer, > 500 L/ha) | RATE (by air or ultra low volume sprayer, < 500 L/ha) | CRITICAL COMMENTS |
|--------------------|--|--|---|---|
| FRUIT | | | | |
| BANANAS | Yellow sigatoka (<i>Mycosphaerella musicola</i>) (QLD, NSW, WA, NT only) | 500 mL / 100 L water plus 300 - 600 mL/ha Flexlend | 2.5 L/ha | Spray monthly from December to May when weather conditions favour disease. Ensure good coverage. |
| | Phytophthora stem canker (NSW, WA only) | Stem Application: 250 mL/L water or 250 mL/L water based paint | - | Mix to a smooth consistency. Apply only to pseudostems wherever cankers appear, after removing dead tissue. Repeat applications up to a maximum of 5 per season until natural healing has commenced. Application with paint carrier may only require 1 or 2 treatments in a season. |
| STRAWBERRIES | Leaf spot (<i>Mycosphaerella fragariae</i>) Grey mould (<i>Botrytis cinerea</i>) (VIC, SA, TAS, WA only) | 500 mL / 100 L water | 2.5 L/ha | Spray when plants are established and repeat every 7 - 10 days throughout the season. Discontinue application if signs of phytotoxicity appear (reddening of leaf veins or new growth inhibition). Early in the season, alternating with Bavistin [®] FL or Spin [®] Flo will assist in reducing the development of grey mould. |
| OTHER CROPS | | | | |
| ORNAMENTALS | Bacterial leaf spot | 500 mL / 100 L water | | Begin spraying at first sign of disease and repeat every 10 - 14 days depending on weather conditions and disease pressure. Do not use on copper sensitive varieties. Small scale evaluations consisting of 2 sprays at a 14 day interval should be applied first to test for phytotoxicity. |
| | Downy mildew | 750 mL / 100 L water | | |
| TOBACCO SEED BEDS | Wildfire Angular leaf spot (<i>Pseudomonas syringae pv. tabaci</i>) (QLD, NSW & VIC only) | 1 L / 100 L water | | Apply every 7 days. |
| | Algae (QLD, WA only) | | | Apply when algae first appears. |

TREE AND VINE CROPS

| RATE | | | CRITICAL COMMENTS |
|---|---|--|--|
| CROP | DISEASE | RATE | |
| <p>In the following table, all rates are given for dilute spraying. For concentrate spraying, refer to the Application section.</p> <p>For all uses in this table: Apply by dilute or concentration spraying equipment.</p> <p>Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods.</p> | | | |
| FRUIT | | | |
| APPLES | Black spot (scab) (<i>Venturia inaequalis</i>) | 500 mL / 100 L water | Apply at green tip. Apply as a dilute or concentrate spray. Do not use a concentration factor greater than 2. NOTE: Crop injury (russetting) may occur from late application. Discontinue use when green tip on the earliest developing buds reaches 1 cm. Before applying to recently introduced varieties, ascertain their tolerance of copper sprays from relevant authorities. |
| APRICOTS | Shothole (<i>Wilsonomyces carpophilus</i>) Freckle (<i>Venturia carpophila</i>) | 500 mL / 100 L water | Spray at bud swell prior to earliest signs of leaf/bud movement. Spray at least one post harvest application. Apply as a dilute or concentrate spray. Do not use a concentration factor greater than 2. |
| | Bacterial gummosis (<i>Pseudomonas syringae</i>) | 625 mL / 100 L water | Autumn: Apply at 25 - 50% leaf fall. Apply again at 90 - 100% leaf fall. Winter: Apply in mid-winter. Spring: Apply at first sign of bud movement. Repeat application 7 - 10 days later. Apply as a dilute or concentrate spray. Do not use a concentration factor greater than 2. |
| | | 500 mL / 100 L water (NSW only) | |
| | | 325 mL / 100 L water (NSW, VIC, SA, WA only) | Apply 1 week after petal fall. Repeat application 7 - 10 days later. These sprays control the high leaf population of the bacteria in mid to late spring. Apply as a dilute or concentrate spray. Do not use a concentration factor greater than 2. |
| AVOCADOES | Anthracnose (<i>Colletotrichum gloeosporioides</i>) | 500 mL / 100 L water | Spray every 4 weeks from the end of flowering to harvest. During extended wet weather, spray every 14 days. Start using Liquicop [®] preferably during low infestation and preferably as a last spray in a spray program. Apply as a dilute or concentrate spray. Do not use a concentration factor greater than 3. |
| | Cercospora spot (<i>Pseudocercospora purpurea</i>) Sooty blotch (<i>Akaropeltopsis</i> sp.) (QLD, NSW, VIC, SA, WA only) | | |
| | Phytophthora stem canker | Stem Application: 250 mL/L water or 250 mL/L water based paint | |



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| CROP | DISEASE | RATE | CRITICAL COMMENTS |
|----------------------|--|---|--|
| CHERRIES | Shothole (<i>Wilsonomyces carpophilus</i>) | 500 mL / 100 L water | Spray when buds are swelling but BEFORE AND WITHIN ONE WEEK OF BUD OPENING. Apply as a dilute or concentrate spray. Do not use a concentration factor greater than 2. |
| | Bacterial gummosis / canker (<i>Pseudomonas syringae</i>) | 625 mL / 100 L water (VIC, TAS, SA, WA only) | <i>Autumn:</i> Apply at 25 - 50% leaf fall. Apply again at 90 - 100% leaf fall. <i>Winter:</i> Apply in mid-winter. <i>Spring:</i> Apply at first sign of bud movement. |
| | | 500 mL / 100 L water (NSW only) | Apply as a dilute or concentrate spray. Do not use a concentration factor greater than 2. |
| | | 325 mL / 100 L water (NSW, VIC, SA, WA only) | Apply 1 week after petal fall. Repeat application 7 - 10 days later. These sprays control the high leaf population of the bacteria in mid to late spring. Apply as a dilute or concentrate spray. Do not use a concentration factor greater than 2. |
| CITRUS | Black spot (<i>Guignardia citricarpa</i>) Melanose (<i>Diaporthe citri</i>) Smoky blotch (<i>Gloeodes pomigena</i>) Scab (<i>Elsinoe fawcettii</i>) | 500 - 750 mL / 100 L water plus 300 - 600 mL/ha Flextend | Apply at petal fall. Apply the higher rate in coastal districts. Apply as a dilute spray only. |
| | Phytophthora stem canker | Stem Application: 250 mL/L water or 250 mL/L water based paint | Mix to a smooth consistency. Apply only to stems of trees wherever cankers appear, after removing dead tissue. Repeat applications up to a maximum of 5 per season until natural healing has commenced. Application with paint carrier may only require 1 or 2 treatments in a season. |
| KIWIFRUIT | Phytophthora stem canker | Stem Application: 250 mL/L water or 250 mL/L water based paint | Spray only to stems of vines wherever cankers appear, after removing dead tissue. Repeat applications up to a maximum of 5 sprays per season until natural healing is commenced. Application with paint carrier may only require 1 or 2 sprays in a season. |
| LYCHEES (LITCHIS) | Parasitic algae (<i>Cephaleuros virescens</i>) (QLD, NSW, only) | 1 L / 100 L water plus 300 - 600 mL/ha Flextend | Spray affected trunk and limbs until runoff occurs. Apply monthly during the wet season. Apply as a dilute spray only. |
| | Lychee pepper spot (<i>Colletotrichum gloeosporioides</i>) | 500 mL / 100 L water | Spray every 4 weeks from the end of flowering to harvest. During extended wet weather, spray every 14 days. Apply as a dilute spray only. |
| | Phytophthora stem canker | Stem Application: 250 mL/L water or 250 mL/L water based paint | Spray only to stems of trees wherever cankers appear, after removing dead tissue. Repeat applications up to a maximum of 5 sprays per season until natural healing is commenced. Application with paint carrier may only require 1 or 2 sprays in a season. |



| CROP | DISEASE | RATE | CRITICAL COMMENTS |
|--------------|---|---|--|
| MANGOES | Anthracnose (<i>Colletotrichum gloeosporioides</i> , <i>C. acutatum</i>) (NSW, QLD, SA, WA, NT ONLY) | 750 mL / 100 L water | Spray every 4 weeks from end of flowering to harvest. During extended wet weather, spray every 14 days. Use in rotation with alternate chemistry. Apply as a dilute or concentrate spray. Do not use a concentration factor greater than 3. |
| | Bacterial black spot (<i>Xanthomonas campestris</i> pv. <i>mangiferaeindicae</i>) | 500 mL / 100 L water | Apply at 2 - 4 week intervals from just after fruit set until harvest. The product is especially suited for application as the last two sprays at the end of a spray program to minimise visible residues. Apply as a dilute or concentrate spray. Do not use a concentration factor greater than 3. |
| NECTARINES | Shothole (<i>Wilsonomyces carpophilus</i>) | 500 mL / 100 L water | Spray when buds are swelling but BEFORE AND WITHIN ONE WEEK OF BUD OPENING. Apply as a dilute or concentrate spray. Do not use a concentration factor greater than 2. |
| | Leaf curl (<i>Taphrina deformans</i>) | | CORRECT TIMING IS CRITICAL FOR EFFECTIVE CONTROL. Spray when buds are swelling but BEFORE AND WITHIN ONE WEEK OF BUD OPENING. For a given variety, the time of bud opening will vary from year to year, depending on the weather, and in any year, it will vary between varieties. Thus, the bud development of each variety in the orchard should be monitored each year to determine the correct time of application. Blocks containing more than one variety may need to be treated more than once, to treat each variety at the correct time. Where leaf curl is or is likely to be a severe problem based on previous experience, the following program should be followed: 1. AUTUMN - apply at leaf fall. 2. Apply at the FIRST SIGN of BUD SWELL and REPEAT ONE WEEK LATER. Apply as a dilute or concentrate spray. Do not use a concentration factor greater than 2. |
| | Phytophthora stem canker | Stem Application: 250 mL/L water or 250 mL/L water based paint | Spray only to stems of trees wherever cankers appear, after removing dead tissue. Repeat applications up to a maximum of 5 sprays per season until natural healing is commenced. Application with paint carrier may only require 1 or 2 sprays in a season. |
| PASSIONFRUIT | Phytophthora stem canker | Stem Application: 250 mL/L water or 250 mL/L water based paint | Spray only to stems of vines wherever cankers appear, after removing dead tissue. Repeat applications up to a maximum of 5 sprays per season until natural healing is commenced. Application with paint carrier may only require 1 or 2 sprays in a season. |



| CROP | DISEASE | RATE | CRITICAL COMMENTS |
|--|---|--|--|
| PEACHES | Shothole (<i>Wilsonomyces carpophilus</i>) | 500 mL / 100 L water | Spray when buds are swelling but BEFORE AND WITHIN ONE WEEK OF BUD OPENING. Apply as a dilute or concentrate spray. Do not use a concentration factor greater than 2. |
| | Leaf curl (<i>Taphrina deformans</i>) | | CORRECT TIMING IS CRITICAL FOR EFFECTIVE CONTROL. Spray when buds are swelling but BEFORE AND WITHIN ONE WEEK OF BUD OPENING. For a given variety, the time of bud opening will vary from year to year, depending on the weather, and in any year, it will vary between varieties. Thus, the bud development of each variety in the orchard should be monitored each year to determine the correct time of application. Blocks containing more than one variety may need to be treated more than once, to treat each variety at the correct time. Where leaf curl is or is likely to be a severe problem based on previous experience, the following program should be followed: 1. AUTUMN - apply at leaf fall. 2. Apply at the FIRST SIGN of BUD SWELL and REPEAT ONE WEEK LATER. Apply as a dilute or concentrate spray. Do not use a concentration factor greater than 2. |
| | Phytophthora stem canker | Stem Application: 250 mL/L water or 250 mL/L water based paint | Spray only to stems of trees wherever cankers appear, after removing dead tissue. Repeat applications up to a maximum of 5 sprays per season until natural healing is commenced. Application with paint carrier may only require 1 or 2 sprays in a season. |
| PEARS | Black spot (scab) (<i>Venturia pirina</i>) | 500 mL / 100 L water | Apply at green tip. Apply as a dilute or concentrate spray. Do not use a concentration factor greater than 2. NOTE: Crop injury (russetting) may occur from late application. Discontinue use when green tip on the earliest developing buds reaches 1 cm. Before applying to recently introduced varieties, ascertain their tolerance of copper sprays from relevant authorities. |
| PLUMS | Shothole (<i>Wilsonomyces carpophilus</i>) | 500 mL / 100 L water | Spray when buds are swelling but BEFORE AND WITHIN ONE WEEK OF BUD OPENING. Apply as a dilute or concentrate spray. Do not use a concentration factor greater than 2. |
| | Phytophthora stem canker | Stem Application: 250 mL/L water or 250 mL/L water based paint | Spray only to stems of trees wherever cankers appear, after removing dead tissue. Repeat applications up to a maximum of 5 sprays per season until natural healing is commenced. Application with paint carrier may only require 1 or 2 sprays in a season. |
| TROPICAL FRUIT | Phytophthora stem canker | Stem Application: 250 mL/L water or 250 mL/L water based paint | Apply only to stems of trees wherever cankers appear, after removing dead tissue. Repeat applications up to a maximum of 5 per season until natural healing has commenced. Application with paint carrier may only require 1 or 2 treatments in a season. |
| VINES Wine grapes & table grapes | Downy mildew (<i>Plasmopara viticola</i>) Powdery mildew (<i>Uncinula necator</i>) | 500 mL / 100 L water | Apply when shoots are 10 cm long and repeat at 10 to 14 day intervals or as necessary while weather conditions favour infection. Leaf damage may occur on copper sensitive varieties. Apply as a dilute or concentrate spray. Do not use a concentration factor greater than 3. Withholding Period: Do not harvest for 4 weeks after application for wine grapes. Withholding Period: Do not harvest for 1 day after application for table grapes. |

| CROP | DISEASE | RATE | CRITICAL COMMENTS |
|-------------------|--|---|---|
| NUTS | | | |
| ALMONDS | Shothole (<i>Wilsonomyces carpophilus</i>) | 500 mL / 100 L water | Spray when buds are swelling but BEFORE AND WITHIN ONE WEEK OF BUD OPENING. Apply as a dilute or concentrate spray. Do not use a concentration factor greater than 2. CORRECT TIMING IS CRITICAL FOR EFFECTIVE CONTROL. Spray when buds are swelling but BEFORE AND WITHIN ONE WEEK OF BUD OPENING. For a given variety, the time of bud opening will vary from year to year, depending on the weather, and in any year, it will vary between varieties. Thus, the bud development of each variety in the orchard should be monitored each year to determine the correct time of application. Blocks containing more than one variety may need to be treated more than once, to treat each variety at the correct time. Where leaf curl is or is likely to be a severe problem based on previous experience, the following program should be followed: 1. AUTUMN - apply at leaf fall. 2. Apply at the FIRST SIGN of BUD SWELL and REPEAT ONE WEEK LATER. Apply as a dilute or concentrate spray. Do not use a concentration factor greater than 2. |
| | Leaf curl (<i>Taphrina deformans</i>) | | |
| MACADAMIAS | Phytophthora stem canker (QLD, WA only) | Stem Application: 250 mL/L water or 250 mL/L water based paint | Mix to a smooth consistency. Apply only to stems of trees wherever cankers appear, after removing dead tissue. Repeat applications up to a maximum of 5 per season until natural healing has commenced. Application with paint carrier may only require 1 or 2 treatments in a season. |
| | Husk spot (<i>Pseudocercospora</i> sp.) (QLD, NSW, WA, NT only) | 500 mL / 100 L water | Good spray penetration of foliage is essential. Apply from nut set (late September) to December. Apply at least 3 sprays at 3 - 4 week intervals. Apply as a dilute or concentrate spray. Do not use a concentration factor greater than 2. |
| | Anthracnose (<i>Colletotrichum</i> sp.) (QLD, NT, NSW only) | | Good coverage inside the tree is essential. Spray from early summer (December) to May at monthly intervals. |
| | Pink Limb Blight (<i>Corticium salmonicolor</i>) | | Good coverage of infected limbs from early summer (December) to May at monthly intervals. |
| PECANS | Phytophthora stem canker | Stem Application: 250 mL/L water or 250 mL/L water based paint | Apply only to stems of trees wherever cankers appear, after removing dead tissue. Repeat applications up to a maximum of 5 per season until natural healing has commenced. Application with paint carrier may only require 1 or 2 treatments in a season. |
| WALNUTS | Walnut blight (<i>Xanthomonas campestris</i> pv. <i>juglandis</i>) | 750 mL / 100 L water plus 300 mL/ha Flexend | Spray a minimum of three sprays at 7 - 10 day intervals, commencing when the catkins are partially opened. Further sprays may be necessary if conditions allow infection. Apply as a dilute spray only. |

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



WITHHOLDING PERIODS:

Wine Grapes:

DO NOT HARVEST FOR 4 WEEKS AFTER APPLICATION.

Almonds, Apples, Apricots, Avocados, Bananas, Beans, Brassicas, Capsicums, Carrots, Celery, Cherries, Citrus, Cucurbits, Kiwifruit, Lettuce, Lychees (Litchis), Macadamias, Mangoes, Nectarines, Onions, Parsnips, Passionfruit, Peaches, Pears, Peas, Pecans, Plums, Potatoes, Red Beet, Rhubarb, Silver Beet, Spinach, Strawberries, Table Grapes, Tobacco, Tomatoes, Walnuts.

DO NOT HARVEST FOR 1 DAY AFTER APPLICATION.

GENERAL INSTRUCTIONS:

Fungicide Resistance Warning

[GROUP Y FUNGICIDE]

Liquicop[®] is a member of the multi-site activity group of fungicides. For fungicide resistance management Liquicop[®] is a Group Y fungicide. Some naturally occurring individual fungi resistant to Liquicop[®] and other Group Y fungicides may exist through normal genetic variability in any fungal population. The resistant individuals can eventually dominate the fungi population if these fungicides are used repeatedly. These resistant fungi will not be controlled by Liquicop[®] and 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, AgVantage accepts no liability for any losses that may result from the failure of Liquicop[®] to control resistant fungi.

Liquicop[®] is to be used as a **preventative** spray, generally applied **before or at the first sign of disease**. Many diseases infect plants – 2 weeks before symptoms appear, so applications should preferably start before symptoms appear.

Mixing

Fill the spray tank to three quarters of the required volume of water. Add any tank-mix products to the spray tank first and check pH. The stability and efficacy of Liquicop[®] is pH dependent.

DO NOT apply in a spray solution having a pH of < 6.0 as phytotoxicity may occur.

If pH > 7.0, adjust to pH 6 - 7 with Hygrobuff or suitable buffer/acidifier. DO NOT use with phosphate buffer/acidifier.

Then, slowly pour Liquicop[®] into the spray tank, with the agitation system actively running. Thoroughly mix and top-up to the required volume with water. Formation of an aquagel is normal, but will not clog nozzles.

Important

It is essential that Liquicop[®] be kept agitated throughout the entire mixing and spraying operation. Liquicop[®] must be applied within one hour of the product being diluted with water, therefore mix only the amount that can be used.

All containers containing the concentrated product must be sealed properly once opened to prevent the loss of ammonia and the possible formation of crystals.

Adjuvants

The addition of a sticker-spreader such as FlexTend is recommended, especially when applying Liquicop[®] to Brassicas, faba beans, peas and onions, irrespective of the method of application. Use of oils and wetting agents is not recommended as these may enhance uptake of copper and increase phytotoxicity.

Application

In common with other non-systemic/preventative fungicides, application of Liquicop[®] should aim to thoroughly cover all plant surfaces. DO NOT apply in water volumes resulting in application rates of less than 2.5 L Liquicop[®]/ha unless otherwise specified.

Continuous agitation of the spray solution is necessary or setting of the aquagel may occur. Good by-pass agitation is adequate.

Compatibility

The stability and efficacy of Liquicop[®] is pH dependant and should not be mixed with acidifying agents unless required to decrease the pH when it is higher than 7 (see Mixing section).

Liquicop[®] is compatible with a wide range of wettable powder, water dispersible granule, suspension concentrate and emulsifiable concentrate formulations of commonly used fungicides, insecticides and miticides. Mixtures with more than one of the above products are not recommended. Such mixtures may be ineffective or may cause serious damage. Liquicop[®] may NOT be compatible with some foliar fertilizers (primarily because of pH) and a test should be conducted before use. Liquicop[®] should not be mixed with Ca-EDTA, Bavistin[®] or Thiovit[®] Jet (at higher rates only).

Contact Agvantage for latest compatibility information.

Special Instructions for Tree and Vine Crops

Dilute Spraying

- Use a sprayer designed to apply high volumes of water up to the point of run-off 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 run-off. 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 runoff.
- 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

- 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 run-off) and matched to the crop being sprayed.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy using your chosen water volume.
- Determine an appropriate dilute spray volume (See Dilute Spraying above) for the crop canopy. This is needed to calculate the concentrate mixing rate.
- The mixing rate for concentrate spraying can then be calculated in the following way:

Example Only

1. Dilute spray volume as determined above: e.g. 1500 L/ha
 2. Your chosen concentrate spray volume: e.g. 500 L/ha
 3. The concentration factor in this example is 3 X (i.e. 1500 L / 500 L = 3)
 4. If the dilute label rate is 500mL/100 L, then the concentrate rate becomes 3x500, i.e. 1500 mL/100 L of concentrate spray
- 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.
 - Do not use a concentration factor higher than that specified in the Critical Comments and the following table.



| Crop | Maximum Concentration Factor |
|---------------------------|-------------------------------------|
| Almonds & Macadamias | 2 times |
| Deciduous Fruit | 2 times |
| Avocadoes & Mangoes | 3 times |
| Vines | 3 times |
| Citrus, Lychees & Walnuts | Dilute application only |

- For further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT:

DO NOT contaminate streams, river or waterways with the chemical or used containers.

STORAGE AND DISPOSAL:

KEEP OUT OF REACH OF CHILDREN. Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. All containers containing the concentrated product must be sealed properly once opened to prevent loss of ammonia and possible formation of crystals.

Triple or (preferably) pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site.

If recycling 1, 5, 20, 25 & 200 L containers, replace cap and return clean containers to recycler or designated collection point. If recycling 250, 500, 800 & 1,000 L containers, empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is 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.

SAFETY DIRECTIONS:

May irritate the eyes and skin. Avoid contact with eyes and skin. Wash hands after use.

FIRST AID:

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone 13 11 26.

MATERIAL SAFETY DATA SHEET:

Additional information is listed in the Material Safety Data Sheet (MSDS) available from AgVantage on 1300 255 347 or www.agvantage.com.au



COMPANY WARRANTY:

Although this remedy has been extensively tested under a large variety of conditions the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be affected by factors such as abnormal climatic and storage conditions; quality of dilution water; compatibility with other substances not indicated on the label and the occurrence of resistance of the disease against the remedy concerned as well as by the method, time and accuracy of application. The registration holder furthermore does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animal or the lack of performance of the remedy concerned due to failure of the user to follow the label instructions or to the occurrence of conditions which could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

- ® *Bavistin is the registered trademark of BASF*
- ® *Spin is the registered trademark of Nufarm Australia Limited*
- ® *Thiovit is the registered trademark of a Syngenta Group Company*

This product is not classified as a dangerous good under the Australian Dangerous Goods Code, 6th Edition, for Transport by Rail and Road.

**IN EMERGENCY ONLY:
PHONE 1800 033 111
24 hours, Australia wide**

APVMA Approval No. 50722/0707



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