

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

Bayer Chlorothalonil 500 SC

FUNGICIDE

Active Constituent: 500 g/L CHLOROTHALONIL

| | | |
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| GROUP | Y | FUNGICIDE |
|-------|----------|-----------|

For the control of a wide variety of fungal diseases in various situations as specified in the DIRECTIONS FOR USE table

GENERAL INSTRUCTIONS

For effective disease control a good leaf cover must be achieved before a widespread disease outbreak occurs.

Fungicide Resistance Warning

For fungicide resistance management Bayer Chlorothalonil 500 SC 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, Bayer CropScience Pty Ltd accepts no liability for any losses that result from the failure of this product to control resistant fungi.

Export of treated produce

Growers should note that MRLs or import tolerances do not exist in all markets for edible produce treated with Bayer Chlorothalonil. If you are growing edible produce for export, please check with Bayer CropScience Pty Ltd for the latest information on MRLs and import tolerances before using Bayer Chlorothalonil.

Mixing/Application

Thoroughly shake and roll the pack several times before opening. Mix the required quantity of Bayer Chlorothalonil 500 SC with water in the spray vat while stirring or with agitators in motion.

Suggested spray volumes – non tree/vine crops

Low volume: 200 or more litres per hectare.

High volume: 500 -1000 litres per hectare.

Aerial application: 20 litres or more per hectare.

Mister: 75-255 litres per hectare.

The volume of water applied should increase as the plants grow in size to maintain adequate cover.

Special Instruction for Tree/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 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

- ◆ 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: For example 1000 L/ha
2. Your chosen concentrate spray volume: For example 250 L/ha
3. The concentration factor in this example is: 4 X (i.e. $1000 \text{ L} \div 250 \text{ L} = 4$)
4. If the dilute label rate is 230 mL/100 L, then the concentrate rate becomes 4×230 , that is 920 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.
- ◆ For concentrate spraying, do not use greater than a 5X concentration factor.

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

Compatibility

Bayer Chlorothalonil 500 SC is compatible with wettable powder and flowable formulations of most commonly used fungicides, insecticides and miticides. Unless experience in your area has shown other combinations to be physically compatible and non-injurious to your crop DO NOT combine with other chemicals, especially emulsifiable concentrates. Do not mix concentrates together but add each to the spray tank separately. As formulations of other manufacturers' products are beyond the control of Bayer CropScience Pty Ltd, all mixtures should be tested prior to mixing commercial quantities. As changes in climatic conditions can alter the sensitivity of plants to mixtures of sprays, Bayer CropScience cannot be responsible for the behaviour of such mixtures.

DO NOT mix spraying oils, wetting agents or surfactants with this product. The addition of these does not improve this product's effectiveness and under some conditions may cause plant injury.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

This product is harmful to fish. DO NOT contaminate ponds, dams, waterways or ditches with product or used container. DO NOT reuse the container for any other purpose.

DRIFT WARNING

DO NOT apply under weather conditions, or from spraying equipment, which could be expected to cause spray to drift onto adjacent crops, crop lands, pastures or livestock.

STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. 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, 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

Attacks eyes and skin. Avoid contact with eyes and skin. Do not inhale spray mist. Repeated exposure may cause allergic disorders. Sensitive workers should use protective clothing. When preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist, washable hat, elbow-length PVC gloves, goggles and disposable face mask. If clothing becomes contaminated with product or wet with spray remove clothing immediately. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. 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, goggles and contaminated clothing.

FIRST AID

If poisoning occurs contact a doctor or Poisons Information Centre (telephone 13 11 26). If swallowed, do NOT induce vomiting. Give a glass of water.

MATERIAL SAFETY DATA SHEET

Additional information is listed in the Material Safety Data Sheet, which can be obtained from www.bayercropscience.com.au.

EXCLUSION OF LIABILITY

This product must be used strictly as directed, and in accordance with all instructions appearing on the label and in other reference material. So far as it is lawfully able to do so, Bayer CropScience Pty Ltd accepts no liability or responsibility for loss or damage arising from failure to follow such directions and instructions.

APVMA Approval No. 45008/1004

FOR 24 HOUR SPECIALIST ADVICE
IN EMERGENCY ONLY
PHONE 1800 033 111

DIRECTIONS FOR USE

Restraints

DO NOT mix spraying oils, wetting agents or surfactants with this product.

For all stone fruit except cherries, the following additional restraints apply:

Do not use oils after bud-swell and during the season if Bayer Chlorothalonil is to be used after shuck fall.

Do not tank mix Bayer Chlorothalonil with EC formulations when spraying after shuck fall.

Do not exceed 4.6 L of Bayer Chlorothalonil 500 SC per hectare of crop.

TREE AND VINE CROPS

| RATE | | | | CRITICAL COMMENTS |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|--------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| In the following table, all rates given are for dilute spraying . For concentrate spraying , refer to the Mixing/Application section. | | | | |
| CROP | DISEASE | RATE | WHP (days) | |
| Almonds (NOT Qld or NT) | Shot hole, stone fruit rust | 230 mL/100 L | - | Apply at bud-swell, bud-burst, shuck fall, cap fall. Apply every 10-14 days. Apply 1 week pre-harvest. |
| Apricots (NOT Qld or NT) | Blossom blight, brown rot - fruit | | 7 | Apply at bud-swell, bud-burst, pink bud, full bloom. Apply no later than 35 days pre-harvest. See also Additional Restraints for stone fruits. |
| | Freckle, shot-hole, stone fruit rust | | | Apply at bud-swell, bud-burst, pink bud, shuck fall, cap fall, then every 10-14 days. Apply no later than 35 days pre-harvest. See also Additional Restraints for stone fruits. |
| | Transit rot | | Apply 7 days pre-harvest. See also Additional Restraints for stone fruits. | |
| Cherries | Blossom blight, brown rot – fruit | 230 mL/100 L | | Apply at bud-swell, bud-burst, pink bud, early blossom, full bloom. Apply 3 weeks pre-harvest and 1 week pre-harvest. |
| | Shot-hole, stone fruit rust | | | Apply at bud-swell, bud-burst, pink bud, shuck fall, cap fall, then apply every 10-14 days. Apply 1 week pre-harvest. |
| | Transit rot (<i>Rhizopus stolonifer</i>) | | | Apply 1 week pre-harvest. |
| Grapes (Note - russetting of some table grape varieties may occur) | Bunch rot, downy mildew | 230 - 300 mL/100 L | Dessert 7 Wine 14 | Spray at first appearance of the foliage disease. Apply at 7-14 day intervals particularly during wet weather and periods of rapid growth. For bunch rot, applications at early full bloom, two weeks later, at veraisson and two weeks prior to harvest. Table grapes - russetting of some varieties may occur. Use only up to cap fall on these varieties. |
| | Black spot | 300 mL/100 L | | If black spot has occurred in the vineyard in any of the last three years, apply at budburst and 14 days later when shoots are 10-15 cm long. If wet/humid conditions persist spray again when shoots are 20-30 cm long to protect new growth. Some initial minimal leaf damage on the new shoots of sensitive varieties can occur if spray treatments are applied at budburst and in the first 14 days after budburst. In vineyards with no history of black spot, spray only at the first appearance of the disease on foliage and then 7-14 day intervals if wet/humid conditions persist. Applications up to cap-fall will not cause russetting in table grape and dried fruit varieties. |
| Nectarines | Shot-hole (NSW, ACT, Vic, Tas, SA, WA ONLY) | 230 mL/100 L | 7 | Apply at bud-swell, pink bud, shuck fall and then repeat each 14 days if weather conditions favour disease. Apply no later than 35 days pre-harvest. See also Additional Restraints for stone fruits. |
| | Blossom blight, brown rot - fruit (NSW, ACT, Tas, WA ONLY) | | | Apply at bud-swell, bud-burst, pink bud, early blossom and full bloom. Apply no later than 35 days pre-harvest. See also Additional Restraints for stone fruits. |

TREE AND VINE CROPS (continued)

| RATE | | | | CRITICAL COMMENTS |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CROP | DISEASE | RATE | WHP (days) | |
| In the following table, all rates given are for dilute spraying . For concentrate spraying , refer to the Mixing/Application section. | | | | <p>For all uses in this table: 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. For concentrate spraying, DO NOT use greater than a 5X concentration factor.</p> <p>Apply at bud-swell, pink bud, early blossom and full bloom. Apply no later than 35 days pre-harvest. See also Additional Restraints for stone fruits.</p> <p>Apply at bud-swell and continue at 7-14 day intervals. Apply no later than 35 days pre-harvest. See also Additional Restraints for stone fruits.</p> <p>Apply at bud-swell and continue at 7-14 day intervals. In Qld spray only at bud-swell. Apply no later than 35 days pre-harvest. See also Additional Restraints for stone fruits.</p> <p>Apply at bud-swell, bud-burst, early blossom, pink bud and full bloom. Apply no later than 35 days pre-harvest. See also Additional Restraints for stone fruits.</p> <p>Apply at bud-swell, bud-burst, shuck fall and cap fall. Apply no later than 35 days pre-harvest. See also Additional Restraints for stone fruit.</p> |
| Peaches | Blossom blight, brown rot - fruit | 230 mL/100 L | 7 | |
| | Shot-hole, stone fruit rust | | | |
| | Leaf curl | | | |
| Plums | Blossom blight, brown rot - fruit | 230 mL/100 L | 1 | |
| | Shot-hole, stone fruit rust | | | |

NON TREE AND VINE CROPS

| CROP | DISEASE | RATE | WHP (days) | CRITICAL COMMENTS |
|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Artichokes - globe (Qld, WA ONLY) | Grey mould | 2.6 - 3.3 L/ha | 1 | Apply at 7-10 day intervals. Use higher rate if disease pressure is high. |
| Bananas (DO NOT apply to bananas within 14 days of applying an oil based spray or crop damage will occur) | Leaf spot | 2.6 L/ha (Qld, NSW ONLY) | 1 | <p>For North Qld: Spray every 14 days late January to end of March. Extend to 21 days after March and then 28-35 days in the drier months of the year.</p> <p>For South Qld: Spray every 21 days from start of December to end of April.</p> <p>For WA: Spray every 10-14 days from November to end of May and extend to 14-21 days from May to November.</p> <p>For NSW: Spray every 21 days from end of November to end of May.</p> <p>Spray schedule same as for control of leaf spot. Bayer Chlorothalonil 500 SC will not eradicate infection already present but will prevent the spread of disease.</p> |
| | | 2.2 L/ha (WA ONLY) | | |
| | Leaf speckle (Qld, NSW, WA, NT ONLY) | 4.3 L/ha | | |
| Beans - broad (faba) (Tas, WA ONLY) | Chocolate spot, rust | 2 - 3.3 L/ha | 7 | Apply at first sign of disease on the leaves or if weather conditions indicate likely incidence of disease. Repeat at 7-14 day intervals. Use the higher rate if the crop is dense and disease pressure is high. |
| Broccoli, Brussels sprouts, cabbages, cauliflowers | Ring spot | 2.5 - 5 L/ha | 7 | Apply at first sign of disease on the leaves or if weather conditions indicate likely incidence of disease. Repeat at 14 day intervals. Use higher rate if disease pressure is high. |
| Capsicums, peppers (Qld, WA ONLY) | Anthracnose (<i>Colletotrichum acutatum</i>), grey mould (<i>Botrytis cinerea</i>) | 2.6 - 3.3 L/ha | 1 | Apply at 7-10 day intervals as required. Use the higher rate if disease pressure is high. |
| Carrots | Leaf blight (<i>Alternaria dauci</i>) | 2.6 L/ha or 230 mL/100 L | 7 | Commence application at first sign of disease and then spray every 7-14 days. |
| Celery | Late blight | 2.6 L/ ha | 1 | Apply every 7-14 days. Apply also to seed beds. |
| | Septoria leaf spot (<i>Septoria apiicola</i>) | or 230 mL/100 L | | |
| | Cercospora early blight (<i>Cercospora apii</i>) (NSW, ACT, WA ONLY) | 1.8 L/ha | | |

NON TREE AND VINE CROPS (continued)

| CROP | DISEASE | RATE | WHP (days) | CRITICAL COMMENTS |
|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cucurbits (including cantaloupe, cucumber, honeydew, muskmelon, pumpkin, squash, rockmelon, watermelon, zucchini) | Anthracnose, downy mildew, gummy stem blight, leaf blight (<i>Alternaria cucumerina</i>), target leaf spot (<i>Cercospora citrullina</i>) | 2.4 - 3.6 L/ha | 1 | Apply on a 7-14 day schedule. Apply rates towards the higher end of the recommended range at 7 day intervals when disease pressure is high. Commence spray program early, at first true leaf and before vining or flowering. When used at these rates, Bayer Chlorothalonil 500 SC will suppress powdery mildew. |
| | Belly rot | | | If applying Bayer Chlorothalonil 500 SC for the above foliar diseases suppression of belly rot will be obtained where fruit form on soil covered by earlier recent Bayer Chlorothalonil 500 SC spraying. |
| Endive (Qld, WA ONLY) | Grey mould | 2.6 - 3.3 L/ha | 1 | Apply at 7-10 day intervals as required. Use higher rate if disease pressure is high. |
| Leeks, shallots (Qld, WA ONLY) | Purple blotch (<i>Alternaria porri</i>) | 2.6 - 3.3 L/ha | 1 | Apply at first appearance of disease. Repeat at 7-10 day intervals, particularly during wet weather. |
| Okra (Qld, WA ONLY) | Leaf disease/spot | 2.6 - 3.3 L/ha | 1 | Apply at first appearance of disease. Repeat at 7 to 10 day intervals. |
| Onions (excluding spring onions) | Downy mildew | 3.3 L/ha | 14 | Apply at first sign of disease on the leaves or if weather conditions indicate likely incidence of disease. Repeat at 14 day intervals. |
| Ornamentals, chrysanthemums, geraniums, iris and other ornamentals (Tas, WA ONLY) | Alternaria leaf spot diseases, Botrytis, grey mould, rust diseases, Septoria | 150 mL/100 L | - | Apply at 7-14 day intervals. Use 7 days under severe conditions. Avoid application to blooms in azalea, hydrangea and petunia. |
| Peanuts (Qld, NSW, WA, NT ONLY) | Early leaf spot, late leaf spot, net blotch, peanut rust, peppery leaf spot (<i>Leptosphaerulina trifolii</i>) | 1.6 - 2.6 L/ha or 140 - 230 mL/100 L | - | Use higher rate when conditions favour leaf spot or when rust appears. DO NOT feed peanut vines to livestock. NSW AND WA ONLY: Commence application when disease first appears and repeat as necessary to maintain control. Qld ONLY: NORTH AND SOUTH BURNETT: Commence spraying when disease appears and repeat when rain and warm moist nights are expected. ATHERTON TABLELANDS: Commence spraying 4-6 weeks after planting and repeat at 7-14 day intervals depending on conditions. |
| Peas (Tas, WA ONLY) | Downy mildew | 1.6 - 2.6 L/ha | 7 | Apply at first sign of disease on the leaves or if weather conditions indicate likely incidence of disease. Repeat at 7-14 day intervals. Use the higher rate if the crop is dense and disease pressure is high. |
| Potato | Early blight or target spot | 1.6 - 2.6 L/ha | - | Spray at first sign of foliage disease or at flowering time, whichever is earlier. Spray every 7-14 days until within 14 days of desiccation or harvest. |
| | Late blight or Irish blight | | | |
| Radish (Qld, WA ONLY) | Grey mould (<i>Botrytis cinerea</i>) | 2.6 - 3.3 L/ha | 1 | Apply at 7-10 day intervals as required. Use higher rate if disease pressure is high. |
| Rhubarb (NSW, ACT, WA ONLY) | Ascochyta leaf spot (<i>Ascochyta rhei</i>) | 200 mL/100 L Apply 2000 L/ha | 7 | Apply every 10-14 days. |
| Sweet corn (Qld, WA ONLY) | Turcicum leaf blight (<i>Exserohilum turcicum</i>) | 2.6 - 3.3 L/ha | 1 | Apply at first appearance of disease. Repeat at 7-10 day intervals. |
| Tobacco (Qld, WA ONLY) | Tobacco leaf spot (<i>Ascochyta arida</i>) | 320 mL/100 L | - | Apply every 7 days in seed bed application only. |

NON TREE AND VINE CROPS (continued)

| CROP | DISEASE | RATE | WHP (days) | CRITICAL COMMENTS |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tomato | Botrytis rot or grey mould, early blight or target blight, (<i>Alternaria solani</i>), grey leaf spot, (<i>Stemphylium solani</i>), leaf mould (<i>Fulvia fulva</i>) | 2.6 - 3.3 L/ha or 230 - 300 mL/100 L | 1 | Spray at first appearance of the foliage disease. Spray at 7-14 day intervals. Continue into the picking season to obtain best results against leaf mould and Botrytis rot. |
| Turf & lawns, bowling greens, golf greens | Dollar spot (Qld, NSW, ACT, Vic, SA, WA ONLY) | 190 - 300 mL /100 m ² in 20 - 60 L of water | - | Use higher rate when disease is already established. Apply at 7-14 day intervals. Treated area – Do not mow or water until turf is thoroughly dry. |
| | Brown patch | | | |
| | Grey leaf spot (<i>Pyricularia grisea</i>) (NSW, ACT ONLY) | 35 L/ha | | Apply to the leaf as a curative application. DO NOT irrigate for 24 hours after application. |
| Watercress (Qld, WA ONLY) | Cercospora leaf spot | 2.6 - 3.3 L/ha | 1 | Apply at 7 to 10 day intervals as required. Use higher rate if disease pressure is high. |

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

WITHHOLDING PERIODS

Almonds, potatoes, peanuts (harvest), tobacco: NOT REQUIRED WHEN USED AS DIRECTED

Artichokes, bananas, capsicum, celery, cucurbits, endive, leek, okra, peppers, plums, radish, shallot, sweet corn, tomatoes, watercress: DO NOT HARVEST FOR 1 DAY AFTER APPLICATION

Apricots, broccoli, Brussels sprouts, cabbages, carrots, cauliflowers, cherries, broad (faba) beans, nectarines, peaches, peas, rhubarb, table (dessert) grapes: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION

Onions, wine grapes: DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION

Turf: DO NOT GRAZE OR CUT FOR STOCK FEED

Beans, peanuts, peas: DO NOT GRAZE LIVESTOCK ON TREATED CROPS