

Product Name: Surefire Crossover WG Fungicide
APVMA approval No: 91395/132095



Label Name:	Surefire Crossover WG Fungicide
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Signal Headings:	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
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Constituent Statements:	ACTIVE CONSTITUENTS: 375 g/kg CYPRODINIL 250 g/kg FLUDIOXONIL
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Mode of Action:	GROUP 9 12 FUNGICIDE
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Statement of Claims:	For the control of various fungal diseases in Cucumber, Grapes, Green Beans, Green Peas, Leafy Vegetables, Lettuce, Garlic, Strawberries, Alliums, Capsicum, Cut flowers, Nursery stock and Ornamentals, Onions and Pyrethrum as specified in the DIRECTIONS FOR USE table.
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Net Contents:	1 kg - 20 kg
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Restraints:	This section contains file attachment.
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Directions for Use:	This section contains file attachment.
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Other Limitations:	
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Withholding Periods:	WITHHOLDING PERIODS: HARVEST Strawberries, Cucumbers:
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	<p>DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION</p> <p>Capsicum, Green Beans, Lettuce, Leafy Vegetables, Onions, Alliums: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION</p> <p>Green Peas: DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION</p> <p>Grapes: DO NOT HARVEST FOR 4 WEEKS AFTER APPLICATION</p> <p>Nursery stock (non-food), Ornamentals and Cut Flowers: NOT REQUIRED WHEN USED AS DIRECTED</p> <p>GRAZING</p> <p>Green Beans, Green Peas:</p> <p>DO NOT FEED GREEN BEAN OR GREEN PEA FORAGE OR FODDER TO LACTATING DAIRY ANIMALS PRODUCING MILK FOR HUMAN CONSUMPTION</p>
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Trade Advice:	<p>Export Wine</p> <p>Where this product will be used on grapes that will be used to produce wine destined for export markets, seek advice from the Australian Wine Research Institute or PCT Holdings to ensure the wine will meet the requirements of the intended importing country.</p>
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General Instructions:	<p>GENERAL INSTRUCTIONS</p> <p>SUREFIRE CROSSOVER is a water dispersible granule prepack mixture of cyprodinil and fludioxonil. Cyprodinil is systemic compound that is taken up into the cuticle and waxy layers of leaves and fruit. From there it is distributed and penetrates into other parts of the plant. Fludioxonil is the residual component of the mixture and stays mainly on the leaf and fruit surfaces.</p> <p>Application</p> <p>Ground Application Only: Ensure thorough coverage of foliage and fruit (or bunches) using equipment delivering a MEDIUM spray quality. Ensure that the correct amount of SUREFIRE CROSSOVER is applied per hectare irrespective of water application rate per hectare.</p> <p>Dilute Spraying</p> <p>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 runoff. 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 Direction 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.</p> <p>Concentrate Spraying</p> <p>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. 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) 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:</p> <p>Example Only</p> <ol style="list-style-type: none"> 1. Dilute spray volume as determined above: for example 1000 L/ha 2. Your chosen concentrate spray volume: for example 400 L/ha 3. The concentration factor in this example is: $2.5 \times$ (ie $1000 \text{ L} \div 400 \text{ L} = 2.5$) 4. If the dilute label rate is 80 g/100 L, then the concentrate rate becomes 2.5×80, that is 200 g/100 L of concentrate spray. <p>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 further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.</p> <p>Mixing</p>
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SUREFIRE CROSSOVER is a water dispersible granule (WG) fungicide that mixes readily with water. Partly fill the spray tank with water. Start the agitation and add the correct amount of product to the spray tank with the agitation system running. Continue agitation while topping up the spray tank with water. Add a non-ionic surfactant at registered rates (where required) at the completion of filling of the spray tank. Continue agitation while spraying.

- Tank Mixing: When mixing SUREFIRE CROSSOVER and other water dispersible granule (WG) or wettable powder (WP) formulations, ensure they are added and mixed well prior to adding emulsifiable concentrate (EC) or suspension concentrate (SC) products. Wettable powder (WP) formulations should be pre-mixed separately and then added to the spray tank.

COMPATIBILITY

As formulations of other manufacturer's products are beyond the control of PCT Holdings Pty Ltd, all mixtures should be tested prior to mixing commercial quantities. SUREFIRE CROSSOVER may not be compatible with chlorothalonil.

TO AVOID CROP DAMAGE

Nursery stock and cut flowers: This product has demonstrated toxicity under certain situations, application methods, application rates and weather conditions to nursery stocks including Impatiens, New Guinea Impatiens, Geraniums, Ferns, Anemone, Begonia, Kalanchoe, Saint Paulia and Exacum affine. This product may also leave undesirable spray residue on foliage and flowers. It is recommended that users treat a sample number of plants or a small area prior to whole crop treatment and monitor any phytotoxic effects that will compromise production goals. This action cannot guarantee crop safety as application, environmental and crop conditions may vary from test treatment to whole of crop treatment.

Resistance Warning:

Fungicide Resistance Warning GROUP 9 12 FUNGICIDE

SUREFIRE CROSSOVER WG Fungicide is a combination of an anilinopyrimidine and a phenylpyrrole fungicide. For fungicide resistance management, SUREFIRE CROSSOVER is both a Group 9 and a Group 12 fungicide. Some naturally occurring individual fungi resistant to SUREFIRE CROSSOVER and other Group 9 and Group 12 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 this product or other Group 9 and Group 12 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 PCT Holdings Australia Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant fungi.

RESISTANCE MANAGEMENT

In order to minimise the likelihood of the development of fungicide resistance, it is recommended that SUREFIRE CROSSOVER be used in a program incorporating all available forms of crop protection. SUREFIRE CROSSOVER should be applied as part of a protective spray program using fungicides from different mode of action group/s. Alternating or mixing fungicides with different modes of actions is a recognised disease resistance management strategy. DO NOT wait until disease levels have built up before commencing applications as this reduces the effectiveness of control and increases the risk of resistance development. Disease control may be reduced if strains of pathogens less sensitive to SUREFIRE CROSSOVER WG Fungicide develop.

SUREFIRE CROSSOVER WG Fungicide should be applied as specified in the Directions for Use in association with the following CropLife Fungicide Resistance Management Strategies:

Grapes: If 3 or fewer bunch rot sprays are applied in a season, use only 1 spray containing a Group 9 fungicide. If 4 or more bunch rot sprays are applied in a season, use a maximum of 2 sprays containing a Group 9 fungicide.

Capsicum, cucumbers and strawberries: If 3 or fewer Botrytis fungicide sprays are applied per crop, use only 1 spray containing a Group 9 fungicide. If 4 to 6 sprays are applied per

	<p>crop use a maximum of 2 sprays containing a Group 9 fungicide. If 7 or more sprays are applied per crop use a maximum of 3 sprays containing a Group 9 fungicide.</p> <p>Note: In the absence of an established resistance management strategy for a particular crop/disease situation, it is recommended that:</p> <ul style="list-style-type: none"> • The use of fungicides from any given activity group (excluding Group M) be limited to a maximum of 1/3 of the total number of fungicide applications per crop. • A maximum of 2 consecutive applications of SUREFIRE CROSSOVER are to be applied, including from one season/crop to the next.
Precautions:	<p>PRECAUTION</p> <p>Re-entry Period: Do not enter treated areas until the spray has dried unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.</p> <p>INTEGRATED PEST MANAGEMENT Based on the available information it cannot be ruled out that SUREFIRE CROSSOVER may have an adverse effect on beneficial invertebrates where integrated pest management is practiced.</p>
Protections:	<p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT Very toxic to aquatic life. DO NOT contaminate wetlands or watercourses with this product or used containers. DO NOT apply if heavy rains are imminent. DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto adjacent areas, particularly wetlands, water bodies, or watercourses.</p>
Storage and Disposal:	<p>STORAGE AND DISPOSAL Store in the closed, original container in a cool, dry, well ventilated area, out of direct sunlight.</p> <p>Triple-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 deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. DO NOT burn empty containers or product.</p>
Safety Directions:	<p>SAFETY DIRECTIONS Harmful if inhaled or swallowed. May irritate the nose and throat. Will irritate the eyes. Repeated exposure may cause allergic disorders. Avoid contact with eyes. DO NOT inhale dust or spray mist. When opening the container and preparing spray or dip, and using the prepared spray or dip wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), elbow length chemical resistant gloves and face shield or goggles If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves and contaminated clothing.</p>
First Aid Instructions:	<p>FIRST AID If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26, New Zealand 0800 764 766.</p>
First Aid Warnings:	

DIRECTIONS FOR USE

CROP/SITUATION	DISEASE	RATE	CRITICAL COMMENTS
Capsicum (open field only)	Botrytis rot (<i>Botrytis cinerea</i>) Sclerotinia rot (<i>Sclerotinia minor</i> or <i>S. sclerotiorum</i>)	100 g/100 L OR 1 kg/ha	Apply prior to or at onset of disease development. Do not apply more than two (2) applications per crop per season with an interval of 7 to 14 days between applications. Use the shorter spray interval under high disease pressure or when continual wet, cloudy conditions favour disease development.
Cucumber	Grey Mould (<i>Botrytis cinerea</i>)	800 g to 1 kg/ha	Apply SUREFIRE CROSSOVER prior to or at the onset of disease. Repeat applications at 7 to 10 day intervals if conditions continue to remain favourable for disease development. Use a 7 day spray interval and high rate under high disease pressure or where conditions are conducive for disease development. DO NOT apply more than 3 applications of SUREFIRE CROSSOVER per crop.
Cut Flowers	Botrytis rot	80 g/100 L or 800 g/ha plus 0.02% non-ionic surfactant	Monitor environmental conditions to determine time of application. Apply before disease appears when conditions favour infection. Apply by low or high volume spray. Apply a maximum of two (2) applications within an annual production cycle. For resistance management this product should be form part of a disease management strategy. Refer <i>Crop Damage/Phytotoxicity</i> .
Grapes (except grapes grown for dried fruit production)	Grey Mould (Bunch Rot) (<i>Botrytis cinerea</i>)	Dilute Spraying 80 g/100 L Concentrate Spraying 800 g/ha	DO NOT apply more than 2 applications of SUREFIRE CROSSOVER per season. Applications can be made at 5% capfall, 80% capfall, pre-bunch closure or veraison. 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. DO NOT use at rates greater than 200 g/100 L of water. This use is subject to a CropLife fungicide resistance management strategy (see Resistance Management).
Green beans	Grey Mould (<i>Botrytis cinerea</i>) Sclerotinia (<i>Sclerotinia minor</i> and <i>Sclerotinia sclerotiorum</i>)	800 g to 1 kg/ha	Apply SUREFIRE CROSSOVER prior to or at the onset of disease. Apply a second application 7 to 10 days later if conditions continue to remain favourable for disease development. Use a 7 day spray interval and high rate under high disease pressure or where conditions are conducive for disease development. DO NOT apply more than 2 consecutive applications of SUREFIRE CROSSOVER, with no more than 3 applications of SUREFIRE CROSSOVER per crop.
Green peas Including Garden peas, Snow peas and Sugar Snap peas	Grey Mould (<i>Botrytis cinerea</i>) Sclerotinia (<i>Sclerotinia minor</i> and <i>Sclerotinia sclerotiorum</i>)	800 g to 1 kg/ha	Apply SUREFIRE CROSSOVER prior to or at the onset of disease. Apply a second application 7 to 10 days later if conditions continue to remain favourable for disease development. Use a 7 day spray interval and high rate under high disease pressure or where conditions are conducive for disease development. DO NOT apply more than 2 applications of SUREFIRE CROSSOVER per crop.

CROP/SITUATION	DISEASE	RATE	CRITICAL COMMENTS
Leafy Vegetables (including spinach, silver beet, kale, endive, mustard, cress, chard, rocket, Asian leafy greens and Chinese cabbage)	Sclerotinia (<i>Sclerotinia minor</i> and <i>Sclerotinia sclerotiorum</i>)	800 g to 1 kg/ha	Apply SUREFIRE CROSSOVER prior to or at the onset of disease. Apply a second application 7 to 14 days later if conditions continue to remain favourable for disease development. Use a 7 day spray interval and high rate under high disease pressure or where conditions are conducive for disease development. DO NOT apply more than 2 applications of SUREFIRE CROSSOVER per crop.
Lettuce	Sclerotinia Rot (Lettuce Drop) <i>Sclerotinia minor</i> and <i>Sclerotinia sclerotiorum</i>	800 g to 1 kg/ha	Apply SUREFIRE CROSSOVER prior to or at the onset of disease. Best results are achieved using a preventative control program, with the first spray commencing soon after transplanting on a 7 to 14 day spray interval. Use a 7 day spray interval and high rate under high disease pressure or where conditions are conducive for disease development. DO NOT apply more than 2 applications of SUREFIRE CROSSOVER per crop.
	Grey Mould (Botrytis Rot) <i>Botrytis cinerea</i>		
	Anthrachnose (<i>Microdochium panattonianum</i>)	1 kg/ ha in a spray volume of 250 – 500 L water /ha	Apply prior to or at the onset of disease. Do not apply more than two (2) applications per crop per season with an interval of 7 to 14 days between applications. Use the shorter spray interval under high disease pressure or when continual wet, cloudy conditions favour disease development. Apply using boom-spray or similar equipment to deliver medium spray quality. Ensure spray application provides good coverage of plant foliage. Add a non-ionic surfactant at recommended rates. Apply in rotation with fungicide chemicals from other mode of action groups as part of a Resistance Management Program.
Nursery stock (non-food) and ornamentals (non-food) including seedlings, plugs, potted colour, trees, shrubs, foliage plants, palms, grasses and fruit trees (non-bearing)	Anthrachnose (<i>Colletotrichum</i> spp.) Grey mould, Rhizoctonia rot (<i>Rhizoctonia</i> spp.), Sclerotinia rot (<i>Sclerotinia</i> spp.)	80 g/100 L or 800 g/ha	Apply via calibrated boom or handheld sprayer when conditions favour disease development, prior to or at the first symptoms. Do not apply more than four (4) applications per crop at 10 to 14 day intervals. DO NOT apply more than two (2) consecutive applications before applying at least the same number of sprays from a different mode of action group. Refer <i>Crop Damage/Phytotoxicity</i> .

CROP/SITUATION	DISEASE	RATE	CRITICAL COMMENTS
Onions	Neck rot (<i>Botrytis alli</i>) Suppression: Black mould (<i>Aspergillus niger</i>)	800 g/ha to 1 kg/ha plus a registered rate of non- ionic surfactant	Apply SUREFIRE CROSSOVER at key timings for botrytis control prior to or at the onset of disease. Apply a second application 7 to 14 days after the initial application if conditions continue to remain favourable for disease development. Use a 7 day spray interval and high rate under high disease pressure or where conditions are favourable for disease development. Apply in sufficient water to ensure thorough and uniform coverage. Applications MUST be made with the addition of a non-ionic surfactant. DO NOT apply more than 2 applications of SUREFIRE CROSSOVER per crop.
Alliums including bulb onions, spring onions, shallots and garlic	Black Mould (<i>Aspergillus niger</i>), suppression only Grey Mould (<i>Botrytis cinerea</i>) suppression only		Apply prior to or at the onset of disease by foliar application with a boom spray or equivalent. Spray in sufficient volume to ensure thorough and uniform coverage. Do not apply more than two (2) applications per crop per season with an interval of 7 to 14 days between applications. Use the shorter spray interval under high disease pressure or when continual wet, cloudy conditions favour disease development. To avoid resistance, the product should be rotated with other approved fungicides from different chemical groups.
Pyrethrum (<i>Tanacetum cinerariifolium</i>) crops	Winter dieback complex (Ray blight; <i>Phoma ligulicola</i> and Tan spot (<i>Microsphaeropsis tanacetii</i>))	1 kg/ ha	Apply in a total spray volume of 400 L/ha. Do not apply more than two (2) applications per crop per season with an interval of 7 to 14 days between applications.
Strawberries	Crown and Petiole Rots (<i>Colletotrichum gloeosporioides</i>)	80 g/100 L water	Apply SUREFIRE CROSSOVER prior to or at the onset of disease. Repeat applications at 7 to 14 day intervals. Use the shorter interval when conditions favour disease development (wet and cloudy conditions). The rate suggested is for high volume dilute spraying to the point of "run-off". For concentrate spraying, adjust dilution rate accordingly. DO NOT exceed 800g/ha. Apply in sufficient water to ensure thorough and uniform coverage of foliage and plant crowns. DO NOT apply more than 3 applications of SUREFIRE CROSSOVER per crop.
	Grey Mould (<i>Botrytis cinerea</i>)		Commence a program of protectant fungicides during flowering (blossom) when conditions favour disease. Repeat applications of SUREFIRE CROSSOVER on a 7 to 10 day interval. Use the shorter interval when conditions favour disease development. The rate suggested is for high volume spraying to the point of "run-off". For concentrate spraying, adjust dilution rate accordingly. Apply in sufficient water to ensure thorough and uniform coverage of foliage and fruit. Reduce background levels of disease by removing infected plant debris and rotten fruit. This use is subject to a CropLife fungicide resistance management strategy. DO NOT apply more than 3 applications of SUREFIRE CROSSOVER per crop (see Resistance Management).

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

Restraints:

DO NOT apply by aircraft.

DO NOT apply by equipment carried on the back of the user.

DO NOT apply more than 2 applications per season.

SPRAY DRIFT RESTRAINTS

Specific definitions for terms used in this section of the label can be found at www.apvma.gov.au/spraydrift

DO NOT allow bystanders to come into contact with the spray cloud.

DO NOT apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

DO NOT apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application.

DO NOT apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise.

DO NOT apply by a boom sprayer unless the following requirements are met:

- Spray droplets not smaller than a MEDIUM spray droplet size category.
- Minimum distances between the application site and downwind sensitive areas (see 'Mandatory Buffer Zone section) are observed.

Application rate	Mandatory Downwind Buffer Zones
	Natural Aquatic Areas
Up to 1 kg/ha	30 metres

DO NOT apply by a vertical sprayer unless the following requirements are met:

- Spray is not directed above the target canopy
- The outside of the sprayer is turned off when turning at the end of rows and when spraying the outer row on each side of the application site.