



DuPont™ Fontelis® fungicide

Technical Information

Active Constituent:
200 g/L PENTHIOPYRAD

Pack Sizes:
5 L



READ SAFETY DIRECTIONS BEFORE OPENING OR USING

For the control of certain fungal diseases in fruit, nut and vegetable crops as per the Directions for Use

SAFETY DIRECTIONS

When opening the container, preparing and using the product wear cotton overalls (or equivalent clothing) buttoned to the neck and wrist and a washable hat. Wash hands after use. After each day's use wash contaminated clothing.

FIRST AID

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

SAFETY DATA SHEET

Additional information is listed in the Safety Data Sheet available from www.cropprotection.dupont.com.au

GENERAL INSTRUCTIONS

DuPont™ Fontelis® fungicide is a broad-spectrum fungicide, recommended for control of foliar and soil-borne plant diseases, and has preventive, and locally systemic activity. DuPont™ Fontelis® must be applied in a regularly scheduled protective spray program in rotation with other fungicides. See the Directions for use table for specific crop/disease recommendations.

FUNGICIDE RESISTANCE WARNING

For fungicide resistance management DuPont™ Fontelis® fungicide is a Group 7 fungicide.

Some naturally occurring fungal biotypes resistant to Fontelis® fungicide and other Group 7 fungicides may exist through normal genetic variability in any fungal population. The resistant individuals can eventually dominate the fungi population if Fontelis® fungicide and other Group 7 fungicides are used repeatedly. The effectiveness of Fontelis® fungicide on resistant individuals could be significantly reduced. Since the occurrence of resistant individuals is difficult to detect prior to use DuPont accepts no liability for any losses that may result from the failure of Fontelis® fungicide to control resistant fungi.



DuPont™ Fontelis® fungicide may be subject to specific resistance management strategies. To help prevent the development of resistance to Fontelis® fungicide, use Fontelis® fungicide in accordance with the current Fungicide Resistance Management

(FRAC) strategy for your region. For further information contact your farm chemical supplier, consultant, local Department of Agriculture or Primary Industries, or local DuPont Representative.

MIXING

Fill spray tank to ¼ to ½ full of water. Measure the amount of Fontelis® fungicide required for the area to be sprayed. Add Fontelis® fungicide directly to the spray tank with the agitation engaged. Mix thoroughly to disperse the fungicide. Once dispersed, the material must be kept in suspension at all times by continuous agitation. Use mechanical or hydraulic means, **DO NOT** use air agitation, premix or slurry.

If spray solution is left standing, ensure thorough re-agitation of the spray mix until fully resuspended. **DO NOT** allow spray mix to sit overnight, as resuspension may be difficult.

SURFACTANT/WETTING AGENT

Use of a surfactant/wetting agent is not required.

APPLICATION

Use a sprayer fitted with high flow rate nozzles to apply the highest practical spray volume. Use sufficient water to obtain thorough coverage of plants, with a minimum 110 L/ha.

Nozzles with higher rated flows produce larger droplets. Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size, DOES NOT improve canopy penetration and may increase drift potential. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE. Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. For orchard/vineyard sprayers avoid directing spray above trees and always turn-off outward pointing nozzles at row ends and outer rows.

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 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.
- Always apply sufficient water to cover the crop to the point of runoff, otherwise under dosing will occur and disease control may be inadequate.

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 1500 L/ha
 2. Your chosen concentrate spray volume: For example 500 L/ha
 3. The concentration factor in this example is : 3 times (i.e. 1500 L divided by 500 L = 3)
 4. If the dilute label rate is 150 g/100 L, then the concentrate rate becomes 3 x 150, that is, 450 g/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 further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.

Compatibility

DuPont™ Fontelis® is compatible with many commonly used fungicides, liquid fertilisers, herbicides, insecticides, and biological control products. However, since the formulations of products are always changing, it is advisable to test the physical compatibility of desired tank mixes and check for adverse effects like settling out or flocculation. To determine the physical compatibility, add the recommended proportions of the tank mix products to water, mix thoroughly and allow to stand for 20 minutes. If the combination remains mixed, or can be re-mixed readily, it is considered physically compatible. DuPont™ Fontelis® is compatible with Altacor®, Avatar®, mancozeb, Polyram* and Systhane*.

The crop safety of all potential tank-mixes, including additives and other pesticides, on all crops has not been tested. Before applying any tank-mix not specifically recommended on this label or other DuPont supplemental labelling, the safety to the target crop must be confirmed. To test for crop safety, apply the combination to a small area of the target crop in accordance with the label instructions to ensure that a phytotoxic response will not occur.

DuPont™ Fontelis® contains a percentage of mineral oil in the formulation which may predispose oil sensitive products such as Captan* to crop damage if they are not applied according to the restrictions referring to summer oils on their label.

The mixing sequence recommended is: water soluble bags, dry flowable or water dispersible granules, wettable powders, water based suspension concentrates, water soluble concentrates, oil based suspension concentrates (Fontelis®), emulsifiable concentrates, adjuvants and surfactants, soluble fertilisers.

Spray Equipment Cleanout

Prior to application, start with clean, well-maintained application equipment. Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove. Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom, and nozzles with clean water.

Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. **DO NOT** clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

IMPORTANT: Not all crops within a crop group, and not all varieties, cultivars or hybrids of crops, have been individually tested for crop safety. To test for crop safety, apply the product in accordance with the label instructions to a small area of the target crop to ensure that a phytotoxic response will not occur, especially where the application is a new use of the product by the applicator.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Very toxic to aquatic life. **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.

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 for appropriate disposal 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.

**IN A MEDICAL EMERGENCY CALL
1800 674 415 All hours**

RE-ENTRY

DO NOT allow entry into treated areas until the spray has dried. When prior entry is necessary, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), chemical resistance gloves and footwear. Clothing must be washed after each day's use.

NOTICE TO BUYER

To the extent permitted by the Competition and Consumer Act (2010) or any relevant legislation of any State or Territory (the "Legislation") all conditions and warranties and statutory or other rights of action, whether arising in contract or tort or whether due to the negligence of DuPont or Seller, which buyer or any other user may have against DuPont or Seller are hereby excluded provided however that any rights of the buyer pursuant to non excludable conditions or warranties of the Legislation are expressly preserved. DuPont hereby gives notice to buyer and other users that to the extent permitted by the Legislation it will not accept responsibility for any indirect or consequential loss of whatsoever nature arising from the storage, handling or use of this Product. Where permitted by the Legislation DuPont's liability shall in all circumstances be limited to the replacement of the product, or a refund of the purchase price paid therefor.

The Product must be used and applied strictly in accordance with the label instructions and other directions for use. It is impossible to eliminate all risks associated with the use of this product. Such risks may arise from factors such as weather conditions, soil factors, off target movement, unconventional technique, presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of DuPont or the Seller. Buyer accepts these risks.

APVMA Approval Number: 65510/109983

RESTRAINTS:

DO NOT apply if rainfall is expected within 1 hour of application.

DO NOT use on hydroponic crops.

DO NOT apply by air.

SPRAY DRIFT RESTRAINTS

Except when applying with orchard/vineyard airblast equipment, **DO NOT** apply with spray droplets smaller than a MEDIUM spray droplet size category according to nozzle manufacturer specifications that refer to the ASAE S572 Standard or the British Crop Production Council guideline.

DO NOT apply during surface temperature inversion conditions at the application site.

DO NOT apply when wind speed is less than 3 or more than 20 km per hour are measured at the application site.

DO NOT direct the spray above trees during airblast applications.

TURN OFF outward pointing nozzles at row ends and outer rows during airblast applications.

Users of this product **MUST** make an accurate written record of the details of each spray application within 24 hours following application and **KEEP** this record for a minimum of 2 years.

The spray application details that must be recorded are:

1. date with start and finish times of application;
2. location address and paddock/s sprayed;
3. full name of this product;
4. amount of product used per hectare and number of hectares applied to;
5. crop/situation and weed/pest;
6. wind speed and direction during application;
7. air temperature and relative humidity during application;
8. nozzle brand, type, spray angle, nozzle capacity and spray system pressure measured during application;
9. name and address of person applying this product.

(Additional record details may be required by the state or territory where this product is used.)

MANDATORY NO-SPRAY ZONES

DO NOT apply if there are aquatic and wetland areas including aquacultural ponds, surface streams and rivers within the **mandatory no-spray zones** shown in Table 1 below.

Table 1: No-spray Zones for Protection of the Aquatic Environment	
FOR GROUND APPLICATION: BOOM APPLICATIONS	
Wind Speed Range at Time of Application	Downwind mandatory No-Spray Zone
3 to 20 kilometres per hour	10 metres
FOR GROUND APPLICATION: AIRBLAST APPLICATION	
3 to 20 kilometres per hour	Pome/Stone fruit orchards – 80 metres Tree nuts – 100 metres

For use in all States where appropriate for the crop and/or disease.

TREE AND FRUIT CROPS

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
<p>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. Refer to Application section of the label.</p> <p>Thorough fruit coverage is essential.</p> <p>Use in accordance with CropLife Fungicide Resistance Management Strategy guidelines.</p>				
Strawberry	<p>Grey mold (<i>Botrytis</i>) (<i>Botrytis cinerea</i>)</p> <p>Powdery mildew (<i>Sphaerotheca</i> spp.)</p>	175 mL/100 L 1.75 L/ha	Nil	<p>Begin applications prior to disease development and continue on a 7 to 10 day interval. Use shorter interval when disease pressure is high. DO NOT apply more than two (2) sequential applications of Fontelis™ fungicide or other Group 7 fungicides before switching to a fungicide with a different mode of action.</p> <p>Maximum seasonal use rate is 5.25 L/ha.</p>
<p>Pome fruit including:</p> <p>Apples, Nashi pears, Pears</p>	<p>Apple black spot (Scab) (<i>Venturia inaequalis</i>)</p> <p>Apple powdery mildew (<i>Podosphaera leucotricha</i>)</p> <p>Pear scab (<i>Venturia pirina</i>)</p>	<p>Dilute spraying: 75 mL/100 L</p> <p>Concentrate spraying: Refer to Mixing/ Application section</p>	28 days	<p>Protectant program:</p> <p>Begin applications prior to disease development and continue on a 7 to 21 day interval depending on the targeted diseases.</p> <p>Application interval for Apple black spot (Scab) and Pear scab is 7 to 10 days.</p> <p>Application interval for Powdery mildew is 14 to 21 days.</p> <p>Application intervals for Alternaria leaf blotch and Alternaria fruit spot are 10 to 14 days. Application for control of this disease should begin after blossom and during early fruit development to prevent establishment of the disease on the leaves. Use the shorter spray interval when weather conditions favour disease development.</p>
	<p>Alternaria leaf blotch and Alternaria fruit spot of apples (<i>Alternaria</i> spp.) (<i>Suppression only</i>)</p>			
<p>Stone fruits including:</p> <p>Apricots, Cherries, Nectarines, Peaches, Plums, Prunes (fresh)</p>	<p>Brown rot (Blossom blight) (<i>Monilinia</i> spp.)</p> <p>Scab (Freckle) (<i>Cladosporium carpophilum</i>, - <i>Venturia carpophila</i>)</p>	150 mL/100 L	Nil	<p>Begin applications prior to disease development and continue on a 7 – 14 day interval. Use higher rate and shorter interval when disease pressure is high.</p> <p>The use of Fontelis® fungicide is subject to a CropLife Australia Resistance Management Strategy. DO NOT apply more than two (2) sequential applications of Fontelis® fungicide or other Group 7 fungicides before switching to a fungicide with a different mode of action. DO NOT apply more than a total of three applications of Fontelis® fungicide or other Group 7 fungicides per season. Refer to Resistance Management Strategy in General Instructions for further details.</p> <p>DO NOT use a concentration factor greater than 3X, for concentrate application.</p>

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Tree nuts including: Almond, Chestnut, Filbert (Hazelnut)	Brown rot (Blossom blight) (<i>Monilinia</i> spp.)	150 mL/100 L	14 days	Begin applications prior to disease development and continue on a 7 to 14 day interval. Use shorter interval when disease pressure is high. The use of Fontelis® fungicide is subject to a CropLife Australia Resistance Management Strategy. DO NOT apply more than two (2) sequential applications of Fontelis® fungicide or other Group 7 fungicides before switching to a fungicide with a different mode of action. DO NOT apply more than a total of three applications of Fontelis® fungicide or other Group 7 fungicides per season. Refer to Resistance Management Strategy in General Instructions for further details DO NOT use a concentration factor greater than 3X, for concentrate application.
Macadamias	Husk spot (<i>Pseudocercospora macadamiae</i>)			Apply the first application at the match head stage of the crop and apply the second application 14 to 28 days later depending upon prevailing weather conditions. Under high disease pressure use the shorter spray interval. The use of Fontelis® fungicide is subject to a CropLife Australia Resistance Management Strategy. DO NOT apply more than 2 sequential applications of Fontelis® fungicide or other Group 7 fungicides before rotating to a fungicide with a different mode of action. DO NOT apply more than a total of 3 applications of Fontelis® fungicide or other Group 7 fungicides per season. Refer to Resistance Management Strategy in General Instructions for further details. DO NOT use a concentration factor greater than 3X, for concentrate application.

VEGETABLE CROPS

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Onions, Shallots, Spring onions	Botrytis blight and Neck rot (<i>Botrytis</i> spp.) Purple blotch (<i>Alternaria porri</i>)	1.75 L/ha	3 days	Begin applications prior to disease development and continue on a 7 to 14 day interval. DO NOT make more than 2 sequential applications of Fontelis® fungicide before switching to a fungicide with a different mode of action.
Brassica vegetables including: Broccoli, Brussels sprout, Cabbage, Cauliflower	White mould (Sclerotinia stem rot) (<i>Sclerotinia</i> spp.)		Nil	Maximum seasonal use rate is 5.25 L/ha.
Brassica leafy vegetables including: Buk choy, Chinese broccoli (Gai lum/Gai lan/Kai lan), Chinese cabbage (Pet sai/Wombok/Haksukai), Choy sum, Gai choy/Am soy Kai choy, Kale, Mizuna, Leafy mustard including Indian mustard and Mustard spinach (Komatsuna), Pak choy, Tat soy				

CROP	PEST	RATE	WHP	CRITICAL COMMENTS	
Cucurbit vegetables including: Bitter melon, Chokos, Cucumber, Gherkin, Marrow, Melons, Pumpkin, Squash, Zucchini	Grey mould (<i>Botrytis cinerea</i>) Powdery mildew (<i>Sphaerotheca fuliginea</i> , <i>Erysiphe cichoracearum</i>)	1.75 L/ha	1 day	Begin applications prior to disease development and continue on a 7 to 14 day interval. Use shorter interval when disease pressure is high.	DO NOT apply more than two (2) sequential applications of Fontelis® fungicide or other Group 7 fungicides before switching to a fungicide with a different mode of action. Maximum seasonal use rate is 3.5 L/ha.
	Gummy stem blight (<i>Didymella bryoniae</i>)			Begin applications prior to disease development and continue on a 7 - 10 day interval. Use shorter interval when disease pressure is high.	
Fruiting vegetables including (field and protected crops) including: Egg plants, Capsicums (Pepper), Chillies, Tomatillo, Tomatoes (field + greenhouse)	Early blight (<i>Alternaria solani</i>) Grey mould (<i>Botrytis cinerea</i>) Powdery mildew (<i>Leveillula taurica</i>)		Nil	Begin applications prior to disease development and continue on a 7 to 10 day interval. Use shorter interval when disease pressure is high. DO NOT apply more than two (2) sequential applications of Fontelis® fungicide or other Group 7 fungicides before switching to a fungicide with a different mode of action. Maximum seasonal use rate is 5.25 L/ha.	
Leafy vegetables including; Chinese cabbage, Endive, Fennel, Kale, Cress, Lettuce, Mustard, Silverbeet, Spinach	Sclerotina rot (Lettuce drop) (<i>Sclerotinia</i> spp.) Grey mould (<i>Botrytis cinerea</i>) Powdery mildew (<i>Erysiphe cichoracearum</i>)		3 days		
Root and Tuber vegetables including: Beetroot, Carrots, Celeriac, Galangal, Parsnips, Potatoes, Radish, Swedes, Sweet potato, Turnips	Early blight (Target spot, Leaf spot) (<i>Alternaria</i> spp.) Powdery mildew (<i>Erysiphe</i> spp.)		7 days	Begin applications prior to disease development and continue on a 7- to 14-day interval. Use shorter interval when disease pressure is high. DO NOT apply more than two (2) sequential applications of Fontelis® fungicide or other Group 7 fungicides before switching to a fungicide with a different mode of action. Maximum seasonal use rate is 3.5 L/ha.	

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

WITHHOLDING PERIODS

HARVEST

BRASSICA VEGETABLES, BRASSICA LEAFY VEGETABLES, FRUITING VEGETABLES (EXCLUDING CUCURBIT VEGETABLES), STONE FRUIT, STRAWBERRIES: NOT REQUIRED WHEN USED AS DIRECTED.

BULB VEGETABLES, LEAFY VEGETABLES (EXCEPT BRASSICA LEAFY VEGETABLES): DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION.

CUCURBIT VEGETABLES: DO NOT HARVEST FOR 1 DAY AFTER APPLICATION.

TREE NUTS: DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION.

POME FRUIT: DO NOT HARVEST FOR 28 DAYS AFTER APPLICATION.

ROOT AND TUBER VEGETABLES: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION.

GRAZING

DO NOT GRAZE OR CUT FOR STOCK FOOD.

EXPORT STATEMENT: Growers should note that suitable Maximum Residue Levels (MRLs) or import tolerances may not be established in all markets for produce treated with Fontelis® fungicide. If you are growing produce for export, please check with DuPont for the latest information on MRLs and export tolerances before using this product.

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