



The miracles of science™

DuPont™ Nustar® DF® fungicide

Technical Information

Active Constituent:
200 g/kg FLUSILAZOLE

Pack Sizes:
200 g

GROUP	C	FUNGICIDE
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POISON

KEEP OUT OF REACH OF CHILDREN

READ SAFETY DIRECTIONS BEFORE OPENING OR USING

For the curative and protective control of scab (Black Spot) of apples and pears and for the control of powdery mildew of apples and grapevines.

SAFETY DIRECTIONS

Attacks eyes and may irritate skin. Avoid contact with eyes and skin. **DO NOT** dust. Protect eyes whilst using. When using the product wear face shield or goggles. Wash hands after use. After each day's use, wash face shield or goggles and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre (Ph 13 11 26). If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor. For further information refer to the Material Safety Data Sheet.

GENERAL INSTRUCTIONS

Vine leaves are not to be used for human consumption.

FUNGICIDE RESISTANCE WARNING

GROUP	C	FUNGICIDE
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DuPont Nustar® DF® Fungicide is a member of the DMI group of fungicides. For fungicide resistance management Nustar® DF® is a Group C fungicide.

Some naturally occurring individual fungi resistant to Nustar® DF® and other Group C 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 Nustar® DF® and other Group C 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, DuPont accepts no liability for any losses that may result from the failure of Nustar® DF® to control resistant fungi.

Mixing Instructions

DuPont Nustar® DF® is a dry flowable formulation to be mixed with water and applied as a spray. Partially fill the spray tank with water. Using the DuPont Nustar® DF® measuring cone provided, measure the amount of DuPont Nustar® DF® required for the area to be sprayed. Add the correct amount of DuPont Nustar® DF® to the spray tank with the agitation system engaged. Top up to the correct volume of water. **THE MATERIAL MUST BE KEPT IN SUSPENSION AT ALL TIMES BY CONTINUOUS AGITATION.** In tank mixes, DuPont Nustar® DF® must be in suspension before adding the companion product.

Compatibility

DuPont Nustar® DF® is compatible with most commonly used insecticides and fungicides. **DO NOT** use with alkaline materials such as lime sulphur or Bordeaux mixture.

Wetting Agents

It is recommended that a suitable non-ionic wetting agent be added to DuPont Nustar® DF® sprays at the rate recommended by the manufacturer.

Application Volume

Application rates given for apples and pears are for high volume equipment. For high volume spraying, apply to ensure thorough coverage of foliage and fruit, but not to case run-off since Nustar® DF® will accumulate in orchard soils. The following spray volumes are offered as a guide to proper spraying of average sized trees at conventional planting intervals:

Stage	Dilute Volume/ha (average trees)
Green tip to petal fall	1500 to 2000 L
Petal fall to first cover spray	2000 to 2500 L
Full foliage	2500 to 3000 L

Integrated Pest Management Programmes

DuPont Nustar® DF® is not harmful to beneficial predatory mites.

PROTECTION OF LIVESTOCK

Low hazard to bees. May be applied at any time.

PROTECTION OF WILDLIFE, FISH, CRUSTACEA AND ENVIRONMENT

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

STORAGE AND DISPOSAL

Store in the closed, original container in a dry, well-ventilated area, as cool as possible out of direct sunlight. Rinse containers before disposal. Add rinsings to spray tank.

DO NOT dispose of undiluted chemicals on-site. Dispose of at 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.

IN A MEDICAL EMERGENCY CALL
1800 674 415 All hours

NOTICE TO BUYER

To the extent permitted by law all conditions and warranties and statutory or other rights of action which buyer or any other user may have against DuPont or Seller are hereby excluded. DuPont hereby gives notice to the buyer and other users that it will not accept responsibility for any indirect or consequential loss arising from reliance on product information or advice provided by DuPont or on its behalf unless it is established that the product has been used strictly as directed. DuPont's liability shall in all circumstances be limited to replacement of the product or a refund of the purchase price paid therefore.

APMVA Approval number: 30457/04

DIRECTIONS FOR USE

RESTRAINTS

DO NOT apply if rain is expected within 4 hours.

CROP	DISEASES	RATE	CRITICAL COMMENTS
Apples	Black Spot/Apple Scab (<i>Venturia inaequalis</i>)	10 g/100 L	Protectant programme: Apply at green tip and then every 10 – 14 days until the danger of Black Spot infection has passed. Use the shorter interval (10 days) if forecast weather conditions or high disease pressure favour infection. DO NOT exceed a 14 day spray interval. If changing to any other fungicide after using Nustar® DF®, spray within 7 days. Curative programme: DuPont Nustar® DF® will provide curative control for 5-6 days after commencement of an infection period. New infections commencing within 7 days of spraying DO NOT require re-treatment. Infections occurring more than 7 days after a curative spray application will require another curative spray. If changing to another fungicide after using DuPont Nustar® DF®, spray within 7 days depending upon weather conditions. If continuing with DuPont Nustar® DF® on a protectant programme retreatment is not needed for 10 – 14 days. Resistance Management Strategy: To prevent or delay the onset of resistance to Group C fungicides, DO NOT apply more than four Group C sprays alone per season. If more sprays are required, tank mix the Group C with a protectant product at the registered rate.
Pears	Black Spot/Scab (<i>Venturia pirina</i>)		
Apples	Powdery Mildew (<i>Podosphaera leucotrich</i>)	10 g/100 L or 15 g/100 L	Apply at pink tip and then every 10 - 14 days until terminal growth ceases. Use the higher rate and shorter interval under heavy disease pressure and on more susceptible varieties. On less susceptible varieties, or lightly infected trees, sprays may be omitted, or applied less often from December to March.
Grapevines	Powdery Mildew (<i>Uncinula necator</i>)	10 g/100 L or 50 g/ha (early season) or 75 - 100 g/ha (mid season)	Apply at the following times. 1. When shoots are 10 - 20 cm long. 2. Pre-flowering. 3. At flowering to early berry set. If environmental conditions continue to favour disease development apply a non Group C fungicide if necessary. If disease pressure is high use the higher rate Note: Application to White Frontignac grapes may lead to bunch constriction or tightening of the berries and an increased susceptibility to grey mould (<i>Botrytis cinerea</i>). Resistance Management Strategy: 1. Start disease control with Group C sprays when the vine shoots are approximately 20 cm long and continue spraying at intervals of no more than 21 days. 2. Apply no more than 3 Group C sprays per season. 3. When Group C products are used they should be applied for at least two consecutive applications. 4. Use a non-Group C fungicide for mid to late season control of powdery mildew.

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

WITHHOLDING PERIODS

APPLES, PEARS AND GRAPES - DO NOT APPLY LATER THAN 14 DAYS BEFORE HARVEST

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