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

# UNIZEB® 750 DF

# **FUNGICIDE**

**ACTIVE CONSTITUENT: 750 g/kg MANCOZEB** 

GROUP M3 FUNGICIDE

FOR THE CONTROL OF CERTAIN FUNGUS DISEASES OF, FIELD CROPS, VEGETABLES, FRUIT, TOBACCO, TURF AND ORNAMENTALS AS INDICATED IN THE DIRECTIONS FOR USE TABLE.

**Net Contents: 20 kg** 

# **UPL AUSTRALIA LIMITED**

ABN 76 066 391 384

Suite 416, Level 4, 14 Lexington Drive Norwest Business Park, Bella Vista NSW 2153

TELEPHONE (02) 8824 7277

FACSIMILE (02) 8814 6469

**APVMA Approval No. 61100/46478** 

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# Ancillary panel label

# **DIRECTIONS FOR USE**

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

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Crop	Disease	Rate/ 100 L	Rate/ Hectare	WITHHOLDING PERIOD Harvest (H)	Critical Comments		
				Grazing (G)			
FIELD CROPS  Cotton . Pima var. only	Alternaria leaf spot		2.5 kg	14 days (H)	To maximise control ensure thorough coverage of all plant surfaces. Begin applications as soon as disease symptoms appear. Repeat before each infection period but no later than 7 to 10 days after the last application. DO NOT apply more than 4 sprays per season.		
Peanuts	Cercospora leaf spot Rust	-	1.7 to 2.2 kg	14 Days (H) 14 days (G)	Apply at 10 to 14 day intervals commencing when disease symptoms first appear. Use the higher rate and shorter intervals during weather conditions favourable to disease development.		
Pulse crops (grown for dry beans), including but not limited to: Broadbeans Chickpeas Faba beans Field peas Lentils Lupins Vetches Faba beans Lupins	Ascochyta blight Blackspot Botrytis grey mould Chocolate spot Rust  Cercospora Anthracnose	-	1.0 to 2.2 kg	4 weeks (H) 14 days (G)	Spray when leaves, flowers or pods on plants first show signs of infection and weather conditions are likely to remain humid or wet and favour disease development. If disease pressure is severe and conditions favour spread of disease repeat sprays at 2 to 3 weeks to protect new growth and developing pods. Use higher rate for dense crops and if disease is severe and repeat more frequently if severe disease persists. For improved coverage and spray retention		
					add Spraymate Bond Adjuvant at 100 to 140 mL per 100 L of spray.		
Tobacco	Blue mould Brown spot Frog eye leaf spot	200 g	2.2 kg	Not required	Spray at 7 day intervals following a spray at transplanting. Spray to wet seedlings without runoff. Start spraying when plants are 1.5 cm across then twice weekly. Field treatments: Apply at 7 day intervals commencing 10 days after transplanting and ceasing 7 to 10 days before the first harvest.		
Poppies	Downy mildew	-	2.5 kg	7 weeks (H)	Apply as a protectant spray when weather conditions favour disease development. Repeat spray on 14 day intervals if conditions persist.		

Soybeans	Rust		2.2 kg	7 days (H) 14 days (G)	Commence spraying at first sign of disease and then at 7 to 10
					day intervals while warm, rainy weather conditions prevail.
VEGETABLES					Volume of application for
Beans, green					ground equipment apply 100 L/ha; for aircraft apply at least 30 L/ha. For improved coverage and spray retention add Spraymate Bond Adjuvant at 100 to 140mL per 100 L of
Broadbeans	Anthracnose	150 to	1.7 to	7 days (H)	spray.  Apply when disease symptoms
(including faba	Rust	200 g	2.2 kg	14 days (G)	first appear and repeat at 7 to
beans)	Rust (Uromyces viciae-fabae) Angular leaf spot				10 day intervals. Use the higher rate and shorter spray interval during weather conditions favourable to disease development. Spray when leaves, flowers or pods on most plants first show signs of
Peas (including sugar snap and snow peas)					infection and weather conditions are likely to remain humid or wet and favour disease development.
	Chocolate spot		1.7 to	]	If disease pressure is severe
	(Botrytis fabae) Suppression of leaf blight (Ascochyta fabae)		2.5 kg		and conditions favour spread of disease, repeat the spray treatment at 2 to 3 week intervals to protect new growth and developing pods. Use higher rate for dense crops and if disease is severe. Repeat more frequently if severe disease persists.

Сгор	Disease	Rate/ 100L	Rate/ Hectare	WITHHOLDING PERIOD Harvest (H) Grazing (G)	Critical Comments
Peas	Downy Mildew	150 to 200 g	1.7 to 2.2 kg	7 days (H)	Apply when disease symptoms first appear and repeat at 7 to 10 day intervals. Use the higher rate and shorter spray interval during weather conditions favourable to disease development.
Capsicum	Target spot	150 to 200 g	2 to 3 kg	14 days (H)	Spray at first sign of disease.  Repeat at 7 to 10 day intervals.
Carrots	Alternaria leaf spot Cercospora leaf spot	150 to 200 g	1.7 to 2.2 kg	7 days (H)	Spray at first sign of disease, then at 7 to 10 day intervals or more frequently depending on blight conditions.
Celery	Septoria leaf spot (leaf blight)	150 to 200 g	1.7 to 2.2 kg	7 days (H)	Spray at first sign of disease. Repeat at 7 to 10 day intervals.
Broccoli Brussels Sprouts Cabbage Cauliflower	Alternaria spot Anthracnose Downy Mildew Ring spot	150 to 200g	1.7 to 2.2 kg	7 days (H)	Spray at first sign of disease. Repeat at 7 to 10 day intervals. Add a surfactant such as Chemwet 1000.
CUCURBITS Canteloupe Cucumber Melons Pumpkin Squash Zucchini	Anthracnose Downy Mildew Gummy stem blight Septoria spot	150 to 200 g	1.7 to 2.2 kg	7 days (H)	Apply when disease symptoms first appear and then repeat at 7 to 10 day intervals. Use higher rate and shorter intervals during weather conditions favourable to disease development.
Fennel (Tas only)	Leaf blight (Cercosporidium )	-	2.2 kg	14 days (H)	Apply as a ground spray if disease symptoms are present in November, allowing for one repeat treatment 10 to 14 days later. Aerial application may be required in prolonged wet periods.
Potatoes	Early blight (Target spot) Late blight (Irish blight)	150 to 200 g	1.7 to 2.2 kg	Not required	Apply when disease symptoms first appear and then repeat at 7 to 10 day intervals. Use higher rate and shorter intervals during
Rhubarb	Downy mildew Rust	150 to 200 g	1.7 to 2.2 kg	14 days (H)	weather conditions favourable to disease development.
Spinach Silverbeet Beetroot	Cercospora leaf spot Downy mildew	150 to 200 g	1.7 to 2.2 kg	14 days (H)	
Tomatoes	Anthracnose Early blight (Target spot) Grey leaf spot Late blight (Irish blight) Leaf mould (Fulvia fulva) Phoma rot	150 to 200 g	2 to 3 kg	7 days (H)	Spray at first sign of disease. Repeat at 7 to 10 day intervals. Do not apply to tomato seedlings before transplanting.

Lettuce	Anthracnose	150 to	1.7 to	14 days (H)	Apply when disease symptoms
	Downy Mildew	200 g	2.2 kg		first appear and then repeat at 7
	Septoria leaf				to 10 day intervals. Use higher
	spot				rate and shorter intervals during
Onion and	Downy mildew	150 to	2.2 to	7 days (H)	weather conditions favourable
Garlic	Purple blotch	200 g	3.5 kg		to disease development.

Crop	Disease	Rate/ 100 L	Rate/ Hectare	WITHHOL DING PERIOD	Critical Comments
<b>FRUIT</b> Bananas	Leaf spot (Sigatoka) (Mycosphaerella musicola)	200 g plus 600 mL summer oil	2.2 to 4.5 kg (NSW 2.2 kg) + 3.5 to 4.2 L summer oil or miscible summer oil		Apply when weather conditions favour disease outbreak. Repeat treatments in accordance with locally recommended spray schedules. Use sufficient water to ensure coverage.  New South Wales: Ground Application: Apply at three week intervals from December or January until May.  Aerial Application: Apply at 7 to 10 day intervals from December or January until May.  South Queensland: Apply at three week intervals from December or January until May.
	Black pit Cordana leaf spot Fruit speckle Leaf speckle	200 g	2.2 kg		North Queensland, WA, NT: Apply every two weeks during the wet season. Extend to three weeks after this and then four to five weeks during the drier months returning to three weeks prior to the next wet season.  * For concentrate spraying using misters, refer to Concentrate Spraying under APPLICATION to determine appropriate rate.
	Anthracnose Colletotrichum musae	200 g plus 600 mL miscible summer oil	2.2 kg + 3.5 to 4 L miscible summer oil		Spray at weekly intervals during flowering and then at two week intervals until near harvest.

TREE AND VINE CROPS In the following table all rates are given for dilute spraying. For concentrate spraying refer to the Application Section.			For all tree and vine crops in this table: Apply by dilute or concentrate spraying equipment. For concentrate spraying, refer to the Application Section. Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods.		
Crop	Disease	Rate/ 100 L	WITHHOL DING PERIOD	Critical Comments	
Citrus	Black spot	200 g	Not required	On heavy Soil: Add 250 mL polyphase summer oil per 100 L. Spray at 8 and 15 weeks following a Bordeaux (5-5-100) spray at petal fall.	
				On light Soil: Add 250 mL polyphase summer oil per 100 L plus an adjuvant (spreader/sticker) according to the adjuvant label recommendation per 100 L. Spray at 6 and 13 weeks following a Bordeaux (3.5-3.5-100) spray at petal fall.	
				Queensland, NT: Add 600 mL polyphase summer oil or miscible summer oil per 100 L and spray at six to twelve weeks after a copper spray at 0.5 to 0.75 petal fall.	
	Brown citrus mite Citrus rust mite Citrus bud mite	-		Spray at first sign of rust or citrus mite (usually December to May).  Apply when blossom malformation is observed, usually February.	
Custard apples	Pseudocercospor a fruit spot	200 g	1 day (H)	Do not apply during flowering. Apply at 3 to 4 week intervals from first fruit set until harvest. Apply at 2 week intervals in wet cloudy weather.	
OTHER FRUITS Grapevines	Black spot Downy mildew	200 g	30 days	For black spot control spray commencing at bud burst. Repeat every 14 days. If downy mildew is expected begin spray application at 10 to 15 cm stage of shoot growth. Continue the program at intervals of 10 to 14 days until disease threat is over.	
	Phomopsis Cane and Leaf spot	150 to 200 g		Spray at bud burst and repeat 7 to 10 days later.	
Mangoes	Anthracnose (Colletotrichum gloeosporioides)	200 g	1 day	Spray at weekly intervals during flowering then monthly until harvest. Use sufficient water for good coverage. DO NOT apply as a tank mix with methidathion (Supracide) as phytotoxicity may result.	

TREE AND VINE CROPS In the following table all rates are given for dilute spraying. For concentrate spraying refer to the Application Section.		For all tree and vine crops in this table: Apply by dilute or concentrate spraying equipment. For concentrate spraying, refer to the Application Section. Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods.		
Crop	Disease	Rate/ 100 L	WITHHO LDING PERIOD	Critical Comments
OTHER FRUITS (cont'd) Passionfruit	Brown spot (Alternaria passiflorae) Septoria spot	150 g	1 day	Apply at 10 to 14 day intervals from October to May and every 21 to 28 days for remainder of year.
	Anthracnose (NSW only)	200 g plus 600 mL miscible summer oil		Spray at weekly intervals during flowering then fortnightly near harvest.
Pawpaws (Papaya)	Blackspot	200 g	1 day (H)	Add mancozeb plus a wetting agent at 10 to 14 day intervals during periods conducive to disease.
POME FRUITS Apples Pears	Apple Scab (Black spot) Bitter rot Fly speck Pear Scab Ripe fruit spot Sooty blotch Target spot	150 to 200 g	14 days	Spray at 7 to 14 day intervals following green tip copper spray. Use higher rate and shorter spray interval during prolonged wet conditions. Product not suitable for use in integrated mite control programs (Tas. only).
STONE FRUITS Almonds Apricots Cherries Nectarines Peaches Plums (except Wilson plums)	Brown rot Freckle Rust Shot hole	150 to 200 g	14 days	Spray at early bloom (1-10%) mid to full bloom (50-100%), petal and shuck fall, then at intervals of 14 days.

Crop	Disease	Rate/ 100 L	Rate/ Hectare	WITHHOLDIN G PERIOD Harvest (H) Grazing (G)	Critical Comments
ORNAMENTALS	Rust	150 to	-	-	Apply when disease
Carnations	Alternaria leaf	200 g			symptoms first appear and
	spot				then repeat at 7 to 14 day
Flowers, Shrubs	Septoria leaf spot	150 to	-	-	intervals.
		200 g			
Ferns	Botrytis leaf spot	75 to			
		100 g			
Gladioli	Grey mould	150 to	-	-	
Chrysanthemums	(Botrytis)	200 g			
	Septoria leaf spot				
	Rust				
Roses	Black spot	150 to	-	-	
		200 g			
Turf	Fusarium	-	200 to	-	Spray in sufficient water for
	Rhizoctonia		250 g/		adequate coverage. Apply
	Helminthosporium		100 sq.		every 7 days throughout
			metres		susceptible periods. DO NOT
					feed grass clippings from
					treated areas to poultry or
					animals

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

WITHHOLDING PERIOD: HARVEST

GREEN BEANS, CARROTS, CELERY, COLE CROPS, CUCURBITS, GARLIC, ONION, PEAS, SOYBEANS, TOMATOES: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION.

ALMONDS, BEETROOT, CAPSICUM, COTTON, FENNEL, LETTUCE, PEANUTS, POME FRUIT, RHUBARB, SILVERBEET, SPINACH, STONE FRUIT: DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION.

CUSTARD APPLE, MANGOES, PASSIONFRUIT, PAWPAWS (PAPAYA) - DO NOT HARVEST FOR 1 DAY AFTER APPLICATION.

GREEN LEGUMES, PULSE CROPS - GREEN CROPS: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION

6 - GRAIN CROPS: DO NOT HARVEST FOR 4 WEEKS AFTER APPLICATION

**GRAPEVINES: DO NOT HARVEST FOR 30 DAYS AFTER APPLICATION.** 

POPPIES: DO NOT HARVEST FOR 49 DAYS AFTER APPLICATION.

BANANAS, CITRUS, POTATOES, TOBACCO - NOT REQUIRED WHEN USED AS DIRECTED.

WITHHOLDING PERIOD: GRAZING

COTTON - DO NOT ALLOW LIVESTOCK TO GRAZE COTTON CROP, STUBBLE OR GIN TRASH THAT HAS BEEN TREATED WITH UNIZEB® 750 DF FUNGICIDE.

GREEN LEGUMES, PEANUTS, PULSE CROPS - DO NOT GRAZE OR CUT FOR STOCKFOOD FOR 14 DAYS AFTER LAST APPLICATION.

PAPAYA - DO NOT USE OR SUPPLY TREATED PAPAYA INCLUDING LEAVES FOR STOCK FOOD.

SOYBEANS - DO NOT GRAZE OR CUT FOR STOCKFOOD FOR 14 DAYS AFTER LAST APPLICATION.

#### **GENERAL INSTRUCTIONS:**

Before opening, carefully read Directions for Use, Precautionary Statements, Safety Directions and First Aid. UNIZEB® 750 DF Fungicide is a protectant fungicide for the control of certain fungus diseases in many crops. For best results, apply product thoroughly to the treated crop in a regular spray program.

#### **FUNGICIDE RESISTANCE WARNING**

GROUP M3 FUNGICIDE

UNIZEB® 750 DF Fungicide is a member of the Multi-site activity group of fungicides. For fungicide resistance management UNIZEB® 750 DF Fungicide is a Group M3 fungicide. Some naturally occurring individual fungi resistant to UNIZEB® 750 DF Fungicide and other Group M3 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 UNIZEB® 750 DF Fungicide or other Group M3 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, UPL Australia Limited accepts no liability for the losses that may result from the failure of UNIZEB® 750 DF Fungicide to control resistant fungi.

# **WARNING - BANANAS**

Under certain conditions the surface of recently emerged fruit is particularly prone to marking damage from spray applications where a petroleum spray oil is included. Where applications containing a petroleum spray oil will be made to very rapidly growing fruit in hot conditions with strong direct sunlight, it is recommended that bunches be bagged prior to spraying to minimise risk of fruit marking.

# **MIXING**

Partly fill spray tank with water and agitate while adding this product slowly. Continue agitation after filling and during spraying to ensure spray mixture is uniform and to prevent product settling out. For low volume or aerial application prepare a slurry or premix when adding to the spray tank. Additional insecticides, fungicides, surfactants, etc. should be added after the product is in suspension. Rinse out spray tank pumps and nozzles at the end of the day.

# **ADJUVANTS**

The use of Spraymate Bond Adjuvant may improve spray deposition and rainfastness and should be used according to label directions.

#### **APPLICATION**

This product may be applied as a high volume dilute spray to fruit tree and vine crops and some row crops. Apply sufficient spray volume to wet all leaf surfaces to the point of runoff. The spray equipment should be adjusted so that the spray is evenly distributed, thoroughly covering all plant surfaces.

# **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.

The spray volume will vary according to the treated crop and should be increased when spraying large or dense plants to ensure thorough coverage. The spray volume should also be increased throughout the growing season as the crop increases in size. Suitable spray volumes for mature crops are as follows:

Vine crops - 200 to 1100 L/ha.

Pome and Stone Fruit - 1100 to 4000 L/ha.

Citrus - 4000 to 8000 L/ha.

# **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 be then 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:  $4 \times (i.e. 1000 \text{ L}/250 \text{ L} = 4)$
- 4. If the dilute label rate is 250 mL/100 L, then the concentrate rate becomes 4 x 250, that is 1 L/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 competency training and follow industry Best Practices.

# Concentrate and ground application sprays

This product may be applied as a concentrate spray through low volume air blast equipment or as a ground application through spray booms. Adjust the rate to ensure that the correct amount is applied per hectare from the particular equipment used. Use the higher rate on larger plants and when weather conditions favour the development of disease.

# **Aerial application**

This product may be applied by agricultural aircraft. Use at least 30 to 50 litres spray mixture per hectare. Reference should be made to the Directions for Use table for the correct rate of application in specific crop situations.

#### **SPRAY TIMING**

Apply treatments when weather conditions favour disease outbreak and continue until the threat of disease has passed. Repeated applications are necessary to protect new plant growth and as conditions favour disease development, reduce the spray interval.

#### COMPATIBILITY

This product may be harmful to *Typhlodromus pyri* and should not be used in orchards where integrated control methods are practiced. Most commonly used agricultural fungicides and insecticides are compatible with UNIZEB® 750 DF, however reference should be made to the other manufacturer's recommendations before preparing tank mixes. With Mango crops this product should not be mixed with Methidathion (Supracide) as the tank mix may cause phytotoxicity.

# **Bananas**

Foliar fertilisers: Before applying mixtures of foliar fertilisers to this product, seek advice from the manufacturer of the product and/or conduct a jar test with the product(s), with UNIZEB® 750 DF and the appropriate volume of water to test physical compatibility. Foliar fertilisers can cause damage to banana leaves and fruit. Test mixtures over a small area initially to check for crop safety. Since United Phosphorus Limited cannot guarantee the quality of other products mixed with UNIZEB® 750 DF, the user accepts all responsibility for the performance of these mixtures.

# **PRECAUTIONS**

DO NOT use human flaggers/markers unless they are protected by engineering controls such as enclosed cabs.

Re-Entry: DO NOT allow entry into treated areas until spray has dried. When prior entry is necessary, wear personal protective equipment as specified in the Safety Directions. Clothing must be laundered after each days use.

# PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

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

#### STORAGE AND DISPOSAL

Store in the closed, original container, in a well-ventilated area away from children, animals, food, feedstuffs, seed and fertilisers. DO NOT store for prolonged periods in direct sunlight. DO NOT allow container to become wet or over-heated in storage. Users are reminded that this product should be used before the stated expiry date. Single rinse before disposal. Add rinsings to spray tank. Puncture and bury empty bags 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 bags and product should not be burnt.

# **SAFETY DIRECTIONS**

May irritate the eyes and skin. Repeated exposure may cause allergic disorders. Avoid contact with eyes and skin. Do not inhale dust. Wash hands after use. When opening the container and preparing spray wear cotton overalls, over normal clothing, buttoned to the neck and wrist, a washable hat, elbow-length PVC gloves, goggles, and disposable dust face mask covering mouth and nose. When using the prepared spray wear cotton overalls, over normal clothing, buttoned to the neck and wrist, a washable hat and elbow-length PVC gloves. After each days use, wash gloves face shield or goggles and contaminated clothing.

# **FIRST AID**

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126. Avoid giving alcohol.

# **MATERIAL SAFETY DATA SHEET**

Additional information is listed in the Material Safety Data Sheet that can be obtained from the supplier.

**CONDITIONS OF SALE:** United Phosphorus accepts responsibility for the consistent quality of the product; however since the use and application of the product is beyond control, the company accepts no responsibility whatsoever for any loss, damage or other result following the use of the product whether used in accordance with directions or not; other than those mandatorily imposed by statutes, the liability is limited to the replacement of the goods and is conditional upon a claim made in writing and, where necessary, a sufficient part of the goods being returned for proper examination by the company within thirty days of sale.

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Expiry date: 3 years after date of manufacture.