### (Container)



## Dithane<sup>™</sup> F-45 Fungicide

GROUP	Μ	FUNGICIDE

**Contains: Mancozeb** 

AGRICULTURAL

READ THE LABEL AND BOOKLET BEFORE USING KEEP OUT OF REACH OF CHILDREN KEEP FROM FREEZING

GUARANTEE:	MANCOZEB	37.0%
	(Manganese	7.4%)
	(Zinc equivalent	0.9%)
	(Ethylene bisdithiocarbamate equivalent	28.7%)
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Solution

REGISTRATION NO.: 20552 PEST CONTROL PRODUCTS ACT

NET CONTENTS: 9.5 L - bulk

Corteva Agriscience Canada Company 2450, 215 – 2<sup>nd</sup> Street S.W. Calgary, Alberta T2P 1M4 1-800-667-3852

<sup>™</sup>Trademark of Corteva Agriscience and its affiliated companies.

#### PRECAUTIONS

#### **KEEP OUT OF REACH OF CHILDREN**

May cause irritation of nose, throat, eyes and skin. Do not breathe spray mist. Keep away from fire and sparks. Keep from freezing.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at www.croplife.ca.

#### FIRST AID

## Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**If swallowed:** Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

**If inhaled**: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

**If in eyes**: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

#### **TOXICOLOGICAL INFORMATION**

No specific antidote. Employ supportive care. Treatment should be based on judgment of the physician in response to reactions of the patient.

#### AGRICULTURAL CHEMICAL

Do not ship or store with food, feeds, drugs or clothing.

#### **ENVIRONMENTAL HAZARDS**

This product is toxic to fish. Do not apply directly to water or wetlands. Do not contaminate any body of water by direct application, cleaning of equipment or disposal of wastes. Do not apply when weather conditions favour drift from areas treated.

#### STORAGE

Keep away from fire and sparks. Keep from freezing. Store in cool, dry, well ventilated place. Do not allow to become overheated in storage: decomposition or impaired activity may result. Keep container closed when not in use. Do not contaminate food or feed by storage or disposal.

#### DISPOSAL

#### **Recyclable Containers:**

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

- 1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

#### **Returnable Containers:**

Do not reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

**NOTICE TO USER:** This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

(Booklet)



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#### **GENERAL INFORMATION**

Dithane F-45 Fungicide is believed compatible with most of the common pesticides used.

#### **Tank Mixtures**

In some cases, tank mixing a pest control product with another pest control product or a fertilizer can result in biological effects that could include, but are not limited to: reduced pest efficacy or increased host crop injury. The user should contact Corteva Agriscience Canada Company at 1-800-667-3852 or <a href="http://www.corteva.ca">www.corteva.ca</a> for information before mixing any pesticide or fertilizer that is not specifically recommended on this label. The user assumes the risk of losses that result from the use of tank mixes that do not appear on this label or that are not specifically recommended by Corteva Agriscience Canada Company.

#### GENERAL USE PRECAUTIONS

• Do not apply when weather conditions favour drift from areas treated.

#### **DIRECTIONS FOR USE**

READ ALL DIRECTIONS CAREFULLY BEFORE APPLYING. FAILURE TO FOLLOW LABEL INSTRUCTIONS MAY RESULT IN ERRATIC FUNGICIDE CONTROL OR CROP DAMAGE.

#### **VEGETABLES**

**POTATOES:** For early and late blight. Begin applications early, apply 1.8 litres Dithane F-45 per hectare when plants are 10-15 cm high. Increase rate to 3.0 litres per hectare as plants increase in size, and to 3.8 litres per hectare at row closure. Apply every 7-10 days throughout the season.

#### Reduced Spray Interval Schedule

During periods of wet weather favoring late blight and/or vigorous crop growth, spray intervals may be reduced to 5-6 days. Apply 1.8 litres per hectare until row closure then increase the rate to 3.0 litres per hectare until conditions allow the return to the regular spray schedule.

Thorough uniform coverage is essential for good disease control. Do not apply within 1 day of harvest.

**TOMATOES**: For control of early and late blight, Anthracnose, Stemphyllium (grey leaf spot). Use Dithane F-45 at 1.8 to 5.5 litres per hectare in sufficient water to provide adequate coverage. Start applications when disease is first reported in the area and repeat every 7 to 10 days or more often under severe disease conditions. Do not apply within 7 days of harvest.

**ONIONS**: For control of Botrytis leaf blight (leaf spot or blast). Apply 3.8 to 5.5 litres per hectare when disease first appears and repeat every 7 days as needed. Do not use on green bunching onions. Do not use later than 10 days before harvest.

**CELERY**: For early and late blight. Begin spraying at 3.8 litres per hectare in the plant bed when plants first come through the ground. Make further applications at 3-5 day intervals until plants are set in the field. Continue field applications on a regular weekly schedule. Do not apply later than 14 days before harvest.

**CARROTS**: For leaf spot disease. Start applications of 3.8 litres per hectare when plants are 6 weeks old or when disease threatens. Repeat at 7-10 day intervals. Do not apply later than 7 days before harvest. Do not use treated tops for food or feed.

**CANTALOUPE, CUCUMBERS, PUMPKIN, SQUASH, MELONS AND WATERMELONS**: For control of Downy mildew, Anthracnose, Scab, Gummy Stem Blight and Alternaria leaf spot. Use Dithane F-45 at 1.8 to 5.5 litres per hectare in sufficient water to provide adequate coverage. Start applications when runners begin to form or at first sign of disease and repeat at weekly intervals. Direct spray for thorough coverage of both upper and lower leaf surfaces. Do not apply within 14 days of harvest.

#### <u>FRUIT</u>

**APPLES**: For the control of scab and cedar apple rust and quince rust. For a protective schedule begin application of Dithane F-45 in the green tip up to half inch green sprays. Repeat any subsequent pre-bloom, bloom, and cover sprays in accordance with the timing in your local schedule for a protective program. Use 3.3 litres of Dithane F-45 per 1000 litres of water in single strength sprays or the equivalent in concentrate sprays. If moderate disease conditions prevail, the dosage can be reduced to 2.5 litres in the cover sprays. Fruit colour and finish on most apple varieties sprayed with Dithane F-45 have frequently been outstanding. Do not apply within 45 days of harvest.

CAUTION: DO NOT FEED TREATED APPLE POMACE TO LIVESTOCK.

#### TOBACCO

#### GREENHOUSE

For blue mold control, apply 85 to 170 millilitres of Dithane F-45 in 25 to 50 litres of water and apply to 100 square metres. Spray seedlings to wet without run-off. Start spraying when plants are 1.5 centimetres across and then twice per week until transplanting.

#### **HERBS**

**GINSENG**: For control of Alternaria leaf blight. Use Dithane F-45 at 7.3 litres per hectare in 2000 litres of water. Apply when disease first appears and follow with five subsequent sprays at two-week intervals as part of a regular spray program. Do not apply within 30 days of harvest. Do not feed treated ginseng (roots or foliage) to livestock.

#### FIELD CROPS

**WHEAT (ALL VARIETIES, INCLUDING DURUM):** For the control of tan spot, Septoria leaf blotch, and leaf rust.

Early Spray: Apply at a rate of 1.9 litres per hectare at the Feeks 1-3/Zadoks 12-21 growth stages, when the crop is in the 3 leaf to tillering stage.

AND / OR

Late Spray: Apply at a rate of 3.8 litres per hectare at the Feeks 10.5/Zadoks 59 growth stages, when the head is fully emerged but prior to flowering (heading stage).

For ground spray applications with flat fan nozzles, use 100 litres of water per hectare at a pressure of 345 kPa. Use 40 litres of water per hectare for aerial applications. Do not make more than two applications during the season and do not apply within 40 days of harvest.

Caution: Do not graze the treated crop or cut for hay; there are not sufficient data to support such use. Do not feed straw or screenings to livestock.

**LENTILS** - For the control of anthracnose and ascochyta blight, apply Dithane F-45 at the rate of 4.57 kilograms of product per hectare. Apply the first application before bloom, when bud formation is evident. A second application should be applied 10 to 14 days after the initial application at early to mid bloom but prior to row closure. If conditions for disease development persist, a third application may be applied 10-14 days later. Do not apply more than three applications of Dithane F-45 per season. For ground spray applications

with flat fan nozzles, use 100-200 litres of water per hectare at a pressure of 275-345 kPa. Use 40 litres of water per hectare for aerial applications. Do not apply within 35 days of harvest.

### Aerial Application Directions for Use

Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.

Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.

Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices

#### **Use Precautions**

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. Apply only under conditions of good practice specific to aerial application as outlined in the *National Aerial Pesticide Application Manual*, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

Do not apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas. Specified buffer zones should be observed.

Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in fine particles (mist). Do not apply during periods of dead calm or when wind velocity and direction pose a risk of spray drift. Do not spray when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

#### **Operator Precautions**

Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.

It is desirable that the pilot have communication capabilities at each treatment site at the time of application.

The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.

All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

#### **Product Specific Precautions**

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-800-667-3852 or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

Volume: Apply the recommended rate in a minimum spray volume of 40 litres of water per hectare

#### Mixing

Slowly place into spray tank as it is being filled, or thoroughly premix in a nurse tank for concentrate or aircraft sprayers. Add other co-applied fungicides, insecticides, growth regulators, micronutrients, and spray adjuvants after Dithane F-45 flowable fungicide has been placed into suspension.

When preparing spray solutions for use in a hand sprayer, premix as a slurry in a small container, and then add to sprayer containing 1/3 to 1/2 the desired final water volume.

Dithane F-45 is believed compatible with most of the common pesticides used. Thorough, uniform coverage is essential for good disease control. For low volume airblast sprayers adjust the mixing rate accordingly.

**NOTE TO USER:** READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR SPECIAL USE APPLICATIONS: The DIRECTIONS FOR USE for this product for the use(s) described below were developed by persons other than Corteva Agriscience Canada Company and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion program. Corteva Agriscience Canada Company itself makes no representation or warranty with respect to performance (efficacy) and/or crop tolerance (phytotoxicity) claims for this product when used on the crop(s) listed on this label.

Accordingly, the Buyer and User assume all liability arising, and agree to hold Corteva Agriscience Canada Company harmless from any claims based on efficacy and/or phytotoxicity in connection with the use(s) described on this label.

#### DIRECTIONS FOR USE

**SEED POTATOES IN STORAGE:** For Fusarium dry rot, apply 760 g ai/1000 kg seed potato: (1.58L product) apply 1.58L product in 4 - 8 L water postharvest as a spray on conveyor belt, prior to storage.

Refer to the main Dithane F-45 label for additional details and instructions, including preharvest intervals, before using.

READ THE ROTATIONAL CROPPING RESTRICTIONS ON THE FULL LABEL BEFORE USING THIS PRODUCT.

#### **RESISTANCE MANAGEMENT RECOMMENDATIONS**

For resistance management, please note that Dithane F-45 Fungicide contains a Group M fungicide which is generally considered to have a low risk of resistance development. However, as a general principle, it is recommended not to rely exclusively on the same product for pest control. To prolong effectiveness of this product, the following resistance management strategies should be followed.

- Fungicide product use should be based on an IPM program that includes scouting, historical
  information related to fungicide use and crop rotation and considers cultural, biological and chemical
  control practices.
- If this product appears to be no longer effective for a pest which it previously controlled or suppressed, contact the manufacturer and your local extension specialist or certified crop advisor to assist in determining the cause of reduced performance.

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