

10F4
Pm 21
19713-108

ACCEPTED
AUG 28 1988
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under
EPA Reg. No. 19713-108

AS'



MANZI FLOWABLE

37% Maneb Dispersion

ACTIVE INGREDIENT:
Maneb
(Manganese Ethylenebisdithiocarbamate).... 37%
(Total Manganese as metallic 7.6%)
INERT INGREDIENTS: 63%
TOTAL 100%
This Product Contains Zinc at 2.5%.
This Product Contains 4 Pounds of Maneb Per Gallon.

KEEP OUT OF REACH OF CHILDREN
CAUTION

See Inside Panel for Additional Precautionary Statements
and Statement of Practical Treatment

EPA Reg. No. 19713-108
EPA Est. No. 19713-MS-1

Net Contents:
2.5 gals./9.45 liters

Manufactured by
Drexel Chemical Company
P.O. Box 9306 Memphis, Tenn. 38109-0306

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week
CA

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION**

May cause irritation of eyes, nose, throat and skin. Avoid breathing spray mist. Avoid contact with eyes, skin or clothing. In case of contact, flush with plenty of water. For eyes, get medical attention. Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons.

STATEMENT OF PRACTICAL TREATMENT
IF SWALLOWED, drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person. Get medical attention.

IF INHALED, remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention.

IF SPLASHED IN EYES, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention.

IF SPILLED ON SKIN, immediately remove contaminated clothing, INCLUDING SHOES, and wash skin with soap and plenty of water. If irritation develops, send for a physician.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. Do not apply directly to water. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from areas treated. Do not contaminate water by cleaning of equipment or disposal of wastes.

PHYSICAL AND CHEMICAL HAZARDS

Keep away from fire and sparks. Store in a cool dry place.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

FARM WORKER SAFETY STATEMENTS

Do not enter treated areas without protective clothing until sprays have dried. Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. Oral warnings must inform workers of areas or fields that may not be entered without specific protective clothing until sprays have dried, and appropriate actions to take in case of accidental exposure, as described under Precautionary Statements on this label. When oral warnings are given, warnings shall be given in a language customarily understood by the workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. **CAUTION.** Area treated with Maneb on (date of application). Do not enter without appropriate protective clothing until sprays have dried. In case of accidental exposure, flush eyes or skin with plenty of water. Call physician if irritation persists. Remove and wash contaminated clothing before reuse.

DIRECTIONS FOR USE AS A SPRAY

MANZI is approved for application in sufficient water to provide good coverage with available equipment in either dilute sprays or in concentrate ground or aerial sprays. Rates listed are based

on 100 gallons of dilute spray unless otherwise noted. Rates for concentrate and aerial applications should be comparable to the rates for dilute sprays on a per acre basis.

MANZI may be applied by aircraft at the rate shown below for control of certain crop diseases; see product labeling for listing of specific crops, details of timing, use limitations, and other use instructions. Where there is a range indicated for the dosage rate use the higher rates when infestations are severe and lower rates when they are mild.

CROP	Amount Per Acre	
	MANZI (Qts.)	WATER (Gals.)
Tree Fruits & Nut Vineyards	4 to 5.6	10 to 15
Potatoes and most vegetables, Small Fruits, Field Crops	1.2 to 1.6	5 to 8
Tomatoes, Sweet Corn	1.2 to 2.4	5 to 8

Apply with properly calibrated aerial equipment, arrange nozzles so that spray delivery is uniform over the entire spray swath.

AGRICULTURAL FRUIT AND NUT CROP USES

ALMONDS: Brown rot Blossom and Twig Blight, Leaf Blight, Scab—1.2 to 1.6 quarts. Apply in popcorn, full bloom, and petal fall or every 7 to 10 days if bloom is staggered. Shothole—1.2 to 1.6 quarts. Begins in dormant stage. Repeat at 7 to 10 day intervals through petal fall. If applied after petal fall, do not feed hulls to dairy animals or animals being finished for slaughter. Do not apply later than 5 weeks after petal fall.

APPLES: Black Rot, Bitter Rot, Botryosphaeria (White Rot), Bulls-eye Rot, Cedar-Apple Rust, Flyspeck, Scab and Sooty Blotch—1.2 to 1.6 quarts plus suitable spreader-sticker. Begin in prebloom, calyx, or first cover stages. Repeat at 7 to 14 day intervals as necessary. Do not graze livestock in treated areas. Do not apply within 15 days of harvest in Arkansas, Delaware, Illinois, Indiana, Kansas, Kentucky, Maryland, Missouri, New Jersey, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia and West Virginia. Do not apply within 30 days of harvest in other states.

APRICOTS: Brown Rot (Blossom, Twig and Fruit)—1.2 to 1.6 quarts. Begin at red bud stage. Repeat in early bloom, full bloom, petal fall, and at 7 to 14 day intervals as necessary up to 2 weeks before harvest. Jacket Rot (Green Rot)—1.6 quarts at full bloom and petal fall. Shothole—1.6 quarts from dormant through petal fall stages in regular schedule. Do not apply later than 14 days before harvest.

BANANAS: Sigatoka (*Cercospora musae*)—2.4 to 4.0 quarts/acre in sufficient water to cover. Apply at 2 week intervals beginning at first sign of disease.

CRANBERRIES: Fruit Rots (Massachusetts)—1.6 to 2.4 quarts. Begin at midbloom. Repeat at 10 to 14 day intervals. Do not apply later than 4 weeks after midbloom. Twig Blight (*Lophodermium*), Fruit Rots (Washington and Oregon)—1.6 quarts per 100 gallons of water. Apply 350.0 gallons per acre. Begin after blooming. Repeat between July 10 and 20, August 1 and 10, and August 10 and 25. Fruit Rots (*Guignardia*, *Sporonema*, and *Glomerella*) (New Jersey and Wisconsin)—1.6 quarts. Begin after midbloom. Repeat 10 to 14 days later and 4 weeks after midbloom. Do not apply within 30 days of harvest.

FIGS (Kadota): Surface Molds and Rot (*Alternaria*, *Cladosporium* Species) 0.6 quarts. Make one application 10 to 20 days before harvest. Do not apply within 10 days of harvest.

GRAPES: Black Rot (Bunch Rot)—Apply 1.2 to 1.6 quarts/100 gallons. Begin just before bloom. Repeat just after bloom and again 10 days later. Do not apply later than 10 days after bloom.

NECTARINES: Brown Rot, Shothole—1.2 to 1.6 quarts. Begin in red bud. Repeat in early bloom, full bloom, petal fall, and at 7 to 14 day intervals up to 2 weeks before harvest. Do not apply within 14 days of harvest.

PAPAYAS: Anthracnose (*Colletotricum*), Black Spot (*Cercospora*)—1.2 to 2.4 quarts in sufficient water to cover (not less than 50.0 gallons) per acre. Add 4.0 ounces of spreader-sticker/100 gallons of spray suspension. Begin when fruit is set. Repeat at 10 to 14 day intervals during winter and early spring and every 7 days during wet weather. Direct spray to central column of tree to cover developing fruit.

PEACHES: Brown Rot, Scab, Shothole—See under Nectarines. Peach Leaf Curl—1.2 to 1.6 quarts. Apply in spring dormant period. Do not apply within 2 days of harvest. If applied within 14 days of harvest, remove residues by brushing.

AGRICULTURAL VEGETABLE CROP USES

ASPARAGUS: Rust—2.4 quarts/50 to 200 gallons/acre. Begin in established fields immediately after harvest. Repeat at 10 day intervals as long as necessary. In young fields which will not be harvested, begin when disease appears and repeat at 10 day intervals. Postharvest application only on established fields.

BEANS (Lima): Anthracnose, Downy Mildew—1.2 to 1.6 quarts. Begin at first sign of disease. Repeat at 4 to 7 day intervals. Do not apply within 4 days of harvest of succulent beans.

BEANS (Green and Dry): Anthracnose, Downy Mildew, Rust—1.2 to 1.6 quarts. Begin when plants are small. Repeat at 5 to 7 day intervals. Do not apply within 4 days of harvest of succulent beans.

BROCCOLI: Alternaria Leaf Spot, Downy Mildew—1.2 to 1.6 quarts. Begin when diseases threaten. For downy mildew begin in plant bed and repeat at 3 day intervals. In field, repeat at 7 to 14 day intervals. If applied within 3 days of harvest, remove residues by washing or trimming.

BRUSSELS SPROUTS, CAULIFLOWER, AND KOHLRABI: Alternaria Leaf Spot, Downy Mildew—1.2 quarts. Begin when diseases threaten. Repeat at 3 day intervals in plant beds and at 7 to 10 day intervals in field.

CABBAGE: Alternaria Leaf Spot, Downy Mildew—1.2 to 1.6 quarts. Begin 7 to 10 days after planting. Repeat at 3 to 5 day intervals in plant bed and field. Do not apply within 7 days of harvest.

CANTALOUPE, CASSABAS, CRENSHAW, HONEYDEW MELONS, HONEY BALLS, MUSKMELONS, PERSIAN MELONS, AND WATER-MELONS: Anthracnose, Cercospora Leaf Spot, Downy Mildew, Gummy Stem Blight—1.2 to 1.6 quarts. Begin at late bunching when vines begin to run or when disease first appears. Repeat at 7 to 10 day intervals. Do not apply within 5 days of harvest.

CARROTS: Alternaria and Cercospora Leaf Spot—1.2 to 1.6 quarts. Begin when plants are 6 weeks old. Repeat at 7 to 10 day intervals.

CASSABA MELONS: See under Cantaloupes.

CAULIFLOWER: See under Brussels Sprouts.

CELERY: Early Blight (*Cercospora*), Late Blight (*Septoria*)—1.2 to 1.6 quarts. Begin when plants emerge in plant beds. Repeat at 3 to 5 day intervals in plant beds and at 7 to 10 day intervals after plants are set in field. Remove excess residues by stripping, trimming, and washing. Do not apply within 14 days of harvest.

COLLARDS, KALE, MUSTARD GREENS, TURNIPS: Alternaria Leaf Spot and Downy Mildew—Use 0.8 to 2.4 quarts per acre and start applications when disease first appears in

area and repeat at 7 to 10 day intervals. Do not apply within 10 days of harvest. Remove excess residues by washing.

CORN (Sweet): Helminthosporium Blight—1.2 quarts. Begin when plants are 6 inches high. Repeat at 4 to 7 day intervals until harvest. Do not feed treated forage to livestock.

CRENSHAW MELONS: See under Cantaloupes.

CUCUMBERS: Alternaria (*Macrosporium*) Leaf Spot, Angular Leaf Spot, Anthracnose, Downy Mildew, Pythium, Fruit Rot—1.2 to 1.6 quarts. Begin when diseases threaten or plants begin to run. Repeat at 7 to 10 day intervals or at least 3 to 5 day intervals under severe disease conditions. Do not apply within 5 days of harvest.

EGGPLANT: Anthracnose, Early Blight (*Alternaria*), Phomopsis Blight or Fruit Rot—1.2 to 1.6 quarts. Begin when fruit starts to form. Repeat at 7 to 10 day intervals.

ENDIVE, LETTUCE: Downy Mildew—1.2 to 1.6 quarts. Begin when disease appears. Repeat at 7 to 10 day intervals. Do not apply within 10 days of harvest. Remove residues from head lettuce by stripping and trimming, and from leaf lettuce and endive by washing or other effective means.

HONEY BALL MELONS: See under Cantaloupes.

HONEYDEW MELONS: See under Cantaloupes.

KOHLRABI: See under Brussels Sprouts.

LETTUCE: See under Endive.

MELONS: See under Cantaloupes.

MUSKMELONS: See under Cantaloupes.

ONIONS: Botrytis Leaf Blight (Blast), Downy Mildew, Purple Blotch—1.2 to 1.6 quarts. Begin at first sign of disease. Repeat at 7 to 10 day intervals.

PEPPERS: Anthracnose, Cercospora Leaf Spot (Frogeye Spot), Ripe Rot—1.2 to 1.6 quarts. Begin when disease threatens. Repeat at 7 to 10 day intervals.

PERSIAN MELONS: See under Cantaloupes.

POTATOES: Early and Late Blights—1.2 to 1.6 quarts. Begin when plants are 2 to 6 inches high. Repeat at 5 to 10 day intervals, more often under severe late blight conditions.

POTATOES (Seed Pieces): Fusarium Seed Piece Decay—1.0 quart/10 gallons. Dip whole or cut tubers. Spread in cool place if held before planting. Seed piece treatment only. Do not use excess seed pieces for food or feed.

PUMPKINS: Angular Leaf Spot, Downy Mildew—2.4 quarts/acre in sufficient water to cover or 1.2 to 1.6 quarts/100 gallons. Begin when disease threatens. Repeat at 7 to 10 day intervals.

RHUBARB (Greenhouse, Michigan): Botrytis Leaf Rot—1.6 quarts. Begin 4 weeks before harvest. Make 4 applications at 7 day intervals.

SPINACH: Downy Mildew (Blue Mold), White Rust—1.2 to 1.6 quarts. Begin when disease appears. Repeat at 7 to 10 day intervals. Do not apply within 10 days of harvest. Remove excess residues by washing.

SQUASH (Summer and Winter): Anthracnose, Downy Mildew—1.2 to 1.6 quarts. Begin when plants start to run. Repeat at 7 to 10 day intervals. Do not apply within 5 days of harvest.

TOMATOES (Greenhouse and Field): Cladosporium Leaf Mold, Early and Late Blights, Gray Leaf Spot (*Stemphylium*), Septoria Leaf Spot—1.2 to 1.6 quarts. Begin at first fruit cluster and repeat at 7 to 10 day intervals. Anthracnose—2.4 quarts. Begin when first fruit forms. Repeat at 7 to 10 day intervals. Do not apply within 5 days of harvest.

WATERMELONS: See under Cantaloupes.

AGRICULTURAL FIELD CROP USES

GRASSES (Ornamentals-Grown for Replanting Seed Purposes Only):

Leaf, Stem, and Stripe Rust—1.6 to 2.4 quarts/50 to 100 gallons per acre. Begin when rust pustules are first seen. Repeat at 7 to 14 day intervals. Do not feed treated grass to livestock.

SUGAR BEETS: Leaf Spot (Cercospora)—1.2 to 2.4 quarts in sufficient water/acre. Begin when disease threatens. Repeat at 7 to 10 day intervals for 3 to 5 applications. Do not feed treated tops to livestock. Do not apply within 10 days of harvest.

TOBACCO: Blue Mold—0.4 to 3.2 quarts. Use 2.5 to 5.0 gallons of diluted suspension/100 square yards of plant bed. Begin when plants are about the size of a dime or when blue mold is first reported in area. Repeat twice weekly until plants are set in field. Use lower rates in early applications increasing to 3.2 quarts as plants increase in size. For disease control under field conditions, use 1.4 to 2.5 qts. per acre. Repeat as necessary.

AGRICULTURAL ORNAMENTAL CROP USES

CARNATIONS: Alternaria Leaf Spot, Anthracnose, Botrytis Blight—0.8 to 1.2 quarts. Begin when new growth starts. Repeat weekly.

CHRYSANTHEMUMS: Ascocyta Ray Blight, Botrytis Petal Spot, Septoria Leaf Spot. Use 12.8 fluid ounces **MANZI** plus $\frac{3}{4}$ pounds **CAPTAN 50W** per 100 gallons of water. Apply twice weekly during the blooming season for petal spot and ray blight. For Septoria Leaf Spot apply weekly throughout the season.

DAHLIAS: Alternaria Leaf Spot, Botrytis Blight—0.8 to 1.2 quarts. Begin when new growth starts. Repeat weekly.

DOGWOOD: Anthracnose—0.8 to 1.2 quarts. Begin when buds open. Repeat when bracts fall 4 weeks later and in late summer.

GLADIOLUS: Botrytis Blight, Curvularia and stemphylium Leaf Spots—1.2 quarts. Begin when flower spikes are developing. Repeat 2 to 3 times at weekly intervals.

GRASSES (Nongrazed Areas): Brown Patch—4.8 fluid ounces in sufficient water/1000 square feet. Begin at first sign of disease. Repeat at 7 to 14 day intervals. Dollar Spot—9.6 to 12.8 fluid ounces in sufficient water/1000 square feet. Apply as for brown patch, above. Melting-Out—4.8 to 6.4 fluid ounces in sufficient water/1000 square feet. Apply as for brown patch, above. Leaf, Stem and Stripe Rusts—2.4 quarts/100 gallons/acre. Begin when rust pustules are first seen. Repeat at 7 to 14 day intervals. Do not graze treated areas. Do not feed clippings to livestock.

LILIES: Botrytis Blight—0.8 to 1.2 quarts. Begin with new growth. Repeat weekly.

PANSIES: Anthracnose—0.8 to 1.2 quarts. Begin with new growth. Repeat weekly.

PEONIES: Alternaria Leaf Spot, Botrytis Blight, Phytophthora Blight—0.8 to 1.2 quarts. Apply to foliage and soil in early spring and early fall and 7 to 10 day intervals during the growing season.

ROSES: Black Spot, Cercospora Leaf Spot (Texas), Rust (California)—0.8 to 1.2 quarts. Begin when first leaves unfold. Repeat at 7 to 10 day intervals.

SNAPDRAGONS: Rust—0.8 to 1.2 quarts. Begin with emergence. Repeat weekly.

ZINNIAS: Alternaria Blight, Leaf Spot, Botrytis Blight—0.8 to 1.2 quarts. Begin with emergence. Repeat weekly.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

STORAGE INSTRUCTIONS

Storage should be under lock and key and secure from access by unauthorized persons and children. Storage should be in a cool dry area away from any heat or ignition source. Avoid storage at high temperatures. Do not stack over 2 pallets high. Move containers by handles or cases. Do not move containers from one area to another unless they are securely sealed. Keep containers tightly sealed when not in use. Keep away from any puncture source. Avoid storage near water supplies, food, feed and fertilizer to avoid contamination. Avoid contamination with acids or alkalis. Store in original containers only. If the contents are leaking or the material is spilled, follow these steps:

1. Contain spill, absorb with a material such as saw dust, clay granules or dirt.
2. Collect and place in suitable containers for disposal.
3. Wash area with water and soap to remove remaining pesticide.
4. Follow washing with clean water rinse.
5. Place a leaking container in a plastic tub and transfer contents as soon as possible to an empty original container.
6. Do not allow run off to enter sewer or contaminate water supplies.
7. Dispose of waste as indicated below.

PESTICIDE DISPOSAL

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

WARRANTY-CONDITION OF SALE

OUR RECOMMENDATIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith.

In no case shall Drexel or the seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by Drexel Chemical Company and is accepted as such by the Buyer.