

FUMAZONE* EC

DOSAGE AND USE RECOMMENDATIONS

Crops	Application		Dosage (a)	
	Time	Type	Gallons Per Acre	Fl. Oz./1000 ft. Row Per Chisel
Vegetables: Broccoli, brussels sprouts, cabbage, cauliflower, carrots, celery, egg plant, endive (escarole), lettuce, okra, parsnips, radishes, snapbeans (c)	Preplant	Overall (b)	1.4 to 1.84	4.1 to 5.4
	Preplant	Row (d)		
	At Planting	Row (d)		
Cucurbits: Melons, cucumbers, and summer squash	Preplant	Overall (b)	1.4 to 1.84	4.1 to 5.4
	At Planting	Row (d)		
Lima beans: (p)	Preplant	Overall (b)	0.9 to 1.5	2.6 to 4.4
	At Planting	Row (d)		
Tomatoes:	Direct Seeded	Preplant	0.9 to 1.4	2.6 to 4.1
		At Planting		
		Postplant (e)		
	Transplants	Preplant	0.9	2.6
		At Planting		
		Postplant		
Soybeans: (p) Southeastern States Only (r)	Preplant	Row (q)	0.5 to 1.0 (42" row)	5.1 to 10.3
	At Planting	Row (q)		
	At Planting	Irrigation		
Cotton:	Preplant	Row (d)	0.9 to 1.84	2.6 to 5.4
	Postplant	Irrigation		
	At Planting	Row (d)		
Bananas:	Preplant	Overall (b)	1.4 to 4.15	4.1 to 12.2
	At Planting	Row (d)		
	Postplant (f)	Row (d)		
		Irrigation		
Pineapple:	Preplant	Row (d)	2.8 to 10.2	8.2 to 30.0
	Postplant (g)	Irrigation (h)		
	At Planting	Row (d)		
Berries: Blackberries, boysen berries, dewberries, loganberries, raspberries and strawberries (j)	Preplant	Overall (b)	1.84	5.4
		Row (d)		
	At Planting	Row (d)		
	Postplant (i)	Irrigation		
Citrus Fruit (k): Grapefruit, lemons, limes, oranges, tangerines	Preplant	Overall	2.8 to 6.46	8.2 to 19.0
	At Planting	Row (d)		
		Row (d)		
	Postplant	Irrigation		
Deciduous Fruit and Nuts: Apricots, cherries (l, k), figs (l), grapes, nectarines, peaches, plums (prunes) (l, k), almonds (m), English walnuts (m).	Preplant	Overall (b)	2.8 to 6.46	8.2 to 19.0
	At Planting	Row (d)		
		Row (d)		
	Postplant	Irrigation		
Ornamentals: Flowers, shrubs, trees, etc. Tolerant species (n)	Preplant	Overall (b)	2.4	7.0
	At Planting	Row (d)		
		Row (d)		
	Postplant	Irrigation		
Moderately Tolerant species (n)	Preplant	Overall (b)	1.4	4.1
	At Planting	Row (d)		
		Row (d)		
	Postplant	Irrigation		
Turf	Preplant	Overall (b)	2.8	8.2
	Postplant	Drench (a)		
Peanuts (s)	Preplant	Overall (b)	1.3 to 1.9	3.8 to 5.6
		Row (d)		
	At Planting	Row (d)		

Any crop grown on soil treated with a bromide containing fumigant should not be used as a feed for dairy animals, or as a feed for swine, until 2 years after row treatments and 3 years following overall treatments.

NEMATOCIDE

FOR CONTROLLING SOIL-BORNE PLANT PARASITIC NEMATODES
and FOR USE IN THE MANUFACTURE OF OIL SOLUTIONS,
AND GRANULATED NEMATOCIDAL FORMULATIONS

WARNING

HARMFUL LIQUID AND VAPOR • COMBUSTIBLE MIXTURE • CAUSES SKIN IRRITATION AND BLISTERS ON CONTACT • CAUSES IRRITATION OF EYES, NOSE AND THROAT • MAY BE ABSORBED THROUGH SKIN MAY BE HARMFUL OR FATAL IF SWALLOWED

Do Not Breathe Vapor • Keep Container Closed • Do Not Get in Eyes, on Skin, or on Clothing • Do Not Take Internally • Use Only in a Well-Ventilated Area • Wash Thoroughly with Soap and Water After Handling and Before Eating and Smoking • Do Not Contaminate Feed and Foodstuffs • Keep Children and Pets Off Treated Area until This Material Has Been Washed into Soil • Keep Away From Heat and Open Flame • Keep Out of Reach of Children and Animals.

In case of contact, immediately remove contaminated shoes and clothing and wash skin with soap and water; flush eyes with plenty of water for at least 15 minutes and get medical attention. Do not wear shoes or clothing until ABSOLUTELY free of all chemical odor. If illness results from inhalation, remove to fresh air and call a doctor. If swallowed, call a doctor. Induce vomiting by giving an emetic such as 2 tablespoonfuls of table salt in a glass of warm water.

USE PRECAUTIONS

Caution—Note Carefully: Fumigation may temporarily raise the level of ammonia nitrogen and of soluble salts in the soil. This is most likely to occur when heavy rates of fertilizer and fumigant are applied to soils that are either cold, wet, acid or high in organic matter. To avoid injury to roots of ammonia sensitive plants, fertilize as indicated by soil tests made after fumigation. To avoid ammonia injury or nitrate starvation, or both, avoid using fertilizers containing ammonium salts, and use only fertilizers containing nitrates until after the crop is well established and the soil temperature is above 65 F. Certain crops, including cotton and pineapple, are tolerant to ammonia; the above rule does not apply to them. Liming highly acid soils before fumigation stimulates nitrification and may reduce the possibility of ammonia toxicity.

Attention: To avoid reinfestation of treated soil, do not use transplants, tools or crop residues that may be contaminated with soil borne pests.

If foliage of plants is contacted with the fumigant, wash off immediately with water. FUMAZONE EC is not recommended for use on extremely heavy mineral or muck soils.

Do not use containers, pumps or other transfer equipment made of aluminum, magnesium or their alloys, as under certain conditions FUMAZONE EC may be severely corrosive to such metals.

Store in tightly closed containers in cool place away from dwellings and out of reach of children. Not for use or storage in or around the home.

This product is toxic to wildlife. Keep out of lakes, streams and ponds. Birds and other wild life in treated areas may be killed.

Rinse equipment and containers and dispose of wastes by burying in non crop lands away from water supplies. Containers should be disposed of by punching holes in them and burying with wastes.

NOTICE: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.

Patented U.S. No. 3,049,472. This product licensed for use according to methods of U.S. Patent 2,937,936 and 3,049,472.

THE DOW CHEMICAL COMPANY

AND SUBSIDIARIES

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SPECIMEN LABEL

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464-371



FUMAZONE* EC

SPECIMEN LABEL

ACTIVE INGREDIENT:
 1,2-dibromo-3-chloropropane and related halogenated C₃ aliphatics..... 88.2%
INERT INGREDIENT..... 11.8%
 † Contains 13.1 Pounds Active Ingredient per Gallon.
 E.P.A. Registration No. 464-371-AA

FUMAZONE EC Nematicide, an emulsifiable product is intended for application to mineral soil to control plant parasitic nematodes such as awl, citrus, cyst, dagger, lance, lesion or meadow, pin, ring, root-knot, spiral, sting, stubby root, stunt and symphyllans in land to be planted to crops listed in the accompanying "Dosage and Use Recommendation" table. NOTE: MAY BE DILUTED WITH WATER FOR CHISEL APPLICATION.

DIRECTIONS FOR USE

Apply FUMAZONE EC when soil temperature at a depth of not less than 5 inches is between 40° and 80° F. Soil should be in seedbed condition with adequate moisture for good seed germination. Work plant remains into the soil and allow time to decompose before treating. Do not treat extremely wet or dry soils. Read the entire label before making application.

OVERALL APPLICATION

METHOD: Either chisel equipment, with chisels 12 inches apart or plowsole equipment may be used to apply the fumigant. With this equipment release the fumigant at a depth of 5 to 8 inches. Overall application may also be accomplished by introducing the fumigant into irrigation water through centrifugal pumps.

SOIL SEALING: Immediately after chisel application, seal and compact the soil by using a roller, cultipacker, or similar device or flood with water. After plowsole application, disk the land, then compact by rolling.

EXPOSURE PERIOD: After overall preplant application, leave soil undisturbed for 7 to 14 days.

Aeration and Preparation of Soil Before Planting: After overall preplant application, the soil should be aerated by deep cultivation at the end of the exposure period. If heavy rains occur, accompanied by low temperatures during the exposure period, additional aeration is required. Working the soil several times before planting will aid in aeration which is usually adequate when the fumigant odor is gone. Shallow rooted crops can usually be planted about one week after the end of the exposure period. For deep rooted trees and shrubs, the aeration period after preplant treatments should be 4 to 6 weeks.

ROW APPLICATION

For Use as Preplant and at Planting Time: Use two or more chisels per row depending upon the width of the area to be treated. Set chisels 12 inches apart and inject the fumigant 5 to 8 inches below the final soil surface planting level. For preplant applications the treated rows may be marked by bedding or listing, and by tractor or press wheels.

For Use as Postplant Application: Use two or more chisels per row and in such a manner as to treat both sides of the row, with the chisel injection lines no closer to the plant line than 4 inches.

Planting Instructions with Row Application: Direct seeding may be done at the time the fumigant is applied or at any time after a preplant application. Keep seed at least 4 inches away from chisel injection furrow to avoid poor stands due to loose soil in the area. When setting transplants use following instruction. (1) Preplant treatment with 14 day wait, plant anywhere, or (2) Preplant treatment with less than 14 day wait, set plants at least 4 inches from chisel injection furrow, or (3) Fumigated at planting time, set plants at least 4 inches from chisel injection furrows.

For best control of nematodes, seal all row treated soil immediately after application and after any subsequent disturbing of the soil within 7 days after treatment. This can be done by tractor wheels and by listing or bedding followed by ring rollers, press wheels or flooding with water.

DRENCH APPLICATION (For Professional Use Only)

For overall treatment of established turf and around tolerant ornamental plants thoroughly mix the required amount of FUMAZONE EC with water and apply the resulting emulsion evenly with a sprinkling can or hose proportioner. Use at least 20 gallons of water for each 100 square feet of area to be treated. After application of fumigant apply

WARNING
KEEP OUT OF REACH OF CHILDREN
 Read Complete Precautions on Side Panel

enough clear water to wash the foliage and wet the soil to a depth of 8 inches. To improve control aerate and wet soil thoroughly before application of fumigant (NOTE: Because of vapor hazard apply during cooler hours of the day.)

IRRIGATION APPLICATION

FUMAZONE EC is recommended for use at the rate of 30 ppm of the active ingredient in sufficient water to give penetration to the desired depth. 0.518 gallons of FUMAZONE EC per acre inch of irrigation water will provide 30 ppm by weight of active ingredient. For the irrigation treatment, multiply 0.518 U.S. gallons by the number of acre inches of water to be applied by the number of acres to be fumigated. For example, if an irrigation of 5 acre inches of water is planned, and 10 acres are to be treated, the following calculation will give the number of gallons of FUMAZONE EC required:

Example: $0.518 \times 5 \times 10 = 25.90$ U.S. gallons

In this case the dosage is equivalent to 2590 U.S. gallons of FUMAZONE EC per acre.

Irrigation Application Equipment: For best results FUMAZONE EC should be applied by introducing the fumigant into the intake side of a centrifugal pump having a minimum output of not less than 4% of the total gallons of water of the irrigation system. The fumigant should be metered directly into the pump from its original container through a simple gravity flow applicator. There are several excellent applicators of this type commercially available.

Water Requirements to Bring Soil Moisture from the Wilting Point to Field Capacity: It has been determined that this fumigant in irrigation water will penetrate the soil to approximately one half of the depth of the water penetration. Therefore, sufficient water should be applied to bring the field capacity to a depth about twice that desired to be fumigated. On deep sandy soils this will require about 4 to 6 acre inches of water. The following table is offered as a guide to estimate the water requirements to bring soil moisture from the wilting point to field capacity.

Type of Soil	Acre Inches of Water Required For	
	Top 6 to 8 inches of soil	Each additional foot of soil depth
Sand	1/2 to 1	1/2 to 1
Loam	1 to 2	1 to 2
Clay	2 to 3	2 to 3

APPLICATION SUGGESTIONS:

1. Apply the fumigant in all the water used in a given irrigation.
2. Do not use more treated water per acre in one irrigation than will provide the maximum dosage of FUMAZONE EC recommended for each crop listed in the accompanying "Dosage and Use Recommendations" table.
3. Always determine the water delivery rates of the pump and canal or ditch before irrigation. This determination is necessary to assure accurate dosage which is based on total volume of irrigation water.
4. Irrigate with a maximum amount of water in a minimum period of time. Best results are obtained when irrigation time is two hours or less.
5. For best results, cover as much of the soil surface as possible with the treated irrigation water.
6. The necessity for treatment of perennial crops is dependent upon re-establishment of damaging nematode populations. Over all treatment will usually give 2 to 4 years control of nematodes. To avoid the possibility of exceeding the residue tolerances of food crops, do not treat by irrigation more often than once a year.

SYMPHYLLANS: To control symphyllans use only over all applications at the dosages indicated in the table. Apply during late summer or early fall when the soil is warm.

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REPLACES SPECIMEN LABEL PRINTED IN MARCH 1971

REVISIONS INCLUDE: (1) ADDITION OF LIMBEANS AND SOYBEANS IN TABLE
 (2) PRECAUTIONARY LABELING REVISED (3) USE PRECAUTIONS REVISED
 (4) INGREDIENT STATEMENT REVISED (5) USDA CHANGED TO EPA.