

**ACCEPTED**

4-13-72

UNDER THE FEDERAL INSECTICIDE ACT  
REGISTERED AND RECOMMENDED FOR  
USE BY THE FEDERAL GOVERNMENT  
EPA REGISTRATION NO. 8853-5

8853-5

# DOWFUME<sup>®</sup> W-85 HIGH STRENGTH SOIL FUMIGANT

## INGREDIENTS

Active Ingredient: Ethylene Dibromide ..... 83%  
Inert Ingredients ..... 17%

1 gallon of DOWFUME W-85 contains 12 pounds (approximately 2/3 gallon) of Ethylene Dibromide.

E. P. A. Registration No. 8853-5

## DOSAGE AND USE RECOMMENDATIONS

Use as preplant only, except as indicated by footnote (i). Do not exceed maximum dosage per acre in a single year.

Use DOWFUME W-85 fumigant as a preplanting treatment to control nematodes (other than encysted eggs and larvae of the sugar beet nematode, golden nematode, and related species), wireworms, garden centipedes (symphylians), and certain other soil-borne pests in land to be planted to lima beans, broccoli, carrots, cauliflower, corn (sweet), cotton, cucumbers, egg plant, floral crops, gladiolus, lettuce, melons, nursery crops, okra, parsnips, peppers, pineapple, potatoes (sweet), potatoes (white), squash (summer), strawberries, tobacco and tomatoes. It usually is applied as an over-all treatment, but row treatment may be used on cotton, cucumbers, and certain other crops for which this type of treatment is suitable. For best results, annual treatment is required.

### DIRECTIONS FOR APPLICATION AND PLANTING

**WHEN TO TREAT:** Treatments can be made either in spring or fall whenever soil conditions are suitable. In northern states, late summer or early fall treatment (before October 15) is best for land to be planted to early spring crops, especially in muck soils. Early treatment permits planting a fall cover crop.

**SOIL PREPARATION:** To facilitate sealing and fumigant penetration, work crop remains into the soil so that they are decomposed before treatment. Soil should be in good workable seed bed condition, warm (50-95 degrees F.), with adequate moisture for good seed germination. Deep tillage, 12 to 18 inches, often improves results, especially in heavy or muck soils.

**APPLICATION:** For nematode control both overall and row treatments are effective. Use only overall applications for control of wireworms and symphylians (garden centipede). Overall applications may be made with either chisel or plow sole equipment. Row applications should be made with chisels spaced 12 inches apart. Two or more chisels should be used per row depending upon the width of the row to be treated. For row applications, as the distance between the rows increases, the amount of fumigant required per acre decreases. In all cases, inject the fumigant at least 5 to 8 inches below the final soil surface planting level. Mark the treated rows by bedding or listing or by tractor or press wheels, and plant in the center of the treated strips.

**SEALING:** Compact the soil immediately after application. With chisel application, use a float, roller, cultipacker, or similar device attached to the applicator or to another closely following tractor. After plow sole application, disk the land, then compact it by floating or rolling. Sealing after row application can be accomplished by the tractor wheel, by listing, or by bedding so that the fumigant will be 12 or 14 inches below the top of the bed. When fumigating listed rows, seal in the fumigant with ring rollers or press sealers.

**EXPOSURE PERIOD:** After application and compacting, leave the soil undisturbed for at least 7 to 14 days. Wet soil retards diffusion of the fumigant, thus requiring a longer exposure period.

**AERATION AND PREPARATION OF SOIL BEFORE PLANTING:** At the end of the exposure period, aerate the soil by plowing or deep cultivation. This is especially desirable in northern areas after fall application in muck soils. If heavy rains accompanied by low temperatures occur during the exposure period, working the soil several times is essential for thorough aeration. Aeration is usually complete when the odor of the fumigant is no longer evident. Shallow-rooted crops can usually be planted about one week after the end of the exposure period, or when aeration is complete. For deep-rooted trees and shrubs, the aeration period should be 3 to 6 months.

Crop or Areas	Pest to be Controlled	Type of Applicator	Remarks	Gallons Per Acre	Linear ft/pt/chisel		Waiting Time Between Application and Planting
					Low Rate	High Rate	
Row Crops: Beans (lima), broccoli, carrots, cauliflower, corn (sweet), cotton, cucumbers, egg plant, floral crops, gladiolus, lettuce, melons, nursery crops, okra, parsnips, peppers, pineapple, potatoes (sweet), potatoes (white), squash (summer), strawberries, tobacco, and tomatoes.	All nematodes except encysted eggs and larvae of sugar beet, golden nematode, and related species.	Overall or Row	Loam or sandy soil	4 1/2 to 6	1210 to 910		
	Wireworms (a) & all nematodes with exceptions above	Overall	Muck Soil	9	605		1-3 Weeks
Potatoes (white)	All nematodes except potato rot & cyst forming species	Overall or Row	Loam or sandy soil	4 1/2 to 6	1210 to 910		
	Wireworms (a) & all nematodes with exceptions above	Overall	Loam or sandy soil	4 1/2 to 6 (c)	1210 to 910		1-2 Weeks
Strawberries (g)	Potato rot nematodes, and wireworms	Overall or Row	Wisconsin and Idaho	4 to 5 (f) 2 to 2 1/2 (f)	1365 to 1024		
	Nematodes	Overall or Row	Wherever Needed	9	605		1-3 Weeks
Nursery and Floral Crops Seedbeds.	All nematodes except encysted eggs and larvae of sugar beet, golden nematode, and related species.	Overall or Row	Wherever Needed	6	910		3 Days
	Nematodes	Overall or Strip	Wherever Needed	15	365		1-3 Weeks
Pineapple	Nematodes	Row	Wherever Needed	9 to 18 (h) 6 (i)	605 to 308 910		3 Days
	Nematodes	Overall or Row	Wherever Needed	3 to 4 1/2	1820 to 1210		3 Days

\*CAUTION CONCERNING PEANUT HAY AND HULLS: Although a safe tolerance has been established by the U. S. Food and Drug Administration for residues of bromides in peanut kernels grown on soil fumigated with DOWFUME W-85, the peanut hay and hulls will contain bromide residues not covered by a tolerance. Such peanut hay and hulls are not suitable as feed for meat or lactating dairy animals. To avoid misuse of such hay or hulls, do not sell to another party or otherwise introduce into commerce. Any forage crop grown on soil treated with a bromide-containing fumigant should not be used as a feed for dairy animals, or for animal's being finished for slaughter until 2 years after row treatments are made and 3 years following overall treatments.

- (a) For wireworms only, in Western Irrigated Land reduce dosage to 3 gal/A (1820 linear ft/pt/chisel).
- (b) For best results against symphylians (garden centipede), apply during late summer or early fall when soil is warm.
- (c) Always use the 6 gallons per acre rate for symphylian control.
- (d) To avoid excessive bromide residue do not use DOWFUME W-85, if harvested potatoes will be fumigated with methyl bromide.
- (e) Make two applications in the fall with plowsole or chisel applicator. (See footnote (f)).
- (f) Make the first application using 1 to 2 gallons per acre. In 10 days, plow and make the second application using 2 to 2 1/2 gallons per acre.
- (g) For strawberries in areas where the plantings are maintained more than one crop year.
- (h) For Hawaiian pineapple use these dosages preplant only. Allow at least 2 days between treatment and planting.
- (i) A postplant application may be made of this dosage applied within six months after planting. Use postplant application only if there has been no preplant treatment with DOWFUME W-85.

## Useful In The Control Of Nematodes And Certain Other Soil-Borne Pests

**CAUTION: Note Carefully.** Fumigation may temporarily raise the level of ammonia nitrogen and 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 plant roots, fertilize as indicated by soil tests made after fumigation. To avoid ammonia injury or nitrate starvation, or both, to crops, 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 degrees F. Certain crops including cotton and pineapple are tolerant to ammonia and the above rule does not apply to them. Liming highly acid soils before fumigation stimulates nitrification and reduces the possibility of ammonia toxicity.

### PRECAUTIONS

To avoid reinfestation of treated soil, do not use transplants, tools or crop remains that could carry soil-borne pests from infested land. Clean rig carefully before using. DOWFUME W-85 is not recommended for extremely heavy soils or land to be planted to onions within 2 years. Row treatment is not recommended for control of wireworms. Soil fumigation will not control flea beetle larvae, maggots, and certain other soil-inhabiting insects which cause damage similar to that of wireworms since they usually are not present at the time of fumigation. Consult your local agricultural authorities for suggestions for the control of these pests.

Do not store near seeds, plants, fertilizers or other pesticide chemicals. Do not use containers, handling or application equipment made of aluminum, magnesium, or their alloys. Store in tightly closed containers in a cool place away from dwellings. In outside storage, store drums on their sides. If DOWFUME W-85 is subjected to temperatures below 28 degrees F., warm to 50 degrees F. and mix thoroughly before using. Decontaminate containers by burying unused product at least 18 inches deep and away from water supplies. Allow inside of thoroughly drained container to air dry away from children. Destroy container to prevent re-use.

### WARNING

**KEEP OUT OF REACH OF CHILDREN  
HAZARDOUS LIQUID AND VAPOR  
ABSORBED THROUGH SKIN • MAY CAUSE BURNS  
Do Not Get on Skin, in Eyes, or on Clothing  
Avoid Breathing Vapor • Do Not Take Internally  
CALL A DOCTOR IN CASE OF EXPOSURE**

**FIRST AID:** 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. Reduce vomiting by giving an emetic such as 2 tablespoons of table salt in a glass of warm water.

**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, expressed 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.

\*DOWFUME W-85-Trademark of THE DOW CHEMICAL COMPANY

DISTRIBUTED BY

# HENDRIX & DAIL, Inc.

Telephone 758-4263

GREENVILLE, NORTH CAROLINA 27834

BRANCH

Southern Soil Fumigation Service

P. O. Box 965 Telephone 382-7272

TIFTON, GEORGIA 31794

SALES AND WAREHOUSE

Oxford, N. C.

Telephone 693-3910

**INGREDIENTS**

Ethylene Dibromide . . . . . 83%  
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 (2 2/3 gallon) of Ethylene Dibromide.

A. Registration No. 8853-5

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 tode eggs and larvae of the sugar beet nematode, golden  
 beetles, wireworms, garden centipedes (symphylans),  
 and other pests in land to be planted to lima beans, broccoli,  
 sweet corn, cotton, cucumbers, egg plant, floral crops,  
 nursery crops, okra, parsnips, peppers, pineapple,  
 (white), squash (summer), strawberries, tobacco  
 applied as an over-all treatment, but row treatment  
 is best for best results, annual treatment is required.

**FOR APPLICATION AND PLANTING**

Treatments can be made either in spring or fall whenever  
 the soil is best for land to be planted to early spring crops,  
 early treatment permits planting a fall cover crop.  
 To facilitate sealing and fumigant penetration, work  
 the soil so that they are decomposed before treatment. Soil  
 should be in seed bed condition, warm (50-95 degrees F.), with  
 good seed germination. Deep tillage, 12 to 18 inches,  
 especially in heavy or muck soils.

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 recommended. Applications for control of wireworms and symphy-  
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 or overall applications should be made with chisels spaced  
 6 to 10 feet. More chisels should be used per row depending upon  
 the soil treated. For row applications, as the distance be-  
 tween rows increases the amount of fumigant required per acre decreases.  
 Apply the fumigant at least 5 to 8 inches below the final soil sur-  
 face. Seal the treated rows by bedding or listing or by tractor  
 wheels in the center of the treated strips.

After application. With chisel appli-  
 cator, immediately after application. With chisel appli-  
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 plicator, follow following tractor. After plow sole application,  
 seal it by floating or rolling. Sealing after row appli-  
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 der for 14 days. Wet soil retards diffusion of the fumigant,  
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 time of application, aerate the soil by plowing or deep cultivation. This  
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Strawberries (g)	Nematodes	Overall or Row	Wherever Needed	9	605	1-3 Weeks	
Nursery and Floral Crops, Seedbeds.	All nematodes ex- cept encysted eggs and larvae of su- gar beet, golden & related species.	Overall or Row	Wherever Needed	6	910	3 Days	
Fruit Tree Planting Sites	Nematodes	Overall or Strip	Wherever Needed	15	365	1-3 Weeks	
Pineapple	Nematodes	Row	Wherever Needed	9 to 18 (h) 6 (i)	605 to 303 910	3 Days	
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- (f) Make the first application using 4 to 5 gallons per acre. In 10 days, plow and make the second application using 2 to 2 1/2 gallons per acre.
- (g) For strawberries in areas where the plantings are maintained more than one crop year.
- (h) For Hawaiian pineapple use these dosages preplant only. Allow at least 2 days between treatment and planting.
- (i) A postplant application may be made of this dosage applied within six months after planting. Use postplant applicator only if there has been no preplant treatment with DOWFUME W-85.

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 fumigation. Consult your local ag  
 the control of these pests.  
 Do not store near seeds, plants, fer  
 Do not use containers, handling or  
 magnesium, or their alloys. Store in  
 away from dwellings. In outside stor  
 FUME W-85 is subjected to temper  
 degrees F. and mix thoroughly bef  
 Decontaminate containers by buryin  
 and away from water supplies. Allo  
 to air dry away from children. Dest

**WA**  
**KEEP OUT OF**  
**HAZARDOUS L**  
**ABSORBED THROUGH S**  
**Do Not Get on Skin**  
**Avoid Breathing Vapor**  
**CALL A DOCTOR**

**FIRST AID:** In case of contact im-  
 clothing and wash skin with soap a  
 for at least 15 minutes and get medi  
 until absolutely free of all chemical  
 If illness results from inhalation, re  
 If swallowed, call a doctor. Induce  
 tablespoons of table salt in a glass  
**NOTICE:** Seller warrants that the p  
 and is reasonably fit for the purpose  
 ance with directions under normal  
 nor any other warranty of MERCHA  
**CULAR PURPOSE,** express or impli-  
 tary to label instructions, or under  
 not reasonably foreseeable to seller  
 use.

\*DOWFUME W-85—Trademark of

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