

SOIL FUMIGATION DIRECTIONS

The following are general instructions on the use of Brom-O Gas for soil fumigation to be used as preplanting soil treatment in seed beds or transplant beds for the production of transplants only.

SOIL FUMIGANT USES: Brom-O-Gas is an effective soil fumigant for the control of nematodes, and weed seeds. In seed beds, it contributes to a maximum production of healthy, vigorous tobacco, vegetable transplants, nursery and forest tree seedlings. Where "slips," "cuttings," "spuds" or seeds are used as in nurseries, golf greens, lawns and ornamental gardens, healthy and vigorous rooting is established quickly.

SOIL PREPARATION: Plow or otherwise work soil to a fine tilth. Add fertilizer, manure or compost, work in well. Soil should be moist and friable for best results. Do not fumigate when soil is dry or excessively wet.

CAUTION: Do not fumigate when soil temperature is below 50° F. Brom-O-Gas use in vegetable beds is limited to the production of transplants only.

EXPOSURE PERIODS: Expose for 48 hours when soil temperature is between 50° F. and 60° F. and for 24 hours when above 60° F.

DOSAGE: For most purposes use 1 lb. of Brom-O-Gas for each 100 sq. ft. of soil to be treated.

WHEN TO PLANT: After the exposure aerate soil for 3 days before seeding or 5 to 14 days before setting out vegetative growth, depending on sensitivity of the plant.

APPLICATION OF BROM-O-GAS. The "cold method" consists of conveying the liquid methyl bromide through a plastic tube from the cylinder to the evaporating pan under the cover. Use one vaporizer pan for each 300 to 400 sq. ft. Anchor discharge tube in pan with temporary weight for easy withdrawal. Support polyethylene cover with mounds of dirt, inverted bottles or straw-filled sacks. Anchor edges of cover in shallow trench. The resulting gas spreads over and penetrates the soil. Do not discharge the liquid directly on the soil.

The "chisel injection method" is applied with chisels spaced 12 inches apart to a depth of 8 inches. Seal fumigant with drag or cultipacker immediately behind chisels. Cover with a gas proof tarpaulin. Remove tarpaulin after recommended fumigation period and aerate soil.

The field use of "hot gas" from cylinders in conjunction with mechanical laying of the polyethylene cover requires detailed description. For further information on this use inquire from your supplier.

TREE AND VINE SITE FUMIGATION DIRECTIONS

CITRUS SOIL FOR CONTROL OF PHYTOPHTHORA AND CITRUS NEMATODES IN FLORIDA SANDY SOILS. This is a preplant or repair treatment. Trees which are planted in the treated soil will not have harvestable fruit for a period of at least 24 months. Apply with chisel spaced 12 inches apart to a depth of 6 to 8 inches. Seal fumigant with drag or cultipacker immediately behind chisels. Apply at the rate of 1 to 100 sq. ft. Cover with a 4 mil tarpaulin. Expose to fumigation for 96 hours. Weeds will be exposed to a depth of 4 feet. Aerate 2 weeks before setting transplants in treated area.

CONTROL OF ARMILLARIA MELLEAE (OAK ROOT FUNGUS) ON DECIDUOUS FRUITS AND NUTS, CITRUS AND VINEYARDS

DOSAGE AND METHOD OF APPLICATION. This is a preplant or repair treatment. Citrus which are planted in this treated soil will not have harvestable fruit for a period of at least 24 months. Methods and dosage of application are as follows:

1. After the soil has been properly prepared, inject 2 pounds of Brom-O-Gas per 100 sq. ft. by chisel application spaced 48 inches apart to a depth of 36 inches. Covered with adequate polyethylene film seal, it will control *Armillaria mellea* oak root fungus in grape vineyards, citrus groves and deciduous fruit orchards on a permanent or semi-permanent basis. Do not apply to soil where trees or vines will be planted within 24 months.

2. **DEEP INJECTION AUGER PROBE TREATMENT.** 36 inches or more below the surface of the soil will effectively control *Armillaria mellea* oak root fungus in grape vineyards, citrus groves and deciduous fruit orchards. Use one pound of Brom-O-Gas per injection's foot in lighter soils, two pounds of Brom-O-Gas in fine textured soils. There is one injection's foot per 100 sq. ft. in a 10 ft. x 10 ft. grid pattern with the injection in the center of the grid to be treated.

PREPARATION FOR APPLICATION. To obtain the maximum control of *Armillaria mellea* with methyl bromide, the soil in the area to be treated must be dry to the depth requiring treatment. This can be accomplished by:

- planting Sudan grass in the Sudan grass area and the grass has established and then do not irrigate any further.
- initially, by leaving the soil plant in the area to be treated and setting grids in place without irrigation.

When soil is dried out and remove grass plants and debris on soil to a depth of 18 to 24 inches and disc to smoothen.

EXPOSURE PERIOD - AERATION

1. To insure a proper time concentration relationship to control oak root fungus, we recommend a seven-day period before removing the polyethylene film cover and a one-day interval with "DEEP INJECTION AUGER PROBE TREATMENT" after the planting or re-planting of trees, vines or other deep rooted crop may begin 14 days later.

2. Methyl bromide under these conditions will not control most weed seeds. Some weeds may be observed to grow in the fumigated areas, such as morning glory, bindweed, ground cover, etc. of Johnson grass.

HY-YIELD

BROM-O-GAS

CONTAINS 2% CHLOROPICRIN

ACTIVE INGREDIENTS:	By Wt.
Methyl Bromide	98%
Chloropicrin	2%
Total	100%

DANGER

**KEEP OUT OF REACH OF CHILDREN
POISON**

DO NOT INHALE VAPORS • SEE ANTIDOTE & WARNINGS ON SIDE PANELS

NET WEIGHT LBS.

EPA REG. NO. 29516-4

PACKAGED and DISTRIBUTED
by

HY-YIELD, INCORPORATED

P.O. Box 786
BURGAW, NORTH CAROLINA

GENERAL FUMIGATION DIRECTIONS

For specific information on dosage uses insect problems, procedures or safety precautions consult HY-YIELD, INC.

This fumigant may be used in box cars, warehouses, fumigation vaults, food and cereal mills, ships and bulk grain storages. Do not fumigate if grain moisture is high, or if grain temperature is low (below 60° F.) or if there is excessive dockage.

INSECTS CONTROLLED: Granary weevil, grain beetle, rice weevil, cadellies, mites, bran bugs, grain borers, mealworms, Indian meal moth. Kills insects in all life stages. Kills rats and mice in fumigated area.

RATS AND MICE CONTROLLED: Kills rats and mice trapped within the fumigated area.

SPACE FUMIGATION: The usual dosage rate for each 1000 cu. ft. will range from 1 to 3 lbs., 12 to 24 hours exposure, depending on tightness of structure and kind and amount of commodity in storage.

BULK GRAIN DOSAGE RATES (General) above 65° F.

Shelled corn	2 lbs. each 1000 cu. ft.
Wheat (similar small grains)	3 lbs. each 1000 cu. ft.
Milo (grain sorghum)	4 lbs. each 1000 cu. ft.

CAUTION: Extinguish all flames such as pilot lights and glowing heating units to avoid corrosion.

Do not use dosages higher than recommended as this may in some cases result in residues in excess of those permitted. Do not fumigate food products other than those specified in directions.

Remove the following materials from building before fumigation as they may develop undesirable odors: furs, high protein flour and cereals, horsehair articles, iodized salt, patent leather articles, rubber goods, sulfur-containing compounds or synthetic detergents.

DANGER. The black canister, for protection against organic vapors, should be used with a full faced gas mask when releasing gas in buildings and when opening up for aeration after fumigation. Use halide leak detector to determine thoroughness of aeration.

HY-YIELD

BROM-O-GAS

CONTAINS 2% CHLOROPICRIN

INGREDIENTS:	By Wt.
Bromide	98%
Chlorpicrin	2%
Total	100%

DANGER 

KEEP OUT OF REACH OF CHILDREN

POISON

SEE ANTIDOTE & WARNINGS ON SIDE PANELS

EIGHT LBS.

EPA REG. NO. 29516-4
PACKAGED and DISTRIBUTED
by

HY-YIELD, INCORPORATED

P.O. Box 786
MORGANVILLE, NORTH CAROLINA

GENERAL FUMIGATION DIRECTIONS

For specific information on dosages, uses, insect problems, procedures or safety precautions consult HY-YIELD, INC.

This fumigant may be used in box cars, warehouses, fumigation vaults, food and cereal mills, ships and bulk grain storages. Do not fumigate if grain moisture is high, or if grain temperature is low (below 60° F.) or if there is excessive dockage.

INSECTS CONTROLLED. Granary weevil, grain beetle, rice weevil, cadellles, mites, bran bugs, grain borers, mealworms, Indian meal moth. Kills insects in all life stages. Kills rats and mice in fumigated area.

RATS AND MICE CONTROLLED. Kills rats and mice trapped within the fumigated area.

SPACE FUMIGATION: The usual dosage rate for each 1000 cu. ft. will range from 1 to 3 lbs., 12 to 24 hours exposure, depending on tightness of structure and kind and amount of commodity in storage.

BULK GRAIN DOSAGE RATES (General) above 65° F.

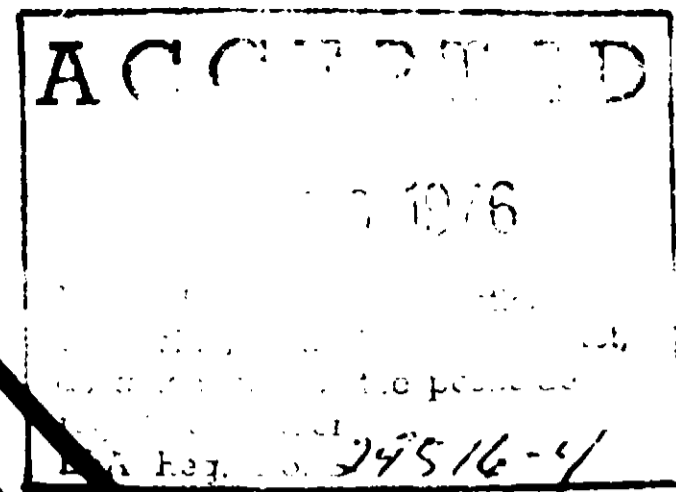
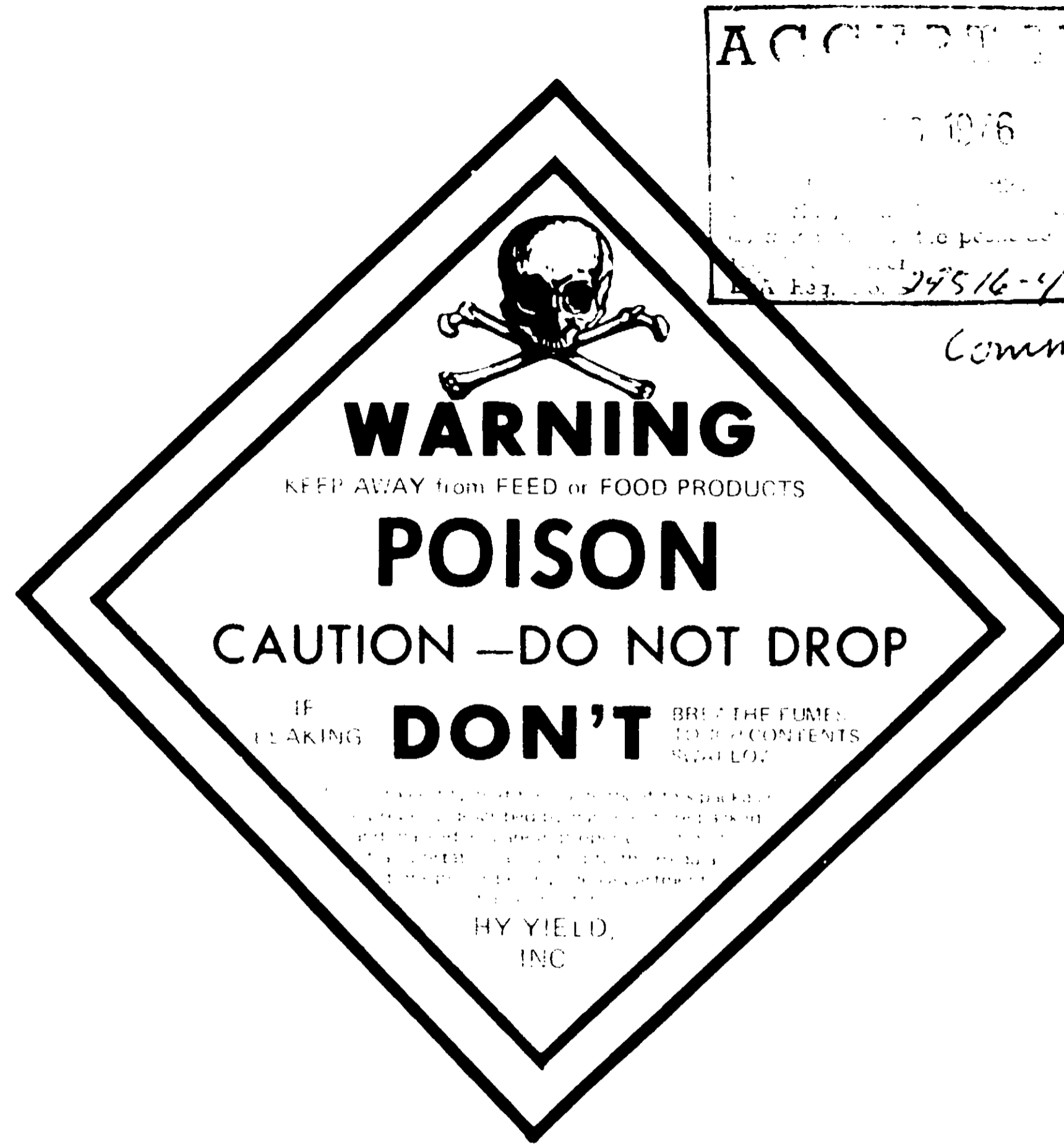
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Comment



POISON



ANTIDOTE

- Remove victim to fresh air immediately.
- Keep victim lying down and warm.
- Give artificial respiration if breathing has stopped.
- Call a physician immediately.

DANGER

Poisonous liquid and vapor

- Vapors can be fatal if inhaled.
- Contact with methyl bromide can cause burns.
- Do not get in eyes, on skin or on clothing.
- In case of contact wash skin thoroughly with soap and water for at least 15 minutes. Remove contaminated clothes and shoes immediately and thoroughly aerate before reuse.
- Get medical attention.
- BROM-O-GAS 2% is not to be stored in or around the home.

Empty cylinders should be returned freight collect to HY-YIELD, INC. location from which this shipment was made. Consult local sales office if questions arise.

ACCEPTED WITH COMMENTS

SOIL FUMIGATION DIRECTIONS

The following are general instructions on the use of Brom-O-Gas for soil fumigation to be used as preplanting soil treatment in seed beds or transplant beds for the production of transplants only.

SOIL FUMIGANT USES: Brom-O-Gas is an effective soil fumigant for the control of nematodes, and weed seeds. In seed beds, it contributes to a maximum production of healthy, vigorous tobacco, vegetable transplants, nursery and forest tree seedlings. Where "slips," "cuttings," "spuds" or seeds are used as in nurseries, golf greens, lawns and ornamental gardens, healthy and vigorous rooting is established quickly.

SOIL PREPARATION: Plow or otherwise work soil to a fine tilth. Add fertilizer, manure or compost, work in well. Soil should be moist and friable for best results. Do not fumigate when soil is dry or excessively wet.

CAUTION: Do not fumigate when soil temperature is below 50° F. Brom-O-Gas use in vegetable beds is limited to the production of transplants only.

EXPOSURE PERIODS: Expose for 48 hours when soil temperature is between 50° F. and 60° F. and for 24 hours when above 60° F.

DOSAGE: For most purposes use 1 lb. of Brom-O-Gas for each 100 sq. ft. of soil to be treated.

WHEN TO PLANT: After the exposure aerate soil for 3 days before seeding or 5 to 14 days before setting out vegetative growth, depending on sensitivity of the plant.

APPLICATION OF BROM-O-GAS: The "cold method" consists of conveying the liquid methyl bromide through a plastic tube from the cylinder to the evaporating pan under the cover. Use one vaporizer pan for each 300 to 400 sq. ft. Anchor discharge tube in pan with temporary weight for easy withdrawal. Support polyethylene cover with mounds of dirt, inverted bottles or straw-filled sacks. Anchor edges of cover in shallow trench. The resulting gas spreads over and penetrates the soil. Do not discharge the liquid directly on the soil.

The "chisel injection method" is applied with chisels spaced 12 inches apart to a depth of 8 inches. Seal fumigant with drag or cultipacker immediately behind chisels. Cover with a gas-proof tarpaulin. Remove tarpaulin after recommended fumigation period and aerate soil.

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TREE AND VINE SITE FUMIGATION DIRECTIONS

CITRUS SOIL FOR CONTROL OF PHYTOPHTHORA AND CITRUS NEMATODES IN FLORIDA SANDY SOILS. This is a preplant or replant treatment. Trees which are planted in this treated soil will not have harvestable fruit for a period of at least 24 months. Apply with chisels spaced 12 inches apart to a depth of 6 to 8 inches. Seal fumigant with a drag or cultipacker immediately behind chisels. Apply at the rate of 1 lb/100 sq. ft. Cover with a 4 mil tarp and expose to fumigation for 96 hours. Will control disease to a depth of 4 feet. Aerate 2 weeks before setting transplants in treated area.

CONTROL OF ARMILLARIA MELLEA (OAK ROOT FUNGUS) ON DECIDUOUS FRUITS AND NUTS, CITRUS AND VINEYARDS

DOSAGE AND METHOD OF APPLICATION

This is a preplant or replant treatment. Crops which are planted in this treated soil will not have harvestable fruit for a period of at least 24 months. Methods and dosage of application are as follows:

1. After the soil has been properly prepared, inject 2 pounds of Brom-O-Gas per 100 sq. ft. by chisel application spaced 48 inches apart to a depth of 36 inches. Covered with adequate polyethylene film seal, it will control *Armillaria mellea* (oak root fungus) in grape vineyards, citrus groves, and all deciduous fruit tree orchards on a preplant or replant basis. Do not apply to soil where trees or vines will bear fruit within 24 months.

2. "DEEP INJECTION AUGER PROBE TREATMENT" 36 inches or more below the surface of the soil will effectively control *Armillaria mellea* (oak root fungus) in grape vineyards, citrus groves, and all deciduous fruit tree orchards. Use one pound of Brom-O-Gas per injection site in lighter soils, two pounds of Brom-O-Gas in fine textured soils. There is one (1) injection site per 100 sq. ft. (on a 10 ft. x 10 ft. grid pattern), with the injection in the center of the area to be treated.

PREPARATION FOR APPLICATION

To obtain the maximum control of *Armillaria mellea* with methyl bromide, the soil in the area to be treated must be dry to the depth requiring treatment. This can be accomplished by:

- planting Sudan grass in the Spring, maintaining until the grass has established itself, then do not irrigate any further;
- naturally, by leaving infected plants in the area to be treated and letting weeds, etc., grow without irrigation.

When soil is dried, cut and remove grass, plants and debris, rip soil to a depth of 18 to 24 inches and disc to smoothness.

EXPOSURE PERIOD AERATION

1. To insure proper time concentration relationship to control oak root fungus, we recommend a seven-day period before removing the polyethylene film cover, and a one day interval with "DEEP INJECTION AUGER PROBE TREATMENT," after which planting or replanting of trees, vines or other deep rooted crops may begin 14 days later.

2. Methyl bromide under these very dry conditions will not control most weed seeds. Some control may be observed, however, on deep rooted annuals such as morning glory (bindweed) and the rhizome of Johnson grass.

HY-YIELD

BROM-O-GAS

CONTAINS 2% CHLOROPICRIN

ACTIVE INGREDIENTS:	By Wt.
Methyl Bromide	98%
Chloropicrin	2%
Total	100%

DANGER

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