PM 21
45728-16
Pg 1 of 6

METAM 42% (Soil Fumigant)

10. **ACTIVE INGREDIENT:** **BY WT.**

Sodium methyldithiocarbamate (anhydrous)	42.0%
INERT INGREDIENTS:	58.0%
TOTAL	100.0%

11. Contains 4.2 lbs. Sodium methyldithiocarbamate per gallon.
EPA Reg. No. 45728- EPA Est. 32557-BL-1

ACCEPTED
APR 16 1999
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 45728-16

KEEP OUT OF REACH OF CHILDREN
CAUTION

STATEMENT OF PRACTICAL TREATMENT

If On Skin: Immediately flush skin with large amounts of running water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately.

If In Eyes: Immediately flush eyes with large amount of running water for at least 15 minutes. Hold eyelids apart to ensure rinsing of the entire surface of the eye and lids with water. Get medical attention immediately.

19. **If Inhaled:** Remove to fresh air. If not breathing, clear the victim's airway and start mouth-to-mouth artificial respiration. If breathing is difficult, give oxygen, preferably with a physician's advice. Get medical attention immediately.

If Swallowed: Immediately give several glasses of water bytdo not induce vomiting. If vomiting does occur, give fluids again. Have a physician determine if condition of patient will permit induction of vomiting or evacuation of stomach. Do not give anything by mouth to an unconscious or convulsing person.

20. **In case of emergency - Immediately call (24 hours) (800) 424-9300 CHEMTREC or (804) 857-8615 UCB Chemicals Corporation.**

PRECAUTIONARY STATEMENTS

9. **CAUTION**

HAZARDS TO HUMANS & DOMESTIC ANIMALS

Harmful if inhaled or swallowed. Irritating to eyes, nose, throat, and skin. Avoid breathing vapor or spray mist. Do not get in eyes, on skin, or on clothing. Do not wear leather shoes or boots when handling or applying unless they are protected from METAM 42 contact. In case of contact, immediately remove contaminated clothing or shoes and flush with plenty of water and apply soothing lotion. For eyes, flush with water at least 15 minutes and get medical attention. Wash and dry clothing and shoes before reuse. Do not store near food or feed. Keep children and pets out of treated areas. Wear a mask or respirator of a type approved by the U.S. Bureau of Mines for protection when applying in enclosed areas.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. Keep out of lakes, streams, or ponds. Do not apply where runoff is likely to occur. Do not contaminate water when disposing of equipment washwaters. Keep off of desirable lawns and plants. Do not use within 3 feet of drip lines of trees and shrubs. Do not use in greenhouse where plants are present. Apply this product only as specified on the label.

DIRECTIONS FOR USE

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

PRODUCT INFORMATION

METAM 42 is a water soluble liquid. When applied to properly prepared soil, the liquid is converted into a gaseous fumigant. After sufficient interval of time, the gas dissipates, leaving the soil ready for planting. METAM 42 is recommended for the control of certain soil-borne pests that attack ornamental, food and fiber crops causing reductions in yield and quality. NOTE: METAM 42 will control only those pests in the fumigation zone at the time of treatment. Reinfestation may occur subsequent to the fumigant's dissipation from the soil.

Weeds, and germinating weed seeds that are controlled include annual bluegrass, Bermudagrass, chickweed, dandelion, ragweed, henbit, lambsquarter, Amaranthus sp. (pigweed, careless weed), watergrass, Johnsongrass, nutgrass, wild morning glory, purslane, barnyardgrass, crabgrass, groundsel, prickly lettuce, pineappleweed, nettleleaf goosefoot, nightshade, Shepherdspurse, stinging nettle, Malva, London rocket, and fiddleneck. The best weed control is obtained when METAM 42 is applied to weeds that are actively growing.

The soil-borne plant pathogenic fungi controlled include species of Verticillium, Rhizoctonia, Pythium, Phytophthora, Sclerotinia, as well as Sclerotium rolfsii, Armillaria mellea (Oak root fungus), and Plasmodiophora brassicae (Club root of crucifers).

The plant parasitic nematodes which METAM 42 controls include root knot, lesion, dagger, lance, needle, pin, reniform, stunt, stubby root, sting, and spiral. NOTE: METAM 42 will only control nematodes that are in the fumigated zone at the time of treatment, in Oregon and Washington. METAM 42 will only suppress Meloidogyne chitwoodi.

Other pests controlled include symphilids or garden centipedes.

USE PRECAUTIONS

All METAM 42 uses described on this label are intended for soil preperation purposes only. All plant foliage and established plants growing on the treatment site will be damaged or destroyed.

Keep children and pets out of the treated areas. Keep METAM 42 off desirable lawns and plants. Do not apply with 3 feet of the drip line of desirable plants, shrubs or tree. Do not use in confined areas without adequate ventilation OR where fumes may enter nearby dwellings. Do not use in greenhouse where desirable plants are present. Keep container tightly closed when not in use. Do not store near feed or food.

GENERAL PRECAUTIONS FOR IRRIGATION SYSTEMS

When applying by chemigation methods the following directions or warnings must be observed:

Apply this product only through [choose one or more of the following types of systems: sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move; flood (basin); furrow; border; or drip (tricide)] irrigation system(s). Do not apply through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

USE PRECAUTIONS FOR SPRINKLER IRRIGATION

- The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake-side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Application of more than recommended quantities of irrigation water may result in decrease product performance by removing the chemical from the zone of effectiveness.
- Do not apply when wind speed favors drift beyond the area intended for treatment.
- Use only sprinkler systems that give uniform coverage.

USE PRECAUTIONS FOR FLOOD (BASIN), FURROW AND BORDER IRRIGATION

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.

Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

- The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake-side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

USE PRECAUTIONS FOR DRIP (TRICKLE) IRRIGATION

- The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake-side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

NOTE: UCB Chemicals Corporation does not encourage connection of chemigation systems to public water systems. The following information is provided for users who have evaluated all alternative application and water source options before choosing to make such a connection.

A "public water system" is one that provides piped water for human consumption to the public, and the system also either has at least 15 service connections or regularly serves and average of at least 25 individuals daily at least 60 days a year.

- Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone backflow preventor (RPZ) or the functional equivalent in the water supply line upstream from the pint of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There should be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank measuring at least twice the inside diameter of the fill pipe.

- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake-side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

FIELD PREPARATION PRIOR TO APPLICATION

Pre-irrigate the soil if necessary to the desired treatment depth 1-2 weeks before application. Soil moisture level should be approximately 50% of field capacity during the application. Do not use on muck, heavy clay, or soils high in organic matter (greater than 10%). Soil samples should be taken to determine the location and degree of nematodes and soil insects in the soil profile. Consult with state nematologist, entomologist and plant pathologist to determine if crop rotation is more feasible than fumigation. NOTE: METAM 42 will only control nematodes that are in the fumigated zone at the time of treatment.

1. A week before treatment, always cultivate thoroughly area to be treated to loosen soil and to break up clods. Then sprinkle or flood irrigate to moisten loosened soil if needed. Immediately before treatment, cultivate lightly to break up soil crust.

APPLICATION OF METAM 42

Apply METAM 42 according to the methods and rates outlined under "USES, APPLICATION METHODS, & RATES" section below.

USE PROMPTLY AFTER MIXING WITH WATER. DO NOT STORE THE DILUTED PRODUCT. DO NOT ALLOW SOLUTION TO STAND OVERNIGHT.

Flush all equipment with water after each day's use. Disassemble valves and clean carefully.

15. METAM 42 can be applied through sprinkler irrigation systems over cover crops such as alfalfa, clover, and such grasses as rye, oats, wheat, and sudan grass. When the product is applied over covers, no cultivation of the soil is required before the application of METAM 42.

Soil properties to consider when determining the application rate include the depth of soil to be treated, soil texture, and percent organic matter.

At the time of fumigation, the soil temperature should be the range of 40°F to 90°F at a depth of 3 inches. To prevent rapid evaporation of the product from the soil, avoid treating soil during times of the day when soil temperatures exceed 90°F two inches deep. Instead, make the application during the early morning hours when the soil temperature is coolest. Do not apply when air temperature is over 80°F or when low humidity or wind would cause METAM 42 to evaporate before it can be drenched into the soil with water.

METAM 42 must be sealed into the soil by sprinkling immediately after application. Wet soil to a depth of 3 to 5 inches. Keep soil surface wet for 2 to 3 days after application, especially on very light soils, then let dry out. If fumes become unpleasant during treatment, apply more water to seal METAM 42 into soil to achieve maximum fumigant benefit.

To be most effective, METAM 42 should be sealed in the soil. Sealing methods include applying irrigation water or tarpaulins (plastic, paper or fabric) and packing soil with a roller or drag. Tarpaulins should be spread loosely over the treated area and secured to prevent removal by wind. They should remain in place for at least 48 hours.

CULTIVATION AFTER APPLICATION AND PLANTING

If tarped, the sealed area should be cultivated to a depth of 2 inches to aerate the soil seven days after treatment. When tarpaulins are used to seal the soil, wait at least 21 days before planting.

If a METAM 42 application is rained on less than 24 hours after treatment, lack of control at and near the soil surface may result.

Precautions must be taken to prevent recontamination of treated soil with plant pathogenic fungi and plant parasitic nematodes. Use clean seeds and plants. Before farm equipment is driven into the treated area, it should be rinsed free of the untreated soil from other fields.

Because METAM 42 is harmful to living plants, an appropriate interval must be observed between soil fumigation and planting. On well drained soils which have a light to medium texture and which are not excessively wet or cold following application, planting can begin 14-21 days after treatment. If soils are heavy or especially high in organic matter, or if they remain wet and/or cold (below 60°F) following application, a minimum interval of 30 days should be observed. Where the dosage is greater than 75 gallons per acre, wait at least 60 days.

Important: When treating potting soil, or heavier field soils, including soils high in clay or organic matter, should be allowed to aerate and dry thoroughly after treatment with METAM 42. During cold and/or wet weather, frequent shallow cultivation can aid the escape of METAM 42 from the soil.

On heavy, wet soils, light surface cultivation to break up crusting and promote drying of the soil should be done 5 to 7 days after application. This cultivation may be repeated as necessary. To avoid reinfesting treated soil, cultural practices should be such that untreated soils are not mixed with treated soils.

After the waiting period has passed, if there is any question about the complete escape of METAM 42 from the soil, transplant a seedling into the treated soil. If the plant develops normally without any signs of chemical injury, crop planting can begin.

USES, RATES AND APPLICATION METHODS

FIELD APPLICATION - where entire area is BEING TREATED

SOIL INJECTION: Apply using thin injection shanks spaced 5 in. apart or injector blades and inject METAM 42 to a depth of 4 in. deep into well-prepared soil. Follow immediately with a roller to smooth and compact surface. Light watering or a tarp after rolling helps prevent gas escape. For field use, 29-3/4 to 74-1/2 gal. METAM 42 per treated acre is recommended.

SPRINKLER SYSTEM: Use only those sprinkler systems which give large water droplets to prevent excess loss. Using an injector pump or gravity metering device, apply 88 to 74-1/2 gallons METAM 42 per treated acre in a minimum of one acre inch of water. For control of shallow pests (top 12" of soil profile), run sprinklers 5 to 10 min. In next 10 to 20 min., inject all METAM 42 needed for the area covered. On very light soils, keep surface moist by sprinkling for 2 or 3 days. For the control of pests deeper in the soil profile (greater than 18"), divide METAM 42 into 3 or more equal parts and apply at intervals during the sprinkling period using enough water to reach desired depth. Follow use precautions in "CHEMIGATION" section above.

2.1B

CHECK, FLOOD (BASIN), FURROW and BORDER IRRIGATION: Meter METAM 42 at a steady rate into water during irrigation. Use 37-1/4 to 74-1/2 gal. METAM 42 per treated acre, depending upon the kind of pest and depth desired, in 3 to 18 inches of water per acre. Follow use precautions in "CHEMIGATION" section above. 18.

FIELD APPLICATION TO BEDS OR ROWS

SOIL INJECTION: METAM 42 may be injected, at the rate of 56 to 74-1/2 gals. METAM 42 per treated acre (1.1 to 1.5 pints per 100 sq. ft. of treated soil), into pre-formed plant beds following the directions given above under soil injection. If a wider treated band is desired, space 2 or more injectors (shanks, blades, fertilizer wheels, etc.) at intervals of 5 inches to cover the desired treating width. Roll immediately. Light watering or a tarp after rolling helps prevent gas escape. 3.a., 16., 18.

Note: If METAM 42 is injected into established plant beds through plastic tarps to terminate growth of a previous crop, and to fumigate the bed in preparation for planting a subsequent crop, the terminated crop should not be used for any food or feed purpose after METAM 42 has been applied.

3.b. →

DRIP IRRIGATION: During pre-irrigation, check drip tape for uniform distribution and repair if necessary. Apply 15 to 56 gals. METAM 42 per treated acre (0.3 to 1.1 pints per 100 sq. ft. of treated soil) using enough water to thoroughly wet entire desired treatment zone. During the entire irrigation period, inject METAM 42 continuously into drip line as close as possible to treatment area. Two or more lines per bed may be needed to ensure full coverage. See use precautions in "CHEMIGATION" section above. 3.c., 18.

Important: Application must be continuously monitored as weed elimination will not be satisfactory if too much water is applied. An adequate concentration of METAM 42 must be present at the time of weed seed germination to provide effective weed control.

SOIL COVERING METHODS: (bed-over methods). METAM 42 may be sprayed or dripped onto the soil immediately ahead of bed-shaping equipment. Cover the METAM 42 with soil to a depth of 3 to 6 inches. The soil should be rolled and compacted immediately. The recommended rate of METAM 42 is 37-1/4 to 74-1/2 gal. per acre of treated soil, approximately equivalent to 3/4 to 1-1/2 pints per 100 linear ft. of 12-inch wide row. 3.d., 16, 18.

ROTARY TILLER or POWER MULCHER: Spray dilute METAM 42 immediately in front of tiller or mulcher. Use 37-1/4 to 74-1/2 gallons per treated acre (3/4 to 1-1/2 pints per 100 sq. ft. of treated soil). Follow immediately with roller or bed shaper to seal soil surface. 16, 18.

TREATMENT OF TREE REPLANT SITES: After removing dead of diseased tree and as much of the root system as possible, make a shallow basin over the planting site. Add METAM 42 to the stream of water while filling the basin. Use 3/4 qt. METAM 42 per 100 sq. ft. in sufficient water (depending on soil type) to penetrate at least 6 ft. For control of oak root fungus, use a basin at least 20 x 20 ft. square. Increase dosage to 1-1/2 qts. METAM 42 per 100 sq. ft. in sufficient water to penetrate to the depth of root system. If water is tanked to the planting site, add METAM 42 to the water an l mix before filling basin.

FOR SHALLOW PESTS IN SEED BEDS, PLANT BEDS, LAWNS AND OTHER LIMITED AREAS

SPRINKLING CAN METHOD: Place 0.75 pt. METAM 42 (1.1 pts. on very heavy soils or for deep-rooted weeds) in a sprinkling can, fill with water, and sprinkle uniformly over 50 sq. ft. of well-prepared soil. Add additional water as needed to wet soil to the desired depth of control. Sprinkle immediately with water until soil is sealed, or tarp for 48 hours. 4.

COMMERCIAL MIXER PROPORTIONER METHOD: Add 1 qt. METAM 42 to 4 qts. water in a bucket or other container and apply through the mixer proportioner to an area of 100 sq. ft. of treated soil. Add additional water as needed to wet soil to the desired depth of control. Sprinkle with water until soil is sealed, or tarp for 48 hours. 4.

SOIL INJECTION: Space injection shanks 5 inches apart and inject METAM 42 to a depth of 4 inches into well-prepared soil. Follow immediately with a roller to smooth and compact the soil surface. Light watering or a tarp after rolling helps prevent gas escape. For seedbeds a dosage of 56 to 74-1/2 gal. per acre of treated soil (1.1 pt. to 1.5 pt. per 100 sq. ft. of treated soil) is recommended. 5.

DRIP IRRIGATION: METAM 42 may be injected into drip irrigation systems prior to planting. The rate must be calculated in accordance with the size of the band treated. Apply 37-1/4 gallons per broadcast acre in one acre inch of water (27,000 gals.). The resulting concentration is 700 ppm on a weight basis. (Example: If the emitters irrigate 10% of each acre then use 3-3/4 gallons METAM 42 in 2,700 gallons water). Inject continuously. Do not slug treat. See use precautions in "CHEMIGATION" section above.

ROTARY TILLER: Spray or sprinkle diluted METAM 42 immediately in front of tiller. Use 1 qt. of METAM 42 in 3-1/3 gals. water per each 100 sq. ft. of treated soil. Follow immediately with a roller to smooth and compact the soil surface. Light watering or a tarp after rolling will help prevent gas escape. 6.

TREATMENT OF POTTING SOIL

A. **SPRINKLE METHOD:**

1. Spread soil in a smooth layer 4 inches high on concrete or on pre-treated soil.
2. Sprinkle METAM 42 at rate of 3/4 pint in 5 gallons of water per 100 sq. ft. of surface area.
3. Layers can be treated one on top of another.
4. Sprinkle top layer with sufficient additional water to seal the surface or cover with tarp (plastic, kraft paper, etc.).

B. **CEMENT MIXER:**

1. Add METAM 42 to soil mix at rate of 3/4 fl. oz. METAM 42 per 2 cu. ft. of soil, in cement or similar mixer. Mix thoroughly.
2. After soil is treated and piled, sprinkle with water over entire surface to seal in gas or cover with tarp (plastic, kraft paper, etc.).

C. **SHREDDER:**

1. Dilute METAM 42 in sufficient water to obtain even distribution. As soil is ejected from shredder, spray uniformly on soil stream at rate of 3/4 fl. oz. METAM 42 per 2 cu. ft. of soil.
2. After all soil is treated and piled, apply light water seal to entire surface or cover with tarp.

ADDITIONAL RECOMMENDATIONS

SEED TREATMENT: A suitable fungicide should be used to treat all crop seed being planted into fumigated soil.

POTATOES: For suppression of Root Knot Nematodes and Control of Verticillium dahliae (Early Maturity Disease) in Potatoes: Sprinkler System Preplant Application - Use 37-1/4 to 74-1/2 gallons of METAM 42 per treated acre. Inject into the sprinkler system all the METAM 42 needed for the area covered and apply in a minimum of 1 acre inch of water. Soil temperature should be in a range of 40°F to 90°F in the treatment zone. Soil moisture immediately prior to treatment must be 50% to 75% of yield capacity down to 24" level. Soil condition must facilitate even moisture penetration without runoff.

NOTE: METAM 42 will suppress root knot nematodes in the fumigated zone at the time of treatment. The fumigated zone is defined as the depth of penetration that METAM 42 achieves at the time of application.

If high numbers or deep nematodes are identified, anticipate nematodes to build up throughout the growing season. Shown damage will occur unless additional action is taken.

METAM 42 has no soil residual and reinfestation of a field can occur from numerous sources such as deep nematode populations, seed pieces, irrigation water, equipment contamination and blowing wind.

EARLY MATURITY DISEASES OF POTATOES IN OREGON: Apply 29-94 gals. METAM 42 per treated acre using thin shank injector rig [redacted]

WHEAT AND BARLEY: For suppression of certain root diseases caused by Early Season Soil Fungi - before applying METAM 42, cultivate the area to be treated to break up clods. Apply 1.85 to 7.5 gallons per treated acre 14 to 21 days before planting. METAM 42 may be diluted with water or non-acidic liquid fertilizer immediately before applying. Inject METAM 42 to a depth of 5 to 8 inches into moist soil. Space injector shanks 2 to 12 inches apart.

Do not mix METAM 42 with acidic fertilizer or other acidic solutions. For best results, moisture in the treated zone should be 50% of filed capacity or more.

Use only in areas which receive 15 or more inches of rainfall per year.

PEANUTS - CYLINDROCLADIUM BLACK ROT (CBR) CONTROL: Apply METAM 42 at the following rates:

- CBR-resistant cultivar (NC 6C): 7.5 gallons per treated acre or 4.1 pints per 1,000 feet of treated row
- CBR-susceptible peanut cultivars (Florigant, GK-3, NC-6, Keel 29): 15 gallons per treated acre or 8.2 pints per 1,000 feet of treated row
- CBR-highly susceptible cultivars (VA 81B, NC7): use of METAM 42 not recommended.

Soil Preparation: Before applying METAM 42, residue from the previous crop should be decomposed (enhanced by fall discing) and plowed under in the spring with mold-board plow. Soil incorporated preplant herbicides must be applied before application of METAM 42.

Application: Apply METAM 42 with a gravity flow regulator through chisel-type or coulter-type applicators. Center each applicator, one per row, in front of a bedshaper to mark the location of chemical deposition. METAM 42 should be deposited 6-to-8 inches below the soil surface of beds. Bed and applicator spacing should coincide with row spacing at planting. Soil temperatures must be in the range of 60°F to 90°F at 3-inch depth before application.

Tillage and Planting after Application: Do not mix treated soil with untreated soil by tillage or other cultural practices. Plant peanuts in the center of treated beds no earlier than 14 days following application of METAM 42. An at-planting nematicide treatment will be necessary in fields with heavy infestations of root knot, ring, and/or sting nematode.

TOBACCO PLANT BEDS: Fall applications are recommended wherever possible. Read and follow DIRECTIONS FOR USE carefully. Treatment in the South should generally be made before November 30.

A. TARP METHOD: Prepare the bed 5 to 7 days before application to ensure best conditions for weed seed germination and fumigant action of METAM 42. The bed should be free of clods, level and in good tilth. Apply 0.75 to 1.1 gals. of METAM 42 in a minimum of 40 gals. of water per 100 sq. yd. of treated soil. Apply uniformly over the entire bed. Cover the bed immediately with a plastic cover. Keep covered no less than one day, but not more than two days. The cover need not be tented, but should be secured to prevent wind from uncovering the treated area. Seven days after date of METAM 42 application, loosen the treated soil to a depth of 2 in. Do not seed tobacco earlier than 21 days after METAM 42 application.

B. DRENCH METHOD: Apply 1.85 gals. METAM 42 in 150 to 200 gals. of water per 100 sq. yd. of treated soil. Application may be made with sprinklers, sprayers with nozzles or any suitable equipment. Follow directions given above for seed bed treatment.

SYMPHYLID CONTROL: Soil should be in a [redacted] seed bed condition to a depth of 6 to 10 inches. Maintain adequate moisture during Spring season. Test during July-August when symphylids are in the upper soil [redacted] apply 19 gals. METAM 42 per [redacted] volume [redacted] soil using blade or shank injectors [redacted] apart. Inject below level of symphylid concentration, usually 6 to 8 inches. Pack soil immediately after application.

PEPPERMINT: Verticillium wilt control. When infestation is limited to small spots in a field, spread can be reduced by treating the soil with 74-1/2 gals. METAM 42 per acre of soil treated (1-1/2 pints per 100 sq. ft. of treated soil) using injector blade or thin shank injector rig with injectors spaced 6 inches apart.

PREVENTION OF ROOT GRAFT TRANSMISSION OF DUTCH ELM AND OAK WILT DISEASE: Immediately after a tree is diagnosed as having Dutch Elm or Oak Wilt disease, isolate the diseased tree from healthy trees with the METAM 42 treatment. If a diseased tree is less than 20 feet from a healthy tree or has advanced wilt symptoms, it may be necessary to treat at two sites - one between the diseased and the first health-appearing tree and one between the first and the second healthy-appearing trees. This measure is advisable because the causal fungus may have already passed from the diseased to the first health-appearing tree before METAM 42 was applied.

Use METAM 42 diluted one part to four parts water for Dutch Elm disease and diluted one part to 13-1/2 parts of water for Oak Wilt disease. Drill holes approximately 3/4 to 1 inch in diameter, 15 inches deep to 6 to 9 inches apart. Fill each hole with diluted METAM 42 to within 2 inches of the soil surface.

Make the line of treatment sufficiently long to kill all roots of the two adjacent trees that are likely to be root-grafted. Apply the chemical slowly and carefully to avoid overflowing the drilled holes, this will reduce grass kill. Tamp each hole closed with the heel. Allow at least two weeks after treatment before removing the diseased tree.

STORAGE AND DISPOSAL

PROHIBITIONS: Do not contaminate water, food or feed by storage or disposal. Do not store near feed or food products.

STORAGE: Keep container tightly sealed during storage. Do not store below 0°F.

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) drums or bulk storage tanks. Offer drums for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures approved by State and local authorities.

NET CONTENTS GALLONS

NOTICE – READ CAREFULLY

Terms of Sale or Use: On purchase of this product, buyer and user agree to the following conditions:

Warranty: UCB makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Except as so warranted, the product is sold as is. Buyer and user assume all risk of use and/or handling and/or storage of this material when such use and/or handling and/or storage is contrary to label instructions.

Directions and Recommendations: Follow directions carefully. Timing and method of application, weather and crop conditions, mixture with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the seller and are assumed by buyer at his own risk.

[illegible] of the results to be obtained if not used in accordance with directions or established safe practice.

[illegible]