

JUN -3 1988

Mr. George Baker
Oregon-California Chemicals, Inc.
30301 Riverview Dr.
Junction City, OR 97448

Dear Mr. Baker:

SUBJECT: Amendments: Add sites and pests; name change
OR-CAL Lindane 400
EPA Reg. No. 52251-6
Name: OR-CAL Colloidal Lindane [new name]
EPA Reg. No. 52251-32
Your submissions dated May 3, 1988

The amendments referred to above, submitted in connection with registrations under the Federal Insecticide, Fungicide, and Rodenticide Act, are acceptable, provided the following revisions are made prior to release for shipment under the amended labels:

1. Add the closing parenthesis after the formula name for lindane in the ingredients statement.
2. The Restricted Use Pesticide limitation should appear within a block (i.e. with a printed outlined perimeter) at the top of the label.
3. The directions for mixing already opened containers is not stated clearly and should be revised. The current submission states: "Either use entire container at one time but do not exceed recommended rates after storing partial used container or mix thoroughly before use.", would be better stated as: "Either use entire container at one time, but do not exceed recommended rates; or after storing partially used container, mix thoroughly before use.". This same statement (as revised) should appear as the first sentence under the heading "Seed Treatment".
4. Update "Do not contaminate water by cleaning of equipment or disposal of wastes." to "Do not contaminate water when disposing of equipment washwaters."

5. In the Seed Treatment directions, revise "This product should be applied on only in a well-" to read "This product should be applied on only in a well-ventilated area". Also, delete "ventilated area" that appears at the bottom of the use precautions for seed treatment uses.
6. Revise the heading "Outdoor structures and Barns" to either "Livestock Buildings and Pens" or "Livestock Buildings (including barns and pens)"

The Agency's records will be adjusted to reflect the change in product name for EPA Reg. No. 52251-32 as follows:

Old Name: OR-CAL Lindane 40%

New Name: OR-CAL Colloidal Lindane

Stamped copies of the labels are enclosed for your records. Please submit five (5) copies of the each final revised amended label prior to release for shipment under the amended labels.

NOTE: The Agency's approval of additional use patterns pertains only to those uses appearing on the enclosed stamped accepted labels and does not extend to any of those uses proposed in your several previous submissions, but which do not appear on the enclosed accepted labels. It is understood that the current labels supersede the previous proposals.

Sincerely yours,

George T. LaRocca
Product Manager (15)
Insecticide-Rodenticide Branch
Registration Division

RESTRICTED USE PESTICIDE

The use of this product may be hazardous to your health. This product contains lindane, which has been determined to cause tumors in laboratory animals. Risks can be reduced by closely following the use directions and precautions, and by wearing the protective clothing specified elsewhere on this label. For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's certification.

OR-CAL COLLOIDAL LINDANE

ACTIVE INGREDIENT:
Lindane (Gamma Isomer of Benzene Hexachloride) 40%
INERT INGREDIENTS 60%
TOTAL 100%

Contains gamma-hexachlorocyclopentadiene

KEEP OUT OF REACH OF CHILDREN

WARNING AVISO

PRECAUTION AL USARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Call a physician or Poison Control Center immediately. Drink one or two glasses of water and induce vomiting by touching back of throat with finger. Repeat until vomit fluid is clear. Do not induce vomiting or give anything by mouth to an unconscious person.

IF INHALED: Remove a victim to fresh air. Apply artificial respiration if indicated. **IF ON SKIN:** Remove contaminated clothing, and wash affected areas with plenty of soap and water. Get medical attention.

IF IN EYES: Flush with plenty of water. Call a physician if irritation persists.

EPA Est. No.
52251-OR-001

SEE SIDE PANEL FOR ADDITIONAL
PRECAUTIONARY STATEMENTS

EPA Reg. No.
52251-32

OR-CAL Chemicals, Inc.
29454 Mendocino Rd. Junction City, OR 97448

NET CONTENTS - GALLON

ACCEPTED
with COMMENTS
in EPA Letter Patent

JUN - 3 1988

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the purpose of
registered under EPA Reg. No.
52251-32

center panel

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS (AND DOMESTIC ANIMALS)**

WARNING

Causes (moderate) eye injury (irritation). Do not get in eyes, on skin, or on clothing. May be fatal if swallowed or absorbed through skin. Do not breathe vapor or spray mist. Use waterproof gloves, face shield or goggles, and protective clothing when handling. See also the specific uses for additional directions for protective clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Remove contaminated clothing and wash before reuse. Do not use on humans or household pets. Keep children and animals away from treated areas until spray has dried. Do not apply to food or forage nor to crops to be fed to dairy animals. 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.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish, birds, and other wildlife. Do not apply directly to water or wetlands. Drift and runoff from treated areas may be hazardous to fish in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of wastes.

This pesticide is highly toxic to bees exposed to direct application. Applications should be timed to coincide with periods of minimum bee activity, usually between late evening and early morning.

STORAGE AND DISPOSAL

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

STORAGE: Store in a cool, dry place. Keep container closed when not in use.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or mixate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional office for guidance. **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.

ACCEPTED
WITH COMMENTS
in EPA Docket No.:

JUN - 3 1988

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.

52251-32

DIRECTIONS FOR USE

Use only according to attached label booklet instructions. It is a violation of Federal law to use this product in a manner inconsistent with its label. **Chemical safety:** Do not apply this product through any type of irrigation system.

Where a danger symbol is recommended, use the higher degree when the weather is conducive to rapid insect growth (warm, humid weather) and when the plants are in full foliage.

Exhaust use the entire container at one time; do not exceed recommended rates after mixing period used container or mix thoroughly before use.

Apply in sufficient volume of water to provide good coverage with available equipment in either dilute spray. Aerial application of Lindane is prohibited.

RE-ENTRY STATEMENT

Do not enter treated areas without protective clothing until 24 hours after application.

Protective clothing means, at least, a hat or other suitable head covering, a long-sleeved shirt and long-legged trousers or a one-piece jumpsuit (all of which cover the body, including arms and legs), socks, and shoes.

Because certain states may require more restrictive re-entry intervals for residues upon treated with this product, consult your State Department of Agriculture for further information. Workers or men working 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. One warning must include the following information: "Warning: This area has been treated with Lindane. Do not enter without adequate protective clothing. If accidentally exposed, remove contaminated clothing and wash the affected areas." When and warnings are given, warnings shall be given in a language customarily understood by workers. One warning must be given if there is a reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: "WARNING: Area treated with Lindane on (date of application). Do not enter without adequate protective clothing until 24 hours after application. If accidentally exposed, remove contaminated clothing and wash the affected areas." **IMPORTANT NOTICE TO PURCHASER AND USER OF THIS PRODUCT**

This product is manufactured, labeled, and sold in accordance with state and Federal laws. Adequate directions for use, necessary warnings and cautions, and other essential information other than handling and use of this product are set forth on this label. However, the use and handling of this product is always attended with risk of personal injury or property damage if the user or handler deviates in any degree from the instructions on this label. The manufacturer makes no warranty, either express or implied, and assumes no responsibility whatsoever for the effectiveness or safety of this product except to the extent that the product is used and handled in strict accordance with information and directions set forth on this label. The foregoing limitation of responsibility may not be altered in any way except by written agreement signed by officers of the manufacturer. Unless the attached purchaser agrees to be bound by the terms and conditions expressed herein and on this label, the manufacturer refuses to acknowledge the sale of this product to him and the product must be returned to the manufacturer.

ACCEPTED
with COMMENTS
in EPA Letter Dated:

JUN - 3 1988

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
Registration for the pesticide
Reg. No. under EPA Reg. No.
52251-32

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ACCEPTED
WITH COMMENTS
in EPA REG. PAGE

JUN - 3 1988

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
and related to the pesticide
registration EPA Reg. No.

52251-32

THE BOOKLET

OR-CAL

COLLOIDAL LINDANE

ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE LABEL ARE TO BE FOLLOWED:

PLANT USES

SEED TREATMENT:

Mix thoroughly before use or use entire container at one time. Do not combine water suspensions, wettable powders or emulsifiable concentrates unless previous experience assures compatibility. This product is to be used in liquid or slurry treaters, or on the farm planter box treatment.

CAUTION: Applicators who apply this product manually or without the use of closed system treatment procedure must wear the following protective clothing during the application process: long-sleeved shirt; long pants; gloves; and a disposable, paper dust mask which covers at least one-third of the face. This product should be applied in a well-

Use only at recommended rates.

This product will protect seeds and seedlings against damage from seedcorn beetle, seed corn maggot, white grubs, wireworm.

SEED	DOSAGE RATE PER 100 LBS OF SEED
Corn	4.0 fl. oz.
Peas	2.5 fl. oz.
Wheat, Rye, Oats	1.0 fl. oz.
Cucumbers, Watermelons, Cantaloupes	3.6 fl. oz.
Cabbage, Cauliflower, Broccoli, Brussels-Sprouts	3.6 fl. oz.
Carrots, Onions	2.5 fl. oz.
Barley	2.5 fl. oz.
Sugar Beets, Beets	8.0 fl. oz.
Beans	1.0 fl. oz.
Soybeans	1.0 fl. oz.
Sunflowers	2.3 fl. oz.
Cotton: Acid Delinted or Reginned	4.0 fl. oz.
Fuzzy Not Delinted	5.5 fl. oz.
Lentils	2.0 fl. oz.
Safflower	1.0 fl. oz.
Radishes	1.0 fl. oz.
Sudan Grass	1.0 fl. oz.
Rye grass	1.0 fl. oz.

ACCEPTED
with COMMENTS
in EPA Letter Dated:

JUN - 3 1988

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
and under the Federal Trade
Commission's EPA Reg. No.

52251-32

USE PRECAUTION

NOTE: This formulation does not contain dye. To comply with 21CFR Chapter 1, Section 2.25, color treat grain seed to distinguish and prevent subsequent inadvertent use as a food for man or feed animals.

WARNING: DO NOT USE TREATED SEED OR GRAIN FOR FOOD, FEED AND OIL PURPOSES.

Treated seed should be labeled as follows: TREATED SEED: DO NOT USE FOR FOOD, FEED OR OIL. Exposed treated seeds may be hazardous to birds and other wildlife. Dispose of all excess treated seed and seed packaging by burial away from bodies of water.

Only seed of high germination with good vigor should be treated with lindane. Poor seed may suffer greater injury. Treat seed not over 6 weeks before planting. Store treated seed in a dry place until planted so that excess moisture will evaporate. If seed is stacked when wet, heat may develop which could impair germination.

The common methods of treating seed are slurry and planter box. For slurry treatment, apply in a slurry-type treater specifically designed and approved for that purpose or apply by hand in any suitable mixing equipment, such as home-made rotary drums. For planter box method, fill the box only half full of seed and half the required amount of lindane and mix thoroughly with a stick. Then add the remainder of the seed to the box and add the rest of the required amount of lindane to the seed, again mixing thoroughly. ventilated area.

ACCEPTED
with COMMENTS
in EPA Letter Dated:

JUN - 3 1988

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.

52251-32

ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE LABEL ARE TO BE FOLLOWED.

FRUITS

ACCEPTED
with COMMENTS
in EPA Letter Dated:

WARNING: Lindane may cause off-flavor and odor to certain edible crops. Do not apply to any crop not listed on the label. JUN - 3 1988

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
and related to the pesticide
registered under EPA Reg. No.
52251-32

FOLIAR APPLICATIONS:

APPLES: Aphids, Flea beetles, Grasshoppers, Lygus bugs, Thrips

Foliar application: Use 1/2 pint in 100 gallons of water, apply in sufficient water for thorough coverage. It may be used as late as petal fall for control of rosy aphid. Do not apply more than 7 pints per acre. Do not apply within 60 days of harvest.

CHERRIES: Aphids, Flea beetles, Plum curculio, Thrips.

Foliar application: Use 1/4 pint in 100 gallons of water, apply in sufficient water for thorough coverage. It may be used as late as petal fall for control of rosy aphid. Do not apply more than 2 pints per acre. Do not apply to foliage or fruit after fruit starts to form. Do not apply within 60 days of harvest.

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GRAPES: Grape phylloxera (leaf form only). Foliar application: Use 1 quart per acre, apply in sufficient water for thorough coverage. Do not use later than one month after bloom.

PEACH: Aphids, Leafrollers, Plum curculio, Thrips. Foliar application: Use 1/2 pint in 100 gallons of water, apply in sufficient water for thorough coverage. Do not apply more than 1 and 1/4 pints per acre. Do not apply later than 7 days after shuck split. Do not use within 60 days of harvest.

PEARS: Aphids, Flea beetles, Plum curculio, Thrips.

Foliar application: Use 1/2 pint in 100 gallons of water. Apply in sufficient water for thorough coverage. Do not apply more than 1 and 1/4 pints per acre. Do not use within 60 days of harvest.

Pear psylla. Foliar application: Use 1 and 1/4 pints per acre, apply in sufficient water for thorough coverage. Do not apply more than 1 and 1/4 pints per acre. Do not use within 60 days of harvest.

PLUMS: Aphids, Leafrollers, Plum curculio, Thrips. Foliar application: Use 1/2 pint in 100 gallons of water, apply in sufficient water for thorough coverage. Do not use more than 3 pints per acre. Do not use

within 60 days of harvest.

PRUNES: Aphids. Foliar application: Use 1/2 pint in 100 gallons of water. Apply in sufficient water for thorough coverage. Do not use more than 1 and 1/4 pints per acre. Do not use within 60 days of harvest.

ACCEPTED
WITH COMMENTS
in EPA Label Dated:

BARK APPLICATIONS:

JUN - 3 1988

APPLES, CHERRIES, PEACHES, PEAPS, PLUMS: Flatheaded appletree borer, Peachtree borer, Roundheaded appletree borer, Shothole borer. Bark application: Use 1 and 1/2 pints in 100 gallons of water. Apply to bark of tree and large limbs in spring. First application should be made between July 10 and 15 followed by 2 subsequent applications at 21 to 23 day intervals. Apply to trunk, crotch to ground. Soak bark to the point of runoff. Do not apply within 60 days of harvest.

Label for Flatheaded, Peachtree, Roundheaded, and Shothole borers. Act as an insecticide for the pesticide. Banned under EPA Reg. No. 52251-32

For Roundheaded appletree borer, apply at the beginning of the larval stage or during the pupal stage at both of which times the pest are located just under the bark. Consult your State Agricultural Extension Service to determine the life cycle of the borer to be controlled.

For Flatheaded appletree borer, apply as soon as symptoms are first observed. The symptoms can include a damp spot on the bark at the point of early infestation, developing until the sap drips from the spot; discoloration of bark overlying the tunnel; feces at the entrance to or just below the tunnels. If treated areas have not dried within 7 to 10 days, treatment should be repeated.

APRICOT: Peachtree borer. Bark application: Use 1 and 1/4 pints in 100 gallon of water for bark application. Apply to trunk and lower branches from crotch to ground. Do not apply to fruit or foliage. Apply in late spring or early summer. Do not apply within 60 days of harvest.

SOIL APPLICATIONS:

STRAWBERRIES: DO NOT APPLY AFTER FRUIT STARTS TO FORM.

Preplant soil application. Cutworms, Diabrotica beetles (larvae), Garden symphylan, White grubs, Wireworms. Use 2 to 3 quarts per acre in sufficient water for thorough coverage. Spray directly on soil, then disc as soon as practicable to give thorough distribution in upper 4 to 6 inches of soil.

Spittlebugs, Weevils. Foliar application: Use 1/4 cup per acre, apply in sufficient water for thorough coverage. Apply in the spring when first leaves appear. Repeat at 5 to 10 day intervals.

Soil application: Apply in fall after last harvest but before October 1. Use 1 pint per acre, apply in sufficient water for thorough coverage. Apply as a 10 to 12 inch band over the row.

WARNING: SOIL APPLICATION: Do not make soil application to root crops, which might absorb a musty flavor. Do not apply in soil which will be planted to root crops (except potatoes) within 1 year. Do not use in soil which will be planted to potatoes within 2 years.

CAUTION: Applicators must wear water resistant hat, lightweight protective suit or coverall, unlined waterproof gloves (natural rubber, neoprene, or polyethylene), and unlined lightweight boots. Mixer/loaders must wear goggles or a face shield, waterproof apron, and unlined waterproof gloves.

ENVIRONMENTAL HAZARD: This pesticide is toxic to fish, birds, and other wildlife. Do not apply directly to water or wetlands. Drift and runoff from treated areas may be hazardous to fish in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of wastes.

This pesticide is highly toxic to bees exposed to direct application. Applications should be timed to coincide with periods of minimum bee activity, usually between late evening and early morning.

ACCEPTED
with COMMENTS
in EPA Letter Datch

JUN - 3 1988

Under the Fungicide, Insecticide,
Fungicide, and Herbicide Act
as amended, for the pesticide
registered under EPA Reg. No.

52251-32

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ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON
THE LABEL ARE TO BE FOLLOWED.

The recommendations below are based on 400 gallons of
spray per acre in dilute application except as noted.

VEGETABLES

ACCEPTE
with COMMENTS
in EPA Label Pated:

ASPARAGUS

Asparagus beetle, Thrips.

JUN - 2 1988

Foliar application:

Use 1/4 pint in 100 gallons of water. Spray seedlings
and post harvest cutting.

Product of ... side,
... Act
... trade
registered under EPA Reg. No.
52251-32

BROCCOLI, BRUSSELS SPROUTS, CABBAGE, CAULIFLOWER

Aphids, Cabbage looper, Climbing cutworms, Flea beetles,
Imported cabbage worm, Leafminers (including Serpentine
leafminer), Plant bugs, Southern cabbage worm, Thrips.

Foliar application:

Use 1/4 pint in 100 gallons of water. Do not apply
after edible parts start to form.

Cabbage maggot

Soil application: Use 1/2 pint in 100 gallons of water.
Apply to soil around base of plants.

Cutworms, Diabrotica beetles (larvae), White grubs,
Wireworms.

Preplant soil application: Use 1/4 pint in 100 gallons
of water. Spray directly on soil, then disc as soon as
practicable to give thorough distribution in upper 4 to
6 inches of soil.

CELERY

Aphids, caterpillars (including Climbing cutworm),
Celery leafier (larvae), Celery looper (larvae),
Cucumber beetle, False celery leafier, Flea beetles,
Leafminers, Parsleyworm, Tarnished plant bug, Thrips.

Foliar application: Use 1/8 to 1/4 pint in 100 gallons
of water. Do not apply when plants are half grown or
begin to bunch.

Cutworms, Diabrotica beetles (larvae), White grubs,
Wireworms.

Preplant soil application: Use 1/8 to 1/2 pint in 100
gallons of water. Spray directly on soil, then disc as
soon as practicable to give thorough distribution in
upper 4 to 6 inches of soil. For garden symphytan, apply
the higher dosage for heavy infestation.

COLLARDS

Aphids, Cabbage looper, Climbing cutworms, Flea beetles,
Imported cabbage worm, Leafminers (including Serpentine

leafminer), Plant bugs, Southern cabbage worm, Thrips.

Foliar application: Use 1/4 pint in 100 gallons of water. Do not apply after edible parts start to form.

Cutworms, White grubs, Wireworms. Preplant soil application: Use 1/2 pint in 100 gallons of water. Spray directly on soil, then disc as soon as practicable to give thorough disruption in upper 4 to 6 inches of soil.

ACCEPTED
with COMMENTS
in EPA Letter Dated:

CUCUMBERS:

JUN - 3 1988

Aphids, Climbing cutworm, Cucumber beetles, Grasshoppers, Leafminers, Lygus bugs, Melonworms, Pickleworm, Plant bugs, Squash bug, Squash vine borer, Thrips.

Under FIFRA Act
as amended by thepesticide
registered under EPA Reg. No.

Foliar application: Use 1/8 to 1/4 pint in 100 gallons of water. Apply when plants first break through the ground or when plants are about 1 inch in height. Repeat as needed. For cucumber beetles and Thrips, apply the lower dosage of the range. For Melonworm and Pickleworm, apply when worms are first seen in the blossoms and repeat at 7 day intervals or as needed. For squash vine borer, thoroughly cover stems and vines at the base of plants.

52251-32

Cutworms, Diabrotica beetles (larvae), White grubs, Wireworms.

Preplant soil application: Use 1/8 to 1/2 pint in 100 gallons of water. Spray directly on soil, then disc as soon as practicable to give thorough distribution in upper 4 to 6 inches of soil.

Garden symphylan

Preplant soil application: Use 1/2 to 1 pint in 100 gallons of water. Spray directly on soil, then disc as soon as practicable to give thorough distribution in upper 4 to 6 inches of soil. for heavy infestation apply at higher dosage.

EGGPLANT

Aphids, Climbing cutworms, Flea beetles, Lace bugs, Leafminers, Plant bugs, Squash bug, Squash vine borer, Thrips.

Foliar application: Use 1/8 to 1/4 pint in 100 gallons of water. Do not spray after edible parts start to form.

PALE

Aphids, Cabbage looper, Climbing cutworms, Flea beetles, Imported cabbage worm, Leafminers (including Serpentine leafminer), Plant bugs, Southern cabbage worm, Thrips.

Foliar application: Use 1/4 pint in 100 gallons of

water. Do not spray after edible parts start to form. JUN - 3 1988

Cutworms, Diabrotica beetles (larvae), White grubs,
Wireworms,

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended for the pesticide
registered under EPA Reg. No.

Preplant soil application: Use 1/8 to 1/4 pint in 100 gallons of water. Spray directly on soil, then disc as soon as practicable to give thorough distribution in upper 4 to 6 inches of soil. 52251-32

Garden symphylan

Preplant soil application: Use 1/2 to 1 pint in 100 gallons of water. Spray directly on soil, then disc as soon as practicable to give thorough distribution in upper 4 to 6 inches of soil. for heavy infestation apply at higher dosage.

LETTUCE

Aphids, Cutworms, Flea beetles, Leafminers, Thrips,
Webworms, White flies.

Foliar application: Use 1/8 to 1/4 pint in 100 gallons of water. Do not apply to leaf lettuce after seedling stage or to head lettuce after heads begin to form.

Cutworms, Diabrotica beetles (larvae), White grubs,
Wireworms.

Preplant soil application: Use 1/8 to 1/4 pint in 100 gallons of water. Spray directly on soil, then disc as soon as practicable to give thorough distribution in upper 4 to 6 inches of soil.

Garden symphylan

Preplant soil application: Use 1/2 to 1 pint in 100 gallons of water. Spray directly on soil, then disc as soon as practicable to give thorough distribution in upper 4 to 6 inches of soil. for heavy infestation apply at higher dosage.

MELONS

Aphids, Climbing cutworm, Cucumber beetles, Garden symphylan, Grasshoppers, Leafminers, Lygus bugs, Melonworms, Pickleworm, Plant bugs, Squash bug, Squash vine borer, Thrips.

Foliar application: Use 1/8 to 1/4 pint in 100 gallons of water. Apply when plants first break through the ground or when plants are about 1 inch in height. Repeat as needed. For cucumber beetles and Thrips, apply the lower dosage of the range. For Melonworm and Pickleworm, apply when worms are first seen in the blossoms and repeat at 7 day intervals or as needed. Do not apply after blossoms open. Late foliar treatment may result in reduction of quality at harvest. For

squash vine borer, thoroughly cover stems and vines at the base of plants. JUN - 3 1988

Cutworms, Diabrotica beetles (larvae), White grubs, Wireworms.

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
57225(-32)

Preplant soil application: Use 1/2 to 1 pint in 100 gallons of water. Spray directly on soil, then disc as soon as practicable to give thorough distribution in upper 4 to 6 inches of soil.

OKRA

Cutworms, White grubs, Wireworms. Preplant soil application: Use 1/2 pint in 100 gallons of water. Spray directly on soil, then disc as soon as practicable to give thorough distribution in upper 4 to 6 inches of soil.

ONIONS, DRY

Thrips

Foliar application: Use 1/8 to 1/4 pint in 100 gallons of water. Apply when pest count average 5 to 6 per plant. Repeat in 5 to 6 days. A third application may be needed.

Onion maggot

Soil application: Use 1/2 pint in 100 gallons of water. apply as a preplant (see direction under OKRA) or at planting time or when plants are 2 to 3 inches tall.

PEPPERS

Aphids, Armyworm, Climbing cutworms, Cucumber beetle, Flea beetles, Leafminers, Thrips.

Foliar application: Use 1/8 to 1/4 pint in 100 gallons of water. Do not spray after edible parts start to form. For armyworm apply at higher dosage.

Cutworms, White grubs, Wireworms. Preplant soil application: Use 1/2 pint in 100 gallons of water. Spray directly on soil, then disc as soon as practicable to give thorough distribution in upper 4 to 6 inches of soil.

PUMPKIN: See Cucumber.

SPINACH: See Lettuce.

SQUASH: See Cucumber.

TOMATOES:

Aphids, Climbing cutworms, Colorado potato beetle, Cucumber beetles, Flea beetles, Leafminers, Plant bugs,

Thrips.

Foliar application: Use 1/8 to 1/4 pint in 100 gallons of water. Do not spray after fruit start to form. For Leafminers apply at the higher dosage.

Cutworms, Diabrotica beetles (larvae), White grubs, Wireworms.

Preplant soil application: Use 1/8 to 1/4 pint in 100 gallons of water. Spray directly on soil, then disc as soon as practicable to give thorough distribution in upper 4 to 6 inches of soil.

Garden symphylan.

Preplant soil application: Use 1/2 to 1 pint in 100 gallons of water. Spray directly on soil, then disc as soon as practicable to give thorough distribution in upper 4 to 6 inches of soil.

WARNING: SOIL APPLICATION: Do not make soil application to root crops, which might absorb a musty flavor. Do not apply in soil which will be planted to root crops (except potatoes) within 1 year. Do not use in soil which will be planted to potatoes within 2 years.

CAUTION: Applicators must wear water resistant hat, lightweight protective suit or coverall, unlined waterproof gloves (natural rubber, neoprene, or polyethylene), and unlined lightweight boots. Mixer/loaders must wear goggles or a face shield, waterproof apron, and unlined waterproof gloves.

ENVIRONMENTAL HAZARD: This pesticide is toxic to fish, birds, and other wildlife. Do not apply directly to water or wetlands. Drift and runoff from treated areas may be hazardous to fish in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of wastes.

This pesticide is highly toxic to bees exposed to direct application. Applications should be timed to coincide with periods of minimum bee activity, usually between late evening and early morning.

ACCEPTED
with COMMENTS
in EPA Letter Dated:

JUN - 3 1988

Under the Fungicide, Insecticide,
Fertilizer, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.

52251-32

ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE LABEL ARE TO BE FOLLOWED. JUN - 3 1988

ORNAMENTALS

Under the
Fungicide, Insecticide,
and Herbicide
Registration Act,
5225/-32

ORNAMENTAL LAWNS:

Ants, Armyworms, Billbugs (larvae), Crickets, Cutworms, Flery skipper (larvae), Fleas, Leafhoppers, Otiorhynchus weevils (larvae), Spittlebugs, Sod webworms, Spiders, Symphylans, Ticks, Thrips, White Grubs, Wireworms.

Foliar application:

Use 1/4 pint per 5000 sq. ft. in at least 12 gallons of water. (This is equivalent to 1 quart in 100 gallons of water per acre, or 1 pound of active ingredient per acre.) Application to established lawns. Mow lawn and water thoroughly 1 to 2 days prior to treatment. On dichondra and matted grass lawns, sprinkle lightly immediately after treatment to improve effectiveness. Heavy watering or irrigation should be withheld for 2 to 3 days following treatment. Repeat at 4 to 6 week intervals if needed.

CAUTION: Keep children and pets off treated areas until material has been washed into the soil and the grass is completely dried.

Applicators must wear the following protective clothing during the application process: long-sleeved shirt, long pants, waterproof gloves, full foot covering and a head covering.

TUFF GROWN FOR GRASS SEED:

Grass seed grown for seed.

Billbugs (larvae), White fly larvae, March fly larvae.

Foliar application: Use 1 and 1/2 to 2 pints per acre in sufficient water for thorough coverage.

Warning: Do not use seed for Food, Feed and Oil purposes.

ORNAMENTAL PLANTS:

Aborvitae, Ash, Aster, Azalea, Beech, Boxelder, Boxwood, Camellia, Carnation, Chestnut, Christmas Tree Plantations, Chrysanthemum, Coleus, Cottonwood, Dahlia, Daisy, Delphinium, Dogwood, Elm, Euonymus, Fir, Flowering Cherry, Flowering Ornamental Fruit Trees, Forsythia, Gardenia, Geranium, Gladiolus, Hawthorn, Heather, Hemlock, Hibiscus, Holly, Horsechestnut, Hydrangea, Iris, Japanese Black Pine, Juniper, Larkspur, Lilac, Lilies, Linden, Locust, Maple, Mountainash, Narcissus, Nasturtium, Oak, Ornamental and/or Shade trees, Ornamental Deciduous Trees, Pansy, Peony, Petunia, Pine, Poinsettias, Primrose, Pyracantha, Rhododendron, Rose, Sycamore, Snapdragon, Spirea, Sweet Pea, Tulips, Willow, Yew, Zinnia.

PESTS:

JUN - 3 1988

Foliar application:

Ants, Aphids, Armyworms, Black vine weevil, Blister beetles, Boxwood leafminer, Boxwood psyllid, Cabbage looper, Cucumber beetles, Diabrotica beetles, Flea beetle larvae, Fuller rose beetle, Grasshoppers, Japanese beetle, Lace bugs, Leaf hoppers, Leafminers, Leaf rollers, Plant bugs, Psylla, Rose chafer, Rose leaf beetle, Spittlebugs, Strawberry root weevils (adults), Symphylans, Tarnished plant bugs, Thrips, White flies.

Use 1/2 pint per acre, apply in sufficient water for thorough coverage. Repeat applications as necessary or as indicated, depending upon size, density of plants and infestation.

Foliar application:

Iris borer, Twig girdler

Use 1 and 1/4 pints per acre in 100 gallons of water, apply in sufficient water for thorough coverage. Repeat applications as necessary or as indicated, depending upon size, density of plants and infestation.

Bark Application:

Fine bark adelgid, Douglas fir beetles, Mountain pine beetles, Western pine beetles, Twolined chestnut borer, Carpenterworm, Elm borer, Pine root collar weevil, White pine weevil, Sugar maple borer, Bark beetles, Black turpentine beetle.

Use 3 pints in 100 gallons of water. Spray trunk and branches of growing trees. Apply when immature adelgids are present. On Aspen apply in spring when bud begin to break. Repeat in 10 to 14 days. A minimum of 3 applications is necessary for effective control; May 10 to 15, June 1 and July 1

Lilac borer, Bronze birch borer, Locust borer, Woodboring insects, Roundheaded borer, Zimmerman pine moth, Honeylocust borer, Red turpentine beetle, Rhododendron borer, Roundheaded Appletree borer.

Use 1 to 1 and 1/4 pints in 100 gallons of water. Spray trunk and branches of growing trees. A minimum of 3 applications is necessary for effective control; May 10 to 15, June 1 and July 1

Carpenterworm, Dogwood borer, Leopard moth, Azalea stemborer, Flatheaded wood borer, Roundheaded wood borer, Flatheaded appletree borer

Use 1 1/2 pints in 100 gallons of water. Spray trunk and branches of growing trees. A minimum of 3 applications

is necessary for effective control; May 10 to 15, June 1 and July 1. For White pine weevil use as a delayed dormant application. Apply thoroughly to entire tree in late April when buds swell.

Bulb Application:

Aphids, Bulb flies, European corn borer, Iris borer, Thrips, Wireworms

ACCEPTED
with COMMENTS
in EPA Letter Dated:

JUN - 3 1988

Use 1/2 pint in 100 gallons of water. Apply as a spray when pest first appear and repeat as needed.

Fungicide, insecticide, and
as indicated for the pesticide
registered under EPA Reg. No.
52251-32

Soil treatment.

Billbug larvae, Webworm, Wireworm, Cutworm

Use 1 gallon per acre. Apply in sufficient water for thorough coverage. Spray directly on soil, then disc as soon as practicable to give thorough distribution in upper 4 to 6 inches of soil. CAUTION: This material is toxic to many plants. Use should be made cautiously until the matter of phytotoxicity is determined. Do not use on birch or aspen. Applicators must wear the following protective clothing during the application process: long-sleeved shirt, long pants, waterproof gloves, full foot covering, and a head covering.

ORNAMENTAL EVERGREENS:

Austrian Pine, Azalea, Douglas Fir, Monterey Pine, Ponderosa, Scotch Pine, Southern yellow Pine, Spruce (including Norway Spruce and White Spruce), White Fir, White Pine, Rhododendron.

PESTS:

Foliar application:

Aphids (including balsam twig aphid and white pine aphid) Birch leafminer, Elm leafminer, European Hornet, Lace Bugs, Psyllids, Spittlebugs, Strawberry root weevils (adults), Thrips.

Use 1 1/2 pints in 100 gallons of water. Apply in spring when buds begin to break. Repeat in 10 to 14 days. For aphids, apply when present in summer and fall.

Bark application:

Austrian Pine. Pine bark adelgid. Use 1/4 pint in 100 gallons of water. Apply when immature adelgids are present.

Soil treatment: Billbug larvae, Webworm, Wireworm, Cutworm

Use 1 gallon per acre in 100 gallons of water apply in sufficient water for thorough coverage. Spray directly on soil, then disc as soon as practicable to give thorough distribution in upper 4 to 6 inches of soil.

CAUTION: This material is toxic to many plants. Use should be made cautiously until the matter of

phytotoxicity is determined. Do not use on birch or aspen.

CAUTION: Applicators must wear water resistant hat, lightweight protective suit or coverall, unlined waterproof gloves (natural rubber, neoprene, or polyethylene), and unlined lightweight boots. Mixer/loaders must wear goggles or a face shield, waterproof apron, and unlined waterproof gloves.

ENVIRONMENTAL HAZARD: This pesticide is toxic to fish, birds, and other wildlife. Do not apply directly to water or wetlands. Drift and runoff from treated areas may be hazardous to fish in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of wastes.

This pesticide is highly toxic to bees exposed to direct application. Applications should be timed to coincide with periods of minimum bee activity, usually between late evening and early morning.

ACCEPTED
with COMMENTS
in FFA Letter Dated

JUN - 3 1988

Under the FFA Act of 1970,
Fungicide and Insecticide Act
as amended, for the pesticide
registered under EPA Reg. No.
52251-32

BEST AVAILABLE COPY

ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE LABEL ARE TO BE FOLLOWED.

OUTDOOR STRUCTURES AND BARNs

Ants, Bed bug complex, Cockroaches, Fleas, Flies (including house fly and stable fly), Gnats, Midges, Mosquitoes, Silverfishes, Spiders, Ticks

Spray application: use 1 quart in 100 gallons of water. Residual premise treatment. For crawling insects thoroughly spray all baseboards, cracks, floors, and other places where pest hide, also spray any pest present. For flying insects, apply as a coarse spray to walls, ceilings beams, screens, window frames, partitions, and similar places where pest congregate. Repeat as needed. Applications may be made to interior and exterior surfaces, adjacent fences, and weedy foliage. Do not allow livestock to graze treated foliage. Do not use in dairy barns or poultry houses. Cover feed and water troughs before spraying or wash thoroughly with a pressure hose before spray deposit dries. Remove animals prior to application.

CAUTION: Applicators must wear water resistant hat, lightweight protective suit or coverall, unlined waterproof gloves (natural rubber, neoprene, or polyethylene), and unlined lightweight boots, and an MSHA/OSHA approved respirator. Mixer/loaders must wear goggles or a face shield, waterproof apron, and unlined waterproof gloves.

ENVIRONMENTAL HAZARD: This pesticide is toxic to fish, birds, and other wildlife. Do not apply directly to water or wetlands. Drift and runoff from treated areas may be hazardous to fish in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of wastes.

This pesticide is highly toxic to bees exposed to direct application. Applications should be timed to coincide with periods of minimum bee activity, usually between late evening and early morning.

ACCEPTED
with COMMENTS
in EPA Letter Dated:

JUN - 3 1988

Under the Federal Insecticide,
Fungicide and Rodenticide Act
as amended for the pesticide
registered under EPA Reg. No.

52251-32

BEST AVAILABLE COPY

ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE LABEL ARE TO BE FOLLOWED.

BEEF CATTLE

Ticks, hornflies, screwworms, spine ear ticks. Use 7 1/2 ounces per 100 gallons for dip. Used dip solutions must be disposed of in accordance with the Resource Conservation and Recovery Act (RCRA). If the applicator generates more than 1000 kg (2200 lbs) of used dip solution per month, or more than 1000 kg (2200 lbs) of used dip solution in combination with other hazardous waste, the material must be treated as hazardous waste subject to subpart C of RCRA. Any user who wishes to treat, store or dispose of hazardous waste must obtain a permit to serve as a hazardous waste facility pursuant to RCRA. Do not apply to dairy cattle. Do not dip these animals within 60 days of slaughter, do not apply to these animals within 30 days of giving birth to young, nor for at least 3 weeks thereafter. Do not treat nursing animals. Do not apply to calves less than 3 months old. Do not treat animals in cold stormy weather. Do not treat overheated or sick animals. Make sure animals are well watered prior to being dipped to prevent them from drinking the treating dip. Thoroughly stir the treating vat before using. If any separation of emulsion occurs, do not use the dip.

Do not apply to feed forage to be fed or grazed by livestock or poultry; do not contaminate feed or food crops. Do not use on poultry or in poultry houses. Do not use in dairy

CAUTION: Applicators must wear water resistant hat, lightweight protective suit or coverall, unlined waterproof gloves (natural rubber, neoprene, or polyethylene), and unlined lightweight boots. Mixer/loaders must wear goggles or a face shield, waterproof apron, and unlined waterproof gloves.

ENVIRONMENTAL HAZARD: This pesticide is toxic to fish, birds, and other wildlife. Do not apply directly to water or wetlands. Drift and runoff from treated areas may be hazardous to fish in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of wastes.

This pesticide is highly toxic to bees exposed to direct application. Applications should be timed to coincide with periods of minimum bee activity, usually between late evening and early morning.

ACCEPTED
with COMMENTS
in EPA Letter Dated:

JUN - 3 1988

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Fungicide, and Rodenticide Act
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