



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Chemical Safety and Pollution Prevention
Registration Division (7505C)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number:

74779-14

Date of Issuance:

APR 18 2012

NOTICE OF PESTICIDE:

☒ Registration
☐ Reregistration

(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

Optrol Insecticide Concentrate

Name and Address of Registrant (include ZIP Code):

Rainbow Treecare Scientific Advancements
11571 K-Tel Drive
Minnetonka, MN 55343

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product when the Agency requires all registrants of similar products to submit such data.
2. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, "EPA Reg. No 74779-14."

Signature of Approving Official:

John Hebert, Product Manager 07
Insecticide-Rodenticide Branch, Registration Division (7505P)

Date:

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3. Storage stability (830.6317) and corrosion characteristics (830.6320) data must be submitted within 18 months from the date of this registration notice.

4. Per 40 CFR 156.10(a)(6), submit one copy of your final printed labeling before you release the product for shipment. As defined in 40 CFR 152.3, "final printed labeling" means the "label or labeling of the product when distributed or sold." Clearly legible reproductions or photo reductions will be accepted for unusual labels. Note that a clean copy of the master label in most cases does not meet the definition of final printed labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. If you have any questions, please contact Autumn Metzger at 703-305-5314 or metzger.autumn@epa.gov.

A stamped copy of the label is enclosed for your records.

John Hebert
Product Manager 07
Insecticide-Rodenticide Branch
Registration Division (7505P)

Enclosure

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Optrol Insecticide Concentrate
EPA Reg No. 74779-RU

Draft label

April 17, 2012

Optrol® Insecticide Concentrate

Provides up to 12 months of systemic protection against listed damaging insects including borers, beetles and adelgids.

ACTIVE INGREDIENT:	
Imidacloprid, 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine	21.4%
OTHER INGREDIENTS:	78.6%
TOTAL:	100.0%

Contains 2 pounds of imidacloprid per gallon.

SHAKE WELL BEFORE USING

KEEP OUT OF REACH OF CHILDREN.

CAUTION

SEE BACK PANEL FOR FIRST AID & ADDITIONAL PRECAUTIONARY STATEMENTS

EPA Reg. No. 74779-RU

EPA Est. No. xxxxxx-xx-xxx

NET CONTENTS: 8 Fluid Ounces (236.6 ml)/32 Fluid Ounces (946 ml)/1 gallon (3.78 L)/2.5 gallon (9.46 L)

[Measuring cup included] [Includes measuring cup]

Distributed By:

Rainbow Treecare Scientific Advancements/PlantCare Science
11571 K-Tel Drive Minnetonka, MN 55343 www.plantcarescience.com

ACCEPTED
With COMMENTS
In EPA Letter Dated:

APR 18 2012

Under the Federal Insecticide, Fungicide
and Rodenticide Act, As amended, for the
pesticide Registered under EPA Reg. No:

74779-14

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Optrol Insecticide Concentrate
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FIRST AID	
IF SWALLOWED	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by a poison control center or doctor.• Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15 to 20 minutes.• Call a poison control center or doctor for treatment advice.
IF IN EYES	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
In case of emergency call CHEMTREC toll free at 1-800-424-9300. Have a product container or label with you when calling a poison control center or, doctor, or going for treatment.	
NOTE TO PHYSICIAN: No specific antidote is available. Treat the patient symptomatically.	

For questions or comments, call toll-free 1-877-814-3274 or visit us online at www.plantcarescience.com and to register your purchase for a reminder to treat next year.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Keep children or pets off treated area until spray is dry.

Applicators and Other Handlers Must Wear:

1. Long-sleeved shirt and long pants
2. Chemical resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton. If you want more options, follow the instructions for category A on an EPA chemical-resistant category chart.
3. Shoes plus socks

Follow manufacturer's instructions for cleaning/ maintaining personal protective equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

User should:

1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
3. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This product is highly toxic to aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

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This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Keep out of reach of children and animals. Store in original container only. Store in a cool, dry place and avoid excess heat and freezing.

PESTICIDE DISPOSAL AND CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. **If empty:** Place in trash or offer for recycling if available. **If partly filled:** Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all directions prior to application of the product.

Restriction for all uses: Not for use on plants being grown for sale or other commercial use or for commercial seed, sod production or for research purposes.

SOIL APPLICATION FOR OUTDOOR ORNAMENTAL TREES AND SHRUBS

HOW IT WORKS	Optrol TM is absorbed by the roots. It then moves up the tree or shrub providing protection all year long. Full absorption can take 30-60 days. Rain or water cannot wash off the internal protection. NOTE: Application to heavily infested trees may not prevent their eventual loss due to existing pest damage and tree stress.
KILLS	<p>Borers: Flatheaded and Roundheaded such as: Asian Longhorned beetle, Emerald ash borer, Eucalyptus Longhorned borer, Bronze birch borer, Alder borer, Oak borers</p> <p>Leaf Feeders: Aphids, Plant bugs, Palm bug, Leafhoppers (such as Elm Leaf and Viburnum Leaf), Spittlebugs, Sawfly (larvae), Leaf beetles, Adelgids, Lacebugs, Psyllids, Weevils, Whitefly, Leafminers, Japanese Beetles</p> <p>Soft Scales: (including Magnolia, leucanium, cottony maple, wax)</p> <p>Mealybugs</p> <p>Root Weevil Larvae (such as Black vine)</p> <p>Sawflies</p> <p>Armored Scale (suppression)</p> <p>Thrips</p> <p>Whiteflies</p>
MEASURE	<p>Determine the diameter of the tree trunk at breast height (4.5 feet above the ground) or height of shrub in feet.</p> <p>If using a standard tape measure to determine the circumference of the tree</p>

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	<p>in inches, divide this number by 3 to determine diameter. If when dividing you end up with a fraction, round down to the lowest whole number. Example: if a tree has a circumference of 62 inches, use a diameter of 20 inches. $62 \div 3 = 20.66$ then round down to 20.</p> <p>TREE WITH 2 OR MORE TRUNKS – Measure the distance in inches around each tree trunk and add together. Example: A tree has 3 trunks, measuring 15, 18, and 21 inches for a total of 54 inches in circumference. Divide this number by 3 to determine diameter. $54 \div 3 = 18$ inches diameter.</p>
HOW MUCH TO USE	<p>Apply 6 ml (0.2 fl oz) per inch of trunk diameter. See Table 1.</p> <p>For trees 15 inches in diameter or larger and only to control the following pests: Asian Longhorned beetle, Emerald ash borer, Eucalyptus Longhorned borer, Bronze birch borer, Alder borer. Apply 12 ml (0.4 fl oz) per inch of trunk diameter. See Table 2.</p> <p>For Shrubs Apply 6 ml (0.2 fl. oz) per foot of shrub height.</p>
HOW TO APPLY	<ul style="list-style-type: none"> • Clear any barriers such as woodchips, mulch, and leaf matter from around the base of the tree or shrub. This includes landscape fabric. • Shake bottle well • Fill watering can/bucket with 1 gallon of water. Use 2 gallons of water for trees over 19 inches diameter. • Carefully measure required amount of product and combine with the water in the watering can/bucket. • Slowly and evenly pour the solution around the base of the tree/shrub. • Fill the container again with water and pour that around as well
RESTRICTIONS	<ul style="list-style-type: none"> • Do not apply more than 757 ml or 25.6 fl. oz. of product (0.4 lb imidacloprid active ingredient) per acre per year. • Keep people and pets off treated area until dry. • Do not apply to areas that are water logged or saturated, which will not allow penetration into the root zone of the plant.

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Table 1: Dosing rates for ornamental trees and shrubs

# of Inches of trunk diameter or shrub height in feet.	Amount of Optrol™	Volume of Water (gallons)
5	30 ml	1
6	36 ml	1
7	42 ml	1
8	48 ml	1
9	54 ml	1
10	60 ml	1
11	66 ml	1
12	72 ml	1
13	78 ml	1
14	84 ml	1
15	90 ml	1
16	96 ml	1
17	102 ml	1
18	108 ml	1
19	114 ml	1
20	120 ml	2

# of Inches of trunk diameter or shrub height in feet.	Amount of Optrol™	Volume of Water (gallons)
21	126 ml	1
22	132 ml	1
23	138 ml	1
24	144 ml	1
25	150 ml	1
26	156 ml	1
27	162 ml	1
28	168 ml	1
29	174 ml	1
30	180 ml	1
31	186 ml	1
32	192 ml	1
33	198 ml	1
34	204 ml	1
35	210 ml	1
36	216 ml	2

Table 2: Dosing rates only for ornamental trees 15 diameter inches or larger to control Asian Longhorned borer, Emerald ash borer, Eucalyptus Longhorned borer, Bronze birch borer, and Alder borer.

# of Inches of trunk diameter	Amount of Optrol™	Volume of Water (gallons)
5	30 ml	1
6	36 ml	1
7	42 ml	1
8	48 ml	1
9	54 ml	1
10	60 ml	1
11	66 ml	1
12	72 ml	1
13	78 ml	1
14	84 ml	1
15	180 ml	1
16	192 ml	1
17	204 ml	1
18	216 ml	1
19	228 ml	1
20	240 ml	2

# of Inches of trunk diameter	Amount of Optrol™	Volume of Water (gallons)
21	252 ml	2
22	264 ml	2
23	276 ml	2
24	288 ml	2
25	300 ml	2
26	312 ml	2
27	324 ml	2
28	336 ml	2
29	348 ml	2
30	360 ml	2
31	372 ml	2
32	384 ml	2
33	396 ml	2
34	408 ml	2
35	420 ml	2
36	432 ml	2

FOR FLOWERS AND GROUNDCOVERS

For Outdoor Residential Use Only

KILLS	Adelgids, Aphids, Froghopper, Japanese beetles, Lace bugs, Leaf beetles, Leafhoppers, Leafminers, Mealybugs, Planthoppers, Psyllids, Scales, Spittlebugs, Thrips (suppression), Whiteflies
WHEN TO USE	Apply before planting or after plants are established. If application is made to established plants, irrigate after application.
MEASURE	Determine the size of the area to be treated in square feet
HOW MUCH TO USE	Dilute according to Table 3. Can be reapplied every 2 weeks. 1 Bottle treats a 16,000 square feet of landscape or bedding area.
HOW TO TO APPLY	Add OPTROL, then water, into hose-end sprayer. Set Dial. Evenly spray treatment area until thoroughly wet.
RESTRICTIONS	<ul style="list-style-type: none">Do not apply more than 757 ml or 25.6 fl. oz. of product (0.4 lb imidacloprid active ingredient) per acre per year.Keep people and pets off treated area until dry.Do not apply to areas that are water logged or saturated, which will not allow penetration into the root zone of the plant.

Table 3: Dosing Rates for Flowers and Groundcovers

Square feet of treatment area	OPTROL amount	Water added to sprayer	Hose spray setting
1000	0.5 fl oz (15 ml)	9 fl oz	1 tsp
2000	1 fl oz (29 ml)	18 fl oz	Per
3000	1.5 fl oz (44 ml)	27 fl oz	Gallon

APPLICATION TO TURFGRASS

Optrol will control the following soil inhabiting pests and larvae found in turfgrass.

OPTROL can be applied on turfgrass in the following sites: home lawns, business & office complexes, shopping complexes, multi-family residential complexes, golf courses, airports, cemeteries, parks, playground, athletic fields.

OPTROL has adequate residual activity that applications can be made preceding the egg laying activity of the target pests.

Best control is achieved when applications are made prior to egg hatch of the pests and when rainfall or irrigation after application will penetrate vertically in the soil column carrying the active ingredient into the zone where insects are normally located. In order to move the active ingredient through the thatch, irrigate if rainfall does not occur within 24 hours after application.

Apply 15 ml (0.5 fl oz) per 1000 sq ft. Make application prior to egg hatch of grubs to maximize control.

For chinch bugs (suppression) and mole crickets apply 18 ml (0.6 fl oz) per 1000 sq ft. For suppression of chinch bugs, make application before hatching of the first eggs.

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Application for Use on Turfgrass

Draft label

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KILLS	Japanese beetle (larvae, & adults), Northern & Southern masked chafers, Asiatic garden beetle, European chafer, Green June beetle, May or June beetle, Oriental beetle, Billbugs, Chinch bugs (suppression), European crane fly.
WHEN TO USE	Before pests appear in early spring when ground is not frozen or saturated.
MEASURE	Determine the size of the area to be treated in square feet
HOW MUCH TO USE	Dilute according to Table 4. Can be reapplied every 2 weeks. 1 Bottle treats a 16,000 square feet of lawn.
HOW TO USE	Dilute according to Table 3. Add OPTROL, then water, into hose-end sprayer. Set Dial. Evenly spray treatment area until thoroughly wet. Once treatment area is dry, it is safe to enter the area.
HOW TO APPLY	Add OPTROL, then water, into hose-end sprayer. Set Dial. Evenly spray treatment area until thoroughly wet.
RESTRICTIONS	<ul style="list-style-type: none"> Do not apply more than 757 ml or 25.6 fl. oz. of product (0.4 lb imidacloprid active ingredient) per acre per year. Keep people and pets off treated area until dry. Do not mow turf or lawn area, until after adequate irrigation or rainfall has occurred. Do not apply when infested turfgrass areas are waterlogged or soil beneath turf is saturated with water. These conditions prevent thorough and consistent distribution.

Table 4. Dosing Rates for Turf

Square feet of lawn	OPTROL amount	Water added to sprayer	Hose spray setting
1000	0.5 fl oz (14.5 ml)	2.5 fl oz	3 fl oz Per Gallon
2000	1 fl oz (29 ml)	5 fl oz	
3000	1.5 fl oz (44 ml)	7.5 fl oz	
4000	2 fl oz (58 ml)	10 fl oz	
5000	2.5 fl oz (73 ml)	12.5 fl oz	
6000	3 fl oz (88 ml)	15 fl oz	
7000	3.5 fl oz (102 ml)	17.5 fl oz	
8000	4 fl oz (116 ml)	20 fl oz	
9000	4.5 fl oz (131 ml)	22.5 fl oz	
10000	5 fl oz (147 ml)	25 fl oz	
11000	5.5 fl oz (162 ml)	27.5 fl oz	
12000	6 fl oz (177 ml)	30 fl oz	
13000	6.5 fl oz (192 ml)	32.5 fl oz	
14000	7 fl oz (207 ml)	35 fl oz	
15000	7.5 fl oz (221 ml)	37.5 fl oz	
16000	8 fl oz (236 ml)	40 fl oz	

CONDITIONS OF SALE AND WARRANTY

The DIRECTIONS FOR USE of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS, its Supplemental Distributors, or the Seller. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, All such risks shall be assumed by the Buyer.

RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS, its Supplemental Distributors and the Seller warrant that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use subject to the inherent risks referred to above. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NEITHER RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS NOR ITS SUPPLEMENTAL DISTRIBUTORS MAKE ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND THE EXCLUSIVE LIABILITY OF RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS, ITS SUPPLEMENTAL DISTRIBUTORS AND THE SELLER FOR ANY AND ALL CLAIMS, LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OF OR THE REPAYMENT OF THE PURCHASE PRICE FOR THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, When Buyer suffers losses or damages resulting from the use or handling of this product (including claims based on contract, negligence, strict liability, or other legal theories), Buyer must promptly notify Seller in writing of any claims to be eligible to receive either remedy stated above. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO CASE SHALL RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS, ITS SUPPLEMENTAL DISTRIBUTORS, OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS, its Supplemental Distributors, and the Seller offer this product, and the Buyer accepts it, subject to the foregoing Conditions of Sale and Warranty, which may be varied only by agreement in writing signed by a duly authorized representative of RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS.

No employee or agent of RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS, its Supplemental Distributor, or the Seller is authorized to vary or exceed the terms of this Warranty in any other manner.

MONEY BACK GUARANTEE: If you are not satisfied with this product, we will gladly refund your original purchase price. When enrolled in our Tree Tracking Protection program, we will guarantee the product protects your tree if used preventively and annually. When you are registered, we will automatically notify you for annual reapplications. For more information, on the program, go to www.plantcarescience.com or call 1-877-814-3274.

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Optional Marketing Claims

- Prevents damage from listed pests
- Protects new growth
- Controls insects that damage trees and shrubs
- Up to year-long insect protection for trees and shrubs
- Treats an average sized tree
- Systemic insecticide is absorbed through the roots, carried up into the plant and won't wash off
- Will not harm trees and shrubs
- For use on all ornamental trees and shrubs
- One application protects up to 12 months
- Provides up to 12 month insect protection
- Easy to use – Measure ,Mix and Pour around Tree/Shrub base
- Protects from roots to leaves
- (Up to 12-month) (Up to 1 year) Tree Protection (Defense)
- Yearlong protection
- 21.4% active ingredient
- Concentrate
- Emerald ash borer protection
- Backed by Tree Geek or The Tree Geek
- Endorsed by Tree Geek
- Endorsed by Rainbow Companies
- Measuring tape included
- Emerald Ash Borer Prevention
- Tree & Shrub Complete Insect Control
- Tree Health Products from the Tree Health Experts
- Protect your lawn from [nasty] grub pests
- Grub and Lawn Protection
- Turf Protection
- Tree Protection

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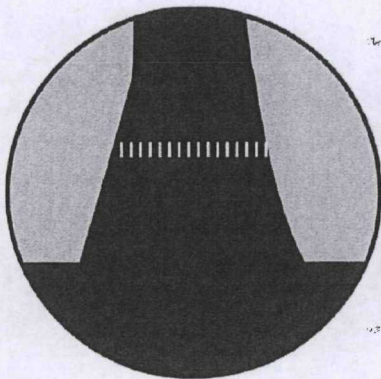
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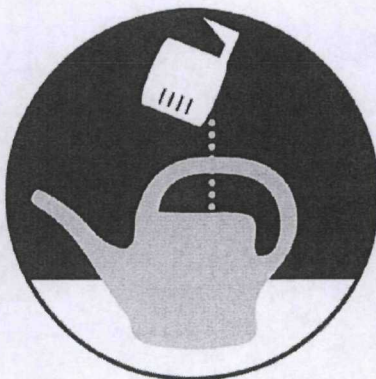
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Soil drench application for trees and shrubs

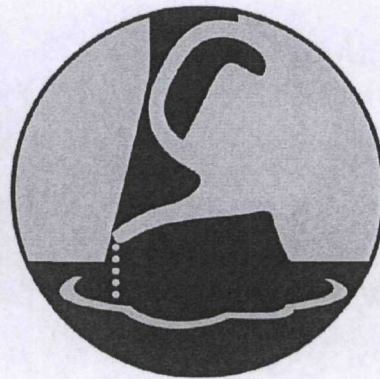


measure

tree diameter at breast height (DBH)
to determine correct dosage



mix



pour

around base of tree

DBH is measured 4.5 feet above the ground