



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Mr. David Anderson
Director of Regulatory Affairs
Rainbow Treecare Scientific Advancements
2239 Edgewood Ave S.
St. Louis Park, MN 55426

AUG 14 2008

RE: Notification of Minor Label Revisions
EPA Registration Number: 74779-3
Date of Submission: July 16, 2008

Dear Mr. Anderson:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated July 16, 2008, for the product, Cambistat 2SCII Plant Growth Regulatory for Trees. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the actions requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.


If you have any questions, please call me directly at 703-305-6249 or Joyce Edwards of my staff at 703-308-5479.

Sincerely,

A handwritten signature in black ink, appearing to read "Linda Arrington".

Linda Arrington
Notifications & Minor Formulations Team Leader
Registration Division (7505P)
Office of Pesticide Programs

2/19

	United States Environmental Protection Agency Washington, DC 20460	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number
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Application for Pesticide - Section I

1. Company/Product Number 74779-3	2. EPA Product Manager Tony Kish	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Cambistat 2SCII Plant Growth Regulator for Trees	PM# 22	
5. Name and Address of Applicant (Include ZIP Code) Rainbow Treecare Scientific Advancements 2239 Edgewood Ave. S., St. Louis Park, MN 55426 <input type="checkbox"/> Check if this is a new address		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. NOTIFICATION Product Name AUG 14 2008

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input checked="" type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

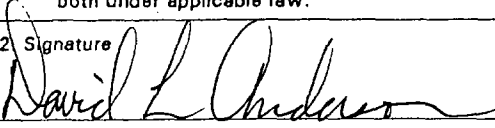
Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification to add additional tree species, modify dosage rates for a couple of species, correct errors, and to clarify label language. See attached document for detailed explanation of changes.
 This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:						2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					<input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt	No. per container		
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 1/2 gallon to 55 gallons		5. Location of Label Directions <input checked="" type="checkbox"/> On label			
6. Manner in Which Label is Affixed to Product			<input checked="" type="checkbox"/> Lithograph Paper glued Stenciled	<input type="checkbox"/> Other _____			

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)					
Name David L. Anderson	Title Director of Regulatory Affairs	Telephone No. (Include Area Code) 952-252-0541			
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.					6. Date Application Received (Stamped)
2. Signature 	3. Title Director of Regulatory Affairs				
4. Typed Name David L. Anderson	5. Date July 16, 2008				



July 16, 2008

Courier

Document Processing Desk [NOTIF]
Office of Pesticide Programs (7504P)
Registration Division
US Environmental Protection Agency
One Potomac Yard
2777 South Crystal Drive (South Building)
Arlington, VA 22202

ATTENTION: Tony Kish
Product Manager, Team 22

SUBJECT: Rainbow Treecare Scientific Advancements
Cambistat 2SCII Plant Growth Regulator for Trees
(EPA Reg. No. 74779-3)
Notification

Dear Mr. Kish:

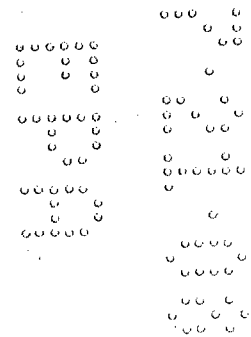
Rainbow Treecare Scientific Advancements is submitting a notification to make some minor revisions to the Cambistat 2SCII Plant Growth Regulator for Trees (EPA Reg. No. 74779-3) label. The revisions we are proposing are the addition of several tree species, reclassification of the application rates for a couple of trees species, the correction of errors, and revision to some label language that is intended to provide better information and more clarity to the applicator.

I am submitting one (5) clean copies of draft labeling along with on copy that highlights the revisions for your review and acceptance. If you have any questions, please contact me either by phone at 952-252-0541 or by email at danderson@treecare-science.com.

Sincerely,

David Anderson
Director of Regulatory Affairs
Rainbow Treecare Scientific Advancements
2239 Edgewood Ave S.
St. Louis Park, MN 55426

Enclosures:



www.rainbow-science.com

2239 Edgewood Ave S. Minneapolis, MN 55426 office 952.922-3810 fax 952.252-0504

Scientifically Proven Products with Predictable Results

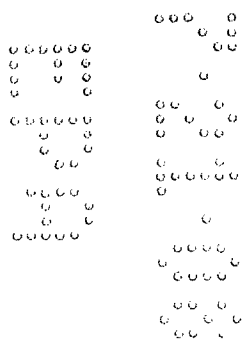
EPA Registration Form 8570-1
SECTION II – EXPLANATION

Regarding: Rainbow Treecare Scientific Advancements (Product Number 74779-3)

Rainbow Treecare Scientific Advancements is submitting a notification for revised labeling of Cambistat 2SCII Plant Growth Regulator for Trees (EPA Reg. No. 74779-3).

The changes we are requesting are:

- 1) On page 6, added the following tree species to Table 2:
 - a. Acacia
 - b. Bottlebrush
 - c. Buttonwood
 - d. Chinese Pistache
 - e. Elm-Chinese/Lacebark
 - f. Ficus
 - g. Larch
 - h. Lysiloma
 - i. Oak – Scarlet
 - j. Olive – Black
 - k. Olive – European
 - l. Olive – Russian
 - m. Photinia
 - n. Tepeguaje
 - o. Xylosma
- 2) On page 6, added “*” to Cottonwood, Pines, and Spruce identifying them as plants that show less growth regulation compared to other species.
- 3) On page 6, in table 2, revised application category for Katsura – Japanese from B to A.
- 4) On page 6, in table 2, added the statement “Caution**” to Japanese Maple identifying it as a plant species that is easily over regulated and that should be treated at 1/2 A rate.
- 5) On page 6, following table 2, added the statements:
 - a. “*These species typically show less growth reduction compared to other species.”
 - b. **Japanese Maple can be easily over regulated, field reports suggest 1/2 A rate may be more appropriate.”
- 6) On page 7, added the following tree species to Table 3:
 - a. Acacia
 - b. Bottlebrush
 - c. Buttonwood
 - d. Chinese Pistache
 - e. Elm-Chinese/Lacebark
 - f. Ficus
 - g. Larch
 - h. Lysiloma



- i. Oak – Scarlet
 - j. Olive – European
 - k. Photinia
 - l. Tepeguaje
 - m. Xylosma
- 7) On page 7, added an “*” to Cottonwood, Pines, and Spruce identifying them as plants that show less growth regulation compared to other species.
 - 8) On page 7, in table 3, revised application category for Catalpa from E to F.
 - 9) On page 7, in table 3, revised application category for Raintree - Golden from E to F.
 - 10) On page 7, in table 3, added the statement “Caution**” to Japanese Maple identifying it as a plant species that is easily over regulated and that should be treated at 1/2 A rate.
 - 11) On page 7, in table 3, added “***” to Dogwood identifying it as a plant species that is easily over regulated and that should be treated at 1/2 A rate.
 - 12) On page 7, following table 3, added the statements:
 - a. “*These species typically show less growth reduction compared to other species.”
 - b. “***Dogwood and Japanese Maples are very sensitive to Cambistat and can be easily over regulated, field reports suggest 1/2 A rate may be more appropriate.”
 - 13) On page 8, in title of Table 4, corrected the spelling of the word “individual”
 - 14) On page 8, in Table 4, for a category C tree that is 40 DBH inches, corrected the ml of Cambistat required from “407” ml to “417” ml.
 - 15) On page 8, in Table 4, for a category C tree that is 47 DBH inches, corrected the ml of water required from “4385” ml to “5385” ml.
 - 16) On page 9, in Table 5, for a category C tree that is 27 DBH inches, corrected the # of holes from “135” to “13.5”.
 - 17) On page 9, in Table 5, for a category C tree that is 28 DBH inches, corrected the # of holes from “147” to “14.0”.
 - 18) On page 11, in Figure 1, corrected the statement in the figure to read “Inject 2 – 6 inches deep”.
 - 19) On page 11, in Figure 2, changed the statement from “Place Diluted Material For Trunk-Soil Contact” to read “Pour diluted material at base of trunk”.



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Cambistat™

NOTIFICATION

AUG 14 2008

Active Ingredient:

Paclobotrazol (R*, R*)-(±)-β-[(4-chlorophenyl)Methyl]-α-(1,1-dimethylethyl)-1H-1,2,4-triazole-1-ethanol	22.3
Other Ingredients:.....	77.7
Total	100.0%

Contains 2 lbs. active ingredient per gallon

KEEP OUT OF REACH OF CHILDREN CAUTION

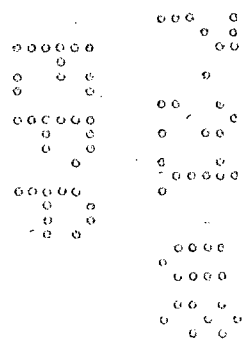
Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See Side/Back Panel for Additional Precautionary Statements, First Aid and Directions for Use

EPA Reg. No. 74779-3

EPA Est. No. 63416-MN-001

Net Contents: ½ gallon (1.89 L)	2L (67.6 fl oz)
1 gallon (3.78 L)	2.5 gallons (9.5 L)
5 gallons (18.9 L)	



Rainbow Treecare Scientific Advancements
 2239 Edgewood Ave. South
 Minneapolis, MN 55426
 1-877-ARBORIST
 1-877-272-6747
 www.rainbowscivance.com

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 15-20 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 15-20 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.
Have the product container or label with you when calling a poison control center or doctor or going for treatment.	
HOT LINE NUMBER	
For 24 hour medical emergency assistance (human or animal), or chemical emergency assistance (spill, leak or accident). Call CHEMTREC at 1-800-424-9300	

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

CAUTION: Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes, or clothing.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category F on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any water proof material
- Shoes plus socks

Applicators and other handlers are also recommended to wear protective eyewear.

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

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 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

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash water.

Physical or Chemical Hazards

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

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

FAILURE TO FOLLOW THE USE DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN PLANT INJURY OR LESS THAN OPTIMAL GROWTH REDUCTION.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

General Information

Cambistat™ is a plant growth regulator that slows the vegetative growth of plants by inhibiting gibberellin biosynthesis. Cambistat™ is designed to gently and predictably slow the growth of trees. A single application provides a long lasting reduction of vegetative growth, effectively extending the trimming cycle of trees and reducing the amount of woody growth that must be removed. In addition, use of Cambistat™ may cause other plant growth effects that are beneficial for trees such as increased root density, improved drought and heat resistance, and higher tolerance to insects and diseases. Cambistat will also benefit trees that are too large for their growing site and increase the longevity of trees growing in stressful environments. Cambistat™ may be applied by soil injection or basal soil drench.

Cambistat™ may be used on utility rights-of-way, residential areas, urban areas, and other non-crop areas.

Indications of Tree Response:

Cambistat™ is readily absorbed by plant roots and is translocated to the actively growing points. Initially, an intense greening of the foliage may occur in response to Cambistat™ treatment. Long-term effects

include: shortened internodes and smaller, thicker leaves. Visible results may be seen in as little as 2 months but measurable growth reduction may take as long as a year to occur.

General Use Precautions

- Apply at recommended rates and follow safety precautions.
- Non-fruit or nut bearing trees that are not specified on this label may be treated if all other label directions are followed.
- The degree and duration of Cambistat™ applications can be affected by local soil and environmental conditions. Carefully read and follow label instructions to ensure effectiveness.
- Retreat every 3 years or wait until the effects from the previous application subside.
- Heavily compacted soils around trees may need to be vertical mulched, aerated or receive other remedial soil compaction treatments for Cambistat™ to effectively promote root growth.
- Localized stunting or injury of turfgrass or other non-target plants immediately adjacent to the treatment site may occur if Cambistat flows off of the application site.
- Avoid Cambistat™ basal drench applications on inclines and other areas where treated soil is likely to be washed away from the base of the tree by rainfall or irrigation.
- Shrubs and/or herbaceous ornamentals next to treated trees may be affected if their roots extend into the treatment zone.
- Do not treat sugar maple trees or any other trees if they could be or will be tapped for sugar.
- Do not treat fruit or nut trees that will be harvested within one year.
- Do not treat severely stressed trees or trees in rapid decline.
- Do not apply Cambistat™ through any irrigation system.

DOSING

It is important to apply the proper dose to the tree you are treating. Use the following steps to determine the required dose:

- 1) Correctly identify the tree species.
- 2) Measure tree diameter at breast height (DBH). (See determining DBH)
- 3) Locate the correct dosage rate category for your species (See tables 2 and 3).
- 4) Locate the amount of material to use based on the category and DBH of your species (See tables 4 and 5).
- 5) Determine if any rate reductions are necessary (See Dosage Reduction Considerations).

DETERMINING DBH

Single Stem: Measure the standard DBH of the tree at 4' 6" above the soil.

Multiple Individual Trees Growing in Close Proximity: For trees that have grown close together, measure the DBH of each stem and treat each tree individually. You may need to make rate reductions due to the overlapping canopies (See Dosage Reduction Considerations). Also, because of close proximity of trees, it may be necessary to apply Cambistat to outer perimeter of clumped trees.

Multi-stem Split Below DBH: For a tree that has multiple stems splitting below DBH, measure the tree at the narrowest point between the root flare and the split.

Stem Clusters: For trees that are grown too close together to be treated as individual trees, measure the DBH of each stem and add the measurements together. You may need to make rate reductions due to overlapping canopies (see Dosage Reduction Considerations). Also, because of close proximity of trees, it may be necessary to apply Cambistat to outer perimeter of clumped trees.

Tree Splits at DBH: For a tree that splits into two or more stems at DBH, measure and add the diameter of the stems and measure the narrowest point below the split. Take the average of these values.

DOSAGE REDUCTION CONSIDERATIONS

Canopy Missing: Look at the canopy of the tree and compare it to a “normal” canopy for that trunk diameter. For example, if a tree is missing large branches from storm damage or utility line clearance pruning it is necessary to estimate the percentage of canopy missing and subtract this percentage from the dosage amount. i.e. subtract 30% from dosage if 30% is missing from the canopy.

Canopy Suppression: Trees growing in close proximity to other trees, multi-stemmed trees, and trees growing in clusters may have overlapping canopies. Your judgment is required to compare the canopies of these trees to the “normal” canopy for trees with similar trunk diameter. It may be necessary to reduce the dosage amount based on the percent of suppression and canopy overlap.

Stressed or Declining Trees: Dosage rates for trees that have lost canopy from construction damage, storm damage, insects, disease, girdling roots and/or other types of stress must be reduced to minimize the risk of over-regulation. A full dose of Cambistat applied to a tree with small, thin, or declining canopy may result in smaller leaves and a sparse canopy.

- Reduce the dosage rate on highly stressed trees by 25% or more
- Trees that show significant stress and are in rapid decline are NOT good candidates for treatment.
- For stressed trees, consider that additional canopy may decline before treatment response begins so you may need to reduce the dose by more than what is presently missing.

Trees with Confined or Compromised Root Systems: Trees in sidewalk boxes, above ground planters, and new transplants may absorb Cambistat from the treatment area in a higher proportion than a tree with a full root system. Reduce the dosage rate by 25% or more.

MIXING PROCEDURE

Dilute 1 part Cambistat with 11 parts water. To make a large Ready to use solution, combine 1 quart of Cambistat with 11 quarts of water to make 3 gallons of solution. See table 1 for additional examples. When mixing large amounts of Cambistat, mix only the amount that will be used within that day. Cambistat is best applied with equipment that has constant agitation.

Table 1. Examples of the volumes of Cambistat and Water needed to make Ready-to-Use solution.

Volume of Cambistat	Volume of Water	Makes
1 qt	11 quarts	3 gallons
1 gallon	11 gallons	12 gallons
4 gallons	44 gallons	48 gallons

If applying mixture to compacted soils, high clay content soils, or other hard-to-wet soils, use a nonionic, organosilicone wetting agent (surfactant) to increase penetration of the soil. Mix approximately ½ ounce surfactant per 3 gallons or 1 pint surfactant per 100 gallons. Follow all label directions and precautions on the surfactant product label.

APPLICATION METHODS

Soil Injection

Inject the Ready to Use solution approximately 2-6 inches deep at 50-200 psi using the volumes in Table 5. Orient injection orifices to release the diluted product horizontally at the point of injection. Divide the required dose evenly among injection sites spaced as uniformly as possible around the base of the tree. Position the injection sites to release the diluted Cambistat™ as close as possible to the point of contact between the soil and the tree beneath the soil so that the solution is readily absorbed by the tree (Figure 1). Locate injection sites next to buttress roots (Figure 1). For trees less than 6 inches DBH, use at least 4 injection sites evenly spaced around the tree.

Soil Basal Drench

Carefully dig a shallow furrow 2 – 6 inches deep around the base of the tree. If treating an individual tree, use the volumes determined in Table 4. If treating multiple trees, a Ready-To-Use solution can be created by using the volumes in Table 5. Carefully pour the Ready-To-Use solution evenly around the tree into the

furrow using an applicator that provides a controlled flow. Make the application at the point of contact between the soil and the tree trunk (Figure 2). After the diluted product has been absorbed by the soil, refill the furrow with untreated soil. Note: If making an application on a slope, a soil dam may be created to contain the application within the furrow.

APPLICATION TIMING

For a more manicured look, apply Cambistat™ to trees 30 to 180 days before they are pruned. To allow some regrowth and a more natural look, apply Cambistat™ at the time of pruning.

Soil applications can be made throughout the year, except when the soil is frozen or saturated with water. Note: When applied to the soil, Cambistat™ is absorbed by tree roots and translocated to the growing points (sub-apical meristems) in response to evaporative water loss (transpiration). If applications are made after leaf drop, uptake of Cambistat™ will not occur until development of new leaves and resumption of transpiration.

For questions, contact Rainbow Treecare Scientific Advancements at 877-272-6747.

Table 2: LANDSCAPE APPLICATION Tree reference list and dosage rates

Species	Category	Species	Category	Species	Category
Acacia	F	Hickory	E	Oak - Willow	E
Ailanthus	D	Holly - American	E	Oleander	C
Alder	F	Holly - Yaupon	B	Olive - Black	F
Anaqua	E	Horsechestnut	C	Olive - European	E
Arborvitae	F	Huisache	E	Olive - Russian	E
Ash	F	Ironwood / Hornbeam	D	Orchid Tree - Hong Kong	C
Aspen	F	Jacaranda	F	Osage Orange	F
Australian Bottle	C	Japanese Tree Lilac	E	Palms	F
Australian Pine	A	Juniper	F	Paloverde	E
Banyan - Ficus	F	Katsura - Japanese	A	Paulownia	E
Basswood, American	A	Larch	F	Pear - Ornamental	F
Baytree	E	Laurel	F	Pecan	E
Beech	E	Leyland Cypress	F	Persimmon	C
Birch	F	Linden	A	Photinia	E
Black Gum / Tupelo	B	Locust - Black	F	Pines*	F
Black Olive	F	Locust - Honey	E	Plum - Ornamental	E
Bottlebrush	F	Lombardy Poplar	F	Poinciana	F
Boxelder	A	Lysiloma	F	Raintree - Golden	F
Buckeye	D	Magnolia	F	Redcedar - Eastern	F
Buttonwood	F	Mahogany	F	Redwood	F
California Pepper	C	Maple - Amur	B	Rosewood / Tipuana	C
Camphor	E	Maple - Bigleaf	D	Russian Olive	E
Catalpa	E	Maple - Japanese (caution)**	A	Saltcedar	F
Cedar - Deodora	E	Maple - Norway	B	Sassafrass	E
Cedar - all others	F	Maple - Red	B	Sea Grape	E
Cherry - Black	F	Maple - Silver	D	Soapberry	E
Cherry - Ornamental	E	Maple - Sugar	B	Spruce*	F
Cherry - Laurel	E	Melaleuca	F	Sugarberry / Southern Hackberry	F
Chinaberry	E	Mesquite	F	Sumac - African	E
Chinese Pistache	E	Mimosa	E	Sycamore	F
Cottonwood*	F	Mountain Ash	B	Tabebuia	F
Crabapple	F	Mulberry	F	Tallow - Chinese	F
Crape Myrtle	B	Oak - Black	E	Tallowwood	F
Cypress	B	Oak - Blackjack	E	Tamarisk	F
Ebony - Texas	F	Oak - Bur	D	Tepeguaje	E
Elm - Cedar	B	Oak - Laurel	F	Tulip / Yellow Poplar	F
Elm - Chinese/Lacebark	A	Oak - Live - (<10")	B	Tupelo / Black Gum	B
Elm - Siberian	A	Oak - Live (>10")	E	Walnut	E
Elm - (all others)	B	Oak - Pin	E	Waxmyrtle - Pacific	F
Eucalyptus	F	Oak - Post	E	Willow	F
Ficus	F	Oak - Red	E	Xylosma	C
Fir	F	Oak - Sand Shinnery	E	Yellow Poplar / Tulip	F
Ginkgo	F	Oak - Scarlet	E	Yew	F
Gumbo Limbo	F	Oak - Shumard	E	Zelkova	B
Hackberry	F	Oak - Valley	F		
Hawthorn	C	Oak - Water	E		
Hemlock	F	Oak - White	D		

Call 877-ARBORIS(T) (877-272-6747) for questions.

*These species typically show less growth reduction compared to other species.

**Japanese Maple can be easily over regulated, field reports suggest 1/2 A rate may be more appropriate.

Table 3: RIGHTS-OF-WAY APPLICATIONS: Tree reference list and dosage rates

Species	Category	Species	Category	Species	Category
Acacia	F	Hemlock	F	Oak - White	E
Ailanthus	D	Hickory	E	Oak - Willow	E
Alder	F	Holly - American	E	Oleander	C
Anaqua	E	Holly - Yaupon	B	Olive - Black	F
Arborvitae	F	Hong Kong Orchid Tree	C	Olive - European	E
Ash	F	Horsechestnut	C	Olive - Russian	E
Aspen	F	Huisache	E	Orchid Tree - Hong Kong	C
Australian Bottle	C	Ironwood / Hornbeam	D	Osage Orange	F
Australian Pine	B	Jacaranda	F	Palms	F
Banyan - Ficus	F	Juniper	F	Paloverde	E
Basswood - American (>10")	B	Katsura - Japanese	B	Paulownia	E
Basswood - American (<10")	A	Larch	F	Pear - Ornamental	F
Baytree	E	Laurel	F	Pecan	E
Beech	E	Lilac - Japanese	E	Persimmon	C
Birch	F	Linden (>10")	B	Photinia	E
Black Gum / Tupelo	C	Linden (<10")	A	Pines*	F
Bottlebrush	F	Locust - Black	F	Plum - Ornamental	E
Boxelder	B	Locust - Honey	E	Poinciana	F
Buckeye	D	Lombardy Poplar	F	Poplar - Lombardy	F
Buttonwood	F	Lysiloma	F	Raintree - Golden	F
California Pepper	C	Magnolia	F	Redbud	A
Camphor	E	Mahogany	F	Redcedar - Eastern	F
Catalpa	F	Maple - Amur	B	Redwood	F
Cedar - Deodora	E	Maple - Bigleaf	E	Rosewood / Tipuana	C
Cedar - all others	F	Maple - Japanese (caution)**	A	Saltcedar	F
Cherry - Black	F	Maple - Norway (>10")	C	Sassafrass	E
Cherry - Laurel	E	Maple - Norway (<10")	B	Sea Grape	E
Cherry - all others	E	Maple - Red (>10")	C	Soapberry	E
Chinaberry	E	Maple - Red (<10")	B	Spruce*	F
Chinese Pistache	E	Maple - Silver (>10")	D	Sugarberry /Southern Hackberry	F
Cottonwood*	F	Maple - Silver (<10")	C	Sumac - African	E
Crabapple	F	Maple - Sugar (>10")	C	Sweetgum (Eastern US)	A
Crape Myrtle	C	Maple - Sugar (<10")	B	Sweetgum (Western US)	B
Cypress - Leyland	F	Melaleuca	F	Sycamore	F
Cypress - all others	B	Mesquite	E	Tabebuia	F
Dogwood - CAUTION**	A	Mimosa	E	Tallow - Chinese	F
Ebony - Texas	F	Mountain Ash	B	Tamarisk	F
Elm - Cedar	B	Mulberry	F	Tepeguaje	E
Elm - Chinese/Lacebark	A	Oak - Black	E	Tulip / Yellow Poplar	F
Elm - Siberian	A	Oak - Blackjack	E	Tupelo / Black Gum	C
Elm -all others (>10")	C	Oak - Bur	D	Walnut	E
Elm -all others (<10")	B	Oak - Laurel	F	Waxmyrtle - Pacific	F
Eucalyptus	F	Oak - Live (>10")	E	Willow	F
Ficus	F	Oak - Live (<10")	C	Xylosma	C
Fir	F	Oak - Pin	E	Yellow Poplar / Tulip	F
Ginkgo	F	Oak - Post	E	Yew	F
Gumbo Limbo	F	Oak - Red	E	Zelkova	B
Hackberry	F	Oak - Sand Shinnery	E		
Hawthorn	D	Oak - Scarlet	E		
		Oak - Shumard	E		
		Oak - Valley	F		
		Oak - Water	E		

Call 877-ARBORIS(T) (877-272-6747) for questions.

*These species typically show less growth reduction compared to other species.

**Dogwood and Japanese Maples are very sensitive to Cambistat and can be easily over regulated, field reports suggest 1/2 A rate may be more appropriate.

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• Table 4: Cambistat individual dose rate sheet. Mix the required volume of Cambistat with the required volume of water.

Dia. of Tree at Breast Height	Category		Category		Category		Category		Category		Category	
	A		B		C		D		E		F	
	DBH Inches	ml Cambistat	ml water	ml Cambistat	ml water	ml Cambistat	ml water	ml Cambistat	ml water	ml Cambistat	ml water	ml Cambistat
4	17	185	23	250	42	460	46	510	50	550	67	735
5	21	230	28	310	52	575	57	630	63	690	83	920
6	25	275	33	370	63	690	69	760	75	825	100	1100
7	44	480	58	645	73	805	80	885	88	965	117	1285
8	50	550	67	735	83	920	92	1000	100	1100	133	1470
9	56	620	75	825	94	1030	103	1135	113	1240	150	1650
10	63	690	83	920	104	1145	115	1260	125	1375	167	1835
11	69	755	92	1010	115	1260	126	1390	138	1515	183	2020
12	75	825	100	1100	125	1375	138	1515	150	1650	200	2200
13	81	900	108	1190	135	1490	149	1640	163	1790	217	2385
14	88	965	117	1285	146	1605	160	1765	175	1925	233	2570
15	94	1030	125	1375	156	1720	172	1895	188	2065	250	2750
16	100	1100	133	1470	167	1835	183	2020	200	2200	267	2935
17	106	1170	142	1560	177	1950	195	2145	213	2340	283	3120
18	113	1240	150	1650	188	2065	206	2270	225	2475	300	3300
19	119	1310	158	1745	198	2177	218	2395	238	2615	317	3485
20	125	1375	167	1835	208	2290	229	2520	250	2750	333	3670
21	131	1445	175	1925	219	2410	241	2650	263	2890	350	3850
22	138	1515	183	2020	229	2520	252	2775	275	3025	367	4035
23	144	1580	192	2110	240	2635	264	2900	288	3165	383	4220
24	150	1650	200	2200	250	2750	275	3025	300	3300	400	4400
25	156	1720	208	2295	260	2865	287	3150	313	3440	417	4585
26	162	1787	217	2385	271	2980	298	3277	325	3575	433	4765
27	169	1855	225	2475	281	3095	310	3400	338	3715	450	4950
28	175	1925	233	2570	292	3210	321	3530	350	3850	467	5135
29	181	1995	242	2660	302	3320	332	3660	363	3990	483	5320
30	188	2060	250	2750	313	3440	344	3780	375	4125	500	5500
31	194	2130	258	2840	323	3550	355	3910	388	4265	517	5685
32	200	2200	267	2930	333	3670	367	4035	400	4400	533	5870
33	206	2270	275	3025	345	3780	378	4160	413	4540	550	6050
34	213	2340	283	3120	354	3900	390	4285	425	4675	567	6235
35	219	2405	292	3210	365	4010	401	4410	438	4810	583	6415
36	225	2475	300	3300	375	4125	413	4540	450	4950	600	6600
37	231	2545	308	3390	386	4240	424	4664	463	5090	617	6780
38	238	2610	317	3480	396	4355	435	4790	475	5225	633	6970
39	244	2680	325	3575	406	4470	447	4915	488	5365	650	7150
40	250	2750	333	3670	417	4585	458	5040	500	5500	667	7335
41	256	2820	342	3760	427	4700	470	5168	513	5640	683	7520
42	263	2890	350	3850	438	4815	481	5295	525	5775	700	7700
43	269	2955	358	3940	448	4930	493	5420	538	5915	717	7885
44	275	3025	367	4035	458	5040	504	5545	550	6050	733	8065
45	281	3095	375	4125	469	5155	516	5670	563	6190	750	8250
46	288	3160	383	4220	479	5270	527	5800	575	6325	767	8435
47	294	3230	392	4310	490	5385	539	5924	588	6463	783	8615
48	300	3300	400	4400	500	5500	550	6050	600	6600	800	8800
49	306	3370	408	4490	510	5615	560	6175	613	6740	817	8985
50	313	3440	417	4585	521	5730	573	6300	625	6875	833	9167

Table 5: Ready-To-Use (RTU) rate sheet and the number of soil injection holes needed (based on 250ml delivered per hole). Make a RTU solution by combining 11 parts of water with 1 part of Cambistat.

Dia. of Tree at Breast Height (DBH) (Inches)	Category A		Category B		Category C		Category D		Category E		Category F	
	75 ml per inch DBH		100 ml per inch DBH		125 ml per inch DBH		138 ml per inch DBH		150 ml per inch DBH		200 ml per inch DBH	
	ml dose	# of holes	ml dose	# of holes	ml dose	# of holes	ml dose	# of holes	ml dose	# of holes	ml dose	# of holes
4	202*	BD**	273*	BD**	500	BD**	550	BD**	600	BD**	800	3.2
5	251*	BD**	338*	BD**	625	BD**	688	BD**	750	3	1000	4
6	300*	BD**	403*	BD**	750	3	825	3.3	900	3.6	1200	4.8
7	525	BD**	700	BD**	875	3.5	963	3.9	1050	4.2	1400	5.6
8	600	BD**	800	3.2	1000	4	1100	4.4	1200	4.8	1600	6.4
9	675	BD**	900	3.6	1125	4.5	1238	5	1350	5.4	1800	7.2
10	750	3	1000	4	1250	5	1375	5.5	1500	6	2000	8
11	825	3.3	1100	4.4	1375	5.5	1513	6.1	1650	6.6	2200	8.8
12	900	3.6	1200	4.8	1500	6	1650	6.6	1800	7.2	2400	9.6
13	975	3.9	1300	5.2	1625	6.5	1788	7.2	1950	7.8	2600	10.4
14	1050	4.2	1400	5.6	1750	7	1925	7.7	2100	8.4	2800	11.2
15	1125	4.5	1500	6	1875	7.5	2063	8.3	2250	9	3000	12
16	1200	4.8	1600	6.4	2000	8	2200	8.8	2400	9.6	3200	12.8
17	1275	5.1	1700	6.8	2125	8.5	2338	9.4	2550	10.2	3400	13.6
18	1350	5.4	1800	7.2	2250	9	2475	9.9	2700	10.8	3600	14.4
19	1425	5.7	1900	7.6	2375	9.5	2613	10.5	2850	11.4	3800	15.2
20	1500	6	2000	8	2500	10	2750	11	3000	12	4000	16
21	1575	6.3	2100	8.4	2625	10.5	2888	11.6	3150	12.6	4200	16.8
22	1650	6.6	2200	8.8	2750	11	3025	12.1	3300	13.2	4400	17.6
23	1725	6.9	2300	9.2	2875	11.5	3163	12.7	3450	13.8	4600	18.4
24	1800	7.2	2400	9.6	3000	12	3300	13.2	3600	14.4	4800	19.2
25	1875	7.5	2500	10	3125	12.5	3438	13.8	3750	15	5000	20
26	1950	7.8	2600	10.4	3250	13	3575	14.3	3900	15.6	5200	20.8
27	2025	8.1	2700	10.8	3375	13.5	3713	14.9	4050	16.2	5400	21.6
28	2100	8.4	2800	11.2	3500	14.0	3850	15.4	4200	16.8	5600	22.4
29	2175	8.7	2900	11.6	3625	14.5	3988	16	4350	17.4	5800	23.2
30	2250	9	3000	12	3750	15	4125	16.5	4500	18	6000	24
31	2325	9.3	3100	12.4	3875	15.5	4263	17.1	4650	18.6	6200	24.8
32	2400	9.6	3200	12.8	4000	16	4400	17.6	4800	19.2	6400	25.6
33	2475	9.9	3300	13.2	4125	16.5	4538	18.2	4950	19.8	6600	26.4
34	2550	10.2	3400	13.6	4250	17	4675	18.7	5100	20.4	6800	27.2
35	2625	10.5	3500	14	4375	17.5	4813	19.3	5250	21	7000	28
36	2700	10.8	3600	14.4	4500	18	4950	19.8	5400	21.6	7200	28.8
37	2775	11.1	3700	14.8	4625	18.5	5088	20.4	5550	22.2	7400	29.6
38	2850	11.4	3800	15.2	4750	19	5225	20.9	5700	22.8	7600	30.4
39	2925	11.7	3900	15.6	4875	19.5	5363	21.5	5850	23.4	7800	31.2
40	3000	12	4000	16	5000	20	5500	22	6000	24	8000	32
41	3075	12.3	4100	16.4	5125	20.5	5638	22.6	6150	24.6	8200	32.8
42	3150	12.6	4200	16.8	5250	21	5775	23.1	6300	25.2	8400	33.6
43	3225	12.9	4300	17.2	5375	21.5	5913	23.7	6450	25.8	8600	34.4
44	3300	13.2	4400	17.6	5500	22	6050	24.2	6600	26.4	8800	35.2
45	3375	13.5	4500	18	5625	22.5	6188	24.8	6750	27	9000	36
46	3450	13.8	4600	18.4	5750	23	6325	25.3	6900	27.6	9200	36.8
47	3525	14.1	4700	18.8	5875	23.5	6463	25.9	7050	28.2	9400	37.6
48	3600	14.4	4800	19.2	6000	24	6600	26.4	7200	28.8	9600	38.4
49	3675	14.7	4900	19.6	6125	24.5	6738	27	7350	29.4	9800	39.2
50	3750	15	5000	20	6250	25	6875	27.5	7500	30	10000	40

*The dosage rate for this tree has been adjusted down due to sensitivity of small trees in this category.

**Use the basal drench application method to apply Cambistat to trees of this size in this category.

Table 6. Partial hole volumes for soil injection (based on 250 ml delivered per hole)

Partial hole	Volume
.1	25 ml
.2	50 ml
.3	75 ml
.4	100 ml
.5	125 ml
.6	150 ml
.7	175 ml
.8	200 ml
.9	225 ml

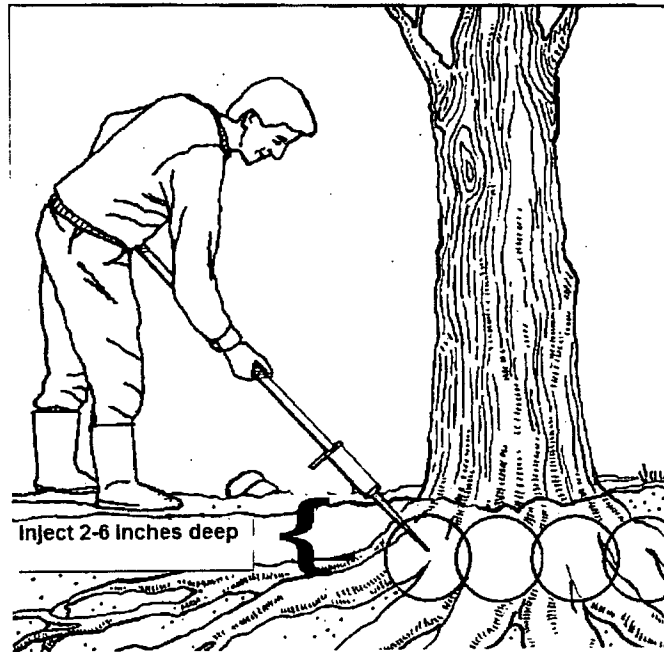


Figure 1. Placement of Cambistat™ as a soil-injected treatment.

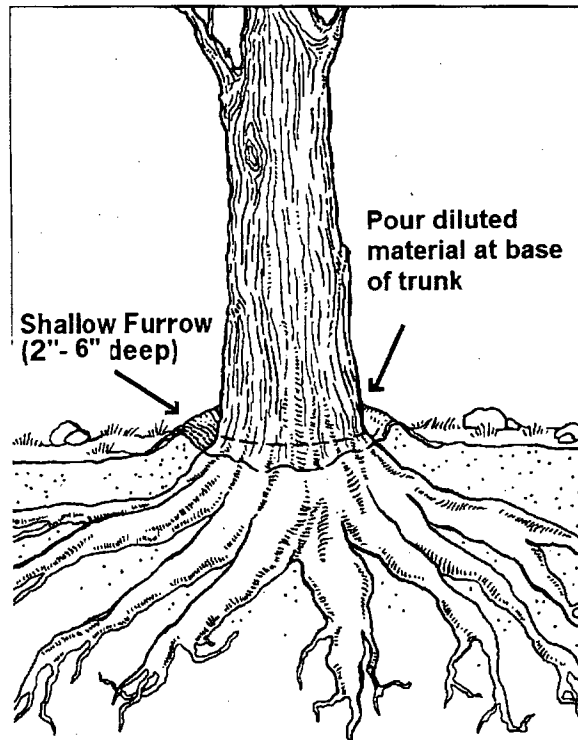


Figure 2. Placement of Cambistat™ as a basal drench.

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STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.

Pesticide Storage: Keep container closed when not in use. Do not store near food or feed. Protect from freezing. In case of spill or leak on floor or paved surfaces, soak up with sand, earth, or synthetic absorbent. Remove to chemical waste area.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these 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 by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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Notice: Read the entire Directions For Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

Follow the Directions For Use carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Tree injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or tree conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS or seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS and Seller harmless for any claims relating to such factors.

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Patent Pending

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OPTIONAL MARKETING CLAIMS

Committed to advancing the science of tree care

Reduced [utility] line clearance costs [up to 60%]

Improved customer satisfaction through reduced trimming and healthier trees

Up to 40 to 90% reduction in regrowth [for 3 years]

Up to 90% growth reduction* [*on selected species]

One application lasts up to 3 years

Enhances tree roots by promoting fine root density

Promotes fine root density

Improves drought resistance

Improves heat resistance

Extends trim cycle time

Extends trim cycle



Rainbow Treecare
SCIENTIFIC ADVANCEMENTS

Ideal for use on fast-growing trees to reduce growth

Reduces growth of trim cycle-buster trees

Reduces hot-spotting costs

Reduces [utility] line interference outages and increases reliability.

Ideal for application on difficult to access trees [such as in backyards]

Helps trees [by increasing fine root density] [by reducing drought stress] [by slowing trunk and shoot growth of trees in confined areas]

One application lasts up to 3 years [- lasts up to 10 years on some species]

Ideal for use on critical [utility] feeder lines.

Ideal for zone management

Protects investment in boulevard and parking lot trees

Can increase tree longevity in stressful environments

Specially formulated for soil application around trees.

Tree Growth Regulator

[Plant] Growth regulator for trees

Growth Control Uses for Cambistat

- Short Clearances
- Difficult to access trees – backyards
- Zone 1 trees – immediately out of the substation
- Cycle busters – problem trees
- Critical feeder lines – hospitals, industry
- Complete circuits
- Complete System
- Municipal vista management trees
- Favorite trees – parks, schools, government
- Farmstead trees
- Concerned / difficult customers with right-of-way trees