

Injected insecticide for two-year control of listed insect and mite pests in deciduous, coniferous, and palm trees



<sup>1</sup>CAS No.155569-91-8

Contains 0.36 lb. emamectin per gallon.

EPA Reg. No.: 91234-411

# **KEEP OUT OF REACH OF CHILDREN CAUTION/AVISO**

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 below for additional Precautionary Statements.

FIRST AID			
If swallowed:	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>		
If in eyes:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>		
NOTE TO PHYSICIAN			

Early signs of intoxication include dilation of pupils, muscular incoordination, and muscular tremors. Vomiting within one-half hour of exposure can minimize toxicity following accidental ingestion of the product; rapidly after exposure (< 15 minutes) administer repeatedly medical charcoal in a large quantity of water or ipecac. If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parenteral fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels and proper respiratory functionality) as indicated by clinical signs, symptoms, and measurements.

In severe cases, observations should continue for at least several days until clinical condition is stable and normal. Since emamectin benzoate is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic emamectin benzoate exposure.

#### **HOT LINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at 1-844-685-9173 for emergency medical treatment information.

#### For Chemical Emergency:

Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 or +1703-527-3887 (collect calls accepted)

**Tree-ject™** is not manufactured, or distributed by Arborjet, Inc., seller of TREE-äge®.



# PRECAUTIONARY STATEMENTS

# HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### **CAUTION/AVISO**

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils.
- · Shoes and socks
- · Protective eyewear

Follow the 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:

- · Remove clothing/PPE 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**

This product is highly toxic to fish, mammals and aquatic invertebrates. 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 disposing of equipment washwater. This product is highly toxic to bees exposed to direct treatment or residues on blooming trees. Do not apply this product to blooming trees if bees are foraging in the treatment area.

#### **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.

IMPORTANT: Read entire label before using this product. Failure to follow label instructions may result in poor control or tree injury. Failure to follow label directions may cause injury to people, animals and environment.

#### **APPLICATION TO TREES**

**Tree-ject** is for control of mature and immature listed arthropod pests of deciduous, coniferous, and palm trees, including, but not limited to, those growing in residential and commercial landscapes, parks, plantations, seed orchards, and forested sites (in private, municipal, state, tribal and national areas). **Tree-ject** contains the active ingredient emamectin benzoate and is formulated to translocate in the tree's vascular system when injected. This product must be placed into active sapwood and will actively control pests for up to two years.

#### **USE DIRECTIONS**

Tree-ject is designed for use with tree injection devices that meet the label and dose requirements for the control of listed pests of trees. Follow manufacturer's directions for equipment use.

Dosages are based on the Diameter (in inches) of the tree at Breast Height (DBH). Breast height is defined as 4.5 feet (1.37m) above the ground on the uphill side of the tree.

The diameter is determined by measuring the circumference of the tree at DBH and dividing the circumference (in inches) by three (3). To determine DBH" for multi-stemmed woody ornamentals, measure the DBH for each stem or branch and add together for the total DBH" per tree.

Placement of Application/Injection Sites: Inject at the base of the tree. Inject into the stem within 12 to 24" of the soil, into the trunk flare or into tree roots exposing them by shallow excavation. Make applications into intact, healthy sapwood. Do not inject into injured areas or areas with decay.

Number of Injection Sites: Work around the tree, spacing injection sites approximately every 4 to 8 inches of tree's circumference.

**Drill Depth:** Drill through the bark then 5/8" to 2" into the sapwood with the appropriate sized drill bit. Use clean, sharp drill bits. Precautions should be taken to avoid diseased areas and transferring infected tissues to other injection sites.

#### **Resinous Conifers**

In resinous conifers, such as pine and spruce, start the injection immediately after drilling into the sapwood.

#### Palms

Make applications into palms 2-3 feet from the soil level, above the liquified tissues. One (typical) to 4 injection points may be installed. Drill into the palm tissue 4" deep, or up to 1/3 trunk diameter.

#### WHEN TO TREAT

Tree-ject contains the active ingredient emamectin benzoate, which is a glycoside insecticide. It is active against immature and adult stages of arthropods. The primary route of toxicity is through ingestion.

**ENVIRONMENTAL CONDITIONS:** Uptake of **Tree-ject** is dependent upon the tree's transpiration. For better uptake, apply when soil is moist, soil temperatures are above 45°F. ambient temperatures are between 40° to 90°F. and during the 24-hour period when transpiration is greatest, typically before 2:00 PM. Applications to drought or heat-stressed trees may result in injury to tree tissue, poor treatment and subsequent control. Avoid treating trees that are moisture stressed or suffering from herbicide damage.



MONITOR TREE HEALTH and PEST INFESTATIONS: Effective injection treatment is favored by a full canopy (i.e., leaves) and healthy vascular system. Once these tissues are compromised by arthropod damage (larval galleries, defoliation, leaf mining, etc.) an effective and uniform application of **Tree-ject** may be difficult to achieve, and subsequent control may be poor. Optimally, treatment should be made preventively at least 2 to 3 weeks before arthropods historically infest the host tree. As a result of systemic movement and longevity of **Tree-ject** in trees, this interval may be extended much earlier to 6 months should tree dormancy, adverse weather, management, asynchronous life cycle of pests, etc., allow earlier application timing.

**Tree-ject** may also be effective as a remedial treatment against some pests, such as those with slower development or if multiple life stages occur. Pests that attack the stem and branches may disrupt vascular tissue, resulting in poor distribution of the product in an infested tree. However, control may be achieved if susceptible larvae come into contact or feed on **Tree-ject**-treated tissues.

#### USE

Use as formulated or dilute with equivalent of 1 to 9 volumes of water. Refer to Application in Trees table for specific instructions.

#### **Use Rate Table\***

Tree Diameter (DBH) (Inches)	Low¹ mL Product/Tree	Medium mL Product/Tree	High mL Product/Tree
4 to 6	10 – 20	20 – 45	45 – 60
7 to 9	20 – 30	30 - 65	65 – 90
10 to 12	25 – 35	35 – 90	90 – 120
13 to 15	30 - 45	45 – 110	110 – 150
16 to 18	40 – 55	55 – 135	135 – 180
19 to 21	50 - 60	60 – 160	160 – 210
22 to 24	55 – 70	70 – 180	180 – 240
25 to 27	65 – 80	80 – 200	200 – 270
28 to 30	70 – 90	90 – 225	225 – 300
31 to 33	80 – 100	100 – 250	250 – 330
34 to 36	85 – 110	110 – 270	270 – 360
37 to 39	90 – 120	120 – 290	290 - 390
40 to 42			
43 to 45			
46 to 48			
49 to 51			
52 to 54			
55 to 57	120 - 240	240 – 300	300 – 400
58 to 60			
61 to 63			
64 to 66			
67 to 69			
70 to 72			

<sup>\*</sup>Not Registered for Use by California

#### **California Use Rate Table**

Tree Diameter (DBH) (Inches)	Low¹ mL Product/Tree	Medium mL Product/Tree	High mL Product/Tree
4 to 6	15 – 20	20 – 45	45 – 60
7 to 9	20 – 30	30 - 65	65 – 90
10 to 12	30 – 35	35 – 90	90 – 120
13 to 15	35 – 45	45 – 110	110 – 150
16 to 18	42 – 55	55 – 135	135 – 180
19 to 21	50 - 60	60 – 160	160 – 210
22 to 24	-	115 – 180	180 – 240
25 to 27	-	130 – 200	200 – 270

(continued)



### California Use Rate Table (cont.)

Tree Diameter (DBH) (Inches)	Low¹ mL Product/Tree	Medium mL Product/Tree	High mL Product/Tree
28 to 30	-	145 – 225	225 – 300
31 to 33	-	160 – 250	250 – 330
34 to 36	-	175 – 270	270 – 360
37 to 39	-	190 – 290	290 – 390
40 to 42			
43 to 45			
46 to 48			
49 to 51			
52 to 54			
55 to 57	-	205 – 300	300 – 400
58 to 60			
61 to 63			
64 to 66			
67 to 69			
70 to 72	]		

The use of low, medium, or high dose per tree is based on the experienced judgment of the applicator as to what constitutes a low, medium or high infestation.

Higher rates tend to provide longer residual and control of more difficult to control insects. See Target Pest for additional information in choosing the amount of product to apply.

If the tree canopy has been significantly reduced, i.e., excessive tree pruning or turning trees into a hedge, reduce dose accordingly.

<sup>1</sup>In Palms always use the low ml. product/tree.

# **Applications in Trees**

TREE TISSUE	TARGET PEST	APPLICATION RATE <sup>1</sup>	COMMENTS
Seed and Cone	Coneworm (Dioryctria spp.) Cone beetle (Conophthorus spp.) Pinecone Seed Bug (Suppression of Leptoglossus and Tetyra spp. in the year of treatment)	Medium to High	For optimal control apply in the fall for early season pests or at least 30 days before insect attack.
Bud and Leaf	Tent Caterpillars (Including Eastern, Forest, Pacific, and Western) Western Spruce Budworm Winter Moth	Low to Medium	For best results, apply at least 2-3 weeks before the pest has historically been present. Consult with local extension agent for when this will occur in your area.  For more uniform distribution in the canopy (foliage), dilute product with equivalent 1 to 9 volumes of water prior to application.

(continued)



### **Applications in Trees** (cont.)

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TREE TISSUE	TARGET PEST	APPLICATION RATE <sup>1</sup>	COMMENTS
Bud and Leaf (cont.)	Bagworm Cankerworm Casebearer * Eastern Oak Looper Elm Spanworm Fall Webworm Gypsy Moth Leafrollers Linden Looper Mimosa Webworm Oak Worm Pine Needle Miner* Poplar Tentmaker* Tussock Moth Variable Oakleaf Caterpillar* Vellownecked Caterpillar* Leafminers (Including Lepidoptera Coleoptera, Hymenoptera) Honeylocust Plant Bug Pine Needle Scale Conifer Mite Red Palm Mite Sawfly (Including Elm, Pine)	Low to High	For best results, apply at least 2-3 weeks before the pest has historically been present. Consult with local extension agent for when this will occur in your area.  For more uniform distribution in the canopy (foliage), dilute product with equivalent 1 to 9 volumes of water prior to application.
Shoot, Stem, Trunk and Branch	Clearwing Borers (Including Ash, and Sequoia Pine Pitch Tube Moth) Carpenterworm* Cottonwood Twig Borer Zimmerman Moth  Flat-headed Borers (Including adult and larvae of Emerald Ash Borer) Gall Wasps, including Banyan Stem Gall Wasps* Roundheaded Borers (Excluding Asian Longhorned Beetle) Ambrosia Beetles (Including Polyphagous Shot Hole Borer, Euwallacea fornicatus)² Scolytids (bark beetles) Ips Engraver Beetles 3.4 Mountain Pine Beetle 2.3 Southern Pine Beetle 3 Spruce Beetle 3 Western Pine Beetle 3 Black Turpentine Beetle 3 Walnut Twig Beetle 2.4 Pinewood Nematode	Low to Medium  Medium to High	For best results, apply at least 30 days before historical egg hatch or adult flight and to trees whose vascular tissue is not damaged.  For more uniform distribution in the canopy (foliage), dilute product with equivalent 1 to 9 volumes of water prior to application.  if vascular tissue is damaged or plugged by insect galleries, nematodes or fungi, uniform treatment and control may not be achieved.  For bark beetles that attack the tree bole: for more uniform distribution within the tree bole, inject every 4 inches of stem circumference.  For bark beetles that attack the canopy: dilute product with equivalent 1 to 9 volumes of water prior to application.

<sup>&</sup>lt;sup>1</sup>Use medium to high rates for remedial and longer residual control.

#### **COMPATIBILITY**

Do not mix Tree-ject before injection with other products such as insecticides fungicides, plant growth regulators, surfactants, adjuvants, and fertilizers.

#### **USE RESTRICTIONS**

Do not apply to trees that may yield food consumed by humans or used in animal feed. **Tree-ject** is not to be reformulated or blended.



<sup>&</sup>lt;sup>2</sup>Use of **Tree-ject** to control this insect may not result in the control of diseases vectored by the insect.

<sup>&</sup>lt;sup>3</sup>Bark beetles that attack the tree bole.

<sup>&</sup>lt;sup>4</sup>Bark beetles that attack the canopy.

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#### STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a tightly closed container in a cool, dry place. Store in original container and out of reach of children, preferably in a locked storage area.

PESTICIDE DISPOSAL: Pesticide spray mixture or rinsate that cannot be used should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the 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 HANDLING:**

Nonrefillable container. Do not reuse or refill this container. If empty: Offer for recycling if available or discard in a sanitary landfill. If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

For plastic containers ≤ 5 gallons: Nonrefillable Container: Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.

For plastic containers > 5 gallons: Nonrefillable container: Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Recap and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.

#### LIMITATION OF WARRANTY AND LIABILITY

IMPORTANT: READ BEFORE USE. Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Disclaimer of Warranties and Limitations of Liability. CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of ATTICUS, LLC. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, ATTICUS, LLC makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label. LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, neither ATTICUS, LLC the manufacturer, nor the Seller shall be liable for any indirect, special, incidental or consequential damages resulting from the use, handling, application, storage, or disposal of this product. To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use, handling, application, or storage of this product, whether in contract, warranty, tort, negligence, strict PECIME liability or otherwise, shall not exceed the purchase price paid.

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