

<b>GROUP</b>	<b>4A</b>	<b>INSECTICIDE</b>
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## **IMA-jet**

INSECTICIDE  
SOLUTION

[Systemic Insecticide for Micro-Infusion]  
[Arboriculture in Motion][Diverse Pest Control]

Microinjectable Systemic Insecticide for use with the Arborjet Injection System in the Management of Asian Longhorned Beetle and Emerald Ash Borer in Trees in Nurseries, Greenhouses, Interior and Exterior Plantscape, and in Private, Municipal, Provincial, and National Forested Areas.

**GUARANTEE:**

Imidacloprid ... 58.5 g/L

REGISTRATION NO. 31375 PEST CONTROL PRODUCTS ACT

**RESTRICTED**

**READ THE LABEL BEFORE USING**

**KEEP OUT OF REACH OF CHILDREN**

**WARNING - POISON**



**EYE IRRITANT**  
**POTENTIAL SKIN SENSITIZER**

Manufactured by: Arborjet, Inc.  
99 Blueberry Hill Road  
Woburn, MA 01801  
Phone: 781 935-9070

Net Contents:

## PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN. Harmful if absorbed through skin. Harmful or fatal if swallowed. May irritate eyes. Avoid contact with eyes. Avoid contact with skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Potential skin sensitizer. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Keep children and pets away from treatment area until injection and uptake are complete.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

Wear coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, socks, and chemical resistant footwear and protective eyewear during mixing, loading, application, cleaning and repair and during removal of injection devices from trees. Remove and wash contaminated clothing before reuse.

FIRST AID	
<b>If Swallowed</b>	<ul style="list-style-type: none"><li>• Call a poison control centre 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 a poison control centre or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>If in Eyes</b>	<ul style="list-style-type: none"><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 centre or doctor for treatment advice.</li></ul>
<b>If Inhaled</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li><li>• Call a poison control centre or doctor for further treatment advice.</li></ul>
<b>If on Skin or Clothing</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control centre or doctor for treatment advice.</li></ul>
Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention. You may also contact the Infotrac Chemical Emergency Response System at 1-800-535-5053	

## TOXICOLOGICAL INFORMATION

No specific antidote is available. Treat symptomatically.

## ENVIRONMENTAL HAZARDS

Apply this product only in accordance with this label. This product is highly toxic to aquatic invertebrates. Do not mix, load or clean equipment within 30 metres of wellheads or aquatic systems. DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

TOXIC to bees. This product is systemic and is transported upwards through the tree. Bees can be exposed to residues in floral pollen and/or nectar resulting from tree injections. Applications to ash, black locust, elm, hackberry, horse chestnut, maple, mountain ash, ornamental apple, poplar, silk tree, sycamore/London plane tree and willow must be made post-bloom. Applying post-bloom reduces risk; however, some residues may carryover to the next season.

Do not apply more than once per year per tree.

### **PHYSICAL OR CHEMICAL HAZARDS**

Do not use or store near heat or open flame.

### **DIRECTIONS FOR USE**

**IMPORTANT:** Read the entire label before use. Failure to follow label directions may result in poor control or plant injury. Failure to follow label directions may cause injury to people, animals and environment. The buyer accepts and understands that failure to follow label directions is the responsibility of the buyer.

### **RESTRICTED USE**

**NOTICE TO USER:** This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

**NATURE OF RESTRICTION:** This product is to be used only in the manner authorized. For use only by Certified Applicators or persons under their direct supervision, only for those uses covered by the Certified Applicator's certification. This product can only be used in conjunction with a federal, provincial or municipal government control program, consult local pesticide regulatory authorities about use permits which may be required.

### **APPLICATION TO TREES**

IMA-jet is a systemic insecticide used to control Asian Longhorned Beetle and Emerald Ash Borer in ornamental or landscape trees. Use IMA-jet as directed in trees in residential, business and commercial areas, golf courses, airports, cemeteries, parks, street trees, playgrounds, athletic fields, commercial forestry production, seed orchard trees, nurseries, and in private, municipal, federal, provincial, county and local recreational forests.

#### **When to Treat**

Signs and symptoms of a borer infestation may not be readily apparent in trees. Make applications when the pest has been detected in your area (or within 24 km) and trees still appear healthy. Also apply when insects are infesting and feeding upon the tree. Use the highest application rate on this label for trees larger than 60 cm DBH and for smaller trees that are visibly infested. Do not apply more than once per year per tree. Monitor insect activity to determine the need for retreatment.

The need for an application can be based on historical monitoring of the site, previous records or experiences, current season adult trapping and other methods. Due to potential foliar injury or poor (i.e., slow) uptake, do not apply to trees stressed by drought or extreme heat.

### **Basic Injection Procedure**

This product must be placed into the tree's sapwood, the conductive tissue that moves water to the canopy. IMA-jet insecticide moves upward into the tree's canopy from the application sites. Systemic activity occurs only after the active ingredient is translocated upward in the tree. Make applications around the base of the tree. Inject into tree roots exposing them by careful excavation or, alternatively into the trunk flare or tissue immediately above the trunk flare, locating the injection site in the first few xylem (i.e., sapwood) elements. Drill holes through the bark and into the sapwood a minimum of 10 mm deep. When using the Arborjet Arborplug, drill a minimum of 15 mm deep into the sapwood.

### **Calculating Application Rate**

The dosages and number of application sites are based on tree diameter.

To determine the application/dose rate per tree:

- 1) Measure the tree diameter in cm at chest height (135 cm from ground) to find the Diameter at Breast Height (DBH). (If measuring tree circumference, divide circumference by 3 to obtain the DBH in cm.)
- 2) Calculate the number of injection sites by dividing the DBH in cm by 5.
- 3) Multiply the tree DBH by the dosage rate (see table below for appropriate dosage rate) to calculate the total dose in milliliters per tree.
- 4) Divide the total dose by the number of injection sites to determine required dosage per injection site.

**Example:** For a tree with a DBH of 30 cm (or circumference of 90 cm) and to deliver the 3.2 mL dosage rate:

- 1)  $DBH = 30$  (circumference  $90 \div 3 = 30$ )
- 2) Divide DBH of 30 by 5 = 6 injection sites.
- 3) Multiply DBH of 30 by 3.2 mL = 96 mL total dose per tree.
- 4) Divide 96 mL by 6 injection sites = 16 mL per injection site to deliver the required dosage.

Place injection sites in actively growing tissue (i.e., "peaks", not "valleys") and avoid tree wounds and old injection sites. The number and spacing of injection sites may be varied to increase the speed of application and to accommodate the suitability of a given site on the tree for injection, but do not place injection sites less than 5 cm apart or more than 20 cm apart.

### **Application Equipment**

IMA-jet is designed for use with the Arborjet Tree Injection Systems or with other tree injection devices that are chemically resistant. For all injection systems, read carefully and follow manufacturer's directions for use. Only for closed application systems.

### **Use of IMA-jet**

Use as formulated. Do not mix with water. Do not formulate this product into other end-use products. Do not leave the application site unattended during the treatment process. Ensure that after application, there is no leakage from the plugged injection holes of host trees.

<b>Applications for Use in Listed Trees</b>					
Do not make applications when trees are in flower.					
For trees less than 30 cm in diameter, use the lower rate for the targeted pest. If trees are visibly infested, use the highest label rate specified for control of the targeted pest. For trees larger than 60 cm in diameter, always use the highest label rate for the targeted pest.					
Space injection holes approximately 15 cm apart, around the base of the tree. Apply injections no closer than 5 cm and up to 20 cm apart to apply the specified dosage.					
<b>Host Trees</b>	<b>Pest</b>	<b>cm DBH Range</b>	<b>Dose Rate mL/cm DBH</b>	<b>mL Dose/Tree Range</b>	<b>Comments</b>
Ash Trees (including Green, White, Black and Blue ash trees)	Emerald ash borer	15 - 30	1.6 - 3.2	24 - 96	Apply at least 30 days before historical egg hatch or adult flight and to trees whose vascular tissue is not damaged.*
		30 - 60 +	3.2	96 - 192 +	
Elm, Maple, Birch, Willow, Box-elder, Horsechestnut, Buckeye, European Mountain-Ash, Ash, Poplar, Albizia, London Plane, Hackberry and Sycamore	Asian Longhorned Beetle	15 - 30	1.6 - 3.2	24 - 96	Apply at least 30 days before historical egg hatch or adult flight and to trees whose vascular tissue is not damaged.*
		30 - 60 +	3.2	96 - 192 +	

\*If vascular tissue is damaged or plugged by insect galleries, uniform treatment and control may not be achieved.

For trees that may be visited by pollinators (such as ash, black locust, elm, hackberry, horse chestnut, maple, mountain ash, ornamental apple, poplar, silk tree, sycamore/London plane tree and willow), applications must be made post-bloom.

### **RESTRICTIONS**

NOTE: Not for use on trees used to produce fruits, nuts, or syrup for consumption.

### **STORAGE AND DISPOSAL**

1. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
2. Make the empty container unsuitable for further use.
3. Dispose of the container in accordance with provincial requirements.

4. All unused product must be returned to the manufacturer. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

**PESTICIDE STORAGE:** Store bottles in a cool, dry place above 7.2° C. Store in original container out of reach of children, preferably in a locked storage area. Keep from freezing. Keep from excess heat.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available, or puncture and dispose of empty bottle in a sanitary landfill.

#### RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, please note that IMA-jet contains a Group 4 insecticide. Any insect population may contain individuals naturally resistant to IMA-jet and other Group 4 insecticides. The resistant individuals may dominate the insect population if this group of insecticides is used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance:

- Where possible, rotate the use of IMA-jet or other Group 4 insecticides with different groups that control the same pests in a field.
- Insecticide use should be based on an IPM program that includes scouting, record keeping, and considers cultural, biological and other chemical control practices.
- Before applying IMA-jet, correctly identify the pest and ensure economic and agronomic thresholds are met as recommended by local provincial or IPM specialists.
- Monitor treated pest populations for resistance development.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact Arborjet Inc. via internet at [www.arborjet.com](http://www.arborjet.com) or phone 781-935-9070.