

**COMMERCIAL**

**ACECAP® 97  
SYSTEMIC INSECTICIDE IMPLANTS**

**FOR CONTROL OF CERTAIN DESTRUCTIVE PESTS OF ORNAMENTAL AND FOREST  
TREES**

**SYSTEMIC INSECT CONTROL FOR TREES**

**GUARANTEE:**

Acephate (O,S-dimethyl acetylphosphoramidothioate).....0.773g/implant cartridge

**DANGER**

**POISON**



**READ THE LABEL AND THIS BROCHURE BEFORE USING**

**KEEP OUT OF REACH OF CHILDREN**

**SEE ADDITIONAL PRECAUTIONARY STATEMENTS**

**REGISTRATION NO. 21568**

**PEST CONTROL PRODUCTS ACT**

**Arysta LifeScience North America, LLC  
15401 Weston Parkway, Suite 150  
Cary, North Carolina  
27513**

**For product information call: 1-866-761-9397**

**DISTRIBUTOR:**

**Nutrite Division of (de)**

**Fertichem, Inc.**

**560 Rheaume, St-Michel, Quebec CANADA JOL 2JO**

**23 Union St., Elmira, Ontario CANADA N3B 2Z6**

**MANUFACTURED IN THE U.S.A. BY:**

**Creative Sales, Inc.**

**Fremont, Nebraska**

**DIRECTIONS FOR USE**

**DO NOT APPLY BY AIR**

**DO NOT** apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, ditches and wetlands), estuaries or marine habitats."

1. To begin with, select the proper tools. You will need:
  - Electric drill (use a sharp spiral bit) as shown. Refer to back of package for the appropriate bit diameter
  - Hammer
  - Flat end punch, bolt or dowel
  - Tree wound dressing
2. If using a hand brace, a sharp auger bit will provide the cleanest cut. Refer to back of package for the appropriate bit diameter.
3. To determine the number of implants required, measure the tree trunk diameter at breast height (DBH) in cm, multiply the DBH by 3.14, and divide the result (circumference) by 10.16. **Example:** 33 cm DBH x 3.14 = 103.6 cm circumference ÷ 10.16 = 10 implants required. When the base of the tree is wider than the DBH (as illustrated), distribute the implants evenly around the base. This may vary slightly from the recommended spacing.
4. Drill 0.95 cm diameter implant holes at approximately 10.16 cm spacing, spiraling up and around the base of the tree trunk. Holes should be drilled 3.2 cm deep (into the sap wood; i.e., beyond the cambium layer) to ensure that the cartridge head can be implanted beneath the bark and cambium surface. Cartridges left extending through the bark layer will delay or inhibit wound closure.
5. **Note: Where lower branching occurs 1.5 meters from the ground, make certain the implants are placed directly beneath the lower branches.** This will assure adequate distribution of chemical throughout the tree.
6. Next, drill the implant holes at a uniform spacing, spiraling up and around the lower tree trunk surface. Start approximately 6 inches (15.2 cm) from the soil level. Be sure to remove drill shavings from each hole. See below for the hole depth.
7. Using a measuring instrument (i.e. flat end of pen or pencil) as a depth gauge, insert completely into each hole and mark the depth by placing your thumb against the outer bark. Based on implant diameter and thickness of bark, holes should be drilled as described below:

8. **Notice:** Hole Depth is from inside the inner bark into the cambium.

IMPLANT DIAMETER	HOLE DEPTH
.95 cm (3/8")	3.2 cm (1¼")
.65 cm ( ¼" )	2.23 cm (7/8" )

9. Place the implant cartridges into the pre-drilled holes, simply pressing them into the tree trunk. Be sure to press the cartridges in as far as possible.
10. Using a hammer and a flat end punch, dowel, or bolt, carefully drive the cartridge into the tree, recessing the large end slightly beneath the cambium surface, which is below the bark.
11. The application process is now completed; natural sap flow will "systemically" absorb the chemical and distribute it throughout the tree. The active layer of bark will soon grow over and close the implant site. **The cartridges are designed to be left inside the tree.**
12. The cartridge head securely plugs the small wound made to the tree trunk, however, it is recommended that a light wound dressing be sprayed or brushed over the implant site. This provides further protection until the cambium closes over.
13. When retreatment is necessary, place the new implants in a spiral pattern between, and above or below the previous treatment. **Do not attempt to drill into and remove the cartridges implanted previously.** Note the positioning of three applications.
14. When using ACECAP 97 SYSTEM INSECTICIDE IMPLANTS, the implant treatment may be combined over several seasons with a conventional spray or soil treatment insect control program. **DO NOT REPEAT IMPLANT TREATMENTS WHERE TREE HAS NOT SHOWN THE ABILITY TO ADEQUATELY CLOSE OVER THE PRIOR TREATMENT.**

#### **ADDITIONAL PRECAUTIONS**

- Use proper drill bit.
- Remove shavings from hole.
- Recess cartridge end below the inner bark.
- Carefully read the application timing for optimum results.
- Always read and follow label directions for product being used.
- Avoid contact with any unsealed or broken implant cartridges.
- Wear long-sleeved shirt, long pants and chemical-resistant gloves when handling and inserting implants into holes in the tree.
- **DO NOT** enlarge the hole diameter.
- **DO NOT** use a sharp end punch.
- **DO NOT** implant into trees where fruit, nuts or syrup is to be used for sale or consumption.
- **DO NOT** implant into trees having less than 7.5 cm trunk diameter.
- **DO NOT** use implants on trees other than those listed on this label.
- **DO NOT** use implants on trees entering dormancy.
- **DO NOT** repeat implant treatments where tree has not shown the ability to adequately close over the prior treatment.
- **DO NOT** remove previously implanted cartridges.
- **DO NOT** break plastic gelatin.
- **DO NOT** place implant too deep.

## **IN AREAS OF PUBLIC ACCESS**

Ensure that implant holes are covered with a suitable tree wound dressing prior to leaving treated trees.

## **APPLICATION TIMING**

Applications timed with maximum upward flow of tree sap produce the most successful results. This characteristic may vary with tree species, geographic area, time of day, individual tree vigour or light intensity at time of treatment. If soil moisture conditions are dry, a thorough deep root watering prior to or immediately following implant treatment will enhance chemical uptake. It takes 4–7 days for the insecticide to attain effective levels in the foliage of the tree (as early as 2 days if trees are in a healthy vegetative growth conditions). Maximum duration of control documented is 18 weeks. Optimum control of severe infestations is 10-12 weeks. When re-treatment is necessary, place the new implants in a spiral pattern between and above or below the previous treatment.

### **Postapplication:**

- Do not enter or allow worker entry into treated areas during the re-entry intervals (REIs) as listed below:

Trees	3 days*
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\* Workers conducting activities that involve significant foliar contact must wear gloves and cotton covers for the following time after the REI:

Trees	1 week
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The effect of systemic implants is maximized when implants are in place in the tree during the period of optimum xylem activity, to transfer the chemical from the implants into the crown of the tree. The chemicals used possess little (if any) phloem activity, therefore, it is suggested application be avoided as trees are going into dormancy. Therefore, ACECAP 97 SYSTEMIC INSECTICIDE IMPLANTS should be made just prior to expected insect activity, or at earliest indication of insect activity. Application is not recommended during tree dormancy (as with nutrient implants) when attempting to control targeted insect pests on the foliage.

## **PRECAUTIONS**

### **KEEP OUT OF REACH OF CHILDREN**

#### **DANGER**

Material within gelatin capsule may cause eye or skin irritation. Fatal or Poisonous if swallowed.. Do not get in eyes, on skin or on clothing. Avoid breathing vapors. Avoid contact with any unsealed or broken implant cartridges.

## **PROTECTIVE CLOTHING AND EQUIPMENT**

Applicators must wear a long-sleeved shirt, long pants and chemical-resistant gloves.

**FIRST AID**

**IF SWALLOWED**, call a poison control centre 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 centre or doctor. Do not give anything by mouth to an unconscious person.

**IF ON SKIN OR CLOTHING**, take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

**IF INHALED**, move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

**IF IN EYES**, 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 centre or doctor for treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**TOXICOLOGICAL INFORMATION**

Acephate is an organophosphate that is a cholinesterase inhibitor. Typical symptoms of overexposure to cholinesterase inhibitors include headache, nausea, dizziness, sweating, salivation, runny nose and eyes. This may progress to muscle twitching, weakness, tremors, incoordination, vomiting, abdominal cramps and diarrhea in more serious poisonings. A life-threatening poisoning is signified by loss of consciousness, incontinence, convulsions, and respiratory depression with a secondary cardiovascular component. Treat symptomatically. If exposed, plasma and red blood cell cholinesterase tests may indicate degree of exposure (baseline data are useful). Atropine, only by injection, is the preferable antidote. Oximes, such as pralidoxime chloride, may be therapeutic if used early; however, use only in conjunction with atropine. In cases of severe acute poisoning, use antidotes immediately after establishing an open airway and respiration. With oral exposure, the decision of whether to induce vomiting or not should be made by an attending physician.

**ENVIRONMENTAL HAZARDS**

Keep out of lakes, ponds or streams. Do not contaminate water by cleaning of equipment or disposal of wastes. **TOXIC** to bees exposed to direct treatment, drift or residues on flowering crops or weeds. **DO NOT** apply this product to flowering crops or weeds if bees are visiting the treatment area. Minimize the spray drift to reduce harmful effects on bees in habitats close to the application site.

**TOXIC** to birds and wild mammals. Applications may adversely affect birds and wildlife visiting the treatment area.

The use of this product may result in contamination of groundwater particularly in areas where soils are permeable (e.g., sandy soil) and/or the depth to the water table is shallow.

**TOXIC** to aquatic organisms.

PRODUCT NO. AC4X25

CONTAINS:

100 Implant Cartridges [773 mg \* 100]

Net Contents 77.3 grams

(Carton label)

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TREES**

**EASY-TO-USE ENCAPSULATED IMPLANTS  
NO MIXING, MEASURING, OR SPRAYING REQUIRED**

**DO NOT OPEN POUCH UNTIL READY FOR USE.  
RESEAL AND PROPERLY STORE AWAY FROM FOOD SUPPLIES IF NOT TOTALLY  
USED.**

**ACECAP Reg. T.M. — Creative Sales, Inc.  
Insecticide Implants containing ORTHENE<sup>®</sup>.  
ORTHENE Reg. T.M. for Acephate Insecticide.  
Canada Patent Nos.: 970, 157; 1,144,068; 1,170,056**

**GUARANTEE:**

Acephate (O, S-Dimethyl Acetylphosphoramidothioate) ...0.773g/cartridge

**DANGER      POISON**

**Form No. 16-90-CN-4**

**Production Lot No.**

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<b>SITE</b>	<b>PEST</b>	<b>RATE (a.i.)</b>	<b>APPLICATION INSTRUCTIONS AND LIMITATIONS</b>
<b>ASH</b>	Emerald Ash Borer	773 mg/cartridge 1 cartridge per 10.16 cm	Preventative treatment should be made by applying implants early April – early June.  Treatment reduces populations of emerald ash borer larvae and the damage they cause, but may not provide control of this pest.
<b>BASSWOOD</b>	Elm Spanworm	773 mg/cartridge 1 cartridge per 10.16 cm	Apply in early spring prior to larvae feeding.
<b>BEECH</b>	Elm Spanworm	773 mg/cartridge 1 cartridge per 10.16 cm	Apply in early spring prior to larvae feeding.
<b>BIRCH</b>	Aphids (Green)	773 mg/cartridge 1 cartridge per 10.16 cm	Apply when wingless forms are first noticed.
	Birch Leafminer		Apply when insects first appear.
<b>CHESTNUT</b>	Elm Spanworm	773 mg/cartridge 1 cartridge per 10.16 cm	Apply in early spring prior to larvae feeding.
<b>ELM</b>	Aphids (Woolly)	773 mg/cartridge 1 cartridge per 10.16 cm	Apply only when heavy production of white waxy material becomes evident.
	Elm Leaf Beetle Larvae		Apply as eggs are hatching or when larvae are first noticed.
	Elm Spanworm		Apply in early spring prior to larvae feeding.
<b>FIR</b>	Spruce Coneworm	773 mg/cartridge 1 cartridge per 10.16 cm	Apply immediately prior to or at budswell.
	Western Spruce Budworm		
<b>FLOWERING CHERRY</b>	Eastern Tent Caterpillar	773 mg/cartridge 1 cartridge per 10.16 cm	Apply when insects first appear.
<b>HICKORY</b>	Elm Spanworm	773 mg/cartridge 1 cartridge per 10.16 cm	Apply in early spring prior to larvae feeding.



<b>LINDEN</b>	Elm Spanworm	773 mg/cartridge 1 cartridge per 10.16 cm	Apply in early spring prior to larvae feeding.
<b>MAPLE</b>	Maple Bladdergall Mite	773 mg/cartridge 1 cartridge per 10.16 cm	Apply only if very high populations of galls develop on foliage.
	Gypsy Moth Larvae		Apply as eggs are hatching or when insects first appear.
	Elm Spanworm		Apply in early spring prior to larvae feeding.
<b>OAK</b>	Aphids (Woolly)	773 mg/cartridge 1 cartridge per 10.16 cm	Apply only when heavy production of white waxy material becomes evident.
	Gypsy Moth Larvae		Apply as eggs are hatching or when insects first appear.
	Oak Leafshredder		Apply when insects first appear.
	Elm Spanworm		Apply in early spring prior to larvae feeding.
<b>PINE</b>	Aphids (Woolly)	773 mg/cartridge 1 cartridge per 10.16 cm	Apply when wingless forms are first noticed.
	Pine Needleminer		Apply immediately prior to or at budswell.
	Cone Maggots		
<b>SPRUCE</b>	Aphids (Green & Woolly)	773 mg/cartridge 1 cartridge per 10.16 cm	Apply when wingless forms are first noticed.
	Spruce Coneworm		Apply immediately prior to or at budswell.
	Western Spruce Budworm		
<b>WALNUT</b>	Elm Spanworm	773 mg/cartridge 1 cartridge per 10.16 cm	Apply in early spring prior to larvae feeding.

**NOTE:**

- **DO NOT** implant into trees where fruit, nuts or syrup is to be used for sale or consumption.
- **DO NOT** implant into trees having less than 7.5 cm trunk diameter.
- **DO NOT** use implants on trees other than those listed on this label.

For best results, use tools and techniques as recommended in the DIRECTIONS FOR USE section of the label.

To determine the number of implants required, measure the tree trunk diameter at breast height (DBH) in cm, multiply the DBH by 3.14, and divide the result (circumference) by 10.16.

**Example:** 33 cm DBH x 3.14 = 103.6 cm circumference ÷ 10.16 = 10 implants required. Drill 0.95 cm diameter implant holes at approximately 10.16 cm spacing, spiraling up and around the base of the tree trunk. Holes should be drilled 3.2 cm deep (into the sap wood; i.e., beyond the cambium layer) to ensure that the cartridge head can be implanted beneath the bark and cambium surface. Cartridges left extending through the bark layer will delay or inhibit wound closure.

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**Postapplication:**

- Do not enter or allow worker entry into treated areas during the re-entry intervals (REIs) as listed below:

Ornamental shrubs and flowers (except for roses): 12 hours

Trees 3 days\*

\* Workers conducting activities that involve significant foliar contact must wear gloves and cotton covers for the following time after the REI:

Trees 1 week

## **RETREATMENT**

ACECAP 97 SYSTEMIC INSECTICIDE IMPLANTS may be utilized in an integrated pest management program. DO NOT REPEAT IMPLANT TREATMENTS WHERE A TREE HAS NOT SHOWN THE ABILITY TO ADEQUATELY CALLOUS (OR CLOSE OVER) THE PRIOR TREATMENT.

## **PRECAUTIONS**

### **KEEP OUT OF REACH OF CHILDREN**

### **DANGER**

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The use of this product may result in contamination of groundwater particularly in areas where soils are permeable (e.g., sandy soil) and/or the depth to the water table is shallow.

**TOXIC** to aquatic organisms.

### **STORAGE**

Store in a cool dry place. Protect from excessive heat. Keep foil packages sealed until ready for use. Do not re-use the plastic implant cartridges; they are designed to be implanted and left in the tree. Do not re-use empty container or container wrappings.

### **DISPOSAL**

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instruction for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.
5. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

### **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.

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