81959-22 3·23·2007 1/36

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

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

MAR 23 2007

Mr. Michael Kellogg
Agent
Etigra, LLC
c/o Pyxis Regulatory Consulting , Inc.
4110 136th St. NW
Gig Harbor, WA 98332

Re: Minor Label Revisions for Etigra LLC – ET-022
EPA Reg. No.: 81959-22
Date of Submission: February 9, 2007

Dear Mr. Kellogg:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated February 9, 2007 for the product Etigra LLC/ET-022. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" but not reviewed 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,

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

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use read instructions on reverse before completing form. Form Approved. OMB No. 2070-0060. Approval expires 2-28-95

EPA

United States
Environmental Protection Agency
Washington, DC 20460

☐ Registration
☐ Amendment
☑ Other

OPP Identifier Number

Application for Pesticide - Section I

Company/Product Number	2. EPA Product Manager	3. Proposed Classification
1959-22	V. Eagle	☑ None ☐ Restricted
Company/Product (Name)	**PM#**	
tigra LLC / ET-022	01	

Name and Address of Applicant *(Include ZIP Code)*
Etigra, LLC
c/o Pyxis Regulatory Consulting, Inc.
4110 136th St. NW
Gig Harbor, WA 98332
☐ *Check if this is a new address*

6. **Expedited Reveiw.** In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:
EPA Reg. No. _____
Product Name _____

Section - II

☐ *Amendment - Explain below.*
☐ Resubmission in response to Agency letter dated _____
☑ *Notification - Explain below.*
☐ Final printed labels in repsonse to Agency letter dated
☐ "Me Too" Application.
☐ *Other - Explain below.*

NOTIFICATION
MAR 23 2007

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

Notification of minor label revision (correct typographical error) per PR Notice 98-10. 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:

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Metal ☐ Plastic ☐ Glass ☐ Paper ☐ 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	4. Size(s) Retail Container	5. Location of Label Directions
☐ Label ☐ Container		☐ On Label ☐ *On Labeling accompanying product*

6. Manner in Which Label is Affixed to Product ☐ Lithograph ☐ Paper glued ☐ Stenciled ☐ Other _____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Michael Kellogg	Agent	253-853-7339

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 knowlingly 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
Michael Kellogg	Agent
4. Typed Name	**5. Date**
Michael Kellogg	2/9/07

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ET-022

Systemic and foliar insect control in turfgrass on fruit and nut trees, on ornamental and vegetable plants in greenhouses, nurseries and interior plantscapes

NOTIFICATION

MAR 23 2007

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

Contains 2 pounds of imidacloprid per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

PRECAUCION AL USUARIO: Si usted no puede leer o entender inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente
(TO THE USER: If you cannot read or understand English, do not use this product until the label has been fully explained to you.)

FIRST AID	
If swallowed:	• 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 the poison control center or doctor. • Do not give anything by mouth to an unconscious person
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.
If on skin or clothing:	• 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:	• 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.
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 1-800-424-9300 for emergency medical treatment information.	
NOTE TO PHYSICIAN	
No specific antidote is available. Treat the patient symptomatically.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Keep children or pets away from treated area until dry

EPA Reg. No. 81959-22

EPA Est. No.

Manufactured for:
Etigra, LLC
2214 Hwy 44 West
Inverness FL 34453

ET-022 contains imidacloprid, the active ingredient used in Admire®, Marathon®, and Merit®.

Net Contents:

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton
- Shoes plus socks
- Protective eyewear when working in a non-ventilated space.

Follow manufacturer's instructions for cleaning/maintaining PPE. If instructions for washables do not exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENTS

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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

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

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

This product is toxic to wildlife.

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

DIRECTIONS FOR USE

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

Do NOT formulate this product into other end-use products

AGRICULTURAL USE REQUIRMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries and greenhouses.

- Keep children and pets off treated areas until dry.

OBSERVE THE FOLLOWING PRECAUTIONS WHEN MIXING AND APPLYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES, RESERVOIRS, RIVERS, PERMANENT STREAMS, MARSHES OR NATURAL PONDS, ESTUARIES AND COMMERCIAL FISH PONDS.

RUNOFF MANAGEMENT

Do not cultivate within 10 feet of the aquatic areas to allow growth of vegetative filter strip. When used on erodible soils, best management practices for minimizing runoff should be employed. Consult your local Natural Resources Conservation Service for recommendations in your use area.

ENDANGERED SPECIES NOTICE

Under the Endangered Species Act, it is a Federal Offense to use any pesticide in a manner that results in the death of a member of an endangered species. Consult your local county bulletin, County Extension Agent, or Pesticide State Lead Agency for information concerning endangered species in your area.

RESISTANCE MANAGEMENT

Some insects are known to develop resistance to insecticides after repeated use. As with any insecticide, the use of this product should conform to resistance management strategies established for the use area.

ET-022 contains a Group 4A insecticide called imidacloprid. Insect biotypes with acquired or inherent tolerance to group 4A products may eventually dominate the insect population if Group 4A products are used repeatedly as the predominant method of control for targeted species. This may eventually result in partial or total loss of control of those species by ET-022 and to other Group 4A products.

The active ingredient in ET-022 is a member of the neonicotinoid chemical group. Avoid using a block of more than three consecutive applications of ET-022 and/or other Group 4A products having the same or similar mode of action. Following a neonicotinoid block of treatments, Etigra, LLC strongly encourages the rotation to a block of applications with effective products of a different mode before using additional applications of neonicotinoid products. Using a block rotation or windowed approach along with other IPM practices, is considered an effective use strategy for preventing or delaying an insect pest's ability to develop resistance to this class of chemistry.

Foliar applications of ET-022 or other Group 4A products from the neonicotinoid chemical class should not be used on crops previously treated with long-residual, soil-applied products from the neonicotinoid chemical class.

Other Group 4A, neonicotinoid products used as foliar treatments include: Actara®, Assail®, Calypso®, Centric®, Intruder™, Leverage® and Trimax™. Other 4A Group, neonicotinoid products used as soil treatment include: Admire® and Platinum®.

Contact your local extension specialist, certified crop advisor and/or product manufacturer for additional insect resistance management recommendations. Also, for more information on Insect Resistance Management (IRM), visit the Insecticide Resistance Action Committee (IRAC) on the web at http://irac-online.org/.

GENERAL INFORMATION

Thorough uniform coverage is necessary to achieve optimal control. A spray adjuvant may be used to improve coverage ET-022 may not knockdown established and heavy insect populations. Two applications may be required to achieve control, retreat if needed and as directed on this label. ET-022 may be tank mixed with other insecticides as *recommended for knockdown of pests or for improved control of other pests.*

Applying ET-022 to crops grown for production of true seed intended for private or commercial planting may be allowed under State specific supplemental labeling *but is generally not recommended.* As with any insecticide, care should be taken to minimize exposure of ET-022 to honey bees and other pollinators. Use of ET-022 on crops requiring bee pollination should be avoided during bloom and a minimum of 10 days prior to bloom. Additional information on ET-022 uses for these crops and other questions may be obtained from the Cooperative Extension Service, PCA's, consultants or local Etigra, LLC representative.

Rotational Crops

As soon as practical following the last application, treated areas may be replanted with any crop specified on an imidacloprid label, or any crop for which a tolerance exists for the active ingredient. For crops not listed on an imidacloprid label, or for crops for which no tolerances for the active ingredient have been established, a 12-month plant-back interval should be observed. NOTE: Cover crops for soil building or erosion control may be planted at any time, but do not graze or harvest for food or feed.

Immediate Plant-back:

All crops on this label plus the following crops not on this label: barley, canola, corn (field, sweet and pop), rapeseed, sorghum, sugar beet and wheat.

30-Day Plant-back:

Cereals (including buckwheat, millet, oats, rice, rye and triticale), soybeans and safflower

12- Month Plant-back:

All other crops

MIXING INSTRUCTIONS

To prepare the application mixture, add a portion of the required amount of water to the spray tank, begin agitation, and *add the ET-022. Complete filling tank with the balance of water needed. Be sure to maintain agitation during both mixing* and application.

ET-022 may also be used with other pesticides and/or fertilizer solutions; refer to the **Compatibility Note** below. When tank mixtures of ET-022 and other pesticides are involved, prepare the tank mixture as recommended above and follow the suggested Mixing Order below.

Mixing Order

When pesticide mixtures are needed, add wettable powders first, ET-022 or other flowables second, and emulsifiable concentrates last. Ensure good agitation as each component is added and do not add an additional component until the previous is thoroughly mixed. A fertilizer / pesticide compatibility agent may be needed if a fertilizer solution is to be added to the mixture. Be sure to maintain constant agitation during both mixing and application to ensure uniformity of spray mixture.

Compatibility Note

Before adding ET-022 to the spray or mix tank, the compatibility of the intended tank mixture should be checked using the following test:

1) Add proportionate amount of each ingredient in the appropriate order to a pint or a quart jar;
2) Cap and shake for 5 minutes;
3) Let set for 5 minutes

Poor mixing or formation of precipitates that do not readily re-disperse indicates an incompatible mixture that should not be used. For further information, contact your local Etigra, LLC representative.

[Note to reviewer: table below is to be included in the crop label only and will not be included on a noncrop, i.e. turf, carveout label]

CONVERSION CHART FOR LINEAR APPLICATIONS ONLY (fl. oz / 1000 row-feet)								
Specified Rate (fl. oz. / Acre)	Average Row Spacing (in Inches)							
	10	15	20	25	30	35	40	45
10	0.19	0.29	0.38	0.48	0.57	0.67	0.76	0.86
12	0.23	0.34	0.46	0.57	0.69	0.80	0.92	1.03
14	0.27	0.40	0.54	0.67	0.80	0.94	1.07	1.21
16	0.31	0.46	0.61	0.77	0.92	1.07	1.22	1.38
18	0.34	0.52	0.69	0.86	1.03	1.21	1.38	1.55
20	0.38	0.57	0.76	0.96	1.15	1.34	1.53	1.72
22	0.42	0.63	0.84	1.05	1.26	1.47	1.68	1.89
24	0.46	0.69	0.92	1.15	1.38	1.61	1.84	2.07
26	0.50	0.75	0.99	1.24	1.49	1.74	1.99	2.24
28	0.54	0.80	1.07	1.34	1.61	1.87	2.14	2.41
30	0.57	0.86	1.15	1.43	1.72	2.01	2.29	2.58
32	0.61	0.92	1.22	1.52	1.84	2.14	2.45	2.75

IMPORTANT: The rate of ET-022 applied directly effects the length of control as well as the degree of control or effect. Because of this, Etigra offers no warranty when ET-022 is used at rates below 0.7 fl. oz. / 1000 row-feet (the Row-Spacing / Rate combinations that are shaded). When infestations may occur later in crop development or where pest pressure is continuous, use the higher labeled rates.

APPLICATION INSTRUCTIONS

ET-022 should be applied as a directed or broadcast foliar spray using properly calibrated ground application equipment as allowed in the specific recommended application section. For optimum insecticidal efficacy, thorough coverage of all target foliage *without runoff* is necessary. To obtain thorough coverage use adequate spray volumes, properly calibrated application equipment and a spray adjuvant if necessary. Failure to provide adequate coverage and retention of ET-022 on leaves and fruit, if present, may result in loss of insect control or delay in onset of activity. Minimum recommended spray volumes unless otherwise specified on crop specific recommended application sections are 10 gallons/acre by ground application. ET-022 may also be applied by chemigation (see APPLICATION THROUGH IRRIGATION SYSTEMS (CHEMIGATION) section below) if allowed in the specific recommended application section.

SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making application decisions. Avoiding spray drift is the responsibility of the applicator.

Mixing and Loading Requirements

To avoid potential contamination of groundwater, the use of a properly designed and maintained containment pad for mixing and loading of any pesticide into application equipment is recommended. If containment pad is not used, maintain a minimum distance of 25 feet between mixing and loading areas and potential surface to groundwater conduits such as field sumps, uncased well heads, sinkholes, or field drains.

Importance of Droplet Size

An important factor influencing drift is droplet size. Small droplets (<150-200 microns) drift to a greater extent than large droplets. *Within typical equipment specifications, applications should be made to deliver the largest droplet spectrum that* provides sufficient control and coverage. Formation of very small droplets may be minimized by appropriate nozzle selection.

Wind Speed Restrictions

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size, canopy and equipment specifications determine drift potential at any given wind speed. Do not apply when winds are greater than 15 mph and avoid gusty and windless conditions. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Restrictions During Temperature Inversions

Because the potential for spray drift is high during temperature inversions, do NOT make ground applications during temperature inversions. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form *as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however if* fog is not present, inversions can also be identified by the movement of smoke from a ground source. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical mixing.

No-Spray Zone Requirements for Foliar Applications

Do not apply by ground within 25 feet of lakes; reservoirs; rivers; permanent streams, marshes or natural ponds; estuaries and commercial fish farm ponds.

APPLICATION THROUGH IRRIGATION SYSTEMS (CHEMIGATION)

ET-022 may be applied at rates recommended on this label either alone or in tank mixture with other pesticides and chemicals registered for application through irrigation systems. The normal dilution ratio is 1:100 to 1:200, depending on the system. Always meter the product into the irrigation water during the first part of the irrigation cycle. The product may be mixed separately prior to injection. Agitation may be necessary if the mixture is allowed to stand more than 24 hours.

- *Do NOT connect an irrigation system (including greenhouse systems) used for pesticide application to a public* water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- Apply ET-022 only through micro-irrigation (individual spaghetti tube), drip irrigation, overhead irrigation, and ebb and flood or hand-held or motorized calibrated irrigation equipment and only as recommended in the specific directions. ***Do not apply this product through any other type of irrigation system.*** Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.
- Be sure to remove scale, pesticide residue and other foreign matter from the tank and entire irrigation system prior to application.
- A person knowledgeable of the chemigation system and responsible for its operation, or a person who is under *the supervision of the responsible person, shall shut the system down and make necessary adjustments should* the need arise.
- If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

SAFETY DEVICES FOR IRRIGATION SYSTEMS CONNECTED TO PUBLIC WATER SUPPLIES:

If the source of wate· for your irrigation system is a public water supply, follow the instructions below.

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and *the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.*
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

SAFETY DEVICES FOR IRRIGATION SYSTEMS NOT CONNECTED TO A PUBLIC WATER SUPPLY:

1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump
3. The pesticide injection pipeline must also contain a functional normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where the pesticide distribution is adversely affected.
6. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

Water Volume

ET-022 chemigation application should be made as concentrated as possible. Retention of ET-022 on target site of insect infestation is necessary for optimum activity. Chemigation of ET-022 in water volumes exceeding 0.10 inches/acre are not recommended

Uniform Water Distribution and System Calibration

The irrigation system must provide uniform distribution of treated water. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. The system must be calibrated to uniformly apply the rates specified. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Chemigation Monitoring

A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise

Drift

Do not apply when the wind favors drift beyond the area intended for treatment.

COTTON

- Do NOT apply more than 0.5 lbs. of active ingredient per acre per season of ET-022 Provado®, Trimax® or Leverage®, including seed treatment as Gaucho®, soil and foliar uses
- Do NOT graze treated fields after any application of ET-022
- Maximum ET-022 allowed per season: 21.1 fluid ounces/Acre (0.33 lb. AI/A)
- Maximum number of ET-022 applications per crop season: 6

Pest	Fluid ounces per 1000 Row-Feet	Fluid ounces per Acre	Specific Instructions
Cotton aphids Plant bugs Thrips Whiteflies	1.33	17.0 – 21.1 (depending on row-spacing)	Apply the specified amount of ET-022 using one of the following methods: • As an in-furrow spray directed on or below the seed during planting. • As a narrow band directly below the eventual seed row in a bedding operation no more than 7 days before planting. • As a chemigation application directly into the root zone using low-pressure trickle or drip irrigation

POTATO

- Maximum ET-022 allowed per crop season: 20.0 fluid ounces/Acre (0.31 lb. AI/A)

Pest	Fluid ounces per 1000 Row-Feet	Fluid ounces per Acre	Specific Instructions
Aphids Colorado potato beetle Flea beetles Leafhoppers Potato psyllid Wireworms† Symptoms of Potato leaf roll virus† Potato yellows† Net necrosis†	0.9 – 1.3	13.0 – 20.0	Apply the specified amount of ET-022 using one of the following methods: • As an in-furrow spray directed on the seed pieces or seed potatoes during planting. • As a subsurface side-dress on both sides of the row covered with 3 or more inches of soil; • At ground cracking as a narrow band spray directly over the row and covered with 3 or more inches of soil during hilling. • As a narrow band directly below the eventual seed row in a bedding operation no more than 7 days before planting For best control or suppression, ET-022 must be applied below the soil surface and in contact with the seed piece or within the root-zone For potatoes in highly permeable soils with a shallow water table, at-plant applications may be made in a 2 – 4 inch band (width of the planter shoe opening) and completely covered

† Suppression only

POTATO (Seed-Piece Treatment)

NOT PERMITTED IN CALIFORNIA unless otherwise directed by supplemental labeling

- Do NOT use treated seed-pieces for food, feed or fodder.
- Do NOT make subsequent applications of ET-022 (in-furrow), Gaucho®, Leverage®, or Provado® following an ET-022 seed-piece treatment
- Apply only in areas that are equipped to remove spray mist or dust or with adequate ventilation.
- Maximum ET-022 allowed per crop season: 20.0 fluid ounces/Acre (0.31 lb. AI/A)

Pest	Fluid ounces per 1000 Row-Feet	Fluid ounces per Acre[2]	Specific Instructions
Aphids Colorado potato beetle Flea beetles Leafhoppers Potato psyllid Wireworms	0.4 – 0.8	8.0 – 16.0	Dilute the ET-022 with 3 parts water (or less) to 1 part ET-022. Apply the diluted spray using a shielded spray system, agitating or stirring the spray solution as needed After application of ET-022, fungicidal or inert absorbent dusts may be applied.
Symptoms of Potato leaf roll virus[1] Potato yellows[1] Net necrosis[1]	0.8	16.0	Plant the seed-pieces as soon as possible after treatment in order to avoid prolonged exposure of the seed-pieces to sunlight.

[1] Suppression only
[2] Based on a seeding rate of 2000 lbs. / acre

TOBACCO

- Adverse growing conditions may result in delayed control by causing a delay in ET-022 uptake by the plant.
- Pre-Harvest Interval (PHI) 14 days
- Maximum ET-022 allowed per crop season: 32.0 fluid ounces/Acre (0.50 lb AI/A)

Pest	Fluid ounces per 1000 plants (as seedling tray drench)	Fluid ounces per 1000 plants (in-furrow or transplant-water)	Specific Instructions
Aphids Flea beetles	1.0	1.4	Apply the specified amount of ET-022 using one of the following methods • As an in-furrow spray or transplant water drench during setting. • To seedlings in trays (tray drench) as a uniform broadcast foliar spray no more than 7 days prior to transplant followed immediately by overhead irrigation to wash the ET-022 from the foliage into the potting media (NOTE: Failure to wash ET-022 from the foliage may result in reduced control); • As a chemigation application directly into the root zone using low-pressure trickle, drip, micro-sprinkler or equivalent irrigation equipment. Properly made tray-drench applications have been shown to provide best results. However, the specified rate of ET-022 may be applied as a combination of tray-drench in the greenhouse and / or transplant-water drench in the field.
Mole crickets Whiteflies Wireworms Cutworms[1] Symptoms of: Tomato spotted wilt virus[1]	1.4 – 2.8	1.8 – 2.8	

[1] Suppression only

Deleted: Row-Feet
Deleted: Acre[2]

CURCURBIT VEGETABLES

NOT FOR USE ON CROPS GROWN FOR SEED unless allowed by state-specific supplemental labeling

Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cuban pumpkin, Cucumber, Gherkin, Gourd (edible, including hyotan, cucuzza, hechima and Chinese okra), *Momordica* spp. (including balsam apple, balsam pear bitter melon and Chinese cucumber), Muskmellon (hybrids and/or cultivars of *Cucumis melo* including true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon and Winter melon), Pumpkin, Squash (including summer squash types such as butternut squash, calabaza, crookneck squash, Hubbard squash scallop squash, straightneck squash, vegetable marrow and zucchini and winter squash types such as acorn squash and spaghetti squash), and Watermelon (including hybrids and/or varieties of *Citrullus lanatus*)

FIELD APPLICATIONS

- Pre-Harvest Interval (PHI): 21 days
- Maximum ET-022 allowed per crop season: 24.0 fluid ounces/Acre (0.38 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Bacterial Wilt[1] (as vectored by various cucumber beetles) Cucumber beetle Leafhoppers Leaf silvering[1] (from whitefly feeding) Thrips (foliage-feeding only) Whiteflies	16.0 – 24.0	Apply the specified amount of ET-022 using one of the following methods: • As a chemigation application into the root-zone using low-pressure drip, trickle, micro-sprinkler or equivalent equipment; • As an in-furrow spray directed on or below the seed; • As a narrow surface band spray (2" or less in width) over the seed-line during planting. Within 24 hours the application must be incorporated to a depth of 1 – 1½" and sufficiently irrigated. • As a narrow band spray directly below the eventual seed row as part of a bedding operation no more than 14 days before planting; • As a post-seeding drench, transplant-water drench or hill drench; • As a subsurface side-dress on both sides of each row. The application must be incorporated into the root-zone.
[1] Suppression only		

GREENHOUSE APPLICATIONS

NOT PERMITTED IN CALIFORNIA unless otherwise directed by supplemental labeling

- Because all varieties of cucurbit vegetables have not been tested for tolerance to ET-022 applied to seedling flats, it is recommended that a test application be made to a small number of plants and tolerance confirmed for 7 days prior to treating the entire greenhouse.
- Greenhouse applications only provide short-term protection and are not intended as a substitution for field applications. For continuous protection, a field application must be made within 2 weeks of transplanting.
- Significant plant injury may result from higher application rates or increased numbers of applications than those recommended below
- Maximum ET-022 applications per crop season: 1
- Maximum ET-022 allowed per crop season: 0.1 fluid ounces (0.00156 lb. AI/A) / 1000 plants

Pest	Application Rate (fl. oz. / 1000 plants)	Specific Instructions
Aphids Whiteflies	0.1	No more than 7 days prior to transplanting, apply the specified amount of ET-022 targeting the soil media (tray drench) using one of the following methods: • As a uniform high-volume broadcast foliar spray followed immediately by sufficient overhead irrigation to wash the ET-022 from the foliage and into the potting media without drainage from the bottom of the tray. NOTE: Failure to wash the application from the leaves may result in reduced efficacy; or, • As an injection into an overhead irrigation system using adequate volume to thoroughly saturate the soil media without drainage from the bottom of the tray.

FRUITING VEGETABLES

NOT FOR USE ON CROPS GROWN FOR SEED unless allowed by state-specific supplemental labeling

Eggplant, Ground cherry, Okra, Pepper (including bell, chili, cooking, pimento and sweet), Tomato, Pepinos, Tomatillo

FIELD APPLICATIONS

- Pre-Harvest Interval (PHI): 21 days
- Okra and Pepper - Maximum ET-022 allowed per crop season: 32.0 fluid ounces/Acre (0.50 lb. AI/A)
- All other crops - Maximum ET-022 allowed per crop season: 24.0 fluid ounces/Acre (0.38 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Colorado Potato Beetle Flea Beetles Leafhoppers Thrips (foliage-feeding only) Whiteflies Symptoms of Tomato mottle virus† Tomato spotted wilt virus† Tomato yellow leaf curl virus†	Okra and Pepper 16.0 – 32.0 All Other Crops 16.0 – 24.0	Apply the specified amount of ET-022 using one of the following methods • As a chemigation application into the root-zone using low-pressure drip, trickle, micro-sprinkler or equivalent equipment, • As an in-furrow spray directed on or below the seed, • As a narrow surface band spray (2" or less in width) over the seed-line during planting. Within 24 hours the application must be incorporated to a depth of 1 – 1½" and sufficiently irrigated, • As a narrow band spray directly below the eventual seed row as part of a bedding operation no more than 14 days before planting, • As a post-seeding drench, transplant-water drench or hill drench or, • As a subsurface side-dress on both sides of each row. The application must be incorporated into the root-zone

† Suppression only

GREENHOUSE APPLICATIONS

NOT PERMITTED IN CALIFORNIA unless otherwise directed by supplemental labeling

- Significant plant injury may result from higher application rates or increased numbers of applications than those recommended below
- Greenhouse applications only provide short-term protection and are not intended as a substitution for field applications. For continuous protection, a field application must be made within 2 weeks of transplanting
- Because all varieties of fruiting vegetables have not been tested for tolerance to ET-022 applied to seedling flats, it is recommended that a test application be made to a small number of plants and tolerance confirmed for 7 days prior to treating the entire greenhouse.
- Maximum ET-022 applications per crop season: 1
- Maximum ET-022 allowed per crop season: 0.1 fluid ounces (0.00156 lb. AI/A) / 1000 plants

Pest	Application Rate (fl. oz. / 1000 plants)	Specific Instructions
Aphids Whiteflies	1.4	No more than 7 days prior to transplanting, apply the specified amount of ET-022 targeting the soil media (tray drench) using one of the following methods • As a uniform high-volume broadcast foliar spray followed immediately by sufficient overhead irrigation to wash the ET-022 from the foliage and into the potting media without drainage from the bottom of the tray. NOTE: Failure to wash the application from the leaves may result in reduced efficacy, or, • As an injection into an overhead irrigation system using adequate volume to thoroughly saturate the soil media without drainage from the bottom of the tray.

GREENHOUSE VEGETABLES†

NOT FOR USE ON CROPS GROWN FOR SEED unless allowed by state-specific supplemental labeling

Mature Cucumber and Tomato plants in production greenhouses ONLY

- Because al varieties of greenhouse vegetables have not been tested for tolerance to ET-022, it is recommended that a test application be made to a small number of plants and tolerance confirmed for 7 days prior to treating the entire greenhouse.
- ET-022 applications may result in negative effects on some beneficial species (*Orius* sp.) and bumble bee pollinators being repelled
- Phytotoxicity may occur if applications are made to immature plants
- Pre-Harves: Interval (PHI): 21 days
- Maximum ET-022 applications per crop season: 1

Pest	Application Rate (fl. oz. / 1000 plants)	Specific Instructions
Aphids Whiteflies	1 4	Make applications when infestation pressure surpasses the ability of beneficials to maintain pest populations below damage thresholds Apply the recommended amount in a minimum of 16 gallons of water for tomatoes and 21 gallons of water for cucumbers as a soil drench or using micro-irrigation, drip irrigation or hand held or motorized calibrated irrigation equipment

HEAD AND STEM BRASSICA VEGETABLES AND LEAFY VEGETABLES

NOT FOR USE ON CROPS GROWN FOR SEED unless allowed by state-specific supplemental labeling

Broccoli, Broccoli raab (rapini), Brussels sprouts, Cabbage, Cauliflower, Cavalo broccoli, Chinese (gai lon) Broccoli, Chinese (bok choy) cabbage, Chinese (napa) cabbage, Chinese mustard (gai choy) cabbage, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens, Turnip (tops or leaves)

Amaranth (leafy amaranth, Chinese spinach, tampala), Arugula (roquette), Chervil, Chrysanthemum (edible leaved and garland), Cilantro, Corn salad, Cress (garden), Cress (upland, yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Raddicchio (red chicory), Spinach (including New Zealand and vine (Malabar Spinach, Indian spinach)), Watercress (commercial production only), Watercress (upland)

- Do NOT apply to native cress growing in streams or other bodies of water
- Pre-Harvest Interval (PHI): 21 days
- Maximum ET-022 allowed per crop season: 24.0 fluid ounces/Acre (0.38 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Whiteflies	10.0 – 24.0	Apply the specified amount of ET-022 using one of the following methods • As a chemigat on application into the root-zone using low-pressure drip, trickle, micro sprinkler or equivalent equipment, • As an in-furrow spray directed on or below the seed, • As a narrow surface band spray (2" or less in width) over the seed-line during planting. Within 24 hours the application must be incorporated to a depth of 1 – 1½" and sufficiently irrigated, • As a narrow band spray directly below the eventual seed row as part of a bedding operation no more than 14 days before planting, • As a post-seeding drench, transplant-water drench or hill drench, or, • As a subsurface side-dress on both sides of each row The application must be incorporated into the root-zone

LEAFY PETIOLE VEGETABLES

NOT FOR USE ON CROPS GROWN FOR SEED unless allowed by state-specific supplemental labeling

Cardoon, Celery, Celtuce, Chinese celery (fresh leaves and stalk only), Florence fennel (including sweet anise, sweet fennel, Finocchio), Rhubarb and Swiss Chard

- Pre-Harvest Interval (PHI): 45 days
- Maximum ET-022 allowed per crop season: 24.0 fluid ounces/Acre (0.38 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Leafhoppers Whiteflies	10.0 – 24.0	Apply the specified amount of ET-022 using one of the following methods • As a chemigation application into the root-zone using low-pressure drip, trickle, micro-sprinkler or equivalent equipment; • As an in-furrow spray directed on or below the seed, • As a narrow surface band spray (2" or less in width) over the seed-line during planting. Within 24 hours the application must be incorporated to a depth of 1 – 1½" and sufficiently irrigated, • As a narrow band spray directly below the eventual seed row as part of a bedding operation no more than 14 days before planting; • As a post-seeding drench, transplant-water drench or hill drench; or, • As a subsurface side-dress on both sides of each row. The application must be incorporated into the root-zone.

LEGUME VEGETABLES (except soybean, dry)

NOT FOR USE ON CROPS GROWN FOR SEED unless allowed by state-specific supplemental labeling

Edible podded and Succulent shelled pea and Bean and Dried Shelled Pea and Bean including:

Bean – *Lupinus* spp. (grain lupin, sweet lupin, white lupin, and white sweet lupin)

Bean – *Phaseolus* spp. (field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean)

Bean – *Vigna* spp. (adzuki bean, asparagus bean, blackeyed pea, caljang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, Southern pea, urd bean, yard long bean)

Pea – *Pisum* spp. (dwarf pea, edible pea, edible-pod pea, English pea, field pea, garden pea, green pea, snow pea, sugar snap pea)

Other Beans and Peas – Broad bean (fava), chickpea (garbanzo bean), Guar, Jackbean, Lablab bean, hyacinth bean, lentil, Pigeon pea, soybean (immature seed), Sword bean

- Pre-Harvest Interval (PHI): 21 days
- Maximum ET-022 allowed per crop season: 24.0 fluid ounces/Acre (0.38 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Leafhoppers Thrips (foliage-feeding only) Whiteflies Symptoms of: Bean common mosaic virus[1] Bean golden mosaic virus[1] Beet curly top hybrigeminivirus[1]	16.0 – 24.0	Apply the specified amount of ET-022 using one of the following methods: • As a chemigation application into the root-zone using low-pressure drip, trickle, micro-sprinkler or equivalent equipment; • As an in-furrow spray directed on or below the seed; • As a narrow surface band spray (2" or less in width) over the seed-line during planting. Within 24 hours the application must be incorporated to a depth of 1 – 1½" and sufficiently irrigated; • As a narrow band spray directly below the eventual seed row as part of a bedding operation no more than 7 days before planting; or, • As a post-seeding drench, transplant-water drench or hill drench.
[1] Suppression only		

ROOT VEGETABLES

NOT FOR USE ON CROPS GROWN FOR SEED unless allowed by state-specific supplemental labeling

Beet (garden)†, Burdock (edible)†, Carrot†, Celeriac†, Chervil (turnip-rooted)†, Chicory†, Ginseng, Horseradish, Parsley (turnip-rooted), Parsnip†, Radish†, Oriental radish (diakon)†, Rutabaga†, Salsify (black)†, Salsify (oyster plant), Salsify (Spanish), Skirret and Turnip†

† The tops or greens from these crops may be utilized for food or feed.

- ET-022 applications to crops grown on very high organic matter content (muck) soils may require additional pest management control.
- Pre-Harvest interval (PHI): 21 days
- Maximum number of ET-022 applications per crop season: 1
- Maximum amount of ET-022 allowed per crop season: 24.0 fluid ounces/Acre (0.38 lb. AI/A)

Pest	Fluid ounces per 1000 Row-Feet	Fluid ounces per Acre	Specific Instructions
Aphids Flea Beetles Leafhoppers Whiteflies	0.7 – 1.7	10.0 – 24.0	Apply the specified amount of ET-022 using one of the following methods • As an in-furrow spray or shanked-in 1 to 2 inches below seed depth during planting; • Within 14 days of planting as a narrow surface band spray (2" or less in width) directly below (1 to 2 inches) the eventual seed-line in a bedding operation; • As a chemigation application directly into the root zone using low-pressure trickle, drip, micro-sprinkler or equivalent irrigation equipment. NOTE: The rate applied affects the length of control and higher rates should be used when infestations occur later in crop development or when pest pressure is continuous. Application rates less than 0.7 fl. oz. / 1000 row feet will not provide adequate residual pest control

TUBEROUS and CORM VEGETABLES

NOT FOR USE ON CROPS GROWN FOR SEED unless allowed by state-specific supplemental labeling

Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Canna (edible, Queensland arrowroot), Cassava (bitter and sweet)†, Chayote (root), Chufa, Dasheen (taro)†, Ginger, Leren, Sweetpotato, Tanier (cocoyam)†, Tumeric, Yam bean (jicama, manoic pea), Yam (true)†

NOTE: For applications to Potatoes refer to the Field Crops section of this label.

† The tops or greens from these crops may be utilized for food or feed.

- ET-022 applications to crops grown on very high organic matter content (muck) soils may require additional pest management control.
- Pre-Harvest Interval (PHI): 3 days (leaves); 125 days (corms)
- Maximum ET-022 allowed per crop season: 24.0 fluid ounces/Acre (0.38 lb. AI/A) on other crops
- Maximum ET-022 applications per crop season: 1

Pest	Fluid ounces per 1000 Row-Feet	Fluid ounces per Acre	Specific Instructions
Aphids Flea Beetles Leafhoppers Whiteflies	0.7 – 1.7	10.0 – 24.0	Apply the specified amount of ET-022 using one of the following methods: • As an in-furrow spray over planting materials (hulls) using the rate specified per 1000 row-feet or shanked-in 1 to 2 inches below hulls depth during planting; • As a side-dress no more than 45 days after planting using no more than 0.6 fl. oz. / 1000 row-feet. NOTE: The rate applied affects the length of control and higher rates should be used when infestations occur later in crop development or when pest pressure is continuous. Application rates less than 0.7 fl. oz. / 1000 row feet will not provide adequate residual pest control.

STRAWBERRY

NOT FOR USE ON CROPS GROWN FOR SEED unless allowed by state-specific supplemental labeling

NOTE DO NOT use both application methods on the same crop in the same season.

ANNUAL AND PERENNIAL CROPS

- Do NOT apply during bloom or within 10 days prior to boom or when bees are actively foraging.
- Pre-Harvest Interval (PHI) 14 days
- Maximum ET-022 allowed per crop season: 32.0 fluid ounces/Acre (0.50 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Whiteflies	24.0 - 32.0	Apply the specified amount of ET-022 using one of the following methods • After plants are established or on perennial crops in early spring prior to bud opening as a chemigation application into the root-zone using low-pressure drip, trickle, micro-sprinkler or equivalent equipment, • As a plant hole or plant material treatment just prior to or during transplanting NOTE The rate applied affects the length of control and higher rates should be used when infestations occur later in crop development or when pest pressure is continuous.

POST-HARVEST USE ON PERENNIAL CROPS

- Within 2 hours of a soil-surface application, 0.25" of rainfall or overhead irrigation water per acre must be applied or decreased activity of beetle grubs may result from failure to adequately incorporate ET-022 into the egg-deposition zone
- Pre-Harvest Interval (PHI) 14 days
- Maximum ET-022 allowed per crop season: 24.0 fluid ounces/Acre (0.38 lb AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
White Grub Complex (grubs of Asiatic garden beetle, European and Masked chafer, Japanese beetle and Oriental Beetle)	16.0-24.0	Using one of the following methods, apply the specified amount of ET-022 as a single post-harvest application that coincides with renovation of the strawberry fields and during the active egg-laying period of the beetles • As a ground spray via boom or backpack sprayer in a minimum of 20 gallons of water per acre, • As a row-band spray using an adjusted amount of product based on the treated row band area in proportion to the amount required per full acre. The bandwidth should be equivalent to the width of the anticipated fruiting bed, or, • As a chemigation application with 600 to 1000 gallons of water followed by 0.10 to 0.25 inches of irrigation NOTE: The rate applied affects the length of control and higher rates should be used when infestations occur later in crop development or when pest pressure is continuous.

SUGARBEET (California ONLY)

NOT FOR USE ON CROPS GROWN FOR SEED unless allowed by state-specific supplemental labeling

- Maximum ET-022 allowed per crop season 12 0 fluid ounces/Acre (0 18 lb AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Flea Beetles Leafhoppers Whiteflies Symptoms of Western ye..ow:[1] Beet curly top hybrigeminivirus[1]	6 0 - 12 0	Apply the specifiec amount of ET-022 directly below each seed furrow either during the b 3dding operation immediately prior to planting or at the time of planting us ng sufficient carrier volume to insure uniform application NOTE To aid establishment of stands in whitefly areas or for early season control of the other pests listed, the low rate may be used

[1] Suppression only

BUSHBERRY

Blueberry, Currant, Elderberry, Gooseberry, Huckleberry, Juneberry, Lingonberry, Salal

- Within 2 hours of a soil-surface application, 0.25" of rainfall or overhead irrigation water per acre must be applied or decreased activity of beetle grubs may result from failure to adequately incorporate ET-022 into the egg-deposition zone.
- Pre-Harvest Interval (PHI): 7 days
- Maximum ET-022 allowed per crop season: 32.0 fluid ounces/Acre (0.50 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Japanese Beetle (adults feeding on foliage) White Grub Complex (grubs of Asiatic garden beetle, European and Masked chafer, Japanese beetle and Oriental Beetle)	16.0 – 32.0	Application to grass covered rows, row middles, drive lanes, headlands, and other grassy areas in and around the berry field will control resident grub populations. Applications directed to the root-zone will help protect berry plant roots from grub feeding. Apply the specified amount of ET-022 to moist soil using one of the following methods: • As an 18 inch band on each side of the row followed by 0.25 inches of irrigation immediately after application, or, • As a chemigation application directly into the root zone using low-pressure trickle, drip, micro-sprinkler or equivalent irrigation equipment. If necessary, apply one hour of irrigation water immediately before application. To ensure maximum efficacy, apply ½ to 1 inch of irrigation water or rainfall within 24 hours of application. Applications may be made post-bloom up to 7 days prior to harvest, or post-harvest until October 1st. For optimum control of Japanese beetle larvae, make applications from June 1 to July 15. For best results, apply ET-022 to control 1st or 2nd instar larvae.

CITRUS (Containerized)

Calamondin, Citrus citron, Citrus hybrids (includes chironja, tangelo and tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Pummelo, Orange (sweet and sour), Tangelo, Satsuma mandarin, White sapote (*Casimiroa* spp.) and other cultivars and/or hybrids of these

Pest	Application Rate (mL/cubic foot of container media)	Specific Instructions
Aphids Asian citrus psyllid Black fly Citrus leafminer Leafhoppers / Sharpshooters Mealybugs Scales Whiteflies	0.75	Determine the volume of the container and calculate the appropriate dosage necessary to treat the container. Apply the calculated amount of ET-022 as a soil drench or through low-pressure drip or trickle irrigation using sufficient carrier volume to ensure thorough and uniform distribution throughout the media without draining from the bottom of the container. For best results, treatment should be made at planting prior to insect infestation and retreat if necessary.
Citrus root weevil (larval complex)	1.25 – 2.50	To control larvae of the citrus root weevil complex, make applications prior to neonate larvae entering potting media. For heavy infestations use higher dosages.
Citrus Thrips*	2.50	

* Suppression only

CITRUS (Field)

Calamondin, Citrus citron, Citrus hybrids (includes chironja, tangelo and tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Pummelo, Orange (sweet and sour), Tangelo, Satsuma mandarin, White sapote (*Casimiroa* spp.) and other cultivars and/or hybrids of these

- Pre-Harvest Interval (PHI): 0 days
- Maximum ET-022 allowed per crop season: 32.0 fluid ounces/Acre (0.50 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Asian citrus psyllid Black fly Citrus leafminer Leafhoppers / Sharpshooters Mealybugs Scales Termites (FL only) Whiteflies	16.0 – 32.0	Apply the specified amount of ET-022 using one of the following methods: • For very coarse soils with 0.75% or less organic matter, apply as a soil-surface band spray on both sides of the tree. Bands should overlap at the tree base to create a continuous band within the drip-line area of the tree. Immediately after application irrigate with a sufficient amount of water to move the ET-022 into the upper portion of the root zone; • For trees up to 8' tall, drench immediately around the trunk extending outward to cover the entire fibrous root system of the tree. Do NOT exceed more than one-quart total solution per tree; • For control of existing termite infestations, apply the specified dosage to the basal portion of the tree trunk and surrounding soil as a drench application in 1 to 4 quarts of total solution volume, depending on the size of the tree • As a chemigation application directly into the root zone using low-pressure trickle, drip, micro-sprinkler or equivalent irrigation equipment. For best results, apply to moist soil to break soil surface tension prior to application. Applications must be followed by 10 to 20 minutes of additional watering to move ET-022 into the root-zone. Allow 24 hours before making subsequent applications.
Symptoms of Citrus tristeza virus[1] Citrus yellows[1] Thrips (foliage feeding only)[1]	32.0	

[1] Suppression only

CRANBERRY

- Do NOT apply during bloom
- ET-022 has NOT been tested in tank-mixes with other registered pesticides. Premix a sample of the desired tank-mix using the labeled rates and test in a small area prior to use. Evaluate the test area within 48 hours and for at least two weeks prior to using the tank-mix on larger areas. Do not apply if damage results in the test site
- Pre-Harvest Interval (PHI): 30 days
- Maximum ET-022 allowed per crop season: 32.0 fluid ounces/Acre (0.50 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Rootgrubs (Scarabaeidae) Rootworms (Chrysomelidae)	16.0 – 32.0	For best results, make applications post-bloom immediately after bees are removed. Using one of the following methods, apply the specified amount of ET-022 to moist soil. • As a ground spray in a minimum of 20 gallons of water per acre directed to the root and crown area; or, • As a chemigation application with 600 to 1000 gallons of water. Immediately after application the ET-022 must be incorporated into the root zone by applying 0.1 – 0.3 inches of water / Acre either through chemigation or through irrigation / rainfall. Reduced control will result if the application is not incorporated within 24 hours. NOTE: The rate applied affects the length of control and higher rates should be used when infestations occur later in crop development or when pest pressure is continuous.

GRAPE

American bunch grape, Muscadine grape and Viniferous grape

- Pre-Harvest Interval (PHI) 30 days
- Maximum ET-022 allowed per crop season 32 0 fluid ounces/Acre (0 50 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Leafhoppers / Sharpshooters Mealybugs *Phylloxera* spp [2]	16 0 – 32.0	Apply the specified amount of ET-022 using one of the following methods • As a hill-drench using sufficient water to insure incorporation into the root-zone followed by irrigation. • As a subsurface side-dress shanked into the root-zone on both sides of the plants followed by irrigation, or, • As a chemigation application directly into the root zone using low-pressure trickle, drip, micro-sprinkler or equivalent irrigation equipment For best results, make applications between bud break and the pea-berry stage
Pierce's Disease[1]	24.0 – 32.0	

[1] Suppression only
[2] Regular and repeated use of ET-022 over multiple consecutive growing seasons will control existing *Phylloxera* infestations over time

HOP

NOT PERMITTED IN CALIFORNIA unless otherwise directed by supplemental labeling

- Pre-Harvest Interval 60 days
- Maximum ET-022 allowed per crop season: 19.2 fluid ounces/Acre (0 30 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids	19.2	Apply the specified amount of ET-022 using one of the following methods: • As a hill-drench using sufficient water to insure incorporation into the root-zone followed by irrigation, • As a subsurface side-dress shanked into the root zone on both sides of the plants followed by irrigation; or, • As a chemigation application directly into the root zone using low-pressure trickle, drip, micro-sprinkler or equivalent irrigation equipment

PECAN

- Applications may be made from May 15th until July 15th. Applications made later in the season may result in reduced efficacy.
- Pre-Harvest Interval (PHI): 7 days
- Maximum ET-022 allowed per crop season: 32.0 fluid ounces/Acre (0.50 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Twolined spittlebug Pecan scab[1] (from reduction in honeydew deposition)	16.0 – 32.0	Apply the specified amount of ET-022 to slightly moist soil using one of the following methods: • As an emitter or spot application in a minimum of 4 fl. oz. of mixture per emitter site, • As a subsurface side-dress shanked into the root-zone near the emitter line. Treat distance wetted by the emitter set of each tree; or, • As a chemigation application directly into the root zone using low-pressure trickle, drip, micro-sprinkler or equivalent irrigation equipment.

[1] Suppression only

POME FRUIT

NOT PERMITTED IN CALIFORNIA unless otherwise directed by supplemental labeling

Apple, Crabapple, Loquat, Mayhaw, Pear (including Oriental pear) Quince

- Pre-Harvest Interval (PHI): 21 days
- Maximum ET-022 allowed per crop season: 24 fluid ounces/Acre (0.38 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids (including woolly apple aphid) Leafhoppers	16.0 – 24.0	Apply the specified amount of ET-022 as a chemigation application directly into the root zone using low-pressure trickle, drip, micro-sprinkler or equivalent irrigation equipment

STONE FRUIT

NOT PERMITTED IN CALIFORNIA unless otherwise directed by supplemental labeling

Apricot, Cherry (including sweet and tart), Nectarine, Peach, Plum (including Chickasaw, Damson and Japanese), Plumcot, Prune (fresh and dried)

- Pre-Harvest Interval (PHI): 21 days
- Maximum ET-022 allowed per crop season: 24.0 fluid ounces/Acre (0.38 lbs. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids (including woolly apple aphid) Leafhoppers	16.0 – 24.0	Apply the specified amount of ET-022 as a chemigation application directly into the root zone using low-pressure trickle, drip, micro-sprinkler or equivalent irrigation equipment

STONE FRUIT PRE-PLANT ROOT DIP APPLICATION –

ET-022 may be used to control black beach aphids infesting roots as a pre-plant root dip of 2.0 fl. oz. of ET-022 per 10 gallons of water. To apply, thoroughly wet the bare-root transplants by soaking the roots to slightly above the graft union for up to five minutes. Allow the solution to dry on the roots and transplant the trees as soon as possible after treatment.

TROPICAL FRUIT

NOT PERMITTED IN CALIFORNIA unless otherwise directed by supplemental labeling

Acerola, Avocado Black sapote, Canistel, Feijoa, Jaboticaba, Guava Longan, Lychee, Mamey sapote, Mango, Papaya, Passionfruit, Pulasan, Rambutan, Sapodilla, Spanish lime, Star apple, Star fruit, Wax jambu

- Pre-Harvest Interval (PHI): 6 days
- Maximum ET-022 allowed per crop season: 32.0 fluid ounces/Acre (0.50 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Leafhoppers Whiteflies	24.0 – 32.0	Apply the specified amount of ET-022 as a chemigation application directly into the root zone using low-pressure trickle, drip, micro-sprinkler or equivalent irrigation equipment.
Scales[1]	32.0	
[1] Suppression only		

POPLAR/COTTONWOOD (including members of the genus *Populus* grown for pulp or timber)

NOT PERMITTED IN CALIFORNIA unless otherwise directed by supplemental labeling

- Maximum ET-022 allowed per crop season: 32.0 fluid ounces/Acre (0.50 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Cottonwood leaf beetle	16.0 – 32.0	Apply the specified amount of ET-022 as a chemigation application directly into the root zone using low-pressure drip irrigation equipment. **Cottonwood leaf beetle**: For best results make application when beetles first begin feeding. Larger trees may require earlier treatments as a result of slower uptake.
Phylloxenna populana[1]		**Phylloxerina**: Make applications early in the year from break of dormancy through May.
[1] Suppression only		

APPLICATION TO GRASSY AREAS IN NURSERIES

ET-022 will control soil-inhabiting pests in grassy areas in or around nurseries such as under or around field or container grown plants, on roadways or other grassy areas. The need for an application can be based on historical monitoring of the site, previous records or experiences, current season adult trapping or other methods. Applications may be made preceding the egg laying activity of the target pests and high levels of control may be achieved when applications are made proceeding or during the egg laying period. For best results, make applications prior to egg hatch of the target pests, followed by sufficient irrigation or rainfall to move the active ingredient through the thatch.

Use Precautions:

- Applications must NOT exceed a total of 1.6 pt. (0.4 lb of active ingredient) per acre per year.
- Applications should NOT be made when grassy areas are waterlogged or the soil is saturated with water because adequate distribution of the active ingredient cannot be achieved when these conditions exist.
- The treated grassy area must be in such a condition that the rainfall or irrigation will penetrate vertically in the soil profile.
- Avoid mowing treated areas until after sufficient rainfall or irrigation has occurred in order to maintain the uniformity of the application.
- Do NOT graze treated areas or use clippings from treated areas for feed or forage.
- Do NOT apply ET-022 to soils that are waterlogged or saturated and avoid runoff or puddling of irrigation water following application.
- Do NOT allow leachate to run out for the first 10 days after application or reduced efficacy may result

Application Instructions:

Apply ET-022 in sufficient water to provide adequate distribution in the treated area. Use of accurately calibrated equipment normally used for soil application of insecticides is required. Use equipment which will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off-target drift. Check calibration periodically to ensure that equipment is working properly.

Pest	Fluid ounces per 1000 sq. ft.	Fluid ounces per Acre	Specific Instructions
Annual bluegrass weevil Asiatic garden beetle Billbugs Black turfgrass ataenius Cutworms[1] European Chafer *Green June beetle* Japanese beetle Northern masked chafer Oriental beetle *Phyllophaga* spp. Southern masked chafer	0.45 – 0.6 (13 to 17 mL)	19.2 – 25.6	**Billbugs and annual bluegrass weevil**: For best results make applications prior to egg hatch of the target pest **Cinchbugs**: Make applications prior to the hatching of the first instar nymphs. **Mole Crickets**: Make applications prior to or during the peak egg hatching period. When adults or large nymphs are present and actively tunneling, ET-022 should be accompanied by a curative insecticide. NOTE: For best results, the active ingredient must be moved through the thatch by irrigation or rainfall occurring within 24 hours after application.
Cinchbugs[1] Mole Crickets	0.57 (17 mL)	25.6	

[1] Suppression only

APPLICATION TO ORNAMENTALS AND VEGETABLE PLANTS

ET-022 is a systemic insecticide that may be applied to ornamental and vegetable plants and interior plantscapes. The insecticide is translocated upward into the plant system and for best results must be placed where the growing portions of the target plant can absorb the active ingredient. When applicable, adding a fertilizer containing nitrogen into the spray solution may enhance plant uptake of ET-022.

Woody Perennials:

Protection in woody perennials is slower than in herbaceous species and a delay of 2 or more weeks should be expected, with longer delays for larger plants. Because of this, applications to woody perennials should be made well in advance of expected insect activity.

Bark Media:

ET-022 treatments to media with 30 - 50% or more bark content may confer a shorter period of protection.

Use Precautions:

- Cover crops for soil building or erosion control may be planted at any time, but DO NOT graze or harvest for food or feed. DO NOT graze treated areas or use clippings from treated areas for feed or forage.
- Do NOT apply ET-022 to soils that are waterlogged or saturated and avoid runoff or puddling of irrigation water following application.
- Do NOT allow leachate to run out for the first 10 days after application or reduced efficacy may result.
- Do NOT exceed a total of 1.6 pt. / Acre per year (0.4 lb. AI/A).

FOLIAR AND BROADCAST APPLICATIONS

ET-022 may be applied as a broadcast or foliar application to trees (including non-bearing fruit and nut trees), shrubs, evergreens, flowers, foliage plants, ground covers, interior plantscapes and vegetable plants intended for resale.

***For use on vegetable plants intended for resale only** including: Broccoli, Chinese Broccoli, Broccoli Raab, Brusseis Sprouts, Cabbage Chinese Cabbage Cauliflower, Collards, Eggplant, Ground Cherry, Kale Kohlrabi, Lettuce, Mustard Greens, Pepinos, Peppers, Potatoes, Rape Greens, Sorghum, Sugarbeets, Tomatillo and Tomato.

pplication Instruct ons:

pply ET-022 in sufficient water to provide adequate distribution in the treated area. Use of accurately calibrated quipment normally used for soil application of insecticides is required. Use equipment which will produce a uniform, oarse droplet spray, using a low pressure setting to eliminate off-target drift. Check calibration periodically to ensure that quipment is working properly

NOTE When making foliar applications to plants with hard-to-wet foliage such as holly, pine or ivy, use of a spreader / sticker is recommended.

Pest	Application Method	Application Rate	Specific Instructions
Adelgids Aphids Japanese beetle (adult) Lacebugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Sawfly larvae Thrips† Whiteflies	Foliar	1.7 fl. oz. (50 mL) per 100 gal. of water	Make applications prior to establishment of large pest populations and retreat as necessary NOTE Applying ET-022 foliarly after a soil application in the same crop is not recommended for resistance management purposes
White grub larvae (such as Japanese beetle larvae, chafers, Phyllophaga spp., Asiatic garden beetle and Oriental beetle)	Broadcast	0.45 – 0.60 fl. oz. (13 to 17 mL) per 1000 sq. ft.	Mix the recommended amount of ET-022 in sufficient water to uniformly cover the area being treated using at least 2 gallons of water per 1000 sq. ft. For best results, incorporate the ET-022 into the upper soil profile by irrigating after the application is made

† Suppression only

IRRIGATION AND DRENCH APPLICATIONS

ET-022 may be applied to ornamental and vegetable plants in greenhouses, nurseries and interior plantscapes using soil drenches, micro-irrigation, drip irrigation, overhead irrigation, ebb and flood irrigation, or hand-held or motorized calibrated irrigation equipment

Use Precautions:

- On plants with a production cycle of less than one year, application is not to exceed a frequency of more than once each 16 weeks for a particular plant. On stock plants and woody crops with a production cycle of greater than one year, application may not exceed once a year.

RECOMMENDED RATES AND INSTRUCTIONS FOR IRRIGATION AND DRENCH APPLICATIONS

Application Site		Recommended Rate		Application Instructions	Pests Controlled
Plants in Containers	Herbaceous Species including Vegetables[5] (one or two plants per pot)	Container Size (inches)	# of pots treated with 1.7 fl. oz. (50 mL)	Use sufficient water volume to wet most of the potting medium without loss of liquid through leaching. Irrigate moderately after application. To avoid loss of active ingredient due to leaching, do NOT allow leaching or runout to occur for 10 days after application.	Adelgids Aphids *Armored Scale* (suppression) Fungus gnat (larvae only)[1] Japanese beetles (adults) Lacebugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Mealybugs Psyllids Root mealybugs[2] Root weevil complex (such as Black Vine Weevil, Apopka Weevil, Citrus Root Weevil) Soft scale Thrips (suppression)[4] White Grub Larvae (Such as *Japanese beetle*, Masked Chafers, European Chafer, Oriental Beetle, Asiatic Garden Beetle) Whiteflies
		2	3000		
		3	2000		
		4	1500		
		5	1200		
		6	1000		
		7	850		
		8	750		
		9	675		
		10	600		
		11	550		
		12	500		
	Woody Perennial Species or Herbaceous Species *including* Vegetables[5] (three or more plants per pot)	2	2000		
		3	1350		
		4	1000		
		5	800		
		6	650		
		7	550		
		8	500		
		9	450		
		10	400		
		11	350		
		12	300		
Ornamental and Vegetable[5] plants grown in flats, benches, or beds		1.7 fl. oz. (50 mL) per 3000 sq. ft. Do NOT use less than 2 gallons of mixture per 1000 sq. ft.		Apply as a broadcast treatment and incorporate into the medium before planting or apply after plants are established. If application is made to established plants, optimum control will be attained if area is lightly irrigated after application. Do NOT allow leaching or runout to occur for 10 days after application.	
Containerized Plants		Container Size (gallons)	# of pots treated with 1.7 fl. oz. (50 mL)	For best results, make applications prior to egg hatch of the target pest Apply in sufficient water to wet the potting medium Irrigate moderately after application to move the active ingredient into the root zone.	
		1	340 to 244		
		2	280 to 210		
		3	220 to 165		
		5	160 to 110		
		7	100 to 75		
		10	60 to 45		
		15	40 to 30		
		20	20 to 15		
Field and Forest Nurseries		1.7 fl. oz. (50 mL) per 1000 ft of row or 3000 sq. ft. in a minimum spray volume of 2 gallons per 1000 square feet In areas of turf, apply as a broadcast application using 1.35 – 1.7 fl. oz. (40 to 50 mL) per 3000 sq. ft. in a minimum spray volume of 2 gallons per 1000 square feet.		Vegetation in the area to be treated should be mowed to a height of 3 inches or less prior to application. Mowing to the lowest possible height will ensure greater consistency of control. Apply May through July. For best results, treatment should be followed by rainfall or irrigation.	White grub larvae (such as Japanese beetle, Masked chafers, *European chafer*, Oriental beetle, Asiatic garden beetle)

[1] Fungus Gnat larvae in the soil will be controlled by drench or incorporation; ET-022 does not control adult Fungus Gnats. Other foliar insect control is achieved translocating the active ingredient up into the plant via the root system.

[2] To control root mealybug, a thorough drenching of the containerized media is necessary. Use a rate of 1.7 fl. oz. (50 mL) in 150 gallons of water and be sure to obtain complete coverage while minimizing the amount of leachate.

[3] For control of citrus root weevil on non-bearing citrus nursery stock ONLY.

[4] Thrips on foliage only are suppressed, not in buds and flowers.

[5] **For use on vegetable plants intended for resale only** including: Broccoli, Chinese Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Chinese Cabbage Cauliflower, Collards, Eggplant, Ground Cherry, Kale Kohlrabi, Lettuce, Mustard Greens, Pepinos, Peppers, Potatoes, Rape Greens, Sorghum, Sugarbeets, Tomatillo and Tomato.

RECOMMENDED RATES AND INSTRUCTIONS FOR NURSERY, GREENHOUSE AND INTERIORSCAPE PLANTS

Application Site	Recommended Rate	Application Instructions	Pests Controlled
Trees NOTE Application to trees already heavily infested may not prevent the eventual loss of the trees due to existing pest damage and tree stress	0 1 - 0.2 fl oz (3 to 6 mL) per inch of trunk diameter (DBH)	**SOIL INJECTION – No Soil Injection Application allowed in Nassau or Suffolk counties of New York.** GRID SYSTEM Holes should be spaced on 2.5 ft centers, in a grid pattern, extending to the drip line of the tree CIRCLE SYSTEM Apply in holes evenly spaced in circles, (use more than one circle dependent upon the size of the tree) extending in from the drip line of the tree. BASAL SYSTEM: Space injection holes evenly around the base of the tree trunk no more than 6 to 12 inches out from the base. Mix required dosage in sufficient water to inject an equal amount of solution in each hole Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone For optimum control, keep the treated area moist for 7 to 10 days Do not use less than 4 holes per tree **SOIL DRENCH** Remove plastic or any other barrier that will stop solution from reaching the root zone Uniformly apply around the base of the tree, direct to the root zone as a drench in no less than 10 gallons of water per 1000 square feet	Adelgids Aphids Armored Scale[1] Black vine weevil larvae Eucalyptus Longhorned Borers Flatheaded Borers (including bronze birch and alder borers) Japanese Beetles (adults) Lacebugs Leaf Beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Pine Tip Moth larvae Psyllids Royal Palm Bugs Sawfly larvae Soft Scales Thrips[1] White grub larvae Whiteflies
Shrubs	0 1 – 0 2 fl oz (3 to 6 mL) per foot of shrub height	**SOIL INJECTION – No Soil Injection Application allowed in Nassau or Suffolk counties of New York.** Mix required dosage in sufficient water to inject an equal amount of solution in each hole Using a minimum of 4 holes per shrub apply to individual plants maintaining a low pressure and use sufficient solution for distribution of the liquid into the treatment zone Keep the treated area moist for 7 to 10 days **SOIL DRENCH** Remove plastic or any other barrier that will stop solution from reaching the root zone. Uniformly apply around the base of the tree, direct to the root zone as a drench in no less than 10 gallons of water per 1000 square feet.	
Flowers and Ground Cover	0 45 0 60 fl oz (13 to 17 mL) per 1000 sq ft	Apply as a broadcast treatment and incorporate into the soil before planting or apply after plants are established If application is made to established plants, optimum control will be attained if area is irrigated thoroughly after application	

[1] Suppression only of these species

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EBB AND FLOOD APPLICATIONS

ET-022 insecticide may be applied through Ebb and Flood applications. To assure accurate uptake it is recommended that prior to treatment, a minimum of 10 plants be brought up to a known field capacity and allowed to dry out for one or two days. Re-wet these plants to determine how much water on average each plant will absorb to return it to field capacity.

RECOMMENDED RATES AND INSTRUCTIONS FOR EBB AND FLOOD APPLICATIONS

Application Site		Recommended Rate		Application Instructions	Pests Controlled
Plants in Containers	Herbaceous species including vegetable plants[5] (one or two plants per pot)	Container Size (inches)	mL per 100 Plants	To minimize the return back to the storage tank, keeping pot sizes uniform use the volume absorbed per plant (see test above) multiplied by the number of pots being treated. Add to this volume a required minimum to flood your smallest treatment area. Re-use the returned volume with subsequent irrigation or nutrients on the same plants.	Adelgids Aphids Armored scales (supression) Fungus Gnats (larvae only)[1] Japanese Beetles (adults) Lacebugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Psyllids Root mealybugs[2] Root Weevil Complex (such as Apopka Weevil, Black Vine Weevil, Citrus Root Weevil[3]) Soft Scales Thrips (suppression)[4] Whiteflies White Grub larvae (such as Japanese Beetle, Masked Chafers, European Chafer, Oriental Beetle, Asiatic Garden Beetle)
		2	1.6		
		3	2.5		
		4	3.3		
		5	4.2		
		6	5.0		
		7	5.9		
		8	6.6		
		9	7.4		
		10	8.3		
		11	9.0		
		12	10.0		
	Woody perennials, herbaceous species including vegetable plants[5] (3 or more per pot)	Container Size (inches)	mL per 100 Plants		
		2	2.5		
		3	3.7		
		4	5.0		
		5	6.3		
		6	7.7		
		7	9.1		
		8	10.0		
		9	11.1		
		10	12.5		
		11	14.3		
		12	16.7		

[1] Fungus Gnat larvae in the soil will be controlled by drench or incorporation; ET-022 does not control adult Fungus Gnats. Other foliar insect control is achieved translocating the active ingredient up into the plant via the root system.

[2] To control root mealybug, a thorough drenching of the containerized media is necessary. Use a rate of 1.7 fl oz. (50 mL) in 150 gallons of water and be sure to obtain complete coverage while minimizing the amount of leachate

[3] For control of citrus root weevil on non-bearing citrus nursery stock ONLY.

[4] Thrips on foliage only are suppressed, not in buds and flowers.

[5] **For use on vegetable plants intended for resale only** including: Broccoli, Chinese Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Chinese Cabbage, Cauliflower, Collards, Eggplant, Ground Cherry, Kale, Kohlrabi, Lettuce, Mustard Greens, Pepinos, Peppers, Potatoes, Rape Greens, Sorghum, Sugarbeets, Tomatillo and Tomato.

TURFGRASS

ET-022 will control soil-inhabiting pests in grassy areas such as home lawns, business and office complexes, shopping complexes, multi-family residential complexes, golf courses, airports, cemeteries, parks, playgrounds, and athletic fields and sod farms. The need for an application can be based on historical monitoring of the site, previous records or experiences, current season adult trapping or other methods. Applications may be made preceding the egg laying activity of the target pests and high levels of control may be achieved when applications are made proceeding or during the egg laying period. For best results, make applications prior to egg hatch of the target pests, followed by sufficient irrigation or rainfall to move the active ingredient through the thatch.

Use Precautions:

- Applications must NOT exceed a total of 1.6 pt. (0.4 lb of active ingredient) per acre per year.

- Keep children and pets off treated areas until dry.
- Do NOT apply through any type of irrigation system.
- Do NOT graze treated areas or use clippings from treated areas for feed or forage.
- Applications should NOT be made when grassy areas are waterlogged or the soil is saturated with water because adequate distribution of the active ingredient cannot be achieved when these conditions exist.
- Avoid runoff or puddling of irrigation water following application.
- Do NOT allow leachate to run out for the first 10 days after application or reduced efficacy may result.
- The treated grassy area must be in such a condition that the rainfall or irrigation will penetrate vertically in the soil profile
- Avoid mowing treated areas until after sufficient rainfall or irrigation has occurred in order to maintain the uniformity of the application.

Application Instructions:

Apply ET-022 in sufficient water to provide adequate distribution in the treated area. Use of accurately calibrated equipment normally used for soil application of insecticides is required. Use equipment which will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off-target drift. Check calibration periodically to ensure that equipment is working properly.

Pest	Fluid ounces per 1000 sq. ft.	Pints per Acre	Specific Instructions
Larvae of: Annual bluegrass weevil Asiatic garden beetle Billbugs Black turfgrass ataenius Cutworms† European Chafer Green June beetle Japanese beetle Northern masked chafer Oriental beetle *Phyllophaga* spp. Southern masked chafer	0.46 – 0.6 (14 to 17 mL)	1.25 – 1.60	**Grubs, European Crane Fly, billbugs and annual bluegrass weevil.** For best results make applications prior to egg hatch of the target pest **Chinchbugs:** Make applications prior to the hatching of the first instar nymphs. **Mole Crickets:** Make applications prior to or during the peak egg hatching period. When adults or large nymphs are present and actively tunneling, ET-022 should be accompanied by a curative insecticide. NOTE: For best results, the active ingredient must be moved through the thatch by irrigation or rainfall occurring within 24 hours after application.
Chinchbugs† Mole Crickets	0.60 (17 mL)	1.60	
† Suppression only			

ORNAMENTALS, GROUNDCOVERS AND INTERIOR PLANTSCAPES

ET-022 is a systemic insecticide that may be applied to ornamentals, groundcovers and interior plantscapes in and around industrial and commercial buildings and residential areas. The insecticide is translocated upward into the plant system and for best results must be placed where the growing portions of the target plant can absorb the active ingredient. When applicable, adding a fertilizer containing nitrogen into the spray solution may enhance plant uptake of ET-022.

Ant Management Programs:

ET-022 may be used to limit the honeydew available as a food source for ant populations when controlling aphids, scale insects, mealy bugs and other sucking pests on ornamentals. ET-022 applications may be supplemented with bait traps, residual sprays and other methods to further reduce the unwanted ant population.

Woody Perennials:

Protection in woody perennials is slower than in herbaceous species and a delay of 2 or more weeks should be expected, with longer delays for larger plants. Because of this, applications to woody perennials should be made well in advance of expected insect activity.

Bark Media:

ET-022 treatments to media with 30 - 50% or more bark content may confer a shorter period of protection.

Use Precautions:

- Keep children and pets off treated areas until dry.
- Do NOT apply through any type of irrigation system.
- Cover crops for soil building or erosion control may be planted at any time, but do not graze or harvest for food or feed. Do NOT graze treated areas or use clippings from treated areas for feed or forage.
- Do NOT apply ET-022 to soils that are waterlogged or saturated and avoid runoff or puddling of irrigation water following application.
- Do NOT allow leachate to run out for the first 10 days after application or reduced efficacy may result.
- Do NOT exceed a total of 1.6 pt. / Acre per year (0.4 lb. AI/A)

FOLIAR AND BROADCAST APPLICATIONS

ET-022 may be applied as a broadcast or foliar application to trees (including non-bearing fruit and nut trees), shrubs, evergreens, flowers, foliage plants, ground covers, interior plantscapes and vegetable plants intended for resale.

Application Instructions:

Apply ET-022 in sufficient water to provide adequate distribution in the treated area. Use of accurately calibrated equipment normally used for soil application of insecticides is required. Use equipment which will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off-target drift. Check calibration periodically to ensure that equipment is working properly.

NOTE: When making foliar applications to plants with hard-to-wet foliage such as holly, pine or ivy, use of a spreader / sticker is recommended

Pest	Application Method	Application Rate	Specific Instructions
Adelgids Aphids Japanese beetle (adult) Lacebugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Sawfly larvae Thrips* Whiteflies	Foliar	1.5 fl. oz. (45 mL) per 100 gal. of water	Make applications prior to establishment of large pest populations and retreat as necessary. NOTE: Applying ET-022 foliarly after a soil application in the same crop is not recommended for resistance management purposes
White grub larvae (such as Japanese beetle larvae, chafers, *Phyllophaga* spp., Asiatic garden beetle and Oriental beetle)	Broadcast	0.46 – 0.60 fl. oz. (14 to 17 mL) per 1000 sq. ft.	Mix the recommended amount of ET-022 in sufficient water to uniformly cover the area being treated using at least 2 gallons of water per 1000 sq. ft. For best results, incorporate the ET-022 into the upper soil profile by irrigating after the application is made

* Suppression only

SOIL INJECTION AND DRENCH APPLICATIONS

Application Site	Recommended Rate	Application Instructions	Pests Controlled
Trees NOTE: Application to trees already heavily infested may not prevent the eventual loss of the trees due to existing pest damage and tree stress	0.1 – 0.2 fl. oz. (3 to 6 mL) per inch of trunk diameter (DBH)	**SOIL INJECTION – No Soil Injection Application allowed in Nassau or Suffolk counties of New York.** GRID SYSTEM: Holes should be spaced on 2.5 ft centers, in a grid pattern, extending to the drip line of the tree. CIRCLE SYSTEM: Apply in holes evenly spaced in circles, (use more than one circle dependent upon the size of the tree) beneath the drip line of the tree extending in from that line. BASAL SYSTEM: Space injection holes evenly around the base of the tree trunk no more than 6 to 12 inches out from the base Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. For optimum control, keep the treated area moist for 7 to 10 days. Do not use less than 4 holes per tree **SOIL DRENCH**: Remove plastic or any other barrier that will stop solution from reaching the root zone. Uniformly apply around the base of the tree, direct to the root zone as a drench in no less than 10 gallons of water per 1000 square feet.	Adelgids Aphids Armored Scale[1] Black vine weevil larvae Eucalyptus Longhorned Borers Flatheaded Borers (including bronze birch and alder borers) Japanese Beetles (adults) Lacebugs Leaf Beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Pine Tip Moth larvae Psyllids Royal Palm Bugs Sawfly larvae Soft Scales Thrips[1] White grub larvae Whiteflies
Shrubs	0.1 – 0.2 fl. oz. (3 to 6 mL) per foot of shrub height	**SOIL INJECTION – No Soil Injection Application allowed in Nassau or Suffolk counties of New York.** Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Using a minimum of 4 holes per shrub, apply to individual plants maintaining a low pressure and use sufficient solution for distribution of the liquid in to the treatment zone. Keep the treated area moist for 7 to 10 days **SOIL DRENCH**: Remove plastic or any other barrier that will stop solution from reaching the root zone. Uniformly apply around the base of the tree, direct to the root zone as a drench in no less than 10 gallons of water per 1000 square feet.	
Flowers and Ground Cover	0.46 – 0.60 fl. oz. (14 to 17 mL) per 1000 sq. ft.	Apply as a broadcast treatment and incorporate into the soil before planting or apply after plants are established. If application is made to established plants, optimum control will be attained if area is irrigated thoroughly after application	

[1] Suppression only of these species

POME FRUIT IN AND AROUND RESIDENTIAL AREAS

Apple, Crabapple, Loquat, Mayhaw, Pear (including Oriental pear), Quince

- Pre-Harvest Interval (PHI): 7 days
- Reapplication Interval: At least 10 days
- Maximum Applications per Year: 5
- Do NOT apply through any type of irrigation system.

Pest	Fluid ounces per 100 gal.	Fluid ounces per Acre‡	Specific Instructions
Aphids (except Woolly apple aphid, Leafhoppers (including glassy-winged sharpshooter) Leafminer Mealybugs† San Jose Scale†	1.5 (45 mL)	6.0	Apply as a foliar spray as needed after petal-fall is complete **Rosy Apple Aphid** Apply prior to leaf rolling caused by the pest. **Leafhopper:** For late season (preharvest) control apply while most leafhoppers are in the nymphal stage **Leafminer** Make first application as soon as petal-fall is complete for cont ol of first generation, with best results occurring when the application is made at the earliest possible time. For succeeding generations, best results occur when applications are mac e early in the adult flight against egg and early instar larvae If generations are overlapping or severe pressure continues, a second application may be necessary after 10 days A single application may result in suppression only NOTE ET-022 will not control late stage larvae **Mealybug:** For best results be sure to have good spray coverage of the trunk and scaffolding limbs or other nesting sites **San Jose Scale** Time applications to the crawler stage and treat each generation

† Not permitted for control on pears in California.
‡ The amount of ET-002 required per acre depends on tree size and volume of foliage The listed rate per acre is based on a standard of 400 gallons of dilute spray per acre for large trees

PECANS IN AND AROUND RESIDENTIAL AREAS

NOT PERMITTED IN CALIFORNIA unless otherwise directed by supplemental labeling

- Reapplicat on Interval: At least 10 days
- Maximum Applications per Year: 3
- Maximum ET-022 allowed per Year 18 fluid ounces/Acre
- Do NOT apply through any type of irrigation system.

Pest	Fluid ounces per 100 gal.	Fluid ounces per Acre‡	Specific Instructions
Yellow pecan aphid Black margined aphid Pecan leaf phylloxera Pecan spittlebug Pecan stem phylloxera	1.5 (45 mL)	6.0	Apply as a foliar spray as pest pressure builds but before infestation is extremely heavy. Two applications at a 10 – 14 day interval may be required to achieve control. For best results, thorough and uniform coverage is necessary. Coverage may be improved through the use of an organosilicone-based spray adjuvant

‡ The amount of ET-002 required per acre depends on tree size and volume of foliage The listed rate per acre is based on a standard of 400 gallons of dilute spray per acre for large trees

GRAPES IN AND AROUND INDUSTRIAL AND COMMERCIAL BUILDINGS AND RESIDENTIAL AREAS

- Reapplication Interval: At least 14 days
- Maximum ET-022 allowed per Year: 6 fluid ounces/Acre
- Do not apply through any type of irrigation system.

Pest	Fluid ounces per 100 gal.	Fluid ounces per Acre	Specific Instructions
Leafhoppers (including glassy-winged sharpshooter) Mealybugs	1.5 (45 mL)	3.0 (90 mL/A)	Apply as a foliar spray using 200 gallons of water per acre

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

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

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Etigra, LLC or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Etigra, LLC and Seller harmless for any claims relating to such factors.

Etigra, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Etigra, LLC, and Buyer and User assume the risk of any such use. ETIGRA, LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent allowed by state law, neither Etigra, LLC or Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ETIGRA, LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ETIGRA, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

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Marathon® is a trademark of Olympic Horticultural Products
Etigra™ is a trademark of Etigra

ET-022 is not manufactured or distributed by Bayer CropScience, seller of Admire®.
ET-022 is not manufactured or distributed by Bayer Environmental Science, seller of Merit®.
ET-022 is not manufactured or distributed by Olympic Horticultural Products, seller of Marathon®.

PYXIS REGULATORY CONSULTING, INC.

4110 136th St. NW
Gig Harbor, WA 98332

Phone: 253-853-7369
Fax: 253-853-5516
www.PyxisRC.com

February 9, 2007

COURIER DELIVERY

Venus Eagle (PM 01)
Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
Room S-4900, One Potomac Yard
2777 S. Crystal Drive
Arlington, VA 22202-4501

RE: Etigra LLC – ET-022 (EPA Reg. No. 81959-22)
Notification of Minor Label Revisions (correct typographical error) per PRN 98-10

Dear Ms. Eagle,

On behalf of Etigra LLC please find the enclosed label notification to correct the typographical error as described below:

P. 9 - in the table appearing under the "Tobacco" heading, corrected column headings from "Fluid ounces per 1000 Row Feet" and "Fluid ounces per Acre" to read "Fluid ounces per 1000 plants (as seedling tray drench)" and "Fluid ounces per 1000 plants (in-furrow or transplant-water)". The revised column headings are identical to language appearing on the substantially similar product label, Admire 2 Flowable Insecticide (EPA Reg. No. 264-758), EPA approved label dated September 14, 2006 (pg. 8).

In support of this notification, we submit the following documents:

1. Completed Application for Registration (EPA Form 8570-1)
2. One (1) copy of theET-022 labeling with changes tracked
3. One (1) copy of the ET-022 labeling with changes incorporated
4. Letter of Authorization

Please feel free to call me if you have any questions or need any additional information.

Sincerely,

Michael Kellogg

Enclosures

ETIGRA™

January 14, 2007

To Whom It May Concern:

RE: Letter of Authorization

Dear Sir or Madam:

Please let this letter serve to confirm that Pyxis Regulatory Consulting, Inc. is authorized to act as agents for Etigra, LLC (EPA Company Number 81959), before the U.S. Environmental Protection Agency and state governmental agencies in all matters regarding our pesticide registrations pursuant to the Federal Insecticide, Fungicide and Rodenticide Act ("FIFRA"), 7 U.S.C. § 136 et seq. and state law.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Randall V. Canady
Chief Operating Officer

cc: Pyxis Regulatory Consulting, Inc.