

62719-522

06/22/2006

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Please read instructions on reverse before completing form.

Form Approved, OMB No. 2070-0060, Approval expires 2-28-95



United States
Environmental Protection Agency
Washington, DC 20460

☐ Registration
☐ Amendment
☒ Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number Dow AgroSciences/62719-522	2. EPA Product Manager George T. LaRocca	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Dow AgroSciences/Proaxis EX	PM# 13	
5. Name and Address of Applicant (Include ZIP Code) Dow AgroSciences LLC 9330 Zionsville Road Indianapolis, IN 46268 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____	NOTIFICATION JUN 2 2006
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.	
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.	

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

Changes by Notification: 1. Ag Uses, Ornamentals: Deleted rate table under Remarks; 2. Ag Uses, Turf: Deleted rate table under Remarks; 3. Non-Ag Uses, Turf and Ornamental: Deleted Mixing Chart for Ornamentals and Mixing Chart for Turf.

Section - III

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

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Kimberly S. Gilbert	Title Regulatory Manager	Telephone No. (Include Area Code) (317) 337-4665 (fax: 317-337-4649)
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamp)
2. Signature 	3. Title Regulatory Manager	
4. Typed Name Kimberly S. Gilbert (ksgilbert@dow.com)	5. Date April 27, 2006	

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Proaxis™ EX

EPA Reg. No. 62719-522

Registration Notes:

Source label text based on EPA-accepted copy dated September 19, 2005 and notification coded "B1B / Proaxis EX / MSTR Notif / 03-10-06."

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™Trademark of Pytech

Base Label:

NOTIFICATION

(Logo) Pytech

JUN 2 2006

Restricted Use Pesticide**Due to toxicity to fish and aquatic organisms.**

For retail sale to and use only by Certified Applicators, or persons under their direct supervision, and only for those uses covered by the Certified Applicator's certification.

Proaxis™ EX**Insecticide**

For control of insect pests in alfalfa, canola, cole crops, corn, cotton, fruiting vegetables, legume vegetables, lettuce, onion, peanut, pome fruits, rice, sorghum (grain), soybean, stone fruits, sugarcane, sunflower, tobacco, tree nuts including pecans, wheat, triticale, conifer and deciduous trees (plantations, nurseries and seed orchards), non-cropland areas adjacent to crops, ornamentals (greenhouses, shadehouses and nurseries), and turf (sod farms and grass seed farms).

For use as a general surface, crack and crevice, or spot treatment in, on, and around buildings and structures and their immediate surroundings, and on modes of transport.

For control of termites, carpenter ants, carpenter bees and wood infesting beetles

For use on indoor or outdoor areas where turf and ornamentals are grown such as residential landscape areas, non-residential landscapes (around institutional, public, commercial and industrial buildings, parks, recreational areas), athletic fields, golf course fairways, greens, greens aprons, and tee areas

Active Ingredient:

Gamma-cyhalothrin: Cyclopropanecarboxylic acid, 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethyl,cyano(3-phenoxyphenyl) methyl ester.....5.9%

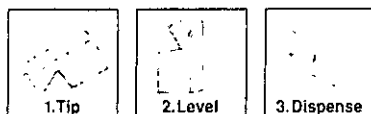
Inert Ingredients94.1%

Total100.0%

Contains 0.5 lb of active ingredient per gallon

Contains petroleum distillate.

[Editor's Note: The following Container Use Directions should be included on the label if product is packaged in a 1 pint Tip 'n Measure bottle.]

Container Use Directions

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1. Remove the measuring chamber cap and induction seal. Replace cap and securely tighten. Tip container until liquid fills measuring chamber.
2. Return container to level position. No adjustment is needed.
3. Remove measuring chamber cap and dispense into proper application equipment.

For multiple dose measuring: Remove fill chamber cap and dispense according to markings on side of bottle.

Keep Out Of Reach Of Children

CAUTION PRECAUCION

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

Precautionary Statement

Hazards to Humans and Domestic Animals

Causes Moderate Eye Irritation • Harmful If Swallowed • Prolonged Or Frequently Repeated Skin Contact May Cause Allergic Reaction In Some Individuals

Avoid contact with eyes, skin, or clothing.

Personal Protective Equipment (PPE)

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

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or Viton ≥ 14 mils
- Shoes plus socks
- Protective eyewear

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

Engineering Controls

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 thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.
- Remove and wash contaminated clothing before reuse.

First Aid

If swallowed: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person.

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.

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Note to Physician: Induced vomiting as first aid for this substance may result in increased risk of chemical pneumonia or pulmonary edema caused by aspiration of the hydrocarbon solvent. Vomiting should be induced only under professional supervision.

Skin exposure may also result in a sensation described as a tingling, itching, burning, or prickly feeling. Onset may occur immediately to 4 hours after exposure and may last 2 to 30 hours, without damage. Wash exposed areas once with soap and water. Relief from the skin sensation may be obtained by applying an oil-based cream.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic organisms and toxic to wildlife. 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 apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash waters.

This product is highly toxic to bees exposed to direct treatment or residues on 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.

Physical and Chemical Hazards

Do not use or store near heat or open flame.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to label booklet for Directions for Use including Storage and Disposal.

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

Agricultural Chemical: Do not ship or store with food, feeds, drugs, or clothing.

Shake Well Before Using

EPA Reg. No. 62719-522

EPA Est. _____

™Trademark of Pytech

Dow AgroSciences LLC • Indianapolis, IN 46268 U.S.A.

Net Contents __ gal

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Label Booklet:

(Logo) Pytech

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Inert Ingredients94.1%

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Contains 0.5 lb of active ingredient per gallon

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Agricultural Use Requirements

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Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to inside label booklet for additional Precautionary Statements and Directions for Use including Storage and Disposal.

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.**

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EPA Est. _____

TMTrademark of Pytech

Dow AgroSciences LLC • Indianapolis, IN 46268 U.S.A.

Net Contents __ gal

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-

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-

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Precautionary Statements

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Causes Moderate Eye Irritation • Harmful If Swallowed • Prolonged Or Frequently Repeated Skin Contact May Cause Allergic Reaction In Some Individuals

Avoid contact with eyes, skin, or clothing.

Personal Protective Equipment (PPE)

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

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or Viton ≥14 mils
- Shoes plus socks
- Protective eyewear

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

Engineering Controls

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:

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Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

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Environmental Hazards

This pesticide is extremely toxic to fish and aquatic organisms and toxic to wildlife. 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 apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash waters.

This product is highly toxic to bees exposed to direct treatment or residues on 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.

Physical and Chemical Hazards

Do not use or store near heat or open flame.

Directions for Use

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

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.

Agricultural Use Requirements

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 (REI). 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 24 hours.

PPE required for early entry into 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, such as barrier laminate or Viton ≥ 14 mils
- 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 (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Entry Restrictions for Non-WPS Uses: Keep unprotected persons out of treated areas until sprays have dried.

Storage and Disposal

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

Pesticide Storage: Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with sand, earth or synthetic absorbent. Remove to chemical waste area. **Do not allow product to freeze.**

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use

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according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

Container Disposal: Triple rinse (or equivalent); then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

General Information

Proaxis™ EX insecticide is a microencapsulated synthetic pyrethroid insecticide that controls insects by contact and ingestion.

General Use Precautions and Restrictions

Resistance Management

Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or State agricultural authorities for details.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area.

Ag Uses

Proaxis EX is for control of insect pests in alfalfa, canola, cole crops, corn, cotton, fruiting vegetables, legume vegetables, lettuce, onion, peanut, pome fruits, rice, grain sorghum, soybean, stone fruits, sugarcane, sunflower, tobacco, tree nuts including pecans, wheat, triticale, conifer and deciduous trees (plantations, nurseries and seed orchards), non-cropland areas adjacent to crops, ornamentals (commercial greenhouses, shadehouses, nurseries), and turf (sod farms and grass seed farms).

Initial and residual insect control is contingent upon thorough crop coverage. Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage. Apply in a minimum of 2 gallons per acre by air or 10 gallons per acre by ground unless otherwise specified in this label. When foliage is dense or pest pressure is high (heavier insect or egg pressure, larger larval stages), use of higher application volumes and/or higher label use rates may improve initial and residual control.

For cutworm control, Proaxis EX may be applied before, during, or after planting. For soil incorporated applications, use higher rates in rate range for improved control.

Spray Drift Precautions

Observe the following precautions when spraying in the vicinity of aquatic areas such as lakes; reservoirs; rivers; permanent streams, marshes, or natural ponds; estuaries; and commercial fish farm ponds.

- Do not apply by ground within 25 feet, or by air within 150 feet of lakes; reservoirs, rivers; permanent streams, marshes, potholes, or natural ponds; estuaries; and commercial fish farm ponds. Increase the buffer zone to 450 feet when ultra-low volume (ULV) or very fine spray (per ASAE S-572) application is made.
- All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

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- For aerial applications, the spray boom and nozzle locations should minimize drift caused by wing tip vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or rotor diameter.
- Use the largest droplet size consistent with good pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.
- Spray should be released at the lowest height consistent with pest control and flight safety.
- Make aerial or ground applications when the wind velocity favors on-target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.
- Risk of exposure to aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.
- Do not cultivate within 10 feet of the aquatic area so as to allow growth of a vegetative filter strip.
- Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic areas. Avoid spraying during conditions of low humidity and /or high temperatures.
- Do not make aerial or ground application during temperature inversions. Inversions are characterized by stable air and increasing temperature with height above the ground. Mist or fog may indicate the presence of a temperature inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.
- In the State of New York, a 25 ft vegetated, non-cropped buffer strip not traversed by drainage tiles must be maintained between a treated field and a coastal salt marsh or stream that drains into a coastal salt marsh, for both aerial or ground application. For aerial applications, the 25 ft vegetated non-cropped buffer strip for runoff protection would be part of the larger 50 ft buffer strip (or 450 ft buffer strip for ULV application) required for spray drift.

Shielded Sprayers: Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

Air Assisted (Air Blast) Field Crop Sprayers: It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

Note: Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment manufacturer and/or State Extension Service.

Air Assisted (Air Blast) Orchard/Tree Nursery: In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift

- Adjust deflectors and aiming devices so that spray is only directed into the canopy.
- Spray must be shut off during row turns.
- Block off upward pointed nozzles when there is no over-hanging canopy.
- Use only enough air volume to penetrate the canopy and provide good coverage.
- Do not allow spray to go beyond the edge of the cultivated area. Spray the outside downwind row(s) only from outside the planting.

Tank Mix Application

When tank mixing with any other agricultural products, always add Proaxis EX last. Fill the tank with one-half to two-thirds volume of the mixing diluent. Make sure all other products are fully dispersed in the mixing diluent before adding Proaxis EX to the tank. Add the remainder of the mixing diluent volume. For best results, mixing and spray equipment should have continuous agitation. Follow the precautions and limitations of the most restricted product in the tank mixture.

While Proaxis EX has good flexibility for tank mixing with other agricultural products, a jar test for physical compatibility is recommended for untried mixtures using proper ratios and mixing sequences of all ingredients to be included in the mixture.

Proaxis EX is an aqueous-based formulation. No type of non-emulsifiable oils should be used in combination with Proaxis EX. If adjuvants are used, use only: Nonionic Surfactant (NIS) containing at least 75% surface agent or non-phytotoxic crop oil concentrate (COC), including once-refined vegetable oil concentrate (VOC), or methylated sunflower oils (MSO) containing a minimum of 17% emulsifier.

Adjuvants other than NIS or COC may be used providing the product meets the following criteria:

1. Contains only EPA exempt ingredients.
2. Is non-phytotoxic to the target crop.
3. Is compatible in mixture. (May be established through a jar test.)
4. Is supported locally for use with Proaxis EX on the target crop through proven field trials and through university and extension recommendations.

In addition, the following may be used as diluents:

- Crop oil concentrate
- Methylated sunflower oils
- Urea-ammonium nitrate

Do **not** use the following in combination with Proaxis EX as diluents or adjuvants:

- Non-emulsifiable oils
- Diesel fuel
- Straight mineral oil

Chemigation

Apply Proaxis EX at rates and timing described elsewhere in this label. As local recommendations differ, consult your local State Extension Service or other local experts for recommendations on adjuvant or diluent types (see Tank Mix Application), rates, and mixing instructions. These recommendations should be proven, through university and extension field trials, to be effective with Proaxis EX applied by chemigation.

Sprinkler Irrigation Application

Check the irrigation system to ensure uniform application of water to all areas. Thorough coverage of foliage is required for good control. Good agitation in the pesticide supply tank should be maintained prior to and during the entire application period.

Apply by injecting Proaxis EX into the irrigation system using a metering device that will introduce a constant flow and by distributing the product to the target area in 0.1 to 0.2 acre-inch of water. In general, use the least amount of water required for proper distribution and coverage. The product should be injected into the center of the main irrigation line ahead of at least one right angle turn in the line to ensure adequate dispersion or mixing in the irrigation water. Once the application is completed, flush the entire irrigation and injection system with clean water before stopping the system. In addition to the above, if application is being made during a normal irrigation set of a stationary sprinkler, the amount of Proaxis EX for the area covered should be injected into the system only during the end of the irrigation set for sufficient time to provide adequate coverage and product distribution.

Do not apply Proaxis EX through an irrigation system connected to a public water system. 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.

Use Precautions—Sprinkler Irrigation Application

1. Apply this product only through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move. Do not apply this product through any other type of irrigation system.

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2. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
3. If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts.
4. 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.
5. 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.
6. 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.
7. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back through the injection pump.
8. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve or interlock 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.
9. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
10. The irrigation line or water pump must include a functional pressure switch or interlock that will stop the water pump motor or injector when the water pressure decreases to the point where pesticide distribution is adversely affected.
11. Systems must use a chemical injector or 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.
12. Any alternatives to the above-required safety devices must conform to the list of EPA- or state agency-approved alternative devices.
13. Do not apply when wind speed favors drift beyond the area intended for treatment or nonuniform distribution of treated water.
14. Do not apply through chemigation systems connected to public water systems.

Rate Conversion Chart			
lb ai/acre	fl oz/acre	pints/acre	treated acres/gallon
0.0075	1.92	0.12	66
0.01	2.56	0.16	50
0.0125	3.2	0.2	40
0.015	3.84	0.24	33
0.02	5.12	0.32	25

Maximum Seasonal Use Rates for Gamma- and Lambda-Cyhalothrin on Labeled Crops:

Crop	Maximum Rate for Either Product Used Alone (lb/ai/acre) [†]	
	Gamma-cyhalothrin (e.g., Proaxis EX)	Lambda-cyhalothrin ^{††}
alfalfa	0.06	0.12
canola	0.045	0.09
cole crops	0.12	0.24
corn	0.06	0.12
sweet corn	0.24	0.48
cotton	0.1	0.2
fruiting vegetables (except cucurbits)	0.18	0.36

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legume vegetables	0.06	0.12
lettuce (head and leaf)	0.15	0.3
onion (bulb) and garlic	0.12	0.24
peanut	0.06	0.12
pome fruits	0.1	0.2
rice	0.06	0.12
sorghum (grain)	0.04	0.08
soybean	0.03	0.06
stone fruits	0.1	0.2
sugarcane	0.08	0.16
sunflower	0.06	0.12
tobacco (air dried)	0.045	0.09
tree nuts including pecans	0.08	0.16
wheat, wheat hay and triticale	0.03	0.06
conifer and deciduous trees (plantations, nurseries and seed orchards)	0.12	0.24
non-cropland areas adjacent to crops	0.1	0.2
ornamentals	0.28	0.36
turf	0.28	0.36

[†] **Note:** If both gamma-cyhalothrin and lambda-cyhalothrin are used on a crop during the same crop growing season, the amounts of each that can be used can be calculated as shown in the following examples:

Example 1: If the maximum use rate for lambda-cyhalothrin = 0.12 lb ai/acre/year and 0.06 lb ai has been applied, $(0.12 - 0.06) \div 2 = 0.03$ lb ai of gamma-cyhalothrin could be applied during the remainder of the crop use season.

Example 2: If the maximum use rate for gamma-cyhalothrin = 0.06 lb ai/acre/year and 0.03 lb ai has been applied, $(0.06 - 0.03) \times 2 = 0.06$ lb ai of lambda-cyhalothrin could be applied during the remainder of the crop use season.

^{††} Includes any lambda-cyhalothrin product approved for crop uses.

Specific directions for use for labeled uses of Proaxis EX are provided in the following tables (crops and/or use sites are listed alphabetically):

Alfalfa, Including Alfalfa Grown for Seed		
Note: Numbers in parentheses refer to footnotes below table.		
Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
alfalfa caterpillar cutworm spp. green cloverworm leafhopper spp. looper spp. threecornered alfalfa hopper velvetbean caterpillar webworm spp.	0.0075 - 0.0125	1.92 - 3.2

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alfalfa seed chalcid (adult)	0.01 - 0.015	2.56 - 3.84
alfalfa weevil		
armyworm		
bean leaf beetle (adult)		
blister beetle spp.		
blue alfalfa aphid		
clover leaf weevil spp.		
clover root borer (adult)		
clover root curculio spp. (adult)		
clover stem borer (adult)		
corn earworm		
cowpea aphid		
cowpea curculio (adult)		
cowpea weevil (adult)		
cucumber beetle spp. (adult)		
Egyptian alfalfa weevil		
fall armyworm (1)		
grape colaspis (adult)		
grasshopper spp.		
green June beetle (adult)		
green peach aphid (3)		
Japanese beetle (adult)		
meadow spittlebug		
Mexican bean beetle		
pea aphid		
pea weevil (adult)		
plant bug spp., including Lygus spp. (3)		
spotted alfalfa aphid		
stink bug spp.		
sweet clover weevil (adult)		
thrips spp.		
western yellowstriped armyworm		
whitefringed beetle spp. (adult)		
yellowstriped armyworm		
beet armyworm (1) (3)	0.015	3.84
blotch leafminer (3)		
spider mites (2)		

¹ For control of first and second instars only.² Suppression only.³ See resistance statement under General Use Precautions and Restrictions.**Remarks:**

- Apply only to fields planted to pure stands of alfalfa.
- Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage. Apply in a minimum of 2 gallons per acre by air or 10 gallons per acre by ground. When foliage is dense and/or pest populations are high, 5 to 10 gallons per acre by air or 20 gallons per acre by ground and higher label use rates are recommended. Use higher rates in rate range for increased residual control.
- Avoid application when bees are actively foraging by applying during the early morning or during the evening hours. Be aware of bee hazard resulting from a cool evening and/or morning dew. It may be

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advisable to remove bee shelters during and for 2 to 3 days following application. Avoid direct application to bee shelters.

- Do not apply more than 0.015 lb active ingredient (0.24 pint) per acre per cutting. Do not apply more than 0.06 lb active ingredient (0.96 pint) per acre per season.
- **Preharvest Interval:** Do not apply within 1 day of harvest for forage or within 7 days of harvest for hay.

Canola		
Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
armyworm spp. cabbage seedpod weevil cutworm spp. diamondback moth flea beetle grasshoppers lygus bug	0.0075 - 0.015	1.92 - 3.84
cabbage aphid	0.015	3.84

Remarks:

- Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.
- **Preharvest Interval:** Do not apply within 7 days of harvest.
- Do not apply more than 0.045 lb active ingredient (0.72 pint) per acre per year.

Cole Crops

Brassica (head and stem), including but not limited to broccoli, brussels sprouts, cabbage, cavalo broccoli, cauliflower, Chinese broccoli (gai lon), Chinese cabbage (napa), Chinese mustard cabbage (gai choy) and kohlrabi

Note: Numbers in parentheses refer to footnotes below table.

Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
alfalfa looper cabbage looper cabbage webworm cutworm spp. imported cabbageworm southern cabbageworm	0.0075 - 0.0125	1.92 - 3.2

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aphid spp. (2) (3)	0.01 - 0.015	2.56 - 3.84
armyworm		
beet armyworm (1) (3)		
corn earworm		
diamondback moth (3)		
fall armyworm (1)		
flea beetle spp.		
grasshopper spp.		
Japanese beetle (adult)		
leafhopper spp.		
meadow spittlebug		
plant bug spp., including Lygus spp. (3)		
spider mite spp. (2)		
stink bug spp.		
thrips spp. (2)		
vegetable weevil (adult)		
whitefly spp. (2) (3)		
yellowstriped armyworm		

¹ For control of first and second instars only.² Suppression only.³ See resistance statement under General Use Precautions and Restrictions.**Remarks:**

- Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.
- **Preharvest Interval:** Do not apply within 1 day of harvest.
- Do not apply more than 0.12 lb active ingredient (1.92 pints) per acre per season.

Corn (At Plant Soil Application)		
Field Corn, Popcorn, Seed Corn, Sweet Corn		
Note: Numbers in parentheses refer to footnotes below table.		
Target Pests	Rate	
corn rootworm larvae	0.0025 lb ai per 1000 ft of row [†]	0.66 fl oz per 1000 ft of row [†]
Mexican		
northern		
southern		
western		
cutworm spp.		
lesser cornstalk borer		
red imported fire ant (1)		
seedcorn beetle		
seedcorn maggot		
white grub spp.		
wireworm spp. (1)		

[†] Suppression only.**Remarks:**

- **Banded Applications:** Apply at planting as a 5 to 7 inch T-band sprayed across the open seed furrow between the furrow opener and the press wheel or as a band application behind the press wheel.

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- **In-Furrow Applications:** Apply into the seed furrow through spray nozzles or microtubes, behind the planter furrow opener and in front of the press wheel.
- Apply a minimum spray volume of 3 gallons per acre.
- **Preharvest Interval:** Do not harvest or graze livestock or cut treated crops for feed within 21 days of at plant application.
- Do not apply more than 0.045 lb active ingredient (0.72 pint) per acre per crop at plant. For field corn, popcorn, and seed corn, do not apply more than 0.06 lb active ingredient per acre per crop from at plant and foliar applications. For sweet corn, do not apply more than 0.24 lb active ingredient per acre per crop from at plant and foliar applications.

† Fluid Ounces and Pounds Active Ingredient per Acre of Proaxis EX Applied at 0.66 fl oz per 1000 ft of Row for Various Row Spacings						
Row spacing	40"	38"	36"	34"	32"	30"
Linear ft/acre	13,068	13,756	14,520	15,374	16,335	17,424
Fluid oz/acre	8.6	9.1	9.6	10.1	10.8	11.5
Pounds ai/acre	0.034	0.035	0.037	0.04	0.042	0.045

Corn (Foliar Application)		
Field Corn, Popcorn, Seed Corn		
Note: Numbers in parentheses refer to footnotes below table.		
Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
corn earworm (1) cutworm spp. green cloverworm meadow spittlebug western bean cutworm (1)	0.0075 - 0.0125	1.92 - 3.2
armyworm (2) bean leaf beetle cereal leaf beetle corn leaf aphid (3) English grain aphid (3) European corn borer (1) fall armyworm (2) flea beetle spp. grasshopper spp. hop vine borer (1) Japanese beetle (adult) Mexican corn rootworm beetle (adult) northern corn rootworm beetle (adult) oat bird-cherry aphid (3) sap beetle (adult) southern corn rootworm beetle (adult) southwestern corn borer (1) stalk borer (1) stink bug spp. tobacco budworm (1) (4) webworm spp. western corn rootworm beetle (adult) yellowstriped armyworm (2)	0.01 - 0.015	2.56 - 3.84

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beet armyworm (2) (4)	0.015	3.84
chinch bug		
greenbug (3) (4)		

¹ For control before larvae bore into the plant stalk or ear.

² For control of first and second instars only.

³ Suppression only.

⁴ See resistance statement under General Use Precautions and Restrictions.

Remarks:

- Apply as required by scouting, or locally prescribed corn growth stages, usually at intervals of 7 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds or other locally recommended methods.
- Apply with ground or air equipment, using sufficient water and application methods to obtain full coverage of target location. When applying by air, apply in a minimum of 2 gallons of water per acre.
- For chinch bug control, begin applications when bugs migrate from small grains or grass weeds to small corn. Direct spray to the base of corn plants. Repeat applications at 3- to 5-day intervals if needed. Proaxis EX may only suppress heavy infestations and/or subsequent migrations.
- For control of adult corn rootworm beetles (*Diabrotica* species) as part of an aerial-applied corn rootworm control program, use upper end of rate range at 3.84 fl oz per acre (0.015 lb active ingredient per acre).
- **Preharvest Interval:** Do not apply within 21 days of harvest.
- Do not allow livestock to graze in treated areas or harvest treated corn forage as food for meat or dairy animals within 1 day after last treatment. Do not feed treated corn fodder or silage to meat or dairy animals within 21 days after the last treatment.
- Do not apply more than 0.06 lb active ingredient (0.96 pint) per acre per crop from at plant and foliar applications. Do not apply more than 0.03 lb active ingredient (0.48 pint) after silk initiation. Do not apply more than 0.015 lb active ingredient (0.24 pint) after corn has reached the milk stage (yellow kernels with milky fluid).

Sweet Corn (Foliar Application)

Note: Numbers in parentheses refer to footnotes below table.

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Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
aphid spp. (2) (3) aster leafhopper beet armyworm (1) (3) chinch bug common cornstalk borer corn earworm cutworm spp. European corn borer fall armyworm (1) flea beetle spp. grasshopper spp. Japanese beetle (adult) Mexican corn rootworm beetle (adult) northern corn rootworm beetle (adult) sap beetle (adult) southern armyworm (1) southern corn rootworm beetle (adult) southwestern corn borer spider mite spp. (2) stink bug spp. tarnished plant bug webworm spp. western bean cutworm western corn rootworm beetle (adult) yellowstriped armyworm (1)	0.01 - 0.015	2.56 - 3.84
corn silkfly (adult) (2)	0.015	3.84

¹ For control of first and second instars only.

² Suppression only.

³ See resistance statement under General Use Precautions and Restrictions.

Remarks:

- Apply as required by scouting, or locally prescribed corn growth stages, usually at intervals of 4 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds or other locally recommended methods and should be targeted for control before insects enter the stalk or ear.
- Apply with ground or air equipment, using sufficient water and application methods to obtain full coverage of foliage and ears (if present). When applying by air, apply in a minimum of 2 gallons of water per acre.
- For control of adult corn rootworm beetles (*Diabrotica* species) as part of an aerial-applied corn rootworm control program, use a minimum of 3.2 fl oz per acre (0.0125 lb active ingredient per acre).
- **Preharvest Interval:** Do not apply within 1 day of harvest.
- Do not allow livestock to graze in treated areas or harvest treated corn forage as food for meat or dairy animals within 1 day after last treatment. Do not feed treated corn fodder or silage to meat or dairy animals within 21 days after the last treatment.
- Do not apply more than 0.24 lb active ingredient (3.84 pints) per acre per crop from at plant and foliar applications.

Cotton

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Note: Numbers in parentheses refer to footnotes below table.		
Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
cutworm spp. soybean thrips tobacco thrips	0.0075 - 0.01	1.92 - 2.56
cabbage looper cotton fleahopper cotton leafperforator cotton leafworm lygus bug spp. (3) pink bollworm (adult) saltmarsh caterpillar	0.01 - 0.015	2.56 - 3.84
bandedwing whitefly (2) (3) beet armyworm (1) (3) boll weevil brown stink bug cotton aphid (2) (3) cotton bollworm European corn borer fall armyworm green stink bug southern green stink bug sweetpotato whitefly (2) (3) tobacco budworm (3) twospotted spider mite (2)	0.0125 - 0.02	3.20 - 5.12

¹ For control of first and second instars only.² Suppression only.³ See resistance statement under General Use Precautions and Restrictions.**Remarks:**

- Apply as required by scouting, usually at intervals of 5 to 7 days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage.
- Applications may also be made with equipment adapted and calibrated for ULV sprays. Proaxis EX may be mixed with once-refined vegetable oil and applied in a minimum of at least 1 quart of finished spray per acre.
- Under light bollworm/budworm infestation levels, 0.01 lb active ingredient per acre may be applied in conjunction with intense field monitoring.
- For boll weevil control, spray on a 3- to 5-day schedule.
- When applied according to label directions for control of cotton bollworm and tobacco budworm, Proaxis EX also provides ovicidal control of unhatched *Heliothis* spp. eggs.
- **Preharvest Interval:** Do not apply within 21 days of harvest.
- Do not graze livestock in treated areas.
- Do not apply more than 1.6 pints (0.1 lb active ingredient) per acre per season.
- Do not make more than a total of 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season.

Fruiting Vegetables (Except Cucurbits)

Tomato, tomatillo, peppers (bell and non-bell), eggplant,
ground cherry, pepino

Note: Numbers in parentheses refer to footnotes below table.

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Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
cabbage looper cutworm spp. hornworm spp.	0.0075 - 0.0125	1.92 - 3.2
aphid spp. (2) (3) beet armyworm (1) (3) blister beetle spp. Colorado potato beetle (3) cucumber beetle spp. (adult) European corn borer (4) fall armyworm (1) flea beetle spp. grasshopper spp. Japanese beetle (adult) leafhopper spp. leafminer spp. (2) meadow spittlebug pepper weevil (adult) (2) plant bug spp. southern armyworm (1) spider mite spp. (2) stalk borer (4) stink bug spp. thrips (3) tobacco budworm (3) tomato fruitworm tomato pinworm tomato psyllid (2) (3) vegetable weevil (adult) whitefly spp. (2) (3) yellowstriped armyworm (1)	0.01 - 0.015	2.56 - 3.84

¹ For control of first and second instars only.

² Suppression only.

³ See resistance statement under General Use Precautions and Restrictions.

⁴ For control before larvae bore into the plant stalk or fruit.

Remarks:

- Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.
- **Preharvest Interval:** Do not apply within 5 days of harvest.
- Do not apply more than 0.18 lb active ingredient (2.88 pints) per acre per season.

Legume Vegetables

Note: Numbers in parentheses refer to footnotes below table.

Crop/Variety	Target Pests	Rate	
		(lb ai/acre)	(fl oz/acre)
edible podded (only) <i>Canavalia gladiata</i> - sword bean <i>Canavalia ensiformis</i> - jackbean <i>Glycine max</i> - soybean - immature seed	cutworm spp. green cloverworm imported cabbageworm Mexican bean beetle saltmarsh caterpillar velvetleaf caterpillar	0.0075 - 0.0125	1.92 - 3.2
edible podded, succulent shelled or dried shelled <i>Phaseolus</i> spp. - includes: field, kidney, lima, navy, pinto, runner, snap, tepary and wax beans <i>Vigna</i> spp. - includes: adzuki, asparagus, moth, mung, rice, urd and yardlong beans, black-eye pea, catjang, Chinese longbean, cowpea, crowder pea, and southern pea <i>Pisum</i> spp. - includes dwarf, edible-pod, English, field, garden, green, snow and sugar snap peas <i>Cajanus cajan</i> - pigeon peas	alfalfa caterpillar aphid spp. (4) armyworm (2) bean leaf beetle bean leafskeletonizer blister beetle spp. corn earworm corn rootworm beetle spp. (adult) cucumber beetle spp. (adult) curculio and weevil spp. (1) (foliage and pod feeding adults and larvae) European corn borer (1) fall armyworm (2) flea beetle spp. (adult) flea hopper spp. grasshopper spp. Japanese beetle (adult) leafhopper spp. leaf-tier spp. looper spp. meadow spittlebug painted lady butterfly (larvae) plant bug spp. including lygus spp. (4) stalk borer (1) stink bug spp. threecornered alfalfa hopper thrips spp. (4) tobacco budworm (4) webworm spp. western bean cutworm western yellowstriped armyworm (2) yellowstriped armyworm (2)	0.01 - 0.015	2.56 - 3.84
succulent shelled or dried shelled <i>Vicia faba</i> - broadbean (favabean)	beet armyworm (2) (3) (4) soybean looper (3) (4) lesser cornstalk borer (3) leafminer spp. (3) (4) whitefly spp. (3) (4) spider mite spp. (3)	0.015	3.84
dried shelled (only) <i>Lupinus</i> spp. - includes: grain, sweet, white and sweet white lupines <i>Cicer arietinum</i> - chickpea (garbanzo bean) <i>Cyamopsis tetragonoloba</i> - guar <i>Lablab purpureus</i> - lablab bean (hyacinth bean) <i>Lens esculata</i> - lentils			

¹ For control before larvae bore into the plant stalk or pods.

² For control of first and second instars only.

³ Suppression only.

⁴ See resistance statement under General Use Precautions and Restrictions.

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Remarks:

- Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.
- **Preharvest Interval:**
For edible podded and succulent shelled legume vegetables, do not apply within 7 days of harvest.
For dried shelled legume vegetables, do not apply within 21 days of harvest.
- Do not apply more than 0.06 lb active ingredient (0.96 pint) per acre per season.
- For succulent and dried shelled peas and bean, do not graze livestock in treated areas or harvest vines for forage or hay.

Lettuce (Head and Leaf)		
Note: Numbers in parentheses refer to footnotes below table.		
Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
alfalfa looper cabbage looper cutworm spp. green cloverworm imported cabbageworm saltmarsh caterpillar	0.0075 - 0.0125	1.92 - 3.2
aphid spp. (2) (3) armyworm beet armyworm (1) (3) corn earworm diamondback moth (3) European corn borer fall armyworm (1) flea beetle spp. grasshopper spp. Japanese beetle (adult) leafhopper spp. meadow spittlebug plant bug spp., including Lygus spp. (3) southern armyworm spider mite spp. (2) stink bug spp. tobacco budworm (3) vegetable weevil (adult) whitefly spp. (2) (3)	0.01 - 0.015	2.56 - 3.84

¹ For control of first and second instars only.² Suppression only.³ See resistance statement under General Use Precautions and Restrictions.**Remarks:**

- Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.
- **Preharvest Interval:** Do not apply within 1 day of harvest.

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- Do not apply more than 0.15 lb active ingredient (2.4 pints) per acre per season.

Onion (Bulb) and Garlic		
Note: Numbers in parentheses refer to footnotes below table.		
Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
cutworm spp. leafminer spp. (adult) onion maggot (adult) seedcorn maggot (adult)	0.0075 - 0.0125	1.92 - 3.2
aphid spp. (2) armyworm spp. (1) flower thrips (2) onion thrips plant bug spp. stink bug spp. tobacco thrips western flower thrips (2) (3)	0.01 - 0.015	2.56 - 3.84

¹ For control of first and second instars only.

² Suppression only.

³ See resistance statement under General Use Precautions and Restrictions.

Remarks:

- Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Use the higher label rates as thrips population increases and avoid rescue situations.
- Apply with ground or air equipment, using sufficient water and application methods to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.
- For control of thrips by aerial application, the addition of 1% COC v/v, 0.25% NIS v/v or a silicone adjuvant may enhance the deposition of the spray and increase plant coverage. Follow adjuvant manufacturer's use directions.
- Preharvest Interval:** Do not apply within 14 days of harvest.
- Do not apply more than 0.12 lb active ingredient (1.92 pints) per acre per season.

Peanut		
Note: Numbers in parentheses refer to footnotes below table.		
Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
cutworm spp. green cloverworm potato leafhopper red-necked peanut worm velvetbean caterpillar	0.0075 - 0.0125	1.92 - 3.2
bean leaf beetle corn earworm fall armyworm (1) grasshopper spp. southern corn rootworm (adult) stink bug spp. tobacco thrips vegetable weevil whitefringed beetle (adult)	0.01 - 0.015	2.56 - 3.84

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aphid spp. (2)	0.015	3.84
beet armyworm (1) (3)		
lesser cornstalk borer (2)		
soybean looper (2) (3)		
spider mite spp. (2)		

¹ For control of first and second instars only.

² Suppression only.

³ See resistance statement under General Use Precautions and Restrictions.

Remarks:

- Apply as required by scouting, usually at intervals of 7 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.
- **Preharvest Interval:** Do not apply within 14 days of harvest.
- Do not apply more than 0.06 lb active ingredient (0.96 pint) per acre per season.

Pome Fruits		
Apple, crabapple, loquat, mayhaw, oriental pear, pear, quince		
Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
apple aphid	0.01 - 0.02	2.56 - 5.12
apple maggot (adult)		
cherry fruit fly spp. (adult)		
codling moth		
green fruitworm		
Japanese beetle		
leafhopper spp.		
leafroller spp.		
lesser appleworm		
Oriental fruit moth		
pear psylla		
pear sawfly		
periodical cicada		
plant bug spp.		
plum curculio		
rosy apple aphid		
San Jose scale (fruit infestations only)		
stink bug spp.		
tent caterpillar spp.		
tentiform leaf miner spp.		
tufted apple budworm		

Remarks:

- Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage or target area. When applying by air, apply in a minimum of 5 gallons of water per acre.
- **Preharvest Interval:** Do not apply within 21 days of harvest.
- Do not apply more than 0.1 lb active ingredient (1.6 pints) per acre per year. Do not apply more than 0.08 lb active ingredient (1.28 pints) per acre per year post bloom.

Rice		
Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
chinch bug	0.0125 - 0.02	3.2 - 5.12
fall armyworm		
grasshopper spp.		
greenbug		
leafhopper spp.		
oat bird-cherry aphid		
rice stink bug		
rice water weevil (adult)		
true armyworm		
yellowstriped armyworm		

Remarks:

- Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. Determine the need for repeat applications, usually at intervals of 5 to 7 days, by scouting.
- Proaxis EX can be used safely when propanil products are being used for weed control.
- Apply by air or by ground equipment, using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water (or total carrier volume) per acre, but ensure sufficient volume is used to provide adequate coverage. The addition of emulsifiable crop oil at 1 pint per acre when lower aerial application volumes are used is recommended to improve coverage, reduce evaporation, and improve efficacy.
- For control of rice water weevil in dry seeded rice, make a foliar application as indicated by scouting for the presence of adults and/or feeding scars, usually within a timeframe of 0 to 5 days after permanent flood establishment. Do not exceed 10 days from starting permanent flood until insecticide application unless scouting indicates weevils have not been previously present. Adults may also be treated at later stages of rice development to reduce overwintering populations.
- For control of rice water weevil in water seeded rice, make the first foliar application after pinpoint flood as indicated by scouting for the presence of adults and/or feeding scars usually when rice has emerged 0.5 inch above the waterline. Under conditions of prolonged migration into the field, start field scouting for rice water weevil adults and/or feeding scars 3 to 5 days after the initial treatment and, if needed, apply a second application within 7 to 10 days of the first application. Adults may also be treated at later stages of rice development to reduce overwintering populations.
- **California:** In addition to above directions for control of rice water weevil in water seeded rice, Proaxis EX may be applied at the 1 to 3 leaf growth stage, with the majority at the 2 leaf growth stage. Adults are vulnerable on levees and in the water. Larvae are vulnerable while feeding on the leaf prior to entering the soil. Monitor for adults, based upon field history and density of population. Monitor field edges and levee areas for adults. Treat in the following manner: a) spray the inside perimeter of the field, or b) spray the entire field.
- Greenbug is known to have many biotypes. Proaxis EX may provide only suppression. If satisfactory control is not achieved with the first application of Proaxis EX, a resistant biotype may be present. Use alternate chemistry for control.
- Do not release flood water within 7 days of an application.
- Do not apply more than 0.06 lb active ingredient (0.96 pint) per acre per season. Do not apply more than 0.04 lb active ingredient (0.64 pint) per acre within 28 days of harvest or more than 0.02 lb active ingredient (0.32 pint) per acre within 21 days of harvest.
- **Preharvest Interval:** Do not apply within 21 days of harvest.
- Do not use treated rice fields for the aquaculture of edible fish and crustaceans.
- Do not apply as an ultra-low volume (ULV) spray.

Sorghum (Grain)

Note: Numbers in parentheses refer to footnotes below table.

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Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
cutworm spp. sorghum midge	0.0075 - 0.01	1.92 - 2.56
armyworm beet armyworm (1) (3) corn earworm European corn borer (2) fall armyworm (1) flea beetle spp. grasshopper spp. lesser cornstalk borer (2) southwestern corn borer (2) stink bug spp. webworm spp. yellowstriped armyworm (1)	0.01 - 0.015	2.56 - 3.84
chinch bug	0.015	3.84

¹ For control of first and second instars only.

² For control before larvae bore into the plant stalk.

³ See resistance statement under General Use Precautions and Restrictions.

Remarks:

- Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment, using sufficient water and application methods to obtain full coverage of target location. When applying by air, apply in a minimum of 2 gallons of water per acre.
- For sorghum midge control, begin applications when 25% of the sorghum heads have emerged and are in tip bloom. Repeat applications at 5-day intervals if needed.
- For chinch bug control, begin applications when bugs migrate from small grains or grass weeds to small sorghum. Direct spray to the base of sorghum plants. Repeat applications at 3- to 5-day intervals if needed. Proaxis EX may only suppress heavy infestations and/or subsequent migrations.
- **Preharvest Interval:** Do not apply within 30 days of harvest.
- Do not apply more than 0.04 lb active ingredient (0.64 pint) per acre per season. Do not apply more than 0.03 lb active ingredient (0.48 pint) per acre per season after crop emergence. Do not apply more than 0.01 lb active ingredient (0.16 pint) per acre per season once crop is in soft dough stage.

Soybean

Note: Numbers in parentheses refer to footnotes below table.

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Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
bean leaf beetle cabbage looper corn earworm cutworm spp. green cloverworm Mexican bean beetle Mexican corn rootworm beetle (adult) northern corn rootworm beetle (adult) painted lady (thistle) caterpillar potato leafhopper saltmarsh caterpillar southern corn rootworm beetle (adult) soybean aphid (4) threecornered alfalfa hopper thrips spp. velvetbean caterpillar western corn rootworm beetle (adult) woollybear caterpillar	0.0075 - 0.0125	1.92 - 3.2
armyworm (1) blister beetle spp. European corn borer fall armyworm (1) grasshopper spp. Japanese beetle (adult) plant bug spp. silverspotted skipper stink bug spp. tobacco budworm (3) webworm spp. yellowstriped armyworm (1)	0.0125 - 0.015	3.20 - 3.84
beet armyworm (1) (3) lesser cornstalk borer (2) soybean looper (2) (3) spider mite spp. (2)	0.015	3.84

¹ For control of first and second instars only.

² Suppression only.

³ See resistance statement under General Use Precautions and Restrictions.

⁴ Use a rate in the lower end of the rate range for early season applications and/or lighter populations.

Remarks:

- Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Do not graze or harvest treated soybean forage, straw, or hay for livestock feed.
- Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.
- For control of adult corn rootworm beetles (*Diabrotica* species) as part of an aerial-applied corn rootworm control program, use a minimum of 2.56 fl oz per acre (0.01 lb active ingredient per acre).

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- **Preharvest Interval:** Do not apply within 45 days of harvest.
- Do not apply more than 0.03 lb active ingredient (0.48 pint) per acre per season.

Stone Fruits		
Apricot, sweet and tart cherry, nectarine, peach, plum, chickasaw plum, damson plum, Japanese plum, plumcot, prune		
Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
American plum borer black cherry aphid cherry fruit fly spp. (adult) green fruitworm Japanese beetle leafhopper spp. leafroller spp. Oriental fruit moth peach twig borer peachtree borer spp. periodical cicada plant bug spp. plum curculio rose chafer stink bug spp. tent caterpillar spp.	0.01 - 0.02	2.56 - 5.12

Remarks:

- Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage or target area. When applying by air, apply in a minimum of 5 gallons of water per acre.
- **Preharvest Interval:** Do not apply within 14 days of harvest.
- Do not apply more than 0.1 lb active ingredient (1.6 pints) per acre per year. Do not apply more than 0.08 lb active ingredient (1.28 pints) per acre per year post bloom.

Sugarcane		
Note: Numbers in parentheses refer to footnotes below table.		
Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
rice borer (1) sugarcane beetle (adult) (2) sugarcane borer (1) yellow sugarcane aphid (3)	0.0125 - 0.02	3.2 - 5.12

¹ For control before larvae bore into the plant stalk.² Suppression only of beetles active above ground.³ See resistance statement under General Use Precautions and Restrictions.**Remarks:**

- Apply as required by scouting, usually at intervals of 7 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment, using sufficient water to obtain full coverage of the foliage or target area. When applying by air, apply in a minimum of 2 gallons of water per acre.

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- **Preharvest Interval:** Do not apply within 21 days of harvest.
- Do not apply more than 0.08 lb active ingredient (1.28 pints) per acre per season.

Sunflower		
Note: Numbers in parentheses refer to footnotes below table.		
Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
cutworm spp. sunflower beetle	0.0075 - 0.0125	1.92 - 3.2
banded sunflower moth fall armyworm (1) grasshopper spp. head-clipper weevil (adult) Japanese beetle (adult) leafhopper spp. meadow spittlebug painted lady (thistle) caterpillar seed weevil (adult) spotted cabbage looper stem weevil (adult) stink bug spp. sunflower maggot (adult) sunflower moth woollybear caterpillar	0.01 - 0.015	2.56 - 3.84
beet armyworm (1) (3) spider mite spp. (2)	0.015	3.84

¹ For control of first and second instars only.

² Suppression only.

³ See resistance statement under General Use Precautions and Restrictions.

Remarks:

- Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment, using sufficient water to obtain full coverage of sunflower heads and/or foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.
- **Preharvest Interval:** Do not apply within 45 days of harvest.
- Do not apply more than 0.06 lb active ingredient (0.96 pint) per acre per season. Do not apply more than 0.045 lb active ingredient (0.72 pint) per acre per season after bloom initiation.
- Do not apply as an ultra-low volume (ULV) spray.

Tobacco (Air Dried)

Burley tobacco and flue-cured tobacco

Note: Numbers in parentheses refer to footnotes below table.

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Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
aphid spp. (2) (3) armyworm spp. (1) blister beetle spp. cabbage looper corn earworm cucumber beetle spp. (adult) cutworm spp. grasshopper spp. Japanese beetle (adult) katydid spp. plant bug spp. (3) saltmarsh caterpillar stinkbug spp. thrips spp. (2) tobacco budworm tobacco flea beetle (adult) tobacco hornworm tree cricket spp. vegetable weevil (adult) webworm spp.	0.0075 - 0.015	1.92 - 3.84

¹ For control of first and second instars only.

² Suppression only.

³ See resistance statement under General Use Precautions and Restrictions.

Remarks:

- Apply as required by scouting, usually at intervals of 7 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment, using sufficient water to obtain full coverage of the foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.
- **Preharvest Interval:** Do not apply within 40 days of harvest.
- Do not apply more than 0.045 lb active ingredient (0.72 pint) per acre per year.

Tree Nuts

Almond, beech nut, Brazil nut, butternut, cashew, chestnut, chinquapin, filbert (hazelnut), hickory nut, macadamia nut (bush nut), black walnut, English walnut (Persian)

Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
ants chinch bug codling moth filbertworm leaffooted bug leafroller spp. navel orangeworm peach twig borer plant bug spp. stink bug spp. walnut aphid walnut husk fly spp. (adult)	0.01 - 0.02	2.56 - 5.12
Pecan		

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Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
hickory shuckworm pecan aphid spp. pecan casebearer spp. pecan phylloxera spp. pecan spittlebug pecan weevil	0.01 - 0.02	2.56 - 5.12

Remarks:

- Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage or target area. When applying by air, apply in a minimum of 5 gallons of water per acre.
- **Preharvest Interval:** Do not apply within 14 days of harvest.
- Do not apply more than 0.08 lb active ingredient (1.28 pints) per acre per year. Do not apply more than 0.06 lb active ingredient (0.96 pints) per acre per year post bloom.

Wheat, Wheat Hay, and Triticale		
Note: Numbers in parentheses refer to footnotes below table.		
Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
army cutworm cutworm spp.	0.0075 - 0.0125	1.92 - 3.2
armyworm cereal leaf beetle English grain aphid (1) fall armyworm flea beetle spp. grasshopper spp. oat bird-cherry aphid (1) orange blossom wheat midge Russian wheat aphid (1) stink bug spp. yellowstriped armyworm	0.01 - 0.015	2.56 - 3.84
grass sawfly	0.0125 - 0.015	3.2 - 3.84
chinch bug corn leaf aphid (2) greenbug (1) (2) mite spp. (2)	0.015	3.84

¹ Best control is obtained before insects begin to roll leaves. Once wheat has started to boot, Proaxis EX may provide suppression only. Higher rates and increased coverage will be necessary.

² See resistance statement under General Use Precautions and Restrictions.

Remarks:

- Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment, using sufficient water and application methods to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.
- For chinch bug control, repeat applications at 3- to 5-day intervals if needed. Proaxis EX may only suppress heavy infestations and/or migrations.

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- Greenbug is known to have many biotypes. Proaxis EX may provide suppression only. In this situation, a second application using an alternative chemistry may be needed.
- **Preharvest Interval:** Do not apply within 30 days of harvest.
- Do not apply more than 0.03 lb active ingredient (0.48 pint) per acre per season.

Conifer and Deciduous Trees		
Plantations, nurseries and seed orchards		
Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
bagworm balsam twig aphid balsam wooly aphid gypsy moth Japanese beetle June beetle spp. leaf beetle spp. leafroller spp. May beetle spp. pales weevil pine chafer pine colaspis beetle pine conelet bug pine leaf chermid pine sawfly spp. pine tip moth spp. pine weevil spp. sawfly spp. spittlebug spp. spruce budworm tent caterpillar spp. tussock moth spp. webworm spp.	0.01 - 0.02	2.56 - 5.12
coneworm spp. seed bug spp.	See Remarks for pest-specific use directions	

Remarks;

- To control exposed foliage, flower, cone, seed and bark feeding insects, apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment, using sufficient water to obtain full coverage of target site. When applying by air, apply in a minimum of 2 gallons of water per acre.
- Do not apply more than 0.12 lb active ingredient (1.92 pints) per acre per year.

Coneworm/Seed bug spp. in Seed Orchards:

- For high volume sprayers, dilute 5.12 fl oz per 100 gallons of water and apply 5 to 10 gallons of finished spray per tree.
- For low volume sprayers, dilute 20 fl oz per 100 gallons of water and apply 100 gallons of finished spray volume per acre.
- For aerial application, apply 15 fl oz per acre in a minimum of 10 gallons of finished spray per acre.
- Do not apply more than 0.25 lb active ingredient (4 pints) per acre per year.

Non-Cropland Areas Adjacent to Crops (Excluding Public Land)

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Target Pests	Rate	
	(lb ai/acre)	(fl oz/acre)
Refer to crop-specific use directions	Use rates in crop-specific use directions	Use rates in crop-specific use directions

Remarks:

- Spray non-cropland adjacent to agricultural areas to control migratory insects that may threaten crops.
- When treating areas adjacent to crops, refer to the specific use directions for the adjacent crop for target pests, rates, and spray recommendations.
- Use highest labeled rates for dense/tall foliage, high insect populations and/or larger larval stages.
- Repeat as necessary to maintain control.
- Do not exceed 0.1 lb active ingredient (1.6 pints) per acre per year.
- Do not graze livestock in treated areas.

Ornamentals			
Commercial greenhouses, shadehouses, nurseries			
Note: Numbers in parentheses refer to footnotes below table.			
Target Pests		Rate	
		(fl oz/100 gallons)	(mL/100 gallons)
ants (including imported fire ants)	leaf-feeding caterpillars	1.2 - 4	35 - 118
armyworms	leafhoppers		
azalea caterpillars	leafminers (adult)		
aphids	leafrollers		
bagworms (1)	leaf skeletonizers		
black vine weevils (adult)	midges		
boxelder bugs	mosquitoes		
budworms	oleander moth larvae		
California oakworms	pillbugs		
cankerworms	pine sawflies		
cockroaches	pine shoot beetles		
crickets	pine tip moths		
cutworms	plant bugs		
eastern tent caterpillars	root weevils		
elm leaf beetles	sawflies		
European sawflies	scale insects (crawlers) (2)		
fall webworms	spiders		
flea beetles	spittlebugs		
forest tent caterpillars	striped beetles		
gypsy moth larvae	striped oakworms		
Japanese beetles (adult)	thrips		
June beetles (adult)	tip moths		
lace bugs	tussock moth larvae		
	wasps		
broadmites	mealybugs	2.4 - 4	70 - 118
brown softscales	pine needlescales		
California redscales (crawler)	(crawler)		
clover mites	spider mites		
	whiteflies		

¹ Apply Proaxis EX when bagworm larvae begin to hatch. Spray directly on the larvae. Application is the most effective when the larvae are young.

- ² Thoroughly cover the plant with Proaxis EX, including trunks, stems, twigs, and foliage for control of scale insects.

Remarks:

- When applying to waxy or hard to wet foliage, such as holly, pine, or ivy, the addition of a spreader-sticker may enhance knockdown and residual activity.
- **Chemigation:** Do not apply this product to ornamentals through any type of irrigation system.
- Do not apply this product to edible crops.
- Do not apply this product by aerial application.
- While phytotoxicity testing has been carried out on a wide range of ornamental plants under various environmental conditions and no phytotoxicity has been observed, certain cultivars may be sensitive to the final spray solution. Spray a selection of ornamental plants and observe them for 7 to 10 days prior to treating large areas if local use experience is unavailable.
- The water should be 5-7 pH. Adjust water pH with a buffering agent if necessary.
- Time application to flowering plants during periods when pollinating insects are not present, such as early morning or late evening.
- For spot treatments, use 0.4 fl oz of Proaxis EX in 1 to 2 1/2 gallons of water.
- Begin applications to ornamentals prior to the establishment of high insect pest populations. Reapply at 7-day intervals if re-treatment is necessary to keep pest populations under control, using higher rates as pest pressure increases.
- Do not apply more than 0.28 lb active ingredient (42 fl oz of concentrate) per acre per year.

Turf			
Sod farms and grass seed farms			
Note: Numbers in parentheses refer to footnotes below table.			
Target Pests		Rate	
		(fl oz/acre)	(mL/1000 sq ft)
ants (including imported fire ants) (1)	Japanese beetles (adult)	4 - 8	2.7 - 5.6
armyworms (2)	millipedes		
centipedes	mites		
crickets	pillbugs		
cutworms (2)	sod webworms		
earwigs	sowbugs		
elm leaf beetles	ticks (including species which transmit Lyme disease)		
fleas (adult) (2)			
grasshoppers			
bluegrass billbugs (adult) (3)	grub (suppression) (4)	8	5.6
black turfgrass <i>ataenius</i> (adult)	hyperodes weevils (adult)		
chiggers	mole crickets (nymphs, young adults)		
fleas (adult) (2)			
chinch bugs [†] (3)	mole crickets (adult) [†] (4)	16	11 ?

[†]Not for use on mature adult mole crickets and chinch bugs in the state of New York.

¹ Treat individual mounds with a drench application using a watering can. Use 0.4 fl oz of Proaxis EX per 2.5 gallons of water. Thoroughly soak each mound and a 3 foot diameter circle around each mound. Gently apply the mixture to avoid disturbing the mound. Disturbing the mound may cause the ants to migrate and reduce the effectiveness of the treatment. For best results, apply in early morning or late evening hours. Reapply as needed.

² For best results, apply Proaxis EX at labeled rates in 2 to 5 gallons of water per 1000 sq ft. The use of a spreader-sticker may be useful if high rainfall amounts are forecast. Otherwise, the addition of adjuvants is not necessary under normal conditions for surface insect control in turf. Delay watering or mowing for 12 to 24 hours for optimum control of surface feeding insect pests.

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- ³ For best results, apply Proaxis EX at labeled rates in 2 to 10 gallons of water per 1000 sq ft. The use of a nonionic wetting agent, penetrant or similar adjuvant may be used at labeled rates. Lightly irrigate after application with up to 1/2 inch of water to move Proaxis EX into the thatch layer. If irrigation is not available, then use high water application rates for optimum results.
- ⁴ For best results, apply Proaxis EX at labeled rates in 4 to 10 gallons of water per 1000 sq ft. The use of a nonionic wetting agent, penetrant or similar adjuvant is strongly recommended following label rates. Use the highest water application rates possible with your sprayer. Apply Proaxis EX to turf wet with dew, rain or irrigation. Water in immediately after application with 1/4 to 1/2 inch of water for optimum results.

Remarks:

- **Do not** apply when turfgrass is waterlogged or when soils are saturated with water (i.e., will not accept irrigation).
- **Chemigation: Do not** apply this product to turfgrass through any type of irrigation system.
- **Do not** apply this product to edible crops.
- **Do not** apply this product by aerial application.
- While phytotoxicity testing has been carried out on a wide range of turfgrass under various environmental conditions and no phytotoxicity has been observed, certain cultivars may be sensitive to the final spray solution. Spray a selection of ornamental plants and observe them for 7 to 10 days prior to treating large areas if local use experience is unavailable.
- The water should be 5-7 pH. Adjust water pH with a buffering agent if necessary.
- Time application to flowering plants during periods when pollinating insects are not present, such as early morning or late evening.
- For spot treatments, use 0.4 fl oz of Proaxis EX in 1 to 2 1/2 gallons of water.
- Begin applications to turf prior to the establishment of high insect pest populations and significant turf damage. Reapply at 7-day intervals if re-treatment is necessary to keep pest populations under control, using higher rates as pest pressure increases.
- Do not apply more than 0.28 lb active ingredient (42 fl oz of concentrate) per acre per year.

Non-Ag Uses

Premise Treatments

Proaxis EX is for use as a general surface (nonfood/nonfeed areas), crack and crevice or spot treatment in, on, and around buildings and structures and their immediate surroundings using hand application equipment. Permitted areas of use include, but are not limited to, livestock/poultry housing structures and pet kennels. Re-treat at 21-day intervals or as necessary to maintain control.

Specific Use Precautions and Restrictions for Premise Treatments:

- Let treated surfaces dry completely before restocking the facility and before allowing humans and pets to contact these surfaces
- **Do not** use this product with oil.
- **Do not** apply this product in areas where animals are present in the facility.
- **Do not** apply this product to any animal feedstuffs, water or watering equipment.
- **Do not** contaminate any animal food, feed or water in and around livestock, poultry or pet housing when applying this product.
- **Do not** allow applications to contact water inhabited by fish, such as in aquariums and ornamental fish ponds that are located in/around structures being treated.
- When making applications, care should be used to avoid household pets, particularly fish and reptile pets.

Note: Flies, beetles and other insects have demonstrated the ability to develop resistance to insect control products. Continual exposure of flies and other insects to a single class of insecticide may lead to the development of resistance to that class of insecticide. The following resistance management strategy will help ensure the prolonged usefulness of Proaxis EX as well as other conventional insecticides. For

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advice concerning integrated pest management practices in relation to local conditions, consult resources in resistance management programs, your Cooperative Agricultural Extension Service or your Dow AgroSciences representative at 1-800-992-5994.

- Apply Proaxis EX and other insect control agents only according to label directions.
- Do not use less than the labeled rate of any insect control product.
- Include multiple control tactics (cultural and/or biological controls) within an integrated pest management program.
- Rotate Proaxis EX with other classes of insecticide (naturalytes, phenyl pyrazoles, chloronicotinyls, and organophosphates, etc.) during an insect pest season.

Mixing Directions

Dilute Proaxis EX with water for application using hand-held or power-operated application equipment as a coarse spray for crack and crevice or spot and general surface treatments. Application equipment that delivers low volume treatments may also be used to make crack and crevice or spot and general surface treatments. Fill the applicator tank with the desired volume of water and add Proaxis EX. Close and shake before use in order to ensure proper mixing. Shake or reagitator applicator tank before use if application is interrupted. Mix only amount of treatment volume as required.

Concentration of ai (%)	Dilution Rate			
	fl oz/gal of water	mL/gal of water	fl oz/3 gal of water	mL/3 gal of water
0.0075	0.16	5	0.5	15
0.015	0.33	10	1	30
0.03	0.65	20	2	60

Note: Numbers in parenthesis refer to footnotes below table.

Target Pests		Concentration of ai (%)
ants	flies (including house, stable, little house)	0.0075 - 0.015
bees		
fleas (1)	wasps	
crickets	scorpions	0.03
litter beetles (2) (such as darkling, hide, carrion)	sowbugs	
mosquitoes	spiders	
pillbugs	ticks	

¹ For outdoor use only; use only 0.015% rate.

³ For control of light beetle infestations, use only 0.015% rate.

Typical premise spray rates are 1 gallon of diluted spray to treat 500 to 1000 sq ft.

Pest Specific Use Directions:

Bees, Fleas, Flies, Mosquitoes, Wasps: Apply directly to walls, ceilings, window screens, and other insect resting areas as a residual surface treatment. May be used in and around equipment storage sheds. See also Outdoor Surfaces.

Ants: Apply to ant trails around doors and windows and other places where ants are found. Apply barrier treatments to prevent infestation as directed below. See also Outdoor Surfaces.

Crickets, Spiders: Apply as a coarse, low pressure spray to areas where these pests hide, such as baseboards, corners, storage areas, around water pipes, doors and windows, and attics and eaves. Pay particular attention to cracks and crevices. See also Outdoor Surfaces.

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Pillbugs, Sowbugs: Apply around doors and windows and other places where these pests may be found or where they may enter premises. Treat storage areas and other locations. Apply barrier treatments to prevent infestation as described below. See also Outdoor Surfaces.

Litter Beetles (Darkling, Hide, Carrion) in Animal Housing (such as Poultry Houses): To control adult litter beetles, apply Proaxis EX to walls and floors at each grow-out or sanitation procedure before reintroduction of poultry or other animals. This will suppress beetles that escaped earlier treatment and will help delay onset of future infestations. Pay attention to areas where beetles frequently occur, such as walls, supports, cages, stalls, and around feeders. See also Livestock/Poultry Housing Structures and Pet Kennels.

Livestock/Poultry Housing Structures and Pet Kennels

Apply as a general surface and/or crack and crevice treatment. Control is enhanced when interior and exterior perimeter applications are made in and around the livestock, poultry, and pet housing structures. Normal cleaning practices of the structure also must be followed along with applications of Proaxis EX to effectively control the crawling and flying insect pests listed in the table. For poultry houses, apply to floor area (birds grown on litter) or to walls, posts, and cage framing (birds grown in cages). Application should also be made into cracks and crevices around insulation. Reapply after each grow-out or sanitization procedure. Indoor control can be enhanced by making perimeter treatments around the outside of building foundations to prevent immigrating beetles. Maintaining a year-round treatment program will prevent background populations from reaching problem levels.

Outdoor Surfaces

For control of ants, bees, crickets, fleas, flies, mosquitoes, scorpions, sowbugs, pillbugs, spiders, ticks, and other similar perimeter insect pests. Apply with either hand or power application equipment as a residual treatment to surfaces of buildings, screens, window frames, eaves, and other similar areas. This product may also be applied to lawn areas around non-residential buildings, refuse dumps and similar areas where these insect pests are active.

Perimeter Barrier

To help prevent infestation of a building, apply a band 6 to 10 feet wide around and adjacent to the building. Also, treat the building foundation to a height of 2 to 3 feet where pests are active and may find an entry into the building. Apply as a coarse spray to thoroughly and uniformly wet the foundation and/or band area using 1 to 5 gallons of treatment solution applied to 800 to 1600 sq ft.

Note: Do not use water base sprays of Proaxis EX in conduits, motor housings, junction boxes, switch boxes, or other electrical equipment because of possible shock hazard. For best results, thoroughly wash out sprayer and screen with water and detergent before using Proaxis EX.

Structural Treatments

Proaxis EX is for use as a general surface, crack and crevice or spot treatment in, on, and around buildings and structures and their immediate surroundings, and on modes of transport using hand application equipment. Permitted areas of use include, but are not limited to, aircraft (cargo and other non-cabin areas only), apartment buildings, boiler rooms, buses, closets, correctional facilities, decks, entries, factories, fencing, floor drains (that lead to sewers), non-food/non-feed areas of food granaries, food grain mills, food manufacturing, processing and serving establishments, restaurants; furniture, garages, garbage rooms, greenhouses (non-commercial), hospitals, hotels and motels, houses, industrial buildings, laboratories, livestock/poultry housing, landscape vegetation, locker rooms, machine rooms, mausoleums, mobile homes, mop closets, mulch, nursing homes, offices, patios, pet kennels, porches, railcars, storage rooms, schools, sewers (dry), stores, trailers, trees, trucks, utility passages, vessels, vestibules, warehouses, wineries and yards. Proaxis EX may be converted to a foam and the foam used to treat structural voids to control or prevent pests including ants, bees, termites (above ground only), wasps, or other arthropods harboring in walls, under slabs, or in other void areas. For indoor applications, re-treat at 21-day intervals or as necessary to maintain control.

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Specific Use Precautions and Restrictions for Structural Treatments:

- Let treated surfaces dry before restocking the facility and allowing humans and pets to contact surfaces.
- **Do not** use this product with oil.
- **Do not** apply this product in any room being used as living, eating, sleeping, or recovery area by patients, the elderly, or infirm when they are in the room.
- **Do not** make interior applications of Proaxis EX in areas of facility where animals other than cattle or calves are present.
- **Do not** apply to classrooms when in use.
- **Do not** apply to institutions (including libraries, sports facilities, etc.) in the immediate area when occupants are present.
- **Do not** apply this product to edible growing crops or stored raw agricultural commodities used for food or feed.
- **Do not** apply to any animal feedstuffs, water, or watering equipment.
- **Do not** contaminate any animal food, feed, or water in and around livestock, poultry, or pet housing when making applications.
- **Do not** allow applications to contact water inhabited by fish, such as in aquariums and ornamental fish ponds that are located in/around structures being treated.
- **Do not** use in the food/feed areas (i.e., edible product areas) of food/feed establishments, food processing plants, restaurants, or other areas where food/feed is commercially prepared, processed or stored. Do not use in serving areas while food is exposed. Serving areas while food is exposed and the facility is in operation are also considered food areas.
- When making applications, care should be used to avoid household pets, particularly fish and reptile pets.

Mixing Directions

Dilute Proaxis EX with water for application using hand-held or power-operated application equipment as a coarse spray for crack and crevice or spot and general surface treatments. Application equipment that delivers low volume treatments, such as the Micro-Injector or Actisol applicator, may also be used to make crack and crevice or spot and general surface treatments. Fill the applicator tank with the desired volume of water and add Proaxis EX. Close and shake before use in order to ensure proper mixing. Shake or reagitator applicator tank before use if application is interrupted. Mix only amount of treatment volume as required. A general surface treatment of Proaxis EX may be applied by using a paintbrush or other porous applicator attached to a handle.

Tank Mixing

Proaxis EX may be tank mixed with other currently registered pesticides unless expressly prohibited by the product label. A small volume mixing test with the other product(s) (jar test) is recommended to ensure compatibility. If mixed with sanitizers, Proaxis EX should be added to the tank first. If other chemicals are added to the applicator tank, Proaxis EX should be added last. If mixed with EC formulations, use the mixture within 24 hours. Fill tank to desired volume and continue to agitate while applying. Proaxis EX may be tank mixed with an insect growth regulator (IGR) such as Archer Insect Growth Regulator. Follow the precautions and limitations of the most restricted product in the tank mixture.

Concentration of ai (%)	Dilution Rate			
	fl oz/gal of water	mL/gal of water	fl oz/3 gal of water	mL/3 gal of water
0.0075	0.16	5	0.5	15
0.015	0.33	10	1	30
0.03	0.65	20	2	60

Note: Numbers in parenthesis refer to footnotes below table.

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Target Pests		Concentration of ai (%)
ants	fleas (2)	0.0075 - 0.015
bedbugs (adult)	flies	
bees	lesser grain borers	
beetles	millipedes	
boxelder bugs	mosquitoes	
carpenter bees	red flour beetles	
carpet beetles	rice weevils	
centipedes	sawtoothed grain beetles	
cigarette beetles	silverfish	
clover mites	sowbugs	
cockroaches (1)	spiders	
confused flour beetles	termites (above ground only)	
crickets	ticks	
earwigs	wasps	
firebrats		
cockroaches (1)	pillbugs	0.03
crickets (6)	scorpions	
flies [†] (5)	spiders (6)	
litter beetles (3) (such as darkling, hide, carrion)	spider mites (two spotted, spruce)	
mosquitoes (4)	ticks (6)	

[†]Not approved for use in California at the high rate.

¹ The rate for maintenance treatments is 0.0075% and for clean-out treatments is 0.015%. For control of severe infestations, use 0.03% rate.

² For outdoor use only; use only 0.015% rate.

³ For control of light beetle infestations, use only 0.015% rate.

⁴ For residual control, use 0.03% rate.

⁵ Rates for flies may be increased to 0.03% when environmental conditions are severe and/or populations are high.

⁶ For clean-out/severe infestations, use 0.03% rate.

Pest Specific Use Directions:

Ants: Apply to any trails around doors and windows and other places where ants may be found. For best results, locate and treat nests. Where ants are trailing inside, apply as a residual surface treatment to active areas such as baseboards, corners, around pipes, in and behind cabinets, behind and under refrigerators, sinks, furnaces and stoves, cracks and crevices. When combining baits and residual surface insecticides, apply surface insecticides in cracks and crevices, along baseboards, and infested surfaces and outside barrier treatments. Treatment of perimeter landscaping can reduce honeydew-producing insects and limit this ant food source. Use baits in other areas that are unreachable by residual insecticides. See also Outdoor Surfaces.

Cockroaches, Crickets, Earwigs, Firebrats, Silverfish, Spiders: Apply as a coarse, low pressure spray to areas where these pests hide, such as baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, cabinets, behind and under refrigerators, furniture, sinks, furnaces and stoves, the underside of shelves, drawers and similar areas. Pay particular attention to cracks and crevices. See also Outdoor Surfaces.

Bedbugs: Clean floors and surfaces by vacuuming. Apply as a coarse, low-pressure spray to harborage areas including crevices, baseboards, loose plaster, behind bed frames and headboards, beneath beds and furniture, and to bedsprings and bed frames. Do not apply to furniture surfaces or mattresses where

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people will be lying or sitting. Infested bedding should not be treated, but should be removed, placed in sealed plastic bags, and taken for laundering and drying at high temperatures.

Bees, Flies, Mosquitoes, Wasps: Apply directly to walls, ceilings, window screens, and other resting areas as a residual surface treatment. May be used inside residential buildings as well as in and around carports, garages, and storage sheds. See also Outdoor Surfaces. Use care when treating nests of stinging insects as Proaxis EX does not provide instant knockdown. Protective equipment for the applicator may be required. For best results, treat bee, wasp and hornet nests late in the day when most insects will be present. Allow 2 to 3 days for colony to die and re-treat if necessary. For mosquito control, apply as a general structural perimeter spray to landscape plantings, turf, and building foundations to control mosquitoes. Yards or other frequented areas enclosed by landscaping can benefit from the creation of a mosquito barrier to reduce invading mosquitoes by the treatment of perimeter vegetation. For best results, apply Proaxis EX at listed rates in 2 to 5 gallons of water per 1000 sq. ft. Higher volumes applied result in better coverage and, as a rule, will improve control. Application to vegetation away from structures may require additional certification, e.g., in turf or ornamental categories. Consult your state regulatory agency for requirements.

Carpenter Bees: Apply coarse spray to thoroughly wet wood surfaces where bees have been previously active or to provide protection against further damage. Apply early in the spring to prevent bees from invading wood. When bees have infested wood, surface applications can help control embedded larvae and bees that emerge from the wood. Applications can be made on a monthly basis to maintain protection of treated areas.

Pantry Pests (i.e., Carpet Beetle, Cigarette Beetle, Confused Flour Beetle, Lesser Grain Borer, Red Flour Beetle, Rice Weevil, Sawtoothed Grain Beetle): Apply to cupboards, shelving, and storage areas. Remove all utensils, uncovered foodstuffs (or any having original package opened), and shelf paper before making application. Allow treated surfaces to dry and cover shelves with clean paper before replacing any utensils, foodstuff, or other items. Any foodstuff accidentally contaminated with treatment solution should be destroyed.

Boxelder Bugs, Centipedes, Millipedes, Pillbugs, Sowbugs: Apply around doors and windows and other places where these pests may be found or where they may enter premises. Treat baseboards, storage areas, and other locations. Apply barrier treatments to prevent infestation as described below. See also Outdoor Surfaces.

Fleas, Ticks: To control nuisance fleas and ticks (e.g., dog ticks) apply to kennels, yards, runs, and other areas where pets may frequent. For best coverage to control ticks, apply using a coarse fan spray to vegetation brush, branches, rock walls, and other areas near habitation where ticks may harbor or frequent. Treat entire area rather than making spot treatments, and re-treat as necessary to maintain control. Do not apply to pasture or cropland, and do not allow animals and people access to treated areas until the deposit has dried. Applications can be made on a monthly basis, beginning in the spring, and can continue until frost to control both larvae and adult ticks. Also, treat pest with a product registered for flea and tick control. See also Outdoor Surfaces.

Cluster Flies: Apply in late summer or early fall before flies are observed alighting on surfaces. Apply thoroughly on siding, under eaves, and around windows and doors, paying particular attention to southfacing surfaces. Apply just enough dilution to adequately cover the area without excessive dripping or runoff. Volume can vary depending upon the surface type treated. Heavy precipitation prior to frost may require re-treatments to maintain protection. In winter and spring when flies become active and are emerging, interior crack and crevice and void treatments can help reduce the infestation, along with ULV or general surface application in infested attics or unoccupied lofts.

Litter Beetles (Darkling, Hide, Carrion) and Flies in Animal Housing (such as Poultry Houses): To control adult litter beetles, apply Proaxis EX to walls and floors at cleanout, before reintroduction of animals. This will suppress beetles that escaped earlier treatment and will help delay onset of future infestations. Pay attention to areas where beetles frequently occur, such as walls, supports, cages, stalls,

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and around feeders. To help control flies, apply a directed application to horizontal surfaces and overhead areas and allow to dry before reintroduction of animals. See also Livestock/Poultry Housing Structures and Pet Kennels.

Livestock/Poultry Housing Structures and Pet Kennels

Apply as a general surface (including directed sprays) and/or crack and crevice treatment. Control is enhanced when interior and exterior perimeter applications are made in and around the livestock, poultry, and pet housing structures. Normal cleaning practices of the structure also must be followed along with applications of Proaxis EX to effectively control the crawling and flying insect pests listed in the table. For unoccupied areas of livestock barns or housing structures, apply to floors, vertical, and overhead surfaces where crawling or flying insect pests are or may be present. Feeders, waterers, and feed carts should be covered before application to prevent contamination. Do not apply to milk rooms or feed rooms. Pay attention to animal areas including stanchions, pipes, windows and doors, and areas where insect pests hide or congregate. Exterior applications to south facing walls and foundation perimeters can help prevent interior infestations of flying and crawling insect pests. For poultry houses, apply to floor area (birds grown on litter) or to walls, posts, and cage framing (birds grown in cages). Application should also be made into cracks and crevices around insulation. Reapply after each growout or sanitization procedure. Indoor control can be enhanced by making perimeter treatments around the outside of building foundations to prevent immigrating adult beetles. Apply in a uniform band 1 to 3 feet up and 2 to 6 feet out from foundation. Maintaining a year-round treatment program will prevent background populations from reaching problem levels.

Outdoor Surfaces

For control of ants, bees, centipedes, cockroaches, crickets, fleas, flies, millipedes, mosquitoes, scorpions, sowbugs, pillbugs, spiders, termites (above ground only), ticks, wasps, and other similar perimeter arthropod pests. Apply with either hand or power application equipment as a residual treatment to ornamental plants next to foundations of buildings and to surfaces of buildings, porches, screens, window frames, eaves, patios, garages, refuse dumps, and other similar areas where these insect pests are active. For termites, this type of application is not intended as a substitute for soil treatment labeled termiticides or mechanical alteration to control subterranean termites, or fumigation for extensive infestation of drywood termites or other wood-infesting insects. The purpose of such applications of Proaxis EX for termites is to kill workers or winged reproductive forms which may be present in treated channels at the time of treatment. Such applications are not a substitute for mechanical alteration, soil treatment or foundation treatment, but are merely a supplement. This product is not recommended as sole protection against termites. For active termite infestations, get a professional inspection.

Perimeter Barrier

Applying a continual band of insecticide around a building foundation and around windows, doors, service line entrances, eaves, vents, and other areas can greatly reduce the potential for entry by crawling pests. To facilitate application, remove debris and leaf litter from next to the foundation, cut back vegetation and branches that touch the foundation, and move or rake back rocks, deep mulch, or other potential pest harborage next to the foundation. Apply the band up to 10 feet wide around the structure (or according to state regulations governing commercial pest control) and upwards along the foundation to 3 feet and around windows, doors, and roof overhangs. Apply as a coarse spray to thoroughly and uniformly wet the foundation and/or band area so that the insecticide will reach the soil or thatch level where pests may be active. The amount of concentrate is dependent upon pest species (see pest table and comments), infestation levels, and service interval desired.

Rate Table for Perimeter Barrier:

Proaxis EX		Amount of Water (Gallons)	Coverage Area (sq ft)
fl oz	mL		
0.16	5	1 - 5	800 -1600
0.33	10		

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0.65	20		
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Application volume may be greater than 5 gallons per 800 to 1600 sq ft if required under heavy vegetative or landscaping materials in order to obtain desired coverage.

Application Volume Gallons/1000 sq ft	Proaxis EX 1000 sq ft		Proaxis EX Dilute in Water		Spray Tank Volume
	fl oz	mL	fl oz	mL	
1	0.16	5	0.8	25	5
	0.33	10	1.6	50	
	0.65	20	3.2	100	
	0.16	5	1.6	50	10
	0.33	10	3.2	100	
	0.65	20	6.4	200	
	0.16	5	8	250	50
	0.33	10	16	500	
	0.65	20	32	1000	
2	0.16	5	0.4	12	5
	0.33	10	0.8	25	
	0.65	20	1.6	50	
	0.16	5	0.8	25	10
	0.33	10	1.6	50	
	0.65	20	3.2	100	
	0.16	5	4	125	50
	0.33	10	8.5	250	
	0.65	20	17	500	
5	0.16	5	0.16	5	5
	0.33	10	0.33	10	
	0.65	20	0.65	20	
	0.16	5	0.33	10	10
	0.33	10	0.65	20	
	0.65	20	1.3	40	
	0.16	5	1.6	50	50
	0.33	10	3.2	100	
	0.65	20	6.4	200	

To apply the mid-rate of Proaxis EX at a volume of 5 gallons/1000 sq ft, mix 3.2 fl oz of concentrate in 50 gallons of water.

The percent active ingredient in the finished dilution of Proaxis EX can be calculated with the following formula:

$\text{mL needed} \times 5.9\% \text{ active ingredient in concentration} \div \text{gallons finished dilution} \times 3785 \text{ mL/gallon} = \% \text{ active ingredient in dilution.}$

Example: 3 oz in 50 gallons = 100 mL $\times 5.9 = 590$; 50 gallons $\times 3785 = 189,250$. $590 \div 189,250 = 0.003\% \text{ active ingredient in tank dilution}$

Note: Do not use water base sprays of Proaxis EX in conduits, motor housings, junction boxes, switch boxes, or other electrical equipment because of possible shock hazard. For best results, thoroughly wash out sprayer and screen with water and detergent before using Proaxis EX. Proaxis EX has not stained or caused damage to painted or varnished surfaces, plastics, fabrics, or other surfaces where water applied

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alone causes no damage. However, treat a small area and allow to dry to determine whether staining will occur.

Turf and Ornamental

Proaxis EX may be used for applications to maintain indoor or outdoor areas where turf and ornamentals are grown such as residential landscape areas and non-residential landscapes around institutional, public, commercial and industrial buildings, parks, recreational areas, athletic fields (including trees, shrubs, flowers, evergreens, foliage plants and groundcovers), golf course fairways, greens, greens aprons, and tee areas. Applicators must ensure that they are certified in the necessary pesticide certification categories to allow application of Proaxis EX away from structures, such as to turf and ornamental plantings. Structural pest control certification categories may limit the distance away from structures for pesticide application. Consult your state extension office or pesticide regulatory officials for further information.

Specific Use Precautions and Restrictions for Turf and Ornamental:

- Time application to flowering plants during periods when pollinating insects are not present, such as early morning or late evening.
- **Chemigation:** Do not apply this product through any type of irrigation system.
- Do not apply this product to edible crops.
- Do not apply this product by aerial application.
- Do not apply more than 42 fl oz of Proaxis EX (0.28 lb active ingredient) per acre per year.
- For spot treatments, use 0.4 fl oz of Proaxis EX in 1 to 2 1/2 gallons of water.
- When making applications, care should be used to avoid household pets, particularly fish and reptile pets.

Spray Drift Precautions

Observe the following precautions when spraying in the vicinity of aquatic areas such as lakes; reservoirs; rivers; permanent streams, marshes, or natural ponds; estuaries; and commercial fish farm ponds.

1. Do not apply Proaxis EX within 25 feet of lakes; reservoirs; rivers; permanent streams, marshes or natural ponds; estuaries; and commercial fish farm ponds.
2. Do not make outdoor broadcast applications to turf and ornamentals when wind speed is 15 mph or greater.
3. In the state of New York, do not apply within 100 feet of coastal marshes or streams that drain into coastal marshes.

Mixing Directions

Proaxis EX is intended for dilution with water and may be used in all types of standard application equipment. Fill applicator tank with the desired volume of water and add Proaxis EX. The water should be 5-7 pH. Adjust water pH with a buffering agent if necessary. Slowly add Proaxis EX to applicator tank water with maximum agitation. Close and shake or reagitator applicator tank before use if application is interrupted. Mix only amount of treatment volume as required.

Tank Mixing

Proaxis EX may be tank mixed with other currently registered pesticides unless expressly prohibited by the product label. Adjuvants such as spreader stickers, wetting agents, and penetrants may also be added. A small volume mixing test with the other product(s) (jar test) is recommended to ensure compatibility. If other chemicals are added to the applicator tank, Proaxis EX should be added last. If mixed with EC formulations, use within 24 hours. Fill tank to desired volume and continue to agitate while applying. Observe all restrictions and precautions which appear on the labels of these products.

Ornamental Pests and Application Rates

	Proaxis EX
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Target Pests		fl oz/100 Gallons	mL/100 Gallons
ants (including imported fire ants)	leafhoppers	1.2 – 4	35 - 118
armyworms	leafminers (adults)		
azalea caterpillars	leaf rollers		
aphids	leaf skeletonizers		
bagworms	midges		
black vine weevils (adult)	mosquitoes		
boxelder bugs	oleander moth larvae		
budworms	pillbugs		
California oakworms	pine sawflies		
cankerworms	pine shoot beetles		
cockroaches	pinetip moths		
crickets	plant bugs		
cutworms	root weevils		
eastern tent caterpillars	sawflies		
elm leaf beetles	scale insects (crawlers)		
European sawflies	spiders		
fall webworms	spittlebugs		
flea beetles	striped beetles		
forest tent caterpillars	striped oakworms		
gypsy moth larvae	thrips		
Japanese beetles (adults)	tip moths		
June beetles (adults)	tussock moth larvae		
lace bugs	wasps		
leaf-feeding caterpillars			
broadmites	mealybugs	2.4 – 4	70 - 118
brown softscales	pineneedlescales (crawlers)		
California redscales (crawlers)	spider mites		
clover mites	whiteflies		

To prepare a mid-rate dilution of Proaxis EX, mix 2.4 fl oz (70 mL) of concentrate in 100 gallons of water.

Begin applications to ornamentals prior to the establishment of high insect pest populations. Reapply at 7-day intervals if re-treatment is necessary to keep pest populations under control, using higher rates as pest pressure increases. More frequent applications should be limited to spot treatments. As plants grow, new foliage will be unprotected until treated. Good spray coverage is necessary to provide the most effective level of control. Addition of a spreader-sticker may enhance the control of insects on certain species of ornamentals having waxy, hard to wet foliage. Consult your state university or local Cooperative Extension Service office for specific pest control application timing in your area.

Note: While phytotoxicity testing has been carried out on a wide range of ornamental plants under various environmental conditions and no phytotoxicity has been observed, certain cultivars may be sensitive to the final spray solution. Spray a selection of ornamental plants and observe them for 7 to 10 days prior to treating large areas if local use experience is unavailable. This is especially important if Proaxis EX is being mixed with another product or ingredient other than water. See Tank Mixing under Turf and Ornamental.

Pest Specific Use Directions:

Scale: Thoroughly cover the plant with Proaxis EX, including trunks, stems, twigs, and foliage for control of scale insects (crawler stage).

Bagworm: Apply Proaxis EX when bagworm larvae begin to hatch. Spray directly on the larvae. Treatment is the most effective when the larvae are young.

Turf Pests and Application Rates

Note: Numbers in parenthesis refer to footnotes below table.

Target Pests		Proaxis EX	
		fl oz/acre	mL/1000 sq ft
ants (including imported fire ants)	Japanese beetles (adult)	4 - 8	2.7 - 5.6
armyworms	millipedes		
centipedes	mites		
crickets	mosquitoes (adult)		
cutworms	pillbugs		
earwigs	sod webworms		
fleas (adult)	sow bugs		
grasshoppers	ticks (including species which transmit Lyme disease)		
bluegrass billbugs (adult)	grubs (suppression)	8	5.6
black turfgrass ataenius (adult)	hyperodes weevils (adult)		
chiggers	mole crickets (nymphs, young adults)		
fleas (adult)			
chinch bugs (1)	mole crickets (mature adults) (1)	16	11.2

¹ Not for use on mature adult mole crickets and chinch bugs in the state of New York.

To prepare a mid-rate dilution of 5.6 mL/1000 sq of Proaxis EX, determine gallons dilution/1000 sq ft needed to cover turf. At 5 gallons/1000 sq ft, add 5.6 mL + 5 or 1.1 mL per gallon. For a 50 gallon tank, this is equivalent to 55 mL or 2 fl oz in 50 gallons of water.

Begin applications to turf prior to the establishment of high insect pest populations and significant turf damage. Reapply at 7-day intervals if re-treatment is necessary to keep pest populations under control, using higher rates as pest pressure increases. More frequent applications should be limited to spot treatments. Do not apply when turfgrass is waterlogged or when soils are saturated with water (i.e., will not accept irrigation).

Pest Specific Use Directions:

Surface Insects (Armyworms, Cutworms, Fleas, etc.): For best results, apply Proaxis EX at labeled rates in 2 to 5 gallons of water per 1000 sq ft. The use of a spreader-sticker may be useful if high rainfall amounts are forecast. Otherwise, the addition of adjuvants is not necessary under normal conditions for surface insect control in turf. Delay watering or mowing for 12 to 24 hours for optimum control of surface feeding insect pests.

Thatch Inhabiting Insects (Chinch Bugs, Billbugs, etc.): For best results, apply Proaxis EX at labeled rates in 2 to 10 gallons of water per 1000 sq ft. The use of a nonionic wetting agent, penetrant or similar adjuvant may be used at labeled rates. Lightly irrigate after application with up to 1/2 inch of water to move Proaxis EX into the thatch layer. If irrigation is not available, then use high water application rates for optimum results.

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Subsurface Insects (Mole Crickets, Grubs, etc.): For best results, apply Proaxis EX at labeled rates in 4 to 10 gallons of water per 1000 sq ft. The use of a nonionic wetting agent, penetrant or similar adjuvant is strongly recommended following label rates. Use the highest water application rates possible with your sprayer. Apply Proaxis EX to turf wet with dew, rain or irrigation. Water in immediately after application with 1/4 to 1/2 inch of water for optimum results.

Fire Ants: Treat individual mounds with a drench application using a watering can. Use 0.4 fl oz of Proaxis EX per 2.5 gallons of water. Thoroughly soak each mound and a 3 foot diameter circle around each mound. Gently apply the mixture to avoid disturbing the mound. Disturbing the mound may cause the ants to migrate and reduce the effectiveness of the treatment. For best results, apply in early morning or late evening hours. Applications can be made on a monthly basis to maintain protection of treated areas.

Mosquitoes: Apply as a general spray around landscape plantings, turf, and building foundations to control mosquitoes. Yards or other frequented areas enclosed by landscaping can benefit from the creation of a mosquito barrier to reduce invading mosquitoes by the treatment of perimeter vegetation. For best results, apply Proaxis EX at labeled rates in 2 to 5 gallons of water per 1000 sq ft. Higher volumes applied result in better coverage and, as a rule, will improve control.

Wood in Place to Control Termites, Carpenter Ants, Carpenter Bees and Wood Infesting Beetles

Proaxis EX may be used for treating infested wood in place. It can be applied to wood by a crack and crevice tool, coarse fan spray or injection. Overall broadcast spray applications must be limited to attics, crawl spaces, unfinished basements and similar generally unoccupied areas. In occupied indoor areas, treat wood trim and exposed beams by brush or coarse spray directed only onto the wood to be treated.

Specific Use Precautions and Restrictions for Wood in Place:

- Not for use in federally inspected meat and poultry plants.
- **Do not** apply this product to edible crops.
- **Do not** use in warehouses where raw or cured tobacco is stored or while raw agricultural commodities for food or feed are being stored.
- **Do not** use in greenhouses where crops for food or feed are grown.
- **Do not** apply to pets, crops or sources of electricity.
- **Do not** use solution in fogging equipment.
- During indoor surface applications, **do not** allow dripping or runoff to occur.
- **Do not** apply this product in any room being used as living, eating, sleeping, or recovery area by patients, the elderly, or infirm when they are in the room.
- **Do not** apply to classroom when in use.
- **Do not** apply solution until location of heating pipes, ducts, water and sewer lines and electrical conduits are known and identified. Care must be taken to avoid puncturing and injecting into these structural elements.
- **Do not** apply into electrical fixtures, switches, or sockets.
- **Do not** use in structures occupied by animals to be used for food purposes or which produce products for human consumption.
- Remove pets, birds, and cover aquariums before spraying indoors. Do not permit humans or pets to contact treated surfaces until the spray has dried.
- In the home, all food processing surfaces and utensils in the treatment area should be covered during treatment or thoroughly washed before reuse.
- During any applications to overhead interior areas of structures, cover surfaces below with plastic sheeting or similar material.
- When applying Proaxis EX in a confined area, the user should wear protective clothing, unvented goggles, rubber gloves, and a respirator approved by the Mine Safety and Health Administration during application.

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Mixing Directions

Fill sprayer with the desired volume of water and add Proaxis EX. Close spray container and shake or agitate before use to ensure proper mixing. Make up diluted material only as required. For wood in place and above ground treatments, use a 0.05% concentration. To prepare a 0.05% concentration, add 1.1 fl oz of Proaxis EX to 1 gallon of water. To prepare 50 gallons, add 0.4 gallons (53.1 fl oz) of Proaxis EX to 49.5 gallons of water. To prepare 100 gallons, add 0.83 gallons (106.2 fl oz) of Proaxis EX to 99 gallons of water. Use this spray at a rate of 1 gallon of diluted spray per 1000 sq ft of surface area.

Gallons of Water	Amount of Proaxis EX (fl oz) Needed		
	0.05% Dilution	0.125% Dilution	0.25% Dilution
1	1.1	2.7	--
49.5	53.1	--	--
98	--	--	521
99	106.2	268	--

Pest Specific Use Directions:

Wood Infesting Beetles: To control wood infesting insects such as powderpost beetle (*Lyctidae*), false powderpost beetles (*Bostrichidae*), deathwatch beetles (*Anobiidae*), old house borers (*Cerambycidae*) and ambrosia beetles (*Scolytidae*) in homes and other structures, apply as an solution containing 0.125% Proaxis EX. For treatment of small areas, apply by brushing the product evenly on wood surfaces. For large or overhead areas, apply as a coarse spray. When spraying overhead interior areas of homes, apartment buildings, etc., cover all surfaces below the area being sprayed with plastic sheeting or other material that can be disposed of by placing in trash if contamination from dripping occurs. Sprayed surfaces should be avoided until spray has totally dried.

Termite Above Ground: For control of termites, subterranean aerial colonies, Formosan aerial colonies or drywood termites in localized areas of infested wood in structures, apply a 0.05% solution to voids and galleries in damaged wood and in spaces between wooden members of a structure and between wood and foundations where wood is vulnerable. Apply to inaccessible areas by drilling and then injecting the solution with a crack and crevice injector into the damaged wood or void spaces. Apply to attics, crawl spaces, unfinished basements, or man-made voids with a coarse fan spray of 0.05% solution to control workers and winged reproductive forms of termites in mud shelter tubes. This type of application is not intended to be a substitute for soil treatment for extensive infestation of drywood termites or other wood-infesting insects. For termites active inside trees, utility poles and/or fence posts, drill to find the interior infested cavity and inject 0.05% solution using treatment tool with a splashback guard. Termite carton nests in trees or building voids may be injected with 0.125% to 0.25% solution using a pointed injection tool. Multiple injection points to varying depths may be necessary. It is desirable to physically remove carton nest material from building voids when such nests are found.

Carpenter Ants: For control of carpenter ants in houses and other structures, apply around doors, windows and other places where carpenter ants enter the premises and where they crawl. Spray into cracks and crevices or through openings or small drilled holes into voids where these ants or their nests are present. Use no more than a sufficient amount of coarse spray to cover the area to the point of runoff. Do not exceed 1 gallon of solution per 1000 sq ft of treated surface. For carpenter ants active inside trees, utility poles and/or fence posts, drill to find the interior infested cavity and inject 0.125% solution, for protection to 1 week, using a treatment tool with a splashback guard. Reapply under heavy reinfestation pressure. For firewood protection from carpenter ants, prior to laying in firewood, treat the soil beneath the cord(s) with a 0.125% solution at 1 gallon per 10 sq ft to prevent carpenter ant infestation. Do not spray firewood.

Carpenter Bees: Use a 0.05% solution for control of carpenter bees. Liquid may be sprayed directly into gallery entrance holes. Following treatment, the entrance holes may be left open 24 hours to be certain that returning adult bees are killed. When there is no activity, the hole may be closed with wood putty.

Terms and Conditions of Use

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies.

Warranty Disclaimer

Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. All such risks shall be assumed by buyer.

Limitation of Remedies

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Dow AgroSciences' election, one of the following:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used.

Dow AgroSciences shall not be liable for losses or damages resulting from handling or use of this product unless Dow AgroSciences is promptly notified of such loss or damage in writing. In no case shall Dow AgroSciences be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer, Inherent Risks of Use, and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Dow AgroSciences or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

TMTrademark of Pytech
EPA-accepted: 09/19/05

308/2E
April 27, 2006



Document Processing Desk (NOTIF)
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U. S. Environmental Protection Agency
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Arlington, VA 22202

PROAXIS EX (A.I. GAMMA-CYHALOTHRIN)
EPA REGISTRATION NUMBER: 62719-522
NOTIFICATION OF MINOR LABEL CHANGE PER PR NOTICE 98-10

Enclosed please find labeling for the notification action of Proaxis™ EX insecticide. The following changes have been made by notification:

1. Ag Uses, Ornamentals: Deleted rate table under Remarks.
2. Ag Uses, Turf: Deleted rate table under Remarks.
3. Non-Ag Uses, Turf and Ornamental: Deleted Mixing Chart for Ornamentals and Mixing Chart for Turf.

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.

Contents of Submission

- Transmittal document (this letter)
- Application for Pesticide, EPA Form 8570-1 with attached Registration Notes
- Label entitled Proaxis EX (B1B/Proaxis EX/MSTR Notif/04-27-06) (50 Pages plus Registration Notes) (5 Copies)

If you require further information, please contact Cindy Loy, Regulatory Specialist at (317) 337-4655 or Alice Watters, Registration Assistant for this product, at (317) 337-5364.

Sincerely,

A handwritten signature in cursive script that reads "Cindy Loy".

Kimberly S. Gilbert
Regulatory Leader
Regulatory Success – Americas
(317) 337-4685
(317) 337-4649 (FAX)

Enclosures