



**SPECIMEN LABEL**

PYRETHRINS	GROUP	<b>3A</b>	INSECTICIDE
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**PEST-KOTE®** is a multi-purpose insecticide formulated with Advanced 3D-IPNS Application Technology to help keep insects in the treated zone. Unique formulation improves the coverage and contact of other insecticides that are mixed with this product



3D-IPNS application technology increases the contact between the insect and insecticide. Does not require the use of adjuvants ● Use up to Day before harvest ● Residential and commercial use

For indoor/outdoor use in, on and around:

- Growing crops
- Food processing, production and storage sites
- Greenhouses
- Ornamental plants and turf grass
- Agricultural and commercial buildings and premises
- For indoor and outdoor food use
- For indoor and outdoor use as a premise spray

**ACTIVE INGREDIENTS:**

Pyrethrins ..... 1.00%

OTHER INGREDIENTS:.....99.00%

TOTAL: 100.00%

This product contains 0.0845 lbs. Pyrethrins per Gallon of PEST-KOTE®

**STOP – READ THE LABEL BEFORE USE**

**KEEP OUT OF REACH OF CHILDREN  
WARNING / AVISO**

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

See **Back Panel** for additional precautionary statements.

<b>FIRST AID</b>	
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice</li> </ul>
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information on this pesticide product (including health concerns, medical emergencies, or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378, 6:30 AM to 4:30 PM Pacific Time (PT), seven days a week. During other times, call the poison control center at 1-800-222-1222.</p>	

**NET CONTENTS:** 1 Quart (946.4 ml)

Distributed by:  
3D BioSciences, LLC.  
2101 Mystic Ridge Rd  
Knoxville, TN 37922

EPA Reg. No. 92035-1-97839  
EPA EST# 88746-GA-1



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## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**WARNING:** Causes substantial but temporary eye injury. **DO NOT** get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). After product is diluted in accordance with the directions for use, goggles, face shield, or safety glasses are not required. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

### ENVIRONMENTAL HAZARDS

**DO NOT** apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fishponds).

This product is toxic to aquatic organisms, including fish and invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. This product may contaminate water through runoff. This product has a potential for runoff for several weeks after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. **DO NOT** apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. Protect pollinating insects by following label directions intended to minimize drift and reduce pesticide risk to these organisms. Following best management practices can help reduce risk to terrestrial pollinators. Examples of best management practices include applying pesticides in the evening and at night when pollinators are not foraging and checking to confirm hive locations before spraying. For additional resources on pollinator best management practices, visit <https://www.epa.gov/pollinator-protection/find-best-management-practices-protect-pollinators>.

**Managed pollinator protection plans** are developed by states/tribes to promote communication between growers, landowners, farmers, beekeepers, pesticide users, and other pest management professionals to reduce exposure of bees to pesticides. If available, visit state plans for additional information on how to protect pollinators.

### How to Report Bee Kills

It is recommended that users contact both the state lead agency and the U.S. Environmental Protection Agency to report bee kills due to pesticide application. Bee kills can be reported to EPA at [beekill@epa.gov](mailto:beekill@epa.gov). To contact your state lead agency, see the current listing of state pesticide regulatory agencies at the National Pesticide Information Center's website: [http://npic.orst.edu/reg/state\\_agencies.html](http://npic.orst.edu/reg/state_agencies.html).

**DO NOT** apply directly to water, or to areas where surface water is present or to intertidal areas below the mean highwater mark. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Care must be taken to avoid runoff. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Materials that are chemical-resistant to this product are listed below.

Applicators and other handlers who may be exposed to the dilute and/or concentrate through application or other tasks must wear:

- Long-sleeve shirt and long pants;
- Wear waterproof gloves;
- Shoes plus socks; and
- Protective eyewear (goggles, face shield, or safety glasses). **After product is diluted in accordance with the directions for use, goggles, face shield, or safety glasses are not required.**

### USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. **DO NOT** reuse them.

### USER SAFETY RECOMMENDATIONS:

Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### KILLS INSECTS:

Annual Bluegrass Weevil	Earwigs	Heliothis spp. (Ag. pests)	Phorid flies
Ants <sup>1</sup>	Eastern Tent Caterpillar	House Flies <sup>3</sup>	Psyllids
Aphids	Elm Leaf Beetle	Japanese Beetle	Red Cinnamon mites
Armyworms	European Pine Tip Moth	Katydids	Scale insects
Bagworm	Fall Webworm	Lace Bugs	Scaly leg mite
Bed bugs	Firebrats	Leafhopper	Sciarid flies
Blister Beetles	Fireworms	Leafrollers	Silverfish
Brown Marmorated Stink Bug	Flea Beetles	Leaftiers	Skippers
Cankerworms	Fleas	Loopers	Sowbugs
Caterpillars	Forest Tent Caterpillar	Lygus Mealy Bugs	Stink Bugs
Chicken (red) mites	Fungus Gnats	Millipedes	Spiders <sup>4</sup>
Cockroaches <sup>2</sup>	Fruit Flies	Mites – Spider and Russet	Spotted Lanternfly
Codling Moth	Grasshoppers	Mushroom Flies	Tarnished Plant Bug
Crickets	Greenhouse Thrips	Northern fowl mite	Thrips
Crane Flies	Gypsy Moth (adults & larvae)		Vinegar Flies
Depluming mite	Harlequin Bug		Webworms
			Whiteflies

<sup>1</sup> Does not include the public health pests: harvester, and carpenter ants

<sup>2</sup> Includes German cockroaches (*Blattella germanica*), American cockroaches (*Periplaneta americana*), Oriental cockroaches (*Blatta orientalis*), and Turkestan cockroaches (*Blatta lateralis*).

<sup>3</sup> Includes deltamethrin-resistant house flies

<sup>4</sup> Does not include the public health pests; black widow or brown recluse spiders

## DIRECTIONS FOR USE

**It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read entire label. Use strictly in accordance with label precautionary statements and directions.**

**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 State or Tribal agency responsible for pesticide regulation.

**IMPORTANT: Read entire DIRECTIONS FOR USE before using PEST-KOTE®.**

PEST-KOTE® is a contact spray and works only through contact action. PEST-KOTE® kills with spray application directly onto listed pests.

### **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. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

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

- Coveralls;
- Chemical-resistant gloves made of any waterproof material;
- Shoes plus socks; and
- Protective eyewear (goggles, face shield, or safety glasses). **After product is diluted in accordance with the directions for use, goggles, face shield, or safety glasses are not required**

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**USE RESTRICTIONS AND PRECAUTIONS**

- Only protected handlers may be in the area during application.
- DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift.
- DO NOT remain in the treated area. Exit area immediately and remain outside the treated area until aerosols, vapors and/or mists have dispersed.
- DO NOT reapply within 3 days, except during extreme pest pressure {except inside Mushroom Production House-see directions for specific restriction}
- In case of extreme pest pressure, do reapply within 24 hours. {except inside Mushroom Production House-see directions for specific restriction}
- Keep unprotected persons out of treated areas until sprays have dried.
- DO NOT apply directly into sewers or drains, or to any area like a gutter where drainage to storm sewers, water bodies, or aquatic habitat can occur.
- DO NOT allow the product to enter any drain during or after application

**ENTRY RESTRICTIONS:** For Contact Spray Use: **DO NOT** enter or allow adults, children, or pets to enter treated areas until sprays have dried.

**PEST-KOTE® is a contact spray and works only through contact action. PEST-KOTE® kills with spray application directly onto listed pests.**

Mix PEST-KOTE® with water for spray applications and dilute mixture can be applied with conventional hydraulic and air-blast sprayer (including backpack).

**APPLICATION INSTRUCTIONS****BUFFER WATER TO PH RANGE OF 5.0 to 7.5**

PEST-KOTE® may be diluted and applied with conventional application equipment including but not limited to compressed air sprayers, back pack sprayers and power sprayers.

1. Fill spray tank half full with water and begin agitation.
2. If foaming is expected, add silicone based antifoam to the tank.
3. If used as a tank mix, add pesticides and/or foliar nutrients as directed on their respective labels; maintain agitation.
4. Continue filling with water until the tank is ~90% full
5. Add the required amount of PEST-KOTE® and mix thoroughly. Add the remaining water to 100% full.

**COMPRESSED AIR/HYDRAULIC SPRAYERS:** For surface applications apply as a course, wet spray at the specified dilution rates listed below. For crack and crevice applications, place the tip of the applicator at or into the crack, crevice or void to be treated apply product at the rate of one second per foot. Apply in such a manner as to limit dripping and runoff on surfaces and plants.

**HOSE END SPRAYERS:** Dilute according to the specific directions for use. Shake sprayer to fully mix the product.

LOW-VOLUME SPRAYERS (including but not limited to backpack sprayers, turbine sprayers, orchard sprayers, mist blowers): Dilute according to dilution table or specific directions for use. Direct the nozzle(s) into the plant canopy to get good penetration and coverage, maintain the appropriate distance from the plants to avoid blast damage. The operator should visualize that all the air within the canopy must be replaced by the air from the blower.

USED AS A TANK MIX: PEST-KOTE® is compatible with the most commonly used nutritionals, herbicides, fungicides, insecticides and plant growth regulators. PEST-KOTE® is a 96% organosilicone product. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. The user or application advisor must have experience with the combination or must have conducted a phytotoxicity trial.

## PLANT SAFETY INFORMATION

PHYTOTOXICITY NOTE: Plant safety is an important consideration when using insecticides. However, it is not possible to evaluate the phytotoxicity of PEST-KOTE® towards all plant varieties that may react differently to insecticides in different growth stages or under varying environmental conditions. Before making widespread applications of PEST-KOTE®, treat a limited number of plants and observe for phytotoxicity over a 2-3-day period.

Under certain circumstances some plants are less tolerant to this product. See table "Plants known to be less tolerant to PEST-KOTE®". Special attention is required for applications to these crops. Product applications should first be tested at the lowest rate. All higher application rates must also be tested on a small number of plants before making large-scale treatments.

### Plants known to be less tolerant to PEST-KOTE®

Genus or Common Name
FLOWERS/ORNAMENTALS -Chrysanthemum (some varieties) -Gerbera -Pelargonium (e.g. geraniums) -Ornamental Asparagus
FRUIT -Apple -Pear
VEGETABLES -Cucurbit (e.g. gourds) -Leafy vegetables with delicate leaves (e.g., lettuce) -Pepper -Tomato
HERBS with delicate leaves (e.g., basil)

PEST-KOTE® has demonstrated plant safety when applied at the specified dilution rates. However not all plants and spray mixtures have been tested. The user or application advisor must have experience with the combination or must have conducted a phytotoxicity trial. To conduct a phytotoxicity trial, a small area should be tested and the results observed for at least 24 hours.



## RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, PEST-KOTE® contains a Group 3A insecticide. Any insect population may contain individuals naturally resistant to PEST-KOTE® and other Group 3A insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance management strategies should be followed.

To delay insecticide resistance, consider:

- Avoiding the consecutive use of PEST-KOTE® and other Group 3A insecticides that have a similar target site of action, on the same insect species.
- Using tank mixtures or premixes with insecticides from a different target site of action Group as long as the involved products are all registered for the same use and have different sites of action.
- Basing insecticide use on a comprehensive IPM program.
- Monitoring treated insect population for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors, and/or manufacturer at 1-469-277-7758 for insecticide resistance management, and/or IPM recommendations for the specific site and resistance pest problems.

**Used in Combination with other Insecticides:** PEST-KOTE® may be combined with other insecticides and acaricides where resistance may be a problem. See additional tank mix direction under Application Instructions.

## AGRICULTURAL USE

### GROWING CROPS (OUTDOORS AND INDOORS)

#### USE RESTRICTIONS AND PRECAUTIONS

- **DO NOT** wet plants to the point of run-off or drip.
- **DO NOT** harvest until spray has dried.
- **DO NOT** apply more than 10 times per season.
- **DO NOT** release spray at a height greater than 4 feet above the ground or crop canopy.
- **DO NOT** contaminate food or feedstuffs.

#### **For food crops growing outdoors in agricultural setting:**

- Pest pressure determines retreatment need.
- **DO NOT** use on trees when flowering, especially fruit trees.
- Re-apply at intervals of 5-7 days as needed. Following the third consecutive application, reapply after a minimum of 14 days.
- Buffer spray water to pH range of 5.0 to 7.5.
- Apply by ground **only**; **DO NOT** apply by air
- Avoid making applications when rainfall is expected before the product has sufficient time to dry (minimum 4 hours)
- Rainfall within 24 hours after application may cause unintended runoff of pesticide application
- Not for use in outdoor residential misting systems (whether indoor or outdoor).
- Not for use in outdoor metered release devices

**For food crops growing indoors:**

- **DO NOT** use on trees when flowering, especially fruit trees.
- Re-apply at intervals of 5-7 days as needed. Following the third consecutive application, reapply after a minimum of 14 days.

**THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS. IMPORTANCE OF DROPLET SIZE:**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

**Controlling Droplet Size – Ground Boom**

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.
- Applicators are required to select nozzle and pressure that deliver medium or coarser droplets (ASABE S572).

**BOOM HEIGHT – Ground Boom**

- For ground equipment, the boom should remain level with the crop and have minimal bounce.
- User must only apply with the nozzle height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.

**TEMPERATURE AND HUMIDITY**

- When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

**TEMPERATURE INVERSIONS**

- Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.
- **DO NOT** apply during temperature inversions.

**WIND**

- Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.**
- Applicators need to be familiar with local wind patterns and terrain that could affect spray drift. **DO NOT** apply when wind speeds exceed 15 mph at the application site.



**KILLS INSECTS:**

Ants\*\*, Aphids, Apple Maggots, Armyworms, Artichoke Plume Moths, Asparagus Beetles, Bagworms, Bean Beetles, Beet Armyworms, Blister Beetles, Boll Weevils, Brown Marmorated Stink Bug, Cabbage Loopers, Cankerworms, Carrot Weevils, Caterpillars, Chinch bugs, Clover Mites, Clover Weevils, Codling Moths, Colorado Potato Beetles, Corn Earworms, Crane Flies, Crickets, Cross-striped Cabbageworms, Cucumber Beetles, 12-spotted Cucumber Beetles, Cutworms, Diamondback Moth Larvae, Earwigs, Eastern Tent Caterpillars, Elm Leaf Beetles, European Corn Borers, European Pine Tip Moths, Fall Webworms, Firebrats, Fireworms, Flea Beetles, Forest Tent Caterpillars, Fruit Flies, Fruit tree Leafrollers, Fungus Gnats, Grain Mites, Other Mites, Grape Leafhoppers, Grapeleaf Skeletonizers, Grasshoppers, Green Fruitworms, Green Peach Aphids, Greenhouse Thrips, Gypsy Moths (adults & larvae), Harlequin Bugs, Heliothis sp., Hornworms, Imported Cabbageworms, Indian Meal Moths, Japanese Beetles, Katydid, Lace Bugs, Leafhoppers, Leafrollers, Leaf-tiers, Loopers, Lygus, Mealybugs, Mediterranean Flour Moths, Mexican Bean Beetles, Millipedes, Mites (Spider and Russet), Mushroom Flies, Navel Orangeworms, Onion Maggots, Pear Psylla, Phorid Flies, Plant bugs, Potato Leafhoppers, Psyllids, Red Cinnamon Mites, Rice Weevils, Sawtoothed Grain Beetles, Scale insects, Sciarid Flies, Silverfish, Skippers, Sowbugs, Spiders\*, Spotted Lanternfly, Stink Bugs, Tarnished Plant Bugs, Thrips, Tobacco bud worm, Tobacco flea beetle, Tobacco hornworm, Tomato hornworms, Vinegar flies, Webworms, and Whiteflies.

\*Does not include public health pests, black widow or brown recluse spiders.

\*\*Does not include public health pests: fire, pharaoh, harvester, and carpenter ants.

**Indoor Greenhouse Foliar Applications:** Refer to the application table[s] below for application rates for each crop grouping. If necessary, reapply to maintain pest suppression thresholds. The reapplication interval should be no less than 5-7 days. Following the third consecutive application, reapply after a minimum of 14 days. Apply using sufficient volumes to ensure thorough coverage of upper and lower leaf surfaces unless otherwise noted. Fire ants and pharaoh ants must be contacted directly by the product at the time of application from a distance of 6 inches.

**Outdoor Foliar Applications:** Refer to the application tables below for specific application rates for each crop grouping. Repeat applications if required (within 5-7 days) to maintain effective kill. Use in sufficient water for thorough coverage of upper and lower leaf surfaces unless otherwise noted. However, application rates can vary according to specific application equipment and plant size.

**PEST-KOTE® Indoor Application Rate Chart for Specific Crops**

Indoor/Greenhouse Grown Small Treated Areas (square feet) Mix PEST-KOTE® as directed, spray volumes will treat 2000 sq. ft. Use sufficient volumes to ensure thorough foliage coverage				
Crops	Application Rate	PEST-KOTE® per 2000 sq. ft.	Minimum Spray Volume (gallons)	Use Directions
Vegetables, Fruits and Berries ( <b>DO NOT</b> use on trees when flowering)	Low	¼ fl. oz.	2	Dilute in at least 2 gallons of water or dilute up to 4 gallons of water, depending on foliage density, to treat 2000 sq ft. <b>DO NOT</b> exceed maximum rate of 1/2 fl. oz. per 2000 sq ft (0.0072 lbs./acre).
	High	½ fl. oz.	2	
Cucumbers	--	¼ fl. oz.	2	Dilute in at least 2 gallons of water or dilute up to 4 gallons of water, depending on foliage density, to treat 2000 sq ft. <b>DO NOT</b> exceed application rate of ¼ fl. oz. per 2000 sq ft (0.0036 lbs./acre).
Tomatoes, Peppers, Herbs and Spices	Low	⅛ fl. oz.	2	Dilute in at least 2 gallons of water or dilute up to 4 gallons of water, depending on foliage density, to treat 2000 sq ft. <b>DO NOT</b> exceed maximum rate of 1/6 fl. oz. per 2000 sq ft (0.0024 lbs./acre).
	High	1/6 fl. oz.	2	

This specimen label is intended for use only as a guide in providing general information regarding the directions, warning and cautions associated with the use of this product. As with any pesticide, always follow the label instructions on the package before using.

**Indoor/Greenhouse Grown Large Treated Areas (acres)** Mix PEST-KOTE® as directed, spray volumes will treat one acre. Use sufficient volumes to ensure thorough foliage coverage.

Crops	Application Rate	PEST-KOTE® per Acre	Minimum Spray Volume (gallons)	Use Directions
Vegetables, Fruits and Berries ( <b>DO NOT</b> use on trees when flowering)	Low	3 fl. oz.	50	Dilute in at least 50 gallons of water or dilute up to 100 gallons of water, depending on foliage density, to treat one acre. <b>DO NOT</b> exceed maximum rate of 9 1/2 fl. oz. per one acre (0.0063 lbs./acre).
	High	9 ½ fl. oz.	50	
Cucumbers	--	5 ½ fl. oz.	50	Dilute in at least 50 gallons of water or dilute up to 100 gallons of water, depending on foliage density, to treat one acre. <b>DO NOT</b> exceed application rate of 5 ½ fl. oz. per one acre (0.0036 lbs./acre).
Tomatoes, Peppers, Herbs and Spices	Low	2 ¾ fl. oz.	50	Dilute in at least 50 gallons of water or dilute up to 100 gallons of water, depending on foliage density, to treat one acre. <b>DO NOT</b> exceed maximum rate of 5 ½ fl. oz. per one acre (0.0036 lbs./acre).
	High	5 ½ fl. oz.	50	

**PEST-KOTE® Outdoor Application Rate Chart for Specific Crops**

**Outdoor Large Treated Areas (acres)** Mix PEST-KOTE® as directed, spray volumes will treat 1 acre. Use sufficient volumes to ensure thorough foliage coverage.

Crops	Application Rate	PEST-KOTE® per Acre	Minimum Spray Volume (gallons)	Use Directions
Fruit trees (excluding pear), tree nuts, small fruits and berries ( <b>DO NOT</b> use on trees when flowering)	Low	10 fl. oz.	50	Dilute specified fl. oz. in at least 50 gallons of water, or up to 100 gallons of water. <b>DO NOT</b> exceed application rate of 12 fl. oz. per acre (0.0079 lbs./acre).
	High	12 fl. oz.	50	
Pears and Apples during growing season (Due to a risk of pear leaf injury and apple fruit injury– <b>DO NOT</b> use on trees when flowering; avoid spraying until 2-3 weeks after flowering)	--	8 ½ fl. oz.	50	Dilute in at least 50 gallons of water, or up to 65 gallons of water to treat very large canopies depending on foliage density. <b>DO NOT</b> exceed application rate of 8 ½ fl. oz. per acre (0.0056 lbs./acre).
Vegetables, all (excluding tomatoes, peppers, cucumbers, melons, eggplants, herbs and spices)	Low	6 ½ fl. oz.	50	Dilute specified fl. oz. in at least 50 gallons of water, or up to 65 gallons of water. <b>DO NOT</b> exceed application rate of 9 ½ fl. oz. per acre (0.0063 lbs./acre).
	High	9 ½ fl. oz.	50	
Tomatoes, peppers, Herbs and Spices	Low	3 fl. oz.	50	Dilute specified fl. oz. in at least 50 gallons of water, or up to 65 gallons of water. <b>DO NOT</b> exceed application rate of 4 ½ fl. oz. per acre (0.0023 lbs./acre).
	High	4 ½ fl. oz.	50	

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Crops	Application Rate	PEST-KOTE® per Acre	Minimum Spray Volume (gallons)	Use Directions
Cucumbers, Melons, Eggplants	Low	6 ½ fl. oz.	50	Dilute specified fl. oz. in at least 50 gallons of water, or up to 65 gallons of water. <b>DO NOT</b> exceed application rate of 7 ¾ fl. oz. per acre (0.0051 lbs./acre).
	High	7 ¾ fl. oz.	50	
Cereal grains (all)	--	7 fl. oz.	30	Dilute in at least 30 gallons of water or up to 40 gallons of water depending on foliage. <b>DO NOT</b> exceed application rate of 7 fl. oz. per acre (0.0046 lbs./acre).
Dormant Spray used on overwintering pests of fruit trees	--	17 ¼ fl. oz.	50	Dilute in at least 50 gallons of water depending on foliage. <b>DO NOT</b> exceed application rate of 17 ¼ fl. oz. per acre.
Forage, Fodder and Straw of Cereal Grains Grasses for Seed, Forage, Fodder and Hay Non-Grass Animal Feeds Tobacco Additional Crops: Artichoke, Asparagus, Avocado, Coffee, Cotton, Hops, Jojoba, Mushroom, Okra, Peanuts, Pineapple, Safflowers, Sesame, Sugarcane, Sunflowers, Tea, Tobacco	Low	3 fl. oz.	40	Dilute specified fl. oz. in at least 40 gallons of water or up to 80 gallons of water, depending on foliage density, per one acre. Depending on foliage density. <b>DO NOT</b> exceed application rate of 10 fl. oz. per acre (0.0066 lbs./acre).
	High	10 fl. oz.	40	

### Crops within each Crop Grouping

**Root and Tuber Vegetables:** Arracacha, Arrowroot, Purple Arrowroot, Japanese Artichoke, Jerusalem Artichoke, Garden Beets, Sugar Beets, Edible Burdock, Edible Canna, Carrots, Cassava (bitter or sweet), Celeriac (celery root), Chayote, Chervil (turnip-rooted), Chicory, Chufa, Dasheen, Ginger, Ginseng, Horseradish, Leren, Parsley (turniprooted), Parsnip, Potato, Radish, Japanese Radish (Daikon), Rutabaga, Salsify, Black Salsify, Spanish Salsify, Skirret, Sweet Potato, Tanier, Turmeric, Turnip, Yam (true), Yam Bean.

**Leaves of Root and Tuber Vegetables:** Garden Beet, Sugar Beet, Edible Burdock, Carrot, Cassava (bitter or sweet), Celeriac (celery root), Chervil (turnip-rooted), Chicory, Dasheen (taro), Parsnip, Radish, Japanese Radish (Daikon), Rutabaga, Black Salsify, Sweet Potato, Tanier, Turnip, Yam (true).

**Bulb Vegetables:** (Allium spp.): Garlic, Great-headed Garlic, Leek, Onion (dry bulb and green), Onion, Welsh, Shallot.

**Leafy Vegetables:** Amaranth (Leafy Amaranth, Chinese Spinach, Tampala), Arugula, Cardoon, Celery, Chinese Celery, Celtuce, Chervil, Cilantro, Corn Salad, Chrysanthemum (edible leaved), Chrysanthemum (garland), Cress (garden, water), Upland Cress (yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Fennel (Florence), Lettuce (head and leafy), Orach, Parsley, Purslane (garden & winter), Radicchio, Rhubarb, Spinach, Vine Spinach (Malabar, Indian), Spinach (New Zealand), Swiss Chard.

This specimen label is intended for use only as a guide in providing general information regarding the directions, warning and cautions associated with the use of this product. As with any pesticide, always follow the label instructions on the package before using.

**Brassica (Cole) Leafy Vegetables:** Broccoli, Chinese Broccoli (Gai Lan), Broccoli raab (Rapini), Brussels Sprouts, Cabbage, Chinese Cabbage (Bok Choy), Chinese Cabbage (Napa), Chinese Mustard Cabbage (Gai Choy), Cauliflower, Cavalo broccolo, Collards, Kale, Kohlrabi, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens.

**Legume Vegetables (Succulent Or Dried):** Adzuki Beans, Field Beans, Kidney Beans, Lima Beans, Moth Beans, Mung Beans, Navy Beans, Pinto Beans, Rice Beans, Runner Beans, Snap Beans, Tepary Beans, Urd Beans, Wax Beans, Asparagus Beans, Blackeyed Peas, Catjang, Chinese Longbeans, Cowpeas, Crowder Peas, Southern Peas, Yardlong Beans, Broad Beans (Fava Beans), Chickpeas (Garbanzo Beans), Guar, Jackbean (Sword Bean), Lablab Bean (Hyacinth Bean), Lentils, Peas (Edible Pod Pea, Garden Peas, Field Peas, Sugar Snap Peas, English Pea, Snow Pea), Pigeon Peas, Soybeans, Sweet Lupin Beans, White Lupin Beans, White Sweet Lupin, Sword Bean.

**Foliage of Legume Vegetables:** Plant parts of any legume vegetable included in the legume vegetable group that will be used as animal feed including any variety of Beans, Field Peas, Soybeans.

**Fruiting Vegetables:** Eggplant, Ground Cherry, Okra, Pepino, Pepper (Bell Pepper, Chili Peppers, Cooking Peppers, Pimentos, Sweet Peppers), Tomatillo, Tomato.

**Cucurbit Vegetables:** Balsam Apple, Balsam Pear (Bitter Melon), Chayote, Chinese Waxgourd (Chinese preserving melon), Chinese Cucumber, Citron Melon, Cucumber, Gherkin, Edible Gourds, Muskmelons (including hybrids, Cantaloupe, Casaba, Crenshaw, Golden Pershaw Melon, Honeydew Melons, Honey Balls, Mango Melon, Muskmelon, Persian Melon, Pineapple Melon, Santa Claus Melon, Snake Melon), Pumpkin, Squash (summer & winter), Watermelon (including hybrids).

**Citrus Fruits:** Calamondin, Citrus Citron, Citrus Hybrids, Grapefruit, Kumquats, Lemons, Limes, Mandarin (Tangerine), Orange (sweet & sour), Pummelo, Satsuma Mandarin (Citrus spp. includes Chironja, Tangelos, Tangors).

**Pome Fruits:** Apple, Crab Apple, Loquat, Mayhaw, Pear, Oriental Pear, Quince.

**Stone Fruits:** Apricot, Cherry (sweet & sour), Nectarine, Peach, Plum, Prune, Chickasaw Plum, Damson Plum, Japanese Plum, Plumcot.

**Small Fruits and Berries:** Blackberry, Blueberry, Cranberry, Currant, Dewberry, Elderberry, Gooseberry, Grape, Huckleberry, Loganberry, Olallieberry, Raspberry (black & red), Strawberry, Youngberry.

**Tree Nuts:** Almond, Beech Nut, Brazil Nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory nut, Macadamia Nut (Bush Nut), Pecan, Pistachio, Walnut, Black and English (Persian).

**Oriental Vegetables:** Acerola, Atemoya, Balsam Pear (bitter melon), Carambola, Chinese Broccoli (Gai Lan), Chinese Cabbage (Bok Choy, Napa), Chinese Longbeans, Chinese Mustard Cabbage (Gai Choy), Chinese Spinach, Chinese Waxgourd, Cilantro, Citron Melon, Dasheen, Ginger, Ginseng, Japanese Artichoke, Japanese Radish (Daikon), Mung Beans, Rambutan, Water Chestnuts.

**Subtropical Fruits:** Avocado, Banana, Carob, Barbados Cherry, Cherimoya, Dates, Durian (Jackfruit), Feijoa, Figs, Guava, Kiwifruit, Lychee, Mango, Papaya, Passion Fruit, Paw, Persimmon, Pineapple, Pomegranate.

**Herbs and Spices:** Allspice, Angelica, Anise (Anise seed), Annatto, Balm, Basil, Black Caraway, Borage, Burnet, Caper Buds, Caraway, Cardamom, Cassia bark, Cassia buds, Catnip, Celery Seed, Chamomile, Chervil dried, Chives, Chinese Chive, Clary, Clove Buds, Coriander (cilantro or Chinese parsley leaf), Coriander (cilantro seed), Costmary, Cilantro, Cumin, Curry Leaf, Dill (dill weed), Dill (seed), Fennel (Italian and Sweet), Fenugreek, Grains of Paradise, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage (leaf & seed), Mace, Marigold, Sweet Marjoram, Wild Marjoram, Mustard (seed), Nasturtium, Nutmeg, Parsley, Oregano, Mint, Paprika, Parsley, Pennyroyal, Pepper (black & white), Poppy seed, Rosemary, Rue, Saffron, Sage, Savory, Summer and Winter Savory, Sweet Bay (Bay Leaf), Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood.

**Additional Crops:** Artichoke, Asparagus, Avocado, Coffee, Cotton, Hops, Jojoba, Mushroom, Okra, Peanuts, Pineapple, Safflowers, Sesame, Sugarcane, Sunflowers, Tea, Tobacco.

**Cereal Grains:** Barley, Buckwheat, Corn (sweet and field), Millet, Proso, Oats, Pearl, Popcorn, Rice, Rye, Sorghum (Milo), Teosinte, Triticale, Wheat, Wild Rice.

**Forage, Fodder and Straw of Cereal Grains:** Barley, Buckwheat, Corn (sweet and field), Millet, Proso, Oats, Pearl, Popcorn, Rice, Rye, Sorghum (milo), Teosinte, Triticale, Wheat, Wild Rice.

**Grasses for Seed, Forage, Fodder and Hay:** Any grass, Gramineal family (green or cured) except sugarcane and those listed in the cereal grains group that will be fed to or grazed by livestock, all pasture and range grasses and grasses grown for hay or silage, Bermudagrass, Bluegrass, Bromegrass, Fescue.

**Non-Grass Animal Feeds:** Alfalfa, Velvet Bean, Clover, Kudzu, Lespedeza, Lupin, Sainfoin, Trefoil, Crown Vetch, Milk Vetch.

## **ORNAMENTAL CROPS FOR SALE**

### **Trees, shrubs, flowers, foliage plants**

Apply PEST-KOTE® to control pests (refer to Table “Pests Controlled by PEST-KOTE®”) on ornamental plants.

#### **USE RESTRICTIONS AND PRECAUTIONS**

- Avoid making applications when rainfall is expected before the product has sufficient time to dry (minimum 4 hours)
- Rainfall within 24 hours after application may cause unintended runoff of pesticide application.
- Not for use in outdoor residential misting systems (whether indoor or outdoor).
- Not for use in outdoor metered release devices
- **DO NOT** wet plants to the point of run-off or drip.
- **DO NOT** harvest until spray has dried.
- **DO NOT** apply more than 10 times per season.
- **DO NOT** release spray at a height greater than 4 feet above the ground or crop canopy.
- **DO NOT** contaminate food or feedstuffs.

**Kills Insects:**

Ants\*, Aphids, Brown Marmorated Stink Bugs, Flea Hoppers, Leafhoppers, Japanese Beetles, Katydid, Lace Bugs, Leafhoppers, Psylla, Psyllids, Scale insects, Spider Mites, Spotted Lanternfly, Stink Bugs, Thrips, and Whiteflies.

\*Does not include public health pests: fire, pharaoh, harvester, and carpenter ants.

**BEDDING, CUT FLOWER, FOLIAGE, PERENNIAL AND TROPICAL PLANTS:** African Violet, Ageratum, Angelonia, Alstroemeria, Aster, Azalea, Begonia, Cacti, Calceolaria, Calendula, Calla, Camellia, Carnation, Ceanothus, Cineraria, Chrysanthemum, Coleus, Cyclamen, Cypress, Daffodil, Dahlia, Delphinium, Dianthus, Fern, Ficus, Foliage Plants, Fuschia, Gardenia, Geranium, Gladiolus, Gloxinia, Gypsophila, Hibiscus, Holly, Hyacinth, Hydrangea, Impatiens, Iris, Lilies, Maidenhair Fern, Marigold, Narcissus, Palm, Pansy, Pelargonium, Peony, Petunia, Herbaceous Perennials, Philodendron, Phlox, Pyracantha, Roses, Rubber Plant, Snapdragon, Stock, Sweet Pea, Tropicals, Tulips, Violas, Wandering Jew, Zinnia

**WOODY ORNAMENTALS, TREES, SHRUBS AND EVERGREENS:** Andromeda, Arborvitae, Ash, Aspen, Beech, Birch, Boxwood, Cotoneaster, Cottonwood, Crabapple, Dogwood, Elm, Euonymus, Fir, Firethorn, Forsythia, Flowering Cherry, Flowering Pear, Hawthorn, Hemlock, Hickory, Hibiscus, Holly, Honey Locust, Horse Chestnut, Juniper, Larch, Laurel, Lilac, Linden, Maple, Mimosa (Silk Tree), Myrtle, Oak, Pine, Planetree, Privet, Red Bud, Rhododendron, Roses, Tulip Tree, Viburnum, Willow, Yew.

**Use Sites:**

Greenhouse and outdoor-grown ornamental crops for sale:

- Bedding plants
- Containerized and ball and burlap plants
- Cut flowers
- Evergreens
- Flowering plants (to minimize phytotoxicity only apply when out of bloom)
- Foliage plants
- Ground covers
- Ornamental trees and shrubs
- Perennials

PEST-KOTE® is a contact spray that works only when sprayed directly on the target pest. Good spray coverage of all plant sites where pests are feeding is necessary for control.

Re-apply 1-2 times at intervals of 7-10 days as needed.

Pest habits and level of pest pressure determine retreatment need.

Mix PEST-KOTE® with water for spray applications. The dilute mixture can be applied using conventional hydraulic and sprayers (including backpack). Refer to the "Application rates for ornamentals" table for the appropriate application rate.



**Application rates for ornamentals**

**Small Treated Areas (square feet)** Mix PEST-KOTE® as directed, spray volumes will treat 2000 sq. ft. Use sufficient volumes to ensure thorough foliage coverage.

Crops	Application Rate	PEST-KOTE® per 2000 sq. ft.	Minimum Spray Volume (gallons)	Use Directions
Trees, Shrubs ( <b>DO NOT</b> use on trees when flowering)	Low	¼ fl. oz.	2	Dilute in at least 2 gallons of water or dilute up to 4 gallons of water, depending on foliage density, to treat 2000 sq ft. <b>DO NOT</b> exceed maximum rate of ½ fl. oz. per 2000 sq. ft (0.0072 lbs./acre).
	High	½ fl. oz.	2	
Roses	--	¼ fl. oz.	2	Dilute in at least 2 gallons of water or dilute up to 4 gallons of water, depending on foliage density, to treat 2000 sq. ft. <b>DO NOT</b> exceed application rate of ¼ fl. oz. per 2000 sq ft (0.0036 lbs./acre).
Other ornamental plants	--	1/8 fl. oz.	2	Dilute in at least 2 gallons of water or dilute up to 4 gallons of water, depending on foliage density, to treat 2000 sq. ft. <b>DO NOT</b> exceed application rate of 1/8 fl. oz. per 2000 sq ft (0.0018 lbs./acre)

**Large Treated Areas (acres)** Mix PEST-KOTE® as directed, spray volumes will treat one acre. Use sufficient volumes to ensure thorough foliage coverage.

Crops	Application Rate	PEST-KOTE® per Acre	Minimum Spray Volume (gallons)	Use Directions
Trees, Shrubs ( <b>DO NOT</b> use on trees when flowering)	Low	7 fl. oz.	50	Dilute in at least 50 gallons of water, or dilute up to 100 gallons of water for very large canopies, to treat one acre. <b>DO NOT</b> exceed maximum rate of 12 fl. oz. per one acre (0.0079 lbs./acre).
	High	12 fl. oz.	50	
Roses	Low	5 ¼ fl. oz.	50	Dilute in at least 50 gallons of water, or dilute up to 100 gallons of water for dense foliage, to treat one acre. <b>DO NOT</b> exceed maximum rate of 6 ½ fl. oz. per one acre (0.0043 lbs./acre).
	High	6 ½ fl. oz.	50	
Other ornamental plants	--	3 fl. oz.	50	Dilute in at least 50 gallons of water, or dilute up to 80 gallons of water for dense foliage, to treat one acre. <b>DO NOT</b> exceed application rate of 3 fl. oz. per one acre (0.0012 lbs./acre).

## MUSHROOM PRODUCTION HOUSES

For control of fungus gnats, mushroom flies (Phorid flies, Sciarid flies) and red cinnamon mites.

**CASING SOIL IN MUSHROOM HOUSES:** Apply to the casing soil at a rate of 13 ¼ fl. oz. per 8000 square feet with a suitable amount of water to evenly spread across room (typically 13 ¼ fl. oz. mixed in to 25 to 50 gallons water). Application can be made directly to casing soil using a water pump and watering nozzle. Timing of application can be from day zero of casing until the formation of mushroom pinheads. May be applied up to 2 times during case hold, with a 4 day interval between applications. Product can also be used between breaks/flushes before the formation of pinheads for the next break/flush. Maintain water pH of 5 to 6. **DO NOT** exceed 13 ¼ fl. oz. per 8000 square feet (0.047 lbs./acre).

PREMISE SURFACES IN MUSHROOM HOUSES: Apply PEST-KOTE® to control accessible, exposed stages of fungus gnats and mushroom flies. Dilute 1 part of PEST-KOTE® with 100 parts of water (1 ¼ fl. oz. per gallon) and apply directly on the observed pest at the rate of 1 gallon per 750-800 square feet of dilute spray. Repeat application as necessary. **DO NOT** exceed 1 ¼ fl. oz. per 750 square feet (0.048 lbs./acre).

## **NON-AGRICULTURAL USE**

### **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. **DO NOT** enter or allow people (or pets) to enter the treated areas until sprays have dried. Wear protective clothing when using or handling this product to help avoid exposure to eyes and skin. Eye protection, gloves, a long-sleeved shirt and long pants are recommended. After product is diluted in accordance with the directions for use, goggles, face shield, or safety glasses are not required.

## **TURF GRASS**

### **Turf Grass Lawns and Golf Course Tees, Greens, Fairways and Roughs:**

Used to Control Insect Pests on Golf Courses and Lawns in Landscaped Areas Around Residential, Institutional, Public, Commercial and Industrial Buildings, Parks, Recreational Areas and Athletic Fields.

### **USE RESTRICTIONS AND PRECAUTIONS**

- Avoid making applications when rainfall is expected before the product has sufficient time to dry (minimum 4 hours)
- Rainfall within 24 hours after application may cause unintended runoff of pesticide application
- Not for use in outdoor residential misting systems (whether indoor or outdoor).
- Not for use in outdoor metered release devices
- **DO NOT** apply when the wind speed is greater than 15 mph
- For soil or foliar applications, **DO NOT** apply by ground equipment within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.
- Applicators are required to select the nozzle and pressure that deliver a medium or coarser droplet size (ASABE S572)
- **DO NOT** wet plants to the point of run-off or drip.
- **DO NOT** harvest until spray has dried.
- **DO NOT** apply more than 10 times per season.
- **DO NOT** release spray at a height greater than 4 feet above the ground or crop canopy.
- **DO NOT** contaminate food or feedstuffs.

### **Apply PEST-KOTE® to control the following insects:**

For control of accessible, exposed stages of Annual bluegrass weevil, Ants\*, Armyworms, Brown Marmorated Stink Bugs, Crickets, Cutworms, Earwigs, Grasshoppers, Japanese beetles (adult), Millipedes, Mites, Pillbugs, Sod webworms, Sow bugs, Spotted Lanternflies, Stink Bugs, Bluegrass billbug (adult), Chinch bugs, Black turfgrass ataenius (adult), Chiggers.

\*Does not include public health pests: fire ants, pharaoh, harvester ants, and carpenter ants.

For turf grass, combine 11 fl. oz. of PEST-KOTE® with 50 gallons of water. Apply the dilute mix at a rate no less than 50 gallons per 1 acre with conventional hydraulic sprayers or compressed air sprayers.

**Application rates for turf grass**

Crop	Fl. oz. of PEST-KOTE® per Acre	Spray Volume (gallons)	Use Directions
Turf grass	11 fl. oz.	50	Dilute in at least 50 gallons of water or dilute up to 100 gallons of water depending on turf density to treat 1 acre. <b>DO NOT</b> exceed maximum rate of 11 fl. oz. per 1 acre (0.0073 lbs./acre)

Apply directly to pest.  
 Re-apply 1-2 times at intervals of 7-10 days as needed.  
 Pest habits and level of pest pressure determine retreatment need.

## POULTRY AND LIVESTOCK SPRAY

For use in animal housing facilities, poultry houses, coops, cattle, sheep, hogs, goat and dairy facilities or horse stables.

Pest pressure determines retreatment need.

**USE RESTRICTIONS AND PRECAUTIONS**

- **DO NOT** apply when food, feed and/or water is present.
- Prior to spray, cover or remove food. Cover food processing surfaces or clean after treatment and before use.
- **DO NOT** apply more than one time per day.

When used in dairy barns or facilities:

- Close milk bulk tank lids to prevent contamination from spray and from dead or falling insects.
- Remove or cover milking utensils before application.
- Wash teats of animals before milking.

**To Control Arthropod Pests on Poultry and in Poultry Houses or Coops:**

**FOR TREATMENT IN POULTRY HOUSES OR COOPS:** dilute 1 part of PEST-KOTE® with 100 parts of water (1 ¼ fl. oz. per gallon) and apply as a mist (medium droplet size) to immediate surroundings of poultry houses or coops to control insects: darkling beetles, chicken (red) mites, scaly leg mite and depluming mite. Thoroughly apply spray to roosts, walls and nests or cages. Apply to premises indoors and outdoors where arthropod pests may be harboring at a rate of 5 gallons per 2000 square feet.

<b>Poultry House or Coops Spray</b> Mix PEST-KOTE® as directed. Spray volumes will treat 2000 sq. ft. Use sufficient volumes to ensure coverage.			
Use	PEST-KOTE®	Spray Volume (gallons)	Use Directions
Poultry Houses or Coops	1 ¼ fl. oz.	1 gallon	Apply at a rate of 5 gallons per 2000 sq. ft. <b>DO NOT</b> exceed 1 ¼ fl. oz. per 2000 sq. ft (0.018 lbs./acre).

**FOR TREATMENT ON POULTRY AS A DIRECT SPRAY:** Dilute 1 part of PEST-KOTE® with 150 parts of water (1 fl. oz. per gallon) and apply solution directly to birds at a rate of 1 gal per 64 birds (2 fl. oz. per bird). To control insects: darkling beetle, poultry lice, chicken (red) mites, scaly leg mite and depluming mite, spray the birds directly. For poultry lice concentrate spray to penetrate feathers under the wing. For scaly leg mite, focus sprays directly on poultry legs and feet.

<b>Poultry Spray Mix PEST-KOTE®</b> as directed, spray volumes will treat 25 birds.			
Use	PEST-KOTE®	Spray Volume	Use Directions
Poultry	1 fl. oz.	1 gallon	Apply at a rate of 1 gallon dilute spray per 64 birds (2 fl. oz. per bird). <b>DO NOT</b> exceed 2 fl. oz. per bird (0.0013 lbs./bird)

**TO CONTROL NORTHERN FOWL MITE:** For maximum control, apply a 0.6% concentration of PEST-KOTE® (3/4 fl. oz. per gallon) at a rate of 2 fl. oz. of solution per bird using a tank sprayer with a hand-held wand. Penetrate the feathers around the vent with spray application focused on the vent (cloaca) area of the bird. Use power sprayer at no less than 120-125 psi. More attention must be given to individual birds when using low-pressure equipment. Repeat when necessary.

**To Control Biting and Sucking Lice on Livestock:**

Dilute 1 part of PEST-KOTE® with 100 parts of water (1 ¼ fl. oz. per gallon) and apply as a mist (medium droplet size) to animals to control biting and sucking lice on cattle, horses, sheep, goats, and hogs. Spray thoroughly to wet the hair of the animal including the head and brush of the tail. Repeat applications in 10 days to kill newly hatched lice. Close milk bulk tank lids to prevent contamination from spray and from dead or falling insects. Remove or cover milking utensils before application. Wash teats of animals before milking.

<b>Livestock Spray Mix PEST-KOTE®</b> as directed, adjust spray volumes to thoroughly wet the area being treated.			
Use	PEST-KOTE®	Spray Volume	Use Directions
Livestock	1 ¼ fl. oz.	1 gallon	Using the appropriate dilution listed in table, apply to thoroughly wet the area being treated. <b>DO NOT</b> exceed 1 ¼ fl. oz. per gallon (0.00083 lbs./gallon)

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## INDOOR PREMISE SPRAYS

### Where to Use:

INDOOR: kitchens, bathrooms, basements, garages and laundry rooms as a contact insect killer. Remove pets and birds and cover fish aquariums before application. Apply to insects in: openings leading to voids and hollow spaces in floors, walls, ceilings, equipment legs and bases, around plumbing pipes, doors and windows, on carpets, and behind and under appliances and cabinets where insects are typically known to be present.

For use in homes and residential areas, institutional, warehousing and commercial establishments: apartment buildings, warehouses, restaurants, cafeterias, food processing plants (meat or vegetable processing plants or canneries), supermarkets (non-public areas), hospitals, laboratories, computer facilities, sewers, animal housing facilities (poultry houses, cattle, sheep, swine, goat and dairy facilities, horse stables, dog kennels), modes of transportation (buses, aircraft, recreational vehicles), Miscellaneous areas: garbage rooms, lavatories, entries, and vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, mop closets and storage (after canning or bottling).

PEST-KOTE® is a contact spray and works only through contact action. Pest pressure determines retreatment need. Spray insects thoroughly. Fleas must be contacted by the product directly at time of application from a distance of 12 inches. Fire and pharaoh ants must be contacted by the product directly at time of application from a distance of 6 inches.

### **USE RESTRICTIONS AND PRECAUTIONS**

- Cover all food processing surfaces, dishes and utensils during treatment or thoroughly washed before use.
- Remove pets, birds and cover fish aquariums before application.
- Take care when using on surfaces susceptible to damage and/or stains (e.g., mattresses, carpet, furniture).
- Treat a small area to ensure damage and/or stain does not occur before larger application

Refer to “Application rates for premise sprays” table for the appropriate application rate.

### Crawling and Flying Insects:

Direct spray applications will control insects:

Ants\*\*\*, Blister Beetles, Brown Marmorated Stink Bugs, Caterpillars, Cockroaches, Crickets, Earwigs, Firebrats, Fireworms, Fleas, Flea Beetles, Grasshoppers, House Flies\*\*, Leaf-tiers, Lygus Mealy Bugs, Millipedes, Psyllids, Silverfish, Sowbugs, Stink Bugs, Spiders\*, Webworms, Crane Flies, Fungus Gnats, Fruit Flies, Gnats, Japanese Beetle, Katydid, Leafhopper, Leafrollers, Loopers, Mushroom Flies, Skippers, Small Flying Moths, Stink Bugs, Spotted Lanternflies, Vinegar Flies, Whiteflies. Repeat application as necessary.

\*Does not include the public health pests black widow or brown recluse spiders.

\*\*Includes deltamethrin-resistant house flies

\*\*\* Does not include public health pests: fire, pharaoh, harvester, and carpenter ants.

Indoor/Premise Treated Areas – Indoor Crawling and Flying Insects – Mix PEST-KOTE® as directed; apply dilution at a minimum rated of 1 gal/1000 sq ft			
Use	Concentration (fl. Oz. per ONE gallon)		Use Directions
	Low	High	
Fleas	1.0 fl. oz.	1.5 fl. oz.	Dilute in one gallon of water to treat 1000 sq ft. <b>DO NOT</b> exceed maximum rate of 1.5 fl. oz. per 1000 sq ft (0.043 lbs/acre). Spray fleas from distance of 12 inches.
Ants*, Cockroaches	1 ¼ fl. oz.	5 fl. oz.	Dilute in one gallon of water to treat 1000 sq ft. <b>DO NOT</b> exceed maximum rate of 5 fl. oz. per 1000 sq ft (0.14 lbs/acre).
Spiders**	2.5 fl. oz.	5 fl. oz.	
Stored Product Pests	1 ¼ fl. oz.	5 fl. oz.	
Other Crawling and Flying Insects	1 ½ fl. oz.	5 fl. oz.	
When tank-mixing with other insecticides	1/8 fl. oz.	½ fl. oz.	Dilute in one gallon of water to treat 1000 sq ft. <b>DO NOT</b> exceed maximum rate of 1/2 fl. oz. per 1000 sq ft (0.014 lbs/acre).

\* Does not Include public health pests: fire, pharaoh, harvester, and carpenter ants.

\*\*Does not include public health pests black widow, or brown recluse spiders.

## BED BUGS

### USE RESTRICTIONS AND PRECAUTIONS

- Cover all food processing surfaces, dishes and utensils during treatment or thoroughly washed before use.
- Remove pets, birds and cover fish aquariums before application.
- Take care when using on surfaces susceptible to damage and/or stains (e.g., mattresses, carpet, furniture).
- Treat a small area to ensure damage and/or stain does not occur before larger application

PEST-KOTE® kills with spray application directly onto bedbugs. Thoroughly inspect possible bed bug infestation sites and note areas of potential harborage or known infestation sites. Before application, remove or pick up obstacles, such as clothing, that prevent careful inspection or treatment. Infested bedding (pillows, sheets, and blankets), clothing, or other items should be removed and sanitized.

### To kill bed bugs in beds:

- Deconstruct the bed and remove any parts of the bed frame that are wall mounted.
- Apply PEST-KOTE® directly to bed bugs present in the seams, folds, tufts, and edges of mattresses. When applying to bed bugs on mattresses, limit application to seams, folds, tufts, and edges.
- Apply PEST-KOTE® directly to bed bugs present in any hollow joints or channels, such as square or round tubing, or into cracks and crevices inside the bed frame, headboards, and footboards.



**To kill bed bugs in other sites:**

- Apply PEST-KOTE® directly to bed bugs found in cracks and crevices that accompany light switches, wall plates, faceplates, outlet covers, mounting boxes and housings, table and wall mounted lamps, wall crevices, drapery rods, curtains, blinds or mounting hardware, and other cracks and crevices.
- Apply PEST-KOTE® directly to bed bugs found inside furniture and associated accessories, including inside empty drawers, empty shelving in clothes closets, night stands, carpet edges, low and high wall moldings including floor molding, window casings, window ledges and window sills, door jambs and hinges, wall voids, behind wall fixtures, hangings, and mirrors.
- To kill bed bugs in carpets, pull carpeting from tack strip and apply PEST-KOTE® directly to bed bugs under the baseboard, sill plate, and carpet tack strips.

<b>Bed Bugs</b> - indoor/premise treated areas: Mix PEST-KOTE® as directed; apply dilution at a minimum rate of 0.0375 fl. oz. per 1 sq. ft. <b>DO NOT</b> exceed 5 fl. oz. per gallon (0.0033 lbs./gallon)		
<b>Use</b>	<b>Concentration (fl. oz. per ONE gallon)</b>	
	<b>Low</b>	<b>High</b>
Bed Bugs	3.75 fl. oz	5 fl. oz.

**USE IN FOOD HANDLING ESTABLISHMENTS**

Applications are permitted in food/feed areas of food/feed handling establishments as a contact spray, space spray or treatment of cracks and voids including those operating under the Federal meat, poultry, shell egg grading and egg products inspection programs.

Food handling establishments are places other than private residences in which food is held, processed, prepared or served.

**USE RESTRICTIONS AND PRECAUTIONS**

- Cover or remove exposed food; cover food processing surfaces or clean after treatment with a suitable detergent, rinse with potable water before use.
- **DO NOT** apply more than 1 time per day.
- Remove or cover dishes, utensils, food processing equipment and food preparation surfaces, or wash them before use.
- Remove or cover exposed food and drinking water before application.

**FOOD AREAS:** areas for receiving, serving, storing (dry, cold, frozen, raw), packing (canning, bottling, wrapping, boxing), preparing (cleaning, slicing, cooking, grinding) edible waste storage and enclosed processing systems (mills, dairies, edible oils, syrups, extraction and pelleting)

**NON-FOOD AREAS:** garbage containment, lavatories, floor drains, entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, closets and storage areas.

Apply according to specific directions for pests to be treated under the Indoor Use section below. Prior to space spray applications, remove or cover exposed food and drinking water in the treatment areas. Remove or cover dishes, utensils, food processing equipment, and food preparation surfaces, in the treatment areas, or wash them before use.

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## CONTACT SPRAY IN FOOD/FEED PROCESSING, PRODUCTION AND STORAGE SITES

*When used in indoor food handling/processing facilities:*

- Cover or remove exposed food; cover food processing surfaces or clean after treatment with a suitable detergent, rinse with potable water before use.
- **DO NOT** apply more than 1 time per day.
- Remove or cover dishes, utensils, food processing equipment and food preparation surfaces, or wash them before use.
- Remove or cover exposed food and drinking water before application.

*When used in food processing and food storage sites*

- **DO NOT** apply directly to food.
- **DO NOT** apply while food processing is underway.
- Foods should be removed or covered during treatment.
- All food processing surfaces and equipment should be covered or washed with an effective cleaning compound followed by a potable water rinse.

**Contact Spray - for Use with Sprayers that Give Large, Wetting Spray Particles to Kill Accessible Stages of Indoor Pests and Granary Insects:** Ants<sup>\*\*\*</sup>, Brown Marmorated Stink Bugs, Drugstore Beetles, Cockroaches (including German Cockroaches, American Cockroaches, Oriental Cockroaches, and Turkestan Cockroaches), Earwigs, Beetles, Boxelder Bugs, Clover Mites, Cadelles, Confused Flour Beetles, Fungus Gnats, Grain Mites, Granary Weevils, House Flies<sup>\*\*</sup>, Meal Moth Larvae and Adults, Phorid Flies, Red Flour Beetles, Rice Weevils, Sciarid Flies, and Saw-toothed Grain Beetles, Spiders\*, Spotted Lantern Flies, Stink Bugs, and other listed insects.

\*Does not include the public health pests black widow, or brown recluse spiders.

\*\*Includes deltamethrin-resistant house flies

\*\*\*Does not include public health pests: harvester, and carpenter ants.

Dilute using 1 part of PEST-KOTE<sup>®</sup> to 100 parts water (1 1/2 fl. oz. per gallon) and apply at a rate of 1.0 gallon per 1000 square feet. Cover or remove exposed food and close room. Spray outside walls of grain bins, flooring, about base of milling machinery, walls and baseboards, areas behind cabinets and around pipes, and other insect harborages apply as a coarse wetting spray using approximately 1.0 gallon of spray mixture per 1000 square feet of surface. In case of severe infestation, spray at the rate of 2.0 gallons per 1000 square feet. To ensure maximum control of listed insects, spray insects directly and thoroughly. Repeat as necessary. **DO NOT** exceed 3 fl. oz. per 1000 square feet (0.086 lbs./acre)

**Stored Food:** (Stored in multi-wall bags or cloth bags) in flour mills, grain elevators, granaries, storage rooms, and warehouses for control of Angoumois Grain Moths, Brown Marmorated Stink Bugs, Cadelles, Cheese Mites, Cheese Weevils, Cigarette Beetles, Confused Flour Beetles, Dark Mealworms, Grain Mites, Granary Weevils, Indian Meal Moths, Mediterranean Flour Moths, Red Flour Beetles, Rice Weevils, Saw-toothed Grain Beetles, Spotted Lanternflies, Stink Bugs and Yellow Mealworms:

Remove and destroy infested products. Dilute concentrate with water at the rate of 1 part of PEST-KOTE<sup>®</sup> to 100 parts water (1 1/2 fl. oz. per gallon) and mix well. Apply this product as a coarse wetting spray using approximately 2.5 gallons per 2000 square feet. In case of severe infestation, spray at the rate of 5 gallons per 2000 square feet. Disperse this product first by directing spray into corners, under pallets and around stacks of packaged foods, contacting as many insects as possible. **DO NOT** exceed 7.5 fl. oz. per 2000 square feet (0.11 lbs./acre)

**Zoos:** As a direct spray, dilute for use in conventional sprayers equipment to kill flying and crawling insects and small flying moths: Dilute concentrate with water at the rate of 1 part of PEST-KOTE® to 100 parts water (1 1/2 fl. oz. per gallon) and mix well. Apply this product as a coarse wetting spray using approximately 1.0 gallon per 1000 square feet. In case of severe infestation, spray at the rate of 2 gallons per 1000 square feet. Apply to premise (indoors and outdoors) when animals are not present. **DO NOT** exceed 3 fl. oz. per 1000 square feet (0.086 lbs./acre)

**Federally Inspected Meat and Poultry Plants:** Dilute one part concentrate with 100 parts water (1 1/2 fl. oz. per gallon) and spray at the rate of 1 gallon per 1000 square feet. In case of severe infestation, spray at the rate of 2 gallons per 1000 square feet. Apply the spray into all cracks and crevices in woodwork, walls, floors, underneath sinks, behind pipes and in all places where these insects shelter.

Contact as many insects as possible. Repeat as necessary for control of exposed or accessible stages of Ants, Darkling Beetles, Earwigs, Fruit Flies, Gnats, Silverfish, Small Flying Moths, Spiders\*. **DO NOT** exceed 3 fl. oz. per 1000 square feet (0.086 lbs./acre).

\*Does not include public health pests black widow, or brown recluse spiders.

Before spraying, exposed food products and packaging materials must be covered or removed. After spraying, equipment and utensils must be washed with an effective cleaning compound and rinsed with potable water prior to use. Use as a space spray only when plant is not in operation.

**Use as a Contact Spray on Surfaces in Restaurants, Food Processing Plants, Industrial Installations and Warehouses:** To kill accessible, exposed stages of insects, Ants\*\*\*, Brown Marmorated Stink Bugs, Cadelles, Cigarette Beetles, Confused Flour Beetles, Dark Mealworms, Dried fruit Beetles, Drugstore Beetles, Grain Mites, Red Flour Beetles, Rice Weevils, Sawtoothed Grain Beetles, Spider Beetles, Spotted Lanternflies, Stink Bugs, Yellow Mealworms.

\*\*\* Does not Include public health pests: harvester, and carpenter ants.

Dilute one part concentrate with 100 parts water (1 1/2 fl. oz. per gallon) and spray at the rate of 1 gallon per 1000 square feet. In case of severe infestation, and spray at the rate of 2 gallons per 1000 square feet. **DO NOT** exceed 3 fl. oz. per 1000 square feet (0.086 lbs./acre)

Pay special attention to force the spray into all cracks and crevices.

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## OUTDOOR PREMISE SPRAYS

### USE RESTRICTIONS AND PRECAUTIONS

- Avoid making applications when rainfall is expected before the product has sufficient time to dry (minimum 4 hours)
- Rainfall within 24 hours after application may cause unintended runoff of pesticide application
- Not for use in outdoor residential misting systems (whether indoor or outdoor).
- Not for use in outdoor metered release devices

*For all listed non-agricultural urban uses:*

- **DO NOT** apply when the wind speed is greater than 15 mph
- For soil or foliar applications, **DO NOT** apply by ground equipment within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.
- •Applicators are required to select the nozzle and pressure that deliver a medium or coarser droplet size (ASABE S572)

*For Non-Agricultural Outdoor Urban Spray Applications for crack and crevice treatments:*

All outdoor applications must be limited to direct application to pests using spot or crack and crevice treatments only, except for the following permitted uses:

- Treatment of vegetation, around structures;
- Applications to lawns, turf and other vegetation;
- Applications to building foundations, up to a maximum height of 3 feet.
- Spot treatments must not exceed two square feet in size (for example, 2 ft. by 1 ft. or 4 ft. by 0.5 ft.).
- Treat surfaces to ensure thorough coverage but avoid runoff.
- To treat insects harbored in voids and cracks-and-crevices, applications must be made in such a manner to limit dripping and avoid runoff onto untreated structural surfaces and plants.

All outdoor spray applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses:

1. Application to pervious surfaces such as soil, lawn, turf, and other vegetation;
2. Perimeter band treatments of 7 feet wide or less from the base of a man-made structure to pervious surfaces (e.g., soil, mulch, or lawn);
3. Applications to underside of eaves, soffits, doors, or windows permanently protected from rainfall by a covering, overhang, awning, or other structure;
4. Applications around potential exterior pest entry points into man-made structures such as doorways and windows, when limited to a band not to exceed one inch;
5. Applications to vertical surfaces (such as the side of a man-made structure) directly above impervious surfaces (e.g., driveways, sidewalks, etc.), up to 2 feet above ground level;
6. Applications to vertical surfaces directly above pervious surfaces, such as soil, lawn, turf, mulch or other vegetation) only if the pervious surface does not drain into ditches, storm drains, gutters, or surface waters

*For other than applications to building foundations* All outdoor applications to impervious surfaces such as sidewalks, driveways, patios, porches and structural surfaces (such as windows, doors, and eaves) are limited to spot and crack and crevice applications, only.

**OUTDOOR:** Use as an outdoor perimeter spray. Apply to insects outdoors. Treat a band of soil 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 entrance to the structure. Treat other insect entry points: windows, doors, under siding, decks, and eaves of structure. Inspect and treat where activity is detected: outside of surfaces of screens, doors, window frames, or wherever flies and other listed insects enter, contacting as many insects as possible. Also, treat surfaces on porches, in garages, and other places where insects congregate. Reapply as necessary. Treat known resting areas: ceilings, upper corners of the area, around windows and doors and other surfaces. Treat inside and outside surfaces of dumpsters and other trash holding containers. Treat trash storage areas. Also, treat sewer areas, adjacent trees that harbor insects, utility entry points, along walls, playgrounds, and other locations that serve as harborage for insects. Apply so as to lightly moisten the target surface, contacting as many insects as possible. Apply in a sufficient amount of water to adequately cover the area being treated. Apply in a manner to limit dripping on structural surfaces and plants. **DO NOT** spray directly onto evergreens, bedding plants, perennials and nondormant deciduous trees and shrubs at rates higher than 0.1% concentration.

**Crawling and Flying Insects:**

Direct spray applications will kill insects:

Ants<sup>\*\*\*</sup>, Blister Beetles, Brown Marmorated Stink Bugs, Caterpillars, Cockroaches, Crickets, Earwigs, Firebrats, Fireworms, Flea Beetles, Grasshoppers, House Flies<sup>\*\*</sup>, Leaf-tiers, Lygus Mealy Bugs, Millipedes, Psyllids, Silverfish, Sowbugs, Stink Bugs, Spiders\*, Webworms, Crane Flies, Fungus Gnats, Fruit Flies, Gnats, Japanese Beetle, Katydid, Leafhopper, Leafrollers, Loopers, Mushroom Flies, Skippers, Small Flying Moths, Stink Bugs, Spotted Lanternflies, Vinegar Flies, Whiteflies. Repeat application as necessary.

<sup>\*\*</sup>Includes deltamethrin-resistant house flies

<sup>\*\*\*</sup> Does not include public health pests: fire, pharaoh, harvester, and carpenter ants.

<b>Outdoor/Premise Treated Areas (square feet) Mix PEST-KOTE® as directed, spray volumes will treat 1000 sq. ft. Use sufficient volumes to ensure coverage.</b>				
<b>Use</b>	<b>Application Rate</b>	<b>PEST-KOTE® per 1000 sq. ft.</b>	<b>Minimum Spray Volume (gallons)</b>	<b>Use Directions</b>
Premise	Low	1 fl. oz.	1	Dilute in at least 1 gallon of water, or dilute up to 2 gallons of water for severe infestations, per 1000 sq. ft. <b>DO NOT</b> exceed maximum rate of 2 fl. oz. per 1000 sq ft (0.057 lbs./acre).
	High	2 fl. oz.	1	

**PATENT PENDING**

Distributed by:

3D BioSciences, LLC.  
2101 Mystic Ridge Rd  
Knoxville, TN 37922EPA Reg. No. 92035-1-97839  
EPA EST# 88746-GA-1**STORAGE AND DISPOSAL****DO NOT contaminate water, food, or feed by storage or disposal.****PESTICIDE STORAGE:** Store in original container. Keep away from open flame, sparks, heated surfaces, and avoid excessive heat (>130°F). Store in a cool, dry place inaccessible to children and pets.**CONTAINER HANDLING: DO NOT puncture or incinerate! Empty** container by using the product according to the label directions. Non-refillable container. **When empty:** Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer container for recycling, if available, or place in trash if allowed by state and local regulations.**PESTICIDE DISPOSAL****If partly filled:** Call your local solid waste agency for disposal instructions.**WARRANTY**

Read the entire Directions for Use and Warranty before using this product. By using this product, user or buyer accepts the following warranty. The directions for use of this product are believed to adequate and must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Unintended consequences may result because of unknown factors. All such risks shall be assumed by the user or buyer. The seller is committed to providing high quality products. To the extent consistent with applicable law, the seller makes no warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label. To the extent consistent with applicable law, the manufacturer or the seller shall not be liable for indirect, special, incidental or consequential damages. To the extent consistent with applicable law, the exclusive remedy of the user or buyer shall not exceed the purchase price paid.