



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

July 20, 2021

Karen Warkentien
Director, Regulatory Affairs
Certis USA, LLC
9145 Guilford Rd., Suite 175
Columbia, MD 21046

Subject: Label Amendment – Reformatting the label, updating the file symbol to reflect the registration number, and correction of typo.
Product Name: XPECTRO OD
EPA Registration Number: 82074-5
Application Date: May 24, 2018
Decision Number: 541477

Dear Ms. Warkentien:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. “To distribute or sell” is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

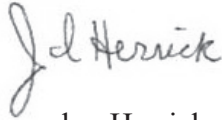
Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance

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Decision No. 541477

with FIFRA section 6. If you have any questions, please contact Jennifer Gaines by phone at (703) 305-5967, or via email at gaines.jennifer@epa.gov.

Sincerely,

A handwritten signature in cursive script that reads "J. Herrick".

Jacquelyn Herrick, Product Manager 03
Invertebrate & Vertebrate Branch 1
Registration Division (7505P)
Office of Pesticide Programs

Enclosure: Stamped Label

PYRETHRINS **GROUP** **3A** **INSECTICIDE**



ACCEPTED
07/20/2021
Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No. 82074-5

ABNs: BotaniGard® Maxx

For use in controlling listed Whiteflies, Aphids, Thrips, Psyllids, Spider Mites, Mealybugs, Leafhoppers, Weevils, Plant Bugs, Borers and Leaf-feeding Insects in Field, Agronomic, Vegetable and Orchard Crops; Ornamentals and Vegetables, Indoor/Outdoor Nursery, Greenhouse, Shadehouse; Improved Pastures and Agronomic Crops; Commercial Landscape, Interiorscape and Turf.

ACTIVE INGREDIENTS:

Pyrethrins*0.75%
Beauveria bassiana Strain GHA**0.06%

OTHER INGREDIENTS*:**99.19%
100.00%

- * Contains 0.055 lbs pyrethrins per gallon.
- ** Contains not less than 1x10⁸ viable spores per mL.
- *** Contains petroleum distillates.

KEEP OUT OF REACH OF CHILDREN

WARNING AVISO

Si usted no entiende la eliqueta, 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 additional precautionary statements and first aid statements in attached booklet.

Store between 40°F and 85°F

SHAKE WELL

Certis USA LLC
9145 Guilford Road, Suite 175
Columbia MD 21046

EPA Reg. No.: 82074-5
EPA Est. No.: _____
Lot Number: _____
Net Contents: _____

Not for sale or use after: [insert date 6 months from date of manufacture]

ESL _____
Ver _____

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING. Contains petroleum distillates. Causes substantial but temporary eye injury. Harmful if absorbed through skin or swallowed. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). 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. Avoid contact with skin, eyes or clothing. Wear long sleeved shirt and long pants, socks, shoes and gloves. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

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.

FIRST AID	
If in eyes:	<ul style="list-style-type: none">• 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.
If on skin or clothing:	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15 - 20 minutes.• Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">• Immediately call 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.
Hotline Number: Have the product container or label with you when calling a poison control center or doctor or going for treatment. Hot Line Number: 1-800-255-3924 [ChemTel].	
Note to Physician: Contains petroleum distillate. Vomiting may cause aspiration pneumonia.	

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Protective eyewear (goggles, face shield, or shielded safety glasses)
- Chemical resistant gloves made of barrier laminate, nitrile rubber, neoprene rubber or Viton
- Shoes plus socks

In addition to the above PPE, applicators using hand held foggers in an enclosed area must wear a half-face, full-face, or hood-style NIOSH approved respirator with organic vapor cartridges and combination R or P filters.

Mixers/loaders and applicators other than those using hand held foggers in an enclosed area must wear a particulate filtering respirator meeting NIOSH standards of a least R-95 or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

USER SAFETY RECOMMENDATIONS

Users should: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove all clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENGINEERING CONTROLS

Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a particulate respirator meeting NIOSH standards of at least R-95 or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization. Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)]. Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

ENVIRONMENTAL HAZARDS

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 and other pollinating insects 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 or other pollinating insects are foraging the treatment area.

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash-waters or rinsate.

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 area during application. For any requirement specific to your State or Tribe, consult the State or Tribal 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. The requirements in this box apply only 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 unless wearing the appropriate personal protective equipment.

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

- Coveralls,
- Chemical resistant gloves made of any waterproof material, and
- 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 (WPS) 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 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.

PRODUCT INFORMATION

XPECTRO® OD contains live spores of the naturally occurring fungus, *Beauveria bassiana* Strain GHA and natural pyrethrins. Live spores and natural pyrethrins can be harmed by storage at high temperatures or contact with water for more than 24 hours. See STORAGE AND DISPOSAL instructions for more information on storage and handling conditions.

For use in controlling listed Whiteflies, Aphids, Thrips, Spider Mites, Psyllids, Mealybugs, Leafhoppers, Weevils, Plant Bugs, Borers and Leaf-feeding Insects in Field, Agronomic, Vegetable and Orchard Crops; also in Forestry; Grasshoppers, Mormon Crickets, Locusts and Beetles in Rangeland, Improved Pastures and Agronomic Crops; Whitefly, Aphids, Thrips, Psyllids and Mealybugs in Ornamentals and Vegetables, Indoor/Outdoor Nursery, Greenhouse, Shadehouse, Commercial Landscape, Interiorscape and Turf.

Can be applied aerially. Suitable for use with ultra-low-volume application equipment.

MODE OF ACTION AND APPLICATION TIMING

XPECTRO® OD acts by contact. Spores attach to the insect, germinate and penetrate through the insect cuticle. The fungus then grows rapidly within the insect, causing mortality. Pyrethrins exert their toxic effects by disrupting the sodium and potassium ion exchange process in insect nerve fibers and interrupting the normal transmission of nerve impulses.

Begin treatment of crops at the first appearance of the insect pest. Typically, it takes 2-5 days after the first spray to see control. Application rates, frequency, spray coverage and insect numbers impact the speed at which acceptable control is achieved. **XPECTRO® OD** is most effective when used early, before high insect populations develop. Reapply as necessary under a pest management program that includes close scouting.

If possible, apply in the early morning, or evening hours. The reduced UV exposure and lower temperatures will increase the performance and reduce the impact on pollinators.

Contact LAM International Corporation or your distributor for specific information on compatible insecticides.

USE RESTRICTIONS:

- Do not contaminate food or feedstuffs.
- Do not make applications during rain.
- Do not remain in the treated area. Exit area immediately and remain outside the treated area until sprays have dried.
- Not for use in outdoor residential misting systems (indoor or outdoor).
- Not for indoor use except in greenhouses and interiorscapes.
- Do not reapply within 3 days, except under extreme pest pressure. In case of extreme pest pressure, do not reapply within 24 hours.
- Do not wet plants to point of runoff or drip.

- Do not harvest until spray has dried.
- Do not apply more than 10 times per season.
- Do not apply to cotton within 14 days of seed harvest.
- A 10-day water hold is required for all applications when rice fields are flooded.

MAXIMUM APPLICATION RATES:

Field and orchard:

- 0.05 lbs pyrethrins AI/A (110 fl oz **XPECTRO® OD/A**)
- 0.0012 lb pyrethrins AI/1,000 ft² (2.68 fl oz **XPECTRO® OD/1,000 ft²**)

Greenhouse space sprays:

- 0.00014 lbs pyrethrins ai/1,000 ft³ (0.31 fl oz or 9.28 mL **XPECTRO® OD/1,000 ft³**)

Greenhouse surface spray:

- 0.0012 lbs pyrethrins/1,000 ft² (2.68 fl oz **XPECTRO® OD/1,000 ft²**)
- 0.05 lbs pyrethrins AI/A (110 fl oz **XPECTRO® OD/A**)

SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator and the grower. The interactions of many equipment and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. Do not apply at wind speeds greater than 10 mph at the application site. Do not make any type of application into temperature inversions. Apply as a medium or coarse spray (ASABE standard 572).

ADDITIONAL REQUIREMENTS FOR AERIAL APPLICATIONS:

Do not release spray at a height greater than 10 feet above the ground or crop canopy. The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter. Aerial applicators must consider flight speed and nozzle orientation in determining droplet size. When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

ADDITIONAL REQUIREMENTS FOR GROUND APPLICATIONS:

Do not release spray at a height greater than 4 feet above the ground or crop canopy.

ADDITIONAL REQUIREMENTS FOR AIRBLAST APPLICATIONS:

Direct sprays into the canopy. Turn off outward pointing nozzles at row ends and when spraying outer rows.

TANK MIX COMPATIBILITY

This product can be tank mixed with other insecticides, acaricides, and fungicides. Tank mixes must conform to accepted use restrictions, precautions, and directions for both products. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use, labeling limitations, and precautionary statements of each product in the tank mixture.

Do not exceed label application rates. This product cannot be mixed with any product with label prohibitions against such mixing. Prior to tank mixing, conduct a compatibility test using the proper proportions of products and water to ensure the physical compatibility of the mixture.

USE OF ADJUVANTS:

XPECTRO® OD is designed for application without additional wetting agents and spreaders. If adjuvants are needed for some other reason, contact your dealer or LAM International Corporation for specific recommendations. Some wetting agents and spreaders kill the spores, the active ingredient in **XPECTRO® OD**, or contribute to poor mixing and spray problems.

COMPATIBILITY WITH CHEMICAL INSECTICIDES:

XPECTRO® OD is compatible with most chemical insecticides. However, some insecticide formulations can kill the fungal spores, part of the active ingredient in **XPECTRO® OD**. If you are going to use **XPECTRO® OD** in combination with other pesticides, contact your dealer or LAM International Corporation for specific information. In all cases, pesticides must be used in accordance with their labels.

COMPATIBILITY WITH FUNGICIDES:

XPECTRO® OD is compatible in tank mix with some fungicides. However, some fungicide formulations can kill the fungal spores, part of the active ingredient in **XPECTRO® OD**. Contact LAM International or your dealer for specific recommendations on using **XPECTRO® OD** with fungicides.

PHYTOTOXICITY

Plant safety is an important consideration when using insecticides, especially in a greenhouse. **XPECTRO® OD** has demonstrated plant safety but has not been tested on all plant varieties or in all tank mixes. It is not possible to evaluate the phytotoxicity of **XPECTRO® OD** on all plant varieties that may react differently to insecticides in different growth stages or under varying environmental conditions. Before making widespread applications of **XPECTRO® OD**, or tank mix combinations, treat a limited number of plants and observe for phytotoxicity over a 10-day period.

DILUTION INSTRUCTIONS

Dilute in sufficient water to allow for thorough coverage. Apply 8 fluid ounces (1/2 pint) to 32 fluid ounces (1 quart) per acre by ground. For aerial applications, apply at the rate of 8 to 32 fluid ounces per acre in a minimum of 5 gallons of water. Mix only enough for immediate use. Begin spraying when the insects first appear. Do not wait until the plants are heavily infested.

IMPORTANT: Adjust the final spray mix to a pH of 5.5 to 7.0. Outside of this range, pyrethrins can degrade and the product will lose its effectiveness. To avoid possible harm to honey bees, apply in the early morning or late evening hours.

APPLICATION INSTRUCTIONS

MIXING AND APPLICATION

SHAKE WELL BEFORE USING. Apply **XPECTRO® OD** using hand-held, ground and/or aerial spray equipment; low-volume application equipment and chemigation (**follow specific instructions provided in the *Directions for Application Through Irrigation Systems* section of this booklet**). **XPECTRO® OD** contains emulsifiers and mixes readily in water. Mix well by external mixing, in-tank mixing, or pump circulation to form an emulsion. To mix, fill spray tank with half the desired amount of water and start agitation. Shake **XPECTRO® OD** to suspend spores then with agitator running, slowly add desired quantity of **XPECTRO® OD** to spray tank. Add remainder of desired amount of water. Continue agitation throughout loading and spraying. Triple rinse empty **XPECTRO® OD** container with water and add rinse water to spray tank. For best results, continue agitation during spraying. Do not mix more **XPECTRO® OD** than needed for that day. Do not mix **XPECTRO® OD** the day before application. Spores will die if left overnight or longer in the spray tank.

Contact your dealer or LAM International Corporation for recommendations about specific crops, insects and spray equipment.

APPLICATION FREQUENCY

Apply **XPECTRO® OD** at 5-10 day intervals. High insect populations, especially whitefly and aphids, may require application at 2-5 day intervals. Repeat applications for as long as pest pressure persists.

APPLICATION RATES

GREENHOUSE AND SHADEHOUSE CROPS

Apply at a rate of up to 2 quarts of **XPECTRO® OD** per 100 gallons of spray volume. Mix well by external mixing, in-tank mixing, or pump circulation to form emulsion. **Most target insects can be controlled at a rate of 1 quart per 100 gallons of water, ½ quart per 50 gallons of water, ½ pint per 25 gallons of water. DO NOT WET PLANTS TO POINT OF RUNOFF OR DRIP.**

Application Rates (Product/100 Gallons of Spray Volume)

Whitefly, Mealybugs, Aphids, Thrips, Spider Mites	½ – 1 qt
Other labeled insects†	½ – 1 qt

(† depending on insect population and foliage density)

OUTDOOR CROPS, RANGELAND, AND IMPROVED PASTURES

GROUND APPLICATION

Apply ¼ to 2 quarts **XPECTRO® OD**/acre in sufficient water to thoroughly cover foliage infested with insects, typically 5 to 100 gallons of water per acre. Final spray volume can be up to 400 gallons per acre. Water volume depends on spray equipment, crop canopy and target pest. **DO NOT WET PLANTS TO POINT OF RUNOFF OR DRIP.**

Apply **XPECTRO® OD** up to a maximum of 2 quarts per acre for extreme insect pressure or dense foliage.

AERIAL APPLICATION

Apply ¼ to 1 quart **XPECTRO® OD**/acre. Apply in sufficient water to thoroughly cover foliage infested with insects. For best results, apply in 5-10 gallons water per acre. Do not apply in less than 2 gallons water per acre. Do not apply when wind speed favors drift beyond the area intended for treatment.

LEAF-FEEDING LEPIDOPTERA

For use against diamondback moth, imported cabbage worm and cabbage looper

XPECTRO® OD can be used alone. Do not exceed label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing. For additional information, contact LAM International Corporation.

Application Rates (Product/Acre)

Diamondback moth	½ – 1 qt
Imported cabbage worm	½ – 1 qt
Cabbage looper.....	1 qt

LEAF-FEEDING BEETLES

For use against Colorado potato beetle

XPECTRO® OD can be used alone to control Colorado potato beetle in accordance with the more restrictive of label limitations and precautions. Do not exceed label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing. For additional information, contact LAM International Corporation.

Application Rates (Product/Acre)

Colorado potato beetle	½ – 1 qt
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CROPS (GREENHOUSE/SHADEHOUSE AND OUTDOOR)

CROP GROUP 1: ROOT AND TUBER VEGETABLES

Arracacha; Arrowroot; Artichoke, Chinese/Japanese; Artichoke, Jerusalem; Beet, garden; Beet, sugar; Burdock, edible; Canna, edible (Purple arrowroot), Carrot; Cassava, bitter and sweet; Celeriac (celery root); Chayote (root); Chervil, turnip rooted; Chicory; Chufa; Dasheen (taro); Ginger; Ginseng; Horseradish; Leren; Parsley, turnip-rooted; Parsnip; Potato; Radish; Radish, oriental/Japanese (daikon); Rutabaga; Salsify; Salsify, black; Salsify, Spanish; Sweet potato; Tanier; Turmeric; Turnip; Yam bean; Yam, true.

CROP GROUP 2: LEAVES OF ROOT AND TUBER VEGETABLES

Beet, garden; Beet, sugar; Burdock, edible; Carrot; Cassava, bitter and sweet; Celeriac (celery root); Chervil, turnip rooted; Chicory; Dasheen (taro); Parsnip; Radish; Radish, oriental/Japanese (daikon); Rutabaga; Salsify, black; Sweet potato; Tanier; Turnip; Yam, true.

CROP GROUP 3-07: BULB VEGETABLES

Chive, fresh leaves; Chive, Chinese, fresh leaves; Garlic, bulb; Garlic, great-headed, bulb; Leek; Onion, bulb; Onion, green; Onion, Welsh, tops; Shallot, bulb; Shallot, fresh leaves.

CROP GROUP 4-16: LEAFY VEGETABLES

Amaranth, Chinese (Chinese spinach, tampala); Amaranth, leafy; Arugula; Broccoli, Chinese (gai lon); Broccoli raab (rapini); Cabbage, Chinese, bok choy; Chervil, fresh leaves; Chrysanthemum, garland; Cilantro, fresh leaves; Collards; Corn Salad, Cress, garden; Cress, upland (yellow rocket, winter cress); Dandelion, leaves; Dock (sorrel); Endive; Escarole; Kale; Lettuce, head; Lettuce, leaf; Mizuna; Mustard greens; Orach; Parsley, fresh leaves; Purslane, garden; Purslane, winter; Radicchio; Rape greens; Spinach; Spinach, Malabar (Ceylon, Indian, vine); Spinach, New Zealand, Swiss chard; Watercress.

CROP GROUP 5-16: BRASSICA HEAD AND STEM VEGETABLES

Broccoli; Brussels sprouts; Cabbage; Cabbage, Chinese, napa; Cauliflower; Cultivars, varieties, and hybrids of these commodities.

CROP GROUP 6: LEGUME VEGETABLES (SUCCULENT OR DRIED)

Bean (*Lupinus* spp.): grain lupin, sweep lupin, white lupin, white sweet lupin; Bean (*Phaseolus* spp.): field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean; Bean (*Vigna* spp.): adzuki bean, asparagus bean, black-eyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean; Broad bean (fava bean); Chickpea (garbanzo bean); Guar; Jackbean; Lablab bean (hyacinth bean); Lentil; Pea: (*Pisum* spp.): English pea, field pea, garden pea, snow pea, sugar snap pea); Pigeon pea; Soybean; Soybean (immature seed); Sword bean.

CROP GROUP 7: 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.

CROP GROUP 8-10: FRUITING VEGETABLES

Eggplant; Groundcherry; Okra; Pepinos; Pepper (bell pepper, chili pepper, cooking peppers, pimentos, sweet peppers); Tomatillo; Tomatoes.

CROP GROUP 9: CUCURBIT VEGETABLES

Balsam apple; Balsam pear (bitter melon); Chayote (fruit); Chinese waxgourd (Chinese preserving melon); Chinese cucumber; Citron melon; Cucumber; Gherkin; Gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); Muskmelon (includes true canteloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon and snake melon); Pumpkin; Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini); Squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); Watermelon (including hybrids and/or varieties of).

CROP GROUP 10-10: CITRUS FRUIT

Australian desert lime; Australian finger-lime; Australian round lime; Brown River finger lime; Calamondin; Citron; Citrus hybrids; Grapefruit; Japanese summer grapefruit; Kumquat; Lemon; Lime; Mediterranean mandarin; Mount white lime; New Guinea wild lime; Orange, sour; Orange, sweet; Pummelo; Russell River lime; Satsuma mandarin; Sweet lime; Tachibana orange; Tahiti lime; Tangelo; Tangerine (mandarin); Tangor; Trifoliate orange; Uniq fruit; cultivars, varieties, and/or hybrids of these.

CROP GROUP 11-10 POME FRUIT

Apple; Crabapple; Loquat; Mayhaw; Pear; Pear, Asian (oriental); Quince.

CROP GROUP 12-12: STONE FRUIT

Apricot; Cherry, sweet; Cherry, tart; Nectarine; Peach; PlumPlum, chickasaw; Plum, Damson; Plum, Japanese; Plum, prune; Plumcot.

CROP GROUP 13-07: BERRY AND SMALL FRUIT

Blackberry (including Andean blackberry, arctic blackberry, bingleberry, black satin berry, boysenberry, brombeere, California blackberry, Chesterberry, Cherokee blackberry, Cheyenne blackberry, common blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, evergreen blackberry, Himalayaberry, hullberry, lavacaberry, loganberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, mora, mures deronce, nectarberry, Northern dewberry, olallieberry, Orgeon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, Southern dewberry, tayberry, youngberry, zarzamora, and cultivars, varieties and/or hybrids of these); Blueberry, highbush; Blueberry, lowbush; Cranberry, Currant, black; Currant, red; Dewberry; Elderberry, Gooseberry; Grape; Huckleberry; Kiwifruit; Raspberry, black and red; Strawberry.

CROP GROUP 14-12: TREE NUTS

Almond; Beechnut; Brazil nut; Butternut; Cashew; Chestnut; Chinquapin; Hazelnut (filbert); Hickory nut; Macadamia nut (bush nut); Pecan; Pistachio; Walnut, Black and English (Persian).

CROP GROUP 15: CEREAL GRAINS

Barley; Buckwheat; Corn; Millet (pearl and proso); Oats; Popcorn; Rice; Rye; Sorghum (milo); Teosinte, Triticale; Wheat; Wild rice.

CROP GROUP 16. FORAGE, FODDER AND STRAW OF CEREAL GRAINS

Forage, fodder and straw of all commodities included in the cereal grains group.

CROP GROUP 17. GRASS FORAGE, FODDER, AND HAY

Forage, fodder, stover, and hay of any grass *Gramineae/Poaceae* family (either green or cured) except sugarcane and those included 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.

CROP GROUP 18. NONGRASS ANIMAL FEEDS (FORAGE, FODDER, STRAW, AND HAY)

Alfalfa; Bean, velvet; Clover; Kudzu; Lespedeza; Lupin; Sainfoin; Trefoil; Vetch; Vetch, crown; Vetch, milk.

CROP GROUP 20: OILSEED

Cottonseed; Jojoba; Safflower; Sesame; Sunflower.

CROP GROUP 21: EDIBLE FUNGI

Mushrooms (Blewit; bunashimeji; Chinese mushroom; enoki; hime-matsutake; hirmeola; maitake; morel; nameko; net bearing Dictyophora; oyster mushroom; pom pom; reishi mushroom; Rodman's agaricus; Shiitake mushroom; shimeji; stropharia; truffle; white button mushroom; white jelly fungi).

CROP GROUP 22: STALK, STEM AND LEAF PETIOLE VEGETABLES

Asparagus; Cardoon; Celery; Celery, Chinese; Celtuce; Fennel (Florence); Kohlrabi; Rhubarb.

CROP GROUP 23: TROPICAL AND SUBTROPICAL FRUIT, EDIBLE PEEL

Acerola (Barbados cherry or West Indian cherry); Carob; Dates; Feijoa; Figs; Guava; Olives; Papaya, mountain; Persimmon, black; Persimmon, Japanese; Starfruit (Carambola).

CROP GROUP 24: TROPICAL AND SUBTROPICAL FRUIT, INEDIBLE PEEL

Atemoya; Avocado; Banana; Cherimoya; Durian; Jackfruit; Lychee; Mango; Passionfruit; Pineapple; Pomegranate; Rambutan.

CROP GROUP 25: HERB CROP

Balm, fresh leaves; Balm, dried leaves; Basil, fresh leaves; Basil, dried leaves; Bay, fresh leaves; Bay, dried leaves; Borage, fresh leaves; Borage, dried leaves; Burnet, fresh leaves; Burnet, dried leaves; Burnet, garden, fresh leaves; Burnet, garden, dried leaves; Burnet, salad, fresh leaves; Burnet, salad, dried leaves; Camomile (Chamomile), fresh leaves; Camomile (Chamomile) dried leaves; Caraway, fresh leaves; Caraway, dried leaves; Catnip, fresh leaves; Catnip, dried leaves; Celery, dried leaves; Chervil, dried leaves; Chive, dried leaves; Chive, Chinese, dried leaves; Cilantro, dried leaves; Clary, fresh leaves; Clary, dried leaves; Coriander, Bolivian, fresh leaves; Coriander, Bolivian, dried leaves; Coriander, Vietnamese, fresh leaves; Coriander, Vietnamese, dried leaves; Costmary, fresh leaves; Costmary dried leaves; Culantro, fresh leaves; Culantro, dried leaves; Curry leaf, fresh leaves; Curry leaf, dried leaves; Dillweed, dried leaves; Fennel, common, fresh leaves; Fennel, common, dried leaves; Fennel, Florence, dried leaves; Fennel, Spanish, fresh leaves; Fennel, Spanish, dried leaves; Fenugreek, fresh leaves; Fenugreek, dried leaves; Horehound, fresh leaves; Horehound, dried leaves; Hyssop, fresh leaves; Hyssop, dried leaves; Lavender, fresh leaves; Lavender, dried leaves; Lemongrass, fresh leaves; Lemongrass, dried leaves; Lovage, fresh leaves; Lovage, dried leaves; Marigold, fresh leaves; Marigold, dried leaves; Marjoram, fresh leaves; Marjoram, dried leaves; Marjoram, pot, fresh leaves; Marjoram, pot, dried leaves; Marjoram, sweet, fresh leaves; Marjoram, sweet, dried leaves; Mint, fresh leaves; Mint, dried leaves; Mint, corn, fresh leaves; Mint, corn, dried leaves; Nasturtium, garden, fresh leaves; Nasturtium, garden, dried leaves; Oregano, fresh leaves; Oregano, dried leaves; Parsley, dried leaves; Pennyroyal, fresh leaves; Pennyroyal, dried leaves; Pepper leaf, black, fresh leaves; Pepper leaf, black, dried leaves; Peppermint, fresh leaves; Peppermint, dried leaves; Rosemary, fresh leaves; Rosemary, dried leaves; Sage, fresh leaves; Sage, dried leaves; Savory, summer, fresh leaves; Savory, summer, dried leaves; Savory, winter, fresh leaves; Savory, winter, dried leaves; Tansy, fresh leaves; Tansy, dried leaves; Tarragon, fresh leaves; Tarragon, dried leaves; Thyme, fresh leaves; Thyme, dried leaves; Wintergreen, fresh leaves; Wintergreen, dried leaves; Woodruff, fresh leaves; Woodruff, dried leaves; Wormwood, fresh leaves; Wormwood, dried leaves.

CROP GROUP 26: SPICES

Allspice; Angelica, seed; Anise, seed; Anise, star; Annatto, seed; Caper buds; Cardamom, black and green; Cassia, bark; Cassia, fruit; Celery, seed; Cinnamon, bark; Cinnamon, fruit; Clove buds; Coriander, fruit; Coriander, seed; Culantro, seed; Cumin; Cumin, black; Dill, seed; Fennel flower, seed; Fennel, common, fruit; Fennel, common, seed; Fennel, Florence, fruit; Fennel, Florence, seed; Grains of paradise; Juniper

berry; Lovage, seed; Mace; Mustard, seed; Nutmeg; Pepper, black; Pepper, white; Poppy, seed; Rue; Saffron crocus; Vanilla.

NO CROP GROUP: MISCELLANEOUS CROPS

Coffee, Hops, Peanuts, Sugarcane, Tea, Water Chestnuts.

INSECTS CONTROLLED

APHIDS

Bean Aphid, Cabbage Aphid, Cowpea Aphid, Green Peach Aphid, Greenbug, Hop Aphid, Melon/Cotton Aphid, Pea Aphid, Potato Aphid, Rose Aphid, Russian Wheat Aphid, Spotted Alfalfa Aphid

FOLIAGE-FEEDING LEPIDOPTERA

Diamondback Moth, Cabbage Looper, Fall Army Worm, Imported Cabbage Worm

LEAF-FEEDING BEETLES

Bean Leaf Beetle, Cereal Leaf Beetle, Colorado Potato Beetle, Corn Rootworm, Cucumber Beetles, Elm Leaf Beetle, Flea Beetles

LEAFHOPPERS AND PLANTHOPPERS

Grape Leafhopper, Leafhoppers, Planthoppers, Potato Leafhopper, Rice Delphacid, Variegated Grape Leafhopper, Virginia Creeper Leafhopper

MEALYBUGS

Citrus Coccis, Citrus Mealybug, Buffalo Grass Mealybug, Grape Mealybug, Longtailed Mealybug

GRASSHOPPERS, LOCUSTS, AND CRICKETS (ORTHOPTERA)

Grasshoppers, Locusts, Mole Crickets, Mormon Crickets

PLANT BUGS (HETEROPTERA)

Chinch Bugs, Fleahoppers, Lace Bugs, Lygus Bug, Seed Bugs, Stink Bugs, Tarnished Plant Bug

PSYLLIDS

Pear Psylla, Tomato/Potato Psylla, Citrus Psylla

SCARAB BEETLES

Atenius, Green June Beetle, White Grubs

SPIDER MITES (ACARI)

Two-spotted Spider Mite, Carmine Spider Mite, Citrus Rust Mite, Panicle Rice Mite, Pacific Spider Mite, Clover Mite

STEM-BORING LEPIDOPTERA

European Corn Borer, Lesser Cornstalk Borer, Rice Stem Borer, Southwestern Corn Borer, Sugar Cane Borer

THRIPS

Greenhouse Thrips, Cuban Laurel Thrips, Pear Thrips, Potato/Onion Thrips, *Thrips palmi*, Western Flower Thrips

WEEVILS

Alfalfa Weevil, Apple Curculio, Billbugs, Black Vine Weevil, Citrus Root Weevil, Coffee Berry Borer, Cotton Boll Weevil, Fuller Rose Weevil, Palm Weevil, Pecan Weevil, Pepper Weevil, Plantain Weevil, Plum Curculio, Root Weevil, Rose Curculio, Strawberry Root Weevil, Sweet Potato Weevil, Vegetable Weevil

WHITEFLIES

Greenhouse Whitefly, Silverleaf Whitefly, Sweet Potato Whitefly (aka Tobacco Whitefly), Banded-winged Whitefly, Cassava Whitefly, Citrus Blackfly, Citrus Whitefly, Giant-Whitefly

OTHER INSECTS

Crane Flies, Earwigs, Fungus Gnats, Fruit Flies, Fruit tree Leafrollers, Glassy Winged Sharpshooters, Mushroom Flies, Skippers, Sowbugs, Tabanidae, and Webworms.

DIRECTIONS FOR APPLICATION THROUGH IRRIGATION SYSTEMS

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

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

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.

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

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. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional normally closed, solenoid operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the pump motor stops. The irrigation line or water pump must include a functional

pressure valve which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must be a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

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

Constant agitation must be maintained in the chemical supply tank during the entire period of insecticide application. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of more dilute suspension per unit of time.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a cool, dry place. Store between 40°F and 75°F. **XPECTRO® OD** stability decreases with time at elevated temperatures above 85°F. Tightly reclose the container of unused product. Do not contaminate unused product with water.

PESTICIDE DISPOSAL: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

{For containers ≤5 gallons}

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 for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

{For containers > 5 gallons}

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution in each direction, with each revolution taking less than 30 seconds. Then stand the container on its end and tip it back and forth several times. Turn the container over onto its other end (top) and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate in a separate container for later disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

CONDITIONS OF SALE

XPECTRO® OD conforms to the description set forth on this label and is reasonably fit for the purposes described herein when used according to the label directions and specified conditions. To the extent consistent with applicable law, the manufacturer disclaims any and all other express or implied warranties of merchantability and fitness for particular purpose. To the extent consistent with applicable law, buyers and users shall assume all risk and responsibility for potential loss or damage if this product is used, stored, handled or applied in a manner inconsistent with this labeling. To the extent permitted by law, manufacturer shall not be liable for more than the purchase price for the quantity involved including incidental, consequential or special damages.

[] Indicates optional text

{ } Indicates note to reviewer

Optional Label Text

{The following items may or may not appear on the final printed labeling}

Referral Statements (as necessary for package configuration):

1. See [additional] [precautionary statements] [first aid statements] [and] [directions for use] [on [side][back][other] panel] {or} [in attached booklet].
2. [See [side][back][inside][other] panel for [additional] [first aid] [precautionary] statements] [and] [directions for use.]
3. [Refer to inside of label booklet for additional precautionary information and Directions for Use including First Aid and Storage and Disposal.]

Distributor Statements:

4. [Exclusively] distributed by: [name of distributor] [address of distributor] [company logo of distributor] {representative company logos include}



5. {Images of crops where product may be used}



6. {Logos}



Miscellaneous claims

7. [**Best If Used By:** [insert date up to 1 yr from date of manufacture]]