

STIMPLEX

For Maximizing Crop Yield and Quality

Active Ingredient:

Based on biological activity

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KEEP OUT OF REACH OF CHILDREN

CAUTION

READ ALL DIRECTIONS BEFORE USING PRECAUTIONARY STATEMENTS Hazards to Humans and Domestic Animals

Harmful if swallowed or absorbed through the skin. Causes skin irritation. Do not breathe vapor or spray mist. Do not get in eyes, on skin or clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear: long-sleeved shirt and long pants; waterproof gloves; shoes plus socks.

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

User Safety Recommendations: User should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

First Aid

IF ON SKIN OR CLOTHING:

- Wash skin with soap and water.

IF IN EYES:

- Flush with plenty of water. Get medical attention if irritation persists.

Emergency Information

For spill, leak, fire, or exposure assistance call Acadian Seaplants Limited 1-902-468-2840.

Environmental Hazards

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 by disposal of equipment washwaters.

NET CONTENTS: 55 U.S. Gal.

PRODUCT OF CANADA

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Manufactured By: Acadian Seaplants Limited 30 Brown Avenue Dartmouth, Nova Scotia Canada, B3B 1X8

EPA REG. NO.: 67016-1

EPA EST. NO.: 67016-CAN-002

Lot Number:

Revision: 09.01

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DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read, understand and follow the precautions and directions on the labeling before using.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

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 *Waterproof gloves

*Shoes plus socks

GENERAL INFORMATION

STIMPLEX[®] is a plant growth regulator extracted from specially selected marine plants which simulates plant growth and development, promoting:

- Increased yields

- Earlier maturity

- Increased fruit set

- Improved crop quality
- Improved resistance to

environmental stress

2

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RECOMMENDED CROPS

STIMPLEX® is recommended for use on:

FIELD CROPS:

ALFALFA (Includes Alfalfa, Birdsfoot Trefoil, Clover, Esparcet, Holy Clover, Lucerne, Sainfoin and varieties and/or hybrids of these), CORN (Includes Field Corn and Popcom). COTTON, LUPINE, PEANUTS, RICE, SORGHUM (Includes Milo), SOYBEANS, SUGAR BEETS, TRITICALE, WHEAT

FRUITS:

APPLES, AVOCADO, BANANAS, BLUEBERRIES, CANE FRUIT (Includes Blackberries, Currants, Gooseberries and Raspberries), CITRUS (Includes Grapefruit, Lemon, Lime, Oranges, Tangelos and Tangerines), GRAPES, PEARS, PLANTAINS, STONE FRUIT (Includes Apricots, Cherries, Nectarines, Peaches and Plums), STRAWBERRIES

TREE NUTS:

ALMONDS, CASHEWS, CHESTNUTS, COCONUTS, HAZELNUTS, MACADAMIA, PECANS, PISTACHIOS, WALNUTS

VEGETABLES:

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ASPARAGUS, BEANS (Includes Asparagus Beans, Blackeyed Peas, Broad Beans, Catjang, Chickpeas, Cowpeas, Crowder Peas, Fava Beans, Garbanzo Beans, Kidney Beans, Lima Beans, Mung Beans, Navy Beans, Pinto Beans, Snap Beans, Southern Peas and Wax Beans), BROCCOLI, (Includes Chinese Broccoli), BRUSSELS SPROUTS, CABBAGE, CARROTS, CAULIFLOWER, CELERY, CORN (Sweet), CUCUMBER, EGGPLANT, GARLIC, GINSENG, LETTUCE, MELONS, OKRA, ONIONS, PEAS (Includes Lentils), PEPPERS, POTATOES, PUMPKINS, RADISHES, SHALLOTS, SPINASH, SQUASH, SWEET POTATOES, TOMATOES (Includes Tomatillos), YAMS

HERBS & SPICES:

BASIL, CHIVE, CILANTRO, CORIANDER, DILL, FENNEL, MARJORAM, NUTMEG, PARSLEY, PEPPER (Includes Black Pepper and White Pepper), ROSEMARY, SAFFRON, SAGE, SAVORY, SWEET BAY, TARRAGON

NON-FOOD CROPS:

HOLLY, JOJOBA, ORNAMENTALS, TREES, TURF

GRASS FORAGE:

(Includes all pasture and range grasses)

MIXING INSTRUCTIONS:

STIMPLEX® is water soluble and suitable for use in conventional liquid application systems. Acidic dilution water (pH less than 5) should be adjusted to neutral pH (6.5 to 8.0) prior to the addition of STIMPLEX®. Agitate the tank mixture during application and use within 24 hours after dilution.

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COMPATIBILITY:

STIMPLEX® can be tank mixed (unless prohibited) with foliar fertilizers. Test the compatibility of the intended tank mixture before use. Add the proportionate amounts of each diluted ingredient to a jar. Cover, shake and let stand 15 minutes. Formation of precipitates that do not readily redisperse indicates an incompatible mixture.

APPLICATION RATES AND TIMING

Seed Treatment: To coat seeds prior to planting, apply STIMPLEX® at the rate of 4 ounces per 5 gallons of water and coat seeds briefly before planting; or, apply 2 ounces per 5 gallons of water directly on peat pots, planting mixture or seed bed immediately before planting.

Nursery/Container Use: Apply STIMPLEX® as a fine mist spray to containergrown plants at the rate of 2 ounces per 5 gallons of water, every 2 to 4 weeks. Mist leaves thoroughly but not to the point of excessive run off.

Rooting and Transplant Solution: Dip cuttings in a STIMPLEX® solution of 8 ounces per 5 gallons of water before rooting. For use as a rooting medium, set cuttings in a solution of 2 ounces per 5 gallons of water. Immediately before transplanting, dip roots in a 4 ounces per 5 gallons of water solution.

Chemigation: Refer to supplemental labeling entitled "Supplemental Chemigation Labeling for STIMPLEX® for use directions for chemigation. Do not apply this product through any irrigation system unless the supplemental labeling on chemigation is followed.

Foliar Spray: STIMPLEX® is most effective when used as part of a regular foliar nutritional spray program and can be applied with any standard fertilizer or crop protection spray system. The foliar spray mixture should be applied as a fine mist, with low fluid velocity until the foliage is wet. Where common, a biodegradable surfactant can be used.

Do not spray just prior to and after rainfall. Apply in calm weather conditions, preferably in early morning or in the evening. A foliar spray mixture of 25 to 100 gallons of water per acre is generally sufficient. The volume of water may vary depending on equipment used, area to be covered and size of plants.

For large areas where aircraft or power driven sprayers are used to apply the spray, follow the specific crop use rates below. Apply with sufficient water to get thorough foliage coverage, 3 to 10 gallons of water per acre for aircraft sprayers and 10 to 50 gallons of water per acre for ground driven spray equipment.

Crop Foliar Applications: The suggested rates and dosages for foliar applications of STIMPLEX® may be adjusted depending on the climatic region, soil type and fertility. For best results increase the frequency of applications rather than the concentration of the spraying solution. Additional applications

can be made as required, and/or immediately prior or following stress periods such as frost or drought.

CROP	APPLICATION STAGES	DOSAGE/ APPLICATION
VEGETABLES:		
ASPARAGUS	 For newly established plants, make 1 application to new flush or fern growth in spring For mature crops, make 1 application to new fern growth after cuttings have stopped 	1½ to 2 pints per acre
BEANS	1. At 2 to 3 trifoliate leaf stage	11/2 to 21/2 pints
PEAS	At first bloom At pod initiation	per acre
CARROTS	 2 to 3 weeks after emergence 	2 to 21/2 pints
GARLIC ONIONS RADISHES SHALLOTS	2. At root enlargement	per acre
BROCCOLI	1. At 4 to 6 true leaf stage	2 to 2½ pints
BRUSSELS SPROUTS	2. 10 to 14 days later	per acre
CABBAGE	3. At <u>h</u> ead initiation	
CAULIFLOWER		
SWEET CORN	1. At 2 to 6 leaf stage	2 to 2½ pints
& POPCORN	 At 20 to 30 inch growth stage Just prior to tasseling 	per acre
CELERY	 Within 7 days of transplanting 	2 to 2½ pints
	or 2 to 3 weeks after emergence	per acre
	2. 10 to 14 days later	
	3. 10 to 14 days later	
CUCUMBERS	1. At first 4 true leaves from seed	2 to 3 pints
	At first pre-bloom	per acre
	3. 7 to 14 days later	
	 Every 7 to 14 days until harvest 	
	Within 48 hours of each picking	
EGGPLANTS	At 6 to 8 inch growth stage	2½ to 3 pints
MELONS	2. At pre-bloom stage	per acre
PEPPERS	3. At fruit set	per dore
PUMPKINS	4. Within 48 hours of each	
SQUASH	picking	
LETTUCE	1. At 4 leaf stage	1½ to 2 pints
SPINACH	2. Followed by regular	per acre
	applications at 14 day intervals	•

OKRA	2 weeks after emergence Regular applications at 1 week intervals until the end of blooming	2 to 2½ pints- per acre
POTATOES YAMS	 At tuber initiation (tuber set) or 3 to 5 weeks after emergence 10 to 14 days later At the start of blooming 	2 to 2½ pints per acre
TOMATOES	 At 6 to 8 inch growth stage At pre-bloom stage At fruit set Approximately 14 days later For fresh market varieties make extra applications within 48 hours of each picking 	2½ to 3 pints per acre
GINSENG	 1. 1st Year: At 4 to 6 weeks after emergence (at full leaf expansion). Apply monthly until first frost 2. 2nd Year: Apply monthly beginning at full leaf expansion until first frost 3. 3rd Year: Apply just prior to flowering. Apply monthly thereafter until first frost 4. 4th Year: Apply just prior to flowering. Apply monthly thereafter until first frost 	2 pints per acre
FRUIT:		·
APPLES	 At green growth (tight cluster) Pre-bloom / pink buds Half-bloom ¼ petal fall Young fruit Every 14 days until harvest 	2½ to 3 pints per acre
BANANAS PLANTAINS	Just prior to flower bud formation Or At start of new sucker growth	2-3 pints/A
	Every 4 to 8 weeks until harvest	
GRAPES	1. At start of spring growth 2. 18 to 24 inch growth 3. 50% bloom 4. Berry set / early shattering 5. 2 to 3 weeks later	2 to 2½ pints per acre

AVOCADOS 1. Pre-bloom (2 weeks prior to bloom) 2. 2 weeks following petal fall 3. Early fruit development (before	2 to 2½ pints per acre
 2 weeks following petal fall Early fruit development (before 	per acre
3. Early fruit development (before	
summer fruit drop)	
4. 30 to 45 days before harvest	
GRAPEFRUIT 1. Pre-bloom / early bloom	3 to 3½ pints
LEMON 2. Full bloom ½ petal fall	per acre
LIME 3. With summer spray	
ORANGES 4. With fall spray	
TANGELOS 5. 6 to 8 weeks prior to harvest	
TANGERINES for fresh market varieties	
BLACKBERRES 1. Pre-bloom (2 weeks prior to	2 to 21/2 pints
CURRANTS bloom)	per acre
GOOSEBERRIES 2. 2 weeks following petal fall	·
RASPBERRIES 3. 30 days after last application	
4. 30 days before harvest	
5. Optional application 1 to 2	
weeks following harvest	
6. Optional application 30 to 45	
days following harvest (for	
winter hardiness)	
APRICOTS 1. Pre-bloom	2½ to 3 pints
NECTARINES 2. 2 to 3 weeks following petal	per acre
PEACHES fall	F 0 / 4.0.0
PLUMS 3. 30 days after last application	
4. 30 days after last application	
5. Optional application 30 days	,
before harvest	
CHERRIES 1. At green growth (tight cluster)	3 to 3½ pints
2. Pre-bloom / pink buds	per acre
3. Half-bloom	por acre
4. ¾ petal fall	
5. Young fruit	
6. Every 14 days until harvest	
	1½ to 2 pints
STRAMPERRIES 1 10 to 14 dove offer	1/2 to 2 pints
STRAWBERRIES 1. 10 to 14 days after	
emergence	per acre
emergence 2. At first bloom	
emergence	

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BLUEBERRIES	Pre-bloom (2 weeks prior to	2 to 21/2 pints-
	bloom)	per acre
	2. 2 weeks following petal fall	
	3. 30 days after last application	
	4. 30 days after last application	
	(or 14 to 30 days before	
	harvest)	
	5. Optional application 1 to 2	
	weeks following harvest	
	6. Optional application 30 to 45	
	days following harvest (for	
DEADC	winter hardiness)	2 to 21/ =into
PEARS	At green growth (tight cluster) Bro bloom (pink budo)	3 to 3½ pints
	2. Pre-bloom / pink buds	per acre
	3. Half-bloom	
	4. ¾ petal fall	
	5. Young fruit	
	Every 14 days until harvest	
FIELD CROPS:		
ALFALFA	Start early spring, repeating 8	2 to 2½ pints
	to 10 days after each cutting	per acre
	or heavy pasturing	pc. 40.0
COTTON	At flower bud initiation	2 to 2½ pints
0077011	2. 7 to 10 days later	per acre
	Or	pc. 40.0
	At pinhead square	11/2 to 21/2 pints
	2. 3 applications at 7 to 10 day	per acre
	intervals	
CORN (FIELD)	1. At 4 to 6 inch growth	2 to 21/2 pints
	2. At 10 to 14 inch growth	per acre
	Just prior to tasseling	
LUPINE	 3 to 7 trifoliate leaf stage 	2 to 21/2 pints
	2. 2 to 3 weeks later	per acre
PEANUTS	 3 weeks after emergence and 	2 to 3 pints
	three other applications every	per acre
	1 to 2 weeks	· · · · · · · · · · · · · · · · · · ·
RICE	1. 3 to 5 leaf stage	2 to 21/2 pints
		per acre
	At panicle initiation	1 to 1½ pints
		per acre
SOYBEANS	When buds appear	2 to 2½ pints
	2. During full-bloom	per acre
	3. 1 or 2 other applications at 2	
	to 3 week intervals during the	
	growing season	

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NON-FOOD CROPS:

TURF: STIMPLEX® can be used in sod production, parks, golf courses, athletic fields and home lawns. A total of 6 to 7½ pints per acre should be applied over the growing season at the rate of 1½ to 2 pints per acre (1½ ounces per 2,200 square feet) per application. STIMPLEX® applications should begin at the initial growth stage and continue throughout the season at 2 to 4 week intervals. For seed production apply 1½ pints per acre just prior to spear formation. Additional applications can be made after periods of heavy use or high stress. Spray newly applied sod to help new root growth and root penetration of soil. A late season spray will help improve resistance to winter kill and frost damage.

DECIDUOUS, CONIFEROUS TREES AND SHRUBS: Make the first STIMPLEX® application early in the season at the Initiation of new growth, applying 3 to 5 pints per acre (4½ ounces per 2,200 square feet). Follow with two sprays of 2½ pints per acre (2 ounces per 2,200 square feet) at 14 to 21 day intervals during the growing season. A late season spray will help improve resistance to winter kill and frost damage, although it should not be substituted for standard winter protection. A late season application will help Christmas trees retain their dark green color after cutting.

FIELD ORNAMENTALS: Start the season by applying 2 pints per acre (2 ounces per 2,200 square feet) at the early leaf stage. Continue with applications of 2 to 2½ pints per acre (2 ounces per 2,200 square feet) in the regular spraying program. An additional application prior to lifting will help retain moisture and resist wilting.

GREENHOUSE ORNAMENTALS: Start by spraying the foliage to runoff point within 10 days of transplant or emergence at the rate of 1½ to 2½ pints per 100 gallons of water. Continue with regular applications every 2 weeks.

JOJOBA: Apply STIMPLEX® after the initiation of new growth in spring or autumn, at the rate of 1½ to 2½ pints per acre.

GRASS FORAGE:

STIMPLEX® can be used on fescue and all pasture and range grasses and grasses grown for hay or silage that will be fed to or grazed by livestock. A total of 3 to 3½ pints per acre should be applied at mid-spring and continue with monthly applications of 3½ pints per acre for the next 3 to 4 months.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a cool place and out of direct sunlight. Keep from freezing.

PESTICIDE DISPOSAL: Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If pesticide, spray mixture, or rinsate cannot be used according to label directions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Do not reuse empty container. Triple rinse (or equivalent), then offer for recycling, reconditioning or puncture and dispose of in a sanitary landfill, by incineration or by burning, if allowed by State and local authorities. If burned, stay out of smoke.

WARRANTY STATEMENT

Acadian Seaplants Limited warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with the directions under normal conditions of use. Crop injury, ineffectiveness or other unintended consequences may result because of such factors such as weather conditions, presence of other materials or the manner of use or application, all of which are beyond the control of Acadian Seaplants Limited. In no case shall Acadian Seaplants be liable for consequential, special or indirect damages resulting from the use or handling of this product. Acadian Seaplants Limited makes no warranties of merchantability or fitness for a particular purpose nor any other express or implied warranty except as stated above.

SUPPLEMENTAL LABELING FOR STIMPLEX® CHEMIGATION

GENERAL

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- Apply STIMPLEX® only through drip (trickle), sprinkler (including center pivot, lateral move, end tow, side [wheel] roll, traveler, big gun, solid set or hand move), flood (basin), furrow or border irrigation system(s). Do not apply STIMPLEX® through any other type of irrigation system.
- 2) A pesticide supply tank is recommended. Dilute 1 part STIMPLEX® with at least 5 parts water before adding to the supply tank. Continuous agitation of supply tank is recommended during application or injection into the chemigation system. For mixing instructions and compatibility information, see general use on container label.
- 3) Crop injury, lack of effectiveness or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

- 4) If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- 5) A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise.

SPECIAL INSTRUCTIONS FOR USE OF PUBLIC WATER SOURCES

- 1) 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 from public water systems are in place.
- Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- 3) Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. 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 contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 5) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6) Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

SPECIAL INSTRUCTIONS FOR DRIP IRRIGATION (CHEMIGATION) SYSTEMS

- 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.
- 4) The system must contain functional interlocking control to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5) The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

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- 5) Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7) Do not apply when wind speed favors drift beyond the area intended for treatment.

SPECIAL INSTRUCTION FOR FLOOD, FURROW AND BORDER IRRIGATION (CHEMIGATION) SYSTEMS

- Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.
- Systems utilizing a pressurized water and pesticide injection system must meet the following requirements.
 - a. 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.
 - b. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.

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- c. 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.
- d. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- e. The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- f. Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.