

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

June 8, 2020

Ms. Kristi Barnett U.S. Registration Specialist FMC Corporation 2929 Walnut Street Philadelphia, PA 19104

Subject: PRIA Label Amendment – Indoxacarb: Addition of New Use on Pop Corn; Addition of Crops Which Can Be Chemigated; and Change in Primary Brand Name Due to Registration Transfer Product Name: STEWARD® EC INSECTICIDE EPA Registration Number: 279-9596 Application Dates: June 11, 2018, September 7, 2018 & September 21, 2018 Petition Number: 8F8708 Decision Numbers: 544688, 544692, 545271 & 545291

Dear Ms. Barnett:

The application referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable under FIFRA section (3)(c)(7)(B), subject to the following conditions:

- 1. You must submit and/or cite all data required for registration/registration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.
- 2. You are required to comply with the data requirements described in the DCI identified below:
  - a. Indoxacarb GDCI-067710-1382

You must comply with all of the data requirements within the established deadlines. If you have questions about the Generic DCI listed above, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division: http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1

3. Be aware that proposed data requirements have been identified in a Work Plan. For more information on these proposed data requirements, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division: <a href="http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1">http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1</a>

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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.

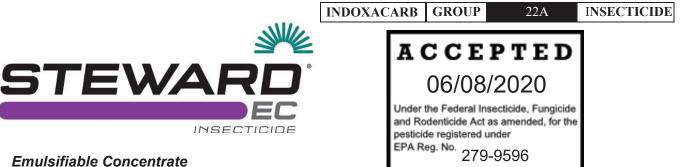
Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). If you have any questions, please contact Mr. Carmen J. Rodia, Jr. by phone at (703) 306-0327, or via email at *Rodia.Carmen@epa.gov*.

Sincerely,

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Shanta Adeeb Product Manager 10 Invertebrate & Vertebrate Branch 2 Registration Division (7505P)

Enclosures: Stamped "Accepted" Master & Supplemental Labels, dated June 8, 2020



## Emulsifiable Concentrate

#### Active Ingredient

Indoxacarb

**By Weight** 

(S)-methyl 7-chloro-2,5-d [1,2-e][1,3,4]oxadiazine-4		xycarbonyl)[4-(trifluoromethoxy)phenyl]	amino]carbonyl]indeno	15.84%
Other Ingredients	· / ·			84.16%
TOTAL				100%
Contains 1.25 lb active ingr	edient per gallon			
EPA Reg. No. 279-9596			EPA Est. No.	
Nonrefillable Container		<b>Refillable Container</b>		
Net:	OR	Net:		

# **KEEP OUT OF REACH OF CHILDREN** CAUTION

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.)

# **FIRST AID**

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by the poison control center or doctor. Do not give anything to an unconscious person.

IF IN EYES: Hold eve 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: Remove contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For additional information on this pesticide product (including health concerns, medical emergencies, or pesticide incidents), call 1-800-331-3148, twenty-four (24) hours per day, seven (7) days per week.

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Causes moderate eve irritation. Avoid contact with skin, eves or clothing. Avoid breathing dust, vapor, or spray mist. Harmful if absorbed through skin or if inhaled. Wash hands 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. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

# PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical resistant to this product are listed below.

Applicators and other handlers must wear:

Long-sleeved shirt, long pants, shoes, and socks.

Chemical-resistant gloves made of Butyl Rubber  $\geq 14$  mils, Natural rubber  $\geq 14$  mils, Neoprene Rubber  $\geq 14$  mils, or Nitrile Rubber  $\geq 14$  mils.

Sold By



Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS. IMPORTANT: when reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicator and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

# USER SAFETY RECOMMENDATIONS

**USERS SHOULD:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing and/or PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

# **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to mammals, birds, fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Runoff of this product will be reduced by avoiding application when rainfall is forecasted to occur within 24 hours. Rinsing application equipment over the treated area will help avoid runoff to water bodies or drainage systems. Do not apply to any impervious surfaces which may contact or lead directly to surface water, storm drains, or urban runoff conveyance systems (gutters). 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 foraging the treatment area.

# **DIRECTIONS FOR USE**

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

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

# AGRICULTURAL USE REQUIREMENTS

STEWARD EC insecticide must be used 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.

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, wear:

Coveralls over long-sleeved shirt and long pants

Socks plus chemical resistant footwear

Chemical-resistant gloves made of Butyl Rubber  $\geq 14$  mils, Natural rubber  $\geq 14$  mils, Neoprene Rubber  $\geq 14$  mils, or Nitrile Rubber  $\geq 14$  mils.

#### **PRODUCT INFORMATION**

STEWARD EC insecticide is an emulsifiable concentrate that can be applied as a foliar spray to control many important insects. STEWARD EC insecticide is diluted with water for application. Always shake well before use.

#### **USE RESTRICTIONS**

- Do not formulate this product into any other end-use products without written permission of FMC.
- Do not use in greenhouses.
- Not for use on ornamental plants or plants being grown for ornamental purposes.
- Not for use in residential areas.

For fields to which applications of STEWARD EC insecticide will be made, construct a vegetative filter strip if one does not already exist. Existing and new filter strips must be, at a minimum, 10-foot-wide and composed of grass or other permanent vegetation between the field edge and down gradient aquatic habitat (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or natural ponds; estuaries; and commercial fish farm ponds). Vegetative filter strips must be maintained to optimize their utility. Only apply products containing indoxacarb onto fields where a maintained vegetative buffer strip of at least 10 feet exists between the field and down gradient aquatic habitat.

CHEMIGATION: Do not apply this product through any type of irrigation system except for application to alfalfa, corn (field), corn, (pop), corn (grown for seed), cotton, peanut, and soybean, and as allowed by Federal Supplemental and Special Local Need (SLN) labeling. (See "Application By Chemigation" section of the label.)

## INTEGRATED PEST MANAGEMENT

FMC supports the use of Integrated Pest Management (IPM) programs to control pests. This product may be used as part of an IPM program which can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other pest detection methods, correct target pest identification, population monitoring, rotation of insecticides with different modes-of-action, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants, product manufacturer or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop or site systems in your area.

## SCOUTING

Monitor insect populations to determine whether or not there is a need for application of STEWARD EC insecticide based on label recommendations and locally determined economic thresholds. More than one treatment of STEWARD EC insecticide may be required to control a population of pests.

# INSECT RESISTANCE MANAGEMENT

For resistance management, STEWARD EC insecticide contains the active ingredient indoxacarb which is a Mode of Action Group 22A insecticide. Insecticides with the same group number affect the same biological site of action on the target pest and when used repeatedly in the same treatment area, naturally-occurring resistant individuals may survive correctly applied insecticide treatments, reproduce, and become dominant.

To delay the development of insecticide resistance, a resistance management strategy should include incorporation of cultural and biological control practices, alternation to different mode of action insecticides on succeeding generations, targeting the most susceptible life stage, and where possible controlling multiple life stages of the same pest.

Consult with your local or state agricultural authorities or product manufacturer, or visit the Insecticide Resistance Action Committee (IRAC) on the web at http://www.irac-online.org for more information about developing a resistance management strategy.

Unless directed otherwise in the specific crop/pest sections of this label, follow these guidelines to delay the development of insecticide resistance:

- Apply STEWARD EC insecticide and other Group 22A insecticides within a single "treatment widow" to minimize exposing successive generations of a pest species to the same mode of action insecticides.
- A "treatment window" is defined as the period of residual insecticidal activity provided by one or more applications of products with the same mode of action not to exceed approximately 30 days.
- Within the Group 22A "treatment window", make no more than 2 applications of STEWARD EC insecticide or other Group 22A insecticides.
- Following a Group 22A "treatment window", rotate to a "treatment window" of effective insecticides with a different mode of Action Group Number. The period between Group 22A "treatment windows" should be at least 30 days.
- For short cycle crops (< 50 days), the duration of the crop cycle may be considered as the Group 22A "treatment window" if no Group 22A insecticides are used during the next crop cycle at the same farm location.
- If STEWARD EC insecticide is tank mixed with other insecticides, then apply rates that are individually registered for use against the target species. Do not rely on the same mixture repeatedly to control the same pest species and follow the same "treatment window" rotation recommendation described above for the tank-mixed products.
- Use labeled rates of STEWARD EC insecticide when applied alone or in tank mixtures.
- Monitor after application for unexpected target pest survival. If insect resistance is suspected consult with your manufacturer's representative, local university specialist, or certified pest control advisor.

If resistance to STEWARD EC insecticide develops in your area other products with a similar mode of action (Mode of Action Group 22A) may not provide adequate control.

# **BENEFICIAL ARTHROPODS**

Other than reducing the target pest species as a food source, STEWARD EC insecticide helps conserve certain beneficial arthropods, including parasitic wasps, predatory mites, big-eyed bugs, damsel bugs, minute pirate bugs, and spiders. While these beneficials cannot be relied upon to control pests, they are of potential value and can be monitored along with pests in pest management programs on these crops.

# **APPLICATION**

Apply at the listed rates when insect populations reach locally determined economic thresholds. Consult the cooperative extension service, professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area.

STEWARD EC insecticide applications should target eggs and small instar larvae.

Follow-up treatments of STEWARD EC insecticide should be applied, as needed, to keep pest populations within threshold limits. Apply STEWARD EC insecticide at 5 to 7 day intervals or as needed to manage specific target insect pests, as specified in the specific crop sections, to maintain control.

Use sufficient water to obtain thorough, uniform coverage.

Because STEWARD EC insecticide is most effective through ingestion of treated plant material, thorough spray coverage is essential for optimum control of targeted pest insects. Using increased water volumes will typically result in better spray coverage, especially under adverse conditions such as dry, hot weather or dense plant foliage. STEWARD EC insecticide may be applied by ground, aerial or overhead sprinkler chemigation application equipment. For aerial application use the following directions unless otherwise specified in specific crop/pest sections of this label or EPA-approved supplemental labeling: use a minimum of 3 gal water per acre (gpa) [minimum of 5 gal water per acre in Arizona and California]. For ground application use the following directions unless otherwise specified in specific crop/pest sections of this label or EPA-approved supplemental labeling: use a minimum of 5 gal. water per acre. Higher gallonage will provide better coverage and performance. For overhead chemigation applications, see "Application by Chemigation" section of the label for guidance on water volumes to be used.

Use of Adjuvants: In some situations where coverage is difficult to achieve such as closed canopy, dense foliage, plants with waxy leaf surfaces, or less than optimum application equipment, an adjuvant may improve performance. Use only adjuvant products that are labeled for agricultural use and follow the directions on the manufacturer's label.

# SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying STEWARD EC insecticide. Fill spray tank 1/4 to 1/2 full of water. Add STEWARD EC insecticide directly to spray tank. Mix thoroughly to fully disperse the insecticide; once dispersed continued agitation is required. Use mechanical or hydraulic means; do not use air agitation. Spray mix must not be stored overnight in spray tank. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures.

*Tank Mixing and Compatibility -* Since formulations may be changed and new ones introduced, it is a best practice that users premix a small quantity of a desired tank mix and observe for possible physical incompatibility (settling out, flocculation, crystallization, etc.). This product can be tank mixed with pesticide products labeled for use on crops on this label in accordance with the most restrictive of label limitations and precautions. Do not exceed label application rates. This product cannot be mixed with any product containing a label prohibition against such mixing.

Spray volumes of less than 3 gal of water and tank mixtures of more than two products can increase the chances of incompatible spray mixtures. A jar test (as described below) should be conducted when label guidance is not given or prior experience with a specific tank mixture is unknown. The jar test should follow the mixing sequence below in water volume proportional to the planned spray tank water volume to assure that the tank mixture is compatible. Constant agitation may be needed during mixing and spraying of mixtures. STEWARD EC insecticide is compatible with most commonly used plant protectants.

Steps to conduct a jar test to determine physical tank mix compatibility of STEWARD EC insecticide with other products:

- Add clean water to the jar in proportion to the planned water volume that will be used in the spray tank (a jar size of 16 oz is acceptable).
- While wearing the most restrictive PPE, mix proper proportional amounts of STEWARD EC insecticide and desired tank mix partner(s) as will be present in the spray tank. Add one product at a time following the sequence of addition according to formulation type provided in this label.
- Seal and shake mixture after each product is added.
- Allow to stand for 1 hour.
- View jar to determine if settling, flocculation, crystallization or any other undesirable changes have happened.
- If none of the above is observed or the solution can be easily remixed after shaking, the mixture is compatible with STEWARD EC insecticide.
- If the tank mixture is not compatible, a higher water volume, reduced rate of the tank mix partner(s), reduced number of tank mix partners or a compatibility agent may be needed.

#### **Tank Mixtures and Crop Safety**

Crop varieties can differ in their responsiveness to tank mixtures, and environmental conditions can influence product performance and crop response. It is not possible to test STEWARD EC insecticide alone or with all possible tank mix combinations on all varieties under all environmental conditions. When considering the use of a tank mixture on a labeled crop without prior experience, or which is not specifically described on STEWARD EC insecticide product labeling or in other FMC product use instruction, it is important to check crop safety first. To test for crop safety prepare a small volume of the intended tank mixture, apply it to an area of the target crop as directed by both this and the tank mix partner product labels, and observe the treated crop to ensure that a phytotoxic response does not occur.

Use of STEWARD EC insecticide in any tank mixture applications that is not specifically described on STEWARD EC insecticide product labeling or in other FMC product use instructions, could potentially result in crop injury. Follow the precautions on this label and on the label for any other product to be used in tank mixtures before making such applications to your crops. 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.

<u>**Tank Mixing Sequence</u>** - Add different formulation types in the sequence indicated below.\* Allow time for complete mixing and dispersion after addition of each product.</u>

- 1. Products in water soluble bags (WSB)
- 2. Water soluble granules (SG)
- 3. Water dispersible granules (WG, XP, DF)
- 4. Wettable powders (WP)
- 5. Water based suspension concentrates (SC)
- 6. Water soluble concentrates (SL)
- 7. Suspoemulsions (SE)
- 8. Oil Based suspension concentrates (OD)
- 9. STEWARD EC insecticide or other emulsifiable concentrates (EC)
- 10. Surfactants, oils, or adjuvants
- 11. Soluble fertilizers
- 12. Drift retardants

\*- Unless otherwise specified by manufacturer

directions for use or by local expertise.

# SPRAY TANK CLEANOUT

Prior to application, start with clean, well maintained application equipment. Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove.

Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom and nozzles with clean water.

Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation. Dispose of waster rinse water in accordance with local regulations.

# APPLICATION BY CHEMIGATION – ALFALFA, CORN (FIELD), CORN (GROWN FOR SEED), CORN (POP), COTTON, PEANUT, AND SOYBEAN

#### Instructions for the Use of STEWARD EC insecticide in Overhead Sprinkler Chemigation Systems.

Overhead chemigation applications offer the advantage of greater penetration and coverage of the target plant. However, typical chemigation applications are more dilute than ground or aerial applications. For best results, it is recommended to keep the concentration of STEWARD EC insecticide as high as possible in the application. Apply STEWARD EC insecticide in 0.1 to 0.2 inches of water per acre. STEWARD EC insecticide is most active as an ingestion insecticide, although it does have activity as a direct contact insecticide. For best results, applications of STEWARD EC insecticide should ensure thorough coverage of the target plant to maximize the opportunity for target insects to ingest STEWARD EC insecticide.

#### **Types of Chemigation Systems:**

STEWARD EC insecticide may be applied only through overhead sprinkler irrigation systems. Overhead irrigation systems include the following; center pivot, end tow, hand move, lateral move, side roll, solid set and wheel line. Center pivot and lateral move irrigation systems are preferred. Other overhead sprinkler systems may be used if they provide uniform water distribution. Do not apply STEWARD EC insecticide through any other type of irrigation system. Do not use filter screens smaller than 50 mesh throughout the system, due to possible build up of material on 100 mesh or smaller screens.

#### **Directions for Chemigation:**

#### Preparation

A pesticide tank is recommended for the application of STEWARD EC insecticide in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. With the mix tank 1/4 to 1/2 full with water and the agitator running, measure the required amount of STEWARD EC insecticide and add it to the tank. Then add additional water to bring your total pesticide mixture up to the desired volume for your application. Note: Always add the STEWARD EC insecticide into a dry tank or other mixing equipment without first adding water. See "Tank Mixing Sequence" section of the container label for tank mixing sequence. Continue to agitate the mixture throughout the application process. Use mechanical or hydraulic agitation, do not use air agitation. Highly alkaline water should be buffered so that the pH of the spray solution is in the range of neutral to slightly acidic.

#### **Injection Into Chemigation Systems**

Inject the proper amount of STEWARD EC insecticide into the irrigation water flow using a positive displacement injection pump. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water. For continuously moving systems, inject the solution containing STEWARD EC insecticide into the irrigation water line continually and uniformly throughout the irrigation cycle. Apply in no more than 0.2 inches of water per acre. For overhead sprinkler systems that are stationary, add the solution containing STEWARD EC insecticide to the irrigation water line and apply no more than 0.2 inches of water per acre just before the end of the irrigation cycle.

#### **Uniform Water Distribution**

The irrigation system used for application of STEWARD EC insecticide must provide for uniform distribution of STEWARD EC insecticide treated water. Non-uniform distribution might result in crop injury, lack of effectiveness or illegal pesticide residues in or on the crop being treated. Ensure the irrigation system is calibrated to uniformly distribute the chemigation application to the crop. Contact the equipment manufacturer, the local University Extension agent or other experts if you have questions about achieving uniform distribution of the application.

#### **Equipment Calibration**

Calibrate the irrigation system and injector before applying STEWARD EC insecticide. Calibrate the injection pump while the system is running using the expected irrigation rate. If you have questions about calibration, you should contact your state extension service specialists, equipment manufacturer or other experts.

#### **Monitoring of Chemigation Applications**

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. Wear the personal protective equipment as defined in the PPE section of the label for applicators and other handlers when making adjustments or repairs on the chemigation system when STEWARD EC insecticide is in the irrigation water.

#### **Required System Safety Devices**

Do not connect any irrigation system used for pesticide applications to a public water system unless the pesticide labelprescribed safety devices are in place. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals at least 60 days out of the year.

- 1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. 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.

#### Operation

Start the water pump and sprinkler, and let the system achieve the desired pressure and speed before starting the injector. Start the injector and calibrate the injection system according to the directions above. This procedure is necessary to deliver the desired rate per acre in a uniform manner. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system.

- End guns must be turned off during the application, if they irrigate nontarget areas or if they do not provide uniform application and coverage.
- Plug nozzles in the immediate area of control panels, chemical supply tanks and system safety devices to prevent contamination of these areas.
- Do not apply when wind speed favors drift beyond the area intended for treatment.
- Do not apply when system connections or fittings leak or when nozzles do not provide uniform distribution.
- Do not allow irrigation water to collect or run-off during chemigation.

#### **Cleaning the System**

Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

#### SPRAY DRIFT AERIAL APPLICATIONS

- Do not release spray at a height greater than 10 feet above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- Do not apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less for fixed-wing aircraft and 75% or less for helicopters. Otherwise, the boom length must be 75% or less for fixed-wing aircraft and 90% or less for helicopters.
- Do not apply during temperature inversions.

#### **GROUND BOOM APPLICATIONS**

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 mph at the application site.
- Do not apply during temperature inversions.

#### AIRBLAST APPLICATIONS

- Sprays must be directed into the canopy.
- Do not apply when wind speeds exceed 15 mph at the application site.
- User must turn off outward pointing nozzles at row ends and when spraying outer row.
- Do not apply during temperature inversions.

## SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITESPRAY 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.

#### **Controlling Droplet Size – Aircraft**

• Adjust Nozzles – Follow nozzle manufacturer recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

#### **BOOM HEIGHT – Ground Boom**

For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### **RELEASE HEIGHT – Aircraft**

Higher release heights increase the potential for spray drift.

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

#### **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.

#### 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.

#### AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, that it is configured properly, and that drift is not occurring.

Note: Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

# **CROP ROTATION**

Crops on this label and the following crops or crop groups may be planted immediately following harvest: Bean, dried (crop subgroup 6C); Bean, succulent (crop subgroups 6A, 6B); Bushberries (crop subgroup 13-07B); Cucurbit vegetables (crop subgroups 9A, 9B); Fruiting vegetables (crop subgroups 8-10A, 8-10B, 8-10C); Garden beets; Grapes; Leafy green vegetables (crop subgroup 4A); Leafy petiole vegetables (crop subgroup 4B); Low growing berry (except strawberry) (crop subgroup 13-07H); Mint (peppermint & spearmint); Okra; Pome fruit (crop group 11); Small fruit vine climbing subgroup (except fuzzy kiwifruit) (crop subgroup 13-07F); Stone fruit (crop group 12); Sweet corn; Tuberous and corm vegetables (crop subgroup1C: arracacha, arrowroot, Chinese artichoke, Jerusalem artichoke, edible canna (Queensland arrowroot), bitter and sweet cassava, chayote (root), chufa, dasheen (taro), ginger, leren, potato, sweet potato, tanier (cocoyam), tumeric, yam bean (jicama,manoic pea) and true yam).

Do not plant for food or feed any other crops not registered for use with indoxacarb for 30 days after last use.

Crops	Insects	lb ai	fl oz	Acres Treated per gal of STEWARD EC insecticide	Last Application (Days to Harvest)	REI
Alfalfa including alfalfa grown for seed	Cabbage looper (except CA) Grasshoppers	0.045 0.11	4.6 - 11.3	11.5 - 27.8	7	12 hrs.
	Alfalfa caterpillar Alfalfa weevil larvae Beet armyworm Cabbage looper (CA only) Egyptian alfalfa weevil larvae Granulate cutworm	0.065 - 0.11	6.7 - 11.3	11.5 - 19	For alfalfa, harvest is defined as when the crop is cut.	
	Potato leafhopper (except California) (suppression only) Lygus Bugs (Western U.S.)* Western yellowstriped armyworm	0.09 - 0.11	9.2 - 11.3	11.5 - 14		

#### ALFALFA RESTRICTIONS

Do not apply more than 45 fl oz/A of STEWARD EC insecticide or 0.44 lb ai/A of indoxacarb-containing products per calendar year. Apply no more than 11.3 fl oz/A of STEWARD EC insecticide or 0.11 lb ai/A of indoxacarb-containing products per cutting.

When STEWARD EC insecticide is used on alfalfa grown for seed, the seed may not be used for sprouts or livestock feed. All seed from treated crop must be tagged, "Not for Human or Animal Use" at the processing plant.

Note: Apply lower listed rates for light to moderate infestations. Use intermediate to high rates within the listed rate range on heavier infestations or when later instar larvae exist. Use the highest listed rate for controlling severe infestations or when longer residual control is desired. \*Suppression only.

	C	0.065 0.11	(7, 11.2	11.5 10	7	10.1
Bean, Dried (except		0.065 - 0.11	6.7 - 11.3	11.5 - 19	1	12 hrs.
	European corn borer					
Including: Dried						
cultivars of bean						
(Lupinus) (includes						
grain lupin, sweet						
Iupin, white lupin,						
and white sweet						
lupin); bean						
(Phaseolus) (includes						
field bean, kidney						
bean, lima bean (dry),						
navy bean, pinto						
bean, tepary bean);						
bean (Vigna)						
(includes adzuki						
bean, blackeyed pea,						
catjang, cowpea,						
crowder pea, moth						
bean, mung bean, rice						
bean, southern pea,						
urd bean); broad bean						
(dry); chickpea; guar;						
lablab bean, lentil						
1						

BEAN, DRIED (EXCEPT SOYBEAN) RESTRICTIONS Make no more than 4 applications per acre per crop. Do not apply more than 45 fl oz/A of STEWARD EC insecticide or 0.44 lb ai/A of indoxacarb-containing products per crop.

Do not apply more than 135 fl oz/A of STEWARD EC insecticide or 1.32 lb ai/A of indoxacarb-containing products per calendar year. The minimum interval between sprays is 7 days.

Note: For ground applications, make a uniform application in approximately 20-100 gal/A of water.

#### STEWARD EC insecticide Rate Per Acre

Crops	Insects	lb ai	fl oz	Acres Treated per gal of STEWARD EC insecticide	Last Application (Days to Harvest)	REI
Corn (grown for seed) Corn (pop)	Beet armyworm Corn earworm* Corn rootworm - (adult) European corn borer Fall armyworm Grasshoppers Japanese beetles - (adult)** Western bean cutworm Yellowstriped armyworm	0.059 - 0.11	6.0 - 11.3	11.5 - 21.3	14 Days for Grain and Stover (field, pop, and corn grown for seed) 1 Day for Forage, Fodder, Silage (field and corn grown for seed only)	12 hrs.
	Brown stink bug** Green stink bug** Southern green stink bug**	0.09 - 0.11	9.2 - 11.3	11.5 - 14		

Do not apply more than 22.6 fl oz/A of STEWARD EC insecticide or 0.22 lb ai/A of indoxacarb-containing products per calendar year.

\* Corn earworm control is only for treated foliage and silks. New foliage and new silks will not be protected with a single application. \*\*Suppression only.

Crops	Insects	lb ai	fl oz	Acres Treated per gal of STEWARD EC insecticide	Last Application (Days to Harvest)	REI
Cotton	Cotton Bollworm* Tobacco Budworm*	0.11	11.3	11.5	14	12 hrs.
	Cotton Bollworm in Transgenic Bt Cotton	0.09 - 0.11	9.2 - 11.3	11.5 - 14		
	Beet Armyworm Fall Armyworm Western yellowstriped armyworm	0.09 - 0.11	9.2 - 11.3	11.5 - 14		
	Cabbage Looper Soybean Looper	0.065 - 0.09	6.7 - 9.2	14 - 19		
	Cotton Fleahopper** Lygus Bugs (Western U.S.)*** Tarnished Plant Bug**	0.09 - 0.11	9.2 - 11.3	11.5 - 14		

COTTON RESTRICTIONS

The minimum interval between treatments is 5 days.

Make no more than 4 applications per acre per crop. Do not apply more than 45 fl oz/A of STEWARD EC insecticide or 0.44 lb ai/A of indoxacarb-containing products per calendar year.

Note: Beet armyworm and Western yellowstriped armyworm (AZ & CA only) - STEWARD EC insecticide may be applied to seedling cotton (less than 18 \*Cotton Bollworm and Tobacco Budworm - For the most effective control, applications of STEWARD EC insecticide should be made when the majority of

the population is within the time of blackhead egg stage to egg hatch. AL & GA only - STEWARD EC insecticide may be applied at 0.09 lb ai/A (9.2 fl oz/A of product) for control of low populations of tobacco budworm and

cotton bollworm on conventional cotton varieties that do not contain the transgenic Bt trait. Low populations are defined as less than 30 eggs per 100 terminals and/or less than 10 tobacco budworm/cotton bollworm larvae detected per 100 terminals, blooms, or squares. If tobacco budworm or cotton bollworm populations exceed the egg or larval threshold as described above, then increase the STEWARD EC insecticide use rate to 0.11 lb ai/A (11.3 fl oz A of product)

\*\*Tarnished Plant Bug and Cotton Fleahopper - A single application of STEWARD EC insecticide will provide control of light to moderate populations of tarnished plant bug or cotton fleahopper. Heavy populations of tarnished plant bug or cotton fleahopper may require multiple applications. For the most effective control, fields should be scouted twice per week with application timing based on locally determined economic thresholds. Consult the cooperative extension service, professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area. \*\*\*Suppression only

Peanut	Corn Earworm	0.065 - 0.11	6.7 - 11.3	11.5 - 19	14	12 hrs.
	Beet armyworm Fall armyworm Granulate cutworm Rednecked peanutworm (except California) Tobacco budworm	0.09 - 0.11	9.2 - 11.3	11.5 - 14		

PEANUT RESTRICTIONS

The minimum interval between treatments is 5 days.

Make no more than 4 applications per acre per crop. Do not apply more than 45 fl oz/A of STEWARD EC insecticide or 0.44 lb ai/A of indoxacarb-containing products per calendar year.

Soybean (except	Beet armyworm	0.045 - 0.11	4.6 - 11.3	11.5 - 27.8	21	12 hrs.
	Cabbage looper* Corn earworm Fall armyworm Grasshoppers Green cloverworm Soybean looper* Yellowstriped armyworm					
	Velvetbean caterpillar**	0.055 - 0.11	5.6 - 11.3	11.5 - 22.8		
	Tobacco budworm Bean leaf beetle** Brown stink bug** Green stink bug** Southern green stink bug**	0.09 - 0.11	9.2 - 11.3	11.5 - 14		

#### SOYBEAN RESTRICTIONS

The minimum interval between treatments is 5 days.

Make no more than 4 applications per acre per crop.

Do not apply more than 45 fl oz/A of STEWARD EC insecticide or 0.44 lb ai/A of indoxacarb-containing products per calendar year.

Do not feed or graze livestock on treated fields.

\* Use lower rate (4.6 fl oz/A) for low to moderate populations of cabbage and soybean loopers. Use higher rates (5.6 fl oz/A to 11.3 fl oz/A) for higher populations or when crop canopy is dense. \*\*Suppression only.

# STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Keep this product in its tightly closed original container. Do not store in areas where temperatures are below 32 degrees F. Store in a cool, dry (preferably locked) area away from other pesticides, fertilizer, food or feed that is inaccessible to children and animals.

**PESTICIDE DISPOSAL:** Do not contaminate water, food, or feed by storage or disposal. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING: Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" or "Refillable Container" designation.

Nonrefillable Rigid Plastic and Metal Containers (Capacity Equal to or Less Than 5 Gallons): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. 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 1/4 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 reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

Nonrefillable Rigid Plastic and Metal Containers (Capacity Greater Than 5 Gallons): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available, or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

Nonrefillable Rigid Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then offer for recycling if available, or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

All Refillable Containers: Refillable container. *Refilling Container:* Refill this container with STEWARD EC insecticide containing indoxacarb only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. If damage is found, do not use container, contact FMC at the number below for instructions. Check for leaks after refilling and before transporting. If leaks are found, do not reuse or transport container, contact FMC at the number below for instructions. *Disposing of Container:* Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then offer for recycling if available, or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

Do not transport if container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact CHEMTREC (Transportation and Spills) at 1-800-424-9300, day or night.

**NOTICE TO BUYER--**Purchase of this material does not confer any rights under patents of countries outside of the United States.

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## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

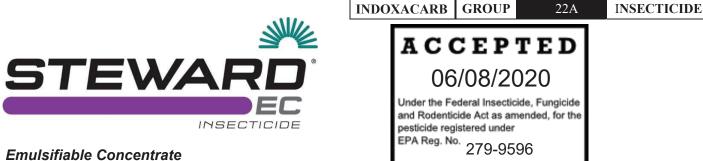
Notice: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control of FMC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and, to the extent consistent with applicable law, Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) Seller or FMC, and, to the extent permitted by applicable law, Buyer assumes the risk of any such use.

To the extent consistent with applicable law, FMC or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF FMC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Condition of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.



## Emulsifiable Concentrate

#### **By Weight**

100%

Indoxacarb	
(S)-methyl 7-chloro-2,5-dihydro-2-[[(methoxycarbonyl)[4-(trifluoromethoxy)phenyl]amino]carbonyl]indeno	
[1,2-e][1,3,4]oxadiazine-4a(3H)-carboxylate	15.84%
Other Ingredients	84.16%

TOTAL Contains 1.25 lb active ingredient per gallon

Active Ingredient

EPA Reg. No. 279-9596

# SUPPLEMENTAL LABELING

# FOR FOLIAR APPLICATIONS TO FIELD CORN, POPCORN, AND CORN GROWN FOR SEED

# This supplemental label expires on May 26, 2023 and must not be used or distributed after this date.

Steward® EC Insecticide is an emulsifiable concentrate that is diluted with water for application to labeled crops.

Steward EC Insecticide may be applied to field corn, popcorn, and corn grown for seed via chemigation. See "Application by Chemigation" section of this Supplemental Label.

# **KEEP OUT OF REACH OF CHILDREN** CAUTION

This label must be in the possession of the user at the time of application. 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.)

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

ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE EPA REGISTERED LABEL ARE TO BE FOLLOWED.

This Supplemental labeling must be in the possession of the user at the time of pesticide application. Read the label affixed to the container for Steward EC Insecticide before applying. Carefully follow all precautionary statements and application use directions. Use of Steward EC Insecticide according to this Supplemental labeling is subject to all use precautions and limitations imposed by the labeling affixed to the container for Steward EC Insecticide.



# **DIRECTIONS FOR USE**

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

Crops	Insects	lb ai	fl oz	Acres Treated per gal of Steward EC Insecticide	Last Application (Days to Harvest)	REI
Corn (field) Corn (grown for seed) Corn (pop)	Beet armyworm Corn earworm* Corn rootworm (adult) European corn borer Fall armyworm Grasshoppers Japanese beetle (adult)** Western bean cutworm Yellowstriped armyworm	0.059 – 0.11	6.0 - 11.3	11.5 - 21.3	<ul> <li>14 Days for Grain and Stover (field, pop, and corn grown for seed)</li> <li>1 Day for Forage, Fodder, and Silage (field and corn grown for seed</li> </ul>	12 hrs.
	Brown stink bug** Green stink bug** Southern green stink bug**	0.09 - 0.11	9.2 - 11.3	11.5 – 14.0	only)	

Steward EC Insecticide Rate Per Acre

#### CORN RESTRICTIONS

The minimum interval between treatments is 5 days.

Make no more than 2 applications per acre per crop.

Do not apply more than 22.6 fl oz/A of Steward EC Insecticide or 0.22 lb ai/A of indoxacarb-containing products per calendar year.

\* Corn earworm control is only for treated foliage and silks. New foliage and new silks will not be protected with a single application.

\*\* Suppression only

# APPLICATION BY CHEMIGATION – CORN (FIELD), CORN (GROWN FOR SEED), CORN (POP)

#### Instructions for the Use of STEWARD EC insecticide in Overhead Sprinkler Chemigation Systems.

Overhead chemigation applications offer the advantage of greater penetration and coverage of the target plant. However, typical chemigation applications are more dilute than ground or aerial applications. For best results, it is recommended to keep the concentration of STEWARD EC insecticide as high as possible in the application. Apply STEWARD EC insecticide in 0.1 to 0.2 inches of water per acre. STEWARD EC insecticide is most active as an ingestion insecticide, although it does have activity as a direct contact insecticide. For best results, applications of STEWARD EC insecticide should ensure thorough coverage of the target plant to maximize the opportunity for target insects to ingest STEWARD EC insecticide.

## **Types of Chemigation Systems:**

STEWARD EC insecticide may be applied only through overhead sprinkler irrigation systems. Overhead irrigation systems include the following; center pivot, end tow, hand move, lateral move, side roll, solid set and wheel line. Center pivot and lateral move irrigation systems are preferred. Other overhead sprinkler systems may be used if they provide uniform water distribution. Do not apply STEWARD EC insecticide through any other type of irrigation system. Do not use filter screens smaller than 50 mesh throughout the system, due to possible buildup of material on 100 mesh or smaller screens.

# **Directions for Chemigation:**

## Preparation

A pesticide tank is recommended for the application of STEWARD EC insecticide in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. With the mix tank 1/4 to 1/2 full with water and the agitator running, measure the required amount of STEWARD EC insecticide and add it to the tank. Then add additional water to bring your total pesticide mixture up to the desired volume for your application. Note: Always add the STEWARD EC insecticide into a dry tank or other mixing equipment without first adding water. See "Tank Mixing Sequence" section of the container label for tank mixing sequence. Continue to agitate the

mixture throughout the application process. Use mechanical or hydraulic agitation, do not use air agitation. Highly alkaline water should be buffered so that the pH of the spray solution is in the range of neutral to slightly acidic.

## **Injection Into Chemigation Systems**

Inject the proper amount of STEWARD EC insecticide into the irrigation water flow using a positive displacement injection pump. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water. For continuously moving systems, inject the solution containing STEWARD EC insecticide into the irrigation water line continually and uniformly throughout the irrigation cycle. Apply in no more than 0.2 inches of water per acre. For overhead sprinkler systems that are stationary, add the solution containing STEWARD EC insecticide to the irrigation water line and apply no more than 0.2 inches of water per acre just before the end of the irrigation cycle.

#### **Uniform Water Distribution**

The irrigation system used for application of STEWARD EC insecticide must provide for uniform distribution of STEWARD EC insecticide treated water. Non-uniform distribution can result in crop injury, lack of effectiveness or illegal pesticide residues in or on the crop being treated. Ensure the irrigation system is calibrated to uniformly distribute the chemigation application to the crop. Contact the equipment manufacturer, the local University Extension agent or other experts if you have questions about achieving uniform distribution of the application.

#### **Equipment Calibration**

Calibrate the irrigation system and injector before applying STEWARD EC insecticide. Calibrate the injection pump while the system is running using the expected irrigation rate. If you have questions about calibration, you should contact your state extension service specialists, equipment manufacturer or other experts.

#### **Monitoring of Chemigation Applications**

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. Wear the personal protective equipment as defined in the PPE section of the label for applicators and other handlers when making adjustments or repairs on the chemigation system when STEWARD EC insecticide is in the irrigation water.

#### **Required System Safety Devices**

Do not connect any irrigation system used for pesticide applications to a public water system unless the pesticide labelprescribed safety devices are in place. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals at least 60 days out of the year.

- 1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. 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.

## Operation

Start the water pump and sprinkler, and let the system achieve the desired pressure and speed before starting the injector. Start the injector and calibrate the injection system according to the directions above. This procedure is necessary to deliver the desired rate per acre in a uniform manner. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system.

- •End guns must be turned off during the application, if they irrigate nontarget areas or if they do not provide uniform application and coverage.
- •Plug nozzles in the immediate area of control panels, chemical supply tanks and system safety devices to prevent contamination of these areas.
- •Do not apply when wind speed favors drift beyond the area intended for treatment.
- Do not apply when system connections or fittings leak or when nozzles do not provide uniform distribution.
- Do not allow irrigation water to collect or run-off during chemigation.

#### **Cleaning the System**

Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system

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