400-593 11/13/2013 1/12

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

November 13, 2013

Mr. Allen R. Blem
Chemtura Corporation
199 Benson Road
Middlebury, CT 06749

Subject: Notification to add pests and correct typos in rotational crop section, per PRN 98-10

Dear Mr. Blem,

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10, dated November 1, 2013 for "DoubleTake," EPA Registration No. 400-593.

The Registration Division (RD) has conducted a review of the request for applicability under PRN 98-10 and finds that the changes requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please contact me directly at 703-308-8735 or email me at chao.julie@epa.gov.

Sincerely,

Julie A. Chao
Insecticide-Rodenticide Branch
Registration Division (7505P)
Office of Pesticide Programs

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EPA	United States Environmental Protection Agency Washington, DC 20460	☐ Registration ☐ Amendment ☒ Other	Identifier Number

Application for Pesticide - Section I

1. Company / Product Name 400-593	2. EPA Product Manager John Hebert	3. Proposed Classification [☐] None [☒] Restricted
4. Company / Product (Name) DoubleTake	PM 7	
5. Name and Address of Applicant (Include ZIP Code) Chemtura Corporation 199 Benson Road Middlebury, Connecticut 06749 [ ] check if this is a new address	6. **Expedited Review.** In accordance with FIFRA Section 3(c)(3)(b)(I), my product is similar or identical in composition and labeling to: EPA Reg No. _____ Product Name _____	NOTIFICATION NOV 13 2013

Section II

[☐]	Amendment - Explain below.	[☐]	Final printed labels in response to Agency letter dated May 23, 2012.
[☐]	Resubmission in response to Agency letter dated_____	[☐]	"Me Too" Application.
[☒]	Notification - Explain below.	[☐]	Other - Explain below.

Explanation: Add new insects; correct rotational crop statement.
This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or confidential statement of formula of this product. I understand that it is a violation of 18 U>S>C> Sec. 1001 to willfully make any flase statement to the EPA. I further understand that if this notification is not consistent with the terms of PR Notice 998-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section – III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
[☐] Yes*	[☐] Yes	[☐] Yes	[☐] Metal
[☐] No	[☐] No	[☐] No	[☐] Plastic (No change in
* *Certification must be submitted*	If "Yes" Unit Packaging wgt / No. Per container	If "Yes" Packaging wgt / No. Per container	[☐] Glass container or [☐] Paper package) [☐] Other (Specify) _____

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
[☐] Label [☐] Container		[☐] On Label [☐] On Labeling accompanying product

6. Manner in Which Label is Affixed to Product
[☐] Lithograph
[☐] Paper glued
[☐] Stenciled
Other

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application)

Name	Title	Telephone No. (Include Area Code)
Judith O. Ball	Registration Specialist	203-573-2454 e-mail:

Certification
I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statements may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Received (Stamped)

2. Signature	3. Title	
Judith O Ball for	Product Registration Mgr.,N. America	
4. Typed Name Allen R. Blem	5. Date November 1, 2013	

EPA Form 8570-1 (Rev. 8-94) Previous editions are obsolete.
White - EPA File Copy (original) Yellow - Applicant Copy

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Chemtura AGROSOLUTIONS

Chemtura Corporation
199 Benson Road
Middlebury, CT 06749
203-573-2454 **tel**
203-573-2958 **fax**
www.chemtura.com

November 1, 2013

Environmental Protection Agency
Document Processing Desk
Office of Pesticide Programs **(7504P)**
One Potomac Yard (South Building)
2777 S. Crystal Drive
Arlington, VA 22202

NOTIFICATION

NOV 13 2013

Attention: Ms. Julie Chao, PM 7 Team
Insecticide Rodenticide Branch

Subject: DoubleTake™, EPA Reg. No. 400-593
Notification

Dear Ms. Chao,

Chemtura Corporation is notifying EPA of changes in the label for DoubleTake, EPA Reg. No. 400-593.

The label has been changed by adding new target insects, i.e. brown marmorated stinkbug to cotton, peanuts, peppers and soybeans, adding Western flower thrip to peppers, and kudzu bug to soybeans.

The rotational crop restriction was corrected to include diflubenzuron, a component of DoubleTake. Diflubenzuron has a one-month rotational crop restriction on other diflubenzuron labels and the same restriction is included on the label for DoubleTake to be consistent with those labels.

If you have any questions regarding this label, please contact Judy Ball, Registration Specialist, at 203-573-2454 or e-mail judy.ball@chemtura.com.

Sincerely,

CHEMTURA CORPORATION

Judith O. Ball for

Allen R. Blem
Product Registrations Manager, N. America

Attach:
EPA Form 8570-1; notification label, copy of notification label with changes marked

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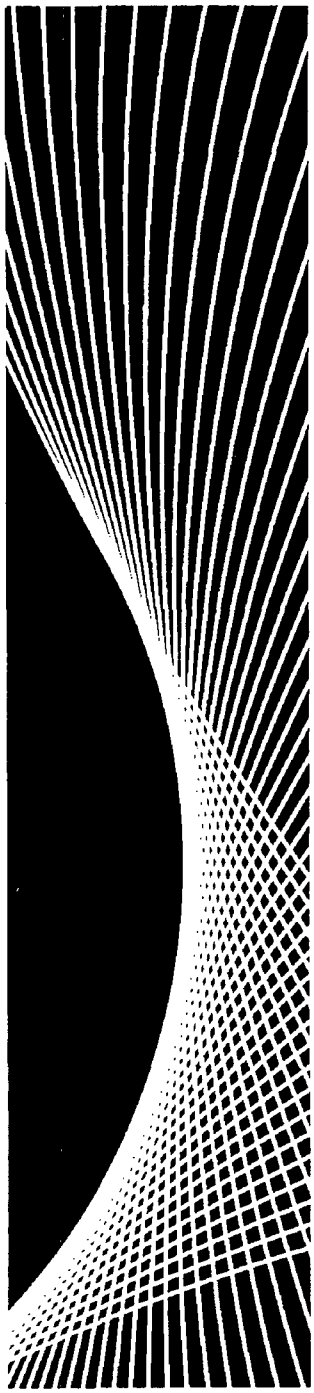
HIGHLIGHTED COPY

Restricted Use Pesticide. Due to toxicity to fish and aquatic organisms. For retail sale to and use only by Certified Applicators, or persons under their direct supervision, and only for those uses covered by the Certified Applicator's certification.

GROUP	15	3A	INSECTICIDE

DoubleTake™



Insecticide / Insect Growth Regulator
For use on cotton, peanuts, peppers and soybeans

Net Contents:

Active Ingredients: (% by weight)

diflubenzuron N-[[(4-Chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide*	22%
lambda-cyhalothrin [1-alpha(S*), 3-alpha(Z)-(±)-cyano(3-phenoxyphemol)methyl 3-(2-chloro-3, 3, 3-trifluoro-1-propenyl)-2, 2-dimethylcyclopropane-carboxylate*	11%
Other Ingredients:	67%
TOTAL	100%

*Contains 2 lbs. diflubenzuron and 1 lb. lambda-cyhalothrin per gallon.

NOTIFICATION
NOV 13 2013

KEEP OUT OF REACH OF CHILDREN

WARNING

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 give anything to an unconscious person. • Do not induce vomiting unless told to do so by the poison control center or doctor.
IF IN EYES	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
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.
EMERGENCY ASSISTANCE: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. **MEDICAL EMERGENCY** 800-292-5898 **TRANSPORTATION EMERGENCY (CHEMTREC)** 800-424-9300 **PRODUCT SAFETY DATA (MSDS)** 866-430-2775	
For PRODUCT USE INFORMATION: Call 800-243-2850	

EPA REG. NO. 400-593
EPA EST. NO.
003

Manufactured for:
Chemtura Corporation
199 Benson Road
Middlebury, CT 06749

Chemtura AGROSOLUTIONS™

www.ChemturaAgroSolutions.com

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
WARNING

May be fatal if swallowed. Causes moderate eye irritation. Harmful if inhaled. Avoid breathing spray mist or vapor. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

PERSONAL PROTECTIVE EQUIPMENT

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

Applicators and Other Handlers Must Wear: A long-sleeved shirt & long pants; chemical-resistant gloves, such as barrier laminate, nitrile rubber, neoprene rubber, natural rubber, polyethylene when mixing and loading and also when using hand-held equipment; shoes plus socks.

Mixers and Loaders Using Fixed-Wing Aircraft Must Wear: A long-sleeved shirt and long pants; chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, PVC or viton; shoes plus socks; dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C or a NIOSH approved respirator with any N, R, P or HE filter).

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

When handlers use closed systems (including water soluble bags), enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing 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.

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and aquatic organisms, and toxic to wildlife, terrestrial juvenile insects, and mollusks/insects. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

This product is highly toxic to bees exposed to direct treatment or residues in blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

DIRECTIONS FOR USE

Restricted Use Pesticide

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation

AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

PPE required for early entry 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 such as barrier laminate, butyl rubber, nitrile rubber, natural rubber or polyethylene.
- shoes plus socks.

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STORAGE AND DISPOSAL

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

PESTICIDE STORAGE - Store in original container only.

PESTICIDE DISPOSAL - Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL

Plastic containers: Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse (or equivalent) promptly after emptying.

Triple rinse as follows:

For containers small enough to shake: Empty the remaining contents into a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and then recap. Shake for 10 seconds. Pour rinsate into 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.

Nonrefillable container greater than 5 gallons. Do not use or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty 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. Empty the rinsate into application equipment or a mix tank or store rinsate for late use or disposal. Repeat this procedure two more times.

Nonrefillable container greater than 56 gallons. Do not refill this container. Cleaning the container before disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full of water. Agitate vigorously or recirculate water with pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection equipment. Repeat this rinsing procedure two more times.

Pressure rinse as follows: Empty the remaining contents into a mix tank and continue to drain for 10 seconds after the flow continues to drip. Hold container upside down over mix tank to collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Then offer container for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, by incineration or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER!

Recycling: Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer or contact the Ag Container Recycling Council (ACRC) at 1-877-952-2272 (toll free) or www.acrecycle.org.

PRODUCT INFORMATION

DoubleTake is a premix product containing both an insecticide and an insect growth regulator effective in the control of a wide variety of insect pests. Because it contains two modes of action, DoubleTake provides both quick knockdown and long residual control. Initial and residual control is contingent upon thorough coverage of the crop. Apply in sufficient water to obtain full coverage of the foliage and fruit. When foliage is dense or pest pressure is high (heavier insect or egg pressure, larger instar stages), user higher application volumes and/or higher use rates where permitted by the label.

RESISTANCE MANAGEMENT: DoubleTake contains active ingredients from IRAC groups 3 and 15. Some insects are known to develop resistance to products used repeatedly for control. Because resistance development cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state agricultural authorities for details. Additionally, DoubleTake should be part of an IPM program that follows good management practices to include:

- Scouting regularly and using DoubleTake against early immature stages for best results
- Following the label rate and timing directions
- Maintaining good coverage of all leaf surfaces with adequate water volume
- Alternating treatments to classes of insecticides with different modes of action

RESTRICTIONS

Rotational Crops: Do not plant food or feed crops in DoubleTake or diflubenzuron treated soils within 1 month following last application, unless DoubleTake or other diflubenzuron containing products are labeled for use on the rotational crop.

APPLICATION INSTRUCTIONS

USE AND MIXING DIRECTIONS IF USED WITH WATER:

1. Fill tank with half of the required amount of water.
2. Begin agitation and add required amount of DoubleTake.
3. Continue agitation while adding remainder of water.
4. If permitted for the use site, add proper quantity of oil slowly. To avoid formation of an invert emulsion, use at least 2 parts of water for each part of oil.
5. Continue to provide agitation while applying.

USE AND MIXING DIRECTIONS IF USED WITHOUT WATER:

Always evaluate any potential mixture for compatibility and sprayability. To ensure thorough mixing of DoubleTake with insecticides or other carriers, premix ingredients in a nurse tank prior to being transferred to aerial or ground ULV application equipment. If nurse tank is not available, or unable to simultaneously mix:

1. Fill tank with the required amount of oil and/or oil based insecticide.
2. Begin agitation and add required amount of DoubleTake.
3. After the contents of the tank have been thoroughly agitated, a volume of carrier sufficient to fill the booms and piping system should be drained and then added back to the tank.
4. Continue to provide agitation while applying.

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SPRAY DRIFT LABELING

BUFFER ZONES

Vegetative Buffer Strip

Only apply to fields where a 10 foot wide vegetative filter strip of grass or other permanent vegetation exists between the field edge and downward gradient aquatic habitats such as, but not limited to lakes; reservoirs; rivers; permanent streams; marshes, pot holes or natural ponds; estuaries; and commercial fish farm ponds).

For guidance, refer to the following publication for information on constructing and maintaining effective buffers: *Conservation Buffers to Reduce Pesticide Losses,* Natural Resources Conservation Services, USDA, NRCS. 2000. Fort Worth, TX. 21 pp. www.in.nrcs.usda.gov/technical/agronomy/newconbuf.pdf

For ground application, do not apply within 25 feet of aquatic habitats.

For aerial application (low and high volume), do not apply within 150 feet of aquatic habitats.

For aerial application (ULV), do not apply within 450 feet of aquatic habitats.

In the state of New York, a 25 foot vegetative non-crop buffer strip untraversed by drainage tiles must be maintained between a treated field and a coastal marsh (or stream that drains into a coastal marsh), for both aerial and ground application. For aerial applications, the 25 foot vegetative non-crop buffer strip for runoff protection would be part of the larger 150 foot buffer strip (or 450 ft. buffer strip for ULV application) required for spray drift.

SPRAY DRIFT REQUIREMENTS

Wind Speed and Direction

Only apply this product if the wind direction favors on-target deposition.

Do not apply when the wind velocity exceeds 15 mph.

Temperature Inversion

Do not make ground or aerial applications into temperature inversions. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

Droplet Size

Apply spray with aerial or ground equipment designed or modified to insure full uniform coverage of the entire plant.

Use only medium or coarser spray nozzles (for ground and non-ULV aerial applications) according to ASAE (S572) definition for standard nozzles. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size. Adjust equipment to provide droplets with a diameter of 150 to 220 microns.

Additional Requirements for Ground Application

Wind speed must be measured adjacent to the application site on the upward side, immediately prior to application.

For ground boom applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy.

Additional Requirements for Aerial Application

Mount the spray boom on the aircraft so as to minimize drift caused by wingtip or rotor vortices. Use the minimum practical boom length, and not to exceed 75% of the wing span or 80% rotor diameter.

Flight speed and nozzle orientation must be considered in determining droplet size.

Spray must be released at the lowest height consistent with pest control and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.

When applications are made with a cross-wind, the swath will be displaced downward. The applicator must compensate for this displacement at the downward edge of the application area by adjusting the path of the aircraft upward.

APPLICATION THROUGH IRRIGATION SYSTEMS - CHEMIGATION

DoubleTake may be applied through properly equipped chemigation systems for insect control in row crops. 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. In order to calibrate the irrigation system and injector to apply the mixture, determine the following: 1) Calculate the number of acres irrigated by the system; 2) Set the irrigation rate and determine the number of minutes for the system to cover the intended treatment area; 3) Calculate the total gallons of the mixture needed to cover the desired acreage. Divide the total gallons of mixture needed by the number of minutes to cover the treated area. This value equals the gallons per minute that the injector must deliver. Convert the gallons per minute to ounces per minute. Calibrate the injector pump with the system in operation at the desired irrigation rate. It is suggested that the injector pump be calibrated at least twice before operation, and the system be monitored during operation.

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

CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

If the chemigation system is connected to a public water supply, the following conditions must also be met:

- Public water systems 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.
- 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 a 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 flow 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, 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 shutdown.
- 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.
- 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.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.
- Upon completion of insecticide application, remove scale, pesticide residues, and other foreign matter from the supply tank and entire injector system. Flush thoroughly with clean water.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

SPRINKLER CHEMIGATION

For continuously moving systems, the mixture containing DoubleTake must be injected continuously and uniformly into the irrigation water line as the sprinkler is moving. If continuously moving irrigation equipment is used, apply in no more than 0.25 inch of water. For sprinkler systems that do not move during operation, apply in no more than 0.25 inch of irrigation immediately before the end of the irrigation cycle.

Maintain continuous agitation of the pesticide supply tank for the duration of the application period.

To apply a pesticide using sprinkler chemigation, the chemigation system must meet the following specifications:

- 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 water pump motor stops.
- 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.
- 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.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

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Crops	Pests	Application Rate (fl oz/acre)	Application Timing
Cotton	**COTTON RESTRICTIONS:** Do not exceed a total of 24 fl. ozs. per crop per year. Do not exceed 12 fl. ozs. per crop per acre post boll opening. Do not exceed 6 applications per year. Do not harvest within 21 days of application. Do not graze livestock in treated areas.		
	Beet armyworm -early season (before first bloom)	2 - 4	For early infestations on young cotton, apply DoubleTake at the first sign of beet armyworm activity (2 egg masses or hatch outs/100 feet of row), either as a directed or broadcast spray. Repeat applications as needed to protect new foliage, but not less than 5 days apart. Multiple applications of DoubleTake will result in optimum coverage of new foliage during the period of rapid vegetative growth.
	Beet armyworm - mid season	4	Apply starting around first bloom and continue through mid-bloom. Repeat applications as needed to protect new foliage, flower and boll growth, but not less than 5 days apart. First application should coincide with peak moth catches in phermone traps, indicating another generation of larvae is imminent. DoubleTake is more effective on early stages of larval development, therefore foliage should be treated before populations become established.
	Armyworms - Fall - Yellowstriped - Southern Bollworms - Cotton - Pink Cotton fleahopper Cotton leaf perforator Cotton leafworm Cutworms (foliar feeding) European corn borer Loopers - Cabbage - Soybean Saltmarsh caterpillar Stink bugs - Brown - Brown marmorated (BMSB) - Green - So. Green Thrips - Soybean - Tobacco Tobacco budworm ***Suppression only*** Cotton aphid Lygus spp. Two-spotted spider mite Whiteflies - Bandedwinged - Sweetpotato	4	Apply during early stages of larval development or when pests first appear. Repeat applications as needed to protect new foliage, flower and boll growth, but not less than 5 days apart. For European corn borer, applications / exposure must be made prior to the larvae boring into the stalk or fruit.
	Boll weevil - early season (before first bloom)	4	DoubleTake will control boll weevils on contact and also by suppressing reproduction in the adult females. Apply with 2 to 4 qts./ per acre of emulsified cottonseed oil, vegetable oil, or paraffinic crop oil. For ULV application, apply in a minimum of 8 fl.ozs. per acre of emulsified cottonseed oil, oil based insecticide, vegetable based or petroleum based oil carrier. A compatibility agent may be needed if a non-emulsified cotton-seed oil is used. Consult your supplier or Chemtura representative for oil specifications. For best suppression of boll weevil reproduction, make first application at pinhead square stage of cotton growth when overwintering boll weevils are entering the fields. Repeat applications must allow a minimum of 7 days between applications. DoubleTake will kill the adult boll weevil. Additionally, eggs deposited by affected female weevils will not hatch, thus limiting reproduction. The control of egg hatch and larval development within the square prevents its shedding and will then allow normal boll development. After the initial exposure to the adult female weevil, those that are not killed outright will lay non-viable eggs for approximately 10 days, and longer if the female is exposed to more DoubleTake. Therefore, optimum control will be achieved with early and multiple applications.

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Crops	Pests	Application Rate (fl oz/acre)	Application Timimg
Cotton (cont.)	Boll weevil - late season	2 - 4	DoubleTake will reduce the number of weevils that emerge during the following spring if applications are made when adult weevils are going into diapause to overwinter. Apply when cotton plants have reached full vegetative growth or when it begins blooming out the top. For LV applications, spray in combination with 2 to 4 qts.per acre of an emulsifiable vegetable oil or paraffinic oil. For ULV application, combine in a minimum of 8 fl.ozs. per acre of emulsified cottonseed oil, oil based insecticide, or vegetable / petroleum based oil carrier. A compatibility agent may be needed if a non-emulsified cottonseed oil is used. Apply at least 2, but not more than 3, applications at 7 to 14 day intervals.
	Grasshoppers	2 - 4	Apply when the majority of grasshoppers have reached the 2nd to 3rd nymphal stage of development for optimum control.
	Use sufficient application volume to assure adequate coverage. **Aerial application:** Apply in 3 to 5 gallons total volume per acre. For ULV application, use a total volume of 1 to 1 1/2 qts. per acre. **Ground application:** Apply in 10 to 20 gallons of total volume per acre. For ULV application, use a total volume of 1 to 2 qts. per acre. **Adjuvant usage:** Always use oil (1 to 2 qt) with DoubleTake for larval/nymphal control if conditions are favorable for water evaporation (e.g. high air temperature and/or low humidity). For ground or aerial LV application, 1 pt to 2 qt of emulsified vegetable or paraffinic crop oil is recommended to enhance canopy penetration and to reduce spray droplet evaporation and subsequent drift. For ULV application, use DoubleTake in a minimum of 20 fl. oz of emulsified cottonseed, vegetable or petroleum based oil carrier. A compatibility agent may be needed if non-emulsified cottonseed oil is used. Consult your supplier or Chemtura representative for oil specifications.		

Crops	Pests	Application Rate (fl oz/acre)	Application Timimg
Peanuts (except California)	**PEANUT RESTRICTIONS:** Do not exceed 16 fl. ozs. per acre per year. Repeat application as needed to protect new foliage growth, but not less than 14 days apart. Do not exceed 4 applications per acre per year. Do not harvest within 28 days of application. Do not graze or harvest treated forage for livestock feed.		
	Bean leaf beetle Corn earworm Cutworms (foliar feeding) Grasshoppers Green cloverworm Mexican bean beetle Potato leafhopper Red-necked peanut worm Southern corn rootworm Stinkbugs - including brown marmorated (BMSB) Three-cornered alfalfa hopper Tobacco thrip Vegetable weevil Velvetbean caterpillar Whitefringed beetle (adult)	2 - 4	For optimum control and minimal damage, begin applications when worm or beetle larvae are small (< 0.5 inch) or in early instar stages. For grasshoppers, apply at 2nd - 3rd nymphal stage. Use the 4 fl.oz./A rate if the crop has a history of heavy infestations, dense foliage is present, or greater residual control is desired. For southern corn rootworm (cucumber beetle) and vegetable weevil, in addition to direct control of adults, eggs laid by surviving adults that have been exposed to DoubleTake through contact or feeding will exhibit reduced hatch.
	Armyworms - Beet - Fall - Southern - Yellow-striped Lesser cornstalk borer ***Suppression only*** Aphids Soybean looper Spider mites	4	For optimum control and minimal damage, begin applications when larvae are small (< 0.5 inch) and in early instars. For aphid and spider mite suppression, begin applications when populations are first noticed based on scouting.
	Aerial Application: Apply in 3 to 5 gallons of water per acre to achieve uniform coverage of foliage. **Ground Application:** Apply in 10 to 35 gallons of water per acre to give uniform coverage. **Adjuvant usage:** Always use oil (1 to 2 qt) with DoubleTake for larval/nymphal control if conditions are favorable for water evaporation (e.g. high air temperature and/or low humidity). For ground or aerial LV application, 1 pt to 2 qt of emulsified vegetable or paraffinic crop oil is recommended to enhance canopy penetration and to reduce spray droplet evaporation and subsequent drift. For ULV application, use DoubleTake in a minimum of 20 fl. oz of emulsified cottonseed, vegetable or petroleum based oil carrier. A compatibility agent may be needed if non-emulsified cottonseed oil is used. Consult your supplier or Chemtura representative for oil specifications.		

Crops	Pests	Application Rate (fl oz/acre)	Application Timimg
Pepper Bell and Non Bell	**PEPPER RESTRICTIONS:** Do not exceed 24 fl oz. per acre per year. Repeat application as needed to protect new foliage and fruit growth, but not less than 7 days apart. Do not exceed 6 applications per year. Do not apply within 7 days of harvest.		
	Armyworms - Beet - Fall - Southern - Yellow striped Blister beetle Cabbage looper Colorado potato beetle Corn rootworms Cutworms (foliar feeding) European corn borer Flea beetles Foliage feeding Lepidopteran larvae Grasshoppers Hornworms Japanese beetle Leafhoppers Meadow spittlebug Pepper weevil Plant bugs Stalk borer Stink bug - including brown marmorated (BMSB) Thrips (ex. W. flower thrip) Tobacco budworm Tomato fruitworm Tomato pinworm Vegetable weevil ***Suppression only*** Aphids Leafminers Lygus Western flower thrip Spider mites Whiteflies	4	For optimum control and minimal damage, begin applications when worm or beetle larvae are small (< 0.5 inch) or in early (1st - 2nd) instar stages. For Colorado potato beetle, corn rootworms (cucumber beetles) and Japanese beetles, in addition to direct control of adults, eggs laid by surviving adults that have been exposed to DoubleTake through contact or feeding will exhibit reduced hatch. For grasshoppers, apply at 2nd - 3rd nymphal stage. For European corn borer and stalk borer control, applications / exposure must be made prior to the larvae boring into the stalk or fruit. For pepper weevil and vegetable weevil, begin applications at initial flowering. In addition to direct control of adults, eggs laid by surviving adults that have been exposed to DoubleTake through contact or feeding will exhibit reduced hatch in fruit.
	Aerial application: Apply in 3 to 10 gallons of water per acre to achieve uniform coverage of foliage. **Ground application:** Use a minimum of 30 gallons of water per acre to give uniform coverage. **Adjuvant usage:** Always use oil (1 to 2 qt) with DoubleTake for larval/nymphal control if conditions are favorable for water evaporation (e.g. high air temperature and/or low humidity). For ground or aerial LV application, 1 pt to 2 qt of emulsified vegetable or paraffinic crop oil is recommended to enhance canopy penetration and to reduce spray droplet evaporation and subsequent drift. For ULV application, use DoubleTake in a minimum of 20 fl. oz of emulsified cottonseed, vegetable or petroleum based oil carrier. A compatibility agent may be needed if non-emulsified cottonseed oil is used. Consult your supplier or Chemtura representative for oil specifications.		

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Crops	Pests	Application Rate (fl oz/acre)	Application Timimg
Soybean (except California)	**SOYBEAN RESTRICTIONS:** Use on soybeans not registered by the California Department of Pesticide Regulation. Do not exceed 8 fl.ozs. per acre per year. Repeat application as needed to protect new foliage, flower and pod growth, but not less than 30 days apart. Do not exceed 2 applications per year. Do not harvest within 30 days of application. Do not graze or harvest treated soybean forage, straw or hay for livestock feed.		
	Armyworms - Beet - Fall - Southern Bean leaf beetle Blister beetle Cabbage looper Corn earworm Corn rootworm beetles - Mexican - Northern - Southern - Western Cutworms (foliar feeding) European corn borer Foliage feeding Lepidopteran larvae Grasshoppers Green cloverworm Japanese beetle Kudzu bug (bean plataspid) Mexican bean beetle Painted lady (thistle) caterpillar Plant bugs Potato leafhopper Saltmarsh caterpillar Silverspotted skipper Soybean aphid Stink bugs including brown marmorated (BMSB) Three cornered alfalfa hopper Thrips Tobacco budworm Velvet bean caterpillar Webworms Woollybear caterpillar	2 - 4	For optimum control and minimal damage, begin applications when worm or beetle larvae are small (< 0.5 inch) or in early (1st - 2nd) instar stages. For European corn borer control, applications / exposure must be made prior to the larvae boring into the stems or pods. For grasshoppers, apply at 2nd - 3rd nymphal stage. For corn rootworms and Japanese beetles, in addition to direct control of adults, eggs laid by surviving adults that have been exposed to DoubleTake through contact or feeding will exhibit reduced hatch. Use the 4 fl.oz./A rate if the crop has a history of heavy infestations, dense foliage is present, or greater residual control is desired. The lower rate (2 fl. oz.) can be used to prevent insect build-up when the vegetative growth is completed and pod formation begins. Consult local Extension Service regarding infestation levels requiring treatment.
	Suppression only Lesser cornstalk borer Soybean looper Spider mites	4	Application must be made when worms are small before populations build. For lesser cornstalk borer suppression, applications / exposure must be made prior to the larvae boring into the stems or pods.
	Aerial application: Apply in sufficient water (3 to 5 gallons per acre) to achieve uniform coverage of foliage. **Ground application:** Apply in 9 to 35 gallons of water per acre to give uniform coverage. **Adjuvant usage:** Always use oil (1 to 2 qt) with DoubleTake for larval/nymphal control if conditions are favorable for water evaporation (e.g. high air temperature and/or low humidity). For ground or aerial LV application, 1 pt to 2 qt of emulsified vegetable or paraffinic crop oil is recommended to enhance canopy penetration and to reduce spray droplet evaporation and subsequent drift. For ULV application, use DoubleTake in a minimum of 20 fl. oz of emulsified cottonseed, vegetable or petroleum based oil carrier. A compatibility agent may be needed if non-emulsified cottonseed oil is used. Consult your supplier or Chemtura representative for oil specifications. **Soybean yield enhancement:** In the absence of significant insect pressure and under certain growing conditions, an increase in soybean seed yield has been demonstrated with diflubenzuron containing products under field conditions on both determinate and indeterminate cultivars. Application of 2 to 4 fl oz per acre to high yield potential soybean plants at the R3 to R3.5 growth stage period has been more consistent in increasing yields than applications at other reproductive stages of the soybean plant. This reproductive period represents beginning pod growth (pod 3/16 inch long at one of the uppermost nodes on the main stem with a fully developed leaf) to just prior to full pod elongation (pod 3/4 inch long at one of the 4 uppermost nodes on the main stem with a fully developed leaf).		

IMPORTANT NOTICE—Seller 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 and instructions specified on the label under normal conditions of use, but to the extent consistent with applicable law, neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product, contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and the buyer assumes the risk of any such use.