



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

February 5, 2018

Frank E. Sobotka, Ph.D.
Gharda Generics, Inc.
c/o 1PM Resources LLC
4032 Crockers Lake Blvd. Suite 818
Sarasota, FL 34238

Subject: Label Amendment – Agency Initiated Amendment Updating Mixing/Loading
Label Language for Water Soluble Packaging
Product Name: REALITY 25 INSECTICIDE
EPA Registration Number: 93182-21
Application Date: April 18, 2017
Decision Number: 533059

Dear Dr. Sobotka:

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

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

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

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

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with FIFRA section 6. If you have any questions, please contact Maggie Rudick by phone at 703-347-0257, or via email at rudick.maggie@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Elizabeth Fertich". The signature is written in a cursive style with some loops and flourishes.

Elizabeth Fertich
Product Manager 4
Invertebrate & Vertebrate Branch 1
Registration Division (7505P)
Office of Pesticide Programs

Enclosure

[Front Container label and/or Booklet Cover]

RESTRICTED USE PESTICIDE

Toxic 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.

REALITY[®] 25

Insecticide in Water Soluble Packets

AI Ingredients	By Wt.
*Permethrin**	25.0%
Other Ingredients:	75.0%
TOTAL	100.0%

*(3-Phenoxyphenyl)methyl (±) cis-trans 3-(2,2-dichloroethenyl)-2, 2-dimethylcyclopropanecarboxylate

**cis/trans ratio: Max. 55% (±) cis and min. 45% (±) trans

Keep water soluble packets in this container and store in a cool dry place but not below freezing (32°F). Do not remove packets from container except for immediate use.

First letters in Batch Code Indicate Producing Establishment:

EPA Reg. No. 93182-21

EPA Est. No.: 5905-GA-01 = CG

5905-IA-01 = DI

**KEEP OUT OF REACH OF CHILDREN
CAUTION/PRECAUCIÓN**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this 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 do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

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.

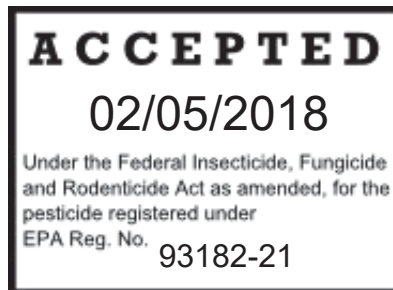
If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If 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 further treatment advice.

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For Medical Emergency or treatment information contact:

For additional information on this product (including health concerns, medical emergencies, or pesticide incidents), you may call 1-(866)-359-5660, twenty-four (24) hours per day, seven (7) days per week.



See Inside Booklet and Back Panel for Additional Restrictions, First Aid, Precautionary Statements, Directions for Use, and Conditions of Sale and Warranty.

REALITY[®] is a Registered Trademark of Gharda Chemicals International Inc.

Manufactured by:
GHARDA CHEMICALS INTERNATIONAL INC.
760 Newtown-Yardley Rd., Suite 110
Newtown, Pa 18940
1-(215)-968-9474

NET CONTENTS:
12 x 3.2 Oz.
Water Soluble Packets

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[To be finalized at label printing]

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PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION. Harmful if swallowed. Causes moderate eye irritation. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Avoid contact with eyes or clothing.

Personal Protective Equipment (PPE):

Some materials that are chemical-resistant to this product are natural rubber. If you want more options, follow the instructions for category A on the EPA chemical-resistance category selection chart.

All mixer, loaders, applicators and other handlers must wear:

- long-sleeved shirt and long pants
- shoes plus socks,
- Chemical-resistant gloves for all handlers except for applicators using motorized ground equipment, pilots, and flaggers.
- Chemical –resistant apron for mixers/loaders, persons cleaning equipment, and persons exposed to the concentrate.

See engineering control Statements for more requirements.

USER SAFETY RECOMMENDATIONS

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

USER SAFETY REQUIREMENTS

Users should follow manufacturer's instructions for cleaning/maintaining PPE. If no such instruction for washables exists, use detergent and hot water. Keep and wash PPE separately from other laundry.

Users should discard clothing and other absorbent materials that have been drenched (except as required by directions for use) or heavily contaminated with this product's concentrate. Do not reuse them.

Engineering Control Statements

Water-soluble packets when used correctly qualify as a closed mixing/loading system under the Worker Protection standard for Agricultural Pesticides [40 CFR 170.240(d)(4)]. Mixers and loaders using water-soluble packets must:

- wear the personal protective equipment required in the PPE section of this labeling for mixers and loaders, and
- be provided and must have immediately available for use in an emergency, such as a broken package, spill, or equipment breakdown chemical resistant footwear and dust/mist respirators.

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

Environmental Hazards

This pesticide is extremely toxic to aquatic organisms, including fish and 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 apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash waters.

Under some conditions, it may also have a potential for transport into surface water in runoff (primarily adsorbed to suspended soil particles), for several months or more after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, and areas overlying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-lying tile drainage systems that drain surface waters.

This product is highly toxic to bees exposed to direct treatment or residues 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.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State water Board or Regional Office of the EPA.

DIRECTIONS FOR USE

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

Resistance. Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance 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.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area.

Instructions for Using Water Soluble Packages Directly into Spray Tanks:

Water Soluble Packages (WSPs) are designed to dissolve in water. Agitation may be used, if necessary, to help dissolve the WSP. Failure to follow handling and mixing instructions can increase your exposure to the pesticide products in WSPs. WSPs, when used properly, qualify as a closed mixing/loading system under the Standard [40 CFR 170.607(d)].

Handling Instructions

Follow these steps when handling pesticide products in WSPs.

- 1 Mix in spray tank only.
- 2 Handle WSP(s) in a manner that protects package from breakage and/or unintended release of contents. If package is broken, put on PPE required for clean-up and then continue with mixing instructions.
- 3 Keep the WSP(s) in outer packaging until just before use.

- 4 Keep the WSP dry prior to adding to the spray tank.
- 5 Handle with dry gloves and according to the label instructions for PPE.
- 6 Keep WSP intact. Do not cut or puncture WSP.
- 7 Reseal the WSP outer packaging to protect any unused WSP(s).

Mixing Instructions

Follow the steps below when mixing this product, including if tank mixed with other pesticide products. If being tank mixed, the mixing directions 1 through 9 below take precedence over the mixing directions of the other tank mix products. WSPs may, in some cases, be mixed with other pesticide products so long as the directions for use of all mixed products do not conflict. Do not tank mix this product with products that prohibit tank mixing or have conflicting mixing directions.

- 1 If a basket or strainer is present in the tank hatch, remove prior to adding the WSP to the tank.
- 2 Fill tank with water to approximately one-third to one-half of the desired final volume of spray.
- 3 Stop adding water and stop any agitation.
- 4 Place intact/unopened WSP(s) into the tank.
- 5 Do not spray water from a hose or fill pipe to break or dissolve the WSP(s).
- 6 Start mechanical and recirculation agitation from the bottom of tank without using any overhead recirculation, if possible. If overhead recirculation cannot be turned off, close the hatch before starting agitation.
- 7 Dissolving the WSP(s) may take up to 5 minutes or longer, depending on water temperature, water hardness and intensity of agitation.
- 8 Stop agitation before tank lid is opened.
- 9 Open the lid to the tank, exercising caution to avoid contact with dusts or spray mix, to verify that the WSPs have fully dissolved and the contents have been thoroughly mixed into the solution.
- 10 Do not add other allowed products or complete filling the tank until the bags have fully dissolved and pesticide is thoroughly mixed.
- 11 Once the WSP have fully dissolved and any other products have been added to the tank, resume filling the tank with water to the desired level, close the tank lid, and resume agitation.
- 12 Use the spray solution when mixing is complete.
- 13 Maintain agitation of the diluted pesticide mix during transport and application.
- 14 It is unlawful to use any registered pesticide, including WSPs, in a manner inconsistent with its label.

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 12 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 made of any waterproof material, and shoes plus socks.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried.

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE

Unused product should be stored in its original resealable container only, and **DO NOT** allow water soluble packets to come in contact with moisture. Store in a cool, dry (preferably locked) place in an area that is inaccessible to children and animals.

PESTICIDE DISPOSAL

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

CONTAINER HANDLING

Nonrefillable Outer Foil Wrap Container – Dispose of empty outer foil pouches and outer cartons in trash, as long as water-soluble packet is unbroken.

Non-refillable Plastic 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 ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, offer for recycling or reconditioning, if appropriate or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by state and local authorities.

SPILLS: For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. Refer to Precautionary Statements on label for hazards associated with the handling of this material. **DO NOT** walk through spilled material. In spill or leak incidents, keep unauthorized people away. **You may contact the CHEMTREC Emergency Response for decontamination procedures.**

For Chemical Spill, Leak, Fire, Exposure, or Accident you may call CHEMTREC at 1-800-424-9300 twenty-four (24) hours per day, seven (7) days per week.

Use Restrictions

1. Do not use in aircraft.
2. Use of handheld power duster equipment is prohibited.
3. Mix as needed, do not store diluted material.
4. Not for use in outdoor residential misting systems.
5. Do not apply this product by ULV cold foggers or fog/mist generators.

Chemigation

Apply this product only through sprinkler type chemigation systems, 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. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

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

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.

Product Instructions

Reality 25 insecticide is a 25% wettable powder formulation of the insecticide permethrin. Apply Reality 25 when insects appear or feeding is noticed. The higher rate should be used as pest populations increase. Repeat the application as necessary to maintain control. Reality 25 may be applied by both ground and aerial equipment. Use sufficient water to obtain full coverage.

Mix as needed, do not store diluted material.

Spray Drift Management

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

Buffer Zones

Vegetative Buffer Strip

Construct and maintain a minimum 10-foot-wide vegetative filter strip 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). Only apply products containing permethrin onto fields where a maintained vegetative buffer strip of at least 10 feet exists between the field and down gradient aquatic habitat.

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, Texas. 21 pp.

https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs143_023819.pdf

Buffer Zone for Ground Application (groundboom, overhead chemigation, or airblast) - Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

Buffer Zone for Non-ULV Aerial Application - Do not apply within 150 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

Spray Drift Requirements

Wind Direction and Speed

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 aerial or ground applications into temperature inversions.

Inversions are characterized-by stable air and increasing temperatures with height above 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

Use only Medium or coarser spray nozzles (for ground and non-ULV aerial application) according to ASAE (S572) definition for standard nozzles. In conditions of low humidity and high temperatures, applicators should use a coarse droplet size.

Additional Requirements for Ground Applications

Wind speed must be measured adjacent to the application Site on the upwind 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.

For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

Additional Requirements for Aerial Applications

The spray boom should be mounted on the aircraft as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not 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 downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

Mixing Instructions

Reality 25 Insecticide, a wettable powder formulation of the insecticide permethrin, is individually packaged in two-pound units in a translucent water soluble bag contained within an

outer package. Do not open the water soluble bags. Do not allow the inner bag to become wet before adding to spray tank. Do not handle the inner bag with wet hands or wet gloves. Rough handling may cause breakage. Do not store at temperatures below 32°F (0°C). Allow to warm above 50° F (10°C) before normal use. Cooler water temperatures increase the time needed for the inner bag to dissolve completely.

Reseal the container to protect remaining packets. Reality 25 Insecticide Water Soluble Packets dissolve readily in water to form a suspension. Reality 25 Insecticide should be diluted in a sufficient volume of water to ensure accurate application over the area to be treated.

Chemigation Application: Determine from the “Application Rate Calculation” Section below the recommended number of packets to be added to the supply tank based on the number of acres to be treated and the rate of Reality 25 to be applied. Pre-mix the required number of Reality 25 packets with sufficient water to dissolve the packets, then add this pre-mixed solution to the chemigation supply tank. Maintain sufficient agitation during both mixing and application to ensure uniformity of the mixture in the supply tank. Hydraulic or mechanical agitation is recommended. Reality 25 should be applied continuously for the duration of the water application. When applying Reality 25 thru chemigation, a minimum of 0.1 inch per acre of irrigation water is recommended.

Sprayer Application: To prepare a spray mixture, drop the required number of unopened clear water soluble packets into the spray tank containing an adequate amount of water to initiate agitation in the spray tank. Determine from the “Application Rate Calculation” Section below the recommended number of packets to be added to the supply tank based on the number of acres to be treated and the rate of Reality 25 to be applied. Add the remaining volume of water to the tank while maintaining sufficient agitation to dissolve the packets. Maintain uniformity of the suspension during application. Hydraulic or mechanical agitation is recommended. Do not use strainers finer than 50 mesh size.

Application Rate Calculation: Calculate the number of packets needed for the recommended rate according to the following formula:

$$\begin{array}{l} \text{Recommended} \\ \text{Rate of Application} \\ \text{(AI/Acre)} \end{array} \quad \times \quad \begin{array}{l} \text{Number of Acres to be} \\ \text{treated with the volume of} \\ \text{water in the spray tank} \end{array} \quad = \quad \begin{array}{l} \text{Number of Packets} \\ \text{required to deliver} \\ \text{the recommended rate} \end{array}$$

Rotational Restrictions

With the exception of crops listed below, rotational crops should not be planted within 60 days of last application.

Field Crop Applications

Alfalfa; Alfalfa Grown for Seed

(Includes lucerne, sainfoin, holy clover, esparcet, birdsfoot trefoil and varieties and/or hybrids of these)

Insects Controlled	Rate of Application	Method of Application
Alfalfa Caterpillar Armyworms spp. Blue Alfalfa Aphid Cutworms Green Cloverworm Green Peach Aphid Loopers Pea Aphid Spotted Alfalfa Aphid Velvetbean Caterpillar Webworms	3.2 to 12.8 ounces (0.05 to 0.2 lb ai/A)	Use higher recommended dosage for increased pest pressure or for increased residual pest control. Apply with ground equipment in a minimum of 10 gallons of finished spray per acre or 2 gallons of finished spray per acre by aircraft.
Alfalfa Weevil Cucumber Beetle Egyptian Alfalfa Weevil Meadow Spittlebug Plant Bugs (including <i>Lygus</i> spp.) Potato Leafhopper Stink Bugs	6.4 to 12.8 ounces (0.1 to 0.2 lb ai/A)	

Preharvest Interval (PHI): 0 day*

RESTRICTIONS:

*When rates greater than 0.1 lb ai/A are used, do not apply within 14 days of harvest.
Do not apply more than 0.2 lb ai/A ingredient per cutting.
Do not make applications less than 30 days apart.
Do not apply to mixed stands with intentionally grown forage grasses and/or legumes.

Apples (0 day PHI)

Insects Controlled	Rate of Application	Method of Application
Green Fruitworm Oblique Banded Leafroller Plum Curculio Redbanded Leafroller Rosy Apple Aphid Spotted Tentiform Leafminer Tarnished Plant Bug White Apple Leafhopper	6.4 to 16.0 ounces (0.1 to 0.25 lb ai/A)	Use with ground equipment only. Apply in 25-400 gallons of finished spray per acre when insects first appear and repeat at 10 day intervals as needed to provide control.

RESTRICTIONS:

Do not apply more than 0.5 lb ai/A ingredient per acre per season.
 Do not apply after petal fall.
 Do not graze livestock in treated areas.
 Do not feed cover crops from treated areas to livestock.
 Do not make applications less than 10 days apart.

Artichoke (0 day PHI)

Insects Controlled	Rate of Application	Method of Application
Artichoke Plume Moth Leafminers	6.4 to 19.2 ounces (0.1 to 0.3 lb ai/A)	Apply with ground equipment in a minimum of 10 gallons of finished spray per acre or in a minimum of 2 gallons per acre by aircraft. Apply when insects first appear and repeat at 10 day intervals as needed to provide control. Buds may be harvested on the day of application.

RESTRICTIONS:

Do not apply more than 0.9 lb ai/A/season.
 Do not make applications less than 10 days apart.

Asparagus (1 day PHI)

Insects Controlled	Rate of Application	Method of Application
Asparagus Beetle Cutworms	3.2 to 6.4 ounces (0.05 to 0.1 lb ai/A)	Apply with ground equipment in a minimum of 10 gallons of finished spray per acre. Apply when insects first appear and repeat at 7 day intervals as needed to provide control.
Asparagus Beetle Japanese Beetle (Adult stage)* Lygus Bugs Tarnished Plant Bug	6.4 ounces (0.1 lb ai/A)	For post harvest application, apply to the fern stage of the asparagus plant after spear harvest when larval and adult stage is present. *Not for control of this insect in California.

RESTRICTIONS:

Do not apply more than 0.4 lb ai/A/season.
 Do not make applications less than 7 days apart.

Avocado (7 day PHI)

Insects Controlled	Rate of Application	Method of Application
Avocado Caterpillar Avocado Lace Bug Avocado Leafhopper Avocado Leafroller Avocado Looper Avocado Tree Girdler Avocado Whitefly Brown Soft Scale Mirids Omnivorous Looper Orange Tortrix Scale Crawlers Spanworm Thrips Twig Borers	12.8 ounces (0.2 lb ai/A)	Apply with ground equipment in 25-400 gallons of finished spray per acre. Apply when insects first appear and repeat at 7 day intervals as needed to provide control.
<p>RESTRICTIONS: Do not apply more than 0.8 lb ai/A/season. Do not graze livestock in treated areas. Do not feed cover crops from treated areas to livestock. Do not make applications less than 7 days apart.</p>		

Broccoli; Chinese Broccoli (gailon, white flowering broccoli) (1 day PHI)

Insects Controlled	Rate of Application	Method of Application
Armyworm spp. Cabbage Looper Diamondback Moth Imported Cabbageworm Plant Bugs Thrips	3.2 to 6.4 ounces (0.05 to 0.2 lb ai/A)	Apply with ground equipment in a minimum of 10 gallons of finished spray per acre or in a minimum of 2 gallons per acre by aircraft. Apply when insects first appear and repeat at 5 day intervals as needed to provide control.
<p>RESTRICTIONS: Do not apply more than 0.8 lb ai/A/season. Do not make applications less than 5 days apart.</p>		

Brussels Sprouts; Cauliflower; Cavalo broccolo; Kohlrabi (1 day PHI)

Insects Controlled	Rate of Application	Method of Application
Armyworm spp. Cabbage Looper Diamondback Moth Imported Cabbageworm Plant Bugs Thrips	3.2 to 6.4 ounces (0.05 to 0.1 lb ai/A)	Apply with ground equipment in a minimum of 10 gallons of finished spray per acre or in a minimum of 2 gallons per acre by aircraft. Apply when insects first appear and repeat at 5 day intervals as needed to provide control.
<p>RESTRICTIONS: Do not apply more than 0.4 lb ai/A/season. Do not make applications less than 5 days apart.</p>		

Cabbage; Cabbage, Chinese (napa) (tight-heading varieties only) (1 day PHI)

Insects Controlled	Rate of Application	Method of Application
Cabbage Looper Diamondback Moth Imported Cabbageworm Southern White Butterfly	3.2 to 12.8 ounces (0.05 to 0.2 lb ai/A)	Apply with ground equipment in a minimum of 10 gallons per acre or in a minimum of 2 gallon per acre by aircraft. Apply when insects first appear and repeat at 5 day intervals as needed to provide control.
Armyworm spp. Cutworms Flea Beetles	6.4 to 12.8 ounces (0.1 to 0.2 lb ai/A)	
<p>RESTRICTIONS: Do not apply more than 0.4 lb ai/A/season (0.8 lb ai/A only in Hawaii). Do not make applications less than 5 days apart.</p>		

Cantaloupes: For general use directions refer to the Cucurbit Vegetables crop grouping.

Celery, Florence fennel (sweet anise, sweet fennel, finocchio) (fresh leaves and leaf petioles only): For general use directions refer to the Leafy Vegetable crop grouping.

Cherries (Includes Sweet Cherries and Tart Cherries) (3 day PHI)

Insects Controlled	Rate of Application	Method of Application
Green Fruitworm Lesser Peach Tree Borer Plum Curculio Redbanded Leafroller Rose Chafer Tarnished Plant Bug	6.4 to 12.8 ounces (0.1 to 0.2 lb ai/A)	Use Reality 25 as a dilute spray. Apply when insects first appear and repeat at 10 day intervals as needed to provide control. Apply with ground equipment in 25-400 gallons of finished spray per acre.

RESTRICTIONS:

Do not graze livestock in treated areas.

Do not feed cover crops from treated areas to livestock.

East of the Rockies, do not exceed 6 applications per season, with no more than 4 applications after petal fall, no more than 0.6 lb ai/A/season. *West of the Rockies*, do not apply more than 4 applications per season, with no more than 3 applications after petal fall, no more than 0.6 lb ai/A/season. Do not make applications less than 10 days apart.

Collards and Turnips (1 day PHI)

Insects Controlled	Rate of Application	Method of Application
Beet Armyworm Cabbage Looper Corn Earworm Cutworms Diamondback Moth European Corn Borer Fall Armyworm Green Cloverworm Imported Cabbageworm Leafhoppers Leafminer Southern Armyworm Southern White Butterfly Tobacco Budworm Vegetable Leafminer Aphids*	3.2 to 9.6 ounces (0.05 to 0.15 lb ai/A)	Apply with ground equipment only. Apply with ground equipment in a minimum spray volume of 10 gallons of finished spray per acre. Apply when insects first appear and repeat at 3 day intervals as needed to provide control.

RESTRICTIONS:

For use on Collards in AR, AZ, GA, IL, NC, OK, SC, and TX and on Turnips in FL, GA, IL, IN, OK, SC, TX, and WA. Do not apply more than 0.45 lb ai/A/season on Collards and Turnips. Do not make applications less than 3 days apart.

* Suppression only.

Corn (Field), Field Corn Grown for Seed, Popcorn (0 day PHI)

Insects Controlled	Rate of Application	Method of Application
<p>Preemergent Use: Armyworms Cutworms Stalk Borers</p>	<p>6.4 to 9.6 ounces (0.1 to 0.15 lb ai/A as a broadcast spray - or - 0.5 to 0.75 ounces per 1000 linear row feet (based on a 4" band and 40" row spacing.)</p>	<p>Reality 25 may be applied as a preplant incorporated, pre-emergence, or at planting time application. Apply as a broadcast spray by ground or air (minimum of 2 gallons finished spray per acre by air) or 4-15 inch band using sufficient spray volume to achieve adequate coverage. Linear row calculations should be used proportional to the standard Band Width/Row Width formula to adjust rates for different band widths or row spacings. Use higher rates of Reality 25 when incorporating into the soil without exceeding the recommended dosage. When using tank mixes, observe all restrictions and precautions which appear on the labels of these products. Provide constant agitation during mixing and application to keep the mixture in solution.</p>
<p>Foliar Use: Armyworm (including Fall Armyworm) Corn Borers European Southwestern Corn Earworm Corn Rootworm Beetles Cutworms Flea Beetle Hop Vine Borer Stalk Borers Webworms</p>	<p>6.4 to 9.6 ounces (0.1 to 0.15 lb ai/A)</p>	<p>When treating for stalk borers, Reality 25 must be applied when or shortly before the stalk borer larvae are moving into the corn from surrounding weeds and grasses. Mowing or burndown herbicide are suggested to initiate movement. For control of Corn Earworm apply just before silking and repeat at 7 day intervals as needed to provide control. Apply a minimum of 2 gallons of finished spray per acre by air or 10 gallons per acre with ground equipment.</p>

Insects Controlled	Rate of Application	Method of Application
Foliar Use: Western Bean Cutworm	3.2 to 6.4 ounces (0.05 to 0.1 lb ai/A)	
RESTRICTIONS: Do not apply more than 0.45 lb ai/A/season. Do not make treatments less than 7 days apart or apply less than 30 days prior to harvest of grain or fodder (stover). Forage may be harvested on the day of application.		

Corn (Field), Field Corn Grown for Seed, Popcorn (At Plant Use) (0 day PHI)

Insects Controlled	Rate of Application	Method of Application
Armyworms Cutworms	0.5 ounces (1,000 linear row feet)	Apply as an in-furrow, band or T-band treatment using a minimum 4" band. Use table below to determine the Reality 25 need for each acre.
Row Spacings (inches)	40	30 20
Reality 25 (pounds ai per acre)	0.10	0.15 0.20
Reality 25 (formulated fl oz per acre)	6.4	9.6 12.8

Corn, Sweet (0 day PHI)

Insects Controlled	Rate of Application	Method of Application
Corn Earworm Corn Rootworm Beetles* Cutworms European Corn Borer Fall Armyworm Flea Beetle Hop Vine Borer Leafhoppers Southern Armyworm Stalk Borers	6.4 to 12.8 ounces (0.1 to 0.2 lb ai/A)	Apply every 3 to 5 days or as needed to provide control. Apply with ground equipment in a minimum of 10 gallons of finished spray per acre or in a minimum of 2 gallons per acre by aircraft. *Pest does not occur on this crop in California.
RESTRICTIONS: Do not apply more than 0.8 lb ai/A/season. Do not make applications less than 3 days apart.		

Corn, Sweet (Florida Only) (0 day PHI)

Insects Controlled	Rate of Application	Method of Application
Aster Leafhopper Corn Earworm Cutworm European Corn Borer Fall Armyworm Southern Armyworm	6.4 to 16.0 ounces (0.1 to 0.2 lb ai/A)	Apply every 3 to 5 days or as needed. Apply with ground equipment in a minimum of 10 gallons of finished spray per acre or in a minimum of 2 gallons per acre by aircraft.
<p>RESTRICTIONS: Do not apply more than 2.0 lb ai/A/season. Do not make applications less than 3 days apart.</p>		

Cucurbit Vegetables Including Cantaloupe: Chayote (fruit) (*Sechium edule*); Chinese waxgourd (Chinese preserving melon) (*Bernincasa hispida*); Citron melon (*Citrullus lanatus* var. *citroides*); Cucumber (*Cucumis sativus*); Gherkin (*Cucumis anguria*); Gourd, edible (*Lagenaria* spp.) (includes: hyotan, cucuzza); (*Luffa* spp.) (includes: hechima, Chinese okra); (*Momordica* spp.) (includes balsam apple, balsam pear, bitter melon, Chinese cucumber); Muskmelon (hybrids and/or cultivars of *Cucumis melo*) (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon); Pumpkin (*Cucurbita* spp.); Squash, summer (*Cucurbita pepo* var. *melo*) (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini); Squash, winter (*Cucurbita maxima*; *C. moshata*) (includes butternut squash, calabaza, hubbard squash; (*C. mixta*; *C. pepo*) includes acorn squash, spaghetti squash); Watermelon (includes hybrids and/or varieties of *Citrullus* spp.). (0 day PHI)

Insects Controlled	Rate of Application	Method of Application
Aphids Leafminers Squash Bug	12.8 ounces (0.2 lb ai/A)	Apply with ground equipment in a minimum spray volume of 20 gallons of finished spray per acre or in a minimum of 4 gallons per acre by aircraft.

Cabbage Looper Cucumber Beetle (adults) Cutworms Leafhoppers Melonworm Pickleworm Plant Bugs (including Lygus and Stink Bugs) Rindworms Squash Vine Borer	6.4 to 12.8 ounces (0.1 to 0.2 lb ai/A)	
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RESTRICTIONS:
Do not apply more than 1.2 lb ai/A/season, except cantaloupes. For cantaloupes, do not apply more than 0.8 lb ai/A/season (1.2 lb ai/A/season in Hawaii). Do not make applications less than 7 days apart. Applications may be made up to harvest.

Eggplants (3 day PHI)

Insects Controlled	Rate of Application	Method of Application
Colorado Potato Beetle	9.6 ounces (0.15 lb ai/A)	Apply with ground equipment in a minimum of 10 gallons of finished spray per acre or a minimum of 2 gallons per acre by aircraft. Apply using sufficient water to obtain uniform coverage. Apply when insects first appear and repeat at 7 day intervals as needed to provide control.
Cabbage Looper Flea Beetles Vegetable Leafminer	6.4 to 9.6 ounces (0.1 to 0.15 lb ai/A)	

RESTRICTIONS:
Do not apply more than 0.6 lb ai/A/season (1.0 lb ai/A/season in Hawaii).
Do not make applications less than 7 days apart.

Filberts (14 day PHI)

Insects Controlled	Rate of Application	Method of Application
Filbertworm Oblique Banded Leafroller	12.8 to 16.0 ounces (0.2 to 0.25 lb ai/A)	For full coverage application apply 0.05 to 0.1 lb ai/100 gallons (based on 400 gallons finished spray per acre) and spray to run-off, or for low volume concentrate application apply 0.2 to 0.25 lb ai/A (50 to 200 gallons finished spray per acre). For aerial application apply 0.2 to 0.25 lb ai in a minimum of 10 gallons of finished spray per acre. Apply when insects first appear and repeat at 10 day intervals as needed to provide control.
<p>RESTRICTIONS: Do not apply more than 0.75 lb ai/A/season. Do not graze livestock in treated areas. Do not feed cover crops from treated areas to livestock. Do not make applications less than 10 days apart.</p>		

Horseradish (30 day PHI)

Insects Controlled	Rate of Application	Method of Application
Imported Crucifer Weevil <i>(Baris lepidii)</i>	9.6 ounces (0.15 lb ai/A)	For foliar application, apply with ground equipment in a minimum spray volume of 20 gallons finished spray per acre. Make up to 3 foliar applications as needed to control weevil adults during oviposition.
<p>Do not apply more than 0.45 lb ai/A/season. Do not make applications less than 10 days apart.</p>		

Leafy Vegetables (except Brassica): Amaranth (leafy amaranth, Chinese spinach, tampala); Arugula (Roquette); Cardoon; Celery; Celery, Chinese; Celtuce; Chervil; Chrysanthemum, edible-leaved and garland; Corn salad; Cress, garden; Cress, upland (yellow rocket, winter cress); Dandelion; Dock (sorrel); Endive (escarole); Fennel, Florence (finocchio); Lettuce, head and leaf; Orach; Parsley; Purslane, garden; Purslane, winter; Radicchio (red chicory); Rhubarb; Spinach (including New Zealand and vine, Malabar spinach, Indian spinach); Swiss chard. (1 day PHI)

Insects Controlled	Rate of Application	Method of Application
Aphids Beet Armyworm Corn Earworm Cutworms European Corn Borer Fall Armyworm Green Cloverworm Leafminers Southern Armyworm Tobacco Budworm	6.4 to 12.8 ounces (0.1 to 0.2 lb ai/A)	Apply as needed by air or ground. Use sufficient water to obtain full coverage of foliage. Apply with ground equipment in a minimum of 10 gallons of finished spray per acre or in a minimum of 2 gallons per acre by aircraft.
Alfalfa Looper Cabbage Looper Leafhoppers	3.2 to 12.8 ounces (0.05 to 0.2 lb ai/A)	
<p>RESTRICTIONS: Do not apply more than 1.0 lb ai/A/season (1.2 lb ai/A/ season in Hawaii), except for lettuce and spinach. For lettuce, head and leaf, do not apply more than 0.8 lb ai/A/season (1.2 lb ai/A/season in Hawaii). For spinach, do not apply more than 0.6 lb ai/A/season. Do not make applications less than 7 days apart (3 days for spinach).</p>		

Mushrooms Including: Mushroom houses and adjacent premise areas. (3 day PHI)

Insects Controlled	Rate of Application	Method of Application
<p>Mushroom Flies (Sciarid and Phorid adults)</p>	<p>6.4 Ounces (0.2 lb ai/A)</p> <p>Apply in 12 gallons Water</p>	<p>As a guide, use 1 gallon spray per 750 sq ft. Spray directly to walls and ceilings as residual surface treatment only. Spray to point of runoff. Use Reality 25 prior to filling house, during cool down, during spawning, up to pinning and between breaks. Do not use when mushrooms are present. Treat as needed when flies appear. Do not make more than 20 applications prior to pinning of first break; apply no more than two applications between each break. Do not apply more than 30 applications total per crop of 5 breaks.</p>
<p>Restrictions: Use of high pressure hand wand prohibited in mushroom houses. Do not apply directly into sewers or drains, or to any area like a gutter where drainage to storm sewers, water bodies, or aquatic habitat can occur. Do not allow the product to enter any drain during or after application.</p>		

Onions, Bulb (1 day PHI)

Insects Controlled	Rate of Application	Method of Application
Armyworms Onion Thrips	9.6 to 19.2 ounces (0.15 to 0.3 lb ai/A)	Apply with ground equipment in a minimum of 20 gallons of finished spray per acre or in a minimum of 5 gallons per acre by aircraft. Apply when insects first appear and repeat at 7 day intervals as needed to provide control. Use the higher label rates as Onion Thrips population increases to avoid rescue situations.
Cutworms Leafminers Onion Maggots (Adults) Stink Bugs	6.4 to 19.2 ounces (0.1 to 0.3 lb ai/A)	
RESTRICTIONS: Do not apply more than 1.0 lb ai/A/season. Do not make applications less than 7 days apart.		

Garlic (1 day PHI)

Insects Controlled	Rate of Application	Method of Application
Armyworms Onion Thrips	9.6 to 12.8 ounces (0.15 to 0.2 lb ai/A)	Apply with ground equipment in a minimum of 20 gallons of finished spray per acre or in a minimum of 5 gallons per acre by aircraft. Apply when insects first appear and repeat at 10 day intervals as needed to provide control. Use the higher label rates as Onion Thrips population increases and avoid rescue situations.
Cutworms Leafminers Onion Maggots (Adults) Stink Bugs	6.4 to 12.8 ounces (0.1 to 0.2 lb ai/A)	
RESTRICTIONS: Do not apply more than 0.8 lb ai/A/season. Do not make applications less than 10 days apart.		

Papaya (Florida Only) (7 day PHI)

Insects Controlled	Rate of Application	Method of Application
Aphids Brown Soft Scale Mealybug Papaya Fruit Fly Papaya Webworm Papaya Whitefly Scale Crawlers	9.6 ounces (0.15 lb ai/A)	Apply with ground equipment in 25-400 gallons of finished spray per acre. Apply when insects first appear and repeat at 10 day intervals as needed to provide control.
<p>RESTRICTIONS: Do not apply more than 0.75 lb ai/A/season. Do not graze livestock in treated areas. Do not feed cover crops from treated areas to livestock. Do not make applications less than 10 days apart.</p>		

Peaches, Nectarines (14 day PHI)

Insects Controlled	Rate of Application	Method of Application
Green Fruitworm Lesser Peach Tree Borer Oriental Fruit Moth Peach Twig Borer Rose Chafer Plum Curculio Tarnished Plant Bug	6.4 to 16.0 ounces (0.1 to 0.25 lb ai/A)	Apply with ground equipment using 25-400 gallons of spray per acre or a minimum of 10 gallons per acre by aircraft when insects first appear and repeat at 10 day intervals as needed to provide control. Spray to wet all foliage.
<p>RESTRICTIONS: Do not apply more than 0.75 lb ai/A/season. Do not graze livestock in treated areas. Do not feed cover crops from treated areas to livestock. Do not make applications less than 10 days apart.</p>		

Pears (Dormant through Delayed Dormant) (0 day PHI)

Insects Controlled	Rate of Application	Method of Application
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Pear Psylla	12.8 to 25.6 ounces (0.2 to 0.4 lb ai/A)	Apply during the dormant through delayed dormant growth periods only. Apply in a minimum of 10 gallons of finished spray per acre by aircraft and 25-400 gallons per acre by ground equipment.
<p>RESTRICTIONS: Do not apply more than 0.65 lb ai/A/season. Do not graze livestock in treated areas. Do not feed cover crops from treated areas to livestock. Do not make applications less than 10 days apart.</p>		

Pears (Pre-Bloom) (0 day PHI)

Insects Controlled	Rate of Application	Method of Application
Codling Moth Green Fruitworm Pear Psylla	12.8 to 16.0 ounces (0.2 to 0.25 lb ai/A)	Apply with ground equipment using 25-400 gallons of finished spray per acre or a minimum of 10 gallons per acre by aircraft. Pre-bloom sprays can be applied from dormant through bud burst stages when insects first appear.
<p>RESTRICTIONS: Do not apply more than 0.65 lb ai/A/season. Do not graze livestock in treated areas. Do not feed cover crops from treated areas to livestock. Do not make applications less than 10 days apart.</p>		

Peppers, Bell (3 day PHI)

Insects Controlled	Rate of Application	Method of Application
Cabbage Looper Corn Earworm Cutworms Flea Beetle Pepper Weevil Vegetable Leafminer	6.4 to 12.8 ounces (0.1 to 0.2 lb ai/A)	Apply using sufficient water to obtain uniform coverage. Apply when insects first appear and repeat at 5 day intervals as needed to provide control. Apply with ground equipment using a minimum of 10 gallons of finished spray per acre or a minimum of 2 gallons per acre by aircraft.
European Corn Borer	12.8 ounces (0.2 lb ai/A)	

RESTRICTIONS:

Do not apply more than 0.8 lb ai/A/season.
 Do not make applications less than 5 days apart.

Pistachios (0 day PHI)

Insects Controlled	Rate of Application	Method of Application
Leaf-footed Bugs Navel Orangeworm Peach Twig Borer Plant Bugs Stink Bugs	12.8 to 19.2 ounces (0.2 to 0.3 lb ai/A)	Use sufficient water to obtain full coverage of foliage. Apply Reality 25 in a minimum of 10 gallons of finished spray per acre by aircraft or by ground equipment in 25-400 gallons of finished spray per acre.
Ants	19.2 ounces (0.3 lb ai A)	Application should be after mowing of weed growth to insure maximum coverage of the soil surface. Overhead moisture after application will enhance activity.

RESTRICTIONS:

Do not apply more than 0.9 lb ai/A/season. Do not apply after 10% hull split. Do not graze livestock in treated areas. Do not feed cover crops from treated areas to livestock. Do not make applications less than 10 days apart.

Potatoes (14 day PHI)

Insects Controlled	Rate of Application	Method of Application
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Aster Leafhopper Beet Armyworm Cabbage Looper Colorado Potato Beetle Cutworms European Corn Borer Potato Aphid Potato Flea Beetle Potato Leafhopper Potato Psyllid Potato Tuberworm Tarnished Plant Bug	6.4 to 12.8 ounces (0.1 to 0.2 lb ai/A)	Apply with ground equipment in a minimum of 10 gallons of finished spray per acre or in a minimum of 2 gallons per acre by aircraft. Use sufficient spray volume to obtain full coverage. Apply when insects first appear and repeat at 10 day intervals as needed to provide control.
<p>RESTRICTIONS: Do not apply more than 0.8 lb ai/A/season. Do not make applications less than 10 days apart.</p>		

Soybeans (60 day PHI)

Insects Controlled	Rate of Application	Method of Application
Bean Leaf Beetle Cabbage Looper Corn Rootworm Beetles Cutworms Flea Beetles Green Cloverworm Japanese Beetle Mexican Bean Beetle Potato Leafhopper Saltmarsh Caterpillar (Woollybear Caterpillar)	3.2 to 6.4 ounces (0.05 to 0.1 lb ai/A)	Apply with ground equipment in a minimum of 10 gallons of finished spray per acre or in a minimum of 2 gallons per acre by aircraft.
Beet Armyworm Corn Earworm Soybean Looper Webworms	6.4 to 12.8 ounces (0.1 to 0.2 lb ai/A)	
<p>RESTRICTIONS: Do not apply more than 0.4 lb ai/A/season. Do not make applications less than 10 days apart. Do not graze or feed soybean forage or hay.</p>		

Tomatoes, Tomatillos (0 day PHI)

Insects Controlled	Rate of Application	Method of Application
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Beet Armyworm Cabbage Looper Colorado Potato Beetle Granulate Cutworm Hornworms Southern Armyworm Tomato Fruitworm Tomato Pinworm Vegetable Leafminers	3.2 to 12.8 ounces (0.05 to 0.2 lb ai/A)	Apply with ground equipment in a minimum of 10 gallons finished spray per acre or in a minimum of 2 gallons per acre by aircraft.
<p>RESTRICTIONS: Do not apply more than 0.6 lb/ai/A/season (0.8 lb ai/A/season in Hawaii. Do not apply to cherry tomatoes or other varieties which produce fruit less than one inch in diameter. Do not make applications less than 7 days apart.</p>		

Walnuts (1 day PHI)

Insects Controlled	Rate of Application	Method of Application
Codling Moth Navel Orangeworm Walnut Husk Fly	12.8 to 16.0 ounces (0.2 to 0.25 lb ai/A)	For full coverage application apply 0.05 to 0.1 pound AI per 100 gallons (based on 400 gallons finished spray per acre), spray to run-off; OR, for low volume application apply 0.2 to 0.25 pound AI per acre (25-200 gallons finished spray per acre). For aerial application apply 0.2 to 0.25 pound AI in a minimum of 10 gallons of finished spray per acre. Apply when insects first appear and repeat at 10 day intervals as needed to provide control.
<p>RESTRICTIONS: Do not apply more than 0.75 lb ai/A/season. Do not graze livestock in treated areas. Do not feed cover crops from treated areas to livestock. Do not make applications less than 10 days apart.</p>		

Agricultural Structures (For Agricultural Use Only)

Spray directly to walls and ceiling as a space spray only. Do not treat manure or litter. Avoid contamination of feed and water. Do not apply directly to livestock or

poultry.

Application	Target Insects	Method of Application	Dilute	Application Rate
Dairies, Barns, Feedlots, Stables, Poultry Houses, Swine and Livestock Houses	House Flies, Stable Flies and other Manure Breeding Flies. Also aids in the reduction of Cockroaches, Mosquitoes and Spiders.	Mechanical Sprayer with Agitation	6.4 Ounces (0.2 lb ai/A) Apply in 12 gallons Water	As a guide, use 1 gallon spray per 750 sq ft

Application:

Re-treat as necessary, but not more often once every 2 weeks. The use of any residual fly spray should be supplemental with proper manure management and general sanitation to reduce or eliminate fly breeding site.

Restrictions:

Do not apply directly into sewers or drains, or to any area like a gutter where drainage to storm sewers, water bodies, or aquatic habitat can occur.

Do not allow the product to enter any drain during or after application.

Not for use in residential misting system.

Do not apply this product in barns or stables where animals intended for slaughter or human consumption will be maintained.

Do not apply when food feed or water is present.

Do not apply directly to animals.

Do not apply as a broadcast or spot-treatment to indoor surfaces at residential sites, including nurseries, day care centers, schools, hospitals, and nursing homes.

When used in dairy barns or facilities:

- 1) Close milk bulk tank lids to prevent contamination.

General Outdoor Surface and Space Sprays (except for outdoor fogging devices):

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

- 1) Treatment to soil or vegetation around structures.
- 2) Applications to lawns, turf, and other vegetation.
- 3) Applications to building foundations, up to a maximum height of 3 feet. Other than applications to building foundations, all outdoor applications to impervious surfaces (such as sidewalks, driveways, patios, porches and structural surfaces (such as window, doors, and eaves) are limited to spot and crack-and- crevice applications, only.

Greenhouse Applications

Greenhouse Grown Ornamental Trees, Shrubs, Plants, and flowers, Non-bearing Fruit and Nut trees and Lath and Shade House Use. (0 day PHI)

Insects Controlled	Rate of Application	Method of Application
Cucumber Beetle Cutworms Elm Leaf Beetle Fall Webworm Flea Beetle Fungus Gnats Leaf Feeding Caterpillars Leafhoppers Loopers	3.2 to 12.8 ounces (0.05 to 0.2 lb ai/A) Apply in 100 gallons of water	<p>Reality 25 may be used to control specified pests on non-edible ornamentals and non-bearing plants of fruiting species.</p> <p>Caution: Reality 25 has demonstrated excellent plant safety; however, not all species and varieties have been tested. Before treating large numbers of plants of a particular variety, treat a few plants and observe prior to full scale application.</p>

Aphids Armyworm <i>Heliothis</i> spp. Lacebug Leafrollers Lepidoptera Plant Bugs, including Lygus Spp) Squash Bugs Weevils Whiteflies Thrips	6.4 to 12.8 ounces (0.1 to 0.2 lb ai/A) Apply in 100 gallons of water	Use of an alternate class of chemistry in a treatment program is recommended to prevent or delay pest resistance.
Brown Soft Scale Japanese Beetle	12.8 ounces (0.2 lb ai/A) Apply in 100 gallons of water	

Ornamental Nursery Stock (Field Grown) (0 day PHI)

Insects Controlled	Rate of Application	Method of Application
Bagworm Beet Armyworm Cabbage Looper Citrus Thrips <i>Heliothus</i> spp. Lace Bug Leafhoppers Leafminers Whiteflies	6.4 to 12.8 ounces (0.1 to 0.2 lb ai/A) Apply in 100 gallons of water	Reality 25 may be used to control specified pests on non-edible ornamentals and non-bearing plants of fruiting species. Caution: Reality 25 has demonstrated excellent plant safety; however, not all species and varieties have been tested. Before treating large numbers of plants of a particular variety, treat a few plants and observe prior to full scale application.

Chrysanthemums (Container and Field Grown) (0 day PHI)

Insects Controlled	Rate of Application	Method of Application
Liriomyza Leafminer Flies	32 fl oz (0.5 pound lb ai/100 gallons of water	Avoid spraying the blooms. Reality 25 may be applied on a weekly schedule. Caution: Cultivars may vary in sensitivity and a small number of plants should be treated to determine plant safety prior to commercial use.

Conifers (Container and Field Grown) (0 day PHI)

Insects Controlled	Rate of Application	Method of Application
Nantucket Pine Tip Moth	6.4 to 12.8 ounces (0.1 to 0.2 lb ai/A)	Begin application when the adults appear and repeat at 5 to 7 day intervals or as needed throughout the season.

Pine Seed Orchards (0 day PHI)

Insects Controlled	Rate of Application	Method of Application
Coneworms Seed Bugs	12.8 ounces (0.2 lb ai/A) Apply in 100 gallons of water	For ground (low and high volume applications): <u>Ground:</u> Use 8 to 16 fl oz of product per treated acre (0.2 to 0.4 lb ai per treated acre) using a final carrier solution of 25 to 400 gallons depending on the type of sprayer system being used. Make up to three (3) applications per season. <u>Air:</u> Use 24 fl oz of product per treated acre (0.6 lb ai per treated acre). Apply in minimum of 5 gallons of finished spray per acre. Apply once per season.
	66 ounces (1.6 lb ai/A)	For low volume sprayers, apply 100 gallons per acre.

	48 ounces (1.2 lb ai/A)	For aerial application, use in not less than 10 gallons of water.
<p>Application: To control Webbing Coneworm—make first application within 1 week of female flower closure or peak pollen flight. To control other Coneworms and seed bugs—make first application within 30 days following female flower closure. Repeat applications at 4 week intervals, but do not apply more than 6 applications.</p> <p>RESTRICTIONS: Do not graze livestock in treated areas. Do not feed cover crops from treated areas to livestock. Harvesting of conifer seed cones is prohibited within 30 days of application.</p>		

Roses (Field and Greenhouse)

Insects Controlled	Rate of Application	Method of Application
Field Grown (only)		
<i>Heliothis</i> spp.	6.4 to 12.8 ounces (1.0 to 0.2 lb ai/A)	Apply with ground equipment in a minimum of 10 gallons of finished spray per acre or in a minimum of 2 gallons of finished spray per acre by aircraft.
Greenhouse Grown (only)		
Beet Armyworm Cabbage Looper Omnivorous Leafroller	12.8 ounces (0.2 lb ai/A) Apply in 100 gallons of water	Caution: Varieties may vary in their sensitivity to Reality 25 , and a small number of plants should be treated under local conditions to determine plant safety prior to commercial use.

Range Grass Applications

Range Grass (New Mexico Only)

Insects Controlled	Rate of Application	Method of Application
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Range Caterpillar	0.64 ounces (0.01 lb ai/A)	Apply using sufficient spray volume to obtain uniform coverage. Apply with ground equipment in a minimum of 10 gallons of finished spray per acre or in a minimum of 2 gallons per acre by aircraft.
Do not apply more than once per year. Cattle may be present during application. Do not harvest or feed hay to livestock.		

Seed Treatment (For use Only by Commercial Seed Treaters)

Application Directions

This product is to be used in applications for seed treatment with liquid or slurry type products only. Mix thoroughly before use. All tank mixes should be pretested to determine physical compatibility between product formulations.

Treated seed must not be used for or mixed with food or animal feed, or processed for oil. Seed commercially treated with Reality 25 Insecticide must be labeled in accordance with all applicable requirements of the Federal Seed Act. The purchaser of this product is responsible for ensuring that all seed treated with this product are adequately dyed with a suitable color to prevent its accidental use as food for man or feed for animals. Refer to 21CFR, Part 2.25. Dye added to treated seed must be cleared for use under 40CFR, part 180.1001.

Reality 25 Insecticide will protect germinating seed from soil insects: e.g. wireworms, seed corn maggots, fire ants, and false wireworms. This product exhibits only contact activity and offers no systemic control of insects. Activity is by the contact and ingestion routes generally associated with pyrethroids. Protection from storage insects, e.g. weevils, moths, and beetles has also been demonstrated with this product.

Rotational Crops

With the exception of crops listed below, rotational crops should not be planted within 60 days of last application: corn, sweet; soybeans; cucurbit vegetables; tomatoes; peppers, bell; eggplant; leafy vegetables (except Brassica); broccoli; Brussels sprouts; cabbage; celery; cauliflower; alfalfa; almonds; apples; artichokes; asparagus; avocados; garlic and onions (dry bulb); horseradish; potatoes; collards and turnips; cherries; filberts; pistachios; walnuts; papaya; peaches; nectarines; and pears.

SEED TYPES	Formulated Dosage Rate ounces/100 lbs of Seed
Corn (Field, Sweet and Popcorn) Soybeans Cucurbits, Including cucumber, gourds, gherkins, melons (cantaloupe, casaba, honeydew, etc.), pumpkins, winter and summer squash, and watermelon). Tomatoes Peppers, bell Eggplant Leafy vegetables (except Brassica) Broccoli	1.5 – 2.0*

Brussels sprouts Cabbage Celery Cauliflower	
* 0.375 – 0.50 oz ai/100 pounds of seed.	

SEED CONTAINER LABEL REQUIREMENTS

The federal Seed Act requires that containers containing treated seeds shall be labeled with the following statements:

This seed has been treated with Permethrin Insecticide.

Do not use treated seed for feed, food or oil purposes.

The U.S. Environmental Protection Agency requires the following statements on containers containing seed treated with Permethrin:

- **Store treated seed away from food and feedstuffs.**
- **When opening this bag or loading/pouring the treated seed/seed-pieces, wear long sleeved shirt, long pants, shoes, socks, chemical-resistant gloves.**
- **Forage must not be grazed until X days after planting. (AI specific claim if needed)**
- **Excess treated seed may be used for ethanol production only if (1) by-products are not used for livestock feed and (2) no measurable residues of pesticide remain in ethanol by-products that are used in agronomic practice.**
- **Treated seeds exposed on soil surface may be hazardous to wildlife. Cover or collect treated seeds spilled during loading and planting.**
- **Dispose of all excess treated seed by burying seed away from bodies of water.**
- **Do not contaminate water bodies when disposing of planting equipment wash waters.**
- **Treated seed must be incorporated into the soil at X depth.**
- **Do not allow children, pets or livestock to have access to treated seeds.**

Use Restrictions:

When using formulations that do not contain dye, to comply with 40 CFR 153.155, all seed treated with an economic poison must be colored to distinguish and prevent subsequent inadvertent use as a food for man or feed for animals.

Use Rate Conversion Chart

Pounds ai/A	Reality 25 (Formulation ounces/A) fl oz/A	Pounds Reality 25 lb/A
0.05	3.2	0.2
0.10	6.4	0.4
0.125	8.0	0.5

0.15	9.6	0.6
0.175	11.2	0.7
0.20	12.8	0.8
0.40	25.6	1.6

Dealers Must Sell in Original Packages Only

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, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Gharda Chemicals International Inc. or Seller. To the extent consistent with applicable law such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Gharda Chemicals International Inc. and Seller harmless for any claims relating to such factors.

Gharda Chemicals International Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Gharda Chemicals International Inc., and Buyer and User assume the risk of any such use. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW GHARDA CHEMICALS INTERNATIONAL INC. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

To the extent consistent with applicable law Gharda Chemicals International Inc. or Seller 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 GHARDA CHEMICALS INTERNATIONAL INC. 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 GHARDA CHEMICALS INTERNATIONAL INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

Gharda Chemicals International Inc. and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of Gharda Chemicals International Inc.

EPA Accepted: 08/12/2009
Revised: 09/01/2017 (Reg. No. Transfer)
Amended: date tba (EPA WSP Label Review)

[Back Booklet Container label/remains on container when booklet is removed]

RESTRICTED USE PESTICIDE

Toxic 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.

REALITY[®] 25

Insecticide in Water Soluble Packets

AI Ingredients	By Wt.
*Permethrin**	25.0%
Other Ingredients:	<u>75.0%</u>
	100.0%

*(3-Phenoxyphenyl)methyl (±) cis-trans 3-(2,2-dichloroethenyl)-2, 2-dimethylcyclopropanecarboxylate

**cis/trans ratio: Max. 55% (±) cis and min. 45% (±) trans

Keep water soluble packets in this container and store in a cool dry place but not below freezing (32°F). Do not remove packets from container except for immediate use.

(First letters in Batch Code Indicate Producing Establishment)

EPA Reg. No. 93128-21

EPA Est. No.: 5905-GA-01 = CG
5905-IA-01 = DI

KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCIÓN

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

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION. Harmful if swallowed. Causes moderate eye irritation. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Avoid contact with eyes or clothing.

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 do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

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 on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If 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 further treatment advice.

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For Medical Emergency or treatment information contact:

For additional information on this product (including health concerns, medical emergencies, or pesticide incidents), you may call 1-(866)-359-5660, twenty-four (24) hours per day, seven (7) days per week.

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and aquatic invertebrates. For terrestrial uses, 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 neighboring areas. Do not contaminate water when disposing of equipment washwaters.

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

AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: Coveralls, Chemical resistant gloves made of any waterproof material, and shoes plus socks.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried.

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE

Unused product should be stored in its original resealable container only, and **DO NOT** allow water soluble packets to come in contact with moisture. Store in a cool, dry (preferably locked) place in an area that is inaccessible to children and animals.

PESTICIDE DISPOSAL

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

CONTAINER HANDLING

Nonrefillable Outer Foil Wrap Container – Dispose of empty outer foil pouches and outer cartons in trash, as long as water-soluble packet is unbroken.

Non-refillable Plastic 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 ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, offer for recycling or reconditioning, if appropriate or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by state and local authorities. **SPILLS:** For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. Refer to Precautionary Statements on label for hazards associated with the handling of this material. **DO NOT** walk through spilled material. In spill or leak incidents, keep unauthorized people away. **You may contact the CHEMTREC Emergency Response for decontamination procedures.**

For Chemical Spill, Leak, Fire, Exposure, or Accident you may call CHEMTREC at 1-800-424-9300 twenty-four (24) hours per day, seven (7) days per week.

See inside booklet for Directions for Use, additional Precautionary Statements and Environmental Hazards.

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GHARDA CHEMICALS INTERNATIONAL INC.

760 Newtown-Yardley Rd., Suite 110

Newtown, Pa 18940

1-(215)-298-9474

NET CONTENTS:
12 x 3.2 Oz.
Water Soluble Packets