# SHENZI<sup>™</sup> 700 WG INSECTICIDE

Shenzi 700 WG Insecticide is a water dispersible granule.

Not for sale, sale into, distribution and/or use in Nassau, Suffolk, Kings, and Queens counties of New York state.

ACTIVE INGREDIENT	BY WEIGHT
Chlorantraniliprole	
3-Bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide*	70.0%
OTHER INGREDIENTS	
TOTAL	100.0%

EPA Reg. No. 70506-609

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

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

FIRST AID							
IF ON SKIN OR CLOTHING:	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 - 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>						
IF IN EYES:	<ul> <li>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.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>						
IF SWALLOWED:	<ul> <li>Call a poison control center or doctor for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>						

Have the product container or label with you when calling a Poison Center or doctor or going for treatment. For emergency medical treatment, contact Rocky Mountain Poison and Drug Safety at 1-866-673-6671. For chemical emergency: spill, leak, fire, exposure, or accident, call CHEMTREC at 1-800-424-9300.

See inside for additional Precautionary Statements and complete Directions For Use.

Net Contents: \_\_\_\_ Ounces





## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if absorbed through skin. Harmful if swallowed. Causes moderate irritation to eyes. Avoid contact with skin, eyes or clothing.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- · Long-sleeved shirt and long pants.
- · Shoes plus socks.
- Chemical-resistant gloves such as: Barrier Laminate, Butyl Rubber ≥ 14 mils, Nitrile Rubber ≥ 14 mils, Neoprene Rubber ≥ 14 mils, Polyvinyl Chloride (PVC) ≥ 14 mils, Viton ≥ 14 mils.

Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables exist, use soap and hot water. Keep and wash PPE separately from other laundry.

#### **User Safety Recommendations:**

Users should:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.
- 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.

#### **Environmental Hazards**

This pesticide is toxic to aquatic invertebrates, oysters, and shrimp. Do not apply directly to water. Drift and runoff may be hazardous to aquatic organisms in water adjacent to use sites.

#### **Surface Water Advisory**

This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of chlorantraniliprole from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

#### **Ground Water Advisory**

This product has properties and characteristics associated with chemicals detected in ground water. This product may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

#### **DIRECTIONS FOR USE**

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

SHENZI 700 WG Insecticide must be used only in accordance with the directions on this label, in separate EPA-approved labeling (Supplemental Labels, Special Local Need Registrations, FIFRA Section 18 exemptions), or as otherwise permitted by FIFRA. Always read the entire label, including the Limitation of Warranty and Liability. SHENZI 700 WG Insecticide may be used on crops on this label that are grown for seed production.

#### **Use Restrictions:**

- DO NOT apply SHENZI 700 WG Insecticide through any type of irrigation system unless specified in this label for that specific crop or in EPA approved supplemental labeling.
- DO NOT treat plants grown for transplanting. Not for use in nurseries, plant propagation houses by commercial transplant producers on plants being grown for transplanting.

- Do Not use in greenhouses.
- This product is only for agricultural use.
- This product may be used on crops on this label grown for seed production.
- Not for use on ornamental plants or plants being grown for ornamental purposes.
- · Not for residential use.

#### **New York State Restrictions:**

- SHENZI 700 WG Insecticide may not be applied within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch).
- Aerial application of this product is prohibited.
- Not for sale, sale into, distribution and/or use in Nassau, Suffolk, Kings, and Queens counties of New York State.

#### **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. These requirements only apply to uses of this product that are covered by the Worker Protection Standard.

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 State or Tribal agency responsible for pesticide regulations.

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

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

- · Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves such as: Barrier Laminate, Butyl Rubber ≥ 14 mils, Nitrile Rubber ≥ 14 mils, Neoprene Rubber ≥ 14 mils, Polyvinyl Chloride (PVC) ≥ 14 mils, Viton ≥ 14 mils.

#### PRODUCT INFORMATION

SHENZI 700 WG Insecticide is a wettable granule that is to be applied as a foliar spray, using ground or aerial application equipment to control listed insects. Not all application methods are allowed on all crops, so see the specific crop section of this label for which application methods may be used for a particular crop. SHENZI 700 WG Insecticide is mixed with water for application.

SHENZI 700 WG Insecticide is a member of the anthranilic diamide class of insecticides with a novel mode of action acting on insect ryanodine receptors. Although SHENZI 700 WG Insecticide has contact activity, it is most effective through ingestion of treated plant material. After exposure to SHENZI 700 WG Insecticide, affected insects will rapidly stop feeding, become paralyzed, and typically die within 1 - 3 days. Time applications to the most susceptible insect pest stage, typically at egg lay to egg hatch and/or newly hatched larvae, before populations reach damaging levels. If possible, make applications at or before egg deposition to be most effective in minimizing damage levels caused by insect pests.

#### **Resistance-Management Recommendations**

For resistance management, SHENZI 700 WG Insecticide is a Group 28 insecticide. Repeated and exclusive use of SHENZI 700 WG Insecticide (active ingredient chlorantraniliprole, belonging to the anthranilic diamide class of chemistry), or other Group 28 insecticide may lead to the buildup of resistant strains of insects in some crops.

Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, this product may be used as part of resistance-management strategies established for the use area. These strategies may include incorporation of cultural and biological control practices, alternative of mode-of-action classes of insecticides on succeeding generations and targeting the most susceptible life stage. Consult your local or state agricultural authorities for details.

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

- Avoid using the same mode of action (same IRAC group number) on consecutive generations of insect pests.
- Apply SHENZI 700 WG Insecticide or other Group 28 insecticides using a "treatment window" approach to avoid exposure of successive insect pest generations to the same mode of action.
- A "treatment window" is defined as the period of residual activity provided by single or sequential applications of products with the same mode of action. This "treatment window" should not exceed approximately the length of one generation of the target pest, or about 30 days.
- Within the "Group 28 treatment window", make no more than 2 successive applications of SHENZI 700 WG Insecticide or other Group 28 insecticides, unless otherwise directed in the specific crop/pest sections of this label.
- Following a "Group 28 treatment window", rotate to a treatment window
  of effective products with a different mode of action. This "non-Group 28
  window" should approximate the duration of one generation of the target
  pest, or about 30 days.
- The total exposure of all Group 28 products applied throughout the crop cycle (from seedling to harvest) should not exceed approximately 50% of the crop cycle or 50% of the total number of insecticide applications targeted for the same pest species.
- For short cycle crops (<50 days), the duration of the crop cycle may be considered as the Group 28 "treatment window" as long as no Group 28 insecticides are used during the next crop cycle at the same growing location.</li>
- Avoid using less than the labeled rates of SHENZI 700 WG Insecticide when applied alone or in tank mixtures.
- · Target the most susceptible insect life stages, whenever possible.
- · Monitor insect populations for product effectiveness.
- If resistance to SHENZI 700 WG Insecticide control develops in your area, SHENZI 700 WG Insecticide control 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 UPL NA Inc. representative or agricultural advisor for the best alternate method of control for your area. For additional information on insect resistance monitoring, visit the Insecticide Resistance Action Committee (IRAC) on the web at http://www.irac-online.org.

#### APPLICATION INSTRUCTIONS

Apply at the specified rates when insect populations reach locally determined economic thresholds. Consult the cooperative extension service, professional consultants, or your UPL NA Inc. representative to determine appropriate threshold levels for treatment in your area.

Apply follow-up treatments of SHENZI 700 WG Insecticide, as specified, to keep pest populations within threshold limits. Refer to the **Resistance-Management Recommendations** section of this label for further guidance on follow-up treatments. See individual crop sections of this label for specific minimum spray interval. Use sufficient water to obtain thorough, uniform coverage. Because SHENZI 700 WG Insecticide is most effective through ingestion of treated plant material, thorough spray coverage is essential for optimum control of targeted pest insects. Using increased water volumes will typically result in better spray coverage, especially under adverse conditions such as dry, hot weather or dense plant foliage.

SHENZI 700 WG Insecticide is to be applied as a foliar spray using ground, overhead or aerial application equipment as specified under the individual crop. Not all application methods are allowed on all crops; see specific crop sections of this label for which application methods may be used.

For ground application use the following directions unless otherwise specified in separate crop sections of this label or EPA-approved supplemental labeling: use a minimum of 30 gallons per acre (GPA) of water. SHENZI 700 WG Insecticide may be applied by overhead chemigation only on certain crops as listed on this label; for overhead chemigation applications see, **APPLICATION BY CHEMIGATION** section of this label. For aerial application use the following directions unless otherwise specified in this label or in EPA-approved supplemental labeling: use a minimum of 10 gallons per acre (GPA) of water.

Use of Adjuvants - In some situations where coverage is difficult to achieve such as closed canopy, dense foliage, plants with waxy leaf surfaces, excessive rainfall or less than optimum application equipment, an adjuvant may improve performance. Use only adjuvant products that are labeled for agricultural use and follow the directions on the manufacturer's label. Always conduct a premix test for compatibility. Use a proven adjuvant that does not affect foliage and/or fruit finish. Refer to specific crop sections of this label for additional adjuvant guidance.

CHEMIGATION USING OVERHEAD SPRINKLER SYSTEMS - ONLY FOR USE ON CEREAL GRAINS, CORN (FIELD, POP, SWEET, GROWN FOR SEED), COTTON, CRANBERRY, GRASS FORAGE (FODDER, AND HAY), LEGUMES, MINT (PEPPERMINT AND SPEARMINT), NON-GRASS ANIMAL FEEDS, OILSEED GROUP, PEANUT, POTATO, SOYBEAN, SUGARCANE

### Instructions for the Use of SHENZI 700 WG Insecticide in Overhead Sprinkler Chemiqation Systems

Types of Chemigation Systems: SHENZI 700 WG Insecticide may be applied only through overhead sprinkler irrigation systems. Overhead irrigation systems include the following: center pivot, end tow, hand move, lateral move, side roll, solid set and wheel line. The irrigation system used must provide uniform water distribution.

Apply SHENZI 700 WG Insecticide in sufficient water and of sufficient duration to ensure the specified rate is applied evenly to the entire treated area. Do not allow irrigation water to collect or runoff during chemigation; do not allow pooling of irrigation water. Inject SHENZI 700 WG Insecticide downstream from any water filtration system.

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.

When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system.

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

#### **Preparation**

A pesticide tank is recommended for the application of SHENZI 700 WG Insecticide in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. With the mix tank 1/4 to 1/2 full with water and the agitator running, measure the required amount of SHENZI 700 WG Insecticide and add it to the tank. Then add additional water to bring your total pesticide mixture up to the desired volume for your application.

Note: Always add the SHENZI 700 WG Insecticide to water, never put SHENZI 700 WG Insecticide into a dry tank or other mixing equipment without first adding water.

See **Tank Mixing Sequence** section of the container label for tank mixing sequence. Continue to agitate the mixture throughout the application process. Use mechanical or hydraulic agitation, do not use air agitation.

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

Inject the specified amount of SHENZI 700 WG Insecticide into the irrigation water flow using a positive displacement injection pump. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water. For continuously moving systems, inject the solution containing SHENZI 700 WG Insecticide into the irrigation water line continually and uniformly throughout the irrigation cycle. Apply in no more than 0.2 inches of water per acre. For overhead sprinkler systems that are stationary, add the solution containing SHENZI 700 WG Insecticide to the irrigation water line and apply no more than 0.2 inches of water per acre.

#### **Uniform Water Distribution**

The irrigation system used for application of SHENZI 700 WG Insecticide must provide for uniform distribution of SHENZI 700 WG Insecticide treated water. Non-uniform distribution can result in crop injury, lack of effectiveness or illegal pesticide residues in or on the crop being treated. Ensure the irrigation system is calibrated to uniformly distribute the chemigation application to the crop. Contact the equipment manufacturer, the local University Extension agent or other experts if you have questions about achieving uniform distribution of the application.

#### **Equipment Calibration**

Calibrate the irrigation system and injector before applying SHENZI 700 WG Insecticide. Calibrate the injection pump while the system is running using the expected irrigation rate. If you have questions about calibration, you should contact your state extension service specialists, equipment manufacturer or other experts.

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

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise. Wear the personal protective equipment as defined in the PPE section of the label for applicators and other handlers when making adjustments or repairs on the chemigation system when SHENZI 700 WG Insecticide is in the irrigation water.

#### Operation

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

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

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

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

- 1. The system must contain a functional check valve; vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

- 3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump).
- 7. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

#### SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying SHENZI 700 WG Insecticide. Fill spray tank 1/4 to 1/2 full of water. Use a well calibrated measuring device that is appropriate for the low doses that may be required with this high concentration product to avoid under or overdosing. Add SHENZI 700 WG Insecticide directly to spray tank. Mix thoroughly to fully disperse the insecticide; once dispersed continued agitation is required. Use mechanical or hydraulic means; do not use air agitation. Do not store spray mix solutions overnight in spray tank. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures.

#### **TANK MIXTURES**

This product can be mixed with pesticide products that are labeled for use on the same crops as SHENZI 700 WG Insecticide. Do not exceed labeled dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Before using a tank mix for the first time, always determine the compatibility of SHENZI 700 WG Insecticide with the tank mixtures by using a jar test.

**Compatibility** - Since formulations may be changed and new ones introduced, premix a small quantity of a desired tank mix, and observe for possible adverse changes (settling out, flocculation, etc.).

Steps to conduct a jar test to determine physical tank mix compatibility of SHENZI 700 WG Insecticide with other products:

- Use the most restrictive PPE of the products to be tested.
- Add clean water to jar proportional to the planned water volume that will be used in the spray tank (a jar size of 8 16 oz is acceptable).
- Mix proper proportions of SHENZI 700 WG Insecticide and desired tank mix partner(s) as will be present in the spray tank, add one product at a time following the sequence of addition according to formulation type provided in this label.
- Seal and shake mixture after each product is added.
- Allow to stand for 1 hour.
- View jar to determine if settling, flocculation, crystallization or any other undesirable changes have happened.
- If none of the above is observed or the solution can be easily remixed after shaking, the mixture is compatible with SHENZI 700 WG Insecticide.
- If the tank mix is not compatible, a higher water volume, reduced rate of the tank mix partner(s), reduced number of tank mix partners or a compatibility agent may be needed.

Tank Mixtures and Crop Safety - Crop varieties can differ in their responsiveness to tank mixtures, and environmental conditions can have an influence on product performance and crop response. It is not possible to test SHENZI 700 WG Insecticide alone or with all possible tank mix combinations on all varieties under all environmental conditions. When considering the use of a tank mixture on a labeled crop without prior experience, or which is not specifically described on SHENZI 700 WG Insecticide product labeling or in other UPL NA Inc. product use instruction, it is important to check crop safety first. To test for crop safety prepare a small volume of the intended tank mixture, apply it to an area of the target crop as directed by both this and the tank mix partner product labels, and observe the treated crop to ensure that a phytotoxic response does not occur.

Use of SHENZI 700 WG Insecticide in any tank mixture applications that is not specifically described on SHENZI 700 WG Insecticide product labeling or in other UPL NA Inc. product use instructions, could potentially result in crop injury. Follow the precautions on this label and on the label for any other product to be used in tank mixtures before making such applications to your crops. Follow the most restrictive labeling. UPL NA Inc. will not be responsible for any crop injury arising from the use of a tank mixture that is not specifically described on SHENZI 700 WG Insecticide product labeling or in other UPL NA Inc. product use instruction.

**Tank Mixing Sequence** - Fill spray tank 1/4 to 1/2 full of water. While agitating, add the different formulation types in the sequence indicated below\*. Allow time for complete mixing and dispersion after addition of each product before adding the next product.

Allow time for complete mixing and dispersion after addition of each product.

- 1. Water soluble bag (WSB)
- 2. Water soluble granules (SG)
- 3. SHENZI 700 WG Insecticide and other water dispersible granules (WG, XP, DF)
- 4. Wettable powders (WP)
- 5. Water-based suspension concentrates (SC)
- 6. Water-soluble concentrates (SL)
- 7. Suspoemulsion (SE)
- 8. Oil based suspension concentrates (OD)
- 9. Emulsifiable concentrates (EC)
- 10. Adjuvants, surfactants, oils
- 11. Soluble fertilizers
- 12. Drift retardants
- \* Unless otherwise specified by manufacturer directions for use or by local experience.

#### SPRAY TANK CLEANOUT

Prior to application, start with clean, well maintained application equipment. Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove. Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom and nozzles with clean water. Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations or at an approved waste disposal facility.

#### SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

#### IMPORTANCE OF DROPLET SIZE

The most effective drift management strategy is to apply the largest droplets which are consistent with pest control objectives. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. Applying larger

droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions.

A droplet size classification system describes the range of droplet sizes produced by spray nozzles. The American Society of Agricultural and Biological Engineers (ASABE) provide a Standard that describes droplet size spectrum categories defined by a number of reference nozzles (fine, coarse, etc.). Droplet spectra resulting from the use of a specific nozzle may also be described in terms of volume mean diameter (VMD). Coarser droplet size spectra have larger VMD's and lower drift potential.

#### **Controlling Droplet Size - Ground Application**

**Nozzle Type** - Select a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. The use of low-drift nozzles will reduce drift potential.

**Pressure** - The lowest spray pressures recommended for the nozzle produce the largest droplets. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, using a higher-capacity nozzle instead of increasing pressure results in the coarsest droplet spectrum.

**Flow Rate/Orifice Size** - Using the highest flow rate nozzles (largest orifice) that are consistent with pest control objectives reduces the potential for spray drift. Nozzles with higher rated flows produce coarser droplet spectra.

#### **Controlling Droplet Size - Aircraft**

**Number of Nozzles** - Using the minimum number of nozzles with the highest flow rate that provide uniform coverage will produce a coarser droplet spectrum.

**Nozzle Orientation** - Orienting nozzles in a manner that minimizes the effects of air shear will produce the coarsest droplet spectra. For some nozzles such as solid stream, pointing the nozzles straight back parallel to the air-stream will produce a coarser droplet spectrum than other orientations.

**Nozzle Type** - Solid stream, or other low drift nozzles produce the coarsest droplet spectra.

Do not apply as a ULV application.

#### **BOOM LENGTH AND HEIGHT**

**Boom Length (aircraft)** - The boom length must not exceed 3/4 of the wing length; using shorter booms decreases drift potential. For helicopters use a boom length and position that prevents droplets from entering the rotor vortices.

**Boom Height (aircraft)** - Application more than 10 ft above the canopy increases the potential for spray drift. Applications made at the lowest height consistent with pest control objectives, and the safe operation of the aircraft will reduce the potential for spray drift.

**Boom Height (ground)** - Applications made at the lowest height consistent with pest control objectives, and that allow the applicator to keep the boom level with the application site and minimize bounce, will reduce the exposure of spray droplets to evaporation and wind and reduce spray drift potential.

#### WIND

Drift potential increases at wind speeds of less than 3 mph (due to variable direction and inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. DO NOT APPLY DURING GUSTY OR WINDLESS CONDITIONS.

**Note:** Local terrain can influence wind patterns. Every applicator must be familiar with local wind patterns and how they affect spray drift.

#### **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

#### **SURFACE TEMPERATURE INVERSIONS**

Drift potential is high during a surface temperature inversion. Surface inversions restrict vertical air mixing, which causes small-suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Surface

inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates a surface inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

#### TREE AND VINE SPRAYERS

Air assisted tree and vine sprayers carry droplets into the canopy of trees and vines via a radially or laterally directed air stream. In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift:

- Adjust deflectors and aiming devices so that spray is only directed into the canopy.
- Block off upward pointed nozzles when there is no overhanging canopy.
- Use only enough air volume to penetrate the canopy and provide good coverage.
- Movement of spray that goes beyond the edge of the cultivated area may be minimized by practices such as spraying the outside row only from outside the planting.

Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom and nozzles with clean water. Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

	CROP ROTATION	
May be planted immediately	All crops on this label:	
following harvest:	Artichoke, globe	Foliage of Legume Vegetables (Crop Group 7)
	Asparagus	Nongrass Animal Feeds (Forage, Fodder, Straw, and Hay
	Banana/Plantain	Crop Group 18)
	Brassica (Cole) Leafy Vegetables (Crop Group 5)	Okra
	Bulb Vegetables (Crop Group 3-07)	Oilseed Group (Crop Group 20)
	Bushberry subgroup (Crop subgroup 13-07B)	Olives
	Caneberry subgroup (Berry and Small Fruit Crop Group	Peanut
	subgroup 13-07A)	Persimmons
	Large Shrub/Tree Berry subgroup (Crop subgroup 13-07C)	Pome Fruits (Crop Group 11-10)
	Low Growing Berry subgroup (Crop subgroup 13-07G)	Pineapple
	Small Fruit Vine Climbing subgroup, except fuzzy kiwifruit	Pomegranates
	(Berry and Small Fruit Crop Group subgroup 13-07F)	Prickly Pear Cactus
	Cacao	Rice
	Cereal Grains (Crop Group 15)	Root and Tuber Vegetables (Crop Group 1)
	Forage, Fodder, and Straw of Cereal Grains (Crop Group 16)	Leaves of Root and Tuber Vegetables (Crop Group 2)
	Citrus (Crop Group 10-10)	Soybean
	Coffee	Spice subgroup (Crop Group subgroup 19B)
	Corn (field, pop, seed, and sweet)	Spearmint and Peppermint
	Cotton	Stone Fruits (Crop Group 12-12)
	Cucurbit Vegetables (Crop Group 9)	Sugarcane: Tea
	Figs	Tree Nuts and Pistachio (Crop Group 14)
	Fruiting Vegetables (Crop Group 8-10)	Tobacco
	Grass Forage, Fodder, and Hay Group (Crop Group 17)	Tropical Fruits (acerola, atemoya, avocado, biriba, black
	Herbs subgroup (Crop Group subgroup 19A)	sapote, canistel, cherimoya, custard apple, ilama, feijoa,
	Grape	guava, jaboticaba, longan, lychee, mamey sapote, mangi papaya, passionfruit, pulasan, rambutan, sapodilla,
	Hops	soursop, Spanish lime, star apple, starfruit, sugar apple,
	Leafy Vegetables (nonbrassica, Crop Group 4)	wax jambu, and White sapote (Casimiroa), and/or hybrids
	Legume Vegetables (Crop Group 6)	of these).
Must be planted 12 months after last application of SHENZI 700 WG Insecticide	All other crops	

#### **USE DIRECTIONS FOR FOLIAR APPLICATIONS ONLY**

Crop	Application Method	Insect	SHENZI 700 WG Insecticide Rate Per Acre in Ounces (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Banana/Plantain	Foliar	Leafrollers	1.5 - 2.2 (0.065 - 0.098)	10	1	4

#### **APPLICATION INSTRUCTIONS:**

**Spray Volume:** Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. DO NOT apply dilute applications of more than 200 gals water per acre. For best results apply 100 - 150 gals water per acre. DO NOT apply less than 30 gals water per acre by ground application.

#### **RESTRICTIONS:**

- DO NOT make more than 3 applications per acre per calendar year.
- DO NOT apply more than 4.6 oz of SHENZI 700 WG Insecticide or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

Стор	Application Method	Insect	SHENZI 700 WG Insecticide Rate Per Acre in Ounces (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Bushberry Subgroup (Berry and Small Fruit Crop Group), (EPA Crop Subgroup 13-07B), Including: Aronia berry; blueberry, highbush; blueberry, lowbush; buffalo currant; Chilean guava; cranberry, highbush; currant, black; currant, red; elderberry; European barberry; gooseberry; honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); lingonberry; native currant; salal; sea buckthorn; cultivars, varieties, and/or hybrids of these	Foliar	Cherry fruitworm, Cranberry fruitworm, Japanese beetle (adult)*, Omnivorous leafroller, Raspberry crown borer	1.5 - 2.2 (0.065 - 0.098)	7	1	4

#### **APPLICATION INSTRUCTIONS:**

**Spray Volume:** Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. DO NOT apply dilute applications of more than 200 gals water per acre. For best results apply 100 - 150 gals water per acre. DO NOT apply less than 30 gals water per acre by ground.

\* Japanese Beetle (adult): Use the high application rate for moderate to heavy infestations.

- DO NOT make more than 3 applications per acre per calendar year.
- DO NOT apply more than 4.6 oz of SHENZI 700 WG Insecticide or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

Сгор	Application Method	Insect	SHENZI 700 WG Insecticide Rate Per Acre in Ounces (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Caneberry Subgroup (Berry and Small Fruit Crop Group), (EPA Crop Subgroup 13-07A), Including: Blackberry; loganberry; red and black raspberry; cultivars and/or hybrids of these	Foliar	Omnivorous leafroller, Light brown apple moth, Raspberry crown borer*	1.5 - 2.2 (0.065 - 0.098)	14	3	4

**Spray Volume:** Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. DO NOT apply dilute applications of more than 200 gals water per acre. For best results apply 100 - 150 gals water per acre. DO NOT apply less than 30 gals water per acre by ground.

\*Raspberry Crown Borer: For control of Raspberry crown borer, apply SHENZI 700 WG Insecticide as a directed foliar application, using a spray volume of 50 to 100 gallons/acre, directed to base of canes. Apply in early fall right after egg hatch or in early spring when larvae first become active and start to feed on the crown of the plant. Time the application when rainfall (minimum of 1/2 inch) is forecast or when overhead irrigation (minimum of 1/2 inch water per acre) can be used to move SHENZI 700 WG Insecticide into the plant root zone in order to control Raspberry crown borer.

#### RESTRICTIONS:

- DO NOT make more than 3 applications per acre per calendar year.
- DO NOT apply more than 4.6 oz of SHENZI 700 WG Insecticide or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

Сгор	Application Method	Insect	SHENZI 700 WG Insecticide Rate Per Acre in Ounces (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Large Shrub/Tree Berry Subgroup (Berry and Small Fruit Crop Group), (EPA Crop Subgroup 13-07C), Including: Bayberry; buffaloberry; che; chokecherry; elderberry; Juneberry (Saskatoon berry); mountain pepper berries; mulberry; phalsa; pincherry; riberry; salal; serviceberry; cultivars, varieties, and/or hybrids of these	Foliar	Omnivorous leafroller, Raspberry crown borer	1.5 - 2.2 (0.065 - 0.098)	7	1	4

#### **APPLICATION INSTRUCTIONS:**

**Volume:** Thorough coverage is essential. Select a spray volume appropriate for the size of the trees or plants and density of foliage. DO NOT apply dilute applications of more than 200 gals water per acre. DO NOT apply less than 30 gals water per acre by ground. For best results apply 100 - 150 gals water per acre.

- DO NOT make more than 3 applications per acre per calendar year.
- DO NOT apply more than 4.6 oz of SHENZI 700 WG Insecticide or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

Сгор	Application Method	Insect	SHENZI 700 WG Insecticide Rate Per Acre in Ounces (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Low Growing Berry Subgroup Except Cranberry and Strawberry (Berry and Small Fruit Crop Group), (EPA Crop Subgroup 13-07G), Including: Bearberry; bilberry; blueberry, lowbush; cloudberry; lingonberry; muntries; partridgeberry; cultivars, varieties, and/or hybrids of these	Foliar	Cherry fruitworm, Cranberry fruitworm, Japanese beetle (adult)*, Omnivorous leafroller, Raspberry crown borer	1.5 - 2.2 (0.065 - 0.098)	7	1	4

\* Japanese Beetle (adult): Use the high application rate for moderate to heavy infestations.

**Spray Volume:** Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. DO NOT apply dilute applications of more than 200 gals water per acre. For best results apply 100 - 150 gals water per acre. DO NOT apply less than 30 gals water per acre by group.

#### **RESTRICTIONS:**

- DO NOT make more than 3 applications per acre per calendar year.
- DO NOT apply more than 4.6 oz of SHENZI 700 WG Insecticide or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

Стор	Application Method	Insect	SHENZI 700 WG Insecticide Rate Per Acre in Ounces (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Small Fruit Vine Climbing Subgroup Except Fuzzy Kiwifruit and Grape, (Berry and Small Fruit Crop Group), (EPA Crop Subgroup 13-07F), Including: Amur river grape; gooseberry; kiwifruit, hardy; maypop; schisandra berry; cultivars, varieties, and/or hybrids of these	Foliar	Omnivorous leafroller, Raspberry crown borer	1.5 - 2.2 (0.065 - 0.098)	7	1	4

#### **APPLICATION INSTRUCTIONS:**

**Spray Volume:** Thorough coverage is essential. Select a spray volume appropriate for the size of trees and density of foliage. DO NOT apply dilute applications of more than 200 gals water per acre. For best results apply 100 - 150 gals water per acre. DO NOT apply less than 30 gals water per acre by ground.

- DO NOT make more than 3 applications per acre per calendar year.
- DO NOT apply more than 4.6 oz of SHENZI 700 WG Insecticide or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

Стор	Application Method	Insect	SHENZI 700 WG Insecticide Rate Per Acre in Ounces (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Citrus, (EPA Crop Group 10-10), Including: Calamondin; citrus citron; citrus hybrids (includes chironja, tangelo, tangor); grapefruit; kumquat; lemon; lime; mandarin (tangerine); orange, sour; orange, sweet; pummelo; Satsuma mandarin Australian desert lime; Australian finger-lime; Australian round lime; Brown River finger lime; Japanese summer Mediterranean mandarin; Mount white lime; New Guinea wild lime; Russell River lime; Sweet lime; Tachibana orange; Tahiti lime; Trifoliate orange; Uniq fruit; cultivars, varieties and/or hybrids of these	Foliar	Citrus leafminer, Citrus peelminer, Katydid (nymphs)*, Light brown apple moth, Omnivorous leafroller	1.5 - 2.2 (0.065 - 0.098)	7	1	4

**Spray Volume:** Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. DO NOT apply less than 30 gals water per acre by ground. For best results apply 100 - 150 gals water per acre. Where higher spray volumes are used, apply a higher SHENZI 700 WG Insecticide rate in the specified rate range.

\* Suppression of Katydid (nymphs): Correct timing of spray application is to nymphal stages. Use the higher application rate for moderate to heavy insect pressure. Apply at first indication of Katydid nymphs.

Allow 5 to 7 days to achieve maximum results.

Make repeat applications on a 7 to 10 day schedule if monitoring indicates continued feeding activity. Forktailed bush katydid (Scudderia furcata), Angular winged katydid (Microcentrum retinerve).

#### **RESTRICTIONS:**

- DO NOT make more than 3 applications per acre per calendar year.
- DO NOT apply more than 4.6 oz of SHENZI 700 WG Insecticide or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

Сгор	Application Method	Insect	SHENZI 700 WG Insecticide Rate Per Acre in Ounces (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Coffee	Foliar	Coffee leafminer	1.5 - 2.2 (0.065 - 0.098)	14	7	4

#### **APPLICATION INSTRUCTIONS:**

**Spray Volume:** Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. DO NOT dilute applications of more than 200 gals water per acre. For best results apply 100 - 150 gals water per acre. DO NOT apply less than 30 gals water per acre by ground.

#### **RESTRICTIONS:**

- DO NOT make more than 3 applications per acre per calendar year.
- DO NOT apply more than 4.6 oz of SHENZI 700 WG Insecticide or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

Crop	Application Method	Insect	SHENZI 700 WG Insecticide Rate Per Acre in Ounces (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Fig	Foliar	Navel orangeworm	1.5 - 2.2	7	1	4
		_	(0.065 - 0.098)			

#### **APPLICATION INSTRUCTIONS:**

**Spray Volume:** Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. DO NOT apply dilute applications of more than 200 gals water per acre. For best results apply 100 - 150 gals water per acre. DO NOT apply less than 30 gals water per acre by ground.

- DO NOT make more than 3 applications per acre per calendar year.
- DO NOT apply more than 4.6 oz of SHENZI 700 WG Insecticide or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

Crop	Application Method	Insect	SHENZI 700 WG Insecticide Rate Per Acre in Ounces (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Grape	Foliar	Grape berry moth, Grape leafroller	1.0 - 2.2 (0.044 - 0.098)	7	14	4
		Climbing cutworm, European grapevine moth, Japanese beetle (adult)*, Katydid (nymphs)**, Light brown apple moth, Raisin moth, Western grapeleaf skeletonizer	1.5 - 2.2 (0.065 - 0.098)			
		Omnivorous leafroller	1.3 - 2.2 (0.055 - 0.098)			

- \* Japanese Beetle (adult): Use the high application rate for moderate to heavy infestations.
- \*\*Suppression of Katydid (nymphs): Correct timing of spray application is to nymphal stages. Use the higher application rate for moderate to heavy insect pressure. Apply at first indication of Katydid nymphs. Allow 5 to 7 days to achieve maximum results. Make repeat applications on a 7 to 10 day schedule if monitoring indicates continued feeding activity.

Forktailed bush katydid (Scudderia furcata), Angular winged katydid (Microcentrum retinerve)

Omnivorous Leafroller: Make the first application at initiation of egg hatch, small larvae or first signs of infestations for each generation. Use higher rates of SHENZI 700 WG Insecticide for moderate to heavy insect pressure.

Raisin Moth: Make the first application at initiation of egg generation. Use the higher application rate for moderate to heavy insect pressure. Spray Volume: Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. DO NOT apply less than 30 gals water per acre by ground. For best results apply 100 - 150 gals water per acre. Where higher spray volumes are used, apply a higher SHENZI 700 WG Insecticide rate in the specified rate range.

#### **RESTRICTIONS:**

- DO NOT make more than 4 applications per acre per calendar year.
- DO NOT apply more than 4.6 oz of SHENZI 700 WG Insecticide or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

Crop	Application Method	Insect	SHENZI 700 WG Insecticide Rate Per Acre in Ounces (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Olives	Foliar	American plum borer, European grapevine moth	1.5 - 2.2 (0.065 - 0.098)	7	1	4

#### **APPLICATION INSTRUCTIONS:**

**Spray Volume:** Thorough coverage is essential to achieve best results. Select a spray volume appropriate for the size of trees or plants and density of foliage. Do not apply dilute applications of more than 200 gals water per acre. For best results apply 100 - 150 gals water per acre. Do not apply less than 30 gals water per acre by ground.

#### **RESTRICTIONS:**

- DO NOT make more than 3 applications per acre per calendar year.
- DO NOT apply more than 4.6 oz of SHENZI 700 WG Insecticide or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

Crop	Application Method	Insect	SHENZI 700 WG Insecticide Rate Per Acre in Ounces (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Persimmons	Foliar	Leafrollers	1.5 - 2.2 (0.065 - 0.098)	7	1	4

#### **APPLICATION INSTRUCTIONS:**

**Spray Volume:** Thorough coverage is essential to achieve best results. Select a spray volume appropriate for the size of trees or plants and density of foliage. DO NOT apply dilute applications of more than 200 gals water per acre. For best results apply 100 - 150 gals water per acre. DO NOT apply less than 30 gals water per acre by ground.

- DO NOT make more than 3 applications per acre per calendar year.
- DO NOT apply more than 4.6 oz of SHENZI 700 WG Insecticide or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

Crop	Application Method	Insect	SHENZI 700 WG Insecticide Rate Per Acre in Ounces (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Pome Fruits, (EPA Crop	Foliar	Green fruitworm, Spotted tentiform leafminer, Western tentiform leafminer	1.3 - 2.0 (0.055 - 0.088)	10	5	4
Group 11-10), Including: Apple; Crabapple; Loquat; Mayhaw; Pear; Pear, oriental; Quince		Apple maggot*, Codling moth**, European apple sawfly, European corn borer, Light brown apple moth, Obliquebanded leafroller***, Oriental fruit moth, Pandemis leafroller, Plum curculio*, Redbanded leafroller, Tufted apple bud moth, Variegated leafroller, White apple leafhopper*	1.3 - 2.2 (0.055 - 0.098) Western U.S. states <sup>†</sup> 1.5 - 2.2 (0.065 - 0.098)			

**Spray Volume:** Thorough coverage is essential. Select a spray volume appropriate for the size of trees and density of foliage. DO NOT apply dilute applications of more than 200 gals water per acre. For best results apply 100 - 150 gals water per acre. DO NOT apply less than 30 gals water per acre by ground.

**Effect on Beneficial Insects:** Beneficial insects such as predators or parasitoids are an important component in pome fruit IPM. SHENZI 700 WG Insecticide has demonstrated low to no impact on the predator *Deraeocoris brevis* and key parasitoids, *Aphelinus mali*, *Aphytis* spp., and *Encarsia* spp. This low impact is very important in preservation of biological control of pear psylla, San Jose scale and wooly apple aphid when this product is applied early season for control of first-generation codling moth. \*Suppression only.

\*\*Codling Moth: Make first application prior to egg hatch. Each application provides 10 to 17 days of protection depending on intensity of codling moth pressure and rate of fruit growth. Applications with an EPA registered horticultural oil may improve performance; for specific recommendations on use of oil, consult manufacturers specific oil labels for precautions and restrictions regarding the use of oils in pome fruit. Use pheromone trap catches and local degree-day based spray timing advisories to determine the development of each generation. Higher rates in the labeled rate range may be needed for high infestation 4 levels and/or large, dense foliage trees.

**Codling Moth Resistance Management:** DO NOT apply SHENZI 700 WG Insecticide (or other Group 28 insecticides) more than three times to a generation of codling moth (codling moth typically has a single generation "treatment window" of 30 to 45 days). Application(s) to the next generation of codling moth must be with an effective product(s) with a different mode of action (different IRAC group number) for at least a 30 day "treatment window" before making any additional applications of this product (or other Group 28 insecticides).

**Apples - Western U.S. States**†: Use the 1.5 oz/acre rate for low pressure infestations and make repeat applications on a 14 day schedule. For high pressure infestations or for orchards with a history of significant codling moth damage, apply SHENZI 700 WG Insecticide at 2.0 - 2.2 oz per acre. Make repeat applications on a 10 to 17 day schedule. For best results in high pressure orchards, use a comprehensive management program involving ovicidal treatments followed by properly timed larvicide applications at high labeled rates and shortened retreatment intervals. When using SHENZI 700 WG Insecticide in an integrated program with other codling moth insecticides, make sure the retreatment schedule is consistent with the period of effectiveness for each product used.

**Pears - Western U.S. States**<sup>†</sup>: Apply SHENZI 700 WG Insecticide on a 14 to 17 day schedule. For low pressure infestations use the 1.5 oz rate. For high pressure infestations or for orchards with a history of significant codling moth damage, apply this product at 2.0 - 2.2 oz per acre.

\*\*\* **Obliquebanded Leafroller:** For overwintering larvae, apply in the spring (pink to petal fall stage) at first sign of active feeding. For summer generation apply just prior to or at the beginning of egg hatch. Leafroller feeding stops after ingestion of treated foliage, however, during periods of cold weather when leafrollers are inactive, it may take several days to achieve complete control. Applications with an EPA registered horticultural oil may improve performance; for specific recommendations on use of oil, consult manufacturers specific oil labels for precautions and restrictions regarding the use of oils in pome fruit. Higher rates in the labeled rate range may be needed for high infestations levels and/or large, dense foliage trees.

**Obliquebanded Leafroller Resistance Management:** Only apply SHENZI 700 WG Insecticide (or other Group 28 insecticides) to one generation of obliquebanded leafroller per year. Application(s) to other generations of obliquebanded leafroller must be with an effective product with a different mode of action (i.e. a product with a different IRAC group number). †Includes states of AZ, CA, CO, ID, MT, NV, NM, OR, UT, WA, and WY.

- DO NOT make more than 3 applications per acre per calendar year.
- DO NOT apply more than 4.6 oz of SHENZI 700 WG Insecticide or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

Crop	Application Method	Insect	SHENZI 700 WG Insecticide Rate Per Acre in Ounces (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
I			, ,		(* * * * * )	, ,
Pomegranate	Foliar	Navel orangeworm, Omnivorous leafroller	1.5 - 2.2 (0.065 - 0.098)	7	1	4
		Onnivorous leatroller	(0.005 - 0.096)			

**Spray Volume:** Thorough coverage is essential to achieve best results. Select a spray volume appropriate for the size of trees or plants and density of foliage. Do not apply dilute applications of more than 200 gals water per acre. For best results apply 100 - 150 gals water per acre. Do not apply less than 30 gals water per acre by ground.

#### **RESTRICTIONS:**

- DO NOT make more than 3 applications per acre per calendar year.
- DO NOT apply more than 4.6 oz of SHENZI 700 WG Insecticide or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

Сгор	Application Method	Insect	SHENZI 700 WG Insecticide Rate Per Acre in Ounces (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Stone Fruits, (EPA Crop Group 12-12), Including: Apricot; Cherry, sweet; Cherry, tart; Nectarine; Peach; Plum; Plum, Chickasaw; Plum, Damson; Plum, Japanese; Plumcot; Prune (fresh) Apricot, Japanese; Capulin; Cherry, black; Cherry Nanking; Jujube, Chinese; Plum, American; Plum, beach; Plum, Canada; Plum, cherry; Plum, Klamath; Sloe	Foliar	Cherry fruit fly*, Codling moth, Katydid (nymphs)**, Light brown apple moth, Obliquebanded leafroller, Omnivorous leaf roller, Oriental fruit moth, Peach twig borer***, Tufted apple bud moth	1.5 - 2.2 (0.065 - 0.098)	7	10	4

#### **APPLICATION INSTRUCTIONS:**

A lower application rate of 0.6 - 1.5 oz product per acre can be used in short interval (7 - 10 days) spray program.

DO NOT apply dilute applications of more than 200 gals water per acre. For best results apply 100 - 150 gals water per acre. DO NOT apply less than 30 gals water per acre by ground.

- \*Suppression only.
- \*\* **Suppression of Katydid (nymphs):** Correct timing of spray application is to the nymphal stages. Use the higher application rate for moderate to heavy insect pressure. Apply at first indication of Katydid nymphs. Allow 5 to 7 days to achieve maximum results. Make repeat applications on a 7 to 10 day schedule if monitoring indicates continued feeding activity. Forktailed bush katydid (*Scudderia furcata*), Angular winged katydid (*Microcentrum retinerve*).
- \*\*\* **Peach Twig Borer**: For early dormant through mid-dormant applications, use higher rates of SHENZI 700 WG Insecticide; for late dormant applications, use lower rates. Applications may be made with an EPA registered dormant oil; for specific recommendations on use of oil, consult manufacturers specific oil labels for precautions and restrictions regarding the use of oils. For best performance, apply using ground equipment to achieve thorough uniform coverage of all scaffolds and limbs. For "May spray" applications to the summer generation, make applications at peak moth flight (timed at or before peak egg lay).

- DO NOT make more than 3 applications per acre per calendar year.
- DO NOT apply more than 4.6 oz of SHENZI 700 WG Insecticide or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

Crop	Application Method	Insect	SHENZI 700 WG Insecticide Rate Per Acre in Ounces (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Tea (HI & WG only)	Foliar	Leafrollers	1.5 - 2.2	14	3	4
			(0.065 - 0.098)			

**Spray Volume:** Thorough coverage is essential to achieve best results. Select a spray volume appropriate for the size of trees or plants and density of foliage. DO NOT apply dilute applications of more than 200 gals water per acre. For best results apply 100 - 150 gals water per acre. Do not apply less than 30 gals water per acre.

#### **RESTRICTIONS:**

- DO NOT make more than 3 applications per acre per calendar year.
- DO NOT apply more than 4.6 oz of SHENZI 700 WG Insecticide or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

Сгор	Application Method	Insect	SHENZI 700 WG Insecticide Rate Per Acre in Ounces (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Tree Nuts, (EPA Crop Group 14-12), Including: African nut-tree; Almond;	Foliar	Hickory shuckworm, Pecan nut casebearer	1.0 - 2.2 (0.044 - 0.098)	7	10	4
Beechnut; Brazil nut; Brazilian pine; Bunya; Bur oak; Butternut; Cajou nut; Candlenut; Cashew; Chestnut; Chinquapin; Coconut;		Filbertworm	1.3 - 2.2 (0.055 - 0.098)			
Coquito nut; Dika nut; Ginkgo; Guiana chestnut; Hazelnut (Filbert); Heartnut;		Codling moth, Navel orange worm, Light	1.5 - 2.2 (0.065 - 0.098)			
Hickory nut; Japanese horse-chestnut; Macadamia nut; Mongongo nut; Monkey- pot; Monkey puzzle nut; Okari nut; Pachira		brown apple moth, Oblique banded leafroller, Oriental fruit moth, Peach twig borer				
nut; Peach palm nut; Pecan; Pequi; Pili nut; Pine nut; Pistachio; Sapucaia nut; Tropical almond; Walnut, black; Walnut, English; Yellowhorn; and cultivars, varieties, and/or hybrids of these		mout, reacht twig bold				

#### **APPLICATION INSTRUCTIONS:**

**Spray Volume:** Thorough coverage is essential. Select a spray volume appropriate for the size of trees or plants and density of foliage. DO NOT apply less than 30 gals water per acre. For best results apply 100 - 150 gals water per acre by ground. Where higher spray volumes are used, apply a higher SHENZI 700 WG Insecticide rate in the specified rate range.

Grazing on Tree Nut Orchard or Grove Floor: There are no grazing restrictions for (1) Grass forage, fodder, and hay. Any grass Gramineae family (either green or cured) except sugarcane and those included in the cereal grains group, that will be fed to or grazed by livestock, all pasture and range grasses and grasses grown for hay or silage, and (2) Non-grass animal feeds.

**Filbertworm:** Make initial application just before or at filbertworm egg hatch. Depending on the length of the filbertworm moth flight, multiple applications may be required to protect the crop. Under heavy filbertworm pressure, apply SHENZI 700 WG Insecticide on a 14 day retreatment schedule. With moderate to low filbertworm pressure, apply SHENZI 700 WG Insecticide at retreatment intervals no longer than every 21 days.

**Codling Moth (Walnut):** Make initial application at or before peak egg lay for targeted generation. Depending on level of infestation reapply 14 - 21 days later as needed. Use higher rates and ground application equipment to achieve thorough coverage.

Navel Orange Worm (Hull-split application timing): Make an application at 1 - 5% hull-split timing; make a second application approximately 10 - 14 days later. Depending on level of pest infestation, use of higher rates in the labeled rate range and multiple applications may be needed.

**Peach Twig Borer:** SHENZI 700 WG Insecticide may be used throughout the growing season, however for dormant applications: SHENZI 700 WG Insecticide may be tank mixed with an EPA registered dormant oil; for specific recommendations on use of oil, consult manufacturers specific oil labels for precautions and restrictions regarding the use of oils in tree nuts crops. For best performance apply with ground equipment to achieve thorough uniform coverage of all scaffolds and limbs. The high rate is recommended for applications made at early to mid-dormant timing.

**Peach Twig Borer:** For spring application to overwintering generation: Make application at late dormant (just prior to bud break) to early bloom. For "May spray" applications to the summer generation: Make applications at peak moth flight (timed at or before peak egg lay). Higher rates in the labeled rate range may be needed for high infestation levels and large, dense foliage trees.

- DO NOT make more than 4 applications per acre per calendar year.
- DO NOT apply more than 4.6 oz of SHENZI 700 WG Insecticide or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

Стор	Application Method	Insect	SHENZI 700 WG Insecticide Rate Per Acre in Ounces (LB AI)	Re-Treatment Interval in Days (RTI)	Pre-Harvest Interval in Days (PHI)	Re-Entry Interval in Hours (REI)
Tropical Fruits: acerola; atemoya; avocado; biriba; black sapote; canistel; cherimoya; custard apply; ilama; feijoa; guava; jaboticaba; longan; lychee; mamey sapote; mango; papaya; passionfruit; pineapple; pulasan; rambutan; sapodilla; soursop; Spanish lime; star apple; starfruit; sugar apple; wax jambu; White sapote (Casimiroa), and other cultivars and/or hybrids of these	Foliar	Leafrollers, Leafminers	1.5 - 2.2 (0.065 - 0.098)	10	1*	4

**Spray Volume:** Thorough coverage is essential to achieve best results. Select a spray volume appropriate for the size of trees or plants and density of foliage. Do not apply dilute applications of more than 200 gals water per acre. For best results apply 100 - 150 gals water per acre. Do not apply less than 30 gals water per acre by ground. \*Except acerola, jaboticaba, and lychee. Last application days to harvest for acerola, jaboticaba and lychee is 10 days.

#### **RESTRICTIONS:**

- DO NOT make more than 3 applications per acre per calendar year.
- DO NOT apply more than 4.6 oz of SHENZI 700 WG Insecticide or 0.2 lb ai chlorantraniliprole containing products per acre per calendar year.

#### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Do not subject to temperatures below 32 degrees F. Store product in original container only in a location inaccessible to children and pets. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Not for use or storage in or around the home.

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

#### **CONTAINER HANDLING:**

For Small (Capacity Equal to or Less Than 5 lbs) Nonrefillable HDPE Plastic Containers: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

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

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Nonrefillable Trilaminated Aluminum Pouch. Nonrefillable container. Do not reuse or refill this container. Empty residue into application equipment then offer foil bag for recycling is available or dispose of in a sanitary landfill or incineration if allowed by state and local ordinances. If burned, stay out of smoke.

## IMPORTANT INFORMATION READ BEFORE USING PRODUCT

#### 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 reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks 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 UPL NA Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of UPL NA Inc. and Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold UPL NA Inc. and Seller harmless for any claims relating to such factors.

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