

# RESTRICTED USE PESTICIDE

Due to Acute Toxicity and Toxicity to Birds and Mammals  
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.



# VENTAS™

## 42% C-LV

OXAMYL GROUP 1A INSECTICIDE



Contains oxamyl, the active ingredient used in Vydate® C-LV.

<b>ACTIVE INGREDIENT:</b>	(% by weight)
Oxamyl: [Methyl N,N'-dimethyl-N-[(methylcarbamoyl)oxy]-1-thiooxamimidate] .....	42.0%
<b>OTHER INGREDIENTS:</b> .....	58.0%
<b>TOTAL:</b> .....	100.0%
Contains 3.77 pounds active ingredient per gallon. Water Soluble Liquid	
<b>EPA Reg. No.: 91234-54</b>	

**KEEP OUT OF REACH OF CHILDREN  
DANGER/PELIGRO**



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.)

SEE BELOW FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

### FIRST AID

Contains an N-methyl carbamate that inhibits cholinesterase. **If swallowed:** • Call a poison control center or doctor immediately for treatment advice. • Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. • Do not induce vomiting or give anything by mouth to an unconscious person. **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. **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.

### HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency medical assistance, call SafetyCall: 1-844-685-9173.

### ATROPINE IS AN ANTIDOTE – SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.

If symptoms appear (see **SYMPTOMS**), get medical attention. **SYMPTOMS:** Oxamyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, and muscle tremors.

### NOTE TO PHYSICIAN

**Treatment:** Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg. intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recover is assured. Do not use 2-PAM for exposure to Ventas 42% C-LV alone. However, for exposure to combinations of Ventas 42% C-LV and organophosphorus insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine.

**For Chemical Emergency: Spill, Leak, Fire, Exposure, or Accident,  
Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)**

Ventas™ 42% C-LV is not manufactured, or distributed by DuPont Crop Protection, seller of Vydate® C-LV.

Made in China



Manufactured for:  
**Atticus, LLC**  
5000 CentreGreen Way, Suite 100  
Cary, NC 27513

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
DANGER - POISON**

Fatal if swallowed. May be fatal if absorbed through skin. May be fatal if inhaled. Causes substantial but temporary eye injury. Do not get in eyes, on skin, or on clothing. Do not breathe vapor or spray mist. 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.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):**

**Mixers, loaders, applicators and other handlers must wear:**

- Coveralls over long-sleeved shirt and long pants,
- Chemical-resistant gloves made of barrier laminate or butyl rubber  $\geq$  14 mils,
- Chemical-resistant footwear plus socks,
- Protective eyewear,
- Chemical-resistant headgear for overhead exposure,
- Chemical-resistant apron when cleaning equipment, mixing or loading,
- Wear a minimum of an elastomeric half face NIOSH approved respirator with organic vapor (OV) cartridges and a combination R or P filter (TC-84A); or a NIOSH approved gas mask with an OV canister (TC-14G); or a NIOSH approved powered air purifying respirator with OV cartridge and combination HE filter (TC-23C).

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

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

**ENGINEERING CONTROL STATEMENTS:**

**Human flaggers must be in enclosed cabs.**

Pilots must use an enclosed cockpit in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)]. Pilots must not assist in the mixing and loading operations. Mixers and loaders supporting use on cotton in California and Arizona must use a closed system that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4)]. The system must be designed by the manufacturer to remove a liquid pesticide from its container and transfer it through connecting hoses, pipes, and/or couplings that are sufficiently tight to prevent dermal or inhalation exposure of any person to the pesticide concentrate, use dilution, or rinse solution and must be provided and have immediately available for use in an emergency such as a broken package, spill, or equipment breakdown: coveralls, chemical-resistant footwear, and the type of respirator required for handlers on this labeling. In addition, handlers:

- May wear long-sleeved shirt and long pants, socks and shoes, Chemical-resistant gloves made of barrier laminate or butyl rubber  $\geq$  14 mils and a chemical resistant apron, instead of the PPE required for mixers and loaders on this label.
- Must wear protective eyewear if the system operates under pressure.

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

**USER SAFETY RECOMMENDATIONS**

Users should:

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

**ENVIRONMENTAL HAZARDS:**

This pesticide is toxic to aquatic organisms (fish and invertebrates) and extremely toxic to birds and mammals. Cover or disc spill areas. Birds and mammals in treated areas may be killed. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or disposing of equipment waste waters.

This product can contaminate surface water through ground spray applications. Under some conditions, it may also have a high potential for runoff into surface water after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, area overlaying extremely shallow ground water, 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-laying tile drainage systems that drain to surface water.

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 to drift to blooming crops or weeds if bees are visiting the treatment area.

**Ground Water Advisory:**

Residues of **Ventas 42% C-LV** can seep or leach through soil and can contaminate ground water which may be used for drinking. Users are advised not to apply **Ventas 42% C-LV** where the water table is close to the surface and where soils are very permeable, i.e. well-drained soils such as loamy sands. Local agricultural agencies can provide information on the soil type in your area and the location of the ground water.

**PHYSICAL OR CHEMICAL HAZARDS:**

Combustible. Do not use or store near heat or open flame. Keep container closed. Use with adequate ventilation.

**DIRECTIONS FOR USE – RESTRICTED USE PESTICIDE**

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

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

Pilots must not assist in the mixing and loading operations.

**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 48 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 barrier laminate or butyl rubber  $\geq$  14 mils,
- Shoes plus socks.

**Ventas 42% C-LV** must be used only in accordance with directions on this label. Atticus, LLC will not be responsible for losses or damages resulting from use of this product in any manner not specifically listed on this label. User assumes all risks associated with such use.

## PRODUCT INFORMATION:

**Ventas 42% C-LV** is a water-soluble liquid to be diluted with water. For cotton applications, **Ventas 42% C-LV** may also be mixed with refined vegetable oil.

Use only in commercial and farm plantings; do not use in home plantings.

**Do not use in Suffolk and Nassau Counties, Long Island, New York.**

Do not formulate this product into other End-use products.

Seed piece treatments are prohibited.

All applications to the soil must be incorporated immediately after application to a depth of at least 2 inches by mechanical means or by water. For best results, place **Ventas 42% C-LV** in the root zone of the plant. If irrigation is used to water in the application, use sufficient water to move the applied **Ventas 42% C-LV** at least 2 inches deep in the soil. However, do not apply irrigation water such that the water moves off the field.

## INTEGRATED PEST MANAGEMENT:

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

## RESISTANCE MANAGEMENT:

For resistance management, **Ventas 42% C-LV** contains a Group 1A insecticide. Any insect/mite population may contain individuals naturally resistant to **Ventas 42% C-LV** and other Group 1A insecticides/acaricides. The resistant individuals may dominate the insect/mite population if this group of insecticides/acaricides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide/acaricide resistance, take the following steps:

- Rotate the use of **Ventas 42% C-LV** or other Group 1A insecticides/acaricides within a growing season, or among growing seasons, with different groups that control the same pests. Avoid application of consecutive sprays of **Ventas 42% C-LV** or other insecticides in the same group in a season.
- Use tank mixtures with insecticides/acaricides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
  - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
  - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
  - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
  - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide/acaricides use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.

- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact Atticus, LLC at 984-465-4754.

## Crop Rotation:

Do not plant crops other than those with registered **Ventas 42% C-LV** or **Ventas 24% L** uses within 4 months after the last application. Cover crops for soil building or erosion control may be planted anytime, but do not graze or harvest for food or feed.

## Application:

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

Apply follow-up treatments of **Ventas 42% C-LV**, if needed, to keep pest populations within threshold limits. The minimum application interval for each crop is noted in the crop specific directions for use.

**Ventas 42% C-LV** is a water-soluble liquid. Once in solution, no further agitation is required, except when applications are made to cotton in oil. Use sufficient water to obtain thorough, uniform coverage.

**Ventas 42% C-LV** can be applied by ground, aerial or chemigation application equipment. See the crop specific directions for use for the application equipment that may be used for each crop. For ground applications, use the following directions, unless otherwise specified in this label; use a minimum of 5 gallons per acre of water. For aerial applications, use the following directions, unless otherwise specified in this label: use a minimum of 2 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, or less than optimal application equipment, an adjuvant may improve performance.

## Tank Mixing and Compatibility:

Since formulations may be changed and new ones introduced, it is a best practice that users premix a small quantity of a desired tank mix and observe for possible adverse changes (settling out, flocculation, etc.). Avoid mixtures of several materials and very concentrated spray mixtures. **Ventas 42% C-LV** is compatible with most commonly used plant protectants with the exception of "SuperTin", Bordeaux mixtures, lime sulfur and spray oils. Do not use **Ventas 42% C-LV** in highly alkaline mixtures. For best results, buffer spray solutions to a pH between 5 and 7. Use mildly alkaline mixtures immediately after mixing to prevent loss of activity.

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 mixing large quantities of **Ventas 42% C-LV** in vegetable oil for use on cotton, do a jar test to determine compatibility.

- Mix proper proportions of **Ventas 42% C-LV** and vegetable oil in a jar, seal and shake mixture. Allow to stand for 1 to 2 hours.
- View jar to determine if crystals have formed.
- If no crystals have formed, the vegetable oil is compatible with **Ventas 42% C-LV**.
- If crystals have formed, add an equal volume of water to the volume of **Ventas 42% C-LV**, and reduce the volume of vegetable oil in the final mix by the volume of water added.

**Tank Mixing Sequence:** Add different formulation types in the sequence indicated below. Allow time for complete mixing and dispersion after addition of each product.

1. Products in water soluble bags
2. Water dispersible granules
3. Wettable powders
4. Water based suspension concentrates
5. **Ventas 42% C-LV** and other water-soluble concentrates
6. Oil based suspension concentrates
7. Emulsifiable concentrates
8. Adjuvants, surfactants and oils
9. Soluble fertilizers
10. Drift retardants

### Spray Preparation:

Fill spray tank 1/4 to 1/2 full of water. Add **Ventas 42% C-LV** directly to the tank. Mix thoroughly while adding remaining water. No further agitation is necessary with water. Continuous agitation is required for mixing and application in refined vegetable oil. Do not store spray mix overnight in spray tank.

For best results, buffer spray solution to a pH between 5 and 7. Use mildly alkaline mixtures immediately after mixing to prevent loss of activity.

### Spray Tank Cleanup:

Immediately following application of **Ventas 42% C-LV**, thoroughly clean all mixing and spray equipment. Flush the tank, pump, hoses, and boom with several changes of water after removing nozzle tips and screens. Clean Nozzle tips and screens separately. 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.

### 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 way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. 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! See **Wind, Temperature and Humidity**, and **Temperature Inversions** sections of this label.

### Controlling Droplet Size – General Techniques:

- **Volume:** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure:** Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- **Nozzle Type:** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

### Controlling Droplet Size – Aircraft:

Nozzles must never be pointed downward more than 45 degrees.

- **Number of Nozzles:** Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.

- **Nozzle Orientation:** Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.
- **Nozzle Type:** Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
- **Boom Length:** The boom length should not exceed 3/4 of the wing or rotor length - longer booms increase drift potential.
- **Application Height:** Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.
- **Swath Adjustment-Aircraft:** When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

### Boom Height:

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

### Wind:

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. AVOID GUSTY OR WINDLESS CONDITIONS.

**Note:** Local terrain can influence wind patterns. Every applicator should 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.

### Temperature Inversions:

Application should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature 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 an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

### Sensitive Areas:

This product should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

### 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.

### Air Assisted (Air Blast) Field Crop Sprayers:

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

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

### CHEMIGATION:

**(For potatoes via overhead sprinkler irrigation only and for cotton via drip chemigation only)**

This product may be applied for nematode suppression in cotton through drip (trickle) or strip tubing irrigation systems. Apply this product in potatoes through overhead sprinkler irrigation equipment including center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set, mini (micro) sprinkler, hand move irrigation systems. When applying to potatoes by overhead sprinkler chemigation, center pivot and lateral move irrigation systems are preferred. Other overhead sprinkler systems, such as end tow, side (wheel) roll and solid set may be used if the application of the water is uniform. Do not apply this product through any other type of irrigation system.

Make application in sufficient water and of sufficient duration to apply the labeled rate evenly to the entire treated area.

Do not allow irrigation water to collect or run-off during chemigation.

Do not apply when wind speed favors drift beyond the area intended for treatment.

To avoid reduced performance, do not apply **Ventas 42% C-LV** in cotton via drip irrigation at the same time that a drip/irrigation line clean out product is being used.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform 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.

Wear 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 **Ventas 42% C-LV** is in the irrigation water.

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

Use a pesticide supply tank for the application of **Ventas 42% C-LV** in chemigation systems. For best results, buffer the **Ventas 42% C-LV** injection solution to a pH of 5.0 or lower. Buffer highly alkaline water so that the pH of the spray solution is slightly acidic (pH  $\leq$  7).

Do not connect any irrigation system (including greenhouse systems) 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 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.

### Required System Safety Devices:

1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

6. Systems must use a metering pump such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

### Sprinkler Chemigation:

1. End guns must be turned off during the application, if they irrigate non target areas.
2. It is recommended that nozzles in the immediate area of control panels, chemical supply tanks and system safety devices be plugged to prevent contamination of these areas.
3. Do not apply when wind speed favors drift beyond the area intended for treatment.
4. Do not apply when system connections or fittings leak or when nozzles do not provide uniform distribution.

### Drip (Trickle) Chemigation:

1. The system should provide uniform waterflow and should have no leaks.
2. Irrigate cotton crop to wet the root zone first, then introduce **Ventas 42% C-LV** for the first 2/3 of the irrigation cycle to distribute the material uniformly to the crop root zone being irrigated. Discontinue use of **Ventas 42% C-LV** long enough to purge the system with fresh water and allow the **Ventas 42% C-LV** to remain in the root zone of the crop.
3. Drip tape placement is critical. **Ventas 42% C-LV** applied via drip chemigation must be in the root zone to be effective. For best results, place the drip tape either on the soil surface near the base of the plant, or buried no more than two inches deep. Emitter spacing should not exceed 12 inches apart.

See crops on label for treatment rates and additional use information.

### Posting of Areas to be Treated:

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, daycare centers, hospitals, in-patient clinics, nursing homes, or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to public such as golf courses or retail greenhouses.

Posting must conform to all the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in ENGLISH. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words "KEEP OUT", followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word "STOP". Below the symbol shall be the words "PESTICIDE IN IRRIGATION WATER".

Posting required for chemigation does not replace other posting and reentry requirements for farm worker safety.

## CROP USES

### COTTON (ALL STATES EXCEPT AZ AND CA)

For AZ and CA use directions, see separate sections. For state specific information on seasonal use rates and number of applications see RESTRICTIONS at the end of this section.

Apply **Ventas 42% C-LV** by ground in sufficient water or by air in sufficient water or refined vegetable oil (minimum 3 pints of oil per acre) to obtain thorough coverage and penetration of the cotton canopy.

When applications are made in water, buffer spray solution to pH less than 7.

When oil-based applications are made, outfit aircraft with a delivery system designed to apply droplets with a VMD of 150 to 220 microns. Swath width should not exceed wingspan plus 10 percent. When using conventional hydraulic nozzle systems, orient the nozzles 90 degrees to the laminar airflow. Adjust equipment to distribute spray uniformly over the spray swath. Ensure wind conditions and other factors such as temperature and humidity allow for the spray mixture to be delivered to the target area. Maintain continuous agitation.

#### Boll Weevil, Cotton Fleahopper and Tarnished Plant Bug:

Apply 4.25 to 17 fl. oz. **Ventas 42% C-LV** per acre. Begin applications when damaging populations appear. For best results, apply on a 7-day spray interval, depending on insect pressure.

#### Cotton Leaf Perforator:

Apply 8.5 to 17 fl. oz. **Ventas 42% C-LV** per acre. Make initial applications when damaging populations begin to build, and continue on a 7-day schedule, depending on insect pressure.

#### *Lygus hesperus* (early season):

Apply 12.7 to 17 fl. oz. **Ventas 42% C-LV** per acre. Begin applications before damaging populations begin to build. For best results, apply on a 7-day spray interval, depending on insect pressure. Targeted insects that migrate into treated area following application may not be controlled.

#### *Lygus hesperus* (mid to late season):

Apply 17 fl. oz. **Ventas 42% C-LV** per acre. Begin applications before damaging populations begin to build. For best results, apply on a 7-day spray interval, depending on insect pressure. Targeted insects that migrate into treated area following application may not be controlled.

#### Pink Bollworm (early season):

Apply 12.7 to 17 fl. oz. **Ventas 42% C-LV** per acre. Begin early season treatments (pinhead square program) just prior to first susceptible squares and before damaging populations begin to build. For best results, apply 2 to 4 applications on a 7-day interval, depending on insect pressure.

#### Pink Bollworm (mid to late season):

Apply 12.7 to 17 fl. oz. **Ventas 42% C-LV**. Begin applications before damaging populations begin to build. For best results, apply on a 7-day spray interval, depending on insect pressure.

#### Nematode Suppression:

Lance Nematode	<i>Hoplolaimus</i> spp.
Reniform Nematode	<i>Rotylenchulus reniformis</i>
Root Knot Nematode	<i>Meloidogyne incognita</i>

Following the preplant application of a soil fumigant, an at-plant application of a contact nematicide, or a nematicide seed treatment, apply **Ventas 42% C-LV** as a broadcast foliar or drip treatment at the rate of 17 fl. oz. per acre when cotton is in the 1st to 7th true leaf stage of growth. For longer term suppression of nematodes, a second foliar or drip application may be made 14 days later. Alternatively, **Ventas 42% C-LV** can be applied following a soil fumigant, or a contact nematicide, or a nematicide seed

treatment, as a sequential broadcast foliar treatment at the rate of 8.5 to 17 fl. oz. per acre. Make the initial application when cotton is in the 2nd to 5th true leaf stage of growth and repeat at 8.5 to 17 fl. oz. per acre 7- to 14- days later. For banded applications, use proportionately less material based on row spacing and band width applied. Or as an alternate to sequential broadcast foliar applications, sequential drip applications can be made at 17 fl. oz. per acre starting at the 2nd to 5th true leaf stage of growth and again 7 to 14 days later.

See **Drip (Trickle) Chemigation** section of the label for additional information on making drip applications.

Applications of **Ventas 42% C-LV** must follow the preplant application of a soil fumigant, or an at-plant band or in-furrow application of a contact nematicide, or the use of a nematicide seed treatment to effectively reduce reniform, root knot or lance nematode populations in cotton. This **Ventas 42% C-LV** treatment is intended to supplement early season nematode suppression from soil fumigant or contact nematicide applications or the use of a nematicide seed treatment and is restricted to use on low to moderate nematode infestations.

#### Stink Bugs (brown stink bug, green stink bug, southern green stink bug):

Apply 10.7 to 17 fl. oz. **Ventas 42% C-LV** per acre. Make initial applications when stink bugs exceed local population or damage thresholds. Make sequential applications on a 7-day interval as long as stink bug populations or damage exceed local thresholds.

#### Thrips (suppression only):

Tobacco Thrips	<i>Frankliniella fusca</i>
Onion Thrips	<i>Thrips tabaci</i>

Apply 8.5 to 17 fl. oz. **Ventas 42% C-LV** per acre to provide supplemental control of tobacco and onion thrips. Make applications as a broadcast or band treatment in sufficient water to obtain thorough coverage (minimum of 8 GPA ground and 5 GPA air). All **Ventas 42% C-LV** applications must follow a previous at-plant insecticide treatment that has contact or systemic activity on tobacco or onion thrips. Begin treatments when cotton reaches the 1st true leaf and thrips populations or damage exceed local thresholds. Repeat the application at 7 days if re-infestation of adult or immature thrips occurs.

#### RESTRICTIONS

Do not apply within 14 days of harvest.

Do not graze or feed treated cotton to livestock.

Applications to cotton by handwand or soil broadcast are prohibited.

In all registered states [EXCEPT AR, AZ, CA, KS, LA, MS (west of I-55), OK and TX] and for MS (east of I-55):

Do not apply more than 102 fl. oz. (3 lb. a.i.) of **Ventas 42% C-LV** per acre per growing season.

Do not make more than 8 applications per season.

For AR, KS, LA, MS (west of I-55), OK and TX:

Do not apply more than 68 fl. oz. (2 lb. a.i.) of **Ventas 42% C-LV** per acre per growing season.

Do not make more than 4 applications per season.

### COTTON (ARIZONA)

Apply **Ventas 42% C-LV** by air or ground application equipment in sufficient water to obtain thorough coverage (minimum 5 gallons by air or 10 gallons by ground). For best results, buffer the spray solution to <pH 7.

#### Cotton Leaf Perforator:

Apply 17 to 34 fl. oz. **Ventas 42% C-LV** per acre. Make initial application when damaging populations begin to build, and continue on a 6- to 8-day schedule, depending on insect pressure.

### ***Lygus hesperus* (early season):**

Apply 13 to 26 fl. oz. **Ventas 42% C-LV** per acre. Begin applications before damaging populations begin to build. For best results, apply on a 6- to 8-day spray interval, depending on insect pressure. If moderate to high insect pressure exists or when applying alone by air use a minimum rate of 26 fl. oz. **Ventas 42% C-LV** per acre. Targeted insects that migrate into the treated area following application may not be controlled.

### ***Lygus hesperus* (mid to late season):**

Apply 26 to 34 fl. oz. **Ventas 42% C-LV** per acre. Begin applications before damaging populations begin to build. For best results, apply on a 6- to 8-day spray interval, depending on insect pressure. If moderate to high insect pressure exists or when applying alone by air use 34 fl. oz. **Ventas 42% C-LV** per acre. Targeted insects that migrate into the treated area following application may not be controlled.

### **Pink Bollworm (early season):**

Apply 13 to 26 fl. oz. **Ventas 42% C-LV** per acre - targeted at adults (moths). Begin early season treatments (pinhead square programs) just prior to first susceptible squares and before damaging populations begin to build. For best results, apply 2 to 3 applications on a 6- to 8-day interval, depending on insect pressure. If moderate to high insect pressure exists or when applying alone by air use a minimum rate of 17 fl. oz. **Ventas 42% C-LV** per acre. For best results, use cottonseed oil or vegetable oil when treating for pink bollworm moths. For best results on nocturnal moths make night time applications.

### **Pink Bollworm (mid to late season):**

Apply 17 to 34 fl. oz. **Ventas 42% C-LV** per acre - targeted at adults (moths). Begin mid to late season treatments before damaging populations begin to build. For best results, apply on a 6- to 8-day interval, depending on insect pressure. For best results, use cottonseed oil or vegetable oil when treating for pink bollworm moths. For best results on nocturnal moths make night time applications.

### **Thrips: Western Flower (early season) (suppression only):**

Apply 8.5 to 17 fl. oz. **Ventas 42% C-LV** per acre to provide supplemental control of western flower thrips. Begin applications before damaging populations begin to build. Make applications as a broadcast or band treatment in sufficient water to obtain thorough coverage (minimum 10 GPA ground and 5 GPA by air). All **Ventas 42% C-LV** applications must follow a previous at-plant insecticide treatment that has contact or systemic activity on western flower thrips. For best results, apply on a 6- to 8-day spray interval, depending on insect pressure.

### **Whitefly:**

Apply 17 to 34 fl. oz. **Ventas 42% C-LV** per acre. Always apply **Ventas 42% C-LV** as tank-mix combinations with a registered whitefly adulticide. For best results, apply on a 7- to 14-day spray interval, depending on insect pressure and rates used.

### **RESTRICTIONS**

Do not apply more than 102 fl. oz. (3 lb. a.i.) **Ventas 42% C-LV** per acre per growing season.

Do not make more than 8 applications per season.

Applications to cotton by handwand or soil broadcast are prohibited.

Do not apply within 14 days of harvest. Do not graze or feed treated cotton to livestock.

## **COTTON (CALIFORNIA)**

Apply **Ventas 42% C-LV** by air or ground application equipment in sufficient water to obtain thorough coverage (minimum 5 gallons by air or 10 gallons by ground). For best results, buffer the spray solution to < pH 7.

### ***Lygus hesperus* (early season):**

Apply 26 to 34 fl. oz. **Ventas 42% C-LV** per acre. Begin applications before damaging populations begin to build. For best results, apply on a 6- to 8-day spray interval, depending on insect pressure. If moderate to high insect pressure exists or when applying by air use 34 fl. oz. **Ventas 42% C-LV** per acre. Targeted insects that migrate into the treated area following application may not be controlled.

### ***Lygus hesperus* (mid to late season):**

Apply 30 to 34 fl. oz. **Ventas 42% C-LV** per acre. Begin applications before damaging populations begin to build. For best results, apply on a 6- to 8-day spray interval, depending on insect pressure. If moderate to high insect pressure exists or when applying by air use 34 fl. oz. **Ventas 42% C-LV** per acre. Targeted insects that migrate into the treated area following application may not be controlled.

### **Thrips: Western Flower (early season) (suppression only):**

Apply 8.5 to 17 fl. oz. **Ventas 42% C-LV** per acre to provide supplemental control of western flower thrips. Begin applications before damaging populations begin to build. Make applications as a broadcast or band treatment in sufficient water to obtain thorough coverage (minimum 10 GPA ground and 5 GPA by air). All **Ventas 42% C-LV** applications must follow a previous at-plant insecticide treatment that has contact or systemic activity on western flower thrips. For best results, apply on a 6- to 8-day spray interval, depending on insect pressure.

### **RESTRICTIONS**

Do not apply more than 102 fl. oz. (3 lb. a.i.) **Ventas 42% C-LV** per acre per growing season.

Do not make more than 8 applications per season.

Applications to cotton by handwand or soil broadcast are prohibited.

Do not apply within 14 days of harvest. Do not graze or feed treated cotton to livestock.

## **PEANUTS (NOT REGISTERED FOR USE IN CALIFORNIA)**

**Root Knot (except Javanese), Sting, Ring, Lesion Nematodes, and Thrips**

### **At-Plant Soil Treatment:**

Apply 34 to 68 fl. oz. of **Ventas 42% C-LV** in a 7-inch band immediately behind the planter in a minimum of 10 gallons of water per acre. Use the highest rate for severe infestations. Incorporate the band application at least 2 inches into the soil either by placing it in-furrow or by using mechanical means.

### **Foliar Ground or Aerial Treatment:**

Foliar applications of **Ventas 42% C-LV** are to be used only following soil fumigation, or following preplant or at planting soil application of **Ventas 42% C-LV** or other contact nematicides. Apply 17 fl. oz. **Ventas 42% C-LV** per acre as a band or broadcast spray beginning at 14- to 28-days following peanut emergence. Make a second application of 17 fl. oz. **Ventas 42% C-LV** per acre 14 days later. If needed, two additional applications of 17 fl. oz. **Ventas 42% C-LV** per acre can be made on a 14 days application schedule. Apply in sufficient water to obtain thorough plant coverage (minimum 8 GPA ground and 5 GPA air). For band applications, use proportionately less material based on row spacing and band width applied.

### **RESTRICTIONS**

Do not apply more than 136 fl. oz. (4 lb. a.i.) **Ventas 42% C-LV** per acre per season.

Do not make more than 5 applications per season.

## **POTATOES**

**(In all states EXCEPT AL, AR, FL, GA, KS, LA, MS, NC, OK, SC, and TX except the Rio Grande Valley of TX)\* \*The Rio Grande Valley of TX may follow these instructions.**

The Rio Grande Valley is defined to include the following counties: Brewster, Crane, Crockett, Culberson, El Paso, Hudspeth, Jeff Davis, Kinney, Loving, Maverick, Pecos, Presidio, Reeves, Starr, Sutton, Terrell, Upton, Val Verde, Ward, Webb, Winkler, and Zapata.

For AL, AR, FL, GA, KS, LA, MS, NC, OK, SC and TX (except the Rio Grande Valley of Texas), see state specific use directions.

## FOLIAR PESTS

**For the Control of Aphids, Colorado Potato Beetle, Flea Beetles, Potato Leafhopper, Tarnished Plant Bug and Two-spotted Spider Mites (suppression):**

### Foliar Ground, Chemigation or Aerial Treatments:

For aphids, flea beetle, potato leafhopper and tarnished plant bug, use 17 to 34 fl. oz. of **Ventas 42% C-LV** per acre. For Colorado potato beetle, use 8.5 to 34 fl. oz. of **Ventas 42% C-LV** per acre. For two-spotted spider mite suppression, use 34 fl. oz. of **Ventas 42% C-LV** per acre.

Apply when insects first appear. Repeat at specified intervals if needed to maintain control. Use a low rate for light infestations and a high rate for severe infestations. Use at least 7 gallons of water per acre for aerial application. For best results, in areas with high temperature and low humidity conditions, use 10 gallons of water per acre for aerial. For overhead chemigation applications, use a higher rate of **Ventas 42% C-LV**. The recommended maximum water volumes for the overhead chemigation applications are 0.1 to 0.2 acre inches of water. Buffer the chemigation injection solution to a pH of approximately 5.

### Colorado Potato Beetle:

When making applications to potatoes using overhead sprinkler chemigation for the control of Colorado Potato Beetle, use 34 fl. oz. per acre at a 5- to 7-day intervals.

### Aphids:

**Ventas 42% C-LV** works best by treating before aphid populations start to build early in the season. At-planting treatments of systemic aphicides followed mid-season by **Ventas 42% C-LV**, applied before the previous treatment starts to breakdown, have provided the best season-long control. To maintain control, apply **Ventas 42% C-LV** on a 14-day schedule where aphid pressure is high. Where aphid pressure is low to moderate, apply on an application schedule not to exceed 21 days.

### Two-spotted Spider Mite:

The suppression of two-spotted spider mite populations results from the combined effects of maintaining adequate populations of beneficial insects and the use of **Ventas 42% C-LV**. Mite suppression can be compromised by the use of other insecticides that are harmful to beneficials or by movement of mites coming in from adjacent fields. Apply **Ventas 42% C-LV** before mite populations start to build. Retreat on a 7 to 14 days schedule. If mite populations continue to build, switch to a miticide with a different mode-of-action.

## SOIL PESTS

**Suppression of Root Knot (except Javanese), Sting, Lesion and Stubby Root Nematodes:**

### Nematodes:

For the suppression of root knot (except Javanese), sting, lesion and stubby root nematodes by ground or overhead chemigation applications.

When used as directed, **Ventas 42% C-LV** suppresses nematode populations resulting in reduced crop damage. Nematode suppression is defined as a reduction in nematode related crop injury compared to untreated. **Ventas 42% C-LV** performance is related to nematode population pressure. Treat fields that have high nematode counts or have a recent history of significant nematode related crop injury with the most effective soil fumigant program available in conjunction with the use of **Ventas 42% C-LV**. See root knot, stubby root and sting nematode guidance on treatment of specific nematode populations in the sections below.

Base nematode control programs on soil samples taken with sufficient time to apply a soil fumigant if determined to be necessary. Consider fall sampling for nematodes since fumigation performance is often optimal in the fall.

For maximum crop protection, use a pre-plant fumigant, shanked-in, then follow with the recommended **Ventas 42% C-LV** treatment program.

Use foliar applications by ground equipment only where it is not possible to apply by chemigation. When ground applications are used, incorporate **Ventas 42% C-LV** with enough irrigation water to completely cover all of the tubers in the hill immediately

after application. Because ground applications are not as effective as chemigation, nematode damage may occur.

For overhead chemigation applications, use enough irrigation water to completely cover the entire tuber/root zone, especially tubers at the bottom of the hill. On sandy soil types, use approximately 0.5 inches of irrigation water. With center pivot or other moving irrigation systems, **Ventas 42% C-LV** may be applied with lower amounts of water (0.1 to 0.2 acre inch) providing this application is immediately followed by a standard irrigation so that the total amount of water applied is approximately 0.5 inches. For solid set and wheel-line systems, inject the appropriate amount of **Ventas 42% C-LV** at the beginning of the irrigation cycle and adjust metering rate so that all of the **Ventas 42% C-LV** is applied during the first half of the irrigation cycle.

Buffer the **Ventas 42% C-LV** injection solution to a pH of 5 or lower. Phosphoric acid or N-phurric fertilizer solutions may also be used to buffer high pH irrigation water used with **Ventas 42% C-LV** applications.

### At-Plant In-Furrow Soil Treatment:

For maximum suppression of nematodes, an at-plant soil application is recommended as the first application. When making an at-plant soil application for suppression of nematodes, use 34 to 68 fl. oz. of **Ventas 42% C-LV** per acre in at least 20 gallons water per acre. Apply **Ventas 42% C-LV** as a concentrated band spray in the seed row with the spray nozzle positioned behind the planter tube. Adjust nozzle height to produce a spray pattern that is 6- to 8-inches wide covering the bottom and sides of the furrow. Incorporate **Ventas 42% C-LV** application at least 2 inches deep.

### Root Knot Nematode Treatment Options:

The use of **Ventas 42% C-LV** in potatoes for suppression of nematodes is based on the life cycle of the Columbia root knot nematode as defined by university nematologists. A degree-day model has been developed to track nematode development. In order to properly time certain **Ventas 42% C-LV** applications, you must have access to degree-day data for your area.

### Treatment Options Based on Nematode Populations in the Columbia Basin of Oregon and Washington:

For maximum crop protection, use a pre-plant fumigant, shanked-in, and follow the recommended **Ventas 42% C-LV** treatment program.

**Note:** For best results, make all applications other than in-furrow via chemigation.

**Where pre-plant soil samples show 0 to 50 root knot nematodes per 250 cc of soil, choose one of these two treatment programs:**

BEST TREATMENT PROGRAM
34 – 68 fl. oz./A in-furrow at planting
34 fl. oz./A at crop emergence
34 fl. oz./A at 1440 degree-days F (800 DD C)
34 fl. oz./A 14 days later
Continue applying 34 fl. oz./A every 14 days until 7 days before digging.
ALTERNATE TREATMENT PROGRAM
Skip in-furrow
34 fl. oz./A at crop emergence
34 fl. oz./A at 1440 degree-days F (800 DD C)
34 fl. oz./A 14 days later
Continue applying 34 fl. oz./A every 14 days until 7 days before digging.



**Where pre-plant soil samples are greater than 50 but not more than 150 root knot nematodes per 250 cc of soil:**

Start with a fumigant that is applied pre-plant using a soil injection (shank) system.
34 – 68 fl. oz./A in-furrow at planting
34 fl. oz./A at crop emergence
34 fl. oz./A at 1440 degree-days F (800 DD C)
34 fl. oz./A 7 days later
34 fl. oz./A 7 days later
34 fl. oz./A 14 days later
Continue applying every 14 days until 7 days before digging.

**Treatment Options Based on Root Knot Nematode Populations in All Other Areas:**

Where pre-plant soil samples are 0 to 150 per 250 cc of soil, choose one of these treatment programs based on pre-plant soil nematode counts. Use the **FOR MAXIMUM PROTECTION** program for high nematode counts (close to but not exceeding 150 nematodes per 250 cc of soil) and the **ALTERNATE PROGRAM** for low counts (close to zero nematodes per 250 cc of soil):

<b>FOR MAXIMUM PROTECTION</b>
Shanked-in fumigant pre-plant
34 – 68 fl. oz./A in-furrow at planting
34 fl. oz./A at 1440 degree-days F (800 DD C)
34 fl. oz./A 14 days later
Continue applying 34 fl. oz./A every 14 days until 7 days before digging.
<b>NEXT BEST PROGRAM</b>
34 – 68 fl. oz./A in-furrow at planting
34 fl. oz./A at 1440 degree-days F (800 DD C)
34 fl. oz./A 14 days later
Continue applying 34 fl. oz./A every 14 days until 7 days before digging.
<b>ALTERNATE PROGRAM</b>
34 fl. oz./A at 1440 degree-days F (800 DD C)
34 fl. oz./A 14 days later
Continue applying 34 fl. oz./A every 14 days until 7 days before digging.

**Potatoes Following Alfalfa:**

For potatoes planted following alfalfa, for best results use the **FOR MAXIMUM PROTECTION** program outlined in the table above. Alfalfa roots can harbor large number of root knot nematode eggs that will not show up during soil sampling. This can underestimate the true nematode population levels. Under these conditions, nematode related crop damage could occur even with the best treatment program. For best results, disc alfalfa roots thoroughly and allow as much time as possible for the alfalfa roots to break down before starting the **FOR MAXIMUM PROTECTION** program.

**IMPORTANT:** For long season potatoes, it is important to estimate the number of applications needed to protect the crop up until the pre-harvest interval of 7 days

before digging. Assure that you will have enough **Ventas 42% C-LV** to cover the entire growing season. **The use of Ventas 42% C-LV is not recommended where root knot nematode counts are higher than 150 per 250 cc of soil or where the total estimated amount of product needed to protect the crop right up to harvest exceeds the seasonal use rate in potatoes.**

**Lesion, Sting and Stubby Root Nematode Treatment Programs:**

There are no population limitations for using **Ventas 42% C-LV** against lesion nematodes. For stubby root and sting nematodes, **Ventas 42% C-LV** can be used where soil samples indicate 0 to 50 per 250 cc of soil. Use a shanked-in fumigant followed by a **Ventas 42% C-LV** treatment program if stubby root and sting populations are higher than 50 per 250 cc of soil.

Choose one of these two treatment options:

<b>BEST TREATMENT PROGRAM</b>
In-furrow at 34 fl. oz./A at planting
34 fl. oz./A at crop emergence prior to tuber initiation (hooking)
34 fl. oz./A 14 days later
34 fl. oz./A 14 days later
34 fl. oz./A 14 days later
<b>ALTERNATE TREATMENT PROGRAM</b>
Skip in-furrow
34 fl. oz./A at crop emergence prior to tuber initiation (hooking)
34 fl. oz./A 14 days later
34 fl. oz./A 14 days later
34 fl. oz./A 14 days later

**Note:** For best results, make all applications other than in-furrow via chemigation.

**Important:** Applications made after tuber initiation may not control corky ringspot disease that is vectored by the stubby root nematode. If a field has a history of corky ringspot or if there is reason to believe that corky ringspot could be a problem, use the labeled rate of a shanked-in fumigant and follow with the treatment program that starts with an in-furrow application.

**RESTRICTIONS: For all uses of Ventas 42% C-LV on potatoes:**

**In the Rio Grande Valley of Texas as specified above and all states except, AL, AR, CT, DE, FL, GA, KS, LA, MA, MD, ME, MS, NC, NH, NJ, NY, OK, PA, RI, SC, TX, VA and VT:**

Do not apply more than 2.4 gallons (306 fl. oz.) (9 lb. a.i.) **Ventas 42% C-LV** per acre per season.

Do not make more than 8 applications of **Ventas 42% C-LV** per crop.

Last application (days to harvest) = 7 days.

**In CT, DE, MA, MD, ME, NH, NJ, NY, PA, RI, VA & VT:**

Do not apply more than 1.6 gallons (204 fl. oz.) (6 lb. a.i./A) of **Ventas 42% C-LV** per season.

Do not make more than 8 applications of **Ventas 42% C-LV** per crop.

Last application (days to harvest) = 7 days.

See next section for seasonal use rates in **AL, AR, FL, GA, KS, LA, MS, NC, OK, SC and TX** (outside the Rio Grande Valley).

## POTATOES

(AL, AR, FL, GA, KS, LA, MS, NC, OK, SC, and TX, except the Rio Grande Valley of Texas)

### FOLIAR PESTS

#### For the Control of Aphids, Colorado Potato Beetle, Flea Beetles, Potato Leafhopper, Tarnished Plant Bug and Two-spotted Spider Mites (suppression):

The Rio Grande Valley is defined to include the following counties: Brewster, Crane, Crockett, Culberson, El Paso, Hudspeth, Jeff Davis, Kinney, Loving, Maverick, Pecos, Presidio, Reeves, Starr, Sutton, Terrell, Upton, Val Verde, Ward, Webb, Winkler, and Zapata.

#### Foliar Ground, Chemigation or Aerial Treatments:

For aphids, flea beetle, potato leafhopper and tarnished plant bug, use 17 to 34 fl. oz. of **Ventas 42% C-LV** per acre. For Colorado potato beetle, use 8.5 to 34 fl. oz. of **Ventas 42% C-LV** per acre. For two-spotted spider mite suppression, use 34 fl. oz. of **Ventas 42% C-LV** per acre.

Apply when insects first appear. Repeat as needed to maintain control. Minimum application interval is 14 days. Apply another effective product if an application is necessary before the 14 day application interval is reached. Use a low rate for light infestations and a high rate for severe infestations. Use at least 7 gallons of water per acre for aerial application. For best results, in areas with high temperature and low humidity conditions, use 10 gallons of water per acre for aerial. For overhead chemigation applications, use a higher rate of **Ventas 42% C-LV**. The recommended maximum water volumes for the overhead chemigation applications are 0.1 to 0.2 acre inches of water. Buffer the chemigation injection solution to a pH of approximately 5.

#### Colorado Potato Beetle:

When making applications to potatoes using overhead sprinkler chemigation for the control of Colorado potato beetle, use 34 fl. oz. per acre.

#### Aphids:

**Ventas 42% C-LV** works best by treating before aphid populations start to build early in the season. At-planting treatments of systemic aphicides followed mid-season by **Ventas 42% C-LV**, applied before the previous treatment starts to breakdown, have provided the best season-long control. To maintain control, apply **Ventas 42% C-LV** on a 14-day schedule where aphid pressure is high. Where aphid pressure is low to moderate, apply on an application schedule not to exceed 21 days.

#### Two-spotted Spider Mite:

The suppression of two-spotted spider mite populations results from the combined effects of maintaining adequate populations of beneficial insects and the use of **Ventas 42% C-LV**. Mite suppression can be compromised by the use of other insecticides that are harmful to beneficials or by movement of mites coming in from adjacent fields.

Apply **Ventas 42% C-LV** before mite populations start to build. Retreat on a 14-day schedule. If mite populations continue to build, switch to a miticide with a different mode-of-action.

## SOIL PESTS

### Suppression of Root Knot (except Javanese), Sting, Lesion and Stubby Root Nematodes:

#### Nematodes:

For the suppression of root knot (except Javanese), sting, lesion and stubby root nematodes by ground or overhead chemigation applications.

When used as directed, **Ventas 42% C-LV** suppresses nematode populations resulting in reduced crop damage. Nematode suppression is defined as a reduction in nematode related crop injury compared to untreated. **Ventas 42% C-LV** performance is related to nematode population pressure. Treat fields that have high nematode counts or have a recent history of significant nematode related crop injury with the most effective soil fumigant program available in conjunction with the use of **Ventas 42% C-LV**. See root knot, stubby root and sting nematode guidance on treatment of specific nematode populations in the sections below.

Base nematode control programs on soil samples taken with sufficient time to apply a soil fumigant if determined to be necessary. Consider fall sampling for nematodes since fumigation performance is often optimal in the fall.

For maximum crop protection, use a pre-plant fumigant, shanked-in, then follow with the recommended **Ventas 42% C-LV** treatment program.

Use foliar applications by ground equipment only where it is not possible to apply by chemigation. When ground applications are used, incorporate **Ventas 42% C-LV** with enough irrigation water to completely cover all of the tubers in the hill immediately after application. Because ground applications are not as effective as chemigation, nematode damage may occur.

For overhead chemigation applications; use enough irrigation water to completely cover the entire tuber/root zone, especially tubers at the bottom of the hill. On sandy soil types, use approximately 0.5 inches of irrigation water. With center pivot or other moving irrigation systems, **Ventas 42% C-LV** may be applied with lower amounts of water (0.1 to 0.2 acre inch) providing this application is immediately followed by a standard irrigation so that the total amount of water applied is approximately 0.5 inches. For solid set and wheel-line systems, inject the appropriate amount of **Ventas 42% C-LV** at the beginning of the irrigation cycle and adjust metering rate so that all of the **Ventas 42% C-LV** is applied during the first half of the irrigation cycle.

Buffer the **Ventas 42% C-LV** injection solution to a pH of 5 or lower. Phosphoric acid or N-phurric fertilizer solutions may also be used to buffer high pH irrigation water used with **Ventas 42% C-LV** applications.

#### At-Plant In-Furrow Soil Treatment:

For maximum suppression of nematodes, an at-plant soil application is recommended as the first application. When making an at-plant soil application for suppression of nematodes, use 34 to 68 fl. oz. of **Ventas 42% C-LV** per acre in at least 20 gallons water per acre. Apply **Ventas 42% C-LV** as a concentrated band spray in the seed row with the spray nozzle positioned behind the planter tube. Adjust nozzle height to produce a spray pattern that is 6 to 8 inches wide covering the bottom and sides of the furrow. Incorporate **Ventas 42% C-LV** application at least 2 inches deep.

#### Root Knot Nematode Treatment Options:

The use of **Ventas 42% C-LV** in potatoes for suppression of nematodes is based on the life cycle of the Columbia root knot nematode as defined by university nematologists. A degree-day model has been developed to track nematode development. In order to properly time certain **Ventas 42% C-LV** applications, you must have access to degree-day data for your area.

## Treatment Options Based on Root Knot Nematode Populations:

Where pre-plant soil samples are 0 to 150 per 250 cc of soil, choose one of these treatment programs based on pre-plant soil nematode counts. Use the **FOR MAXIMUM PROTECTION** program for high nematode counts (close to but not exceeding 150 nematodes per 250 cc of soil) and the **ALTERNATE PROGRAM** for low counts (close to zero nematodes per 250 cc of soil):

<b>FOR MAXIMUM PROTECTION</b>
Shanked-in fumigant pre-plant
34 – 68 fl. oz./A in-furrow at planting
34 fl. oz./A at 1440 degree-days F (800 DD C)
34 fl. oz./A 14 days later
Make two more applications at 34 fl. oz./A 14 days apart.
<b>NEXT BEST PROGRAM</b>
34 – 68 fl. oz./A in-furrow at planting
34 fl. oz./A at 1440 degree-days F (800 DD C)
34 fl. oz./A 14 days later
Make two more applications at 34 fl. oz./A 14 days apart.
<b>ALTERNATE PROGRAM</b>
34 fl. oz./A at 1440 degree-days F (800 DD C)
34 fl. oz./A 14 days later
Make two more applications at 34 fl. oz./A 14 days apart.

## Potatoes Following Alfalfa:

For potatoes planted following alfalfa, for best results use the **FOR MAXIMUM PROTECTION** program outlined in the table above. Alfalfa roots can harbor large number of root knot nematode eggs that will not show up during soil sampling. This can underestimate the true nematode population levels. Under these conditions, nematode related crop damage could occur even with the best treatment program. For best results, disc alfalfa roots thoroughly and allow as much time as possible for the alfalfa roots to break down before starting the **FOR MAXIMUM PROTECTION** program.

**IMPORTANT:** This **Ventas 42% C-LV** nematode program may not provide adequate protection for long season potatoes. Consider an alternate nematode control program. **The use of Ventas 42% C-LV is not recommended where root knot nematode counts are higher than 150 per 250 cc of soil.**

## Lesion, Sting and Stubby Root Nematode Treatment Programs:

There are no population limitations for using **Ventas 42% C-LV** against lesion nematodes. For stubby root and sting nematodes, **Ventas 42% C-LV** can be used where soil samples indicate 0 to 50 per 250 cc of soil. Use a shanked-in fumigant followed by a **Ventas 42% C-LV** treatment program if stubby root and sting populations are higher than 50 per 250 cc of soil.

Choose one of these two treatment options:

<b>BEST TREATMENT PROGRAM</b>
In-furrow at 34 fl. oz./A at planting
34 fl. oz./A at crop emergence prior to tuber initiation (hooking)
34 fl. oz./A 14 days later
34 fl. oz./A 14 days later
34 fl. oz./A 14 days later
<b>ALTERNATE TREATMENT PROGRAM</b>
Skip in-furrow
34 fl. oz./A at crop emergence prior to tuber initiation (hooking)
34 fl. oz./A 14 days later
34 fl. oz./A 14 days later
34 fl. oz./A 14 days later

**Note:** For best results, make all applications other than in-furrow via chemigation.

**Important:** Applications made after tuber initiation may not control corky ringspot disease that is vectored by the stubby root nematode. If a field has a history of corky ringspot or if there is reason to believe that corky ringspot could be a problem, use the labeled rate of a shanked-in fumigant and follow with the treatment program that starts with an in-furrow application.

## RESTRICTIONS

For all uses of **Ventas 42% C-LV** on potatoes in the states of **AL, AR, FL, GA, KS, LA, MS, NC, OK, SC and TX (except the Rio Grande Valley of TX):**

Do not apply more than 1.6 gallons (204 fl. oz.) (6 lb. a.i./A) of **Ventas 42% C-LV** per season.

Do not make more than 4 foliar applications of **Ventas 42% C-LV** per crop.

Minimum application interval is 14 days.

Last application (days to harvest) = 7 days

## TOBACCO

### Root Knot (except Javanese) and Lesion Nematodes and Flea Beetles

#### Soil Treatment:

**Ventas 42% C-LV** may be applied to the soil as a band treatment or it may be broadcast, disced, and bedded. For best results, transplant the tobacco within 24 hours after soil treatment.

#### Row Treatment:

Apply 68 fl. oz. **Ventas 42% C-LV** in an 18 to 24-inch band in a minimum of 20 gallons of water per acre of tobacco (12,000 row feet). Thoroughly incorporate with a rotary tiller to a depth of 4 to 6 inches.

#### Broadcast and Bed Treatment:

Apply a broadcast spray of 68 fl. oz. per acre in a minimum of 40 gallons of water. Thoroughly incorporate to a depth of 4 to 6 inches and bed the field in such a manner that only treated soil is used to form the beds.

#### RESTRICTION

Do not apply more than 68 fl. oz. **Ventas 42% C-LV** per acre per season.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Do not subject to temperatures below 32°F. Store product in original container only at temperatures of 45°F or higher. Not for use or storage in or around the home.

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

### CONTAINER HANDLING:

**Nonrefillable ≤ 5 Gallons:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. 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, or, by other procedures allowed by state and local authorities.

## LIMITATION OF WARRANTY AND LIABILITY

**IMPORTANT: READ BEFORE USE.** Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of ATTICUS, LLC. All such risks shall be assumed by the user or buyer.

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