U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

NOTICE OF PESTICIDE:
_X_ Registration
___ Reregistration
(under FIFRA, as amended)

| EPA Reg. Number: | Date of Issuance: |
|---|---|
| 83100-52 | 10/06/17 |

**Term of Issuance:**
Conditional

**Name of Pesticide Product:**
Oxamyl 42% SL

**Name and Address of Registrant (include ZIP Code):**

James Wagner, Agent
Rotam Limited
c/o Wagner Regulatory Associates
PO Box 640
7217 Lancaster Pike, Suite A
Hockessin, Delaware 19707

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

**Signature of Approving Official:**

Michael Walsh, Product Manager 11
Invertebrate & Vertebrate Branch #2
Registration Division (7505P)

**Date:**
10/06/17

2. You are required to comply with the data requirements described in the DCI identified below:

    a. Oxamyl GDCI-103801

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

3. Make the following label changes before you release the product for shipment:

    - Revise the EPA Registration Number to read, "EPA Reg. No. 83100-52."

4. Submit one copy of the final printed label for the record before you release the product for shipment.

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

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated November 21, 2016

If you have any questions, please contact Carlyn Petrella by phone at 703-347-0439, or via email at petrella.carlyn@epa.gov.

Enclosure

**RESTRICTED USE PESTICIDE**
Due to Acute Toxicity to Humans 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.

| GROUP | 1A | INSECTICIDE |
|---|---|---|

# Oxamyl 42% SL

## INSECTICIDE/NEMATICIDE

***A water soluble liquid (SL) - 1 gal. contains 3.77 lbs. Active Ingredient.***

| **ACTIVE INGREDIENT:** | **BY WT.** |
|---|---|
| Oxamyl<br>Methyl N'N'-dimethyl-N-[(methylcarbamoyl)oxy]-1-thiooxamimidate | 42.0% |
| **OTHER INGREDIENTS:** | 58.0% |
| **TOTAL:** | **100.0%** |

Contains Methanol

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

## POISON/VENENO

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

ACCEPTED
10/06/2017
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 83100-52

| **FIRST AID** | |
|---|---|
| Contains an N-methyl carbamate that inhibits cholinesterase. | |
| **IF SWALLOWED:** | • Call a poison control center or doctor immediately for treatment advice.<br>• Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger.<br>• Do not induce vomiting or give anything by mouth to an unconscious person. |
| **IF INHALED:** | • Move person to fresh air.<br>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.<br>• Call a poison control center or doctor for further treatment advice. |
| **IF ON SKIN OR CLOTHING:** | • Take off contaminated clothing.<br>• Rinse skin immediately with plenty of water for 15-20 minutes.<br>• Call a poison control center or doctor for treatment advice. |
| **IF IN EYES:** | • Hold eye open and rinse slowly and gently with water for 15-20 minutes.<br>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.<br>• Call a poison control center or doctor for treatment advice. |

**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, 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 recovery is assured. Do not use 2-PAM for exposure to Oxamyl 42% SL alone. However, for exposure to combinations of Oxamyl 42% SL and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine.

**HOT LINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For 24-Hour Medical Emergency Assistance (Human or Animal), call: **1-800-222-1222**. For Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), call CHEMTREC: **1-800-424-9300**.

[{Note to PM: The First Aid box will appear on the front panel as required.} See inside booklet for additional [complete] Precautionary Statements and Directions For Use.]

**Manufactured For:**
Rotam Agrochemical Co. Ltd.
26/F, E-Trade Plaza
24 Lee Chung Street
Chai Wan, Hong Kong

**EPA Reg. No.: 83100-LE**
**EPA Est. No.:**

**Net Contents:**

# PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS & DOMESTIC ANIMALS

## DANGER/POISON

Fatal if swallowed. May be fatal if inhaled. Do not breathe vapor or spray mist. Harmful if absorbed through the skin. Avoid contact with skin, eyes, or clothing. 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. Contains methanol which may cause blindness.

### 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, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils or Viton ≥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).

See **ENGINEERING CONTROL STATEMENTS** for additional requirements.

Discard clothing or 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, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils or Viton ≥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. If pesticide gets on skin, wash immediately with soap and water.
- 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 apply applications with this product or allow to drift to blooming crops or weeds if bees are foraging the treatment area.

**GROUND WATER ADVISORY**

Residues of **Oxamyl 42% SL** can seep or leach through soil and can contaminate ground water which may be used for drinking. Users are advised not to apply **Oxamyl 42% SL** 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 AND CHEMICAL HAZARDS**

Combustible. Do not use or store near heat or open flame. Keep container closed. Use with adequate ventilation. Do not mix or allow coming in contact with oxidizing agent or reducing agents. Hazardous chemical reaction may occur.

# 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.

**Oxamyl 42% SL** must only be used in accordance with directions on its labeling.

Rotam Agrochemical Co. Ltd. will not be responsible for damages or losses that result from use of this product in a manner that is inconsistent with this labeling. User assumes all responsibility and risks associated with such uses.

**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.**

The following PPE is required for early entry into 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:

- Coveralls
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils or Viton ≥14 mils
- Shoes and socks

**Product Information**

**Oxamyl 42% SL** is a water-soluble liquid insecticide product to be diluted with water. **Oxamyl 42% SL** may also be mixed with refined vegetable oil for cotton applications, only.

**Use Restrictions**

- Do not use in the following counties in New York: Suffolk and Nassau
- Seed piece treatments are prohibited.
- Do not use in home or residential uses. For use only in commercial and farm plantings.

See the **Directions For Use** for each crop for additional restrictions.

See the **Compatibility** section for tank mixing precautions.

**Use Precautions**

- As listed in the **CROP DIRECTIONS FOR USE** section of this label - areas of the Rio Grande Valley include: 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 counties.
- All soil applied treatments must be incorporated immediately after application to a depth of at least 2 inches by water or mechanical means. **Oxamyl 42% SL** should be placed in the root zone of the plant for best results. Use sufficient water to move the treatment of **Oxamyl 42% SL** at least 2 inches deep into the soil, if irrigation water is being used. Do not irrigate to point of runoff.

**Resistance Management**
**Oxamyl 42% SL** is a group 1A insecticide. Repeated use of **Oxamyl 42% SL** or other group 1A insecticides may lead to the development of resistance in some insect species. Not all products classified as group 1A insecticide have been shown to be cross-resistant. There are different mechanisms of resistance that are not linked to target site of action, for example, enhanced metabolism that are common for this group of chemicals. Because insects are known to develop resistance to products that are used repeatedly for control, it is recommended that you implement a resistance management and integrated pest management program. Consult with your local agriculture experts to determine the program that is appropriate for your specific situation. For additional information on insect resistance monitoring, visit the Insecticide Resistance Action Committee (IRAC) on the web at: http://www.irac-online.org

Alternating applications from different products that are classified in group 1 sub-groups is a suitable integrated pest management program practice.

**Integrated Pest Management**
Integrate **Oxamyl 42% SL** into an overall pest management strategy whenever the use of an insecticide is required. Practices known to aid in pest management include scouting, proper pest identification and proper application timing and should be followed wherever possible. Consult local agricultural or insect control experts for additional IPM strategies established for your area and to understand treatment thresholds and application timing for your area.

**Crop Rotation and Plant Backs**
Do not plant crops other than those that are registered for use with **Oxamyl 42% SL** within 4 months after the last application. Cover crops that are planted to build the soil or for erosion control may be planted at any time, but DO NOT graze or harvest for food or feed.

## APPLICATION INFORMATION

Apply treatment at the labeled use rates when insect populations reach locally determined economic thresholds. Consult your local cooperative extension office or qualified expert to determine appropriate threshold levels for treatments for your area.

If needed, follow-up applications of **Oxamyl 42% SL**, may be applied to keep pest populations within threshold limits. The minimum application interval and maximum number of applications for each crop is noted in the crop directions for use section of this label.

**Oxamyl 42% SL** is a liquid formulation that is soluble in water. Once product is mixed in solution, no further agitation is needed in the tank. However, when treatments are made to cotton using oil, maintain agitation in tank. To obtain thorough and uniform coverage, use sufficient water volume.

**Oxamyl 42% SL** applications may be made by ground, air or by using chemigation application equipment. Refer to the crop directions for use section for the application equipment that may be used for each crop.

**SPRAY VOLUMES**
For applications made by ground, use a minimum of 5 gallons per acre (gpa) of water unless otherwise directed in this label. For applications made by air, use a minimum of 2 gallons per acre (gpa) of water unless otherwise directed in this label.

**Adjuvants:** In some cases where coverage may be difficult to obtain (e.g. dense foliage, closed canopy, waxy leaf surfaces) an adjuvant may improve performance.

**SPRAY PREPARATION**
Spray equipment must be clean and free of pesticide deposits before applying treatments of **Oxamyl 42% SL**.

**TANK MIXING AND COMPATIBILITY**
Perform a jar test prior to tank mixing to ensure compatibility of **Oxamyl 42% SL** and other pesticides. Use a clear quart jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately ½ hour. If the mixture settles, balls-up, forms flakes, sludge, gel, oily film or layers, or other precipitates, do not use it because it is not compatible. **Oxamyl 42%SL** is compatible with many commonly used plant protectants; however, do not use with SuperTin, Bordeaux mixtures, lime sulfur or spray oils. Do not use **Oxamyl 42% SL** in mixtures that are highly alkaline. For optimum results, buffer the spray solution to pH between 5 and 7. To prevent decreased product performance, use mixtures that are mildly alkaline immediately after mixing. Do not use in mixtures that are very concentrated. Do not store spray tank mixture overnight.

**SPRAY TANK PREPARATION AND TANK MIXTURES**
For use on cotton, perform a jar test to determine compatibility before mixing large quantities of **Oxamyl 42% SL** in vegetable oil.

1. Mix **Oxamyl 42% SL** and vegetable oil in their relative proportions in a jar. Seal the jar and shake mixture. Allow to stand for 1 to 2 hours.
2. Examine jar to determine if crystals have formed.

3. If no crystals formed, the vegetable oil is compatible for use with **Oxamyl 42% SL**.
4. If crystals formed: prepare the tank mixture using equal volumes of water and **Oxamyl 42% SL**, and reduce the amount of vegetable oil in the final mix by the amount of water added.

Add water to the tank until about ¼ to ½ full. If tank mixing with other products, add products to the spray tank in the sequence listed below. If there are no tank mixture materials, add the appropriate amount of **Oxamyl 42% SL** to the tank. Allow time for complete mixing and dispersion after the addition of each product.

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

While maintaining agitation, fill the remainder of the tank with water. If the tank mixture carrier is water, no further agitation is necessary. When using refined vegetable oil, continuous agitation is required for 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 statement of each product in the tank mix.**

**Sprayer Clean-Up**
Immediately following application of **Oxamyl 42% SL**, 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**
AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of equipment and weather-related factors determine the potential for drift. The applicator is responsible for considering these factors when making an application decision.

**Information on Droplet Size**
The most effective way to reduce spray drift potential is to apply larger droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. 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**

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher rate nozzles 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.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.

**Controlling Droplet Size - Aircraft**
Nozzles must never be pointed downward more than 45 degrees.

- **Number of Nozzles** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **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 ¾ 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 low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

**Temperature Inversions**
Applications 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.)**

**Oxamyl 42% SL** may be used in drip (trickle) or strip tubing irrigation systems for nematode suppression in cotton. Apply treatments of **Oxamyl 42% SL** 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 treatment 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 determined to be uniform. Do not apply treatment of this product through any other type of irrigation system.

- Apply in sufficient water and of sufficient duration such that the labeled rate is applied uniformly to the entire treated area.
- Do not allow irrigation water to pool or run-off during chemigation.
- Do not apply when wind speed favors drift beyond the treatment area.
- Do not apply **Oxamyl 42% SL** while a drip/irrigation line clean out product is being used as product performance may be reduced.
- Adverse crop response, crop injury, reduced product performance, or illegal pesticide residues can result in the crop from distribution of treated water that is not uniform.
- Contact state extension specialists, equipment manufacturers, or other experts if you have questions about equipment calibration.
- 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 **Oxamyl 42% SL** is in the irrigation water.

- When the application is finished, before stopping the system, allow the entire irrigation and injector system to be thoroughly flushed clean.
- Use a pesticide supply tank for the application of **Oxamyl 42% SL** in chemigation systems. For best results, buffer the **Oxamyl 42% SL** 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.
- The maximum chemigation rate for all crops except cotton is 2.0 lbs ai/A per application. For cotton, the maximum chemigation rate is 0.5 lb ai/A per application, except in Arizona and California. In AZ and CA, the maximum application rate for cotton is 1.0 lb ai/A per application.

**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 water-flow and should have no leaks.
2. Irrigate cotton crop in a manner to wet the root zone first, then introduce **Oxamyl 42% SL** for the first ⅔ of the irrigation cycle to distribute the material uniformly to the crop root zone being irrigated. Discontinue use of **Oxamyl 42% SL** long enough to purge the system with fresh water and allow the **Oxamyl 42% SL** to remain in the root zone of the crop.
3. Drip tape placement is critical. **Oxamyl 42% SL** 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 list of crops on this label for specific application use rates and additional application 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 ½ 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.

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

## CROP USE SITES

<table>
<tr><th colspan="4">COTTON - (AS SPECIFIED)<br>Refer to the appropriate table for use directions in your state and apply Oxamyl 42% SL as instructed.</th></tr>
<tr><th colspan="4">COTTON - All States, Except Arizona and California</th></tr>
<tr><th>Crop</th><th>Pest</th><th>Oxamyl 42% SL<br>Application Rate</th><th>Timing and Method</th></tr>
<tr><td rowspan="8">Cotton</td><td>Boll Weevil<br>Cotton Fleahopper<br>Tarnished Plant Bug</td><td>4.25 - 17 fl. oz./A</td><td>Begin applications when damaging populations appear. Apply treatment at 7-day spray intervals, depending on insect pressure.</td></tr>
<tr><td>Cotton Leaf Perforator</td><td>8.5 - 17 fl. oz./A</td><td>Begin applications when damaging populations appear. Apply treatment at 7-day spray intervals, depending on insect pressure.</td></tr>
<tr><td>Lygus Hesperus (Early-Season)</td><td>12.7 - 17 fl. oz./A</td><td>Begin applications before populations reach damaging thresholds. For best results, apply treatment at 7-day spray intervals, depending on insect pressure. Insects that move into the treated area after application may not be controlled.</td></tr>
<tr><td>Lygus Hesperus (Mid- to Late-Season)</td><td>17 fl. oz./A</td><td>Begin applications before populations reach damaging thresholds. For best results, apply treatment at 7-day spray intervals, depending on insect pressure. Insects that move into the treated area after application may not be controlled.</td></tr>
<tr><td>Pink Bollworm (Early-Season)</td><td rowspan="2">12.7 - 17 fl. oz./A</td><td>Begin treatments early in the season (pinhead square program) just before the first susceptible squares and before damaging populations begin to build. For best results, apply 2 to 4 treatments at 7-day intervals, depending on insect pressure.</td></tr>
<tr><td>Pink Bollworm (Mid- to Late-Season)</td><td>Begin treatments before populations reach damaging thresholds. For best results, apply treatment at 7-day spray intervals, depending on insect pressure.</td></tr>
<tr><td>Nematode (Suppression):<br>Lance Nematode<br>(Hoplolaimus spp.)<br>Reniform Nematode<br>(Rotylenchulus reniformis)<br>Root Knot Nematode<br>(Meloidogyne incognita)</td><td colspan="2">Following a pre-plant application of a soil fumigant, an at-plant application of a contact nematicide, or a nematicide seed treatment, apply treatment of Oxamyl 42% SL 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 growth stage. For extended suppression of nematodes, a second foliar or drip treatment may be made 14 days later. Alternatively, a sequential broadcast foliar application of Oxamyl 42% SL can be made at the rate of 8.5 to 17 fl. oz. per acre following a soil fumigant, or a contact nematicide, or a nematicide seed treatment. Apply the first treatment when cotton is in the 2nd to 5th true-leaf growth stage and repeat application at 8.5 to 17 fl. oz. per acre 7- to 14-days later. For banded applications, use proportionately less material based on the row spacing and band width applied. Or as an alternate to sequential broadcast foliar applications; sequential drip applications can be made at a use rate of 17 fl. oz. per acre beginning at the 2nd to 5th true-leaf growth stage and repeated 7-14 days later.<br><br>Refer to the "Drip (Trickle) Chemigation" section of the label for additional information on drip applications.<br><br>To effectively reduce reniform, root knot or lance nematode populations in cotton, applications of Oxamyl 42% SL must follow the pre-plant 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. This Oxamyl 42% SL treatment is restricted to use on</td></tr>
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| | | | |
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| | | low to moderate nematode infestations and is intended to supplement early season nematode suppression from soil fumigant or contact nematicide applications or the use of a nematicide seed treatment. | |
| | Stink Bugs (Brown Stink Bug, Green Stink Bug, Southern Green Stink Bug) | 10.7 - 17 fl. oz./A | Begin applications when stink bugs exceed local population or damaging thresholds. Apply sequential treatments at 7-day intervals as long as stink bug populations or damage exceed local thresholds. |
| | Thrips (*Suppression*):<br>Tobacco Thrips (*Frankliniella fusca*)<br>Onion Thrips (*Thrips tabaci*) | 8.5 - 17 fl. oz./A | Apply treatments as broadcast or band applications in sufficient water volume to obtain thorough coverage (minimum of 8 GPA ground and 5 GPA air). All **Oxamyl 42% SL** applications must follow a previous at-plant insecticide treatment that has contact or systemic activity on tobacco or onion thrips. Begin applications 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. |

**Application Information:**
Apply **Oxamyl 42% SL** by ground in sufficient water volume or by air in sufficient water volume or refined vegetable oil (minimum 3 pints of oil per acre) to obtain thorough coverage and penetration of the cotton canopy. When treatments are made in water, buffer the spray solution to pH less than 7. When applications are made in oil, the aircraft delivery system should be designed to apply droplets with a VMD of 150 to 220 microns. Swath width should not exceed wingspan plus 10 percent. When using hydraulic nozzle systems that are conventional, orient the nozzles 90 degrees to the laminar airflow. Adjust equipment to deliver a uniform spray distribution over the spray swath. Wind conditions and other factors such as temperature and humidity should be assessed and allow for the spray mixture to be delivered to the target area. Maintain continuous agitation during application.

**Restrictions:**
- Do not apply within 14 days of harvest.
- Do not graze or feed treated cotton to livestock.
- Applications by hand-wand or soil broadcast to cotton are prohibited.
- **In all registered states (Except AR, AZ, CA, KS, LA, MS (west of 1-55), OK, and TX) and for MS (east of 1-55):**
  - Do not apply more than 102 fl. oz. (3 lbs. a.i.) of **Oxamyl 42% SL** per acre per growing season.
  - Do not apply more than 8 applications per season.
- **For AR, KS, LA, MS (west of 1-55), OK, and TX:**
  - Do not apply more than 68 fl. oz. (2 lbs. a.i.) of **Oxamyl 42% SL** per acre per growing season.
  - Do not apply more than 4 applications per season.

**COTTON - Arizona**

| Crop | Pest | Oxamyl 42% SL Application Rate | Timing and Method |
|---|---|---|---|
| Cotton | Cotton Leaf Perforator | 17 - 34 fl. oz./A | Begin applications when damaging populations begin to build, and continue at a 6- to 8-day spray interval, depending on insect pressure. |
| | Lygus Hesperus (Early-Season) | 13 - 26 fl. oz./A | Begin applications before populations reach damaging thresholds. For best results, apply treatment at a 6- to 8-day spray interval, depending on insect pressure. If there is moderate to high insect pressure or when applying alone by air use a minimum rate of 26 fl. oz. **Oxamyl 42% SL** per acre. Insects that move into the treated area after application may not be controlled. |
| | Lygus Hesperus (Mid- to Late-Season) | 26 - 34 fl. oz./A | Begin applications before populations reach damaging thresholds. For best results, apply treatment at a 6- to 8-day spray interval, depending on insect pressure. If there is moderate to high insect pressure or when applying alone by air use a minimum rate of 34 fl. oz. **Oxamyl 42% SL** per acre. Insects that move into the treated area after application may not be controlled. |
| | Pink Bollworm (Early-Season) | 13 - 26 fl. oz./A targeted at adults (moths) | Begin treatments early in the season (pinhead square program) just prior to first susceptible squares and before populations reach damaging thresholds. For optimum performance, make 2 to 3 applications at a 6 to 8-day spray interval, |

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| | | | depending on insect pressure. If there is moderate to high insect pressure or when applying alone by air use a minimum rate of 17 fl. oz. **Oxamyl 42% SL** per acre. For optimum performance, use cottonseed oil or vegetable oil when treating for pink bollworm moths. For optimum performance on nocturnal moths, apply at night. |
| | Pink Bollworm (Mid- to Late-Season) | 17 - 34 fl. oz./A targeted at adults (moths) | Begin mid- to late-season applications before populations reach damaging thresholds. For best results, apply treatment at a 6- to 8-day spray interval, depending on insect pressure. For optimum performance, use cottonseed oil or vegetable oil when treating for pink bollworm moths. For optimum performance on nocturnal moths, apply at night. |
| | Thrips (*Suppression*): Western Flower (Early-Season) | 8.5 - 17 fl. oz./A | Begin applications before populations reach damaging thresholds. Apply as a broadcast or band treatment in sufficient water volume to obtain thorough coverage (minimum 10 GPA ground and 5 GPA by air). All **Oxamyl 42% SL** treatments must follow a previous at-plant insecticide treatment that has contact or systemic activity on western flower thrips. For optimum performance, apply treatment at a 6- to 8-day spray interval, depending on insect pressure. |
| | Whitefly | 17 - 34 fl. oz./A | Always apply treatment of **Oxamyl 42% SL** in a tank-mix combination with a registered whitefly adulticide. For optimum performance, apply treatment at a 7- to 14-day spray interval, depending on insect pressure and rates used. |

**Application Information:**
Apply treatment of **Oxamyl 42% SL** by air or ground application equipment in sufficient water volume to obtain thorough coverage (minimum 5 gallons by air or 10 gallons by ground). For optimum performance, buffer the spray solution to <pH 7.

**Restrictions:**
- Do not apply within 14 days of harvest.
- Do not graze or feed treated cotton to livestock.
- Applications by hand-wand or soil broadcast to cotton are prohibited.
- Do not apply more than 102 fl. oz. (3 lbs. a.i.) of **Oxamyl 42% SL** per acre per growing season.
- Do not apply more than 8 applications per season.

**COTTON - California**

| Crop | Pest | Oxamyl 42% SL Application Rate | Timing and Method |
|---|---|---|---|
| Cotton | Lygus Hesperus (Early-Season) | 26 - 34 fl. oz./A | Begin applications before populations reach damaging thresholds. For optimum performance, apply treatment at a 6- to 8-day spray interval, depending on insect pressure. If there is moderate to high insect pressure or when applying alone by air use 34 fl. oz. **Oxamyl 42% SL** per acre. Insects that move into the treated area after application may not be controlled. |
| | Lygus Hesperus (Mid- to Late-Season) | 30 - 34 fl. oz./A | Begin applications before populations reach damaging thresholds. For optimum performance, apply treatment at a 6- to 8-day spray interval, depending on insect pressure. If there is moderate to high insect pressure or when applying by air use 34 fl. oz. **Oxamyl 42% SL** per acre. Insects that move into the treated area after application may not be controlled. |
| | Thrips (*Suppression*): Western Flower (Early-Season) | 8.5 - 17 fl. oz./A | Begin applications before populations reach damaging thresholds. Apply as a broadcast or band treatment in sufficient water volume to obtain thorough coverage (minimum 10 GPA ground and 5 GPA by air). All **Oxamyl 42% SL** |

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| | | | treatments must follow a previous at-plant insecticide treatment that has contact or systemic activity on western flower thrips. For optimum performance, apply treatment at a 6- to 8-day spray interval, depending on insect pressure. |

**Application Information:**
Apply treatment of **Oxamyl 42% SL** by air or ground application equipment in sufficient water volume to obtain thorough coverage (minimum 5 gallons by air or 10 gallons by ground). For optimum performance, buffer the spray solution to <pH 7.

**Restrictions:**
- Do not apply within 14 days of harvest.
- Do not graze or feed treated cotton to livestock.
- Applications by hand-wand or soil broadcast to cotton are prohibited.
- Do not apply more than 102 fl. oz. (3 lbs. a.i.) of **Oxamyl 42% SL** per acre per growing season.
- Do not apply more than 8 applications per season.

**PEANUTS**
Not Registered for use in California.

| Crop | Pest | Oxamyl 42% SL Application Rate | Timing and Method |
|---|---|---|---|
| Peanuts | Root Knot (except Javanese) Nematodes - Sting, Ring, and Lesion Thrips | ***At-Plant Soil Treatment:*** 34 - 68 fl. oz./A | Apply treatment of **Oxamyl 42% SL** in a 7-inch band immediately behind the planter in a minimum of 10 gallons of water per acre. For severe infestations, use the highest rate. Incorporate the band application at least 2 inches into the soil either by placing it in-furrow or by mechanical means. |
| | | ***Foliar Ground or Aerial Treatment:*** 17 fl. oz./A | Foliar treatments of **Oxamyl 42% SL** are to be used only following soil fumigation, or following pre-plant or at planting soil application of **Oxamyl 42% SL** or other contact nematicides. Apply treatment of 17 fl. oz. **Oxamyl 42% SL** per acre as a band or broadcast spray beginning at 14- to 28-days after peanut emergence. Apply a second treatment of 17 fl. oz. **Oxamyl 42% SL** per acre 14 days later. If needed, 2 additional applications of 17 fluid oz. **Oxamyl 42% SL** per acre can be made on a 14-day application schedule. Apply treatment in sufficient water volume to obtain thorough plant coverage (minimum 8 GPA ground and 5 GPA air). Use proportionately less material for band applications, based on row spacing and band width applied. |

**Restrictions:**
- Do not apply more than 136 fl. oz. (4 lbs. a.i.) of **Oxamyl 42% SL** per acre per season.
- Do not apply more than 5 applications per season.

**POTATOES - (FOR STATES SPECIFIED)**
Refer to the appropriate table for use directions in your state and apply **Oxamyl 42% SL** as instructed.

**POTATOES - All States, Except Alabama, Arkansas, Florida, Georgia, Kansas, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, and Texas (EXCEPT the Rio Grande Valley of Texas, as specified in the "Product Information" section). The Rio Grande Valley of Texas may also follow these directions.**

| Crop | Pest | Oxamyl 42% SL Application Rate | Timing and Method |
|---|---|---|---|
| Potatoes | Aphids Flea Beetle Potato Leafhopper Tarnished Plant Bug | ***Foliar Ground, Chemigation, or Aerial Treatments:*** 17 - 34 fl. oz./A | Apply treatment when insects first appear. Repeat at specified spray intervals if needed to maintain control. Use a low use rate for light infestations and a high use rate for severe infestations. Use at least 7 gallons of water per acre for applications made by air. For optimum performance, in areas with high temperature and low humidity conditions, use 10 gallons of water per acre for use by air. For overhead chemigation applications, use a higher rate of **Oxamyl 42% SL**. The recommended maximum water volumes for overhead chemigation applications is 0.1 to 0.2 acre inches of water. Buffer the chemigation injection solution to a pH of 5.<br><br>**Aphids:** For optimum performance, begin applications of **Oxamyl 42% SL** early in the season before aphid |
| | Colorado Potato Beetle | ***Foliar Ground, Chemigation, or Aerial Treatments:*** 8.5 - 34 fl. oz./A | |
| | Two-Spotted Spider Mite (*Suppression*) | ***Foliar Ground, Chemigation, or Aerial Treatments:*** 34 fl. oz./A | |

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|---|---|---|---|
| | | | populations begin to build. Treatments of systemic aphicides made at-plant followed by a mid-season application of **Oxamyl 42% SL**, applied before the previous treatment starts to breakdown, have provided the best season-long control. To maintain control, apply treatment of **Oxamyl 42% SL** at a 14-day spray schedule when aphid pressure is high. When aphid pressure is low to moderate, apply treatments at a spray interval not to exceed 21-days.<br><br>**Colorado Potato Beetle:** Use 34 fl. oz. per acre at a 5- to 7-day spray interval when applying to potatoes using overhead sprinkler chemigation for the control of Colorado potato beetle.<br><br>**Two-Spotted Spider Mite:** The combined effects of maintaining adequate populations of beneficial insects and the use of **Oxamyl 42% SL** provides suppression of two-spotted spider mite populations. Mite suppression may be reduced by the use of other insecticides that may harm beneficial insects or by movement of mites coming in from adjacent fields. Apply treatment of **Oxamyl 42% SL** before mite populations begin to build. Repeat application at a 7-14-day spray interval. If mite populations continue to build, use an alternative miticide with a different mode-of-action. |

**Nematode (Suppression): Root Knot (except Javanese), Sting, Lesion, and Stubby Root:**
For applications made by ground or overhead chemigation applications for the suppression of Root Knot (except Javanese) Sting, Lesion and Stubby Root Nematodes. When applied as directed, **Oxamyl 42% SL** suppresses nematode populations and results in reduced crop damage. Nematode suppression is considered a reduction in nematode related crop injury compared to untreated crops. **Oxamyl 42% SL** product performance is related to nematode population pressure. Fields that have high nematode counts or have a recent history of significant nematode related crop injury should be treated with the most effective soil fumigant program available in conjunction with **Oxamyl 42% SL**. Refer to the root knot, stubby root and sting nematode guidance on applications to specific nematode populations in the sections below. Base nematode control programs on soil samples taken with sufficient time to apply treatment of a soil fumigant if needed. Consider sampling for nematodes in the fall since fumigation performance is often optimal in the fall. For maximum plant protection, use a pre-plant fumigant, shanked-in, and follow with the recommended **Oxamyl 42% SL** spray program. Use foliar applications by ground equipment only where it is not possible to apply treatment by chemigation. When ground applications are made, incorporate **Oxamyl 42% SL** with enough irrigation water to completely cover all tubers in the hill immediately after application. Nematode damage may occur because ground applications are not as effective as chemigation. For overhead chemigation applications, apply enough irrigation water to completely cover the entire tuber/root zone, especially tubers at the bottom of the hill. For sandy soil types, use approximately 0.5 inches of irrigation water. **Oxamyl 42% SL** may be applied with lower amounts of water (0.1 to 0.2-acre inch) with center pivot or other moving irrigation systems provided 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 **Oxamyl 42% SL** at the start of the irrigation cycle and adjust the flow rate of the injection equipment so that **Oxamyl 42% SL** is applied during the first half of the irrigation cycle. Buffer the **Oxamyl 42% SL** injection solution to a pH of 5 or lower. Phosphoric acid or N-phurric fertilizer solutions may be used to buffer high pH irrigation water used with **Oxamyl 42% SL** applications.

**At-Plant In-Furrow Soil Treatment:** An at-plant soil application is recommended as the first application for maximum suppression of nematodes. Use 34 - 68 fl. oz./A in at least 20 gals. water/A. when applying at-plant soil treatment for suppression of nematodes. Apply **Oxamyl 42% SL** as a concentrated band spray in the seed row with the spray nozzle positioned behind the planter tube. Adjust the nozzle height to produce a spray pattern that is 6-8 inches wide that covers the bottom and sides of the furrow. Incorporate **Oxamyl 42% SL** treatment at least 2 inches in depth.

**Root-Knot Nematode Treatment Options:** The use of **Oxamyl 42% SL** in potatoes for suppression of nematodes is based on the life cycle of the Columbia Root-Knot Nematode as determined by university nematologists. A degree-day model is available to track nematode development. To properly time certain **Oxamyl 42% SL** treatments, 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 plant protection, use a pre-plant fumigant, shanked-in, and follow the recommended **Oxamyl 42% SL** treatment program.

**Note:** For optimum performance, make all applications other than in-furrow via chemigation.
Choose one of the following two treatment programs when pre-plant soil samples show 0 to 50 root-knot nematodes per 250 cc of soil:

| **Best Treatment Program** | **Alternate Treatment Program** |
|---|---|
| 34 - 68 fl. oz./A in-furrow at-planting | Skip in-furrow |
| 34 fl. oz./A at crop emergence | 34 fl. oz./A at crop emergence |
| 34 fl. oz./A at 1440 degree-days F (800 DD C) | 34 fl. oz./A at 1440 degree-days F (800 DD C) |
| 34 fl. oz./A 14 days later | 34 fl. oz./A 14 days later |
| Continue application of 34 fl. oz./A every 14 days until 7 days before digging | Continue application of 34 fl. oz./A every 14 days until 7 days before digging |

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

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| 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 application every 14 days until 7 days before digging |

**Treatment Options Based on Root-Knot Nematode Populations in All Other Areas:** Choose one of the following treatment programs based on pre-plant soil nematode counts when pre-plant soil samples are 0 to 150 per 250 cc of soil.

Use the Maximum Protection program for high nematode counts (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):

| **For Maximum Protection** | **Next Best Program** | **Alternate Treatment Program** |
|---|---|---|
| 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 - 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 |
| 34 fl. oz./A at 1440 degree-days F (800 DD C) | 34 fl. oz./A 14 days later | Continue application of 34 fl. oz./A every 14 days until 7 days before digging |
| 34 fl. oz./A 14 days later | Continue application of 34 fl. oz./A every 14 days until 7 days before digging | |
| Continue application of 34 fl. oz./A every 14 days until 7 days before digging | | |

**Potatoes Following Alfalfa:** For best results for potatoes that are planted following alfalfa, use the "**For Maximum Protection**" program outlined in the table above. Alfalfa roots can host large numbers of root-knot nematode eggs that will not be reflected in soil sampling. This can underestimate the true nematode population. Under these conditions, nematode-related crop damage can occur even with the best application program. For optimum performance, 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, estimate the number of treatments needed to protect the crop up until the pre-Harvest interval of 7 days before digging. Ensure that you will have enough **Oxamyl 42% SL** to cover the entire crop season. Use of **Oxamyl 42% SL** 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 limits for use of **Oxamyl 42% SL** on lesion nematodes. For stubby root and sting nematodes, **Oxamyl 42% SL** can be used when soil samples indicate 0-50 per 250 cc of soil. Use a shanked-in fumigant followed by a **Oxamyl 42% SL** treatment program if stubby root and sting populations are higher than 50 per 250 cc of soil.
Choose one of the following two treatment options:

| **Best Treatment Program** | **Alternate Treatment Program** |
|---|---|
| 34 fl. oz./A in-furrow at-planting | Skip in-furrow |
| 34 fl. oz./A at crop emergence prior to tuber initiation (hooking) | 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 | 34 fl. oz./A 14 days later |

| | |
|---|---|
| | 34 fl. oz./A 14 days later \| 34 fl. oz./A 14 days later<br>**Note:** For optimum performance, all applications other than in-furrow should be made via chemigation. 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 result, use the labeled rate of a shanked-in fumigant and follow with the treatment program that starts with an in-furrow application. |

**Restrictions:**

- **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 gals. (306 fl. oz.) (9 lbs. a.i.) of **Oxamyl 42% SL** per acre per season.
  - Do not apply more than 8 applications per crop.
  - Do not apply within 7 days of harvest.
- **For CT, DE, MA, MD, ME, NH, NJ, NY, PA, RI, VA, and VT:**
  - Do not apply more than 1.6 gals. (204 fl. oz.) (6 lbs. a.i.) of **Oxamyl 42% SL** per acre per season.
  - Do not apply more than 8 applications per crop.
  - Do not apply within 7 days of harvest.

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

**POTATOES - Alabama, Arkansas, Florida, Georgia, Kansas, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, and Texas (EXCEPT the Rio Grande Valley of Texas, as specified in the "Product Information" section).**

| Crop | Pest | Oxamyl 42% SL Application Rate | Timing and Method |
|---|---|---|---|
| Potatoes | Aphids<br>Flea Beetle<br>Potato Leafhopper<br>Tarnished Plant Bug | ***Foliar Ground, Chemigation, or Aerial Treatments:***<br>17 - 34 fl. oz./A | Apply treatment when insects first appear. Repeat at specified intervals to maintain control, if needed. The minimum treatment interval is 14 days. Use another effective product if an application is needed before the 14-day interval is reached. Use a lower rate for light infestations and a higher use rate (within specified range) for severe infestations. Use at least 7 gallons of water per acre for applications made by air. For optimum results, in areas with high temperature and low humidity conditions, use 10 gallons of water per acre for applications made by air. For overhead chemigation applications, use a higher rate of **Oxamyl 42% SL**. 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.<br><br>**Aphids: Oxamyl 42% SL** works best by making early season applications before aphid populations begin to build. Treatments of systemic aphicides made at-plant followed mid-season by **Oxamyl 42% SL**, applied before the previous treatment starts to breakdown, have provided the best season-long control. To maintain control, apply treatment of **Oxamyl 42% SL** at a 14-day interval when aphid pressure is high. When aphid pressure is low to moderate, apply at an application interval not to exceed 21-days.<br><br>**Colorado Potato Beetle:** For the control of Colorado potato beetle, when making treatments to potatoes using overhead sprinkler chemigation use 34 fl. oz. per acre.<br><br>**Two-Spotted Spider Mite:** The combined effects of maintaining adequate populations of beneficial insects and the use of **Oxamyl 42% SL** provides suppression of two-spotted spider mite populations. Mite suppression may be reduced by the use of other insecticides that may harm beneficial insects or by movement of mites coming in from adjacent fields. Apply treatment of **Oxamyl 42% SL** before mite populations begin to build. Repeat application at a 14-day spray interval. If mite populations continue to build, use an alternative miticide with a different mode-of-action. |
| | Colorado Potato Beetle | ***Foliar Ground, Chemigation, or Aerial Treatments:***<br>8.5 - 34 fl. oz./A | |
| | Two-Spotted Spider Mite (*Suppression*) | ***Foliar Ground, Chemigation, or Aerial Treatments:***<br>34 fl. oz./A | |

**Nematode (Suppression): Root Knot (except Javanese), Sting, Lesion, and Stubby Root – ground or overhead chemigation: Oxamyl 42% SL** suppresses nematode populations and results in reduced crop damage when used as directed. Nematode suppression is considered a reduction in nematode related crop injury compared to untreated crops. **Oxamyl 42% SL** product performance is related to nematode population pressure. Fields that have high nematode counts or have a recent history of significant nematode related crop injury should be treated with the most effective soil fumigant program available in conjunction with the use of **Oxamyl 42% SL**. Refer to root knot, stubby root and sting nematode guidance on treatment of specific nematode populations in the sections below. Determine nematode control programs on soil samples taken with sufficient time to apply treatment of a soil fumigant if determined to be necessary.

Consider sampling for nematodes in the fall since fumigation performance is often optimal in the fall. For maximum plant protection, use a pre-plant fumigant, shanked-in, and follow with the recommended **Oxamyl 42% SL** spray program. Use foliar applications by ground equipment only where it is not possible to apply treatment by chemigation. When ground applications are made, incorporate **Oxamyl 42% SL** with enough irrigation water to completely cover all tubers in the hill immediately after application. Nematode damage may occur because ground applications are not as effective as chemigation. For overhead chemigation applications, apply enough irrigation water to completely cover the entire tuber/root zone, especially tubers at the bottom of the hill. For sandy soil types, use approximately 0.5 inches of irrigation water. **Oxamyl 42% SL** may be applied with lower amounts of water (0.1 to 0.2-acre inch) with center pivot or other moving irrigation systems provided 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 **Oxamyl 42% SL** at the start of the irrigation cycle and adjust the flow rate of the injection equipment so that **Oxamyl 42% SL** is applied during the first half of the irrigation cycle. Buffer the **Oxamyl 42% SL** injection solution to a pH of 5 or lower. Phosphoric acid or N-phurric fertilizer solutions may be used to buffer high pH irrigation water used with **Oxamyl 42% SL** applications.

**At-Plant In-Furrow Soil Treatment:** An at-plant soil application is recommended as the first application for maximum suppression of nematodes. Use 34 - 68 fl. oz./A in at least 20 gals. water/A. when applying at-plant soil treatment for suppression of nematodes. Apply treatment of **Oxamyl 42% SL** as a concentrated band spray in the seed row with the spray nozzle positioned behind the planter tube. Adjust the nozzle height to produce a spray pattern that is 6-8 inches wide that covers the bottom and sides of the furrow. Incorporate **Oxamyl 42% SL** treatment at least 2 inches in depth.

**Root-Knot Nematode Treatment Options:** The use of **Oxamyl 42% SL** in potatoes for suppression of nematodes is based on the life cycle of the Columbia Root-Knot Nematode as determined by university nematologists. A degree-day model is available to track nematode development. To properly time certain **Oxamyl 42% SL** treatments, 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 plant protection, use a pre-plant fumigant, shanked-in, and follow the recommended **Oxamyl 42% SL** treatment program. **Note:** For optimum performance, make all applications other than in-furrow via chemigation.

**Treatment Options Based on Root-Knot Nematode Populations:** When pre-plant soil samples are 0 to 150 per 250 cc of soil, choose one of the following treatment programs based on pre-plant soil nematode counts.

Use the Maximum Protection program for high nematode counts (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):

| For Maximum Protection | Next Best Program | Alternate Treatment Program |
|---|---|---|
| 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 - 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 |
| 34 fl. oz./A at 1440 degree-days F (800 DD C) | 34 fl. oz./A 14 days later | Apply 2 more treatments at 34 fl. oz./A 14 days apart |
| 34 fl. oz./A 14 days later | Apply 2 more treatments at 34 fl. oz./A 14 days apart | |
| Apply 2 more treatments at 34 fl. oz./A 14 days apart | | |

**Potatoes Following Alfalfa:** For best results for potatoes that are planted following alfalfa, use the "**For Maximum Protection**" program outlined in the table above. Alfalfa roots can host large numbers of root-knot nematode eggs that will not be reflected in soil sampling. This can underestimate the true nematode population. Under these conditions, nematode-related crop damage can occur even with the best application program. For optimum performance, 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 **Oxamyl 42% SL** program may not provide adequate nematode protection for long season potatoes. Consider an alternative nematode program. **Oxamyl 42% SL** is not recommended when 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 limits for use of **Oxamyl 42% SL** on lesion nematodes. For stubby root and sting nematodes, **Oxamyl 42% SL** can be used when soil samples indicate 0-50 per 250 cc of soil. Use a shanked-in fumigant followed by a **Oxamyl 42% SL** treatment program if stubby root and sting populations are higher than 50 per 250 cc of soil.

Choose one of the following two treatment options:

| Best Treatment Program | Alternate Treatment Program |
|---|---|
| 34 fl. oz./A in-furrow at-planting | Skip in-furrow |
| 34 fl. oz./A at crop emergence prior to tuber initiation (hooking) | 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 | 34 fl. oz./A 14 days later |
| 34 fl. oz./A 14 days later | 34 fl. oz./A 14 days later |

**Note:** For optimum performance, all applications other than in-furrow should be made via chemigation. 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 result, use the labeled rate of a shanked-in fumigant and follow with the treatment program that starts with an in-furrow application.

**Restrictions:**

- **In 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 gals. (204 fl. oz.) (6 lbs. a.i.) of **Oxamyl 42% SL** per acre per season.
  - Do not apply more than 4 applications per crop.
  - Minimum application treatment interval (days): 14
  - Do not apply within 7 days of harvest.

| TOBACCO | | | |
|---|---|---|---|
| **Crop** | **Pest** | **Oxamyl 42% SL Application Rate** | **Timing and Method** |
| Tobacco | Root Knot (except Javanese) Nematodes - Lesion Flea Beetles | ***Broadcast and Bed treatment:*** Apply a broadcast spray of 68 fl. oz./A in a minimum of 40 gals. of water | **Oxamyl 42% SL** may be applied to the soil as a band treatment or by broadcast application, disced, and bedded. For optimum performance, transplant the tobacco within 24 hours after treatment to the soil. Thoroughly incorporate to 4 to 6 inches in depth and bed the field in such a way that only treated soil is used to form the beds. |
| | | ***Row Treatment:*** 68 fl. oz. in an 18 to 24 inch band in a minimum of 20 gals. of water/A of tobacco (12,000 row-feet) | **Oxamyl 42% SL** may be applied to the soil as a band treatment or by broadcast application, disced, and bedded. For optimum performance, transplant the tobacco within 24 hours after treatment to the soil. Thoroughly incorporate with a rotary tiller to 4 to 6 inches in depth. |

**Restriction:**

- Do not apply more than 68 fl. oz. of **Oxamyl 42% SL** per acre per season.

## STORAGE AND DISPOSAL

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

**Pesticide Storage**

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

**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 [less than 5 gallons]**

Non-refillable 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. Drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and 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, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Container Handling [greater than 5 gallon]**
Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing 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 approved by state and local authorities.
**DO NOT USE CONTAINERS FOR THE STORAGE OF FOOD, FEED, OR DRINKING WATER!**

## 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.

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