

Systemic and foliar insect control in grapes, turfgrass (including sod farms), and on fruit and nut trees, landscape ornamentals, and interior plantscapes.

**ACTIVE INGREDIENT:** 

# WARNING AVISO

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

#### **FIRST AID**

If swallowed:	Call a poison control center or doctor immediately for treatment advice.			
	Have person sip a glass of water if able to swallow.			
	Do not induce vomiting unless told to do so by a poison			
	control center or doctor.			
	Do not do anything by moth an unconscious person.			
If in eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes.			
	Remove contact lenses, if present, after the first 5 minutes,			
	then continue rinsing eye.			
	Call a poison control center or doctor for treatment advice.			
If on skin	Take off contaminated clothing.			
or clothing:	Rinse skin immediately with plenty of water for 15-20 minutes.			
	Call a poison control center or doctor for treatment advice.			

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-301-7976.

NOTE TO PHYSICIAN: No specific antidote is available. Treat the patient symptomatically.

EPA REG. NO. 34704-970

EPA EST. NO. Indicated by the 8th-Digit of the Batch Number: (G) = 67545-AZ-001; (H) = 65387-AR-002 NET WEIGHT 4 x 1.6 OZ. WSP

110906 V2 06RB07

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

May be fatal if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse. Keep children and pets away from treated area until spray is dry.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE):

Applicators and other handlers must wear: Long-sleeved shirt and long pants; Chemical-resistant gloves made of any waterproof material such as, barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton; and shoes plus socks.

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

#### **ENGINEERING CONTROLS STATEMENTS**

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

#### **USER SAFETY RECOMMENDATIONS**

Users should:

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

Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

This product is highly toxic to aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

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

This product is toxic to wildlife.

This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

#### **DIRECTIONS FOR USE**

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.

NOT FOR USE IN COMMERCIAL GREENHOUSES, NURSERIES, ON GRASSES GROWN FOR SEED, OR ON COMMERCIAL FRUIT AND NUT TREES

# 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 pesticide. 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 the uses of this product that are covered by the Worker Protection Standard.

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

Exception: If the product is applied by drenching, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: Coveralls; Chemical-resistant gloves made of any waterproof material such as, barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton; and shoes plus socks.

#### **NON-AGRICULTURAL USE REQUIREMENTS**

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

Keep children and pets off treated areas until dry.

#### SPRAY DRIFT MANAGEMENT

Aerial applications are permitted ONLY on agricultural use grapes for Grapeleaf skeletonizer suppression.

The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making application decisions. <u>Avoiding spray drift is the responsibility of the applicator.</u>

#### No-Spray Zone Requirements for Foliar Applications

Do not apply by ground within 25 feet, or by air within 150 feet of lakes; reservoirs; rivers; permanent streams, marshes or natural ponds; estuaries and commercial fish farm ponds.

#### Mixing and Loading Requirements

To avoid potential contamination of groundwater, the use of a properly designed and maintained containment pad for mixing and loading of any pesticide into application equipment is recommended. If containment pad is not used, maintain a minimum distance of 25 feet between mixing and loading areas and potential surface to groundwater conduits such as field sumps, uncased well heads, sinkholes, or field drains.

#### **Aerial Applications**

The spray boom should be mounted on the aircraft so as to minimize the drift caused by wing tip vortices. The minimum practical boom length should be used, and must not exceed 75% of the wing span or rotor diameter.

#### Importance of Droplet Size

An important factor influencing drift is droplet size. Small droplets (<150-200 microns) drift to a greater extent than large droplets. Within typical equipment specifications, applications should be made to deliver the largest droplet spectrum that provides sufficient control and coverage. Formation of very small droplets may be minimized by appropriate nozzle selection.

#### Wind Speed Restrictions

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, canopy and equipment specifications determine drift potential at any give wind speed. Do not apply when winds are greater than 15 mph and avoid gusty and windless conditions. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

#### **Restrictions During Temperature Inversions**

Because the potential for spray drift is high during temperature inversions, do NOT make aerial or ground applications during temperature inversions. 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. 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 mixing.

#### Airblast (Air Assist) Specific Recommendations for Vineyards

Airblast sprayers carry droplets into the canopy of vines via a radial, or laterally directed air stream. The following specific drift management practices should be followed:

- Adjust deflectors and aiming devices so that spray is only directed into the canopy;
- Block off upward pointed nozzles when there is no overhanging canopy;
- Use only enough air volume to penetrate the canopy and provide good coverage;
- Do not allow the spray to go beyond the edge of the cultivated area (i.e. turn of sprayer when turning at end rows);
- Only spray inward, toward the vineyard, for applications to the outside rows.

## **RUNOFF MANAGEMENT**

Do not cultivate within 10 feet of the aquatic areas to allow growth of vegetative filter strip. When used on erodible soils, best management practices for minimizing runoff should be employed. Consult your local Natural Resources Conservation Service for recommendations in your use area.

# **ENDANGERED SPECIES NOTICE**

Under the Endangered Species Act, it is a Federal Offence to use any pesticide in a manner that results in the death of a member of an endangered species. Consult your local county bulletin, County Extension Agent, or Pesticide State Lead Agency for information concerning endangered species in your area.

## RESISTANCE MANAGEMENT

Some insects are known to develop resistance to insecticides after repeated use. As with any insecticide, the use of this product should conform to resistance management strategies established for the use area.

Malice<sup>™</sup> 75 WSP contains a Group 4A insecticide called imidacloprid. Insect biotypes with acquired or inherent tolerance to Group 4A products may eventually dominate the insect population if Group 4A products are used repeatedly as the predominant method of control for targeted species. This may eventually result in partial or total loss of control of those species by Malice 75 WSP and to other Group 4A products.

The active ingredient in Malice 75 WSP is a member of the neonicotinoid chemical group. Avoid using a block of more than three consecutive applications of Malice 75 WSP and/or other Group 4A products having the same or similar mode of action. Following a neonicotinoid block of treatments, Loveland Products, Inc.

strongly encourages the rotation to a block of applications with effective products of a different mode before using additional applications of neonicotinoid products. Using a block rotation or windowed approach, along with other IPM practices, is considered an effective use strategy for preventing or delaying an insect pest's ability to develop resistance to this class of chemistry.

Foliar applications of Malice 75 WSP or other Group 4A products from the neonicotinoid chemical class should not be used on crops previously treated with a long-residual, soil-applied products from the neonicotinoid chemical class.

Other Group 4A, neonicotinoid products used as foliar treatments include: Actara®, Assail®, Calypso®, Centric®, Intruder™, Leverage™ and Trimax®. Other 4A Group, neonicotinoid products used as soil treatment include: Admire® and Platinum®.

Contact your local extension specialist, certified crop advisor and/or product manufacturer for additional insect resistance management recommendations. Also, for more information on Insect Resistance Management (IRM), visit the Insecticide Resistance Action Committee (IRAC) on the web at http://irac-online.org/.

#### **Use Precautions:**

- Keep children and pets off treated areas until dry.
- Do NOT apply through any type of irrigation system.
- Do NOT graze treated areas or use clippings from treated areas for feed or forage.
- Do NOT apply Malice 75 WSP to soils that are waterlogged or saturated and avoid runoff or puddling of irrigation water following application.
- Do NOT allow leachate to run out for the first 10 days after application or reduced efficacy may result.
- Do NOT exceed a total of 8.6 oz. / Acre per year (0.4 lb. Al/A).

### STORAGE AND DISPOSAL

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

PESTICIDE STORAGE [For product packaged in plastic containers]: Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

PESTICIDE STORAGE [For product packaged in Water Soluble Packaging]: Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food and feed. Store in original container and out of the reach of children, preferably in a locked storage area. Exposure to moisture or excessive handling of water soluble packets may cause breakage.

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

CONTAINER DISPOSAL [For product packaged in plastic container]: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

authorities, by burning. If burned, stay out of smoke.

CONTAINER DISPOSAL [For product packaged in Water Soluble Packaging]: Completely empty bag into application equipment. Then 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.

For help with any spill, leak, fire or exposure involving this material call day or night CHEMTREC 1-800-424-9300.

# CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

BEFORE BUYING OR USING THIS PRODUCT, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LOVE-LAND PRODUCTS, INC. or the seller is authorized to vary in any way.

Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixture with other chemicals not specifically identified in this product's label, or use of this product contrary to the label instructions, all of which are beyond the control of LOVELAND PRODUCTS, INC. and the seller. The buyer or user of this product assumes all such inherent risks.

Subject to the foregoing inherent risks, LOVELAND PRODUCTS, INC. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use when the product is used in strict accordance with such Directions for Use under normal conditions of use. EXCEPT AS WARRANTED IN THIS LABEL, THIS PRODUCT IS SOLD AS IS TO THE EXTENT ALLOWED BY APPLICABLE LAW. LOVELAND PRODUCTS, INC. MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ELIGIBILITY OF THIS PRODUCT FOR ANY PARTICULAR TRADE USAGE.

IN THE UNLIKELY EVENT THAT BUYER OR USER BELIEVES THAT LOVELAND PRODUCTS, INC. HAS BREACHED A WARRANTY CONTAINED IN THIS LABEL, BUYER OR USER MUST SEND, TO THE EXTENT REQUIRED BY APPLICABLE LAW, WRITTEN NOTICE OF SUCH CLAIM TO THE FOLLOWING ADDRESS: LOVELAND PRODUCTS, INC., ATTENTION: LAW DEPARTMENT, 7251 WEST 4TH STREET, GREELEY, CO 80634.

TO THE EXTENT ALLOWED BY APPLICABLE LAW, THE BUYER'S OR USER'S EXCLUSIVE REMEDY FOR ANY INJURY, LOSS, OR DAMAGE RESULTING

FROM THE HANDLING OR USE OF THIS PRODUCT, INCLUDING BUT NOT LIMITED TO CLAIMS OF BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR OTHER TORTS, SHALL BE LIMITED TO ONE OF THE FOLLOWING, AT THE ELECTION OF LOVELAND PRODUCTS, INC. OR THE SELLER: DIRECT DAMAGES NOT EXCEEDING THE PURCHASE PRICE OF THE PRODUCT OR REPLACEMENT OF THE PRODUCT. TO THE EXTENT ALLOWED BY APPLICABLE LAW, LOVELAND PRODUCTS, INC. AND THE SELLER SHALL NOT BE LIABLE TO THE BUYER OR USER OF THIS PRODUCT FOR ANY CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES, OR DAMAGES IN THE NATURE OF A PENALTY.

Actara®, Centric®, and Platinum® are registered trademarks of a Syngenta Group Company.

Assail® is a registered trademark and Intruder is a trademark of Nippon Soda Co., Ltd.

Admire®, Calypso®, and Trimax® are registered trademarks and Leverage is a trademark of Bayer.

Malice™ is a trademark of Loveland Products, Inc.

Leverage is a restricted use pesticide.

# FOR PRODUCT PACKAGED IN WSP

#### MIXING AND APPLICATION INSTRUCTIONS

Inside each foil pouch is a clear, water soluble inner packet containing the Malice 75 WSP. To prepare a solution, remove the outer foil pouch and drop the required number of unopened clear water soluble packets into the spray tank while filling with water to the desired level. Be sure to agitate while mixing and depending on the amount of agitation and the water temperature, the packets should completely dissolve within a few minutes of being added to the water. Note that cooler water temperatures increase the time needed for the inner packet to completely dissolve.

#### **Mixing Precautions:**

- Do NOT allow packets to become wet prior to adding to the tank.
- Do NOT handle the clean inner packets with wet hands or wet gloves.
- Do NOT use this product in a tank-mix with products that contain Boron or release free chlorine. Combining these products will result in a plastic that is not soluble in water or solvents (such as diesel oils, kerosene, gasoline or alcohol). NOTE: Chlorinated water may be used.
- Because the water soluble packets are not soluble in petroleum-based liquids, do NOT attempt to use Malice 75 WSP water soluble packets directly in diesel oils or summer spray type oils such as those used in ULV or LV applications.
- Rough handling of the packets may cause breakage.
- Reseal outer carton to protect remaining packets.

Tank Mixes: Malice 75 WSP has been found to be compatible with commonly used liquid fertilizers, fungicides and insecticides. If Malice 75 WSP is not known to be compatible with your particular tank mix partners, compatibility should be checked using the correct proportion of products in the following small jar test:

- Add proportionate amount of each ingredient in the appropriate order to a pint or a quart jar;
- 2. Cap and shake for 5 minutes;
- 3. Let set for 5 minutes.

Poor mixing or formation of precipitates that do not readily re-disperse indicates an incompatible mixture that should not be used. For further information, contact your local Loveland Products, Inc. representative.

**Mixing Instructions:** The enclosed packets containing Malice 75 WSP are water-soluble and will completely dissolve in water. The proper mixing procedure for Malice 75 WSP alone or in tank mix combinations with other pesticides is:

- 1. Fill the spray tank  $\frac{1}{4}$  to  $\frac{1}{3}$  full with clean water.
- While recirculating and with the agitator running, add the required number of unopened Malice 75 WSP packets.
- The packets should completely dissolve in 5 to 10 minutes; allow sufficient time for thorough mixing.
- 4. Continue to fill spray tank with water until 1/2 full.
- 5. If applicable, add remaining tank mix components in the following order: wettable powders, flowables, and emulsifiable concentrates. Ensure good agitation as each component is added. Do not add a tank mix component until the previous component is thoroughly mixed.
- Fill spray tank to desired level and maintain constant agitation to ensure uniformity of spray mixture.

# **TURFGRASS**

Malice 75 WSP will control soil-inhabiting pests in grassy areas such as home lawns, business and office complexes, shopping complexes, multi-family residential complexes, golf courses, airports, cemeteries, parks, playgrounds, and athletic fields and sod farms. The need for an application can be based on historical monitoring of the site, previous records or experiences, current season adult trapping or other methods. Applications may be made preceding the egg laying activity of the target pests and high levels of control may be achieved when applications are made proceeding or during the egg laying period. For best results, make applications prior to egg hatch of the target pests, followed by sufficient irrigation or rainfall to move the active ingredient through the thatch.

#### **Use Precautions:**

- Applications must NOT exceed a total of 8.6 oz. (0.4 lb of active ingredient) per acre per year.
- Applications should NOT be made when grassy areas are waterlogged or the soil is saturated with water because adequate distribution of the active ingredient cannot be achieved when these conditions exist.
- The treated grassy area must be in such a condition that the rainfall or irrigation will penetrate vertically in the soil profile.
- Avoid mowing treated areas until after sufficient rainfall or irrigation has occurred in order to maintain the uniformity of the application.

#### **Application Instructions:**

Apply Malice 75 WSP in sufficient water to provide adequate distribution in the treated area. Use of accurately calibrated equipment normally used for soil application of insecticides is required. Use equipment that will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off-target drift. Check calibration periodically to ensure that equipment is working properly.

Pest	Application Rate	Specific Instructions
Larvae of:	1.6 oz. (1 packet) per	Grubs, European Crane Fly,
Annual bluegrass	11,000 sq. ft.	billbugs and Annual Bluegrass
weevil		Weevil: For best results make
Asiatic garden		applications prior to egg hatch of
beetle		the target pest.
Billbugs		Cinchbugs: Make applications
Black turfgrass		prior to the hatching of the first
ataenius		instar nymphs.
Cutworms†		Mole Crickets: Make applications
European Chafer		prior to or during the peak egg
Green June beetle		hatching period. When adults or
Japanese beetle		large nymphs are present and
Northern masked		actively tunneling, Malice 75 WSP
chafer		should be accompanied by a
Oriental beetle		curative insecticide.
Phyllophaga spp.		NOTE: For best results, the active
Southern masked chafer		ingredient must be moved through the thatch by irrigation or rainfall
Cinchbugs†	8.6 oz. per Acre or	occurring within 24 hours after
Mole crickets	4 level Tbs. per	application.
	1,000 sq. ft.	

<sup>†</sup> Suppression only.

# ORNAMENTALS, GROUNDCOVERS AND INTERIOR PLANTSCAPES

Malice 75 WSP is a systemic insecticide that may be applied to ornamentals, groundcovers and interior plantscapes in and around industrial and commercial buildings and residential areas. The insecticide is translocated upward into the plant system and for best results must be placed where the growing portions of the target plant can absorb the active ingredient. When applicable, adding a fertilizer containing nitrogen into the spray solution may enhance plant uptake of Malice 75 WSP.

#### **Rotational Crops:**

As soon as practical following the last application, treated areas may be replanted with any crop specified on an imidacloprid label, or any crop for which a tolerance exists for the active ingredient. For crops not listed on an imidacloprid label, or for crops for which no tolerances for the active ingredient have been established, a 12-month plant-back interval should be observed. NOTE: Cover crops for soil building or erosion control may be planted at any time, but do not graze or harvest for food or feed.

# Ant Management Programs:

Malice 75 WSP may be used to limit the honeydew available as a food source for ant populations when controlling aphids, scale insects, mealy bugs and other sucking pests on ornamentals. Malice 75 WSP applications may be supplemented with bait traps, residual sprays and other methods to further reduce the unwanted ant population.

# Insect Resistance:

Some insects are known to develop resistance to insecticides after repeated use. As with any insecticide, the use of this product should conform to resistance management strategies established for the use area. Consult your Cooperative Extension Service for resistance management strategies and recommended pest management practices for your area.

# Woody Perennials:

Protection in woody perennials is slower than in herbaceous species and a delay of 2 or more weeks should be expected, with longer delays for larger plants. Because of this, applications to woody perennials should be made well in advance of expected insect activity.

#### Bark Media:

Malice 75 WSP treatments to media with 30 - 50% or more bark content may confer a shorter period of protection.

#### **FOLIAR AND BROADCAST APPLICATIONS**

Malice 75 WSP may be applied as a broadcast or foliar application to trees (including non-bearing fruit and nut trees), shrubs, evergreens, flowers, foliage plants, ground covers, interior plantscapes and vegetable plants intended for resale.

#### Application Instructions:

Apply Malice 75 WSP in sufficient water to provide adequate distribution in the

treated area. Use of accurately calibrated equipment normally used for soil application of insecticides is required. Use equipment which will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off-target drift. Check calibration periodically to ensure that equipment is working properly.

NOTE: When making foliar applications to plants with hard-to-wet foliage such as holly, pine or ivy, use of a spreader / sticker is recommended.

	Application	Application	
Pest	Method	Rate	Specific Instructions
Adelgids Aphids Japanese beetle (adult) Lacebugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Sawfly larvae Thripst Whiteflies	Foliar	1.6 oz. (1 packet) per 300 gal. of water	Make applications prior to establishment of large pest populations and retreat as necessary.  NOTE: Applying Malice 75 WSP foliarly after a soil application in the same crop is not recommended for resistance management purposes.
White grub larvae (such as Japanese beetle larvae, chafers, Phyllophaga spp., Asiatic garden beetle and Oriental beetle)	Broadcast	1.6 oz. (1 packet) per 11,000 sq. ft.	Mix the recommended amount of Malice 75 WSP in sufficient water to uniformly cover the area being treated using at least 2 gallons of water per 1000 sq. ft. For best results, incorporate the Malice 75 WSP into the upper soil profile by irrigating after the application is made.

SOIL INJECTION AND DRENCH APPLICATIONS

Pests Controlled

Application Instructions

Recommended Rate

Application Site

Trees	1.6 oz. (1 packet)	SOIL INJECTION - No	Adelgids
NOTE: Application	per 24 - 48 inches	Soil Injection Application	Aphids
to trees already	of cumulative	allowed in Nassau or	Armored scale†
heavily infested may	trunk diameter	Suffolk counties of	Black vine weevil larvae
not prevent the	(DBH)	New York.	Eucalyptus longhorned
eventual loss of the		GRID SYSTEM: Holes	borers
trees due to existing		should be spaced on 2.5 ft	Flatheaded borers
pest damage and		centers, in a grid pattern,	(including bronze birch
tree stress.		extending to the drip line	and alder borers)
		of the tree.	Japanese beetles (adults)
		CIRCLE SYSTEM: Apply	Lacebugs
		in holes evenly spaced in	Leaf beetles (including
		circles, (use more than	elm and viburnum leaf
		one circle dependent upon	beetles)
		the size of the tree)	Leafhoppers (including
		extending in from the drip	glassy-winged
		line of the tree.	sharpshooter)
		BASAL SYSTEM: Space	Leafminers
		injection holes evenly	Mealybugs
		around the base of the	Pine tip moth larvae
		tree trunk no more than	Psyllids
		6 to 12 inches out from	Royal palm bugs
		the base.	Sawfly larvae
		Mix required dosage in	Soft scales
		sufficient water to inject	Thrips†
		an equal amount of	White grub larvae
		solution in each hole.	Whiteflies
		Maintain a low pressure	
		and use sufficient solution	
		for distribution of the liquid	
		into the treatment zone.	
		For optimum control, keep	
		the treated area moist for	
		7 to 10 days. Do not use	
		less than 4 holes per tree.	
		SOIL DRENCH: Remove	
		plastic or any other barrier	
		that will stop solution from	

reaching the root zone.
Uniformly apply around the base of the tree, direct to the root zone as a drench in no less than 10 gallons of water per 1000 square

Annliastian Cita	Recommended Rate	Application Instructions	Danta Cantuallad
Application Site Shrubs	0.1 - 0.2 fl. oz.	SOIL INJECTION - No	Pests Controlled
Stirubs			Adelgids
	per foot of shrub	Soil Injection Application allowed in Nassau or	Aphids
	height	Suffolk counties of	Armored scale <sup>†</sup>
			Black vine weevil larvae
		New York.	Eucalyptus longhorned
		Mix required dosage in	borers
		sufficient water to inject an	Flatheaded borers
		equal amount of solution in	(including bronze birch
		each hole. Using a	and alder borers)
		minimum of 4 holes per	Japanese beetles (adults
		shrub, apply to individual	Lacebugs
		plants maintaining a low	Leaf beetles (including
		pressure and use sufficient	elm and viburnum lea
		solution for distribution of	beetles)
		the liquid into the treatment	Leafhoppers (including
		zone.	glassy-winged
		Keep the treated area moist	sharpshooter)
		for 7 to 10 days.	Leafminers
		SOIL DRENCH: Remove	Mealybugs
		plastic or any other barrier	Pine tip moth larvae
		that will stop solution from	Psyllids
		reaching the root zone.	Royal palm bugs
		Uniformly apply around the	Sawfly larvae
		base of the tree, direct to	Soft scales
		the root zone as a drench in	Thrips†
		no less than 10 gallons of	White grub larvae
		water per 1000 square feet.	Whiteflies
Flowers and	0.46 - 0.60 fl. oz.	Apply as a broadcast	
Ground Cover	per 1000 sq. ft.	treatment and incorporate	
		into the soil before planting	
		or apply after plants are	
		established. If application is	
		made to established plants,	
		optimum control will be	
		attained if area is irrigated	
		thoroughly after application.	

<sup>†</sup> Suppression only of these species.

## POME FRUIT IN AND AROUND RESIDENTIAL AREAS

Apple, Crabapple, Loquat, Mayhaw, Pear (including Oriental pear) Quince

- Pre-Harvest Interval (PHI): 7 days
- Reapplication Interval: At least 10 days
- Maximum Applications per Year: 5

Pest	Ounces per 300 gal. of Water	Ounces per Acre‡	Specific Instructions
Aphids (except Wooly apple aphid) Leafhoppers (including glassy-winged sharpshooter) Leafminer Mealybugs† San Jose scale†	1.6 (1 packet)	2.1	Apply as a foliar spray as needed after petal-fall is complete.  Rosy Apple Aphid: Apply prior to leaf rolling caused by the pest.  Leafhopper: For late season (preharvest) control, apply while most leafhoppers are in the nymphal stage.  Leafminer: Make first application as soon as petal-fall is complete for control of first generation, with best results occurring when the application is made at the earliest possible time.  For succeeding generations, best results occur when applications are made early in the adult flight against egg and early instar larvae. If generations are overlapping or severe pressure continues, a second application may be necessary after 10 days. A single application may result in suppression only. NOTE: Malice 75 WSP will not control late stage larvae.  Mealybug: For best results be sure to have good spray coverage of the trunk and scaffolding limbs or other nesting sites.  San Jose Scale: Time applications to the crawler stage and treat each generation.

<sup>†</sup> Not permitted for control on pears in California.

<sup>†</sup> Suppression only.

<sup>‡</sup> The amount of Malice 75 WSP required per acre depends on tree size and volume of foliage. The listed rate per acre is based on a standard of 400 gallons of dilute spray per acre for large trees.

# PECANS IN AND AROUND RESIDENTIAL AREAS

NOT PERMITTED IN CALIFORNIA unless otherwise directed by supplemental labeling.

- Reapplication Interval: At least 10 days
- Maximum Applications per Year: 3
- Maximum Malice 75 WSP allowed per Year: 6.3 oz. / Acre

Pest	Ounces per 300 gal. of Water	Ounces per Acre‡	Specific Instructions
Yellow pecan aphid Black margined aphid Pecan leaf phylloxera Pecan spittlebug Pecan stem phylloxera	1.6 (1 packet)	2.1	Apply as a foliar spray as pest pressure builds but before infestation is extremely heavy. Two applications at a 10 - 14 day interval may be required to achieve control. For best results, thorough and uniform coverage is necessary. Coverage may be improved through the use of an organosilicone-based spray adjuvant.

‡The amount of Malice 75 WSP required per acre depends on tree size and volume of foliage. The listed rate per acre is based on a standard of 400 gallons of dilute spray per acre for large trees.

# GRAPES ORNAMENTAL AND AGRICULTURAL USE

- Reapplication Interval: At least 14 days
- Maximum Malice 75 WSP allowed per Year: 2.0 oz. / Acre

Ornamental Grapes In and Around Industrial and Commercial Buildings and Residential Areas

	Ounces per	Ounces	
Pest	300 gal. of Water	per Acre‡	Specific Instructions
Leafhoppers	1.6 (1 packet)	1.0	Apply as a foliar spray using
(including			200 gallons of water per acre.
glassy-winged			
sharpshooter),			
Mealybugs			

Agricultural Use Grapes including American bunch grape, Muscadine grape and Vinefera grape

and vinetera grape		
Pest	Application Rate	Specific Instructions
Leafhoppers /	0.8 - 1.0 oz. per	Pre-Harvest Interval (PHI): 0 day
Sharpshooters,	Acre	Minimum interval between
Mealybugs		applications: 14 days
		Maximum Malice 75 WSP allowed
		per crop season: 2.0 oz. per Acre
		(0.1 lb. Al/A)
Grapeleaf	1.0 oz. per Acre	
skeletonizer <sup>1</sup>		

Ontrol of Grapeleaf skeletonizer can be expected from ground applications that provide thorough coverage of foliage. Aerial applications may provide suppression.

# FOR PRODUCT PACKAGED IN NON-WSP

# **TURFGRASS**

Malice 75 WSP will control soil-inhabiting pests in grassy areas such as home lawns, business and office complexes, shopping complexes, multi-family residential complexes, golf courses, airports, cemeteries, parks, playgrounds, and athletic fields and sod farms. The need for an application can be based on historical monitoring of the site, previous records or experiences, current season adult trapping or other methods. Applications may be made preceding the egg laying activity of the target pests and high levels of control may be achieved when applications are made proceeding or during the egg laying period. For best results, make applications prior to egg hatch of the target pests, followed by sufficient irrigation or rainfall to move the active ingredient through the thatch.

#### **Use Precautions:**

- Applications must NOT exceed a total of 8.6 oz. (0.4 lb of active ingredient) per acre per year.
- Applications should NOT be made when grassy areas are waterlogged or the soil is saturated with water because adequate distribution of the active ingredient cannot be achieved when these conditions exist.
- The treated grassy area must be in such a condition that the rainfall or irrigation will penetrate vertically in the soil profile.
- Avoid mowing treated areas until after sufficient rainfall or irrigation has occurred in order to maintain the uniformity of the application.

# Application Instructions:

Apply Malice 75 WSP in sufficient water to provide adequate distribution in the treated area. Use of accurately calibrated equipment normally used for soil appli-

cation of insecticides is required. Use equipment which will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off-target drift. Check calibration periodically to ensure that equipment is working properly.

Pest	Level Teaspoons per 1000 sq. ft.	Ounces per Acre	Specific Instructions
Larvae of: Annual bluegrass weevil Asiatic garden beetle Billbugs Black turfgrass ataenius Cutworms† European chafer Green June beetle Japanese beetle Northern masked chafer Oriental beetle Phyllophaga spp. Southern masked chafer	2.5 - 4.0	5.4 - 8.6	Grubs, European Crane Fly, Billbugs and Annual Bluegrass Weevil: For best results make applications prior to egg hatch of the target pest. Cinchbugs: Make applications prior to the hatching of the first instar nymphs. Mole Crickets: Make applications prior to or during the peak egg hatching period. When adults or large nymphs are present and actively tunneling, Malice 75 WSP should be accompanied by a curative insecticide.
Cinchbugs† Mole crickets	4.0	8.6	NOTE: For best results, the active ingredient must be moved through the thatch by irrigation or rainfall occurring within 24 hours after application.

- † Suppression only.
- 1 level teaspoon = 1.4 grams of Malice 75 WSP
- 3 level teaspoons = 1 level tablespoon

# ORNAMENTALS, GROUNDCOVERS AND INTERIOR PLANTSCAPES

Malice 75 WSP is a systemic insecticide that may be applied to ornamentals, groundcovers and interior plantscapes in and around industrial and commercial buildings and residential areas. The insecticide is translocated upward into the plant system and for best results must be placed where the growing portions of the target plant can absorb the active ingredient. When applicable, adding a fertilizer containing nitrogen into the spray solution may enhance plant uptake of Malice 75 WSP.

#### **Rotational Crops**

As soon as practical following the last application, treated areas may be replanted with any crop specified on an imidacloprid label, or any crop for which a tolerance exists for the active ingredient. For crops not listed on an imidacloprid label, or for crops for which no tolerances for the active ingredient have been established, a 12-month plant-back interval should be observed. NOTE: Cover crops for soil building or erosion control may be planted at any time, but do not graze or harvest for food or feed.

#### Ant Management Programs:

Malice 75 WSP may be used to limit the honeydew available as a food source for ant populations when controlling aphids, scale insects, mealy bugs and other sucking pests on ornamentals. Malice 75 WSP applications may be supplemented with bait traps, residual sprays and other methods to further reduce the unwanted ant population.

#### Insect Resistance:

Some insects are known to develop resistance to insecticides after repeated use. As with any insecticide, the use of this product should conform to resistance management strategies established for the use area. Consult your Cooperative Extension Service for resistance management strategies and recommended pest management practices for your area.

# Woody Perennials:

Protection in woody perennials is slower than in herbaceous species and a delay of 2 or more weeks should be expected, with longer delays for larger plants. Because of this, applications to woody perennials should be made well in advance of expected insect activity.

#### Bark Media:

Malice 75 WSP treatments to media with 30 - 50% or more bark content may confer a shorter period of protection.

#### **FOLIAR AND BROADCAST APPLICATIONS**

Malice 75 WSP may be applied as a broadcast or foliar application to trees (including non-bearing fruit and nut trees), shrubs, evergreens, flowers, foliage plants, ground covers, interior plantscapes and vegetable plants intended for resale.

# Application Instructions:

Apply Malice 75 WSP in sufficient water to provide adequate distribution in the treated area. Use of accurately calibrated equipment normally used for soil application of insecticides is required. Use equipment which will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off-target drift. Check calibration periodically to ensure that equipment is working properly.

NOTE: When making foliar applications to plants with hard-to-wet foliage such as holly, pine or ivy, use of a spreader / sticker is recommended.

	Application	Application Rate		
Pest	Method	Malice 75 WSP	Water	Specific Instructions
Adelgids Aphids Japanese beetle (adult) Lacebugs Leaf beetles (including elm & viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Sawfly larvae Thrips† Whiteflies	Foliar	0.25 tsp. 0.50 tsp. 1.0 tsp. 2.5 tsp. 5.0 tsp. 3 Tbs. + 1 tsp.	2.5 gal. 5.0 gal. 10.0 gal. 25.0 gal. 50.0 gal. 100.0 gal.	
White grub larvae (such as Japanese beetle larvae chafers Phyllophaga spp., Asiatic garden beetle and Oriental beetle)	Broadcast	3 - 4 level teaspoons per 1000 sq. ft.		Mix the recommended amount of Malice 75 WSP in sufficient water to uniformly cover the area being treated using at least 2 gallons of water per 1000 sq. ft. For best results, incorporate the Malice 75 WSP into the upper soil profile by irrigating after the application is made.

Application Site

Trees

† Suppression only. 1 level teaspoon = 1.4 grams of Malice 75 WSP

Recommended Rate

0.7 - 1.4 level teaspoons per

3 level teaspoons = 1 level tablespoon

			,
NOTE: Application to	inch of trunk diameter (DBH)	or Suffolk counties of New York.	Aphids
trees already heavily	or	GRID SYSTEM: Holes should be spaced on 2.5 ft centers, in a grid	Armored scale†
infested may not	1 - 2 oz. per 30 cumulative	pattern, extending to the drip line of the tree.	Black vine weevil larvae
prevent the eventual	inches of trunk diameter (DBH)	CIRCLE SYSTEM: Apply in holes evenly spaced in circles, (use more	Emerald ash borer (adult)‡
loss of the trees due		than one circle dependent upon the size of the tree) extending in	Eucalyptus longhorned borers
to existing pest		from the drip line of the tree.	Flatheaded borers (including
damage and tree		BASAL SYSTEM: Space injection holes evenly around the base of the	bronze birch and alder borers)
stress.		tree trunk no more than 6 to 12 inches out from the base.	Japanese beetles (adults)
		Mix required dosage in sufficient water to inject an equal amount of	Lacebugs
		solution in each hole. Maintain a low pressure and use sufficient	Leaf beetles (including elm and
		solution for distribution of the liquid into the treatment zone. For optimum	viburnum leaf beetles)
		control, keep the treated area moist for 7 to 10 days. Do not use less	Leafhoppers (including glassy-
		than 4 holes per tree.	winged sharpshooter)
		SOIL DRENCH: Remove plastic or any other barrier that will stop	Leafminers
		solution from reaching the root zone. Uniformly apply around the base	Mealybugs
		of the tree, direct to the root zone as a drench in no less than 10 gallons	Pine tip moth larvae
		of water per 1000 square feet.	Psyllids
Shrubs	1.7 - 1.4 level teaspoons per	SOIL INJECTION - No Soil Injection Application allowed in Nassau	Royal palm bugs
	foot of shrub height	or Suffolk counties of New York.	Sawfly larvae
	or	Mix required dosage in sufficient water to inject an equal amount of	Soft scales
	1 - 2 oz. per 30 cumulative feet	solution in each hole. Using a minimum of 4 holes per shrub, apply	Thrips <sup>†</sup>
	of shrub height	to individual plants maintaining a low pressure and use sufficient	White grub larvae
		solution for distribution of the liquid into the treatment zone.	Whiteflies
		Keep the treated area moist for 7 to 10 days.	
		SOIL DRENCH: Remove plastic or any other barrier that will stop	
		solution from reaching the root zone. Uniformly apply around the base	

SOIL INJECTION AND DRENCH APPLICATIONS

SOIL INJECTION - No Soil Injection Application allowed in Nassau Adelgids

Pests Controlled

**Application Instructions** 

Flowers and

Ground Cover

† Suppression only of these species.
‡Make a minimum of two applications per season with the first application in late May / early June or when adult beetles begin to fly. Make the second application approximately one month after the first application.

of water per 1000 square feet.

thoroughly after application.

of the tree, direct to the root zone as a drench in no less than 10 gallons

Apply as a broadcast treatment and incorporate into the soil before

planting or apply after plants are established. If application is made to established plants, optimum control will be attained if area is irrigated

1 level teaspoon = 1.4 grams of Malice 75 WSP

3 - 4 level teaspoons per

1000 sq. ft.

3 level teaspoons = 1 level tablespoon

