OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

November 14, 2024

SENT BY EMAIL

Luz Chan
lchan@drexchem.com
DREXEL CHEMICAL COMPANY

Subject: Labeling Notification per Pesticide Registration Notice (PRN) 98-10 - Revising Insecticide Resistance Management, Referral Statements, Disposal Instructions, and Controlled Pests Under Select Crops
Product Name: DREXEL DIMETHOATE 4EC
Admin Number: 19713-231
EPA Receipt Date: 06/28/2024
Action Case Number: 00619762

Dear Luz Chan:

The U.S. Environmental Protection Agency is in receipt of your application for notification under Pesticide Registration Notice 98-10 for the above referenced product. The EPA has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The labeling submitted with this application has been stamped "Notification" and will be placed in our records.

Should you wish to add/retain a reference to your 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 EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the 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 EPA find or if it is brought to our attention that a website contains statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA section 3 registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

If you have questions, please contact Briana Hanlon via email at hanlon.briana@epa.gov.

Sincerely,

BRIANA HANLON

Digitally signed by BRIANA HANLON
Date: 2024.11.14 08:51:16 -05'00'

Briana Hanlon, Risk Manager
IVB2, RD
Office of Pesticide Programs

NOTIFICATION

19713-231

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

11/14/2024

DIMETHOATE | **GROUP 1B** | **INSECTICIDE**

Drexel

Dimethoate 4EC

Systemic Insecticide - Miticide

ACTIVE INGREDIENT:

Dimethoate*..... 43.5%

OTHER INGREDIENTS:..... 56.5%

TOTAL: 100.0%

*This product contains 4 pounds of dimethoate per gallon.

KEEP OUT OF REACH OF CHILDREN
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.)

(See FIRST AID Below)
(See Side Panel for FIRST AID)
(See Back Panel for FIRST AID)
(See Page ____ for First AID)
(See Attached Booklet for Complete Directions for Use)

EPA Reg. No. 19713-231
EPA Est. No. 19713-XX-XXX

Net Content:_____Gal. (____L)

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 by a poison control center or doctor. • Do not give anything by mouth to an unconscious or convulsing person.
IF IN EYES: • Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING: • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 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. You may also call CHEMTREC at 800-424-9300 for emergency medical treatment information.
NOTE TO PHYSICIAN: Atropine is antidotal. Pralidoxime chloride may be effective as an adjunct to atropine. This product may cause cholinesterase inhibition. Treatment should be directed at the control of symptoms and clinical condition. Dimethoate is an organophosphate insecticide/miticide.

231SP-0624*P

PRECAUTIONARY STATEMENTS

Hazards To Humans and Domestic Animals

WARNING: May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Harmful if absorbed through skin. Avoid contact with skin.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber or viton. If you want more options, follow the instructions for Category B on an EPA chemical-resistance category selection chart.

Mixers, loaders, applicators, flaggers, and other handlers must wear: Long-sleeved shirt and long pants, shoes plus socks, goggles or face shield, chemical-resistant gloves, a NIOSH-approved dust/mist filtering respirator with MSHA/NIOSH approval number prefix TC-21C or a NIOSH-approved respirator with any N, R, P, or HE filter, and chemical-resistant apron when mixing, loading, cleaning up spills, or equipment. See Engineering Controls for additional requirements and exceptions.

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.

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

ENGINEERING CONTROLS

Mixers and loaders supporting aerial application to alfalfa, cotton, soybeans, corn, safflower, sorghum, and wheat, must use a closed system that meets the requirements listed in the Worker Protections Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4)]. The system must be capable of removing the pesticide from the shipping container and transferring it into mixing tanks and/or application equipment. At any disconnect point, the system must be equipped with a dry disconnect or dry couple shut-off device that is warranted by the manufacturer to minimize drippage to no more than 2 ml per disconnect.

In addition, mixers and loaders must:

– wear the personal protective equipment required on this labeling for mixers/loader, except that no respirator is required,
– wear protective eyewear, if the system operates under pressure, and
– be provided and have immediately available for use in an emergency, such as a broken package, spill, or equipment breakdown, chemical-resistant footwear and a respirator of the type specified in the PPE section of this labeling.

Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(6)]. Pilots need not wear the PPE required in this labeling for applicators, but must wear at least a long-sleeved shirt, long pants, shoes, and socks.

When handlers used closed systems or enclosed cabs in a manner that meets the requirements listed in the WPS for agricultural pesticides (40 CFR 170.240 (d)(4-5), the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should: 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) 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 toxic to wildlife and aquatic invertebrates. This product is highly toxic to bees and other pollinators exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees or other pollinating insects are foraging in the treatment area.

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 washwater or rinsate.

Dimethoate is known to leach through soil into ground water under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

This product may contaminate water through drift of spray in wind. This product has a high potential for runoff for several days after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product.

A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

A vegetative filter strip constructed and maintained in accordance with the 2000 Natural Resources Conservation Service publication Conservation Buffers to Reduce Pesticide Losses (http://permanent.access.gpo.gov/lps9018/www.wcc.nrcs.usda.gov/water/quality/common/pestmgt/files/newconbuf.pdf) will significantly reduce the potential for contamination of water from rainfall-runoff.

PHYSICAL OR CHEMICAL HAZARDS

Combustible. Do not use, pour, spill or store near heat or open flame. Do not use this product in or on electrical equipment due to possibility of shock hazard.

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.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, 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), restricted entry interval and notification to workers. The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the Restricted Entry Interval (REI).

PPE required for early entry to treated areas that is permitted under the WPS and that involves contact with anything that has been treated, such as plants, soil or water is: Coveralls worn over long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material, chemical-resistant footwear plus socks, and chemical-resistant headgear for overhead exposure.

Double Notification: Notify workers of the application by warning them orally and by posting warning signs at entrances to treated area.

BEFORE USING, READ WARNING STATEMENTS ON CONTAINER LABEL.

APPLICATION RESTRICTIONS

This product is for use in commercial settings only. Use in residential settings is prohibited.
DO NOT use on crops grown in greenhouses.
This product has a systemic and contact activity against a broad spectrum of piercing, sucking and chewing insects; however, it may not control certain organophosphate-resistant species.

TANK-MIXING: This product is compatible in spray tank-mixes with most insecticides, miticides and fungicides, provided they are not alkaline in reaction. Field experience indicates that this product has been satisfactorily mixed with captan, carbaryl, diazinon, dodine, azinphos methyl, dicofol, malathion, parathion, pyrethroids, thiram and zineb. Because uniform dispersibility and sprayability may be influenced by pesticide combinations used, it is recommended that compatibility be determined before adding pesticides to the spray tank.
In a pint or quart jar, mix products and water proportionate to the intended tank-mix. If there is any separation, we recommend that the combination not be used. The addition of a non-ionic, general purpose spreader-activator will usually eliminate any incompatibility noted.
For proper mixing, spray tank should be at least three-fourths filled with water before adding this product. Add tank-mixing products in the following order: water-soluble bags, wettable powders, dry flowables, liquid flowables, emulsifiable concentrates, and other soluble materials such as fertilizers. When tank-mixing, allow water-soluble bags and soluble fertilizers to dissolve first before adding this product. Mechanical agitation or recirculation through pump bypass to tank is usually sufficient for maintaining a good dispersion. This product should not be tank-mixed with other pesticides, surfactants or fertilizers, unless prior use has shown the combination non-injurious under your conditions of use. Follow precautionary statements and directions for all tank-mix products.
Spray tank-mixes of this product with alkaline insecticides, fungicides, miticides and fertilizers should be applied promptly; however, alkaline materials such as Bordeaux mixture and lime should not be used. Tank- mixing must be done in accordance with the more (most) restrictive of label limitations and use precautions for all products to be mixed. Do not exceed the maximum dosage rate indicated for any pesticide included in the tank-mix. This product may not be mixed with any product containing a label prohibiting such mixing.

PHYTOTOXICITY STATEMENT: As is common with most emulsifiable concentrate formulations, adverse effects such as spotting or discoloration of the fruit or foliage can occur. Some conditions known to contribute to phytotoxicity include, but are not limited to high temperatures, poor spray drying conditions, excessive spray deposit or runoff, certain spray mixtures, stage of crop development or tank-mixes with other pesticides.

ODOR: Dimethoate formulations may produce a distinctive odor during the spray operation, but under normal conditions this odor does not persist.

RESISTANCE MANAGEMENT

DIMETHOATE	GROUP	1B	INSECTICIDE

~~DIMETHOATE 4EC contains a Group 1B insecticide or acaricide. Insect/mite biotypes with acquired resistance to Group 1B may eventually dominate the insect/mite population if Group 1B insecticides or acaricides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by this product or other Group 1B insecticides or acaricides.~~

~~To delay insecticide or acaricide resistance, consider:~~

- ~~Avoiding the consecutive use of this product or other Group 1B insecticides/acaricides that have similar target site of action on the same insect/mite species.~~
- ~~Using tank-mixtures or premixes with insecticides/acaricides from a different target site action Group as long as the involved products are all registered for the same use and have different sites of action.~~
- ~~Basing insecticide/acaricide use on a comprehensive IPM program.~~
- ~~Monitoring treated insect/mite populations for loss of field efficacy.~~

- ~~Contacting your local extension specialist, certified crop advisors, and/or manufacturer for insecticide/acaricide resistance management and/or IPM recommendations for specific site and resistant pest problems.~~

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

To delay insecticide resistance, take the following steps:

- Rotate the use of this product or other Group 1B insecticides within a growing season or among growing seasons with different groups that control the same pests. Use tank-mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
  - o Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - o Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
  - o When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
  - o Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
  - o The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide/acaricides use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact Drexel Chemical Company's representatives at (901) 774-4370.

METHODS OF APPLICATION

This product is intended for use in conventional hydraulic sprayers, ground applicators or aerial sprayers. Do not apply when weather conditions favor drift of spray from treated areas. Repeat applications as necessary unless otherwise specified. Consult your State Experiment Station or State Extension Service for proper timing of application.

The use of a drift retardant agent cleared for food use is recommended when applying this product by air or ground.

Dilute Application – Ground Application For Field and Vegetable Crops: Apply specified rate in 20 to 60 gallons of water per acre unless otherwise stated.

Concentrate Application – Ground Application: Apply specified rate in not less than 5 gallons of water per acre unless otherwise stated.

Orchard Application – Apply equivalent per acre rates in 20 to 100 gallons of water per acre unless otherwise stated. Special concentrate equipment is necessary for these uses.

High Pressure Handwand Equipment – When applications are made by high pressure handwand equipment, the maximum application rate for all crops and use patterns is 0.0025 pound of active ingredient (0.08 fl. oz. of this product) per gallon.
Air Application – Unless otherwise stated, apply at least one gallon of finished spray per acre; apply at least 5 gallons of finished spray per acre in CA. For aerial applications to orchards, use equivalent per acre rate in not less than 10 gallons of water per acre.
Do not use air application on Pecans.
Automatic flagging devices should be used whenever feasible.

REQUIREMENTS FOR REDUCING SPRAY DRIFT

Do not apply under circumstances where possible drift to unprotected persons or to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption can occur.

1. Use the largest droplet size consistent with acceptable efficacy. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.
   For groundboom and aerial applications, use medium or coarser spray nozzles according to ASABE 572 definition for standard nozzles or a volume mean diameter (VMD) of 300 microns or greater for spinning atomizer nozzles.
2. Make aerial or ground applications when the wind velocity favors on-target product deposition. Apply only when the wind speed is less than or equal to 10 mph. For all non-aerial applications, wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.
3. Do not make aerial or ground applications into areas of temperature inversions. Inversions are characterized by stable air and increasing temperatures with increasing distance above the ground. Mist or fog may indicate the presence of an inversion in humid areas. Where permissible by local regulations, the applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.
4. Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift. Avoid spraying during conditions of low humidity and/or high temperatures.
5. All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.
6. For groundboom applications, apply with nozzle height no more than 4 feet above the ground or crop canopy.
7. For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.
8. For aerial applications, release spray at the lowest height consistent with efficacy and flight safety. If the application includes an aquatic buffer zone, do not release spray at a height greater than 10 feet above the ground or crop canopy.
9. For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The minimum practical boom length should be used and must not exceed 75% of the wingspan or 90% of rotor blade diameter. Use upwind swath displacement.

CHEMIGATION

Apply this product only through sprinkler, including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set or hand move, flood (basin), furrow, border or drip (trickle) irrigation system(s). Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts. Do not connect an irrigation system (including greenhouse system) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

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. Mix, in a clean supply tank, the specified amount of this product and any tank-mixing products per acreage to be covered and needed quantity of water.

On all crops, use sufficient gallonage of water to obtain thorough and uniform coverage, but not cause runoff or excessive leaching. This will vary depending on equipment, pest problem and state of crop growth. Application of more or less than optimal quantity of water may result in decreased chemical performance, crop injury or

illegal pesticide residues. Meter this product into the irrigation water uniformly during the period of operation. Do not overlap application.
Follow specified label rates, application timing, and other directions and use precautions for crop being treated. Continuous mild agitation of pesticide mixture may be needed to assure uniform application, particularly if the supply tank requires a number of hours to empty.

CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS
Note: Drexel Chemical Company does not encourage connecting chemigation systems to public water supplies. The following information is provided for users who have diligently considered all other application and water supply options before electing to make such a connection.
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 daily at least 60 days out of the year. 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. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of the fluid back toward the injection pump. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment.

SPRINKLER CHEMIGATION (FOLIAR SPRAY USES)
The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. Do not apply when wind speed favors drift beyond the area intended for treatment.

FLOOD (BASIN), FURROW AND BORDER CHEMIGATION (SOIL DRENCH USE)
Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops. Allow sufficient time for pesticide to be flushed through all lines before turning off irrigation water. Systems utilizing a pressurized water and pesticide injection system must meet the following requirements: a) 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; b) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump; c) 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; d) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops; e) 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; f) 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.

NUT CROPS

Crop	Pest Controlled	Rate Per Acre	PHI (Days)
Pecans (REI = 48 hrs.)	Aphids, Leafhoppers, Mites	0.66 pt.	21
	SPECIFIC DIRECTIONS: Do not use air application. Do not graze livestock in treated groves.		
USE RESTRICTIONS: Do not apply more than 0.33 lb. a.i. (0.66 pt. of this product) per acre per application. Do not apply more than 0.33 lb. a.i. (0.66 pt. of this product) per acre per year.			

FRUIT CROPS

Crop	Pest Controlled	Rate Per Acre	PHI (Days)
Cherries (Preharvest) - ID, MT, OR, UT and WA only (REI = 10 days)*	Aphids, Cherry fruit flies, Mites	2.66 pt. (max.)	21
	SPECIFIC DIRECTIONS: **Dilute Application:** 0.5 to 1 pt. in minimum 100 gal. of water. Mix 1 pt. per 100 gallons of water when insect population is high. C**oncentrate Application:** 2 pt. in minimum 50 gal. of water. On mature Sweet and Tart cherries, use 2 pt. per acre. Precautions should be taken when using concentrated sprays to avoid fruit marking and injury on sensitive varieties (such as Ranier species). Make an application within 7 days of adult fly emergence in the area. This application should be made in late May or early June when fruits are small in size. Do not apply when trees or substantial numbers of weeds in the treatment area are in bloom. Do not graze livestock in treated orchards.		
USE RESTRICTIONS: Do not apply more than 1.33 lb. a.i. (2.66 pt. of this product) per acre per application. Do not apply more than 1.33 lb. a.i. (2.66 pt. of this product) per acre per year. *The REI is 10 days, however, the REI is increased to 14 days in outdoor areas where the average annual rainfall is less than 25 inches per year.			
Cherries (Postharvest) – ID, MT, OR, UT and WA only (REI = 10 days)*	Aphids, Cherry fruit flies, Mites	2.66 pt. (max.)	-
	SPECIFIC DIRECTIONS: **Dilute application:** 0.5 to 1 pt. in minimum 100 gallons of water. **Concentrate application:** 2 pt. in minimum 50 gallons of water. Make an application at a minimum of 7 days after final harvest or apply in cases where a decision is made not to harvest due to poor fruit quality, a light crop or unfavorable market conditions. For best results, make an application when fruit hardens or drops. Do not apply when trees or substantial numbers of weeds in the treatment area are in bloom. Do not graze livestock in treated orchards. Use up to 2.66 pt. per acre when insect pest population is high.		
USE RESTRICTIONS: Do not apply more than 1.33 lb. a.i. (2.66 pt. of this product) per acre per application. Do not apply more than 1.33 lb. a.i. (2.66 pt. of this product) per acre per year. *The REI is 10 days, however, the REI is increased to 14 days in outdoor areas where the average annual rainfall is less than 25 inches per year.			
Grapefruit, Kumquats, Lemons, Limes, Oranges, Pummelos, Tangelos, Tangerines (REI = 10 days)*	Aphids, Mites (except Rust), Psyllid, Thrips, Whiteflies	2 pt. (max.)	15
	SPECIFIC DIRECTIONS: **Ground Application:** 0.5 to 1 pt. in 50 to 100 gal. of water for dilute application. Mix 1 pt. in 50 to 100 gallons of water if infestation is heavy or if orchard foliage is dense. Apply as a thorough distribution coverage spray. **Concentrate Application (Mist):** Apply 2 pt. per acre in sufficient water to provide full coverage of foliage. **Air Application:** Apply 2 pt. per acre in 5 to 10 gal. of water.		

	Do not apply when trees or substantial numbers of weeds in the orchard are in bloom. Do not graze livestock in treated orchard.		
	Scales (except Black or Snow)	2 pt. (max.)	15
	SPECIFIC DIRECTIONS: **Ground Application:** 0.5 to 1.5 pt. in 50 to 100 gal. for dilute application. Mix 1.5 pt. in 50 to 100 gallons of water if infestation is heavy or if orchard foliage is dense. Apply as a thorough distribution coverage spray. **Concentrate Application (Mist):** 2 pt. per acre in sufficient water to provide full coverage of foliage. Do not apply when trees or substantial numbers of weeds in the orchard are in bloom. Do not graze livestock in treated orchards.		
USE RESTRICTIONS: Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per application. Do not apply more than 1 lb. (2 pt. of this product) per acre per year. Do not apply to Citrus seedlings. *The REI is 10 days, however, the REI is increased to 14 days in outdoor areas where the average annual rainfall is less than 25 inches per year.			
Citrus, Grapefruit, Lemons, Oranges, Tangerines – AZ Only (REI = 10 days)*	Thrips	See *"SPECIFIC DIRECTIONS"*	15
	SPECIFIC DIRECTIONS: Use specified dosages of this product in the amount of water necessary to achieve adequate coverage of foliage. The type of equipment used will determine the concentration required. **Ground Application:** Apply up to 1 lb. of active ingredient (2 pt. of this product) in not less than 20 gal. of water per acre. Do not enter treated groves within 4 days of last application. Use of dimethoate is prohibited during any time of day in any given orchard from when that orchard is 10% open bloom until such time as there has been at least 75% petal fall on the north side of the trees. Applications of dimethoate shall be limited to that period of time between 1 hour after sunset to 3 hours before sunrise when any one of the following conditions prevail: 1) Before the onset of petal fall, the orchard to be treated has open bloom present and these open blooms represent less than 10% of the total anticipated bloom in the orchard. 2) After the initiation of petal fall, there are less than 25% of open blooms remaining in the orchard to be treated. 3) It is between the calendar dates of February 15th and May 1st. All applications of dimethoate on Citrus must be documented on Form 1080, written either by a pest control advisor, farm owner or farm manager, as is normally required for custom applications of pesticides, except that private applicators may omit the "*Pesticide Application Report"* section. The description of the status of bloom of the orchard to be treated as it was at the time of the application shall be indicated in the section for *"Label Restrictions/Special Instructions".* Both private and custom applicators shall mail to the Agriculture Department's Phoenix office, the original of each completed Form 1080, done in accordance with this label. Each Form 1080 shall be postmarked not later than Monday following the week in which the application was made, except when holidays intervene.		
USE RESTRICTIONS: DO NOT apply by air. Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per application. Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per year. *The REI is 10 days, however, the REI is increased to 14 days in outdoor areas where the average annual rainfall is less than 25 inches per year.			
Citrus – AZ & CA: Non-bearing and Nursery stock (REI = 10 days)*	Aphids, Thrips	2 pt. (max.)	-
	SPECIFIC DIRECTIONS: **Foliar Spray:** 1 pt. per 100 gal. of water. May be applied in the year trees begin to bear fruit. **Soil Drench (Trees 1 to 3 years old):** 2 pt. per acre. Apply in the furrow or basin around the base of the tree. Apply when insect injury to new growth appears. Do not apply to trees that will bear fruit within 1 year. Do not apply when trees or substantial numbers of weeds in the orchard are in bloom. Do not graze livestock in treated orchards.		
USE RESTRICTIONS: Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per application. Do not apply more than 1 lb. (2 pt. of this product) per acre per year. DO NOT apply by air. *The REI is 10 days, however, the REI is increased to 14 days in outdoor areas where the average annual rainfall is less than 25 inches per year.			

Pears (REI = 10 days)*	Aphids, Leafhoppers, Mites (except Rust), Pear psyllas	2 pt. (max.)	28
	SPECIFIC DIRECTIONS: **Ground Application:** 0.5 to 1 pt. per 100 gallons of water for dilute application. Apply as a thorough distribution coverage spray. **Concentrate Application (Mist):** 1 to 2 pt. per acre in sufficient water to provide full coverage of foliage. **Air Application:** 1 to 2 pt. per acre in 5 to 10 gal. of water. Use up to 2 pt. of this product per acre. Do not apply when trees or substantial numbers of weeds in the orchard are in bloom. Do not graze livestock in treated orchards.		
USE RESTRICTIONS: Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per application. Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per year. *The REI is 10 days, however, the REI is increased to 14 days in outdoor areas where the average annual rainfall is less than 25 inches per year.			
Pears – Non-bearing (REI = 10 days)*	Aphids, Leafhoppers, Mites (except Rust), Pear psyllas	2 pt. (max.)	-
	SPECIFIC DIRECTIONS: Use 0.5 to 1 pt. per 100 gal. of water as dilute application. Mix up to 1 pt. of this product per 100 gallons of water. Do not graze livestock in treated orchards. Do not apply when trees or substantial numbers of weeds in the orchard (grove) are in bloom.		
USE RESTRICTIONS: Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per application. Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per year. *The REI is 10 days, however, the REI is increased to 14 days in outdoor areas where the average annual rainfall is less than 25 inches per year.			

VEGETABLE CROPS

Where a range of application rates is specified, apply the higher rate when pest population is high.

Crop	Pest Controlled	Rate Per Acre	PHI (Days)
Asparagus – Except AZ & CA (REI = 48 hours)	Aphids, Asparagus beetles	1 pt.	180
	SPECIFIC DIRECTIONS: Apply after the last harvest at no less than 14 day intervals, up to a maximum of 2 pt. per acre per year. Do not apply less than 180 days before harvest.		
USE RESTRICTIONS: Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per application. Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per year.			
Beans including Fresh, Lima, Snap and Dry beans (excludes Cowpeas) (REI = 48 hours)	Aphids, Bean leaf beetles, Grasshoppers, Leafhoppers, Leafminers, Lygus bugs, Mexican bean beetles, Mites	0.5 to 1 pt.	0
	SPECIFIC DIRECTIONS: Do not feed treated vines. Do not apply if bees are visiting the area to be treated when crops or weeds are in bloom.		
USE RESTRICTIONS: Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per application. Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per year. Retreatment interval is 14 days			
Broccoli, Cauliflower (REI = 48 hours)*	Aphids	0.5 to 1 pt.	7
USE RESTRICTIONS: Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per application. Do not apply more than 1.5 lb. a.i. (3 pt. of this product) per acre per year. Retreatment interval is 7 days. *The REI is 48 hours, however, the REI is increased to 72 hours in outdoor areas where the average annual rainfall is less than 25 inches per year.			

Brussels sprouts – CA Only (REI = 48 hours)*	Aphids	1 pt.	10
	SPECIFIC DIRECTIONS: Apply in a minimum of 50 gal. of water per acre by ground equipment at 7 day intervals. Do not graze livestock in treated fields. Do not apply by air.		
USE RESTRICTIONS: Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per application. Do not apply more than 1.5 lb. a.i. (3 pt. of this product) per acre per year. Retreatment interval is 7 days. *The REI is 48 hours, however, the REI is increased to 72 hours in outdoor areas where the average annual rainfall is less than 25 inches per year.			
Celery (REI = 48 hours)	Carmine mites, Leafminers, Two-spotted spider mites	1 pt.	7
USE RESTRICTIONS: Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per application. Do not apply more than 1.5 lb. a.i. (3 pt. of this product) per acre per year. Retreatment interval is 7 days.			
Endive (Escarole), Leaf lettuce, Swiss chard (REI = 48 hours)	Aphids, Leafhoppers, Leafminers	0.5 pt.	14
USE RESTRICTIONS: Do not apply more than 0.25 lb. a.i. (0.5 pt. of this product) per acre per application. Do not apply more than 0.75 lb. a.i. (1.5 pt. of this product) per acre per year. Retreatment interval is 7 days.			
Garbanzo beans (REI = 48 hours)	Aphids, Grasshoppers, Leafhoppers, Leafminers, Lygus bugs, Mites	0.5 to 1 pt.	0
	SPECIFIC DIRECTIONS: Do not feed treated vines. Do not apply if bees are visiting the area to be treated when crops or weeds are in bloom.		
USE RESTRICTIONS: Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per application. Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per year. Retreatment interval is 14 days.			
Kale, Mustard greens (REI = 48 hours)	Aphids, Leafhoppers, Leafminers	0.5 pt.	14
	SPECIFIC DIRECTIONS: Apply in a minimum of 50 gal. of water per acre by ground equipment at 7 day intervals. Do not graze livestock in treated fields. Do not apply by air.		
USE RESTRICTIONS: Do not apply more than 0.25 lb. a.i. (0.5 pt. of this product) per acre per application. Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per year. Retreatment interval is 15 days for Kale and 9 days for Mustard greens.			
Lentils (REI = 48 hours)	Aphids	0.33 to 1 pt.	14
	SPECIFIC DIRECTIONS: Do not feed or graze treated plants. Do not apply if bees are visiting the areas to be treated when crops or weeds are in bloom.		
	Lygus bugs	1 pt.	14
	SPECIFIC DIRECTIONS: Do not feed or graze treated plants. Do not apply if bees are visiting the areas to be treated when crops or weeds are in bloom.		
USE RESTRICTIONS: Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per application. Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per year. Retreatment interval is 7 days.			
Lentils - WA Only (REI = 48 hours)	Aphids, Lygus bugs	0.25 to 1 pt.	14
	SPECIFIC DIRECTIONS: Apply when insects first appear. Repeat as needed up to a total of 1 lb. a.i. (2 pt. of this product) per acre per year. Do not feed or graze hay or treated vines. **Note:** CHEMIGATION – Do not apply through any type of irrigation system.		
USE RESTRICTIONS: Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per application. Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per year. Retreatment interval is 7 days.			
Melons - Except Watermelons (REI = 48 hours)	Aphids, Leafhoppers, Leafminers, Maggots, Thrips	1 pt.	3
USE RESTRICTIONS: Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per application. Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per year. Retreatment interval is 7 days.			
Peas (REI = 48 hours)	Aphids	0.3 pt.	0
	SPECIFIC DIRECTIONS: Do not feed or graze hay within 21 days after last application when a stationary viner is used. Do not feed or graze when a mobile viner is used. Do not make more		

	than 1 application per growing season. Do not apply if bees are visiting the areas to be treated when crops or weeds are in bloom. Do not apply more than 0.16 lb. a.i. (0.3 pt. of this product) per acre per application. Do not apply more than 0.16 lb. a.i. (0.3 pt. of this product) per acre per year. Not for use on Field peas.		
	Lygus bugs	0.3 pt.	0
	SPECIFIC DIRECTIONS: Do not feed or graze hay within 21 days after last application when a stationary viner is used. Do not feed or graze when a mobile viner is used. Do not make more than 1 application per growing season. Do not apply if bees are visiting the areas to be treated when crops or weeds are in bloom. Do not apply more than 0.16 lb. a.i. (0.3 pt. of this product) per acre per application. Do not apply more than 0.16 lb. a.i. (0.3 pt. of this product) per acre per year. Not for use on Field peas.		
Dry Peas - ID, OR and WA only (REI = 48 hours)	Aphids	0.33 to 0.66 pt.	0
	SPECIFIC DIRECTIONS: Apply in a minimum spray volume of not less than 5 gal. of water per acre by ground or air application. Do not exceed 0.5 lb. a.i. (1 pt. of this product) per acre per year. Allow at least 7 days between applications. Do not graze livestock on cover crops in treated areas. **Note:** CHEMIGATION – Do not apply through any type of irrigation system. Do not apply if bees are visiting the areas to be treated when crops or weeds are in bloom. Not for use on Field peas.		
Succulent Peas - ID, OR and WA only (REI = 48 hours)	Aphids	0.33 to 0.66 pt.	0
	SPECIFIC DIRECTIONS: Apply in a minimum spray volume of not less than 5 gal. of water per acre by ground or air application. Do not exceed 0.5 lb. a.i. (1 pt. of this product) per acre per season. Allow at least 7 days between applications. Do not graze livestock on cover crops in treated areas. **Note:** CHEMIGATION – Do not apply through any type of irrigation system. Do not apply if bees are visiting the areas to be treated when crops or weeds are in bloom. Not for use on Field peas.		
Succulent Peas (with pod) - CA Only (REI = 48 hours)	Aphids, Leafminers, Thrips	0.33 pt.	0
	SPECIFIC DIRECTIONS: Multiple applications may be made at 14 day intervals. Do not exceed 0.5 lb. a.i. (1 pt. of this product) per acre per season. Do not make more than 3 applications per growing season. Not for use on Field peas.		
Peppers (REI = 48 hours)	Aphids, Leafhoppers, Maggots	0.5 to 0.66 pt.	0
USE RESTRICTIONS: Do not apply more than 0.33 lb. a.i. (0.66 pt. of this product) per acre per application. Do not apply more than 1.65 lb. a.i. (3.3 pt. of this product) per acre per year. Retreatment interval is 7 days.			
Potatoes (REI = 48 hours)	Aphids, Grasshoppers, Leafhoppers, Leafminers	0.5 to 1 pt.	0
USE RESTRICTIONS: Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per application. Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per year. Retreatment interval is 7 days.			
Tomatoes (REI = 48 hours)	Aphids, Leafhoppers, Leafminers	0.5 to 1 pt.	7
USE RESTRICTIONS: Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per application. Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per year. Retreatment interval is 6 days.			
Turnip - Greens, Roots (REI = 48 hours)	Aphids, Leafhoppers, Leafminers	0.5 pt.	14
USE RESTRICTIONS: Do not apply more than 0.25 lb. a.i. (0.5 pt. of this product per acre per application. Do not apply more than 1.75 lb. a.i. (3.5 pt. of this product) per acre per year. Retreatment interval is 72 hours.			
Watermelons (REI = 48 hours)	Aphids, Leafhoppers, Leafminers, Maggots, Thrips	0.5 to 1 pt.	3

USE RESTRICTIONS: Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per application. Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per year. Retreatment interval is 7 days.

FIELD CROPS

Where a range of application rates is specified, apply the higher rate when pest population is high.

Crop	Pest Controlled	Rate Per Acre	PHI (Days)
Alfalfa, Sainfoin (REI = 48 hours)	Aphids*, Grasshoppers, Leafhoppers, Plant bugs (including Lygus), reduction of Alfalfa weevil larvae	0.5 to 1 pt.	10
	SPECIFIC DIRECTIONS: Do not apply within 10 days of harvest or pasturing. Make only 1 application per crop cycle or cutting. Effective only on cutting to which applied. Do not apply if bees are visiting the area to be treated when crops or weeds are in bloom. *Except Blue aphid		
USE RESTRICTIONS: Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per application. Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per crop cycle or cutting. Do not apply more than once per cutting. Do not apply more than 3 times per year. Minimum retreatment interval is 30 days.			
Cotton - AZ and CA Only (REI = 48 hours)	Black fleahoppers, Leafhoppers, Plant bugs (including Lygus), Thrips	0.5 to 1 pt.	14
	SPECIFIC DIRECTIONS: Do not feed treated forage or graze livestock in treated fields.		
USE RESTRICTIONS: Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per application. Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per season. Retreatment interval is 14 days.			
Cotton - Except AZ and CA (REI = 48 hours)	Aphids, Fleahoppers, Mites, Plant bugs, Thrips	0.25 to 1 pt.	14
	SPECIFIC DIRECTIONS: When water is used for dilution, do not make repeat applications at intervals closer than 14 days. When refined vegetable oil is used for dilution, do not make repeat applications at intervals closer than 40 days. Do not feed treated forage or graze livestock on treated fields.		
	Lygus bugs	0.5 pt.	14
	SPECIFIC DIRECTIONS: When water is used for dilution, do not make repeat applications at intervals closer than 14 days. When refined vegetable oil is used for dilution, do not make repeat applications at intervals closer than 40 days. Do not feed treated forage or graze livestock on treated fields.		
USE RESTRICTIONS: Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per application. Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per season. Retreatment interval is 14 days.			
Corn - Field, Pop (REI = 48 hours)	Aphids, Banks grass mites (except Trans Pecos area of TX), Bean beetles, Corn rootworms (adults), Fleahoppers, Thrips, Two-spotted spider mites	0.66 to 1 pt.	28 (Grain) 14 (Forage)
	SPECIFIC DIRECTIONS: **Ground Application:** Apply above rate in 20 to 40 gal. of water per acre. **Air Application:** Apply above rates in 1 or more gal. of water per acre. Do not feed or graze within 14 days of last application. Do not apply to Corn during the pollen-shed period if bees are visiting the area.		
	Grasshoppers	1 pt.	28 (Grain) 14 (Forage)
	SPECIFIC DIRECTIONS: **Ground Application:** Apply above rates in 20 to 40 gal. of water per acre. **Air Application:** Apply above rate in 1 or more gal. of water per acre. Do not apply to Corn during the pollen-shed period if bees are visiting the area. Do not feed or graze within 14 days of last application.		
USE RESTRICTIONS: Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per application. Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per year.			

PROHIBITION: Workers are prohibited from entering the treated area to perform detasseling tasks for 4 days in non-arid areas and for 15 days in outdoor areas where the average annual rainfall is less than 25 inches per year.			
Safflower - AZ and CA Only (REI = 48 hours)	Aphids, Leafhoppers, Plant bugs (including Lygus), Thrips	0.5 to 1 pt.	14
USE RESTRICTIONS: Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per application. Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per year.			
Sorghum (Milo) (REI = 48 hours)	Aphids* (Green bugs)	0.5 to 1 pt.	28
	SPECIFIC DIRECTIONS: **Ground Application:** Apply above rate in 25 to 40 gal. of water per acre. **Air Application:** Apply above rates in 1 or more gal. of water per acre. Do not feed or graze Milo within 28 days of last application. Do not apply during the pollen-shed period if bees are visiting the area. *Except Sugarcane aphid		
	Grasshoppers, Mites (including Banks grass mites [excluding Trans Pecos area of TX]), Two-spotted spider mites	1 pt.	28
	SPECIFIC DIRECTIONS: **Ground Application:** Apply above rate in 25 to 40 gal. of water per acre. **Air Application:** Apply above rates in 1 or more gal. of water per acre. Do not feed or graze Milo within 28 days of last application. Do not apply during the pollen-shed period if bees are visiting the area.		
	Sorghum midge	0.25 to 0.5 pt.	28
	Ground Application: Apply above rate in 25 to 40 gal. of water per acre. **Air Application:** Apply above rates in 1 or more gal. of water per acre. Do not feed or graze Milo within 28 days of last application. Do not apply during the pollen-shed period if bees are visiting the area.		
USE RESTRICTIONS: Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per application. Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per year. Retreatment interval is 7 days.			
Soybeans (REI = 48 hours)	Alfalfa loopers, Aphids, Bean leaf beetles, Leafhoppers, Mexican bean beetles, Spider mites, Threecornered alfalfa hoppers	1 pt.	21
	SPECIFIC DIRECTIONS: **Ground Application:** Apply above rate in 25 to 40 gal. of water per acre. **Air Application:** Apply above rate in a minimum of 1 gal. of water per acre. Do not feed or graze within 5 days of last application.		
	Grasshoppers	1 pt.	21
	SPECIFIC DIRECTIONS: **Ground Application:** Apply above rate in 25 to 40 gal. of water per acre. **Air Application:** Apply above rate in a minimum of 1 gal. of water per acre. Do not feed or graze within 5 days of last application.		
USE RESTRICTIONS: Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per application. Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per year. Retreatment interval is 7 days.			
Wheat (REI = 48 hours)	Aphids (Green bugs), Wheat midges	0.5 to 0.75 pt.	35
	Brown wheat mites	0.33 to 0.5 pt.	35
	Grasshoppers	0.75 pt.	35
USE RESTRICTIONS: Do not apply more than 0.38 lb. a.i. (0.75 pt. of this product) per acre per application. Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per year. Do not apply within 14 days of grazing immature plants.			

SEED CROPS

Where a range of application rates is specified, apply the higher rate when pest population is high.

Crop	Pest Controlled	Rate Per Acre	PHI (Days)
Alfalfa (REI = 48 hours)	Aphids*, Grasshoppers, Leafhoppers, Plant bugs (including Lygus), reduction of Alfalfa weevil larvae	0.5 to 1 pt.	10
	SPECIFIC DIRECTIONS: Do not apply if the crops or weeds in the treatment area are in bloom. Do not feed or graze livestock in treated crop, hay, threshings or stubble within 10 days of application. *Except Blue aphid		
USE RESTRICTIONS: Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per acre per application. Do not apply more than 0.5 lb. a.i. (1 pt. of this product) per crop cycle or cutting. Do not apply more than once per cutting. Do not apply more than 3 times per year. Minimum retreatment interval is 30 days.			
Grass grown for seed - ID, OR and WA only (REI = 48 hours)	Aphids, Plant bugs, Thrips, Winter grain mites,	0.5 to 0.66 pt.	14
	SPECIFIC DIRECTIONS: Apply in a minimum of 2 gal. of water per acre. Apply by ground or aerial equipment. Do not graze or use seed or seed screenings for feed purposes. Do not use on seed Bermudagrass, seed Carrots, or seed Onions.		
USE RESTRICTIONS: Do not apply more than 0.33 lb. a.i. (0.66 pt. of this product) per acre per application. Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per year. Retreatment interval is 90 days.			

ORNAMENTAL PLANTS GROWN IN OUTDOOR NURSERIES ONLY

Do not use this product on ornamental plants grown in greenhouses, Christmas tree and Conifer plantations, landscapes, interiorscapes and residential, public, recreational, commercial, industrial and institutional establishments.

This product is effective in controlling many sucking, piercing, and chewing insects, including aphids, thrips, leafminers, psyllids, scales, leafhoppers and mites that attack valuable ornamental plants. Make adequate spray when pests appear or when damage is first observed. Do not overdose or overspray. For proper timing of treatments for the control of specific pests on ornamental plants, consult your state agricultural experiment station or state agricultural extension service.

Do not use on ornamental plants not listed on this label unless personal experience has shown that this product is not phytotoxic to your plants. A small test area should always be sprayed first before general use. Do not use on any ornamental stock plants grown as a source of propagation material, such as cuttings, layers, root stocks or scions for grafting or budding. Do not use in spray mixtures containing oil. Do not use on plants growing in greenhouses.

For ornamental shade and nursery trees to control aphids and elm leaf beetle, apply as a soil injection at the rate of one-half teaspoonful of product per inch of tree circumference measured at approximately 4.5 to 5 feet above ground level. Apply using a low-pressure injector to a 4 to 6 inch level below ground surface within the dripline of the tree. Water heavily after application. Application should be made once per growing season (twice per season for elm leaf beetles; once shortly after trees leaf out, and once 6 to 8 weeks later). Some species such as River Birch, Prunus, Ornamental Cherry and Plum, Hawthorn, Honeysuckle, Japanese Lace Maple and Aspens are more sensitive to this product at early
growth stages. Do not apply to sensitive species that have not been established for at least 3 years. DO NOT USE ON BEARING FRUIT TREES.

IMPORTANT: When making soil injections, use a low pressure soil injection device. Always wear a full face shield, rubber gloves, long-sleeved shirt and rubber apron. DO NOT inject into soil areas where children or pets may dig or exhume treated soil.

USE RESTRICTIONS

FOR WOODY ORNAMENTALS AND CHRISTMAS TREE NURSERIES: Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per application. Do not apply more than 3 lb. a.i. (6 pt. of this product) per acre per year. Retreatment interval is 14 days. When applications are made by high pressure handwand equipment, the maximum application rate for all crops and use patterns is 0.0025 lb. a.i. (0.08 fl. oz. of this product) per gallon.

The REI is 10 days, however, the REI is increased to 14 days in outdoor areas where the average annual rainfall is less than 25 inches per year.

FOR HERBACEOUS ORNAMENTALS: Do not apply more than 0.25 lb. a.i. (0.5 pt. of this product) per acre per application. Do not apply more than 0.25 lb. a.i. (0.5 pt. of this product) per acre per year. The REI is 48 hours.

FOR CONIFER SEED ORCHARDS: Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per application. Do not apply more than 1 lb. a.i. (2 pt. of this product) per acre per year. The REI is 48 hours, however, the REI is increased to 4 days in outdoor areas where the average annual rainfall is less than 25 inches per year.

Special Exception for Airblast Applications to Douglas Fir Seed Orchards in WA and OR only: Do not apply more than 4.15 lb. a.i. (8.3 pt. of this product) per acre per application. Do not apply more than 4.15 lb. a.i. (8.3 pt. of this product) per acre per year. If airblast applications are applied at a rate of greater than 1 lb. a.i. (2 pt. of this product) per acre, the REI is 16 days, however, the REI is increased to 25 days in outdoor areas where the average annual rainfall is less than 25 inches per year.

FOR COTTONWOOD (grown for pulp): Do not apply more than 2 lb. a.i. (4 pt. of this product) per acre per application. Do not apply more than 6 lb. a.i. (12 pt. of this product) per acre per year. The REI is 14 days, however, the REI is increased to 24 days in outdoor areas where the average annual rainfall is less than 25 inches per year.

Plant	Pest Controlled	Rate of Application
Arborvitae	Aphids, Bagworms, Mites	2 tsp. per gal. of water (3.5 fl. oz. per 10 gal. of water)
Azaleas	Lace bugs, Leafminers, Mites, Tea scale, Whiteflies	1 tsp. per gal. of water (1.75 fl. oz. per 10 gal. of water)
Birch	Aphids, Leafminers	0.5 to 1 tsp. per gal. of water (0.8 to 1.75 fl. oz. per 10 gal. of water)
	SPECIFIC DIRECTIONS: For leafminers, apply when leaves are expanded and repeat in 6 weeks. Use the higher rate of application when insect pest population is high.	
Boxwood	Leafminers, Mealybugs, Mites	1 tsp. per gal. of water (1.75 fl. oz. per 10 gal. of water)
	SPECIFIC DIRECTIONS: For leafminers, apply when leaves are expanded and repeat in 6 weeks.	
Camellias	Aphids, Camellia scale, Mites, Tea scale	**Foliar Spray:** 1 tsp. per gal. of water (1.75 fl. oz. per 10 gal. of water) **Soil Drench:** 2 fl. oz. in gal. water
	SPECIFIC DIRECTIONS: Using the Soil Drench method, use 2 fl. oz. in 1 gallon of water for plants up to 6 inches tall. Increase rate proportionately for larger plants. Apply as a soil drench around the base of plants in early Spring.	
Carnation	Aphids, Mites, Thrips	**Soil Drench:** 2 fl. oz. per 500 sq. ft. of bed or bench
	SPECIFIC DIRECTIONS: Apply in sufficient water for even distribution. Water in thoroughly following application.	
Cedar	Mites	2 tsp. per gal. of water (3.5 fl. oz. per 10 gal. of water)
Christmas trees	Bagworms, Balsam twig aphids, Blue aphids, European pine shoot moths, Mites, Nantucket pine tip moths, Zimmerman pine moths	3 tsp. per gal. of water (5.25 fl. oz. per 10 gal. of water)
	SPECIFIC DIRECTIONS: Do not use on Japanese maples or Red leaf ornamental species.	
Cottonwood (Poplar)	Aphids, Bagworms, Leaf beetles	**Foliar Spray:** 2 fl. oz. per 6 gal. of water

		Soil Injection: 0.08 fl. oz. per inch of tree circumference
	SPECIFIC DIRECTIONS: **Foliar spray:** Apply 2 fl. oz. per 6 gallons of water. Repeat on a 10-day interval, as necessary, up to 4 sprays per year. **Soil Injection:** Apply at a rate of 0.08 fl. oz. per inch of tree circumference measured approximately 5 feet above ground level. Application should be made shortly after trees leaf out and again 6 to 8 weeks later, if necessary. Inject to a 4 to 6 inch level below ground surface. Number of injections should equal inches of tree circumference. Water heavily with at least two inches of water. **Leaf beetle (Chemigation):** Apply 1.33 to 4 pints per acre through drip line. Application may be repeated two times. Refer to the Chemigation section for additional application information.	
Cypress	Bactra moth larvae	1 tsp. per gal. of water (1.75 fl. oz. per 10 gal. of water)
	SPECIFIC DIRECTIONS: Apply as a drenching spray.	
Daylilies	Aphids, Thrips	2 tsp. per gal. of water (3.5 fl. oz. per 10 gal. of water)
Douglas fir	Fir cone midge	4 tsp. per gal. of water (7 fl. oz. per 10 gal. of water)
	SPECIFIC DIRECTIONS: Make thorough coverage application when cones are closed and pendant. Use hydraulic or backpack sprayer.	
Euonymus	Aphids, Scales	1 to 2 tsp. per gal. of water (1.75 to 3.5 fl. oz. per 10 gal. of water)
	SPECIFIC DIRECTIONS: Mix up to 2 tsp. per gallon (3.5 fl. oz. per 10 gallons) of water if insect pest population is high.	
Ficus nitida	Thrips	1 tsp. per gal. of water (1.75 fl. oz. per 10 gal. of water)
Fraser fir	Rosette bud mite	1 to 2 tsp. per gal. of water (1.75 to 3.5 fl. oz. per 10 gal. of water)
	SPECIFIC DIRECTIONS: Use a high pressure hydraulic sprayer with a handheld spray gun to thoroughly wet trunk and limbs on front and back of tree. Mix up to 2 tsp. per gallon (3.5 fl. oz. per 10 gallons) of water if insect pest population is high.	
Gardenias	Tea scales, Whiteflies	1 tsp. per gal. of water (1.75 fl. oz. per 10 gal. of water)
Gerberas	Thrips	1 tsp. per gal. of water (1.75 fl. oz. per 10 gal. of water)
Gladiolus	Aphids, Thrips	1 tsp. per gal. of water (1.75 fl. oz. per 10 gal. of water)
Hackberry	Hackberry budgall psyllid, Hackberry nipplegall psyllid	**Soil Injection:** 1 part to 3 parts dilution
	SPECIFIC DIRECTIONS: Use a 1:3 dilution (1 part of this product to 3 parts water). Apply using a low-pressure injector. Inject 1 fl. oz. of the dilution 6 inches below ground for each one-half inch of trunk diameter. Make insertions within dripline of tree. Apply prior to bud break. Do not apply to plants that have not been established for at least 3 years.	
Hemlocks	Mites, Scales	1 tsp. per gal. of water (1.75 fl. oz. per 10 gal. of water)
Holly (English & American, not Burford variety)	Leafminers, Mites, Soft scale	1 tsp. per gal. of water (1.75 fl. oz. per 10 gal. of water)
	SPECIFIC DIRECTIONS: For leafminers, apply in Spring when leafminer flies first appear, or in early Summer, for control of larvae in infested leaves.	
Honeysuckle	Honeysuckle aphid	**Soil Injection:** 1 part to 3 parts dilution

	SPECIFIC DIRECTIONS: Use a 1:3 dilution (1 fl. oz. of this product for every 3 fl. oz. of water). Apply using a low-pressure injector. Inject 1.25 fl. oz. of the dilution 6 inches below ground for each one-half inch of trunk diameter. Do not apply to plants that have not been established for at least 3 years.	
Iris	Aphids, Iris borer, Thrips	2 tsp. per gal. of water (3.5 fl. oz. per 10 gal. of water)
	SPECIFIC DIRECTIONS: For borer control, spray when new leaves are 5 to 6 inches tall.	
Oak	Golden oak scale	2 tsp. per gal. of water (3.5 fl. oz. per 10 gal. of water)
Pines, Juniper	Aphids, Bagworms, European pine shoot moth, Midges, Mites, Zimmerman pine moth	2 tsp. per gal. of water (3.5 fl. oz. per 10 gal. of water)
	Loblolly pine sawfly, Nantucket pine tip moth	3.5 tsp. per gal. of water (6 fl. oz. per 10 gal. of water)
Pinyon pine	Pinyon needle scale	2.5 tsp. per gal. of water (4.3 fl. oz. per 10 gal. of water)
	SPECIFIC DIRECTIONS: Apply spray to egg masses at the base of the trees and to all rough bark and crotches that can be reached from the ground. Make this bark application when crawlers start to emerge from the eggs. Use hydraulic or backpack sprayer. Do not spray leaves or needles since phytotoxicity may result.	
	Pinyon "Pitch mass" borer, Pinyon spindle gall midge, Tip moth	**Soil Injection:** 1 part to 3 parts dilution
	SPECIFIC DIRECTIONS: Use a 1:3 dilution (1 fl. oz. of this product for every 3 fl. oz. of water). Apply using a low-pressure injector. Inject 1.5 fl. oz. of the dilution 6 inches below ground surface for each 1 inch of trunk diameter. Make insertions within dripline of tree. For Spindle gall midge and Tip moth, apply in mid- to late-Spring. For Pinyon borer, make application in early Summer.	
Poinsettia	Aphids, Mealybugs, Mites, Whiteflies	1 tsp. per gal. of water (1.75 fl. oz. per 10 gal. of water)
Roses	Aphids, Leafhoppers, Thrips	1 tsp. per gal. of water (1.75 fl. oz. per 10 gal. of water)
	SPECIFIC DIRECTIONS: **Foliar Spray:** Apply 2 sprays 6 weeks apart the first year followed by annual applications soon after the first growth begins in the Spring. **Soil Drench:** Apply as a soil drench around the base of plants in early Spring at the rate of 2 tablespoons (1 fl. oz.) per gallon of water per plant.	
Taxus (upright or Spreading Yew)	Fletcher scale, Mealybugs, Mites	2 tsp. per gal. of water (3.5 fl. oz. per 10 gal. of water)

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a cool, dry, well ventilated area. Avoid high temperatures. Do not store below 45°F.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. 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 DISPOSAL:

Nonrefillable Container (rigid material; ~~less than~~ ≤ 5 gallons): Nonrefillable container. Do not reuse or refill this container. ~~Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying.~~ Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container one-fourth full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. ~~Dispose of empty container in a sanitary landfill or by incineration~~. Offer for recycling, if available, or dispose of empty container in a sanitary landfill or by or by other procedures allowed by state and local authorities.

Nonrefillable Container (rigid material; > 5 gallons up to < 250 gallons): Nonrefillable container. Do not reuse or refill this container. ~~Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying.~~ Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container one-fourth full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. ~~Dispose of empty container in a sanitary landfill or by incineration.~~ Offer for recycling, if available, or dispose of empty container in a sanitary landfill or by or by other procedures allowed by state and local authorities.

Refillable Container (≥ 250 gallons & Bulk): 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 refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. ~~Dispose of empty container in a sanitary landfill or by incineration.~~ Offer for recycling, if available, or dispose of empty container in a sanitary landfill or by or by other procedures allowed by state and local authorities.

WARRANTY—CONDITIONS OF SALE

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically directed and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable law, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. To the extent consistent with applicable law, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

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