

# MONTANA<sup>®</sup>

## 4F INSECTICIDE

### ACTIVE INGREDIENT

Imidacloprid, 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine .....40.6%

**OTHER INGREDIENTS** .....**59.4%**

**Total** .....**100.0%**

Contains 4 pounds of imidacloprid per gallon.

SHAKE WELL BEFORE USING

### KEEP OUT OF REACH OF CHILDREN CAUTION

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 ADDITIONAL PRECAUTIONARY STATEMENTS AND DIRECTIONS FOR USE INSIDE BOOKLET

EPA Reg. No. 83100-21-83979

EPA Est. No. 069821-CHN-005

Manufactured for:

ROTAM NORTH AMERICA, INC.

4900 Koger Blvd., Suite #140

Greensboro, NC 27407

1-866-927-6826

**Net Contents: 1 GALLON (3.78 liters)**

PRODUCT OF CHINA



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## FIRST AID (neonicotinoid)

<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
Have a product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact <b>1-866-927-6826</b> .	
<b>Note to Physician (neonicotinoid):</b> No specific antidote is available. Treat the patient symptomatically.	

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if absorbed through skin or if swallowed. Avoid contact with skin, eyes or clothing. Wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves (such as Natural Rubber, Select Category A).

### 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
- Shoes plus socks

## ENGINEERING CONTROLS STATEMENTS

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

**Important:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "Applicators and Other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

## User Safety Recommendations

### Users should:

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

## ENVIRONMENTAL HAZARDS

Do not apply directly to water, 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 blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are foraging the treatment area. This product is toxic to wildlife and highly toxic to aquatic invertebrates.

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

# PROTECTION OF POLLINATORS



**APPLICATION RESTRICTIONS EXIST FOR THIS PRODUCT BECAUSE OF RISK TO BEES AND OTHER INSECT POLLINATORS. FOLLOW APPLICATION RESTRICTIONS FOUND IN THE DIRECTIONS FOR USE TO PROTECT POLLINATORS.**



Look for the bee hazard icon in the Directions for Use for each application site for specific use restrictions and instructions to protect bees and other insect pollinators.

**This product can kill bees and other insect pollinators.**

Bees and other insect pollinators will forage on plants when they flower, shed pollen, or produce nectar. Bees and other insect pollinators can be exposed to this pesticide from:

- Direct contact during foliar applications, or contact with residues on plant surfaces after foliar applications
- Ingestion of residues in nectar and pollen when the pesticide is applied as a seed treatment, soil, tree injection, as well as foliar applications.

When Using This Product Take Steps To:

- Minimize exposure of this product to bees and other insect pollinators when they are foraging on pollinator attractive plants around the application site.
- Minimize drift of this product on to beehives or to off-site pollinator attractive habitat. Drift of this product onto beehives or off-site to pollinator attractive habitat can result in bee kills.

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at:

<http://pesticidestewardship.org/PollinatorProtection/Pages/default.aspx>.

Pesticide incidents (for example, bee kills) should immediately be reported to the state/tribal lead agency. For contact information for your state, go to: [www.aapco.org/officials.html](http://www.aapco.org/officials.html). Pesticide incidents should also be reported to the National Pesticide Information Center at: [www.npic.orst.edu](http://www.npic.orst.edu) or directly to EPA at: [beekill@epa.gov](mailto:beekill@epa.gov).

## DIRECTIONS FOR USE

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

See individual crops for specific pollinator protection application restrictions. If none exist under the specific crop, for foliar applications, follow these application directions for crops that are contracted to have pollinator services or for food/feed & commercially grown ornamentals that are attractive to pollinators.



**1. FOR CROPS UNDER CONTRACTED POLLINATION SERVICES**

**Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen unless the following condition has been met.**

**If an application must be made when managed bees are at the treatment site, the beekeeper providing the pollination services must be notified no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.**

**2. FOR FOOD CROPS AND COMMERCIALY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SERVICES BUT ARE ATTRACTIVE TO POLLINATORS**



**Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen unless one of the following conditions is met:**

- **The application is made to the target site after sunset**
- **The application is made to the target site when temperatures are below 55°F**
- **The application is made in accordance with a government-initiated public health response**
- **The application is made in accordance with an active state-administered apiaary registry program where beekeepers are notified no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying**
- **The application is made due to an imminent threat of significant crop loss, and a documented determination consistent with an IPM plan or predetermined economic threshold is met. Every effort should be made to notify beekeepers no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.**

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, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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

**Exception:** If the product is soil-injected or soil-incorporated, 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
- Shoes plus socks

### **OBSERVE THE FOLLOWING PRECAUTIONS WHEN MIXING AND APPLYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES, RESERVOIRS, RIVERS, PERMANENT STREAMS, MARSHES OR NATURAL PONDS, ESTUARIES AND COMMERCIAL FISH FARM PONDS.**

**Spray Drift Management:** 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. Avoiding spray drift is the responsibility of the applicator.

**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 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 given 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:** Do not make aerial or ground applications during temperature inversions. Drift potential is high 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.

**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 area and potential surface to groundwater conduits such as field sumps, uncased wellheads, sinkholes, or field drains.

**Airblast (Air Assist) Specific Requirements for Tree Crops and Vineyards:** Airblast sprayers carry droplets into the canopy of trees/vines via a radially, or laterally directed air stream.

Follow the following specific drift management practices:

- 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 off sprayer when turning at end rows);
- Only spray inward, toward the orchard or vineyard, for applications to the outside rows.

**No-Spray Zone Requirements for Soil and Foliar Applications:** Do not apply within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.

**Runoff Management:** Do not cultivate within 10 feet of the aquatic areas to allow growth of a vegetative filter strip. When using MONTANA 4F INSECTICIDE 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 Offense 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.

MONTANA 4F INSECTICIDE contains a Group 4A insecticide. Insect biotypes with acquired or inherent resistance to Group 4A may eventually dominate the insect population if Group 4A insecticides 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 MONTANA 4F INSECTICIDE and to other Group 4A products.

The active ingredient in MONTANA 4F INSECTICIDE belongs to the neonicotinoid chemical class.

**When applying as a foliar treatment,** avoid using a block of more than three consecutive applications of MONTANA 4F INSECTICIDE and/or other Group 4A products having the same or similar mode of action. Following a neonicotinoid block of treatments, Rotam 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.

**When applying as a soil treatment,** do not apply more than one application of MONTANA 4F INSECTICIDE during a single growing season. Foliar applications of MONTANA 4F INSECTICIDE, or other Group 4A products from the neonicotinoid chemical class should not be made following a long residual, soil application of MONTANA 4F INSECTICIDE, or other neonicotinoid products.



*Other Group 4A, neonicotinoid products used as foliar treatments include: Actara<sup>®</sup>, Admire<sup>®</sup>, Assail<sup>®</sup>, Calypso<sup>®</sup>, Centric<sup>®</sup>, Clutch<sup>®</sup>, Couraze<sup>®</sup>, Gallant<sup>®</sup>, Impulse<sup>®</sup>, Intruder<sup>®</sup>, Leverage<sup>®</sup>, Nuprid<sup>®</sup>, Pasada<sup>®</sup>, Provado<sup>®</sup>, Trimax<sup>®</sup> Pro, and Venom<sup>®</sup>.*

*Other Group 4A, neonicotinoid products used as soil/seed treatments include: Admire Pro<sup>®</sup>, Advise<sup>®</sup>, Alias<sup>®</sup>, Belay<sup>®</sup>, Couraze<sup>®</sup>, Cruiser<sup>®</sup>, Gaucho<sup>®</sup>, Macho<sup>®</sup>, Macho<sup>®</sup> Max, Nuprid<sup>®</sup>, Platinum<sup>®</sup>, Venom<sup>®</sup> and Widow<sup>®</sup>.*

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://www.irac-online.org/>.

## **APPLICATION INSTRUCTIONS**

**Soil Application:** Direct applications of MONTANA 4F INSECTICIDE into the seed or root-zone of crop. Failure to place MONTANA 4F INSECTICIDE into root-zone may result in loss of control or delay in onset of activity. Apply MONTANA 4F INSECTICIDE with properly calibrated ground or chemigation application equipment. Do not apply with aerial application equipment. Broadcast, foliar applications are only directed for use on seedling flats or trays, or where product is intended to be washed from foliage to soil prior to drying on foliage.

Optimum activity of MONTANA 4F INSECTICIDE results from applications to the root-zone of plants to be protected. The earlier MONTANA 4F INSECTICIDE is available to a developing plant, the earlier the protection begins. MONTANA 4F INSECTICIDE is continuously taken into the roots over a long period of time and the systemic nature of MONTANA 4F INSECTICIDE allows movement from roots through the xylem tissue to all vegetative parts of the plant. The rate of MONTANA 4F INSECTICIDE applied affects the length of the plant protection period. Use higher rate within the specified rate range when infestations occur later in crop development, or where pest pressure is continuous. MONTANA 4F INSECTICIDE will generally not control insects infesting flowers, blooms or fruit. Additional crop protection may be required for insects feeding in, or on these plant parts and for insects not listed in the crop-specific pests controlled sections of this label. Additional specific MONTANA 4F INSECTICIDE application instructions are also provided in the crop-specific sections of this label. Suppression, or less than complete control of certain diseases and insect pests including reduced feeding, may also result from MONTANA 4F INSECTICIDE applications. Complete control of these pests/diseases may require supplemental control measures.

MONTANA 4F INSECTICIDE is not allowed for use on crops grown for production of true seed intended for private or commercial planting unless issued under State specific 24(c) labeling. As with any insecticide, care should be taken to minimize exposure of MONTANA 4F INSECTICIDE to honey bees and other pollinators. Additional information on MONTANA 4F INSECTICIDE uses for these crops and other questions may be obtained from the Cooperative Extension Service, PCAs, or a private consultant.

Pre-mix MONTANA 4F INSECTICIDE with water or other appropriate diluent prior to application. Keep MONTANA 4F INSECTICIDE and water suspension agitated to avoid settling.

**Restriction:** Do not apply more than 0.50 lbs. active ingredient per acre per year regardless of formulation or method of application unless specified within a crop specific section for a given crop.

**Foliar Application:** Apply MONTANA 4F INSECTICIDE as a direct or broadcast foliar spray. Thorough coverage of foliage is necessary without runoff for insecticidal efficacy. Use adequate spray volumes, properly calibrated application equipment and spray adjuvant if necessary to obtain thorough coverage. Failure to provide adequate coverage and retention of MONTANA 4F INSECTICIDE on leaves and fruit may result in loss of insect control or delay in onset of activity. MONTANA 4F INSECTICIDE may be applied with properly

calibrated ground or aerial application equipment. Use minimum labeled spray volumes unless otherwise specified on crop specific application sections: 10 gallons/Acre by ground application and 5 gallons/Acre through aerial equipment. MONTANA 4F INSECTICIDE may also be applied by overhead chemigation (see additional CHEMIGATION DIRECTIONS FOR USE section below) if allowed in crop specific application section. MONTANA 4F INSECTICIDE is not directed for use on crops grown for production of true seed intended for private or commercial planting but may be allowed under State specific 24(c) labeling. As with any insecticide, care must be taken to minimize exposure of MONTANA 4F INSECTICIDE to honey bees and other pollinators.

#### **Restrictions:**

- Do not apply MONTANA 4F INSECTICIDE on crops requiring bee pollination during bloom and for a minimum of 10 days prior to bloom. Additional information on MONTANA 4F INSECTICIDE uses for these crops and other questions may be obtained from the Cooperative Extension Service, PCAs, or consultants.
- Do not apply more than 0.5 lbs. active ingredient per acre, per year, regardless of formulation or method of application unless specified within a crop specific section for a given crop.

#### **Mixing Instructions**

To prepare the application mixture, add a portion of the required amount of water to the tank and with agitation add MONTANA 4F INSECTICIDE. Complete filling tank with balance of water needed. Maintain sufficient agitation during both mixing and application. MONTANA 4F INSECTICIDE may also be used with other pesticides and/or fertilizer solutions (please see COMPATIBILITY NOTE below.). When tank mixtures of MONTANA 4F INSECTICIDE and other pesticides are involved, prepare the tank mixture as directed above and follow suggested **Mixing Order** below.

#### **Mixing Order**

When pesticide mixtures are needed, add wettable powders first, MONTANA 4F INSECTICIDE and other flowable (suspension concentrate) products second, and emulsifiable concentrates last. Ensure good agitation as each component is added. Do not add an additional component until the previous is thoroughly mixed. If a fertilizer solution is added, a fertilizer/pesticide compatibility agent may be needed. Maintain constant agitation during both mixing and application to ensure uniformity of spray mixture.

#### **Compatibility Note**

Test compatibility of the intended mixture before adding MONTANA 4F INSECTICIDE to the spray or mix tank. Add proportionate amounts of each ingredient in the appropriate order to a pint or quart jar, cap, shake for 5 minutes, and let set for 5 minutes. Do not use poor mixing formulations or formulations that do not readily redisperse.

## **CHEMIGATION USE DIRECTIONS**

#### **Types of Irrigation Systems**

Chemigation applications of MONTANA 4F INSECTICIDE may only be made to crops through chemigation systems as specified in crop-specific Application sections of this label.

#### **Uniform Water Distribution and System Calibration**

The irrigation system must provide uniform distribution of treated water. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. The system must be calibrated to uniformly apply the rates specified. If you have questions about calibration, you should

contact State Extension Service specialists, equipment manufacturers or other experts.

### **Water Volume**

Overhead foliar chemigation applications should be made as concentrated as possible. Retention of MONTANA 4F INSECTICIDE on target site of insect infestation is necessary for optimum activity. Chemigation applications of MONTANA 4F INSECTICIDE should not be made in water volumes exceeding 0.1 inches/Acre.

### **Chemigation Monitoring**

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.

### **Drift**

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

### **Required System Safety Devices**

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.

### **Using Water from Public Water Systems**

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, back flow 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 to 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 fluid back toward the injection. 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.

## ROTATIONAL CROPS\*

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, as soon as practical following the last application. 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 must be observed.

**IMMEDIATE PLANT-BACK:**

All crops on this label plus the following crops not on this label: barley, canola, corn (field, pop & sweet), rapeseed, sorghum, and wheat.

**30-DAY PLANT-BACK:**

Cereals (including buckwheat, millet, oats, rice, rye, and triticale), soybeans (soil applications only) and safflower.

**10-MONTH PLANT-BACK:**

Onions and bulb vegetables.

**12-MONTH PLANT-BACK:**

All Other Crops.

\* Cover crops for soil building or erosion control may be planted any time, but do not graze or harvest for food or feed.

## FOLIAR APPLICATIONS AND RATES FOR FIELD CROPS

Apply specified rate per acre as foliar spray as pest populations begin to build. Thorough uniform coverage is necessary to achieve insecticidal control. A spray adjuvant may be used to improve coverage. MONTANA 4F INSECTICIDE may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. MONTANA 4F INSECTICIDE may be tank mixed with other insecticides as specified for knockdown of pests or for improved control of other pests.

Foliar Application / <b>COTTON</b>	
Pests Controlled	Rate: Fluid Ounces/Acre
Aphids Bandedwinged whitefly Bollworm/Budworm (ovicidal effect) Cotton aphid Cotton fleahopper Green stink bug Fleahoppers Plant bugs (excludes <i>Lygus hesperus</i> ) Southern green stink bug	1.0 - 2.0
Pests Suppressed	Rate: Fluid Ounces/Acre
Lygus bug ( <i>Lygus hesperus</i> ) Whiteflies (other than bandedwinged whitefly)	1.5 - 2.0

## Foliar Application / **COTTON** *continued*

**Restrictions:**

- Pre-Harvest Interval (PHI): 14 days
- Minimum interval between applications: 7 days
- Maximum MONTANA 4F INSECTICIDE allowed per year: 10.0 fluid ounces/Acre (0.31 lb. AI/A)
- Do not graze treated fields after any application of MONTANA 4F INSECTICIDE.
- Regardless of formulation or method of application, apply no more than 0.5 lb active ingredient per acre per year, including seed treatment, soil and foliar uses.

**Applications:**

Apply MONTANA 4F INSECTICIDE through properly calibrated ground, aerial or chemigation application equipment.

## Foliar Application / **COTTON** / Tank Mix Requirements

Pests Controlled (in addition to pests listed above)	<b>MONTANA 4F INSECTICIDE</b> Rate: Fluid Ounces/Acre	<b>Bidrin 8*</b> Rate: Fluid Ounces/Acre
<b>For early season control of:</b> Thrips	1.0 - 1.5	1.6 - 3.2
<b>For mid to late season control of:</b> Plant bugs Stink bugs (including Brown stink bug) Grasshoppers Saltmarsh caterpillar Cotton leafperforator	1.25 - 1.9	4.0 - 8.0

**Restrictions:** (in addition to restrictions listed above)

\*Refer to the Bidrin 8 product label for specific use directions; observe all restrictions and precautions that appear on the label.

## Foliar Application / **PEANUT**<sup>1</sup>

Pests Controlled	Rate: Fluid Ounces/Acre
Aphids Leafhoppers Whiteflies	1.5

**Restrictions:**

- Pre-Harvest Interval (PHI): 14 days
- Minimum interval between applications: 5 days
- Maximum MONTANA 4F INSECTICIDE allowed per year: 4.2 fluid ounces/Acre (0.13 lb. AI/A)

<sup>1</sup> Use not permitted in California unless otherwise directed by state-specific 24(c) labeling.

### Foliar Application / **POTATO**

Pests Controlled	Rate: Fluid Ounces/Acre
Aphids Colorado potato beetle Flea beetles Leafhoppers Psyllids	1.5
<p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 7 days</li> <li>• Minimum Interval between applications: 7 days</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed per year: 6.0 fluid ounces/Acre (0.19 lb. AI/A)</li> </ul> <p><b>Applications:</b> Apply specified dosage of MONTANA 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply MONTANA 4F INSECTICIDE through properly calibrated ground or aerial application equipment.</p>	

### Foliar Application / **TOBACCO**

Pests Controlled	Rate: Fluid Ounces/Acre
Aphids	0.8 - 1.6
Flea beetles Japanese beetle	1.6
<p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 14 days</li> <li>• Minimum interval between applications: 7 days</li> <li>• Maximum number of MONTANA 4F INSECTICIDE allowed per year: 9.0 fluid ounces/Acre (0.28 lb. AI/A)</li> </ul> <p><b>Applications:</b> Apply specified dosage of MONTANA 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply MONTANA 4F INSECTICIDE through properly calibrated ground or aerial application equipment.</p> <p>[See additional use directions under <b>Soil Applications and Rates for Field Crops Section - TOBACCO</b>]</p>	

## SOIL APPLICATIONS AND RATES FOR FIELD CROPS

### Soil Application / **COTTON**

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/1,000 row-feet</b>	<b>Rate: Fluid Ounces/Acre</b>
Cotton aphid Plant bugs Thrips Whiteflies	0.65	8.5 - 10.6 (Depending on row-spacing)

**Restrictions:**

- Maximum MONTANA 4F INSECTICIDE allowed per year: 10.6 fluid ounces/Acre (0.33 lb. AI/A)
- Regardless of formulation or method of application, apply no more than 0.5 lb. active ingredient of MONTANA 4F INSECTICIDE, Trimax or Leverage per acre per year, including seed treatment with Gaucho, soil and foliar uses.
- Do not graze treated fields after any application of MONTANA 4F INSECTICIDE.

**Please see Resistance Management section of this label.**

**Applications:**

Apply specified dosage of MONTANA 4F INSECTICIDE in one of the following methods:

1. In-furrow spray during planting directed on or below seed;
2. In a narrow band directly below the eventual seed row in a bedding operation 7 or fewer days before planting;
3. Chemigation into root-zone through low-pressure drip or trickle irrigation.

### Soil Application / **PEANUT<sup>1</sup>**

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Leafhoppers Whiteflies	8.0 - 12.0
Thrips	8.0 - 12.0

**Restrictions:**

- Pre-Harvest Interval (PHI): 14 days
- Maximum MONTANA 4F INSECTICIDE allowed per year: 12.0 fluid ounces/Acre (0.38 lb. AI/A)

**Applications:**

Apply specific dosage in one of the following methods:

1. In-furrow spray during planting directed on or below seed;
2. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.

**Important Note:**

Increases in Tomato spotted wilt virus (TSWV) incidence have been observed with applications of MONTANA 4F INSECTICIDE on multiple varieties of peanut. This may also be the case with other tospoviruses, or other viruses transmitted by various thrips species or perhaps, other pests. Prior to applying MONTANA 4F INSECTICIDE to peanuts, Rotam suggests consultation with State Cooperative Extension Service, or a Rotam Representative. Growers are advised to weigh insect control benefits against potential increase in viral disease levels. In areas where TSWV or other tospovirus are endemic, growers are encouraged to use virus resistant varieties and consult the University of Georgia, Tomato spotted wilt virus index, before applying MONTANA 4F INSECTICIDE.

<sup>1</sup>Use not permitted in California unless otherwise directed by state-specific 24(c) labeling.

### Soil Application / **POTATO**

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/1,000 row-feet</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Colorado potato beetle Flea beetles Leafhoppers Potato psyllid	0.45 - 0.65	6.5 - 10.0
<b>Pests/Diseases Suppressed</b>	<b>Rate: Fluid Ounces/1,000 row-feet</b>	<b>Rate: Fluid Ounces/Acre</b>
Symptoms of: Potato leaf roll virus (PLRV) Potato yellows Net necrosis Wireworms (with in-furrow spray at planting)	0.45 - 0.65	6.5 - 10.0
<b>Restrictions:</b>		
<ul style="list-style-type: none"> <li>• Maximum MONTANA 4F INSECTICIDE allowed per year: 10.0 fluid ounces/Acre (0.31 lb. AI/A)</li> </ul>		
<b>Applications:</b>		
Apply specified dosage of MONTANA 4F INSECTICIDE in one of the following methods:		
<ol style="list-style-type: none"> <li>1. In-furrow spray during planting directed on seed pieces or seed potatoes;</li> <li>2. Subsurface side-dress on both sides of the row covered with 3 or more inches of soil;</li> <li>3. Narrow band spray at ground cracking directly over the row during hilling covered with 3 or more inches of soil;</li> <li>4. Narrow band directly below the eventual seed row in a bedding operation 7 or fewer days before planting. For effective pest control or suppression, MONTANA 4F INSECTICIDE applications must be placed below soil surface and in contact with seed piece or within root-zone. For potatoes grown on highly permeable soils with shallow water table, at-plant applications of MONTANA 4F INSECTICIDE may be made in a 2- to 4-inch band (width of planter shoe opening) and completely covered.</li> </ol>		

### Soil Application / **POTATO (Seed Piece Treatment)**

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/100 lbs. seed</b>	<b>Rate: Fluid Ounces/Acre*</b>
Aphids Colorado potato beetle Flea beetles Leafhoppers Potato psyllid Wireworms (seed-piece protection)	0.2 - 0.4	4.0 - 8.0
<b>Pests/Diseases Suppressed</b>	<b>Rate: Fluid Ounces/100 lbs. seed</b>	<b>Rate: Fluid Ounces/Acre*</b>
Symptoms of: Potato leaf roll virus (PLRV) Potato yellows Net necrosis	0.4	8.0



## Soil Application / **POTATO (Seed Piece Treatment)** *continued*

### Restrictions:

- Maximum MONTANA 4F INSECTICIDE allowed per year: 10.0 fluid ounces/Acre (0.31 lb. A/A)
- Do not use treated seed-pieces for food, feed, or fodder.
- Do not apply any subsequent application of MONTANA 4F INSECTICIDE (in-furrow), Gaucho®, Leverage® or MONTANA 4F INSECTICIDE following a MONTANA 4F INSECTICIDE seed-piece treatment.

### Applications:

Apply specified dosage as a diluted spray onto seed-pieces using a shielded spray system. Dilute with 3 parts water, or less, to 1 part MONTANA 4F INSECTICIDE. Agitate or stir spray solution as needed. Fungicidal or inert absorbent dusts may be applied after MONTANA 4F INSECTICIDE application. Apply only in areas with adequate ventilation or in areas that are equipped to remove spray mist or dust. Plant seed pieces as soon as possible after treating, avoiding prolonged exposure of MONTANA 4F INSECTICIDE treated seed-pieces to sunlight and in accordance with the direction of your local Extension specialist.

Consult your local crop protection product dealer for information relevant to your area.

\*Based on a seeding rate of 2,000 lbs./acre.

## Soil Application / **TOBACCO**

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/1,000 plants (as seedling tray drench)</b>	<b>Rate: Fluid Ounces/1,000 plants (in-furrow or transplant-water)</b>
Aphids Flea beetles	0.5	0.7
Mole crickets Whiteflies Wireworms	0.7 - 1.4	0.9 - 1.4
<b>Pests/Diseases Suppressed</b>	<b>Rate: Fluid Ounces/1,000 plants (as seedling tray drench)</b>	<b>Rate: Fluid Ounces/1,000 plants (in-furrow or transplant-water)</b>
Cutworms <i>Symptoms of:</i> Tomato spotted wilt virus	0.7 - 1.4	0.9 - 1.4

### Restrictions:

- Pre-Harvest Interval (PHI): 14 days
- Maximum MONTANA 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.50 lb. A/A)

### Applications:

Apply specified dosage of MONTANA 4F INSECTICIDE in one of the following methods:

1. Uniform, broadcast foliar spray to seedlings in trays (tray drench) not more than 7 days prior to transplanting followed immediately by overhead irrigation to wash MONTANA 4F INSECTICIDE from foliage into potting media. Failure to wash MONTANA 4F INSECTICIDE from foliage may result in a reduction in pest control. Transplants must be handled carefully during setting to prevent dislodging treated potting media from roots;
2. In-furrow spray or transplant-water drench during setting;
3. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.

**Important Note:** Proper tray drench applications of MONTANA 4F INSECTICIDE have been shown to be the most efficacious method of application. However, the specified rate of MONTANA 4F INSECTICIDE may be applied as combination of the tray drench in the planthouse and/or transplant water drench in field. Adverse growing conditions may cause a delay in uptake of MONTANA 4F INSECTICIDE into the plant and a delay in control.

## FOLIAR APPLICATIONS FOR VEGETABLE AND SMALL FRUIT CROPS

Apply specified rate per acre as foliar spray as pest populations begin to build. Thorough uniform coverage is necessary to achieve insecticidal control. A spray adjuvant may be used to improve coverage. MONTANA 4F INSECTICIDE may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. MONTANA 4F INSECTICIDE may be tank mixed with other insecticides as specified for knockdown of pests or for improved control of other pests.

Foliar Application / <b>FRUITING VEGETABLES and OKRA</b> <sup>1</sup>	
<b>Eggplant, Ground cherry, Okra, Pepper (including bell, chili, cooking, pimento and sweet), Tomato, Pepinos, Tomatillo</b>	
Pests Controlled	Rate: Fluid Ounces/Acre
Aphids Colorado potato beetle Leafhoppers Whiteflies	1.5
Pepper weevil (Pepper only)	2.5
<b>Restrictions:</b>	
<ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 0 days</li> <li>• Minimum interval between applications: 5 days</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed per crop season: 7.5 fluid ounces/Acre (0.24 lb. AI/A)</li> </ul>	
<b>Applications:</b>	
For all pests listed except pepper weevil, apply specified dosage of MONTANA 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply MONTANA 4F INSECTICIDE through properly calibrated ground or aerial application equipment.	
For pepper weevil, apply specified dosage of MONTANA 4F INSECTICIDE as a broadcast or directed spray by ground equipment to infested area, timing applications prior to a damaging population becoming established. Good coverage of foliage and fruit is necessary for insecticidal control.	
Applications of MONTANA 4F INSECTICIDE must be incorporated into a full-season program, where alternations of effective products from multiple classes of chemistry and different modes of action are utilized in a blocked or windowed approach. For additional information, please contact your Extension Specialist or crop advisor.	
<sup>1</sup> Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.	

Foliar Application / <b>GLOBE ARTICHOKE</b>	
Pests Controlled	Rate: Fluid Ounces/Acre
Aphids Leafhoppers	1.6 - 4.0
<b>Restrictions:</b>	
<ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 7 days</li> <li>• Minimum interval between applications: 14 days</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A)</li> </ul>	
<b>Applications:</b>	
Apply specified dosage of MONTANA 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply MONTANA 4F INSECTICIDE through properly calibrated ground or aerial equipment.	

## Foliar Application / **HERBS**<sup>1</sup>

Angelica, Balm (lemon balm), Basil (fresh and dried), Borage, Burnet, Camomile, Catnip, Chervil (dried), Chinese chive, Chive, Clary, Coriander (cilantro or Chinese parsley leaves), Costmary, Cilantro (leaf), Curry (leaf), Dillweed, Horehound, Hyssop, Lavender, Lemongrass, Lovage (leaf), Marigold, Marjoram, Nasturtium, Parsley (dried), Pennyroyal, Rosemary, Rue, Sage, Savory (summer and winter), Sweet bay (bay leaf), Tansy, Tarragon, Thyme, Wintergreen, Woodruff, Wormwood

Pests Controlled	Rate: Fluid Ounces/Acre
Aphids Flea beetles Leafhoppers Whiteflies	1.4

**Restrictions:**

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 5 days
- Maximum MONTANA 4F INSECTICIDE allowed per crop season: 4.2 fluid ounces/Acre (0.13 lb. A/A)

**Applications:**

Apply MONTANA 4F INSECTICIDE through properly calibrated ground and aerial application equipment. Thorough coverage with direct contact of the spray material to the target pests is required for optimum control. The addition of an organosilicone-based spray adjuvant at a rate not to exceed the adjuvant manufacturer's specified use rate may improve coverage and control.

**Note:** Not all crops and/or varieties listed above have been tested for phytotoxic effects. Without specific knowledge about a particular crop and variety, treat only small areas or numbers of plants of each and evaluate prior to commercial use.

<sup>1</sup>Use not permitted in California unless otherwise directed by state-specific 24(c) labeling.

## Foliar Application / **BRASSICA (COLE) LEAFY VEGETABLES**<sup>1</sup>

Broccoli, Broccoli raab (rapini), Brussels sprouts, Cabbage, Cauliflower, Cavalo broccolo, Chinese (gai lan) broccoli, Chinese (bok choy) cabbage, Chinese (napa) cabbage, Chinese mustard (gai choy) cabbage, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Pests Controlled	Rate: Fluid Ounces/Acre
Aphids Flea beetles Leafhoppers Whiteflies	1.5

**Restrictions:**

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 5 days
- Maximum MONTANA 4F INSECTICIDE allowed per crop season: 7.4 fluid ounces/Acre (0.23 lb. A/A)

<sup>1</sup>Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

**Foliar Application / LEAFY GREENS VEGETABLES and WATERCRESS<sup>1</sup>**

Amaranth (leafy amaranth, Chinese spinach, tampala), Arugula (rocket), Chervil, Chrysanthemum (edible leaved and garland), Corn salad, Cress (garden), Cress (upland, yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chickory), Spinach (including New Zealand and vine (Malabar spinach, Indian spinach), Watercress (commercial production only), Watercress (upland)<sup>1</sup>

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Leafhoppers Flea beetles Whiteflies	1.5

**Restrictions:**

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 5 days
- Maximum MONTANA 4F INSECTICIDE allowed per crop season: 7.4 fluid ounces/Acre (0.23 lb. AI/A)  
Applications must not be made to native cress growing in streams or other bodies of water.

**Applications:**

Apply specified dosage of MONTANA 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply MONTANA 4F INSECTICIDE through properly calibrated ground or aerial equipment.

<sup>1</sup>Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

**Foliar Application / LEGUMES VEGETABLES<sup>1</sup> Except Soybean (dry)**

Edible Podded and Succulent Shelled Pea and Bean and Dried Shelled Pea and Bean: Bean (*Lupinus* spp., includes grain lupin, sweet lupin, white lupin, and white sweet lupin); Bean (*Phaseolus* spp., includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean); Bean (*Vigna* spp., includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, Southern pea, urd bean, yardlong bean); Pea (*Pisum* spp. includes dwarf pea, edible pea, edible-pod pea, English pea, field pea, garden pea, green pea, snow pea, sugar snap pea); Other Beans and Peas (Broad bean (fava), chickpea (garbanzo bean), Guar, Jackbean, Lablab bean, hyacinth bean, lentil, Pigeon pea, soybean (immature seed), Sword bean

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Leafhoppers Whiteflies	1.4

**Restrictions:**

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 7 days
- Maximum MONTANA 4F INSECTICIDE allowed per crop season: 4.2 fluid ounces/Acre (0.13 lb. AI/A)

**Applications:**

Apply specified dosage of MONTANA 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply MONTANA 4F INSECTICIDE through properly calibrated ground or aerial equipment.

<sup>1</sup>Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

## Foliar Application / **ROOT, TUBEROUS and CORM VEGETABLES**<sup>1</sup>

Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Beet (garden)<sup>2</sup>, Burdock (edible)<sup>2</sup>, Canna (edible, Queensland arrowroot), carrot<sup>2</sup>, Cassava (bitter & sweet)<sup>2</sup>, Celeriac<sup>2</sup>, Chayote (root), Chervil (turnip-rooted), Chicory<sup>2</sup>, Chufa, Dasheen (taro)<sup>2</sup>, Ginger, Ginseng, Horseradish, Kava<sup>2,3</sup>, Leren, Parsley (turnip-rooted)<sup>2</sup>, Parsnip<sup>2</sup>, Radish<sup>2</sup>, Oriental radish (daikon)<sup>2</sup>, Rutabaga<sup>2</sup>, Salsify (black)<sup>2</sup>, Salsify (oyster plant), Salsify (Spanish), Skirret, Sweet potato, Tanier (cocoyam)<sup>2</sup>, Turmeric, Turnip<sup>2</sup>, Yam bean (jicama, manioc pea), Yam (true)<sup>2</sup>

**For applications on Potato, see Field Crops section**

Pests Controlled	Rate: Fluid Ounces/Acre
Aphids Flea beetles Leafhoppers Whiteflies	1.4

### Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 5 days
- Maximum MONTANA 4F INSECTICIDE allowed per crop season: 1.4 fluid ounces/Acre (0.044 lb. AI/A) on radish; 4.2 fluid ounces/Acre (0.13 lb. AI/A) on other crops
- Maximum MONTANA 4F INSECTICIDE applications per crop season: 1 on radish; 3 on other crops

### Applications:

Apply specified dosage of MONTANA 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply MONTANA 4F INSECTICIDE through properly calibrated ground or aerial equipment.

<sup>1</sup>Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

<sup>2</sup>Tops or greens from these crops may be utilized for food or feed.

<sup>3</sup>Use not permitted in California unless otherwise directed by state-specific 24(c) labeling.

## Foliar Application / **SOYBEANS**<sup>1</sup>

Pests Controlled	Rate: Fluid Ounces/Acre
Aphids Bean leaf beetle Cucumber beetles Rootworm adults Japanese beetle (adults) Leafhoppers Whiteflies	1.5

### Restrictions:

- Pre-harvest Interval (PHI): 21 days
- Minimum interval between applications: 7 days
- Maximum MONTANA 4F INSECTICIDE allowed per year: 4.5 fluid ounces/Acre (0.14 lb. AI/A)

<sup>1</sup>Not for use in California or New York State unless accompanied by approved state-specific 24(c) labeling.

## Foliar Application / **STRAWBERRY**

Pests Controlled	Rate: Fluid Ounces/Acre
Aphids Spittlebugs Whiteflies	1.5
<b>Restrictions:</b>	
<ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 7 days</li> <li>• Minimum interval between applications: 5 days</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed per crop season: 4.5 fluid ounces/Acre (0.14 lb. AI/A)</li> <li>• Do not apply during bloom or within 10 days prior to bloom or when bees are foraging.</li> </ul>	
<b>Applications:</b>	
Apply specified dosage of MONTANA 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply MONTANA 4F INSECTICIDE through properly calibrated ground or aerial equipment.	

## SOIL APPLICATIONS FOR VEGETABLE AND SMALL FRUIT CROPS

### Soil Application / **CUCURBIT VEGETABLES<sup>1</sup>**

Including: Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cuban pumpkin, Cucumber, Gherkin, Gourd (edible, includes hyotan, cucuzza, hechima, Chinese okra), <i>Momordica</i> spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (hybrids and/or cultivars of <i>Cucumis melo</i> including true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon and Winter melon), Pumpkin, Squash (includes summer squash types such as: butternut squash, calabaza, crookneck squash, Hubbard squash, scallop squash, straightneck squash, vegetable marrow and zucchini, and winter squash types such as acorn squash and spaghetti squash), Watermelon (includes hybrids and/or varieties of <i>Citrullus lanatus</i> )	
<b>Field Applications</b> (See details below for additional planthouse applications)	
Pests Controlled	Rate: Fluid Ounces/Acre
Aphids Cucumber beetles Leafhoppers Thrips (foliage feeding thrips only) Whiteflies	8.0 - 12.0
Pests/Diseases Suppressed	Rate: Fluid Ounces/Acre
Bacterial wilt (as vectored by various cucumber beetles) Leaf silencing (resulting from whitefly feeding)	8.0 - 12.0

## Soil Application / **CUCURBIT VEGETABLES**<sup>1</sup> *continued*

### Restrictions:

- Pre-Harvest Interval (PHI): 21 days
- Maximum MONTANA 4F INSECTICIDE allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb. AI/A)

### Applications:

Apply specified dosage of MONTANA 4F INSECTICIDE in one of the following methods:

1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
2. In-furrow spray directed on or below seed;
3. Narrow (2" or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1 1/2" with sufficient irrigation within 24 hours of application;
4. Narrow band spray directly below eventual seed row in bedding operation 14 or fewer days before planting;
5. Post-seeding drench, transplant-water drench, or hill drench;
6. Subsurface side-dress on both sides of each row. MONTANA 4F INSECTICIDE must be incorporated into root-zone.

<sup>1</sup>Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

## Soil Application / **CUCURBITS - Planthouse Applications**<sup>2</sup>

Pests Controlled	Rate: Fluid Ounces/1,000 Plants
Aphids Whiteflies	0.05

### Restrictions:

- Maximum amount MONTANA 4F INSECTICIDE applied in the planthouse: 0.05 fluid ounces (0.00156 lb. AI)/1,000 plants
- Maximum amount MONTANA 4F INSECTICIDE applied in the planthouse: 1

### Applications:

Apply specified dosage to seedlings in trays in the planthouse, targeting soil media (tray drench), not more than 7 days prior to transplanting, in one of the following manners:

1. Uniform, broadcast high-volume foliar spray, followed immediately by sufficient overhead irrigation to wash MONTANA 4F INSECTICIDE from foliage into potting media without loss of gravitational liquid from the bottom of the tray. Failure to wash MONTANA 4F INSECTICIDE from foliage may result in reduced pest control;
2. Injection into overhead irrigation system, using adequate volume to thoroughly saturate soil media without loss of gravitational solution from the bottom of the tray.

The application made in the planthouse will only provide short-term protection and is not intended as a substitution for a field application. An additional field application must be made within 2 weeks following transplanting to provide continuous protection. Applications of higher rates or increased number of applications in planthouse may result in significant plant injury. Transplants must be handled carefully during setting to avoid dislodging treated potting media from roots.

**Important Note:** Not all varieties of cucurbit vegetables have been tested for tolerance to MONTANA 4F INSECTICIDE applied to seedling flats. Treat a small number of plants and confirm tolerance for 7 days prior to treating entire planthouse.

<sup>1</sup>Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

<sup>2</sup>Use not permitted in California unless otherwise directed by state-specific 24(c) labeling.

## Soil Application / **GREENHOUSE VEGETABLES<sup>1</sup>**

**(Mature plants in production greenhouses) Cucumber, Tomato only**

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/1,000 Plants</b>
Aphids Whiteflies	0.7
<p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Pre-harvest Interval (PHI): 0 days</li> <li>• Maximum number MONTANA 4F INSECTICIDE applications per crop season: 1</li> </ul>	
<p><b>Applications:</b></p> <p>Apply specified dosage in a minimum of 16 gallons of water for tomatoes and 21 gallons of water for cucumbers using soil drenches, micro-irrigation, drip irrigation, or hand-held or motorized calibrated irrigation equipment. Apply only to plants grown in field-type soils, potting media, or mixtures, thereof. Do not apply to plants grown in non-soil media such as perlite, vermiculite, rock wool, or other soil-less media, or plants grown hydroponically. Do not apply to immature plants since phytotoxicity may occur.</p> <p>Apply when infestation pressure threshold and beneficial are not able to maintain pest populations below damage thresholds. Negative effects on pollinators and other beneficials (<i>Orius spp.</i>) can occur when MONTANA 4F INSECTICIDE is applied.</p> <p>Many varieties of vegetables have been tested for tolerance to MONTANA 4F INSECTICIDE and show good safety. However, certain varieties may show more sensitivity to MONTANA 4F INSECTICIDE. Treat a few plants and evaluate before treating the whole greenhouse.</p> <p><sup>1</sup>Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.</p>	

## Soil Application / **FRUITING VEGETABLES<sup>1</sup> and OKRA**

**Including: Eggplant, Ground cherry, Okra, Pepper (including bell, chili, cooking, pimento and sweet), Tomato, Pepinos, Tomatillo**

**Field Applications (See details below for planthouse applications)**

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Colorado beetle potato Flea beetles Leafhoppers Thrips (foliage-feeding thrips only) Whiteflies	Okra and Pepper 8.0 - 16.0  Other Crops 8.0 - 12.0
<b>Pests/Diseases Suppressed</b>	<b>Rate: Fluid Ounces/Acre</b>
<i>Symptoms of:</i> Tomato mottle virus Tomato spotted wilt virus Tomato yellow leaf curl virus	Okra and Pepper 8.0 - 16.0  Other Crops 8.0 - 12.0
<p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 21 days</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed on pepper and okra crops per crop season: 16.0 fluid ounces/Acre (0.5 lb. AI/A)</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed on other fruiting vegetable crops per crop season: 12.0 fluid ounces/Acre (0.38 lb. AI/A)</li> </ul>	



## Soil Application / **FRUITING VEGETABLES<sup>1</sup>** and **OKRA** *continued*

### Applications:

Apply specified dosage of MONTANA 4F INSECTICIDE in one of the following methods:

1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
2. In-furrow spray directed on or below seed;
3. Narrow (2" or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1 1/2" with sufficient irrigation within 24 hours of application;
4. Narrow band spray directly below eventual seed row in bedding operation 14 or fewer days before planting;
5. Post-seeding drench, transplant-water drench, or hill drench;
6. Subsurface side-dress on both sides of each row. MONTANA 4F INSECTICIDE must be incorporated into root-zone.

<sup>1</sup>Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

## Soil Application / **FRUITING VEGETABLES<sup>1</sup>** and **OKRA** **Planthouse Applications<sup>2</sup>**

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/1,000 Plants</b>
Aphids Whiteflies	0.05

### Restrictions:

- Maximum amount MONTANA 4F INSECTICIDE applied in the planthouse: 0.05 fluid ounces
- (0.00156 lb. AI)/1,000 plants
- Maximum number MONTANA 4F INSECTICIDE applications in planthouse: 1

### Applications:

Apply specified dosage to seedlings in trays in the planthouse, targeting soil media (tray drench), not more than 7 days prior to transplanting, in one of the following manners:

1. Uniform, broadcast high-volume foliar spray, followed immediately by sufficient overhead irrigation to wash MONTANA 4F INSECTICIDE from foliage into potting media without loss of gravitational liquid from the bottom of the tray; failure to wash MONTANA 4F INSECTICIDE from foliage may result in reduced pest control;
2. Injection into overhead irrigation system, using adequate volume to thoroughly saturate soil media without loss of gravitational solution from the bottom of the tray.

The application made in the planthouse will only provide short-term protection and is not intended as a substitution for a field application. An additional field application must be made within 2 weeks following transplanting to provide continuous protection.

Applications of higher rates or increased number of applications in planthouse may result in significant plant injury. Transplants must be handled carefully during setting to avoid dislodging treated potting media from roots.

**Important Note:** Not all varieties of fruiting vegetables have been tested for tolerance to MONTANA 4F INSECTICIDE applied to seedling flats. Treat a small number of plants and confirm tolerance for 7 days prior to treating entire planthouse.

<sup>1</sup>Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

<sup>2</sup>Use not permitted in California unless otherwise directed by state-specific 24(c) labeling.

Soil Application / **GLOBE ARTICHOKE**<sup>1</sup>

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Leafhoppers	8.0 - 16.0
<b>Restrictions:</b>	
<ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 7 days</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A)</li> </ul>	
<b>Applications:</b>	
Apply specified dosage in one of the following methods:	
<ol style="list-style-type: none"> <li>1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;</li> <li>2. In-furrow spray at planting directed on or below seed.</li> </ol>	
<sup>1</sup> Use not permitted in California unless otherwise directed by state-specific 24(c) labeling.	

Soil Application / **HERBS**<sup>1</sup>

<b>Angelica, Balm (lemon balm), Basil (fresh and dried), Borage, Burnet, Camomile, Catnip, Chervil (dried), Chinese chive, Chive, Clary, Coriander (cilantro or Chinese parsley leaves), Costmary, Cilantro (leaf), Curry (leaf), Dillweed, Horehound, Hyssop, Lavender, Lemongrass, Lovage (leaf), Marigold, Marjoram, Nasturtium, Parsley (dried), Pennyroyal, Rosemary, Rue, Sage, Savory (summer and winter), Sweet bay (bay leaf), Tansy, Tarragon, Thyme, Wintergreen, Woodruff, Wormwood</b>	
<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Flea beetles Leafhoppers Whiteflies	8.0 - 12.0
<b>Pests Suppressed</b>	<b>Rate: Fluid Ounces/Acre</b>
Thrips (foliage feeding thrips only)	8.0 - 12.0
<b>Restrictions:</b>	
<ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 14 days</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb. AI/A)</li> </ul>	
<b>Applications:</b>	
Apply specified dosage in one of the following methods:	
<ol style="list-style-type: none"> <li>1. In-furrow spray during planting directed on or below seed;</li> <li>2. In-furrow spray or transplant-water drench during setting or transplanting;</li> <li>3. Shankd into or below eventual seed-line;</li> <li>4. Chemigation into root zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.</li> </ol>	
<b>Notes:</b> Not all crops and/or varieties listed above have been tested for phytotoxic effects. Without specific knowledge about a particular crop and variety, treat only small areas or numbers of plants of each and evaluate prior to commercial use.	
<sup>1</sup> Use not permitted in California unless otherwise directed by state-specific 24(c) labeling.	

## Soil Application / **BRASSICA (COLE) LEAFY VEGETABLES<sup>1</sup>**

**Including:** Broccoli, Broccoli raab (*rapini*), Brussels sprouts, Cabbage, Cauliflower, Cavalo broccolo, Chinese (*gai lan*) broccoli, Chinese (*bok choy*) cabbage, Chinese (*napa*) cabbage, Chinese mustard (*gai choy*) cabbage, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Pests Controlled	Rate: Fluid Ounces/Acre (on 36-inch rows)
Aphids Leafhoppers Thrips (foliage feeding thrips only) Whiteflies	5.0 - 12.0

### **Restrictions:**

- Pre-Harvest Interval (PHI): 21 days
- Maximum MONTANA 4F INSECTICIDE allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb. AI/A)

### **Applications:**

Apply specified dosage of MONTANA 4F INSECTICIDE in one of the following methods:

1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
2. In-furrow spray directed on or below seed;
3. Narrow (2" or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1 1/2" with sufficient irrigation within 24 hours of application;
4. Narrow band spray directly below eventual seed row in bedding operation 14 or fewer days before planting;
5. Post-seeding drench, transplant-water drench, or hill drench;
6. Subsurface side-dress on both sides of each row. MONTANA 4F INSECTICIDE must be incorporated into root zone.

<sup>1</sup>Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

## Soil Application / **LEAFY GREENS VEGETABLES and WATERCRESS<sup>1</sup>**

**Including:** Amaranth (leafy amaranth, Chinese spinach, tampala), Arugula (Roquette), Chervil, Chrysanthemum (edible leaved and garland), Corn salad, Cress (garden), Cress (upland, yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Raddicchio (red chicory), Spinach (including New Zealand and vine (Malabar spinach, Indian spinach)), Watercress (commercial production only, applications must not be made to native cress growing in streams or other bodies of water), Watercress (upland)

Pests Controlled	Rate: Fluid Ounces/Acre (on 36 inch rows)
Aphids Whiteflies Leafhoppers Thrips (foliage feeding thrips only)	5.0 - 12.0

**Soil Application / LEAFY GREEN VEGETABLES and WATERCRESS<sup>1</sup> *continued*****Restrictions**

- Pre-Harvest Interval (PHI): 21 days
- Maximum MONTANA 4F INSECTICIDE allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb. AI/A)

**Applications**

Apply specified dosage of MONTANA 4F INSECTICIDE in one of the following methods:

1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
2. In-furrow spray directed on or below seed;
3. Narrow (2" or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1 1/2" with sufficient irrigation within 24 hours of application;
4. Narrow band spray directly below eventual seed row in bedding operation 14 or fewer days before planting;
5. Post-seeding drench, transplant-water drench, or hill drench;
6. Subsurface side-dress on both sides of each row. MONTANA 4F INSECTICIDE must be incorporated into root zone.

<sup>1</sup>Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

**Soil Application / LEAFY PETIOLE VEGETABLES<sup>1</sup>**

**Cardoon, Celery, Celtuce, Chinese celery (fresh leaves and stalk only), Florence fennel (including sweet anise, sweet fennel, Finocchio), Rhubarb, Swiss chard**

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Leafhoppers Thrips (foliage feeding thrips only) Whiteflies	5.0 - 12.0

**Restrictions:**

- Pre-Harvest Interval (PHI): 45 days
- Maximum MONTANA 4F INSECTICIDE allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb. AI/A)

**Applications:**

Apply specified dosage of MONTANA 4F INSECTICIDE in one of the following methods:

1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.
2. In-furrow spray directed on or below seed;
3. Narrow (2" or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1 1/2" with sufficient irrigation within 24 hours of application;
4. Narrow band spray directly below eventual seed row in bedding operation 14 or fewer days before planting.
5. Post-seeding drench, transplant-water drench, or hill drench;
6. Subsurface side-dress on both sides of each row. MONTANA 4F INSECTICIDE must be incorporated into root-zone.

<sup>1</sup>Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

## Soil Application / **LEGUME VEGETABLES**<sup>1</sup> Except Soybean (dry)

Edible Podded and Succulent Shelled Pea and Bean and Dried Shelled Pea and Bean:  
 Bean (*Lupinus* spp., includes grain lupin, sweet lupin, white lupin, and white sweet lupin)  
 Bean (*Phaseolus* spp., includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean), Bean (*Vigna* spp., includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, Southern pea, urd bean, yardlong bean), Pea (*Pisum* spp., includes dwarf pea, edible-pod pea, English pea, field pea, garden pea, green pea, snow pea, sugar snap pea), Other Beans and Peas [Broad bean (fava), Chickpea (garbanzo bean), Guar, Jackbean, Lablab bean (hyacinth bean), Lentil, Pigeon pea, Soybean (immature seed), Sword bean]

Pests Controlled	Rate: Fluid Ounces/Acre
Aphids Leafhoppers Thrips (foliage feeding thrips only) Whiteflies	8.0-12.0
Pests/Diseases Suppressed	Rate: Fluid Ounces/Acre
<i>Symptoms of:</i> Bean common mosaic virus (BCMV) Bean golden mosaic virus (BGMV) Beet curly top hybrigeminivirus (BCTV)	8.0 - 12.0

### Restrictions:

- Pre-Harvest Interval (PHI): 21 days
- Maximum MONTANA 4F INSECTICIDE allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb. AI/A)

### Applications:

Apply specified dosage of MONTANA 4F INSECTICIDE in one of the following methods:

1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
2. In-furrow spray at planting directed on or below seed;
3. In a narrow (2" or less) surface band over seed-line during planting incorporated to a depth of 1 to 1 1/2" with sufficient irrigation within 24 hours following application;
4. In a narrow band directly below the eventual seed row in a bedding operation 7 or fewer days before planting;
5. As a post-seeding drench, transplant drench, or hill drench.

<sup>1</sup>Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

## Soil Application / **ROOT VEGETABLES**<sup>1</sup>

Including: Beet (garden)<sup>2</sup>, Burdock (edible)<sup>2</sup>, Carrot, Celeriac<sup>2</sup>, Chervil (turnip-rooted)<sup>2</sup>, Chicory<sup>2</sup>, Ginseng, Horseradish, Kava<sup>2,3</sup>, Parsley (turnip-rooted), Parsnip<sup>2</sup>, Radish<sup>2</sup>, Oriental radish (daikon)<sup>2</sup>, Rutabaga<sup>2</sup>, Salsify (oyster plant), Salsify (black)<sup>2</sup>, Salsify (Spanish), Skirret and Turnip

Pests Controlled	Rate: Fluid Ounces/ 1,000 row-feet	Rate: Fluid Ounces/ Acre
Aphids Flea beetles Leafhoppers Thrips (foliage feeding thrips only) Whiteflies	0.35 - 0.85	5.0 - 12.0

## Soil Application / **ROOT VEGETABLES**<sup>1</sup> *continued*

### Restrictions:

- Pre-Harvest Interval (PHI): 21 days
- Maximum MONTANA 4F INSECTICIDE allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb. AI/A)
- Maximum MONTANA 4F INSECTICIDE applications per crop season: 1

### Applications:

Apply specified dosage of MONTANA 4F INSECTICIDE in one of the following methods:

1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
2. In-furrow spray (rate specified per 1,000 row-feet) or, shanked-in 1 to 2 inches below seed depth during planting;
3. In a narrow (2 inches or less) band directly (1 to 2 inches) below the eventual seed row in a bedding operation 14 or fewer days before planting.

**Important Note:** The rate applied affects the length of control. Use higher rate within the specified rate range where infestations occur later in crop development, or where pest pressure is continuous. MONTANA 4F INSECTICIDE rates less than 0.7 fluid ounces/1,000 row-feet will not provide adequate residual pest control. MONTANA 4F INSECTICIDE treated crops grown on very high organic matter soils (muck) may also require additional pest management control.

<sup>1</sup> Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

<sup>2</sup> Tops or greens from these crops may be utilized for food or feed.

<sup>3</sup> Use not permitted in California unless otherwise directed by state-specific 24(c) labeling.

## Soil Application / **TUBEROUS and CORM VEGETABLES**<sup>1</sup>

Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Canna (edible, Queensland arrowroot), Cassava (bitter & sweet)<sup>2</sup>, chayote (root), Chufa, Dasheen (taro)<sup>2</sup>, Ginger, Leren, Sweet potato, Tanier (cocoyam)<sup>2</sup>, Turmeric, Yam bean (Jicama, manioc pea), Yam (true)<sup>2</sup> (For specific applications on potato see Field Crops section)

Pests Controlled	Rate: Fluid Ounces/ 1,000 row-feet	Rate: Fluid Ounces/ Acre
Aphids Flea beetles Leafhoppers Thrips (foliage feeding thrips only) Whiteflies	0.35 - 0.85	5.0 - 12.0

### Restrictions:

- Pre-Harvest Interval (PHI) from planting application: 3 days (leaves); 125 days (corms)
- Maximum MONTANA 4F INSECTICIDE allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb. AI/A)
- Maximum MONTANA 4F INSECTICIDE applications per crop season: 1

## Soil Application / **TUBEROUS and CORM VEGETABLES<sup>1</sup>** *continued*

### Applications:

Apply specified dosage of MONTANA 4F INSECTICIDE in one of the following methods:

1. In-furrow spray (rate specified per 1,000 row-feet) over planting material (hulis) or shanked-in 1 to 2 inches below hulis depth at planting;
2. Side-dress not more than 0.3 fluid ounces/1,000 row-feet no later than 45 days after-planting. Observe same PHI as above.

**Important Note:** The rate applied affects the length of control. Use higher rate within the specified rate range where infestations occur later in crop development, or where pest pressure is continuous. MONTANA 4F INSECTICIDE rates less than 0.35 fluid ounces/1,000 row-feet may not provide adequate residual pest control. MONTANA 4F INSECTICIDE treated crops grown on very high organic matter soils (muck) may also require additional pest management control.

<sup>1</sup> Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

<sup>2</sup> Tops or greens from these crops may be utilized for food or feed.

## Soil Application / **STRAWBERRY<sup>1</sup>**

### Annual and Perennial Crops

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Whiteflies	12.0 - 16.0

### Restrictions:

- Pre-Harvest Interval (PHI): 14 days
- Maximum MONTANA 4F INSECTICIDE allowed per crop season: 16.0 fluid ounces/Acre (0.50 lb. AI/A)
- Do not apply immediately prior to bud opening or during bloom or when bees are foraging.

### Applications:

Apply specified dosage of MONTANA 4F INSECTICIDE in one of the following methods:

1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment after plants are established or on perennial crops in early spring prior to bud opening;
2. As a plant material or plant hole treatment just prior to, or during transplanting.

The rate applied affects the length of control. Use higher rate within the specified rate range where infestations may occur later in crop development or where pest pressure is continuous.

<sup>1</sup> Do not use both application methods on the same crop in the same season.

## **STRAWBERRY<sup>1</sup> / Post-harvest Use on Perennial Crops**

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
White grub complex (grubs of Asiatic garden beetle, European and Masked chafer, Japanese beetle, Oriental beetle)	8.0 - 12.0

## **STRAWBERRY<sup>1</sup> / Post-harvest Use on Perennial Crops** *continued*

### **Restrictions:**

- Pre-Harvest Interval (PHI): 14 days
- Maximum MONTANA 4F INSECTICIDE allowed per year: 12.0 fluid ounces/Acre (0.38 lb. A/I/A)

### **Applications:**

Apply a single application post harvest to coincide with renovation of strawberry fields and during active egg-laying period of beetles. Apply specified dosage of MONTANA 4F INSECTICIDE in one of the following methods:

1. As a ground spray via boom or backpack sprayer in a minimum of 20 gallons of water per acre;
2. As a row-band spray using an adjusted amount of product based on the treated row band area in proportion to the amount required per full acre. The bandwidth must be equivalent to the width of the anticipated fruiting bed;
3. As a chemigation application with 600 to 1,000 gallons of water followed by 0.10 to 0.25 inches irrigation.

**Important Note:** All soil-surface applications must be followed by 0.25 inches of rainfall or overhead irrigation water per acre within 2 hours of application. Failure to adequately incorporate MONTANA 4F INSECTICIDE into egg-deposition zone may result in decreased activity.

<sup>1</sup> Do not use both application methods on the same crop in the same season.

## **Soil Application / SUGARBEET<sup>1</sup> (for use only in CA)**

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Leafhoppers Whiteflies Flea beetles	3.0 - 6.0
<b>Pests/Diseases Suppressed</b>	<b>Rate: Fluid Ounces/Acre</b>
<i>Symptoms of:</i> Western yellows / Beet curly top Hybrideminivirus (BCTV)	3.0 - 6.0

### **Restrictions:**

- Maximum MONTANA 4F INSECTICIDE allowed per year: 6.0 fluid ounces/Acre (0.18 lb. A/I/A)
- Maximum imidacloprid allowed per year: 0.18 lb. A/I/Acre (from any formulation) on any row spacing

### **Applications:**

Apply specified dosage of MONTANA 4F INSECTICIDE in the following method:

1. Apply specified dosage in sufficient carrier volume to insure uniform application. Apply directly below each seed furrow either during the bedding operation immediately prior to planting or at the time of planting. The low rate may be applied to aid establishment of stands in whitefly areas, or for early season control of the other pests listed.

<sup>1</sup>Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.



**MONTANA 4F INSECTICIDE CONVERSION CHART FOR LINEAR APPLICATION**

RATE: fluid ounces/Acre	RATE: fluid ounces/1,000 row-feet Based on average row spacing (in inches):							
	10	15	20	25	30	35	40	45
5	0.10	0.14	0.19	0.24	0.28	0.33	0.38	0.43
6	0.12	0.17	0.23	0.28	0.34	0.40	0.46	0.51
7	0.14	0.20	0.26	0.33	0.40	0.47	0.54	0.60
8	0.16	0.23	0.30	0.38	0.46	0.54	0.61	0.69
9	0.17	0.26	0.34	0.43	0.51	0.60	0.69	0.78
10	0.19	0.28	0.38	0.48	0.58	0.67	0.77	0.86
11	0.21	0.32	0.42	0.52	0.63	0.74	0.84	0.94
12	0.23	0.34	0.46	0.58	0.69	0.80	0.92	1.04
13	0.25	0.38	0.50	0.62	0.74	0.87	0.99	1.12
14	0.27	0.40	0.54	0.67	0.80	0.94	1.07	1.21
15	0.28	0.43	0.58	0.72	0.86	1.00	1.14	1.29
16	0.30	0.46	0.61	0.76	0.92	1.07	1.22	1.38

**Important Note:** The MONTANA 4F INSECTICIDE rate applied affects the length of control and to a considerable extent, the degree of control or effect.

Row-spacing X MONTANA 4F INSECTICIDE rate combinations in shaded blocks may not provide adequate residual pest control and are not directed for long-term, residual control. Use higher labeled rates where infestations may occur later in crop development or where pest pressure is continuous. ROTAM NORTH AMERICA INC offers no warranty for use of MONTANA 4F INSECTICIDE at rates below 0.35 fluid ounces/1,000 row-feet.

## FOLIAR APPLICATIONS FOR TREE, BUSH AND VINE CROPS

Apply specified rate per acre as foliar spray as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimal control. A spray adjuvant may be used to improve coverage. MONTANA 4F INSECTICIDE may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. MONTANA 4F INSECTICIDE may be tank mixed with other insecticides as directed for control of pests or for improved control of other pests.

### Foliar Application / **BANANA and PLANTAIN**<sup>1</sup>

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Leafhoppers Thrips	3.2
<b>Restrictions:</b>	
<ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 0 days</li> <li>• Minimum interval between applications: 14 days</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A)</li> </ul>	
<b>Applications:</b>	
Apply specified dosage of MONTANA 4F INSECTICIDE as a broadcast or directed spray to infested area insuring thorough coverage. Apply MONTANA 4F INSECTICIDE through properly calibrated ground or aerial application equipment. Aerial application of MONTANA 4F INSECTICIDE may result in slower activity and reduced control relative to results from ground application. Addition of an organosilicone adjuvant at a rate not to exceed 2.0 fluid ounces/100 gallons finished spray solution may improve coverage and pest control.	
<sup>1</sup> Use not permitted in California unless otherwise directed by state-specific 24(c) labeling.	

### Foliar Application / **BUSHBERRY**

<b>Blueberry, Currant, Elderberry, Gooseberry, Huckleberry, Juneberry, Lingonberry, Salal</b>	
<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Leafhoppers/Sharpshooters	1.2 - 1.6
Japanese beetle (adults) Thrips Blueberry maggot	2.4 - 3.2
<b>Restrictions:</b>	
<ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 3 days</li> <li>• Minimum interval between applications: 7 days</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed per year: 16 fluid ounces/Acre (0.5 lb. AI/A)</li> <li>• Maximum number of MONTANA 4F INSECTICIDE applications per year: 5</li> <li>• Minimum application volume (water): 20.0 GPA - ground; 5.0 GPA - aerial</li> <li>• Do not apply pre-bloom or during bloom or when bees are foraging.</li> </ul>	
<b>Applications:</b>	
Apply specified dosage of MONTANA 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply MONTANA 4F INSECTICIDE through properly calibrated ground or aerial equipment.	

## Foliar Application / **CANEBERRY**<sup>1</sup>

Crops of the Caneberry: Blackberry (*Rubus* spp. - including Andean Blackberry, Arctic blackberry, Bingleberry, Black satin berry, Boysenberry, Brombeere, California blackberry, Chesterberry, Cherokee blackberry, Cheyene blackberry, Common blackberry, Coryberry, Darrowberry, Dewberry, Dirksen thornless berry, Evergreen blackberry, Himalayaberry, Hullberry, Lavacaberry, Loganberry, Lowberry, Lucretiaberry, Mammoth blackberry, Marionberry, Moras, Mures deronce, Nectarberry, Northern dewberry, Olallieberry, Oregon evergreen berry, Phenomenalberry, Rangeberry, Ravenberry, Rosberry, Shawnee blackberry, Southern dewberry, Tayberry, Youngberry, Zarzamora, and varieties and/or hybrids of these). Raspberry (*Rubus* spp. - including Bababerry, Black raspberry, Blackcap, Caneberry, Framboise, Frambueso, Himbeere, Keriberry, Mayberry, Red raspberry, Thimbleberry, Tulameen, Yellow raspberry, and varieties and/or hybrids of these, and Wild raspberry)

Pests Controlled	Rate: Fluid Ounces/Acre
Aphids Leafhoppers Thrips	3.2

**Restrictions:**

- Pre-Harvest Interval (PHI): 3 days
- Minimum interval between applications: 7 days
- Maximum MONTANA 4F INSECTICIDE allowed per year: 9.6 fluid ounces/Acre (0.3 lb. A/A)
- Do not apply pre-bloom or during bloom or when bees are foraging.

<sup>1</sup>Use not permitted in California unless otherwise directed by state-specific 24(c) labeling.

## Foliar Application / **CITRUS**

Calamondin, Citrus citron, Citrus hybrids (includes chironja, tangelo and tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Pummelo, Orange (sweet and sour), Satsuma mandarin, and other cultivars and/or hybrids of these.

Pests Controlled	Rate: Fluid Ounces/Acre
Aphids Asian Citrus Psyllid Black fly Leafhoppers/Sharpshooters Leafminers Mealy bugs Scales Whiteflies	4.0 - 8.0 (depending on tree size, target pest and infestation pressure)
Pest Suppressed	Rate: Fluid Ounces/Acre
Thrips	4.0 - 8.0

**Restrictions:**

- Pre-Harvest Interval (PHI): 0 days
- Minimum interval between applications: 10 days
- Maximum MONTANA 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. A/A)
- Do not apply during bloom or within 10 days prior to bloom or when bees are foraging.

### Foliar Application / **CITRUS** *continued*

**Applications:**

Apply specified dosage of MONTANA 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply MONTANA 4F Insecticide through properly calibrated ground or aerial equipment. Aerial application of MONTANA 4F INSECTICIDE may result in slower activity and reduced control to results from ground application.

**Scales** - time applications to the crawler stage. Treat each generation.

### Foliar Application / **COFFEE**

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Leafhoppers Whiteflies	3.2
<b>Pest Suppressed</b>	<b>Rate: Fluid Ounces/Acre</b>
Scales	3.2

**Restrictions:**

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 7 days
- Maximum MONTANA 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. A/A)
- Do not apply pre-bloom or during bloom or when bees are foraging.

**Applications:**

Apply specified dosage of MONTANA 4F INSECTICIDE as a broadcast or directed spray to infested area insuring thorough coverage. Apply MONTANA 4F INSECTICIDE through properly calibrated ground or aerial equipment. Aerial application of MONTANA 4F INSECTICIDE may result in slower activity and reduced control relative to results from ground application.

### Foliar Application / **GRAPE**

<b>American bunch grape, Muscadine grape and Vinifera grape</b>	
<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Mealybugs Leafhoppers/Sharpshooters	1.2 - 1.6
<b>Pest/Diseases Suppressed</b>	<b>Rate: Fluid Ounces/Acre</b>
Grapeleaf Skeletonizer	1.5 - 1.6

**Restrictions:**

- Pre-Harvest Interval (PHI): 0 days
- Minimum interval between applications: 14 days
- Maximum MONTANA 4F INSECTICIDE allowed per year: 3.2 fluid ounces/Acre (0.1 lb. A/A)

**Applications:**

MONTANA 4F INSECTICIDE may be applied by ground application only.

## Foliar Application / **HOPS**

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids	3.2
<b>Restrictions:</b>	
<ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 28 days</li> <li>• Minimum interval between applications: 21 days</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed per year: 9.6 fluid ounces/Acre (0.3 lb. AI/A)</li> </ul>	
<b>Applications:</b>	
Apply specified dosage of MONTANA 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply MONTANA 4F INSECTICIDE through properly calibrated ground or aerial equipment.	

## Foliar Application / **POME FRUIT**

<b>Apple, Crabapple, Loquat, Mayhaw, Pear (including Oriental pear), Quince</b>	
<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Leafhoppers	1.6 - 3.2
Aphids (except woolly apple aphid) Apple Maggot Leafminers San Jose scale	3.2
<b>FOR PEAR, ONLY</b> Mealybugs Pear psylla	8.0
<b>Restrictions:</b>	
<ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 7 days</li> <li>• Minimum interval between applications: 10 days</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A)</li> <li>• Do not apply pre-bloom or during bloom or when bees are foraging.</li> </ul>	
<b>Applications:</b>	
Apply specified dosage of MONTANA 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply MONTANA 4F INSECTICIDE through properly calibrated ground or aerial equipment. Aerial application of MONTANA 4F INSECTICIDE may result in slower activity and reduced control compared to results from ground application.	
<b>Leafhoppers</b> - apply low rate for low to moderate populations of white apple leafhoppers and high rate for high populations or for other leafhopper species. Apply MONTANA 4F INSECTICIDE while most leafhoppers are in the nymphal stage.	
<b>Leafminer</b> - for first generation leafminer control, make application as soon as pollination is complete and bees are removed from the orchard. Greatest leafminer control will result from the earliest possible application. For second and succeeding generations of leafminer, optimal control is obtained from applications made early in the adult flight against egg and early instar larvae. A second application may be required 10 days later if severe pressure continues or if generations are overlapping. A single application may result in suppression only. MONTANA 4F INSECTICIDE will not control late instar larvae.	
<b>Mealybugs</b> - apply maximum gallonage for tree with ground equipment. Ensure good spray coverage of the trunk and scaffolding limbs or other resting sites of mealybugs.	
<b>Rosy apple aphid</b> - apply prior to leafrolling caused by rosy apple aphid.	
<b>San Jose scale</b> - time applications to the crawler stage. Treat each generation.	

## Foliar Application / **POMEGRANATE**<sup>1</sup>

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Leafhoppers/Sharpshooters Whiteflies	3.2
<b>Pest Suppressed</b>	<b>Rate: Fluid Ounces/Acre</b>
Scales	3.2
<b>Restrictions:</b>	
<ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 7 days</li> <li>• Minimum interval between applications: 7 days</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed per year: 9.6 fluid ounces/Acre (0.3 lb. AI/A).</li> <li>• Do not apply pre-bloom or during bloom or when bees are foraging.</li> </ul>	
<sup>1</sup> Not for use in California unless otherwise directed by state-specific 24(c) labeling.	

## Foliar Application / **STONE FRUIT**

<b>Apricot, Cherry (including sweet and tart), nectarine, Peach, Plum (including Chickasaw, Damson and Japanese), Plumcot, Prune (fresh and dried)</b>	
<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Green June beetle Japanese beetle Leafhoppers/Sharpshooters Plant bugs Rose chafer San Jose scale	1.6 - 3.2
Cherry fruit fly (maggot of Eastern and Western)	3.2
<b>Pests Suppressed</b>	<b>Rate: Fluid Ounces/Acre</b>
Plum curculio Stink bugs	3.2
<b>Restrictions for Apricot, Nectarine, Peach:</b>	
<ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 0 days</li> <li>• Minimum interval between applications: 7 days</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed per year: 9.6 fluid ounces/Acre (0.3 lb. AI/A)</li> <li>• Minimum application volume (water): 50 GPA - ground application; 25 GPA - aerial application</li> <li>• Do not apply pre-bloom or during bloom or when bees are foraging.</li> </ul>	
<b>Restrictions for Cherries, Plums, Plumcot, Prune:</b>	
<ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 7 days</li> <li>• Minimum interval between applications: 10 days</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A)</li> <li>• Minimum application volume (water): 50 GPA - ground application; 25 GPA - aerial application</li> <li>• Do not apply pre-bloom or during bloom or when bees are foraging.</li> </ul>	

Foliar Application / **STONE FRUIT** *continued*

**Applications:**

Apply specified dosage of MONTANA 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply MONTANA 4F INSECTICIDE through properly calibrated ground or aerial equipment. Aerial application of MONTANA 4F INSECTICIDE may result in slower activity and reduced control relative to results from ground application.

Foliar Application / **TREE NUTS** **Except Almonds**

**Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert, Hickory nut, Macadamia nut, Pecan, Pistachio, Walnut [Black and English]**

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids (except Black pecan aphid) Leafhoppers/Sharpshooters <i>Phylloxera</i> sp. (leaf infestations) Spittlebugs Whiteflies	1.4 - 2.8
Black pecan aphid Mealybugs San Jose scale	3.2

**Restrictions:**

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 6 days
- Maximum MONTANA 4F INSECTICIDE allowed per year: 11.4 fluid ounces/Acre (0.36 lb. AI/A)
- Minimum application volume (water): 50 GPA - ground application, 25 GPA - aerial application
- Do not apply pre-bloom or during bloom or when bees are foraging.

**Applications:**

Applications for control of San Jose scale should be timed according to crawler stage, treating each successive generation. Two applications on a 10- to 14-day interval may be required to achieve control.

Foliar Application / **TROPICAL FRUIT**

**Acerola, Atemoya\*, Avocado, Birida\*, Black sapote, Canistel, Cherimoya\*, Custard apple\*, Feijoa, Jaboticaba, Guava, Llama\*, Longan, Lychee, Mamey sapote, Mango, Papaya, Passionfruit, Persimmon, Pulasan, Rambutan, Sapodilla, Soursop\*, Spanish lime, Star apple, Starfruit, Sugar apple\*, Wax jambu**

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Leafhoppers/Sharpshooters Thrips (foliage feeding thrips only) Mealybugs Whiteflies	3.2
<b>Pest Suppressed</b>	<b>Rate: Fluid Ounces/Acre</b>
Scales	3.2

Foliar Application / **TROPICAL FRUIT** *continued*

**Restrictions:**

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 10 days
- Maximum MONTANA 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A)
- Maximum number MONTANA 4F INSECTICIDE applications per year: 5
- Do not apply pre-bloom or during bloom or when bees are foraging.

**Applications:**

Apply specified dosage of MONTANA 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply MONTANA 4F INSECTICIDE through properly calibrated ground or aerial equipment. Aerial application of MONTANA 4F INSECTICIDE may result in slower activity and reduced control relative to results from ground application.

\* Not for use in California unless otherwise directed by state-specific 24(c) labeling.

**SOIL APPLICATIONS FOR TREE, BUSH AND VINE CROPS**

Soil Application / **BANANA and PLANTAIN<sup>1</sup>**

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Leafhoppers	8.0 - 16.0
<b>Pests Suppressed</b>	<b>Rate: Fluid Ounces/Acre</b>
Scales	8.0 - 16.0

**Restrictions:**

- Pre-Harvest Interval (PHI): 0 days
- Maximum MONTANA 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A)

**Applications:**

Apply specified dosage in the following method:

1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.

<sup>1</sup>Use not permitted in California unless otherwise directed by state-specific 24(c) labeling.

Soil Application / **BUSHBERRY**

<b>Blueberry, Currant, Elderberry, Gooseberry, Huckleberry, Juneberry, Ligonberry, Salal</b>	
<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Japanese beetle (adults, feeding on foliage) White grub complex (grubs of Asiatic garden beetle, European and Masked chafer, Japanese beetle and Oriental beetle)	8.0 - 16.0



## Soil Application / **BUSHBERRY** *continued*

### Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Maximum MONTANA 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.50 lb. A/A)
- Do not apply pre-bloom or during bloom or when bees are foraging.

### Applications:

Apply specified dosage of MONTANA 4F INSECTICIDE in one of the following methods:

1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
2. 18-inch band on each side of the row followed with 0.25 inches of irrigation immediately after application.

For optimal grub control, apply MONTANA 4F INSECTICIDE to control 1<sup>st</sup> or 2<sup>nd</sup> instar larvae. Make applications post-bloom up to 7 days prior to harvest, or post-harvest until October 1<sup>st</sup>. Make applications from June 1<sup>st</sup> to July 15<sup>th</sup> for optimum control of Japanese beetle larvae.

Application to grass covered rows, row middles, drive lanes, headlands, and other grassy areas in and around the berry field will control resident grub populations. Applications directed to the root-zone will help protect berry plant roots from grub feeding.

Apply MONTANA 4F INSECTICIDE to moist soil. If necessary, apply one hour of irrigation water immediately before application of MONTANA 4F INSECTICIDE. To ensure maximum efficacy, 1/2 to 1 inch of irrigation water or rainfall should be applied or received within 24 hours of application of MONTANA 4F INSECTICIDE to facilitate movement into the soil and into the root-zone.

## Soil Application / **CANEBERRY** Crops of the Caneberry

**Blackberry** (*Rubus* spp. – including Bingleberry, Black satin berry, Boysenberry, Cherokee blackberry, Chesterberry, Cheyenne blackberry, Coryberry, Darrowberry, Dewberry, Dirksen thornless berry, Himalayaberry, Hullberry, Lavacaberry, Loganberry, Lowberry, Lucretiaberry, Mammoth blackberry, Marionberry, Nectarberry, Olallieberry, Oregon evergreen berry, Phenomenaberry, Rangeberry, Ravenberry, Rosssberry, Shawnee blackberry, Youngberry, and varieties and/or hybrids of these). **Raspberry** (Black and Red raspberry, *Rubus occidentalis*, *Rubus strigosus*, *Rubus idaeus*)

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Leafhoppers Whiteflies	8.0 - 16.0
Rednecked cane borer	12.0 - 16.0
<b>Pest Suppressed</b>	<b>Rate: Fluid Ounces/Acre</b>
Thrips (foliage feeding thrips only)	8.0 - 16.0

### Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Maximum MONTANA 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.50 lb. A/A)
- Do not apply pre-bloom or during bloom or when bees are foraging.

### Applications:

Apply specified dosage of MONTANA 4F INSECTICIDE in one of the following methods:

1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
2. Basal, soil drench in a minimum of 500 gallons solution per acre.

## Soil Application / **CITRUS (Containerized)**

Calamondin, Citrus citron, Citrus hybrids (includes chironja, tangelo, and tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Pummelo, Orange (sweet and sour), Satsuma mandarin, and other cultivars and/or hybrids of these.

<b>Pests Controlled</b>	<b>Rate: ml/ft.<sup>3</sup> container media</b>
Aphids Asian citrus psyllid Black fly Citrus leafminer Leafhoppers/Sharpshooters Mealybugs Scale Whiteflies	0.38
Citrus root weevil (larval complex)	0.62 - 1.25
<b>Pest/Diseases Suppressed</b>	<b>Rate: ml/ft.<sup>3</sup> container media</b>
Citrus thrips (foliage feeding thrips only)	1.25

### **Restrictions:**

- Pre-Harvest Interval: 0 days
- Maximum MONTANA 4F INSECTICIDE allowed per application: 0.5 mLs./0.1ft.<sup>3</sup> container media
- Maximum MONTANA 4F INSECTICIDE allowed per crop season: 3.0 mLs./plant
- Do not apply pre-bloom or during bloom when bees are foraging.

### **Application:**

For commercial nursery production in standard "citra pot" of 0.1 ft.<sup>3</sup> volume:  
Apply specified dosage of MONTANA 4F INSECTICIDE in one of the following methods:

1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.
  2. Basal, soil drench in a minimum of 30 mLs. total solution per "citra pot".
- Use sufficient carrier volume to ensure thorough uniform distribution throughout the media without loss of gravitational water from the container.
  - For optimal results, treatment should be made at planting prior to insect infestation.
  - Retreat if necessary but do not apply more than 3.0 mLs./plant per season.
  - For control of larvae of the citrus root weevil complex, apply prior to neonate larvae entering potting media.

### **For applications to citrus production with other container volumes:**

- Determine the volume of the container and calculate the required dosage needed based on 0.50 mLs./0.1 ft.<sup>3</sup> potting media.
- Apply calculated dosage per container as described above.
- Do not exceed 3.0 mLs./plant per crop season regardless of container size.

**Phytotoxic Effects Precaution:** Not all varieties or hybrids of citrus have been tested for phytotoxic effects following a MONTANA 4F INSECTICIDE application. If you have not used MONTANA 4F INSECTICIDE on containerized citrus of a specific variety/hybrid, treat a few plants and observe for phytotoxic effects for up to 60 days before treating the entire nursery.

## Soil Application / **CITRUS** (Field)

**Calamondin, Citrus citron, Citrus hybrids (includes chironja, tangelo, and tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Pummelo, Orange (sweet and sour), Satsuma mandarin, and other cultivars and/or hybrids of these**

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Asian citrus psyllid Black fly Citrus leafminer Leafhoppers/Sharpshooters Mealybugs Scales Termites (FL only) Whiteflies	8.0 - 16.0
<b>Pests/Diseases Suppressed</b>	<b>Rate: Fluid Ounces/Acre</b>
Citrus nematode Symptoms of: Citrus tristeza virus (CTV) through vector control Citrus yellows Thrips (foliage feeding thrips only)	16.0

**Restrictions:**

- Pre-Harvest Interval (PHI): 0 days
- Maximum MONTANA 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.50 lb. AI/A)

**Applications:**

Apply specified dosage of MONTANA 4F INSECTICIDE in one of the following methods:

1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment. For optimum results, apply to newly planted trees or those previously trained to drip, trickle or micro-sprinkler irrigation. Soil must be lightly pre-wetted to break soil surface tension prior to applications of MONTANA 4F INSECTICIDE. Chemigation application can be made separate to normal irrigation but followed by 10 to 20 minutes of additional watering to move MONTANA 4F INSECTICIDE into root-zone. Allow 24 hours before initiating subsequent irrigations;
2. Soil surface band spray on both sides of the tree. Bands must overlap at the tree base to create a continuous band within the drip-line area of the tree, to be followed immediately with light sprinkler irrigation sufficient to move the product into the upper portion of the root-zone. This method is suitable for very coarse soils with 0.75% organic matter or less;
3. Drench to base of tree not exceeding one-quart total solution per tree immediately around trunk of tree and extending outward covering the entire fibrous root system of the tree. Only for trees up to 8 feet tall;
4. For control of existing termite infestations, apply specified dosage in 1 to 4 quarts of total solution volume, depending on size of tree, as a drench application to the basal portion of the tree trunk and surrounding soil in the immediate vicinity of the tree trunk;
5. For suppression of citrus nematode, apply specified dosage through low-pressure chemigation or soil surface band spray only, ensuring complete coverage of the root system and utilizing application directions stated above for the respective application method. Repeated and regular use of MONTANA 4F INSECTICIDE over several consecutive growing seasons provides the greatest degree of nematode suppression and yields the greatest plant response.

## Soil Application / **COFFEE**<sup>1</sup>

Pests Controlled	Rate: Fluid Ounces/Acre
Aphids Leafhoppers Leafminer	8.0 - 16.0
Pest Suppressed	Rate: Fluid Ounces/Acre
Scales	8.0 - 16.0
<b>Restrictions:</b>	
<ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 7 days</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A)</li> <li>• Do not apply pre-bloom or during bloom or when bees are foraging.</li> </ul>	
<b>Applications:</b>	
Apply specified dosage in one of the following methods:	
<ol style="list-style-type: none"> <li>1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;</li> <li>2. Subsurface side-dress shanked into the root-zone on both sides of the plants followed by irrigation;</li> <li>3. Basal, soil trench in sufficient water to insure incorporation into the root-zone followed by irrigation.</li> </ol>	
<sup>1</sup> Use not permitted in California unless otherwise directed by state-specific 24(c) Labeling.	

## Soil Application / **CRANBERRY**

Pests Controlled	Rate: Fluid Ounces/Acre
Rootgrubs ( <i>Scarabaeidae</i> ) Rootworms ( <i>Chrysomelidae</i> )	8.0 - 16.0
<b>Restrictions:</b>	
<ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 30 days</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.50 lb. AI/A)</li> <li>• Do not apply pre-bloom or during bloom or when bees are foraging.</li> </ul>	
<b>Applications:</b>	
Apply MONTANA 4F INSECTICIDE to moist soil. Apply specified dosage of MONTANA 4F INSECTICIDE in one of the following methods:	
<ol style="list-style-type: none"> <li>1. As a soil spray (ground application) directed to the root and crown area using a minimum of 20 gal. of water per acre;</li> <li>2. As a chemigation application with 600 to 1,000 gal. water.</li> </ol>	
Immediately upon application, MONTANA 4F INSECTICIDE must be incorporated into root-zone by 0.1 - 0.3 inches water/Acre, either with the chemigation application or through irrigation/rainfall if not applied through chemigation. Inadequate incorporation within 24 hours of application may result in reduced control.	
<b>Rootgrubs and Rootworms</b>	
Apply post-bloom immediately after bees are removed for best control. Applications should target early instar larvae. MONTANA 4F INSECTICIDE has not been tested for crop response in tank mixes with other registered fungicides or insecticides. If tank mixing is desired, premix a sample of the MONTANA 4F INSECTICIDE and the desired fungicide or insecticide partner at labeled rates and apply to a small area. Evaluate crop response within 48 hours and for at least two weeks prior to utilizing the tank mix on larger acreage. If crop injury results from the premix test, do not apply the tank mix to larger acreage.	

### Soil Application / **GRAPE**

American bunch grape, Muscadine grape and Vinifera grape	
Pests Controlled	Rate: Fluid Ounces/Acre
European Fruit Lecanium Mealybugs Leafhoppers/Sharpshooters <i>Phylloxera</i> spp*	8.0 - 16.0
Pest/Disease Suppressed	Rate: Fluid Ounces/Acre
Pierce's disease	12.0 - 16.0
<b>Restrictions:</b>	
<ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 30 days</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.50 lb. AI/A)</li> </ul>	
<b>Applications:</b>	
Apply specified dosage of MONTANA 4F INSECTICIDE in one of the following methods:	
<ol style="list-style-type: none"> <li>1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;</li> <li>2. Subsurface side-dress shanked into the root-zone on both sides of the plants followed by irrigation;</li> <li>3. Hill drench in sufficient water to insure incorporation into the root-zone followed by irrigation.</li> </ol>	
Make application(s) between bud-break and the pea-berry stage for optimum results.	
* Repeated and regular use of MONTANA 4F INSECTICIDE over several, consecutive growing seasons controls existing <i>Phylloxera</i> infestations over time or prevents <i>Phylloxera</i> from becoming established.	

### Soil Application / **HOPS<sup>1</sup>**

Pest Controlled	Rate: Fluid Ounces/Acre
Aphids	9.6
<b>Restrictions:</b>	
<ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 60 days</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed per year: 9.6 fluid ounces/Acre (0.3 lb. AI/A)</li> </ul>	
<b>Applications:</b>	
Apply specified dosage of MONTANA 4F INSECTICIDE in one of the following methods:	
<ol style="list-style-type: none"> <li>1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;</li> <li>2. Subsurface side-dress shanked into the root-zone on both sides of the plants followed by irrigation;</li> <li>3. Hill drench in sufficient water to insure incorporation into the root-zone followed by irrigation.</li> </ol>	
<sup>1</sup> Use not permitted in California unless otherwise directed by state-specific 24(c) labeling.	

### Soil Application / **POME FRUIT**

Apple, Crabapple, Loquat, Mayhaw, Pear (including Oriental pear), Quince	
Pests Controlled	Rate: Fluid Ounces/Acre
Aphids (including woolly apple aphid) Leafhoppers	8.0 - 12.0

## Soil Application / **POME FRUIT** *continued*

### Restrictions:

- Pre-Harvest Interval (PHI): 21 days
- Maximum MONTANA 4F INSECTICIDE allowed per year: 12.0 fluid ounces/Acre (0.38 lb. AI/A)
- Do not apply pre-bloom or during bloom or when bees are foraging.

### Applications:

Apply specified dosage in the following method:

1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.

## Soil Application / **POMEGRANATE**<sup>1</sup>

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Leafhoppers/Sharpshooters Whiteflies	8.0 - 12.0
<b>Restrictions:</b>	
<ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 0 days</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A)</li> <li>• Do not apply pre-bloom or during bloom or when bees are foraging.</li> </ul>	
<b>Applications:</b>	
Apply specified dosage in the following method:	
<ol style="list-style-type: none"> <li>1. Chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.</li> </ol>	
<sup>1</sup> Use not permitted in California unless otherwise directed by state-specific 24(c) labeling.	

## Soil Application / **STONE FRUIT**

**Apricot, Cherry (including sweet and tart), Nectarine, Peach, Plum (including Chickasaw, Damson and Japanese), Plumcot, Prune (fresh and dried)**

<b>In-field, Soil Application</b>	
<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids (including woolly apple aphid) Leafhoppers	8.0 - 12.0
<b>Restrictions:</b>	
<ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 21 days</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed per year: 12.0 fluid ounces/Acre (0.38 lb. AI/A)</li> <li>• Do not apply pre-bloom or during bloom or when bees are actively foraging.</li> </ul>	
<b>Applications:</b>	
Apply specified dosage in the following method:	
<ol style="list-style-type: none"> <li>1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.</li> </ol>	
<b>Pre-plant, Root Dip Application</b>	
<b>Pest Controlled</b>	<b>Rate: Fluid Ounces/10 gallons root-dip solution</b>
Black peach aphid (infesting roots)	1.0
Mix MONTANA 4F INSECTICIDE at 2.0 fluid ounces per 10 gallons of water. Thoroughly wet bare-root transplant to slightly above the graft union by soaking roots in the MONTANA 4F INSECTICIDE solution for up to 5 minutes. Allow solution to dry on roots and transplant trees as soon as possible following treatment.	

## Soil Application / **TREE NUTS<sup>1</sup>** Except Almonds

**Beechnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert, Hickory nut, Macadamia nut, Pecan, Pistachio, Walnut [Black and English]**

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Leafhoppers/Sharpshooters Mealybugs Spittlebugs Termites Whiteflies	8.0 - 16.0
<b>Pests/Diseases Suppressed</b>	<b>Rate: Fluid Ounces/Acre</b>
Pecan scab (from reduction in honeydew deposition)	8.0 - 16.0
Thrips (foliage feeding thrips only)	16.0

### **Restrictions**

- Pre-Harvest Interval (PHI): 7 days
- Maximum MONTANA 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A)
- Do not apply pre-bloom or during bloom or when bees are foraging.

### **Applications**

Apply specified dosage prior to or at onset of pest infestation in one of the following methods:

1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent irrigation equipment. Pre-wet soil prior to applications of MONTANA 4F INSECTICIDE and allow soil to dry following application and prior to subsequent irrigation;
2. Emitter or spot application in a minimum of 4 fluid ounces of mixture per emitter site;
3. Shank or subsurface side-dress, injected to a depth just above or just within the root zone and between the trunk and drip line of the tree canopy. Product should be applied in a minimum of 10 gallons per acre using multiple shanks on both sides of trees. Ensure product placement is below sod or orchard floor debris. Irrigation covering entire treated area must follow within 48 hours to promote uptake by root system;
4. For control of termites, apply specified dosage to slightly moist soil as a high-volume drench to the basal portion of the tree trunk and surrounding soil in the immediate vicinity of the tree trunk. Utilize sufficient carrier volume to penetrate the soil to a depth of 18 - 24 inches to obtain optimum control. Allow soil to dry following treatment and prior to applying any irrigation.

### **Remarks**

Use the higher rates within the specified rate range when applied by shank or subsurface sidedress, used on larger trees, soils with high clay content, for high plant populations, and/or where extended control is desired. Under some conditions, control may not occur for 14 or more days or until two (2) irrigations have been made. Applications made later in the season may result in reduced efficacy.

<sup>1</sup>Use not permitted in California unless otherwise directed by state-specific 24(c) labeling.

## Soil Application / **TROPICAL FRUIT**<sup>1</sup>

Including: Acerola, Atemoya, Avocado, Birida, Black sapote, Canistel, Cherimoya, Custard apple, Feijoa, Jaboticaba, Guava, Llama, Longan, Lychee, Mamey sapote, Mango, Papaya, Passionfruit, Persimmon, Pulasan, Rambutan, Sapodilla, Soursop, Spanish lime, Star apple, Starfruit, Sugar apple, Wax jambu

Pests Controlled	Rate: Fluid Ounces/Acre
Aphids Avocado lacebug Leafhoppers Whiteflies	12.0 - 16.0
Pests Suppressed	Rate: Fluid Ounces/Acre
Scales Thrips (foliage feeding thrips only)	16.0

**Restrictions:**

- Pre-Harvest Interval (PHI): 6 days
- Maximum MONTANA 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lbs. AI/A)
- Do not apply pre-bloom or during bloom or when bees are foraging.

**Applications:**

Apply specified dosage in the following method:

1. Chemigation through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.

<sup>1</sup>Use not permitted in California unless otherwise directed by state-specific 24(c) labeling.

## FOLIAR AND FIELD APPLICATIONS FOR OTHER CROPS

Apply specified rate per acre as foliar spray as pest populations begin to build. Thorough uniform coverage is necessary to achieve insecticidal control. A spray adjuvant may be used to improve coverage. MONTANA 4F INSECTICIDE may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. MONTANA 4F INSECTICIDE may be tank mixed with other insecticides as suggested for knockdown of pests or for improved control of other pests.

## Foliar Application / **CHRISTMAS TREE**

Pests Controlled	Rate: Fluid Ounces/Acre
Aphids Adelgids Sawflies	1.6 - 3.2

**Restrictions:**

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 7 days
- Maximum MONTANA 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A)

**Applications:**

Apply specified dosage of MONTANA 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply MONTANA 4F INSECTICIDE through properly calibrated ground or aerial equipment. Aerial application of MONTANA 4F INSECTICIDE may result in slower activity and reduced control relative to results from ground application.

**Gall-forming adelgids** - time applications to coincide with full bud-swell or first bud-break of earliest bud-breaking trees. Once galls form spraying will be ineffective.



## Foliar Application / **POPLAR/COTTONWOOD**<sup>1</sup>

(includes members of the genus *Populus* grown for pulp or timber)

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Leaf beetles	1.6 - 3.2
<p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Pre-Harvest Interval (PHI): 7 days</li> <li>• Minimum interval between applications: 10 days</li> <li>• Maximum MONTANA 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A)</li> <li>• Do not apply pre-bloom or during bloom or when bees are foraging.</li> </ul> <p><b>Applications:</b> Apply specified dosage of MONTANA 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply MONTANA 4F INSECTICIDE through properly calibrated ground or aerial equipment. Aerial application of MONTANA 4F INSECTICIDE may result in slower activity and reduced control relative to results from ground application.</p> <p><sup>1</sup>Use not permitted in California unless otherwise directed by state-specific 24(c) labeling</p>	

## Soil Applications / **CHRISTMAS TREE**<sup>1</sup>

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
White grub complex (damage from grubs of Asiatic garden beetle, European and Masked chafer, Japanese beetle and oriental beetle)	8.0 - 16.0
<p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Maximum MONTANA 4F INSECTICIDE allowed year: 16.0 fluid ounces/Acre (0.5 lb. AI/A)</li> </ul> <p><b>Applications:</b> Soil incorporation and movement of MONTANA 4F INSECTICIDE to the root-zone is required for activity. MONTANA 4F INSECTICIDE can be incorporated most readily when applied to moist soil. Apply specified dosage in one of the following methods:</p> <ol style="list-style-type: none"> <li>1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;</li> <li>2. 18-inch band on each side of the row (small trees) to full broadcast application (large trees) followed by rainfall or 0.25 – 1 inch of irrigation within 12 hours after application.</li> </ol> <p>For optimal grub control, apply MONTANA 4F INSECTICIDE during adult flight activity, or up to mid-July, when 1<sup>st</sup> instar larvae are present.</p> <p><sup>1</sup>Use not permitted in California unless otherwise directed by state-specific 24(c) labeling.</p>	

## Field Applications / **POPLAR/COTTONWOOD**<sup>1</sup>

(includes members of the genus *Populus* grown for pulp or timber)

**(See details below for Cutting/Whip Application)**

<b>Pests Controlled</b>	<b>Rate: Fluid Ounces/Acre</b>
Aphids Cottonwood leaf beetle	8.0 - 16.0
<b>Pest Suppressed</b>	<b>Rate: Fluid Ounces/Acre</b>
<i>Phylloxera popularia</i>	8.0 - 16.0

**Restrictions:**

- Maximum MONTANA 4F INSECTICIDE allowed at-plant per year: 16.0 fluid ounces/Acre (0.5 lb. A/A)
- Do not apply pre-bloom or during bloom or when bees are foraging.

**Applications:**

Apply specified dosage in the following method:

1. Chemigation through low-pressure drip irrigation;
2. For narrow-row, cutting orchards/nurseries used for plant propagation, shank into root-zone followed by adequate irrigation to promote uptake. (Adequate irrigation depends on soil moisture level at application. Under dry conditions, irrigate 0.25 inches/Acre.)

**Cottonwood leaf beetle** - protection against damage will occur when application is made early-season, when the beetles first begin feeding. Larger trees may require earlier treatment as a result of slower uptake.

**Phylloxera** - apply early in the year, from break of dormancy through May.

## Cutting/Whip Application / **POPLAR/COTTONWOOD**<sup>1</sup>

**See details above for Field Application Directions.**

<b>Pest Controlled</b>	<b>Cutting/Whip Soaking Solution (Fluid/Ounces) MONTANA 4F INSECTICIDE Needed per 100 gallons)</b>
Cottonwood leaf beetle	6.6 - 13.3 (unhydrated cuttings/whips) 13.3 - 20.0 (partially hydrated cuttings/whips)
<b>Pests Suppressed</b>	<b>Cutting/Whip Soaking Solution (Fluid/Ounces) MONTANA 4F INSECTICIDE Needed per 100 gallons)</b>
Aphids <i>Phylloxera popularia</i>	6.6 - 13.3 (unhydrated cuttings/whips) 13.3 - 20.0 (partially hydrated cuttings/whips)

**Restrictions:**

- Maximum MONTANA 4F INSECTICIDE allowed at-plant per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A)

**Applications:**

Moisture content of cuttings/whips prior to application, the solution concentration and the length of soaking interval interact to affect the amount of product absorbed into plant material. For a constant soaking interval of 24 hours, drier cuttings/whips absorb a higher quantity of solution and require a lower concentration. Conversely, more hydrated cuttings/whips absorb less solution and require a higher concentration. Soaking of cuttings/whips should occur in a covered container in absence of UV light. Not all *Populus* sp. clones/varieties/hybrids have been tested for crop safety. Without specific knowledge about a particular *Populus* spp. clone/variety/hybrid, Rotam recommends that small numbers of cuttings/whips of each be treated and evaluated prior to commercial use.

Apply MONTANA 4F INSECTICIDE in one of the following cuttings/whips soaking methods:

1. For freshly cut (unhydrated) cuttings/whips, soak plant material in specified solution concentration for 24 hours prior to cold storage. After removal from cold storage, plant as needed;
2. For previously hydrated cuttings/whips removed from cold storage, allow plant material to reach room temperature and soak in specified solution concentration for 24 hours prior to planting. Proper care must be taken in disposal of any residual soaking solution. Solution may be applied to existing trees or other registered crops as long as all product label precautions and restrictions are observed.

<sup>1</sup>Use not permitted in California unless otherwise directed by state-specific 24(c) labeling.

## STORAGE AND DISPOSAL

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

**Pesticide Storage:** 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 Disposal:** Open dumping is prohibited. 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):** Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Offer for recycling, or puncture and dispose of in a sanitary landfill, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Residue Removal:** Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**SPILLS:** For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. Handle and open container in a manner as to prevent spillage. If the container is leaking, invert to prevent leakage. If container is leaking or material spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides below. In spill or leak incidents, keep unauthorized people away. You may contact the CHEMTREC Emergency Response for decontamination procedures.

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident,  
call CHEMTREC AT 1-800-424-9300.**

## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of ROTAM NORTH AMERICA, INC. or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold ROTAM NORTH AMERICA, INC. and Seller harmless for any claims relating to such factors.

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