Dow AgroSciences™

Entrust®

Naturalyte® Insect Control

STATE OF HAWAII
Department of Agriculture
ACCEPTED
LICENSE NO.
9786.232

INSECT NATURALYTE® CONTROL

A Naturalyte® insect control product formulated for control of lepidopterous larvae (worms or caterpillars), leafminers, thrips, and red imported fire ants.

Refer to inside of label booklet for additional precautionary information including Directions for Use.

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 62719-282 900-014240 / 00216558

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Produced for Dow AgroSciences LLC
9330 Zionsville Road, Indianapolis, IN 46268

Group	5	INSECTICIDE

Active Ingredient:
spinosad
(a mixture of spinosyn A
and spinosyn D) 80%
Other Ingredients..... 20%
Total 100%

Contains 80% active ingredient on a weight basis.

OMRI™ Listed

Listed by the Organic Materials Review Institute (OMRI) for use in organic production.

Keep Out of Reach of Children

CAUTION

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

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Precautionary Statements

Hazard to Humans and Domestic Animals

CAUTION

Causes Moderate Eye Irritation

Avoid contact with eyes or clothing.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

Mixers/loaders must wear:

- An approved dust/mist filtering respirator (NSHA/NIOSH approval number prefix TC-21C), or NIOSH approved respirator with any N, R, P or HE filter.

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

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

First Aid

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Environmental Hazards

This product is toxic to bees exposed to treatment for 3 hours following treatment. Do not apply this pesticide to blooming, pollen-shedding or nectar-producing parts of plants if bees may forage on the plants during this time period. This product is toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Apply this product only as specified on the label.

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
Read all Directions for Use carefully before applying.

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 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

Non-Agricultural Use Requirements

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

Do not enter or allow others to enter the treated area until sprays have dried.

Storage and Disposal

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

Pesticide Storage: Store in original container only.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Nonrefillable rigid containers 5 gallons or less:

Container Handling: Nonrefillable container. Do not reuse or refill this container.
Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Nonrefillable nonrigid containers:

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available, or dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Refillable rigid containers larger than 5 gal:

Container Handling: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Storage and Disposal (Cont.)

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Nonrefillable rigid containers larger than 5 gal:
Container Handling: Nonrefillable container. Do not reuse or refill this container.
Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

General Information

Entrust® is a Naturalyte® insect control product for control of many foliage feeding pests including lepidopterous larvae (worms or caterpillars), Colorado potato beetles, leafminers and thrips infesting labeled crops. This product's active ingredient, spinosad, is biologically derived from the fermentation of *Saccharopolyspora spinosa*, a naturally occurring soil organism. Mix Entrust (wettable powder) with water and apply as a foliar spray with aerial or ground equipment equipped for conventional insecticide spraying.

General Use Precautions

Integrated Pest Management (IPM) Programs

Entrust is recommended for IPM programs in labeled crops. Apply Entrust when field scouting indicates target pest densities have reached the economic threshold, i.e., the point at which the insect population must be reduced to avoid economic losses beyond the cost of control. Other than reducing the target pest species as a food source, Entrust does not have a significant impact on certain parasitic insects or the natural predaceous arthropod complex in treated crops, including big-eyed bugs, ladybird beetles, flower bugs, lacewings, minute pirate bugs, damsel bugs, assassin bugs, predatory mites or spiders. The feeding activities of these beneficials will aid in natural control of other insects and reduce the likelihood of secondary pest outbreaks. If Entrust is tank mixed with any insecticide that reduces its selectivity in preserving beneficial predatory insects, the full benefit of Entrust in an IPM program may be reduced.

Insecticide Resistance Management (IRM)

Entrust contains spinosad, a Group 5 insecticide. Insect/mite biotypes with acquired resistance to Group 5 insecticides may eventually dominate the insect/mite population if Group 5 insecticides are used repeatedly in the same field or area, or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by Entrust or other Group 5 insecticides. Currently, only spinetoram and spinosad active ingredients are classified as Group 5 insecticides. These two insecticide active ingredients share a common mode of action and must not be rotated with each other for control of pests listed on this label. Spinetoram and spinosad may be rotated with all other labeled insecticide active ingredients.

To delay development of insecticide resistance, the following practices are recommended:

- Carefully follow the specific label guidelines within the use directions sections of this label, especially in regard to IRM recommendations.
- Avoid use of the same active ingredient or mode of action (same insecticide group) on consecutive generations of insects. However, multiple applications to reduce a single generation are acceptable. Treat the next generation with a different active ingredient that has a different mode of action or use no treatment for the next generation.

- Avoid using less than labeled rates of any insecticide when applied alone or in tank mixtures.
- Applications should be targeted against early insect developmental stages whenever possible.
- Base insecticide use upon comprehensive IPM programs including crop rotations.
- Monitor treated insect populations in the field for loss of effectiveness.
- Contact your local extension specialist, certified crop advisor, and/or manufacturer for insecticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.
- For further information or to report suspected resistance, you may contact your local Dow AgroSciences representative or by calling 800-258-3033.

Requirements for Use of Entrust in Greenhouses[1] and for Commercial Production of Herbaceous (Non-Woody) Ornamentals in Nurseries[1]

[1]A greenhouse is defined as a structure or space enclosed with a nonporous covering inside which plants are produced. A nursery is defined as a facility engaged in the outdoor production of plants.

- Regardless of the crop or pest being treated (excluding thrips, leafminers, spider mites and/or diamondback moths), do not apply Entrust more than 10 times in a 12-month period inside a greenhouse or a structure that can be altered to be closed or open. If Entrust is used for thrips, leafminer, spider mite and/or diamondback moth control, do not apply Entrust more than six times in a 12-month period inside a greenhouse or a structure that can be altered to be closed or open regardless if other insect pests are also being treated. It is a violation of federal law to use this product in a manner inconsistent with its labeling.
- For areas of commercial production of herbaceous (non-woody) ornamentals in nurseries (including plant propagation beds), do not apply Entrust more than 10 times in a 12-month period per crop regardless of the pest being treated (excluding thrips, leafminers, spider mites and/or diamondback moths). If Entrust is used in areas of commercial production of herbaceous (non-woody) ornamentals in nurseries (including plant propagation beds) for leafminer, spider mite and/or diamondback moth control, do not apply Entrust more than six times in a 12-month period per crop regardless if other insect pests are also being treated.

- Because generations of a specific pest may overlap, rotate insecticides and miticides and never apply more than three consecutive applications of Entrust or products containing the same active ingredient or with the same mode of action (same insecticide group). Use only specified label rates.
- Make localized area treatments of ornamental plants where pest problems are anticipated or occur rather than general area-wide broadcast treatments.

Mixing Directions

Application Rate Reference Table

Application Rate of Entrust (oz/acre)	Active Ingredient Equivalent (lb ai/acre)	Acres per Pound of Entrust
0.5	0.025	32
0.75	0.0375	21.2
1	0.05	16
1.25	0.0625	12.8
1.5	0.075	10.6
2	0.1	8
2.5	0.125	6.4
3	0.15	5.3

Entrust - Alone: Fill the spray tank with water to about 1/2 of the required spray volume. Start agitation and add the required amount of Entrust. Continue agitation while mixing and filling the spray tank to the required spray volume. Maintain sufficient

agitation during application to ensure uniformity of the spray mix. Do not allow water or spray mixture to back-siphon into the water source.

Entrust - Tank Mix: When tank mixing Entrust with other materials, a compatibility test (jar test) using relative proportions of the tank mix ingredients should be conducted prior to mixing ingredients in the spray tank. If foliar fertilizers are used, the jar test should be repeated with each batch of fertilizer utilizing the mixing water source. Do not use acidifying buffering agents in tank-mixes with Entrust. Vigorous, continuous agitation during mixing, filling and throughout application is required for all tank mixes. Sparger pipe agitators generally provide the most effective agitation in spray tanks. To prevent foaming in the spray tank, avoid stirring or splashing air into the spray mixture.

Mixing Order for Tank Mixes: Fill the spray tank with water to 1/4 to 1/3 of the required spray volume. Start agitation. Add different formulation types in the order indicated below, allowing time for complete dispersion and mixing after addition of each product. Allow extra dispersion and mixing time for dry flowable products.

Add different formulation types in the following order:

1. Water dispersible granules
2. Entrust and other wettable powders

Maintain agitation and fill spray tank to 3/4 of total spray volume. Then add:

3. Emulsifiable concentrates and water-based solutions
4. Spray adjuvants, surfactants and oils
5. Foliar fertilizers

Finish filling the spray tank. Maintain continuous agitation during mixing, final filling and throughout application. If spraying and agitation must be stopped before the spray tank is empty, the materials may settle to the bottom. Settled materials must be resuspended before spraying is resumed. A sparger agitator is particularly useful for this purpose.

Premixing: Dry and flowable formulations may be premixed with water (slurried) and added to the spray tank through a 20 to 35 mesh screen. This procedure assures good initial dispersion of these formulation types.

Spray Tank pH: A spray tank pH between 6.0 and 9.0 is suggested to achieve maximum performance of Entrust. If the water source is outside of this pH range, or tank mixing other pesticides, adjuvants, or foliar nutrients will cause the pH to fall outside this range, consider adjusting the spray tank pH to be between 6.0 and 9.0 before adding Entrust. To do this, add all other tank mix components first, then check the spray tank pH, adjust if desired, and then add Entrust. If you require additional information on how to adjust spray tank pH, contact your Dow AgroSciences representative.

Use of Adjuvants: Adjuvants may be used to improve the control of leafminers and thrips in situations where achieving uniform plant coverage is difficult (such as closed crop canopy or dense foliage), or penetration into waxy leaf surfaces is required for pest control.

- Use only adjuvant products labeled for agricultural use and follow the manufacturer's label directions. A nominal concentration of 1 to 2 quart per 100 gallons (0.25 to 0.5% v/v) is generally sufficient.
- For leafminers and thrips, emulsified crop oils or methylated crop oil plus organosilicone combination products are recommended.
- When using adjuvants, always conduct a jar test to determine the compatibility of the various components in the spray mixture. Crop safety should be evaluated in a small area of the crop whenever there is a significant change in spray mixture ingredients or source of water for the spray mixture.
- Do not use diesel fuel or pure mineral oil.
- Adjuvants may require organic certification; consult your organic certifier.
- When an adjuvant is to be used with this product, Dow AgroSciences recommends the use of a Chemical Producers and Distributors Association certified adjuvant.

Rate Chart for Small Plantings

Entrust oz per acre	Amount of Entrust Per Quantity of Spray Solution Dry Ounces or Grams					
	Per Gallon of Spray		Per 3 Gallons or 1000 ft^2		Per 5 gallons of Spray	
	oz	gm	oz	gm	oz	gm
1	0.008	0.23	0.024	0.69	0.04	1.15
1.5	0.012	0.34	0.036	1.02	0.06	1.7
2	0.015	0.43	0.046	1.30	0.075	2.15
2.5	0.019	0.54	0.058	1.64	0.095	2.7
3	0.023	0.65	0.069	1.96	0.115	3.25

For small plantings or spot sprays, add the required amount of Entrust to the specified amount of water, mix thoroughly, and apply uniformly to plant foliage up to the point of runoff. It is recommended to mix only as much spray as needed for a single treatment. Do not use more than 3 gallons of spray per 1000 sq ft of area. If your scale cannot accurately weigh the amount needed, multiple by a factor that delivers an amount within your scale's accuracy and then divide the amount weighed volumetrically by this factor (e.g., if your scale will only accurately weigh amounts of 2 grams or greater and you only need 1 gram, weigh out 4 grams and then divide this volume into four parts). Follow all label instructions for mixing and applications.

Application Directions

Proper application techniques help ensure thorough spray coverage and correct dosage for optimum insect control. The following directions are provided for ground and aerial application of Entrust. Attention should be given to sprayer speed and calibration, wind speed, and foliar canopy to ensure adequate spray coverage.

Row Crop Application

Use calibrated power-operated ground spray equipment capable of providing uniform coverage of the target crop. Orient the boom and nozzles to obtain uniform crop coverage. A minimum of 5 to 10 gallons per acre should be utilized, increasing volume with crop size and/or pest pressure. Use hollow cone, twin jet flat fan nozzles or other atomizer suitable for insecticide spraying to provide a fine to coarse spray quality (per ASABE S-572, see nozzle catalogs). Under certain conditions, drop nozzles may be required to obtain complete coverage of plant surfaces. Follow manufacturer's specifications for ideal nozzle spacing and spray pressure. Minimize boom height to optimize uniformity of coverage and maximize deposition (optimize on-target deposition) to reduce drift.

Orchard Spraying Application

Dilute Spray Application: This application method is based upon the premise that all plant parts are thoroughly wetted, to the point of runoff, with spray solution. To determine the number of gallons of dilute spray required per acre, contact your state agricultural experiment station, certified pest control advisor, or extension specialist for assistance.

Concentrate Spray Application: Apply Entrust in a manner that achieves uniform coverage of the entire crop canopy, but not past the point of runoff. For optimum control of target pests, complete and uniform spray coverage is essential. The spray volume required to achieve complete and uniform coverage will depend upon tree size and shape, leaf size, and density, and the application equipment used. To determine the required spray volume per acre, contact your state agricultural experiemtn station, certified pest control advisor, or extension specialist for assistance. Use of tree row volume is appropriate.

Aerial Application

Apply in a spray volume of 5 gallons or more per acre (10 gallons or more per acre for trees, vines or orchard crops). Nozzle configuration should provide a medium to fine dropsize per ASABE S-572 standard (see USDA-ARS or NAAA handbook). Guidance for

ASABE S-572 nozzle configuration can be found at the following web site: www.cpproductsinc.com. Boom length must be less than 75% of wing or 85% of rotor span and swath adjustment (offset) to compensate for crosswinds. Observe minimum safe application height (maximum 12 feet for ag canopies). Use GPS equipment, swath markers or flagging to ensure proper application to the target area. Configure the boom nozzle used (e.g., at NAAA Fly-In) for both crosswind and near parallel winds. If application is made parallel to the wind direction, adjust swath width downward. Use swath adjustment (offset) to compensate for crosswinds. Do not apply under completely calm wind conditions. It is best to apply when wind speed is between 2 to 10 mph. Under conditions of low humidity and high temperatures, adjust spray volume and droplet size upward to compensate for evaporation of spray droplets. Insect control by aerial application may be less than control by ground application because of reduced coverage.

Chemigation Application

Entrust may be applied through properly equipped chemigation systems for insect control in corn, cranberries, ornamentals and potatoes. Follow use directions for these crops in the Uses section of this label. Do not apply Entrust by chemigation to other labeled crops except as specified in Dow AgroSciences supplemental labeling or product bulletins.

General Directions for Sprinkler Chemigation: Entrust may be applied through overhead sprinkler irrigation systems that will apply water uniformly, including center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set, micro sprinkler, or hand move. Do not apply this product through any other type of irrigation system. Sprinkler systems that deliver a low coefficient of uniformity such as certain water drive units are not recommended.

For continuously moving systems, the mixture containing Entrust must be injected continuously and uniformly into the irrigation water line as the sprinkler is moving. If continuously moving irrigation equipment is used, apply in no more than 0.25 inch of water. For irrigation systems that do not move during operation, apply in no more than 0.25 inch of irrigation immediately before the end of the irrigation cycle.

Chemigation Preparation: The following use directions are to be followed when this product is applied through sprinkler irrigation systems. Thoroughly clean the chemigation system and tank of any fertilizer or chemical residues, and dispose of the residues

according to state and federal laws. Flush the injection system with soap or a cleaning agent and water. Determine the amount of Entrust needed to cover the desired acreage. Mix according to instructions in the Mixing Directions section above. Continually agitate the mixture during mixing and application.

Chemigation Equipment Calibration: In order to calibrate the irrigation system and injector to apply the mixture containing Entrust, determine the following: 1) Calculate the number of acres irrigated by the system; 2) Calculate the amount of product required and premix; 3) Determine the irrigation rate and determine the number of minutes for the system to cover the intended treatment area; 4) Calculate the total gallons of insecticide mixture needed to cover the desired acreage. Divide the total gallons of insecticide mixture needed by the number of minutes (minus time to flush out) to cover the treatment area. This value equals the gallons per minute output that the injector or eductor must deliver. Convert the gallons per minute to milliliters or ounces per minute if needed. Calibrate the injector system with the system in operation at the desired irrigation rate. It is suggested that the injection pump/system be calibrated at least twice before operation, and the system should be monitored during operation.

Chemigation Operation: Start the water pump and irrigation system, and let the system achieve the desired pressure and speed before starting the injector. Check for leaks and uniformity and make repairs before any chemigation takes place. Start the injection system and calibrate according to manufacturer's specifications. This procedure is necessary to deliver the desired rate per acre in a uniform manner. When the application is finished, allow the entire irrigation and injection system to be thoroughly flushed clean before stopping the system.

Chemigation Precautions:

- Lack of effectiveness or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- If you have questions about calibration, contact state extension service specialists, equipment manufacturers or other experts.
- Do not connect an irrigation system used for pesticide application (including greenhouse systems) to a public water system unless the pesticide label prescribed safety devices for public water systems are in place with current certification. Specific local regulations may apply and must be followed.
- A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall operate the system and make necessary adjustments should the need arise and continuously monitor the injection.

- Do not apply when wind speed favors drift beyond the area intended for treatment. End guns must be turned off during the application if they irrigate nontarget areas.
- Do not allow irrigation water to collect or run off and pose a hazard to livestock, wells, or adjoining crops.
- Do not enter treated area during the reentry interval specified in the Agricultural Use Requirements section of this label unless required PPE is worn.
- Do not apply through sprinkler systems that deliver a low coefficient of uniformity such as certain water drive units.

Chemigation Specific Equipment Requirements:

- The system must contain an air gap, or approved back flow prevention device, or approved functional check valve, vacuum relief valve (including inspection port), and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow. Refer to the American Society of Agricultural Engineer's Engineering Practice 409 for more information or state specific regulations.
- The pesticide injection line must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection chemical supply.
- A pesticide injection pump must also contain a functional interlock, e.g., mechanical or electrical, to shut off chemical supply 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 when the water pressure drops too low or water flow stops.
- Use of public water supply requires approval of a backflow prevention device or air gap (preferred) by both state and local authorities.
- Systems must use a metering pump, such as a positive displacement injection pump (or flow meter on eductor), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. An electric powered pump must meet Section 675 for "Electrically Driven or Controlled Irrigation Machines" NEC 70.
- To insure uniform mixing of the insecticide into the water line, inject the mixture in the center of the pipe diameter or just ahead of an elbow or tee in the irrigation line so that the turbulence created at those points will assist in mixing. The injection point must be located after all back flow prevention devices on the water line.

- The tank holding the insecticide mixture should be free of rust, fertilizer, sediment, and foreign material, and equipped with an in-line strainer situated between the tank and the injection point.

Commercial Seed Treatment Application

Entrust is labeled for commercial seed treatment in several crops. Commercial seed treated with spinosad is available for some selected annual crops. Regardless of formulation or method of application (foliar plus soil plus seed), apply no more than the maximum application limit of spinosad for the selected crop per acre per season (see crop section for the selected crop for maximum ai spinosad per acre per season).

Uses

Asparagus

(Post Harvest Protection of Ferns Only)

Pests and Application Rates:

Pests	Entrust (oz/acre)
asparagus beetle	1.25 - 2

Application Timing: For determining when to treat, scout with enough regularity to monitor the population size of the labeled pest. Make applications **only to asparagus ferns**. Treat when pests appear, targeting eggs at hatch or small larvae. Consult your Dow AgroSciences representative, extension specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Apply Entrust as a foliar spray at the rate specified to control asparagus beetle in asparagus fern. Use a higher rate in the rate range for heavy infestations or advanced growth stages of the beetle. Heavy infestations may require repeat applications, but follow resistance management guidelines.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Interval:** This use is for asparagus ferns only; do not apply within 60 days of spear harvest.
- **Minimum Treatment Interval:** Do not make applications less than 4 days apart.
- Do not apply more than a total of 5.6 oz of Entrust (0.28 lb ai spinosad) per acre per crop.
- **Maximum Number of Applications:** Do not make more than three applications per crop.
- Do not feed treated ferns to meat or dairy animals.

Banana and Plantain

(For use in California, Florida, Hawaii and Texas only)

Pests and Application Rates:

Pests	Entrust	
	(oz/acre)	Dilute Spray (oz/100 gal)
banana rust thrips[1] caterpillars Hawaiian flower thrips[1]	2.5	0.75

[1]Control of thrips may be improved with the addition of an adjuvant to the spray mixture. See Use of Adjuvants section under Mixing Directions. Dilute sprays assume an average volume of 300 gallons per acre.

Application Timing: Apply no later than two weeks after bunch emergence and before flower petals senesce and again one to two days before bunch cover.

Application Rate: Apply as a directed fine spray toward bunches and spray to runoff.

Spray Volume: Dilute sprays are sprayed to the point of runoff. The application rate range for dilute sprays in the table is based upon a spray volume of 300 gallons per acre. Gallonage of dilute sprays will vary depending upon tree size, density of canopy, stage of seasonal growth, and spacing in the orchard.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Interval:** Do not apply within 8 weeks of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 7 days apart.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per crop
- **Maximum Number of Applications:** Do not make more than four applications per crop or apply more than six times per calendar year.

Brassica (Cole) Leafy Vegetables (Crop Group 5)[1]

[1]*Brassica* (cole) leafy vegetables (crop group 5) including broccoli, broccoli raab, Brussels sprouts, cabbage, cauliflower, cavalo, Chinese broccoli, Chinese cabbage (bok choy), Chinese cabbage (napa), Chinese mustard cabbage (gai choy), collards, kale, kohlrabi, mizuna, mustard greens, mustard spinach, rape greens

In the state of Georgia, do not apply Entrust to: broccoli raab, Chinese cabbage (bok choy), collards, kale, mizuna, mustard greens, mustard spinach, rape greens

Pests and Application Rates:

Pests	Entrust (oz/acre)
diamondback moth	0.5 – 1.25
cabbage looper imported cabbageworm	1 – 2
armyworms (including beet armyworm) leafminers[1] thrips[1]	1.25 – 3
flea beetle (suppression)	1.25 – 2.5

[1]Control of leafminers and thrips may be improved with the addition of an adjuvant to the spray mixture. See Use of Adjuvants section under Mixing Directions.

Application Timing: Treat when pests appear, targeting eggs at hatch or small larvae. Heavy infestations may require repeat applications, but follow resistance management guidelines. Consult your Dow AgroSciences representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Apply as a foliar spray at the rate specified to control target pest. Use a higher rate in the rate range for heavy infestations or advanced growth stages of target pests.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. For **diamondback moth**, if additional treatments are required after two

consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least two applications. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area. Make treatment decisions for the entire farm and consider area wide programs if other growers are in close proximity. Do not make more than six applications of Entrust per calendar year for diamondback moth over an entire farm (an area of abutting or nearby fields).

Restrictions:

- **Preharvest Interval:** Do not apply within 1 day of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 4 days apart.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per crop.
- **Maximum Number of Applications:** Do not make more than six applications per calendar year.
- Do not apply to seedling cole crops grown for transplant within a greenhouse, shade house, or field plot.

Bulb Vegetables (Crop Group 3)[1]

[1]Bulb vegetables (crop group 3) including dry bulb onion, garlic, great-headed (elephant) garlic, green onion, leek, shallot, welch onion

Pests and Application Rates:

Pests	Entrust (oz/acre)
armyworms dipteran leafminers European corn borer fleabeetle loopers	1 - 2
thrips (suppression)[1]	1.25 – 2.5

[1]Control of thrips may be improved with the addition of an adjuvant to the spray mixture. See Use of Adjuvants section under Mixing Directions. If thorough coverage is desired, then high pressure (>70 psi) directed sprays with dual directed nozzles can assist leaf penetration of onion.

Application Timing: For determining when to treat, scout with enough regularity to monitor the population size of each of the labeled pests. Treat when pests appear, targeting eggs at hatch or small larvae. Consult your Dow AgroSciences representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Apply as a foliar spray at the rate specified to control target pest. Use a higher rate in the rate range for larger larvae or heavier infestations.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Interval:** Do not apply within 1 day of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 4 days apart.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per crop (includes foliar plus soil plus seed)
- **Maximum Number of Applications:** Do not make more than five foliar applications per calendar year.

Bushberries (Subgroup 13B)[1]

(Insect Suppression)

[1]Bushberries (subgroup 13B) including blueberry, currant, elderberry, gooseberry, huckleberry, juneberry, lingonberry, salal

Pests and Application Rates:

Pests	Entrust (oz/acre)
armyworms cherry fruitworm cranberry fruitworm currant fruitfly European grapevine moth fireworms leafrollers light brown apple moth loopers thrips[1]	1.25 - 2

[1]Control of thrips may be improved with the addition of an adjuvant to the spray mixture. See Use of Adjuvants section under Mixing Directions.

Application Timing: Treat when pests appear, targeting eggs at hatch or small larvae. Heavy infestations may require repeat applications, but follow resistance management guidelines. Consult your Dow AgroSciences representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: The amount of Entrust applied per acre will depend upon plant size and volume of foliage present and pest pressure. Use a lower rate in the rate range for light infestations and/or small plants and a higher rate in the rate range for heavy infestations and/or larger plants.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Interval:** Do not apply within 3 days of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 6 days apart.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per crop
- **Maximum Number of Applications:** Do not make more than six applications per calendar year or more than three applications per crop.

Caneberries (Subgroup 13A)[1]

[1]Caneberries (subgroup 13A) including blackberry, loganberry, red and black raspberry, cultivars and/or hybrids of these

Pests and Application Rates:

Pests	Entrust (oz/acre)
beet armyworm bertha armyworm European grapevine moth green fruitworm leafrollers light brown apple moth	1.25 - 2

Pests and Application Rates: (Cont.)

Pests	Entrust (oz/acre)
looper sawfly western raspberry fruitworm	1.25 - 2

Application Timing: Treat when pests appear, targeting eggs at hatch or small larvae. Heavy infestations may require repeat applications, but follow resistance management guidelines. Consult your Dow AgroSciences representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: The amount of Entrust applied per acre will depend upon plant size and volume of foliage present and pest pressure. Use a higher rate in the rate range for larger larvae or moderate to severe infestations and/or larger plant volume.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Interval**: Do not apply within 1 day of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 5 days apart.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per crop.
- **Maximum Number of Applications:** Do not make more than six applications per calendar year.

Citrus (Crop Group 10)[1]

[1]Citrus (crop group 10) including grapefruit, lemons, limes, oranges, tangerines

Pests and Application Rates:

Pests	Entrust (oz/acre)
citrus leafminer citrus orangedog citrus peelminer citrus thrips[1]	1.25 - 3

[1]Control of thrips may be improved with the addition of an adjuvant to the spray mixture. See Use of Adjuvants section under Mixing Directions.

Application Timing: Treat when pests appear or in accordance with local economic thresholds. Consult your Dow AgroSciences representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: The amount of Entrust applied per acre will depend upon tree size and pest pressure. Use a lower rate in the rate range for light infestations and/or small trees and a higher rate in the rate range for heavy infestations and/or large trees.

Resistance Management: Citrus thrips are present most of the time on the crop during the growing season and have demonstrated a high potential to develop resistance to insect control products. Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. For **citrus thrips**, rotate to another class of effective producs for the next two applications after using two applications of Entrust within a season.

Consult your Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Interval:** Do not apply within 1 day of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 6 days apart.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per crop.
- **Maximum Number of Applications:** Do not make more than three applications per calendar year.
- Do not apply to citrus nurseries or citrus in greenhouses.

Corn (Field, Sweet, Popcorn, Seed Corn) and Teosinte

Pests and Application Rates:

Pests	Entrust (oz/acre)
armyworms European corn borer	0.5 - 2
beet armyworm corn earworm southwestern corn borer western bean cutworm	1 - 2

Application Timing: Scout for **European corn borer** and **armyworms** with enough regularity to monitor egg laying and egg hatch. Time applications of Entrust to coincide with peak egg hatch of each generation. Frequent treatments may be necessary when the crop is growing rapidly, during silking or under heavy pest pressure. For **corn earworm** control, a 1- to 2-day re-treatment

schedule may be necessary at silking. For control of all other pests, a 5- to 7-day re-treatment schedule may be necessary if the crop is growing rapidly or if there is heavy pest pressure.

Application Rate: Apply as a foliar spray at the rate specified to control target pests. Use a higher rate in the rate range for heavy infestations or advanced growth stages of target pests.

Spray Delivery: For control of first generation **European corn borer** and **armyworms**, apply broadcast or as a directed spray into the leaf whorls. For control of **corn earworm,** apply broadcast or direct spray to ear zone. Use sufficient spray volume and nozzle pressure to ensure thorough wetting of the silks.

Chemigation: Entrust may be applied to corn by chemigation at labeled rates. Refer to the Chemigation Application section.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Sweet Corn, Popcorn, Seed Corn**
  Preharvest Interval: Do not apply within 28 days of fodder harvest, 1 day of grains harvest or 7 days of forage harvest.
  Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per year.
  Maximum Number of Applications: Do not make more than six applications per calendar year.
- **Field Corn and Teosinte**
  Preharvest Interval: Do not apply within 28 days of grain or fodder harvest or 7 days of forage harvest.
  Do not apply more than a total of 3.75 oz of Entrust (0.188 lb ai spinosad) per acre per year.
  Maximum Number of Applications: Do not make more than three applications per calendar year.

Cotton

Pests and Application Rates:

Pests	Entrust (oz/acre)
European corn borer cotton bollworm (pre-bloom) cotton leafperforator tobacco budworm	1 – 2
armyworms (including beet armyworm, fall armyworm) cotton bollworm (post-bloom) leafminers loopers (including soybean looper, cabbage looper) saltmarsh caterpillar thrips	1.25 – 2

Application Timing:
Tobacco Budworm and/or Cotton Bollworm: For the most effective control, fields should be scouted twice per week and Entrust applied when the majority of the population is within the time of blackhead egg stage to 1/8-inch larval length. The following table illustrates the size of development of worms in relation to age and stage of development (instar) as a guide to timing treatments for optimum control:

Age (Days)	Average Size (Inches)	Instar[1]
Hatch	1/16	1st
3	1/4	2nd
5	1/2	3rd
8	7/8	4th
10	1	5th

[1]**Note:** A scouting schedule of only once per week is risky since hatching worms will have grown to 3rd instar before the next scouting observation has determined the need to spray.

Beet Armyworm: Economic thresholds vary with local conditions and sampling methods. The following is an example of one such method: apply Entrust when field scouting reveals three or more occurrences of egg hatch or larval feeding per 100 feet of row.

Loopers: Economic thresholds vary with local conditions and sampling methods. The following is an example of one such method: apply Entrust when field scouting reveals four larvae per 1 foot of row or 25% defoliation.

Application Rate: Use a higher rate in the rate range and higher spray volume when one or more of the following is true: tobacco budworms or bollworms are more than 1/4 inch in length; target pest population is 2X above state threshold level; or foliage canopy is tall/dense and worms are present in the lower part of the canopy. Heavy infestations may require repeat applications, but follow resistance management guidelines.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

For **tobacco budworm** and/or **cotton bollworm** where early season conservation of beneficial insects is practical, use Entrust to control the 1st and 3rd generation of tobacco budworm and/or cotton bollworm. Where conservation of beneficial insects is not as critical (for example, fields have received non-selective early season treatments for boll weevil or lygus bugs), use Entrust to control either the 2nd or 3rd generation of tobacco budworm and/or cotton bollworm.

Restrictions:

- **Preharvest Interval:** Do not apply within 28 days of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 5 days apart for high rates of application.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per growing season.

Cranberry

(Insect Suppression)

Pests and Application Rates:

Pests	Entrust (oz/acre)
armyworms currant fruitfly European grapevine moth fireworms leafrollers light brown apple moth loopers sparganothis fruitworm thrips	1.25 – 3

Application Timing: For determining when to treat, scout with enough regularity to monitor the population size of each of the labeled pests. Treat when pests appear, targeting eggs at hatch or small larvae. Consult your Dow AgroSciences representative, extension specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Application rate within the rate range will depend upon plant size and volume of foliage present and pest pressure. Use a higher rate in the rate range for larger larvae or moderate to severe infestations and/or larger plant volume.

Chemigation: Entrust may be applied to cranberry by chemigation at labeled rates. Refer to the Chemigation Application section.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Interval:** Do not apply within 21 days of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 7 days apart.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per crop.
- **Maximum Number of Applications:** Do not make more than six applications per calendar year.

Cucurbit Vegetables (Crop Group 9)[1]

[1]Cucurbit vegetables (crop group 9) including cucumber, edible gourds, muskmelons (cantaloupe, honeydew, etc.), pumpkin, summer squash, watermelon, winter squash

Pests and Application Rates:

Pests	Entrust (oz/acre)
armyworm cabbage looper melon worm pickleworm rindworm	1.25 – 2.5
leafminers[1] thrips[1]	2 – 2.5

[1]Control of leafminers and thrips may be improved with the addition of an adjuvant to the spray mixture. See Use of Adjuvants section under Mixing Directions.

Application Timing: Treat when pests appear, targeting eggs at hatch or small larvae. Heavy infestations may require repeat applications, but follow resistance management guidelines. Consult your Dow AgroSciences representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional area local use recommendations for your area.

Application Rate: Apply as a foliar spray at the rate specified to control target pests. Use a higher rate in the rate range for heavy infestations or advanced growth stages of target pests.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Interval:** Do not apply within 3 days of harvest for all crops except cucumbers. Do not apply within 1 day of harvest for cucumbers.
- **Minimum Treatment Interval:** Do not make applications less than 5 days apart.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per season (includes foliar plus soil plus seed).
- **Maximum Number of Applications:** Do not make more than six applications per crop.

Dates

Pests and Application Rates:

	Entrust	
Pest	**(oz/acre)**	**Dilute Spray (oz/100 gal)**
carob moth	2.5	0.83

Application Timing: Apply Entrust as a foliar spray when pests appear or in accordance with local conditions. Apply as a concentrate or dilute spray using conventional, power operated spray equipment ensuring good coverage (see Orchard Spraying section under Application Directions section). Consult your Dow AgroSciences representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Spray Volume: Dilute sprays are sprayed to the point of runoff. The application rate for dilute sprays in the table is based upon a spray volume of 300 gallons per acre. Gallonage of dilute sprays will vary depending upon tree size, density of canopy, stage of seasonal growth, and spacing in the orchard.

Resistance Management: Do not make more than three consecutive applications of Group 5 insecticides (spinetoram and spinosad) within a crop season. If additional treatments are required after three consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Interval:** Do not apply within 7 days of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 7 days apart.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per year.
- **Maximum Number of Applications:** Do not make more than three sprays of Entrust for carob moth control.

Fig

Pests and Application Rates:

	Entrust	
Pests	**(oz/acre)**	**Dilute Spray (oz/100 gal)**
navel orangeworm	1.25 - 3	0.3 – 0.75

Application Timing: Apply Entrust as a foliar spray when pests appear or in accordance with local conditions. Apply as a concentrate or dilute spray using conventional, power operated spray equipment (see Orchard Spraying section under Application Directions section). Consult your Dow AgroSciences representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: The amount of Entrust applied per acre will depend upon tree size and volume of foliage present and pest pressure. Use a higher rate in the rate range for large trees or heavy infestations.

Spray Volume: Dilute sprays are sprayed to the point of runoff. The application rate range for dilute sprays in the table is based upon a spray volume of 400 gallons per acre. Gallonage of dilute sprays will vary depending upon tree size, density of canopy, stage of seasonal growth, and spacing in the orchard.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Interval:** Do not apply within 7 days of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 7 days apart.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per crop.
- **Maximum Number of Applications:** Do not make more than four applications per calendar year.

Fruiting Vegetables (Crop Group 8)[1] and Okra

[1]Fruiting vegetables (crop group 8) including eggplant, groundcherry, pepino, pepper (except black), tomatillo, tomato

Pests and Application Rates:

Pests	Entrust (oz/acre)
lepidopterous larvae (maintenance only)	0.5 - 1
Colorado potato beetle European corn borer	1 - 2

Pests and Application Rates: (Cont.)

Pests	Entrust (oz/acre)
hornworms loopers tomato fruitworm	1 - 2
armyworms (including beet armyworm) flea beetle (suppression) flower thrips[1, 2] thrips palmi[1, 2] tomato pinworm	1.25 – 2.5
leafminers[1] (*Liriomyza* spp.)	2 – 3

[1]Control of leafminers and thrips may be improved with the addition of an adjuvant to the spray mixture. See Use of Adjuvants section under Mixing Directions.
[2]For thrips, if additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least two applications.

Application Timing: Scout weekly throughout the season to monitor and track populations of **leafminers** and **thrips** to determine when economic thresholds are exceeded. Scout weekly throughout the season to monitor and track pest and beneficial populations. For tracking **lepidopterous larvae**, scout with enough regularity to monitor the population size of each of the labeled pests. Time applications of Entrust to coincide with peak egg hatch in species without overlapping generations. Consult current pest management recommendations for specific guidelines.

Application Rate: Apply as a foliar spray at the rate specified to control target pests. Use a higher rate in the rate range for heavy infestations or advanced growth stages of target pests.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. For **thrips**, if additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least two applications. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area. Do not apply Group 5 insecticides to consecutive generations of **Colorado potato beetle** and do not make more than two applications per single generation of Colorado potato beetle.

Restrictions:

- **Preharvest Interval:** Do not apply within 1 day of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 4 days apart.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per crop.
- **Maximum Number of Applications:** Do not make more than six applications per calendar year.
- Do not apply to seedling fruiting vegetables and okra grown for transplant within a greenhouse, shade house, or field plot.

Grape

Pests and Application Rates:

Pests	**Entrust (oz/acre)**
climbing cutworms European grapevine moth	1.25 – 2.5

Pests and Application Rates: (Cont.)

Pests	Entrust (oz/acre)
grape berry moth grape leaffolder grape leaf skeletonizer light brown apple moth omnivorous leafroller orange tortrix thrips	1.25 – 2.5

Application Timing: Treat when pests appear, targeting eggs at hatch or small larvae. Heavy infestations may require repeat applications, but follow resistance management guidelines. Consult your Dow AgroSciences representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Carefully adjust equipment and spray volume to assure thorough uniform coverage of infested parts of the crop. Use a higher rate in the rate range for larger larvae or moderate to severe infestations and/or larger plant volume.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Interval:** Do not apply within 7 days of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 5 days apart.

- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per season west of the Rocky Mountains, and no more than 0.36 lb ai spinosad per acre per season east of the Rocky Mountains.
- **Maximum Number of Applications:** Do not make more than five applications per calendar year.

Grass Crops, Grass Grown for Seed, Pastures and Rangeland

Pests and Application Rates:

Pests	Entrust (oz/acre)
beet armyworm fall armyworm southern armyworm true armyworm	0.63 – 1.25

Application Timing: Scout at least weekly and consider the impact of both pests and beneficials. Treat when economic thresholds are exceeded, targeting eggs at hatch or small larvae. Heavy infestations may require repeat applications, but follow resistance management guidelines. Consult your Dow AgroSciences representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations applicable to your area.

Application Rate: Use a higher rate in the rate range for heavy infestations or advanced growth stages of target pests.

Resistance Management: Do not apply more than three times in any 21-day period. Whenever Entrust is applied up to three times in succession, this should be followed by no use of Entrust for a 21-day period or rotation to another insecticide class.

Restrictions:
- **Preharvest Interval:** Do not apply within 3 days of harvest for hay or fodder. There is no preharvest interval for forage.

- Do not apply more than a total of 3.75 oz of Entrust (0.186 lb ai spinosad) per acre per season.
- **Maximum Number of Applications:** Do not make more than six applications per season.

Herbs (Subgroup 19A)[1]

(Insect Suppression)

[1]Herbs (subgroup 19A) including angelica, balm, basil, borage, burnet, camomile, catnip, chervil (dried), chive, chive (Chinese), cilantro, cilantro (leaf), clary, coriander (leaf), costmary, curry (leaf), dillweed, horehound, hyssop, lavender, lemongrass, lovage (leaf), marigold, marjoram, nasturtium, parsley (dried) pennyroyal, rosemary, rue, sage, savory (summer and winter), sweet bay, tansy, tarragon, thyme, wintergreen, woodruff, wormwood

Pests and Application Rates:

Pests	Entrust (oz/acre)
armyworms loopers thrips	1.25 - 2

Application Timing: For determining when to treat, scout with enough regularity to monitor the population size of each of the labeled pests. Treat when pests appear, targeting eggs at hatch or small larvae. Consult your Dow AgroSciences representative, extension specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Apply as a foliar spray at the rate specified to control target pests. Use a higher rate in the rate range for larger larvae or high infestations and/or larger plant volume. Heavy infestations may require repeat applications, but follow resistance management guidelines.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Interval**: Do not apply within 1 day of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 5 days apart.
- Do not apply more than a total of 11 oz of Entrust (0.47 lb ai spinosad) per acre per crop
- **Maximum Number of Applications:** Do not make more than five applications per calendar year or more than three applications per crop.

Hops, Dried Cones

Pests and Application Rates:

Pests	Entrust (oz/acre)
armyworms loopers thrips (suppression)	1.25 - 2

Application Timing: For determining when to treat, scout with enough regularity to monitor the population size of each of the labeled pests. Treat when pests appear, targeting eggs at hatch or small larvae. Consult your Dow AgroSciences representative, extension specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Apply as a foliar spray at the rate specified to control target pests. Use a higher rate in the rate range for larger larvae or high infestations and/or larger plant volume. Heavy infestations may require repeat applications, but follow resistance management guidelines.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Interval**: Do not apply within 1 day of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 5 days apart.
- Do not apply more than a total of 9.5 oz of Entrust (0.47 lb ai spinosad) per acre per crop
- **Maximum Number of Applications:** Do not make more than five applications per calendar year.

Leafy Vegetables (Except *Brassica*) (Crop Group 4)[1], Leaves of Root and Tuber Vegetables (Crop Group 2)[2] and Leaves of Legume Vegetables (Crop Group 7A)[3], Turnip Greens, and Watercress

[1]Leafy vegetables (except *Brassica*) (crop group 4) including amaranth, arugula, cardoon, celery, celtuce, chervil, Chinese celery, Chinese spinach, corn salad, dandelion, dock, edible-leaved chrysanthemum, endive (escarole), Florence fennel, garden cress, garden purslane, garland chrysanthemum, head lettuce, leaf lettuce, leafy amaranth, New Zealand spinach, orach, parsley, radicchio (red chicory), rhubarb, spinach, Swiss chard, tampala, upland cress, vine spinach, winter cress, winter purslane, yellow rocket

[2]Leaves of root and tuber vegetables (crop group 2) including bitter cassava, black salsify, carrot, celeriac (celery root), chicory, dasheen (taro), edible burdock, garden beet, oriental radish (daikon), parsnip, radish, rutabaga, sugar beet, sweet cassava, sweet potato, tanier, true yam, turnip, turnip-rooted chervil

[3]Leaves of legume vegetables (crop group 7A) including any cultivar of bean and field pea (except soybean)

Pests and Application Rates:

Pests	Entrust (oz/acre)
diamondback moth	0.5 - 1
cabbage looper imported cabbage worm	1 - 2
armyworms (including beet armyworm)	1.25 – 2.5
leafminers[1] thrips[1]	2 - 3

[1]Control of leafminers and thrips may be improved with the addition of an adjuvant to the spray mixture. See Use of Adjuvants section under Mixing Directions.

Application Timing: Scout at least weekly and consider the impact of both pests and beneficials. Treat when economic thresholds are exceeded, targeting eggs at hatch or small larvae. Heavy infestations may require repeat applications, but follow resistance management guidelines. Consult your Dow AgroSciences representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Apply as a foliar spray at the rate specified to control target pests. Use a higher rate in the rate range for heavy infestations or advanced growth stages of target pests.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension

specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Intervals:**
  Leafy vegetables (including watercress): Do not apply within 1 day of harvest.
  Leaves of root, tuber and legume vegetables: Do not apply within 3 days of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 4 days apart.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per crop (includes foliar plus soil plus seed).
- **Maximum Number of Applications**: Do not make more than six applications per year.
- Do not apply to seedling leafy crops grown for transplant within a greenhouse or shade house.

Legume Vegetables (Succulent and Dried Beans and Peas) (Crop Group 6)[1]

[1]Legume vegetables (succulent and dried beans and peas) (crop group 6) including adzuki bean, blackeyed pea, chickpea, cowpea, crowder pea, edible-pod pea, English pea, fava bean, field bean, field pea, garbanzo bean, garden pea, green pea, kidney bean, lentil, lima bean, lupins, mungbean, navy bean, pigeon pea, pinto bean, runner bean, snap bean, snow pea, sugar snap pea, tepary bean, wax bean, yardlong bean

Pests and Application Rates:

Pests	Entrust (oz/acre)
European corn borer (eggs and larvae)	1 - 2
armyworms corn earworm loopers	1.25 - 2

Pests and Application Rates: (Cont.)

Pests	Entrust (oz/acre)
leafminers[1] thrips[1]	1.5 - 2

[1]Control of leafminers and thrips may be improved with the addition of an adjuvant to the spray mixture. See Use of Adjuvants section under Mixing Directions.

Application Timing: For determining when to treat, scout with enough regularity to monitor the population size of each of the labeled pests. Heavy infestations may require repeat applications, but follow resistance management guidelines. Treat when pests appear, targeting eggs at hatch or small larvae. For **European corn borer**, initiate when moth flights first appear and use a lower rate in the rate range to control eggs and larvae every three days before they enter the plant. Consult your Dow AgroSciences representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional recommendations for your area.

Application Rate: Apply as a foliar spray at the rate specified to control target pest. Use a higher rate in the rate range for heavy infestations or advanced growth stages of target pests.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Minimum Treatment Interval:** Do not make applications less than 5 days apart.
- **Maximum Number of Applications**: Do not make more than six applications per crop.

- **Succulent Beans and Peas:**
  Preharvest Interval: Do not apply within 3 days of harvest.
  Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per season (includes foliar plus soil plus seed).
- **Dried Beans and Peas:**
  Preharvest Interval: Do not apply within 28 days of harvest.
  Do not apply more than a total of 3.75 oz of Entrust (0.188 lb ai spinosad) per acre per season (includes foliar plus soil plus seed).
  Do not feed forage or hay to meat or dairy animals.

Ornamentals (Herbaceous and Woody) Growing Outdoors, in Nurseries (Including Conifer Seed Orchards), or in Greenhouses

Pests and Application Rates:

Pests	Entrust oz/gallon	Entrust oz/100 gallons	Entrust oz/acre
chrysomelid leaf feeding beetles, such as: elm leaf (1) viburnum leaf (larvae) willow leaf (1) European grapevine moth lepidopterous larvae, such as: azalea caterpillar bagworm beet armyworm cabbage looper	0.01 (0.28 gm)	1 (28 gm)	2 (56 gm)

Pests and Application Rates: (Cont.)

Pests	Entrust oz/gallon	Entrust oz/100 gallons	Entrust oz/acre
lepidopterous larvae, such as: (Cont.) California oakworm cankerworm diamondback moth E. tent caterpillar fall webworm Florida fern caterpillar geranium budworm gypsy moth light brown apple moth oblique banded leafroller oleander caterpillar orange striped oakworm spruce budworm tussock moths (hickory, whitemarked) W. tent caterpillar winter moth yellownecked caterpillar (2) sawfly larvae, such as: European pine pear	0.01 (0.28 gm)	1 (28 gm)	2 (56 gm)

Pests and Application Rates: (Cont.)

Pests	Entrust oz/gallon	Entrust oz/100 gallons	Entrust oz/acre
sawfly larvae, such as: (Cont.) redheaded pine shore fly thrips (exposed) in greenhouse settings, such as: (3) Cuban laurel western flower	0.01 (0.28 gm)	1 (28 gm)	2 (56 gm)
dipterous gall midges pinyon spindlegall thrips (exposed) in outdoor settings, such as: Cuban laurel western flower (3)	0.017 (0.48 gm)	1.7 (48 gm)	3 (85 gm)
dipterous leafminers, such as: serpentine (4) emerald ash borer (5) lewis mites Nantucket pine tip moth spider mites, such as: spruce two-spotted (6) (see 6 below for mite suppression/control expectations)	0.031 (0.89 gm)	3.1 (89 gm)	3 (85 gm)

Numbers in parentheses (-) refer to Pest-Specific Use Directions.

Pest-Specific Use Directions (for pest control in the greenhouse or nursery, also refer to Greenhouse Pest Resistance Avoidance Recommendations):

1. **Elm leaf beetle** and **willow leaf beetle** (adults and larvae): For effective control, apply in the spring or early summer when feeding is observed.
2. For effective control of the following lepidopterous larvae:
   - **Bagworms:** Apply when bags are small and larvae are actively feeding.
   - **Beet armyworms:** Apply when larvae are small.
   - **Tent caterpillars** and **fall webworms:** Apply early when webs are first observed and direct the spray into the web and surrounding foliage within at least 3 feet of the nest.
   - **Gypsy moth larvae:** Apply when larvae are small and all eggs have hatched.
   - **Spruce budworms:** Apply when larvae are exposed and actively feeding.
3. **Exposed thrips (Cuban laurel** and **western flower):** For effective control, apply early at first signs of infestation and repeat until infestation is controlled. For thrips, if additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least two applications.
4. **Serpentine leafminers:** For effective control, apply early when stippling or mining of leaves is first observed and repeat until infestation is controlled. Three sequential applications at 7-day intervals can maximize control. Addition of a nonionic spray adjuvant such as DYNE-AMIC spray adjuvant at 0.1% v/v in greenhouse settings has been shown to enhance control of leafminers (follow surfactant manufacturer's label directions).
5. Apply to foliage and bark of tree when adult **emerald ash borer** are first observed emerging from the bark or when adult emerald ash borer are first noticed feeding on the leaves of the tree. Reapply every 7 to 10 days until no additional adult emerald ash borer activity is observed. Application to trees already heavily infested may not prevent the eventual loss of the tree due to existing pest damage and tree stress.

6. **Spruce spider mites** and **two-spotted spider mites:** Apply when spider mites are first observed prior to webbing and before mite populations have become severe. Reapply after 7 to 10 days (3 to 5 days in greenhouses and structures that can be altered to be closed or open) to contact newly hatched nymphs and repeat until infestation is managed. **Uniform coverage of both upper and lower leaf surfaces is critical**.

   Note: Control of spider mites with Entrust in certain research trials has been variable. The variability between these evaluations is not well understood but may be due to late application timing when mite populations and webbing were severe, poor spray coverage of both the upper and lower leaf surfaces, or interaction of the leaf surface with residues of Entrust. Addition of a nonionic spray adjuvant such as Activate Plus, DYNE-AMIC, Joint Venture, Phase, and Thoroughbred at 0.1% v/v in greenhouse settings and at label rates in outdoor settings has been shown to improve spray coverage and enhance control of spider mites (follow surfactant manufacturer's label directions).

Application Timing: Dilute Entrust in water and apply using suitable hand or power-operated application equipment (such as, but not limited to, portable pump-up, backpack, hydraulic, boom) in a manner to provide complete and uniform plant coverage. Consult your Dow AgroSciences representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area. Use of Entrust in lath and shadehouses is permitted.

Application Rate: Entrust may be used up to a maximum labeled rate of 0.031 oz per gallon (3.1 oz per 100 gallons, 3 oz per acre) per application on trees and ornamentals as a general treatment regardless of the target insect pest. Use pest specific rates when a single insect pest or group of insect pests within a rate category is the only intended target.

Spray Volume: Attempt to penetrate dense foliage, but avoid over-spraying to the point of excessive runoff. Uniform coverage of both upper and lower leaf surfaces is critical for effective insect control.

Chemigation: Entrust may be applied to ornamentals by chemigation at labeled rates. Refer to the Chemigation Application section

Phytotoxicity: Entrust has been tested alone on a wide variety of herbaceous and woody ornamental plants without phytotoxic symptoms. However, because it is not possible to test all possible tank mix combinations (including adjuvants) and ornamental plant species, varieties, and cultivars, and because environmental factors and varietal and plant stage of growth may affect phytotoxic expression, it is recommended that a small group of test plants be treated at the anticipated use rate of Entrust either alone or in tank mix combinations and observed for at least 5 to 7 days to determine phytotoxicity before treating large numbers of those plants. **Note:** The professional user assumes responsibility for determining if Entrust is safe to treated plants when applied either alone or in tank mixtures under commercial growing conditions. Research has demonstrated that some spotting of saintpaulia (African violet) flowers may occur.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. For thrips, if additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least two applications. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Minimum Treatment Interval:** Except for greenhouses and structures that can be altered to be closed or open, do not make applications less than 7 days apart. For greenhouses and structures that can be altered to be closed or open, see Requirements for Use of Entrust in Greenhouses and for Commercial Production of Herbaceous (Non-Woody) Ornamentals in Nurseries section under General Use Precautions.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per year.

Peanut
(Not for Use in California)

Pests and Application Rates:

Pests	Entrust (oz/acre)
armyworms, including: beet armyworm fall armyworm true armyworm yellowstriped armyworm cabbage looper corn earworm European corn borer green cloverleaf worm red-necked peanut worm saltmarsh caterpillar soybean looper tobacco budworm velvetbean caterpillar	1 - 2

Application Timing: Regularly monitor the population size of each of the labeled pests. Treat when pests appear, targeting eggs at hatch or small larvae. Consult your Dow AgroSciences representative, extension specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Use a higher rate in the rate range for larger larvae or moderate to severe infestations and/or larger plant volume.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Interval**: Do not apply within 3 days of nut harvest or within 14 days of forage.
- **Minimum Treatment Interval:** Do not make applications less than 7 days apart.
- Do not apply more than a total of 5.6 oz of Entrust (0.28 lb ai spinosad) per acre per crop.
- **Maximum Number of Applications**: Do not make more than three applications per calendar year.
- **Grazing Restrictions**: Do not allow grazing of crop residue or harvest of crop residue for hay until 14 days after the last application.

Peppermint and Spearmint

Pests and application rates:

Pests	Entrust (oz/acre)
armyworms cutworms dipteran leafminers[1] loopers thrips (suppression)[1]	1.25 – 3

[1]Control of leafminers and thrips may be improved with the addition of an adjuvant to the spray mixture. See Use of Adjuvants section under Mixing Directions. Control in peppermint and spearmint has been variable; high pressure directed sprays can assist leaf penetration of peppermint and spearmint.

Application Timing: For determining when to treat, scout with enough regularity to monitor the population size of each of the labeled pests. Treat when pests appear, targeting eggs at hatch or small larvae. Consult your Dow AgroSciences representative, extension specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Apply as a foliar spray at the rate specified to control target pests. Heavy infestations may require repeat applications, but follow resistance management guidelines. Use a higher rate in the rate range for heavy infestations or advanced growth stages of target pests.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Intervals:** Do not apply within 7 days of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 4 days apart.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per crop
- **Maximum Number of Applications**: Do not make more than four applications per calendar year or more than three applicatoins per crop.

Pineapple

(Insect Suppression)
(For use in Hawaii only)

Pests and Application Rates:

Pests	Entrust (oz/acre)
lepidopteran larvae such as: armyworms banana moth fruit borer caterpillar (*Thecia basilides*) *Gummosos-Batrachedra commosae* pineapple caterpillar pink cornworm sugarcane bud moth	1.25 - 2

Application Timing: For determining when to treat, scout with enough regularity to monitor the population size of each of the labeled pests. Treat when pests appear, targeting eggs at hatch or small larvae. Consult your Dow AgroSciences representative, extension specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Apply as a foliar spray at the rate specified to control target pests. Heavy infestations may require repeat applications, but follow resistance management guidelines.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Interval**: Do not apply within 7 days of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 7 days apart.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per year.
- **Maximum Number of Applications**: Do not make more than six applications per calendar year.

Pome Fruits (Crop Group 11)[1]

[1]Pome fruits (crop group 11) including apples, crabapple, loquat, mayhaw, pears, quince

Pests and Application Rates:

Pests	Entrust	
	(oz/acre)	Dilute Spray (oz/100 gal)
leafminers[1] spotted tentiform western tentiform	1. 5– 3	0.5 - 1
apple maggot (suppression) codling moth European grapvine moth light brown apple moth leafrollers oblique-banded pandemis oriental fruit moth	2 – 3	0.67 - 1

Pests and Application Rates: (Cont.)

Pests	Entrust	
	(oz/acre)	Dilute Spray (oz/100 gal)
thrips[1] tufted apple budmoth	2 – 3	0.67 - 1

[1]Control of leafminers and thrips may be improved with the addition of an adjuvant to the spray mixture. See Use of Adjuvants section under Mixing Directions.

Application Timing: Optimal timing for **leafminers** and **leafrollers** may vary between species and geographic location. For **leafminers**, monitor the moth flights and infestation densities of both the sap-feeding and tissue-feeding stage. For optimum control, treat at first appearance of leaf mining activity. For **leafrollers**, monitor the moth flights and the infestation densities of the larval stages. Repeat application as necessary to maintain control. Closely follow regional spray recommendations for **codling moth** and **oriental fruit moth** treatments based upon biofix dates and pheromone trap catches. **Codling moth** and **oriental fruit moth** larvae must be controlled before they penetrate the fruit. **Codling moth** and **oriental fruit moth** applications will provide control for no more than 10 days. Repeat application as necessary to maintain control. Consult with your Dow AgroSciences representative, state agricultural experiment station, certified pest control advisor or extension specialist for specific application timings in your area.

Application Rate: The amount of Entrust applied per acre will depend upon tree size and pest pressure. Use a lower rate in the rate range for light infestations and/or small trees and a higher rate in the rate range for heavy infestations and/or larger trees.

Spray Volume: Dilute sprays are sprayed to the point of runoff. The application rate range in the table is based upon a spray volume of 300 gallons per acre. Gallonage of dilute sprays will vary depending upon tree size, density of canopy, stage of seasonal growth, and spacing in the orchard.

Resistance Management: Do not make more than three consecutive applications of Group 5 insecticides (spinetoram and spinosad) within a crop season. If additional treatments are required after three consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area. Avoid treating consecutive generations of codling moth, oriental fruit moth, and leafrollers.

Restrictions:

- **Preharvest Interval:** Do not apply within 7 days of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 10 days apart.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per crop.
- Do not apply more than three sprays targeted at leafrollers per season.
- **Maximum Number of Applications**: Do not make more than four applications per calendar year.

Pomegranate

Pests and Application Rates:

	Entrust	
Pests	**(oz/acre)**	**Dilute Spray (oz/100 gal)**
carob moth filbert moth leafrollers, such as: oblique-banded omnivorous fruit tree pandemis	1.25 – 2.5	0.42 – 0.83

Pests and Application Rates: (Cont.)

Pests	Entrust	
	(oz/acre)	Dilute Spray (oz/100 gal)
leafrollers, such as: (Cont.) redbanded variegated light brown apple moth navel orangeworm oriental fruit moth peach twig borer thrips[1] western cherry fruit fly	1.25 – 2.5	0.42 – 0.83

[1]Control of thrips may be improved with the addition of an adjuvant to the spray mixture. See Use of Adjuvants section under Mixing Directions.

Application Timing: Optimal timing for **leafrollers** may vary between species and geographic location. Monitor the moth flights and the infestation densities of the larval stages. Thorough coverage is necessary for optimal control. Consult with your Dow AgroSciences representative, state agricultural experiment station, certified pest control advisor or extension specialist for specific application timings in your area.

Application Rate: Use a higher rate in the rate range for large trees, heavy infestations, or advanced growth stages of target pest, especially if spray volume or coverage is marginal.

Spray Volume: Dilute sprays are sprayed to the point of runoff. The application rate range in the table is based on a spray volume of 300 gallons per acre. Gallonage of dilute sprays will vary depending on tree size, density of canopy, stage of seasonal growth, and spacing in the orchard.

Resistance Management: Do not make more than three consecutive applications of Group 5 insecticides (spinetoram and spinosad) within a crop season. If additional treatments are required after three consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area. Avoid treating consecutive generations of oriental fruit moth and leafrollers.

Restrictions:

- **Preharvest Interval:** Do not apply within 7 days of harvest.
- **Minimum Treatment Interval:** A 10- to 14-day re-treatment schedule may be necessary to maintain control if the crop is growing rapidly or if there is heavy pest pressure.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per year.
- **Maximum Number of Applications:** Do not make more than three sprays targeted at leafrollers per season.

Root and Tuber Vegetables (Crop Group 1)[1] and Artichoke

[1]Root and tuber vegetables (crop group 1) including arracacha, arrowroot, bitter cassava, black salsify, carrot, celeriac, chayote root, chicory, Chinese artichoke, chufa, dasheen, edible burdock, edible canna, garden beet, ginger, ginseng, horseradish, Jerusalem artichoke, leren, oriental radish, parsnip, potato, radish, rutabaga, salsify, skirret, Spanish salsify, sugar beet, sweet cassava, sweet potato, tanier, true yam, turmeric, turnip, turnip-rooted chervil, turnip-rooted parsley, yam bean

Pests and Application Rates:

Crop	Pests	Entrust (oz/acre)
black salsify carrot chicory ginseng horseradish parsnip salsify skirret Spanish salsify turnip-rooted chervil turnip-rooted parsley	armyworms dipteran leafminers European corn borer fleabeetle loopers thrips[1]	1 – 2
celeriac edible burdock oriental radish radish rutabaga turnip		

Pests and Application Rates: (Cont.)

Crop	Pests	Entrust (oz/acre)
arracacha arrowroot artichoke bitter cassava chayote root Chinese artichoke chufa dasheen edible canna garden beet ginger Jerusalem artichoke leren potato sugar beet	Colorado potato beetle European corn borer	1 - 2
	armyworms artichoke plume moth dipteran leafminers (*Liriomyza*) loopers thrips[1]	1.5 - 3

Pests and Application Rates: (Cont.)

Crop	Pests	Entrust (oz/acre)
sweet cassava sweet potato tanier true yam turmeric, yam bean	armyworms artichoke plume moth dipteran leafminers (*Liriomyza*) loopers thrips[1]	1.5 - 3

[1]Control of thrips may be improved with the addition of an adjuvant to the spray mixture. See Use of Adjuvants section under Mixing Directions.

Application Timing: For determining when to treat, scout with enough regularity to monitor the population size of each of the labeled pests. Treat when pests appear, targeting eggs at hatch or small larvae. When plants are growing rapidly, repeat applications may be necessary to protect new foliage. Consult your Dow AgroSciences representative, extension specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Apply as a foliar spray at the rate specified to control target pests. Use a higher rate in the rate range for larger larvae or heavier infestations. Heavy infestations may require repeat applications but follow resistance management guidelines.

Chemigation: Entrust may be applied to potatoes by chemigation at labeled rates. Refer to the Chemigation Application section.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist,

certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area. Do not apply Entrust to consecutive generations of **Colorado potato beetle** and do not make more than two applications per single generation of Colorado potato beetle.

Restrictions:

- **Garden beet, sugar beet**
  Preharvest Interval: Do not apply within 3 days of harvest.
  Minimum Treatment Interval: Do not make applications less than 7 days apart.
  Do not apply more than a total of 6.5 oz of Entrust (0.33 lb ai spinosad) per crop.
  Maximum Number of Applications: Do not make more than four applications per crop.
- **Black salsify, carrot, chicory, ginseng, horseradish, parsnip, salsify, skirret, Spanish salsify, turnip-rooted chervil, turnip-rooted parsley**:
  Preharvest Interval: Do not apply within 3 days of harvest.
  Minimum Treatment Interval: Do not make applications less than 5 days apart.
  Do not apply more than a total of 7 oz of Entrust (0.3 lb ai spinosad) per acre per crop.
  Maximum Number of Applications: Do not make more than four applications per calendar year.
- **Arracacha, arrowroot, bitter cassava, chayote root, Chinese artichoke, chufa, dasheen, edible canna, ginger, Jerusalem artichoke, leren, potato, sweet cassava, sweet potato, tanier, true yam, turmeric, yam bean**
  Preharvest Interval: Do not apply within 7 days of harvest.
  Minimum Treatment Interval: Do not make applications less than 7 days apart.
  Do not apply more than a total of 6.5 oz of Entrust (0.33 lb ai spinosad) per crop.
  Maximum Number of Applications: Do not make more than four applications per crop.
- **Artichoke**
  Preharvest Interval: Do not apply within 2 days of harvest.
  Minimum Treatment Interval: Do not make applications less than 7 days apart.

Do not apply more than a total of 7.5 oz of Entrust (0.33 lb ai spinosad) per crop.
Maximum Number of Applications: Do not make more than four applications per crop.

- **Celeriac, edible burdock, Oriental radish, radish, rutabaga, turnip and other root vegetables not specifically listed**:
  Preharvest Interval: Do not apply within 3 days of harvest.
  Minimum Treatment Interval: Do not make applications less than 5 days apart.
  Do not apply more than a total of 6 oz of Entrust (0.28 lb ai spinosad) per acre per crop.
  Maximum Number of Applications: Do not make more than three applications per calendar year.

Small Cereal Grains and Grain Amaranth

Small cereal grains including barley, buckwheat, milo, oats, pearl millet, proso millet, rye, sorghum, triticale, wheat

Pests and Application Rates:

Pests	Entrust (oz/acre)
cereal leaf beetle	0.5 - 2
armyworms corn earworm (headworm) grasshoppers (suppression) southwestern corn borer webworms	1 - 2

Application Timing: Scout for **armyworms** with enough regularity to monitor egg laying and egg hatch and treat when thresholds are reached. Time applications of Entrust to coincide with peak egg hatch and/or small larval stage of growth of each generation.

Application Rate: Apply as a foliar spray at the rate specified to control target pests. Use a higher rate in the rate range for heavy infestations, advanced growth stages of target pests, or difficult spray coverage situations.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Interval:** Do not apply within 21 days of grain or straw harvest or within 3 days of forage, fodder or hay harvest.
- **Minimum Treatment Interval:** Do not make applications less than 4 days apart.
- Do not apply more than a total of 5.6 oz of Entrust (0.28 lb ai spinosad) per acre per year.
- **Maximum Number of Applications:** Do not make more than three applications per calendar year.
- Do not allow cattle to graze treated area until spray has dried.

Soybean

Pests and Application Rates:

Pests	Entrust (oz/acre)
green clover worm soybean looper true armyworm velvet bean caterpillar	0.75 - 1

Pests and Application Rates: (Cont.)

Pests	Entrust (oz/acre)
armyworms, such as: beet armyworm fall armyworm yellowstriped armyworm corn earworm (podworm) saltmarsh caterpillar	1 - 1.25

Application Timing: Treat when field counts or crop injury indicates damaging pest populations are present or developing. Time applications to treat small larvae and use sufficient spray volume to ensure good coverage.

Application Rate: Use a higher rate in rate range for heavy infestations and/or difficult spray coverage situations.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Interval:** Do not apply within 28 days of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 4 days apart.
- Do not apply more than a total of 3.72 oz of Entrust (0.186 lb ai spinosad) per acre per year.
- **Maximum Number of Applications:** Do not make more than four applications per calendar year.
- Do not feed treated forage or hay to meat or dairy animals.

Spices (Except Black Pepper) (Subgroup 19B)[1]

[1]Spices (except black pepper) (subgroup 19B) including allspice, anise (seed), annatto (seed), black caraway, caper (buds), caraway, cardamom, cassia (buds), celery (seed), cinnamon, clove (buds), common fennel, coriander (seed), culantro (seed), cumin, dill (seed), Florence fennel (seed), fenugreek, grains of paradise, juniper (berry), lovage (seed), mace, mustard (seed), nutmeg, poppy (seed), saffron, star anise, vanilla, white pepper

Pests and Application Rates:

Pests	Entrust (oz/acre)
lepidopteran larvae	1.25 – 2
flea beetles dipteran leafminers[1] thrips[1]	2 - 3

[1]Suppression of leafminers and thrips may be improved with the addition of an adjuvant to the spray mixture. See Use of Adjuvants under Mixing Directions.

Application Timing: For determining when to treat, scout with enough regularity to monitor the population size of each of the labeled pests. Treat when pests appear, targeting eggs at hatch or small larvae. Consult your Dow AgroSciences representative, extension specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Apply as a foliar spray at the rate specified to control target pests. Use a higher rate in the rate range for larger larvae or heavy infestations. Heavy infestations may require repeat applications, but follow resistance management guidelines.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class

of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Interval**: Do not apply within 14 days of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 10 days apart.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per crop.
- **Maximum Number of Applications:** Do not make more than five applications per calendar year.

Stone Fruits (Crop Group 12)[1]

[1]Stone fruits (crop group 12) including apricot, cherries, nectarine, peach, plum, prune

Pests and Application Rates:

Pests	Entrust	
	(oz/acre)	Dilute Spray (oz/100 gal)
cherry fruit fly European grapevine moth green fruitworm leafminers, such as: spotted tentiform, western tentiform[1]	1.25 – 2.5	0.42 – 0.83

Pests and Application Rates: (Cont.)

Pests	Entrust	
	(oz/acre)	Dilute Spray (oz/100 gal)
leafrollers, such as: oblique-banded fruit tree pandemis redbanded variegated light brown apple moth oriental fruit moth peach twig borer thrips[1] western cherry fruit fly	1.25 – 2.5	0.42 – 0.83

[1]Control of leafminers and thrips may be improved with the addition of an adjuvant to the spray mixture. See Use of Adjuvants section under Mixing Directions.

Application Timing: Peach twig borer applications can be made dormant, delayed dormant or as summer sprays. Optimal timing for **lepidopteran leafminers** and **leafrollers** may vary between species and geographic location. For **lepidopteran leafminers**, monitor the moth flights and the infestation densities of both the sap-feeding and tissue-feeding stage, but for optimal control, treat before significant tissue-feeding mines are observed. For **leafrollers**, monitor the moth flights and the infestation densities of the larval stages and re-treat as necessary to maintain control; thorough coverage is necessary for optimal control. For

cherry fruit fly, western cherry fruit fly, and **other related species**, maintain protective sprays at 7-day intervals while adults are present and fruit is susceptible to attack. For **oriental fruit moth**, no more than 10 days of residual control can be expected. If longer residual is required, make a second application of Entrust or other insecticide labeled for **oriental fruit moth**. For **thrips,** a 3- to 4-day re-treatment schedule may be necessary at flowering. After flowering, a 5- to 7-day re-treatment schedule may be followed. For all pests, consult with your Dow AgroSciences representative, state agricultural experiment station, certified pest control advisor or extension specialist for specific application timings in your area.

Application Rate: Use a higher rate in the rate range for large trees, heavy infestations, or advanced growth stages of target pest, especially if spray volume or coverage is marginal.

Spray Volume: Dilute sprays are sprayed to the point of runoff. The application rate range in the table is based upon a spray volume of 300 gallons per acre. Gallonage of dilute sprays will vary depending upon tree size, density of canopy, stage of seasonal growth, and spacing in the orchard.

Resistance Management: Do not make more than three consecutive applications of Group 5 insecticides (spinetoram and spinosad) within a crop season. If additional treatments are required after three consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area. Avoid treating consecutive generations of oriental fruit moth and leafrollers. Do not apply more than 3 sprays targeted at leafrollers per season.

Restrictions:

- **Preharvest Interval:** Do not apply within 14 days of harvest for apricots, within 7 days of harvest for cherries, plums, prunes and other stone fruit crops, or within 1 day of harvest for nectarines and peaches.
- **Minimum Treatment Interval:** Do not make applications less than 7 days apart.

- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per year.
- **Maximum Number of Applications:** Do not make more than three sprays targeted at leafrollers per season.

Strawberry

Pests and Application Rates:

Pests	Entrust (oz/acre)
armyworms, including beet armyworms European grapevine moth leafrollers light brown apple moth thrips[1]	1.25 – 2

[1]For thrips, if additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least two applications

Application Timing: Treat when pests appear, targeting eggs at hatch or small larvae. For **thrips**, a 3- to 4-day re-treatment schedule may be necessary if there is heavy pest pressure or if the pest population is increasing rapidly. For control of all other pests, a 5- to 7-day re-treatment schedule may be necessary if the crop is growing rapidly or if there is heavy pest pressure. Consult your Dow AgroSciences representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: Apply as a foliar spray at the rate specified to control target pests. Use a higher rate in the rate range for larger larvae or moderate to severe pest infestations. Heavy infestations may require repeat applications, but follow resistance management guidelines.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. For **thrips**, if additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least two applications. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Interval:** Do not apply within 1 day of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 5 days apart.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per crop.
- **Maximum Number of Applications:** Do not make more than five applications per year.
- In Monterey and Santa Cruz Counties in the state of California, follow additional application restrictions for strawberry on SLN CA-090006.

Tree Farms or Plantations

Conifers, including Christmas trees, and deciduous trees

Pests and Application Rates:

Pests	Entrust (oz/acre)
European grapevine moth lepidopterous larvae, such as: bagworm fall webworm	0.5 – 2.5

Pests and Application Rates: (Cont.)

Pests	Entrust (oz/acre)
lepidopterous larvae, such as: (Cont.) gypsy moth hemlock looper jackpine budworm pine tip moth redhumped caterpillar spruce budworm tent caterpillar tussock moths light brown apple moth sawfly larvae, such as: European pine pear redheaded pine	0.5 – 2.5

Application Timing: Time applications to reach larvae when small or just hatching. Repeat application as necessary to maintain control, but follow resistance management guidelines. Consult with your Dow AgroSciences representative, state agricultural experiment station, certified pest control advisor or extension specialist for information on application timing for specific pests in your area.

Application Rates: The rate of Entrust applied per acre will depend upon tree size and severity of infestation. Use a higher rate in the rate range for large trees or heavy infestations. Apply in sufficient volume to ensure thorough coverage.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per year.

Tree Nuts (Crop Group 14)[1] and Pistachios

[1]Tree nuts (crop group 14) including almonds, cashew, chestnut, filbert (hazelnut), macadamia nut, pecan, walnut

Pests and Application Rates:

	Entrust	
Pests	**(oz/acre)**	**Dilute Spray (oz/100 gal)**
codling moth fall webworm filbert worm hickory shuckworm light brown apple moth navel orange worm oblique banded leafroller peach twig borer	1.25 – 3	0.3 - 0.75

Pests and Application Rates: (Cont.)

Pests	Entrust	
	(oz/acre)	Dilute Spray (oz/100 gal)
pecan nut casebearer redhumped caterpillar walnut husk fly	1.25 – 3	0.3 - 0.75

Application Timing: Apply Entrust as either a dormant or a foliar spray when pests appear or in accordance with local conditions. Apply as a concentrate or dilute spray using conventional, power operated spray equipment (see Orchard Spraying section under Application Directions). Consult your Dow AgroSciences representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Use of Crop Oils: Crop oils labeled for agricultural use may be added to the dormant spray solution for suppression of overwintering mites and scale insects. Consult specific oil labels and University of California recommendations for precautions and restrictions regarding the use of oils in nut and fruit trees.

Application Rate: The amount of Entrust applied per acre will depend upon tree size and volume of foliage present and pest pressure. Use a higher rate in the rate range for large trees or heavy infestations.

Spray Volume: Dilute sprays are sprayed to the point of runoff. The application rate range in the table is based upon a spray volume of 400 gallons per acre. Gallonage of dilute sprays will vary depending upon tree size, density of canopy, stage of seasonal growth, and spacing in the orchard.

Resistance Management: Do not make more than three consecutive applications of Group 5 insecticides (spinetoram and spinosad) within a crop season. If additional treatments are required after three consecutive applications of Group 5 insecticides,

rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Interval:** Do not apply within 1 day of harvest of all tree nuts and pistachios.
- **Minimum Treatment Interval:** Do not make applications less than 7 days apart.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per crop.
- **Maximum Number of Applications:** Do not apply more than three sprays targeted at leafrollers per season.

Tropical Tree Fruits[1]

(Insect Suppression)

[1]Tropical tree fruits including acerola, atemoya, avocado, biriba, black sapote, canistel, cherimoya, custard apple, feijoa, guava, ilama, jaboticaba, longan, lychee, mamey sapote, mango, papaya, passionfruit, pulasan, rambutan, sapodilla, soursop, Spanish lime, star apple, starfruit, sugar apple, ti leaves, wax jambu (wax apple), white sapote

Pests and Application Rates:

Pests	Entrust (oz/acre)
European grapevine moth katydids lepidopterous larvae avocado leafroller citrus peelminer	1.25 – 3

Pests and Application Rates: (Cont.)

Pests	Entrust (oz/acre)
lepidopterous larvae (Cont.) cutworms fruit tree leafroller orange tortrix western tussock moth light brown apple moth thrips[1]	1.25 – 3

[1]Control of thrips may be improved with the addition of an adjuvant to the spray mixture. See Use of Adjuvants section under Mixing Directions.

Application Timing: Treat when pests appear or in accordance with local economic thresholds. Consult your Dow AgroSciences representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional local use recommendations for your area.

Application Rate: The amount of Entrust applied per acre will depend upon tree size and pest pressure. Use a lower rate in the rate range for light infestations and/or small trees and a higher rate in the rate range for heavy infestations and/or large trees.

Resistance Management: Do not make more than two consecutive applications of Group 5 insecticides (spinetoram and spinosad). If additional treatments are required after two consecutive applications of Group 5 insecticides, rotate to another class of effective insecticides for at least one application. Consult your local Dow AgroSciences representative, extension specialist, certified crop advisor, or state agricultural experiment station for information on alternative effective products to use in your area.

Restrictions:

- **Preharvest Intervals:** Do not apply within 1 day of harvest.
- **Minimum Treatment Interval:** Do not make applications less than 7 days apart.
- Do not apply more than a total of 9 oz of Entrust (0.45 lb ai spinosad) per acre per crop.
- **Maximum Number of Applications:** In order to prevent or delay resistance development in thrips, do not apply Entrust more than two times per year.
- For resistance management purposes, do not apply to tropical tree fruits grown in nurseries or in greenhouses.

Fire Ants – Mound Application in Turfgrass and Ornamentals, in Greenhouses, and in Other Outdoor Areas

Dilution Rate	
Entrust per 1 gallon (oz)	**Entrust per 10 gallons (oz)**
0.0159 (0.45 gm)	0.159 (4.5 gm)

Fire ants such as red imported: Apply diluted Entrust to individual fire ant mounds as a drench application. Use 1 to 2 gallons per mound depending upon the mound size. For mounds less than 8 inches in diameter, use 1 gallon of dilution per mound. Use a higher volume, up to 2 gallons, on mounds 8 inches or larger in diameter. Apply approximately 10% of the dilution volume around the perimeter of the mound out to about 12 inches and pour the remaining volume directly on the mound. Do not disturb mounds prior to aplication. If possible, apply following a recent rainfall. For best results, apply in cool weather, 65 to 85°F, or in early morning or late evening hours. Treat new mounds as they appear. Pressurized sprays should not be used as they may disturb the ants and cause migration, reducing control.

Terms and Conditions of Use

To the extent permitted by law, if terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies.

Warranty Disclaimer

To the extent permitted by law, Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperature, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. To the extent permitted by law, all such risks shall be assumed by buyer.

Limitation of Remedies

To the extent permitted by law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Dow AgroSciences' election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used

Dow AgroSciences shall not be liable for losses or damages resulting from handling or use of this product unless Dow AgroSciences is promptly notified of such loss or damage in writing. In no case shall Dow AgroSciences be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Dow AgroSciences or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or Limitation of Remedies in any manner.

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Dow AgroSciences™

Entrust®

Naturalyte® Insect Control

A Naturalyte® insect control product formulated for control of lepidopterous larvae (worms or caterpillars), leafminers, thrips, and red imported fire ants.

Group	5	INSECTICIDE

Active Ingredient:
spinosad
(a mixture of spinosyn A and spinosyn D).....80%
Other Ingredients.....20%
Total 100%
Contains 80% active ingredient on a weight basis.

OMRI™ Listed

Listed by the Organic Materials Review Institute (OMRI) for use in organic production.

Keep Out of Reach of Children

CAUTION

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to label booklet for Directions for Use.

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 62719-282

EPA Est. 67545-AZ-001
900-014239 / 00239167

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**Produced for Dow AgroSciences LLC •
Indianapolis, IN 46268 U.S.A.**

Net Weight: 1 lb (4 x 4 oz bags)

Precautionary Statements

Hazard to Humans and Domestic Animals

Causes Moderate Eye Irritation

Avoid contact with eyes or clothing.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:
- Long-sleeved shirt and long pants
- Shoes plus socks

Mixers/loaders must wear:
- An approved dust/mist filtering respirator (NSHA/NIOSH approval number prefix TC-21C), or NIOSH approved respirator with any N, R, P or HE filter.

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

User Safety Recommendations

Users should:
- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

First Aid

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Environmental Hazards

This product is toxic to bees exposed to treatment for 3 hours following treatment. Do not apply this pesticide to blooming, pollen-shedding or nectar-producing parts of plants if bees may forage on the plants during this time period. This product is toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Apply this product only as specified on the label.

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers of 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.

Storage and Disposal

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

Pesticide Storage: Store in original container only.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available, or dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

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Contents In Plastic
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Dow AgroSciences

Entrust®

Naturalyte® Insect Control

A Naturalyte® insect control product formulated for control of lepidopterous larvae (worms or caterpillars), leafminers, thrips, and red imported fire ants.

Group	5	INSECTICIDE

Active Ingredient:
spinosad
(a mixture of spinosyn A and spinosyn D) 80%
Other Ingredients 20%
Total 100%

Contains 80% active ingredient on a weight basis.

OMRI Listed
Listed by the Organic Materials Review Institute (OMRI) for use in organic production.

Keep Out of Reach of Children
CAUTION

Precautionary Statements

Hazard to Humans and Domestic Animals

Causes Moderate Eye Irritation

Avoid contact with eyes or clothing.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:
- Long-sleeved shirt and long pants
- Shoes plus socks

Mixers/loaders must wear:
- An approved dust/mist filtering respirator (NSHA/NIOSH approval number prefix TC-21C), or NIOSH approved respirator with any N, R, P or HE filter.

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

User Safety Recommendations

Users should:
- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

First Aid

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Environmental Hazards

This product is toxic to bees exposed to treatment for 3 hours following treatment. Do not apply this pesticide to blooming, pollen-shedding or nectar-producing parts of plants if bees may forage on the plants during this time period. This product is toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to interfidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Apply this product only as specified on the label.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Storage and Disposal

Do not contaminate water, food, or feed by storage and disposal.
Pesticide Storage: Store in original container only.
Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.
Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available, or dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Refer to label booklet for Directions for Use.

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 62719-282 EPA Est. 67545-AZ-001

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Produced for
Dow AgroSciences LLC
9330 Zionsville Road
Indianapolis, IN 46268

12 x 4 x 4 oz

00239120

Entrust®

Naturalyte® Insect Control 12 x 4 x 4 oz

(01) 5 06 62974 50885 9

Dow AgroSciences

Entrust®

Naturalyte® Insect Control 12 x 4 x 4 oz

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Naturalyte® Insect Control 12 x 4 x 4 oz