

## RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms

For retail sale to and use only by certified applicators or persons under their direct supervision and only for the uses covered by the certified applicator's certification.

# FANFARE<sup>®</sup> ES

## INSECTICIDE/MITICIDE

GROUP 3 INSECTICIDE

### ACTIVE INGREDIENT:

Bifenthrin: (2-methyl[1,1'-biphenyl]-3-yl)methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-

% BY WT.

2,2-dimethyl-cyclopropanecarboxylate\* ..... 22.6%

OTHER INGREDIENTS: ..... 77.4%

TOTAL ..... 100.0%

\*Cis isomers 97% minimum, trans isomers 3% maximum.

This product contains 2 pounds active ingredient per gallon.

EPA REG. NO. 66222-236

EPA EST. NO. 37429-GA-001<sup>ET</sup>; 37429-GA-002<sup>ES</sup>; 34704-MS-002<sup>PM</sup>

Letter(s) in lot number correspond(s) to letter(s) in EPA Est. No.

## KEEP OUT OF REACH OF CHILDREN WARNING-AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

(If you do not understand the label, find someone to explain it to you in detail.)



Manufactured for:  
**Makhteshim Agan  
of North America, Inc.**  
3120 Highwoods Blvd  
Suite 100

M A N A

Raleigh, NC 27604

For additional First Aid, precautionary, handling,  
and use statements, see inside of this booklet.

For PRODUCT USE Information Call 1-866-406-6262

14653

EPA 031213/Rev A

## Net Contents: 1 Gallon

| <b>FIRST AID</b>   |   |
|--|---|
| <b>IF SWALLOWED:</b>   | <ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul> |
| <b>IF ON SKIN OR CLOTHING:</b>   | <ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>   |
| <b>IF IN EYES:</b>   | <ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>                                 |
| <b>IF INHALED:</b>   | <ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>                              |
| Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact PROSAR at 1-877-250-9291 for emergency medical treatment information.   |   |
| <b>NOTE TO PHYSICIAN:</b> This product is a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and should be avoided. |   |

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

May be fatal if swallowed. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Wear long-sleeved shirt and long pants, socks, shoes, and gloves. Remove and wash contaminated clothing before reuse.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

**Handlers who may be exposed to the dilute through application or other tasks must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, nitrile rubber, neoprene rubber, or Viton
- Shoes plus socks

**Handlers who may be exposed to the concentrate through mixing, loading, application, or other tasks must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, nitrile rubber, neoprene rubber, or Viton
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, 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.

#### **ENVIRONMENTAL HAZARDS**

This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. 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 make applications when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

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

The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

#### **PHYSICAL/CHEMICAL HAZARDS**

**COMBUSTIBLE.** Do not use or store near heat or open flame.

## **DIRECTIONS FOR USE**

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or

Tribe, consult the agency responsible for pesticide regulation.

**For PRODUCT USE Information Call 1-866-406-MANA (6262).**

#### **AGRICULTURAL USE REQUIREMENTS**

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

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

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

- Coveralls
- Chemical-resistant gloves, such as barrier laminate, nitrile rubber, neoprene rubber, or Viton
- Shoes plus socks

#### **CHEMIGATION USE DIRECTIONS**

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. Contact your State Agricultural Extension Service specialists, equipment manufacturers, or other experts for consultation on the suitability of the equipment set up to obtain effective control of the target insect pests.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. Failure to cease application during a mechanical stoppage may result in undesirable residues to adjacent areas.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

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

For sprinkler irrigation, meter Fanfare® ES at a continuous uniform rate during the entire irrigation period. To ensure accurate application over the treated area, apply in sufficient volume of water or other diluent. If non-emulsified oil is used as the diluent, use 1 to 2 pints per acre. Continuously agitate the pesticide supply tank for the duration of the application period. Use 0.5 inch per acre of irrigation water in chemigation systems except for Low Energy Precision Application (LEPA) irrigation, use a minimum of 0.75 inch of water per acre.

### **RESISTANCE MANAGEMENT**

Fanfare® ES contains a Group 3 Insecticide. With repeated use of Group 3 insecticides as the primary method of control in the same field or in successive years, insect/mite populations can develop resistant biotypes. If this occurs, insect/mite biotypes with acquired resistance to Group 3 insecticides may eventually dominate the insect/mite population. This may result in partial or total loss of control of those species by Fanfare ES or other Group 3 insecticides.

To delay development of insecticide resistance, use the following practice:

- Base insecticide applications on comprehensive IPM programs. Use an insect management program that includes cultural and biological control where possible.
- Use good resistance management strategies established for the use area. Include the use of insecticide rotations or tank mixes with other Groups of insecticide and miticides in an IPM program.
- Always apply Fanfare ES at the specified rates and according to label directions. Do not use less than specified label rates alone or in tank mixtures unless directed otherwise in supplemental labeling supplied by

Makhteshim Agan of North America, Inc. (MANA).

- Monitor treated populations in the field for loss of control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. Immediately consult your local MANA representative or agricultural advisor for the best alternative method of control for your area.
- Do not treat seedling plants grown for transplant in greenhouse, shade houses, or field plots.
- Consult your local extension specialist, certified crop advisor, and/or manufacturer for insecticide resistance management and/or IPM directions for the specific site and resistant pest problems.

### ROTATIONAL CROPS

Crops for which bifenthrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days following the final application of Fanfare ES.

### MIXING INSTRUCTIONS

The spray tank must be clean, thoroughly rinsed, and decontaminated before adding either Fanfare ES alone or with tank mix combinations (see **Fanfare ES in Tank Mixtures** section below). If water is used as the carrier, use clean water.

For aerial applications made on brassicas (see **CROPS** section of the label below for full list of approved brassicas), canola, crambe, rapeseed, foliar applications on corn, cucurbits (see **CROPS** section of the label below for full list of approved cucurbits), eggplant, grapes, head lettuce, and succulent peas and beans (see **CROPS** section of the label below for full list of approved succulent peas and beans), 1 to 2 quarts of emulsified oil can be substituted for 1 to 2 quarts of water in the finished spray. For aerial applications made on cotton, 1 quart of emulsified oil can be substituted for one quart of water in the finished spray. Thorough coverage is essential to achieve control.

**Fanfare ES Used Alone:** When Fanfare ES is used alone, add the specified amount to the spray tank when the tank is half filled with water or other carrier, then add the rest of the water or other carrier (as permitted on this label). Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

**Fanfare ES with Fertilizer:** Fill the spray tank approximately one half full with water and/or liquid fertilizer, add the proper amount of Fanfare ES, then add the rest of the water and/or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.

Perform a jar compatibility test with the appropriate ratio of Fanfare ES and fertilizer to ensure the mixture will stay in solution. Maintain constant agitation during mixing and application.

**Fanfare ES in Tank Mixtures:** If a tank mixture is used, perform a compatibility test before actual tank mixing. Use a jar test for physical compatibility of untried mixtures using proper ratios and mixing sequences of all ingredients to be included in the mixture. Once compatibility is confirmed for the tank mix, fill the tank half full with water or other carrier. Start and continue agitation throughout mixing following conventional mixing order practices. Fanfare ES can be applied in tank mixtures with other products approved for use on registered crops. Observe all restrictions and precautions which appear on the labels of these products.

## APPLICATION INSTRUCTIONS

The rate of Fanfare ES applied will vary according to pest pressure and timing of application. Use lower rates under light to moderate infestations and higher rates under heavy insect pressure and for mite control. Arid climates require higher rates.

Unless otherwise specified for a specific crop, apply when pest population reaches economic (damaging) threshold and repeat as necessary to maintain control. Thorough coverage is essential to achieve control.

In the **COMMENTS** section of the label for each crop, the specified application rate when applied by ground and/or air is listed as an amount of spray per acre. In all cases, this refers to finished spray per acre.

## BUFFER ZONES

### **Vegetative Buffer Strip**

Construct and maintain a minimum 10-foot-wide vegetative filter strip of grass or other permanent vegetation between the field edge and down gradient aquatic habitat (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or natural ponds; estuaries; and commercial fish farm ponds).

Only apply products containing (*name of pyrethroid*) onto fields where a maintained vegetative buffer strip of at least 10 feet exists between the field and down gradient aquatic habitat.

For guidance, refer to the following publication for information on constructing and maintaining effective buffers: *Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. USDA, NRCS. 2000. Fort Worth, Texas. 21 pp.*

<http://www.wsi.nrcs.usda.gov/products/W20/pest/docs/newconbuf.pdf>

In New York State, this product may not be applied within 100 feet (using ground equipment) to 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

### **Buffer Zone for Ground Application (groundboom, overhead chemigation, or airblast)**

Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, natural ponds, estuaries, and commercial fish ponds).

### **Buffer Zone for ULV Aerial Application**

Do not apply within 450 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, natural ponds, estuaries, and commercial fish ponds).

### **Buffer Zone for Non-ULV Aerial Application**

Do not apply within 150 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, natural ponds, estuaries, and commercial fish ponds).

## **SPRAY DRIFT REQUIREMENTS**

### **Wind Direction and Speed**

Only apply this product if the wind direction favors on-target deposition. Do not apply when the wind velocity exceeds 15 mph.

### **Temperature Inversion**

Do not make aerial or ground applications into temperature inversions. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

### **Droplet Size**

Use only medium or coarser spray nozzles (for ground and non-ULV aerial application) according to ASAE (S572) definition for standard nozzles. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size.

### **Additional Requirements for Ground Applications**

Wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.

For ground boom applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy.

For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

### **Additional Requirements for Aerial Applications**

The spray boom should be mounted on the aircraft as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of the wing span or rotor diameter. Flight speed and nozzle orientation must be considered in determining droplet size.

Spray must be released at the lowest height consistent with pest control and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

## **PREHARVEST INTERVAL**

The required days to wait between the last application and harvest are given in ( ) after each crop name.



## CROPS

### ARTICHOKE (5)

| PEST  | DOSAGE  |         | COMMENTS  |
|---|---------|---------|---|
|   | LB AI/A | FL OZ/A |   |
| Artichoke Plume Moth, Cribrate Weevil   | 0.10    | 6.4     | <b>Ground application:</b> Apply in water in a minimum of 75 gallons per acre as a full cover spray.<br><b>Air application:</b> Apply in water in a minimum of 10 gallons per acre. |
| <ul style="list-style-type: none"> <li>• Do not apply more than 0.5 lb active ingredient (32 fluid ounces formulated) per acre per season.</li> <li>• Repeat applications if needed to maintain control, but do not make applications less than 15 days apart.</li> </ul> |         |         |   |

### BRASSICAS (7)

Head and Stem Brassica Vegetables including Broccoli, Chinese Broccoli (gailon, white flowering broccoli), Brussels sprouts, Cauliflower, Cavalo broccolo, Kohlrabi, Cabbage, Chinese Cabbage (napa), Chinese Mustard Cabbage (gai choy)

| PEST  | DOSAGE     |          | COMMENTS   |
|---|------------|----------|--|
|   | LB AI/A    | FL OZ/A  |  |
| Aphids, Armyworms, Corn Earworm, Crickets, Cucumber Beetle, Cutworms, Diamondback Moth, Flea Beetle, Ground Beetles, Imported Cabbage-worm, Leafhoppers, Loopers, Salt-marsh Caterpillar, Stink Bugs, Thrips, Tobacco Budworm, Whitefly, Wire-worm Adults   | 0.033-0.10 | 2.1-6.4  | <b>Ground application:</b> Apply in water in a minimum of 10 gallons per acre.<br><b>Air application:</b> Apply in water in a minimum of 2 gallons per acre.<br>Emulsified oil may be substituted for water. See section entitled <b>MIXING INSTRUCTIONS</b> for details on the amount of oil to use in the spray tank in lieu of water. |
| Banks Grass Mite, Carmine Mite, <i>Lygus</i> spp., Pacific Spider Mite, Twospotted Spider Mite  | 0.08-0.10  | 5.12-6.4 |  |
| <ul style="list-style-type: none"> <li>• Do not apply more than 0.5 lb active ingredient (32 fluid ounces formulated) per acre per season.</li> <li>• Do not make more than 5 applications after bloom.</li> <li>• Repeat applications if needed to maintain control, but do not make applications less than 7 days apart.</li> </ul> |            |          |  |

### BUSHBERRIES (1)

Blueberry (highbush and lowbush), Currant, Elderberry, Gooseberry, Huckleberry

| PEST  | DOSAGE     |          | COMMENTS   |
|---|------------|----------|--|
|   | LB AI/A    | FL OZ/A  |  |
| Blueberry Maggot, Fruitworms, Plum Curculio, Leaf Rollers, Spanworm, Leafhoppers, Japanese Beetle, Aphids | 0.033-0.10 | 2.1-6.4  | <b>Ground application:</b> Apply in water in a minimum of 10 gallons per acre.<br><b>Air application:</b> Apply in water in a minimum of 2 gallons per acre. |
| Twospotted Spider Mite, Carmine Mite, Pacific Spider Mite, <i>Lygus</i> spp.                              | 0.08-0.10  | 5.12-6.4 | Do not make applications less than 7 days apart.   |
| • Do not apply more than 0.5 lb active ingredient (32 fluid ounces formulated) per acre per season.       |            |          |  |

### CANE BERRIES (3)

Caneberries including Blackberries, Bingleberries, Dewberries, Loganberries, Lowberries, Marionberries, Olallieberries, Raspberries, Youngberries

| PEST  | DOSAGE    |         | COMMENTS   |
|---|-----------|---------|--|
|   | LB AI/A   | FL OZ/A |  |
| Leafrollers, Orange Tortrix, Root Weevils   | 0.05-0.10 | 3.2-6.4 | <b>Ground application:</b> Apply in water in a minimum of 50 gallons per acre.<br><b>Air application:</b> Apply in water in a minimum of 10 gallons per acre.  |
| Spider Mites<br>Raspberry Crown Borer   | 0.10      | 6.4     | A total of two applications may be made. Make the first application pre-bloom and the second at post-bloom.<br><br>For Crown Borer apply as a drench either post-harvest (fall) or pre-bloom (spring), using 6.4 fluid ounces in at least 200 gallons of water/A. Direct the spray at the crown of the plant. For best results, apply at higher water gallonages (up to 400 gallons/A) or prior to significant rainfall. Do not apply both pre-bloom foliar and pre-bloom drench applications. |
| • Do not apply more than 0.2 lb active ingredient (12.8 fluid ounces formulated) per acre per season. |           |         |  |

### CANOLA, CRAMBE, RAPESEED (35)

| PEST   | DOSAGE     |         | COMMENTS  |
|--|------------|---------|---|
|  | LB AI/A    | FL OZ/A |   |
| Aphids, Armyworms, Cutworms, Diamondback Moth, Flea Beetles, Flea Hoppers, Grasshoppers, Loopers, Lygus Bugs, Other Lepidopterous Larvae, Plant Bugs, Seedpod Weevil, Stink Bugs, Thrips, Whitefly   | 0.033-0.04 | 2.1-2.6 | <p><b>Ground application:</b> Apply in water in a minimum of 10 gallons per acre.</p> <p><b>Air application:</b> Apply in water in a minimum of 2 gallons per acre.</p> <p>Emulsified oil may be substituted for water. See section entitled <b>MIXING INSTRUCTIONS</b> for details on the amount of oil to use in the spray tank in lieu of water.</p> |
| <ul style="list-style-type: none"> <li>• Do not apply more than 0.08 lb active ingredient (5.12 fluid ounces formulated) per acre per season.</li> <li>• Repeat applications if needed to maintain control, but do not make applications less than 14 days apart.</li> </ul> |            |         |   |

### CHRISTMAS TREES (For Use Only in Washington and Oregon)

| PEST  | DOSAGE   |         | COMMENTS   |
|---|----------|---------|--|
|   | LB AI/A  | FL OZ/A |  |
| Root Weevil, Spruce Spider Mite   | 0.06-0.1 | 3.9-6.4 | <p><b>Ground application:</b> Apply in water in a minimum of 20 gallons per acre.</p> <p><b>Air application:</b> Apply in water in a minimum of 5 gallons per acre.</p> <p>Fanfare ES is not phytotoxic to Christmas trees. However, make applications to a small representative group of plants to ensure that a particular variety grown under current conditions is not unusually sensitive to Fanfare ES.</p> <p>Maintain a minimum of 21 days between applications.</p> |
| <ul style="list-style-type: none"> <li>• Do not apply more than 0.1 lb active ingredient (6.4 fluid ounces formulated) per acre per treatment.</li> <li>• Do not make more than 3 applications in a crop year.</li> <li>• Do not make applications through irrigation systems.</li> </ul> |          |         |  |

### CILANTRO, CORIANDER (3)

| PEST  | DOSAGE     |          | COMMENTS   |
|---|------------|----------|--|
|   | LB AI/A    | FL OZ/A  |  |
| Aphids, Beet Armyworm, Cabbage Looper, Cutworm, Flea Beetle, Grasshoppers, Leafminer, Saltmarsh Caterpillar, Spotted Cucumber Beetle, Thrips, Whitefly  | 0.033-0.10 | 2.1-6.4  | <b>Ground application:</b> Apply in water in a minimum of 10 gallons per acre.<br><b>Air application:</b> Apply in water in a minimum of 2 gallons per acre. |
| Two Spotted Spider Mite   | 0.08-0.10  | 5.12-6.4 | Apply in sufficient water to obtain thorough coverage.   |
| <ul style="list-style-type: none"> <li>• Do not apply more than 0.5 lb active ingredient (32 fluid ounces formulated) per acre per season.</li> <li>• Do not make applications less than 7 days apart.</li> </ul> |            |          |  |

### CITRUS\* (Except Florida) (1)

| PEST   | DOSAGE    |         | COMMENTS  |
|--|-----------|---------|---|
|  | LB AI/A   | FL OZ/A |   |
| Asian Cockroach, Diaprepes Root Weevil ( <i>Diaprepes abbreviatus</i> ), Fire ants   | 0.25-0.50 | 16-32   | <b>Ground application:</b> Apply in water in a minimum of 30 gallons per acre.<br>Use a hand-gun or shielded sprayer to apply to individual citrus trees if they are not planted in solid rows.<br>Diaprepes root weevil emergence occurs in the spring, but weather conditions can prompt a second emergence in the fall. In areas where only a spring emergence is expected, use 32 fluid ounces of Fanfare ES. In areas where a second emergence is expected, use 16 fluid ounces of Fanfare ES in the early season and 16 fluid ounces of Fanfare ES later in the season.<br>If the length of control of Fanfare ES is not sufficient to cover the emergence of the root weevil, use other pest control measures as specified by State Agricultural Extension Specialists or other local experts. |
| <p>*Not for use in California unless accompanied by a supplemental label.</p> <ul style="list-style-type: none"> <li>• Do not apply through irrigation systems.</li> <li>• Do not allow any application of Fanfare ES to contact fruit or foliage.</li> <li>• Do not apply more than 0.5 lb active ingredient (32 fluid ounces formulated) per acre per year.</li> <li>• Do not apply by air.</li> </ul> |           |         |   |

**CITRUS\* (Florida only) (1)**

| PEST   | DOSAGE    |         | COMMENTS   |
|--|-----------|---------|--|
|  | LB AI/A   | FL OZ/A |  |
| Blue Green<br>Citrus Root<br>Weevil<br>( <i>Pachnaeus<br/>opalus</i> ),<br>Brown Leaf<br>Notcher ( <i>Epi-<br/>caerus mexi-<br/>canus</i> ),<br>Diaprepes<br>Root Weevil<br>( <i>Diaprepes<br/>abbreviatus</i> ),<br>Little Leaf<br>Notcher<br>( <i>Artipus flori-<br/>danus</i> ),<br>Southern<br>Blue Green<br>Citrus Root<br>Weevil<br>( <i>Pachnaeus<br/>Litus</i> ) | 0.25-0.50 | 16-32   | <p><b>Ground application:</b> Apply in water in a minimum of 40 gallons per acre. Greater spray volumes increase uniformity of coverage. Also coverage uniformity may be aided by using a pre and post irrigation application. Use a hand-gun or shielded sprayer to apply to individual citrus trees if they are not planted in solid rows.</p> <p>All citrus root weevils have a similar life cycle. They have three imma-<br/>ture stages: egg, larva, and pupa. Adult weevils emerge from the soil<br/>and lay eggs on host plants above ground, the larvae enter the soil to<br/>feed on roots, and the pupae and teneral adult stages are spent below<br/>ground. Adults emerge beneath citrus trees throughout the year; time<br/>applications of Fanfare ES for when the adults emerge. Peak adult<br/>emergence varies within and among species and by region. Peak emer-<br/>gence for the blue-green root weevil is normally April and May.<br/>Diaprepes adult emergence from the soil appears to be triggered by the<br/>onset of regular rainfall events and can have two emergence peaks, in<br/>mid-May to mid-July and/or late-August to mid-October. The second<br/>peak is variable and may relate to host plant availability. Little leaf<br/>notcher has three generations per year. Although there is considerable<br/>overlap of generations, adults appear most abundant in April/May,<br/>July/August, and October/November.</p> <p>For best control of emerging root weevils, apply Fanfare ES to the soil<br/>beneath the citrus trees from the trunk to the drip line of the tree.<br/>Fanfare ES protects citrus tree roots from citrus root weevils by forming<br/>a barrier which provides contact activity on neonate larvae when they<br/>fall to the ground shortly after hatching from eggs which were<br/>oviposited in the citrus tree foliage.</p> |
| Asian Cock-<br>roach, Fire<br>ants   | 0.1-0.25  | 6.4-16  | <p>Once application is made, be careful not to disturb the treated soil.<br/>In areas where only a spring emergence is expected, use 32 fluid<br/>ounces of Fanfare ES. In areas where a second emergence is<br/>expected, use 16 fluid ounces of Fanfare ES in the early season and 16<br/>fluid ounces of Fanfare ES later in the season.</p> <p>If the length of control of Fanfare ES is not sufficient to cover the emer-<br/>gence of the root weevil, use other pest control measures as specified<br/>by State Agricultural Extension Specialists or other local experts.</p>  |
| <ul style="list-style-type: none"> <li>• Do not apply through irrigation systems.</li> <li>• Do not allow any application of Fanfare ES to contact fruit or foliage.</li> <li>• Do not apply more than 0.5 lb active ingredient (32 fluid ounces formulated) per acre per year.</li> <li>• Do not apply by air.</li> </ul>   |           |         |  |

## CONIFER SEED ORCHARDS

(For Use Only in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Oklahoma, South Carolina, Tennessee, Texas, Virginia)

| PEST   | DOSAGE  |          | COMMENTS  |
|--|---------|----------|---|
|  | LB AI/A | FL OZ/A  |   |
| Cone Worms,<br>Seed Bugs,<br>Seed Worms  | 0.1-0.2 | 6.4-12.8 | <p><b>Ground application:</b> Apply in water in a minimum of 100-500 gallons per acre.</p> <p><b>Air application:</b> Apply in water in a minimum of 10 gallons per acre or 0.5 gallon refined vegetable oil per acre.</p> <p>Apply in sufficient water to obtain thorough coverage.</p> <p>Begin applications 7 days after peak pollen flight and continue on 30 day intervals up to a maximum of 0.6 lb active per acre per season.</p> |
| <p>• Do not make more than six applications per season or apply more than 0.6 lb active ingredient (38.4 fluid ounces formulated) per acre per season.</p> |         |          |   |

## CORN: FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED (AT PLANTING)(30)

| PEST   | DOSAGE   |  | COMMENTS   |
|--|--|--|--|
|  | LB AI  | FL OZ  |  |
| Corn Rootworm Larvae (Mexican, Northern, Southern, Western)  | 0.0046 pound active per 1,000 linear feet of row           | 0.30 fluid ounces per 1,000 linear feet of row         | <b>Ground application:</b> Apply in water in a minimum of 3 gallons per acre.<br><br>For use on corn at planting, apply in a 5 inch to 7 inch T-band over the open seed furrow. Center the spray nozzle over the row behind the planter shoe in front of the press wheel.<br><br>In-furrow pop-up fertilizers may be used alone or in tank mixtures with Fanfare ES. See the section entitled <b>MIXING INSTRUCTIONS, Fanfare ES with Fertilizer</b> for additional instructions and precautions when mixing with fertilizers. |
| Army Cutworm, Cutworm Species, Grubs, Seed-corn Beetle, Seedcorn Maggot, True Armyworm or Armyworm Species, Wireworms  | 0.0023 to 0.0046 pound active per 1,000 linear feet of row | 0.15 to 0.30 fluid ounces per 1,000 linear feet of row |  |
| <ul style="list-style-type: none"><li>• Do not apply to soil where there is greater than 30% cover of crop residue remaining.</li><li>• Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.</li><li>• Do not apply more than 0.1 lb active ingredient (6.4 fluid ounces formulated) per acre per season as an at-planting application.</li></ul> |  |  |  |

| Row spacings (inches) <sup>1</sup>      | 40    | 38    | 36    | 30    |
|---|-------|-------|-------|-------|
| Fanfare ES (pounds ai per acre)         | 0.060 | 0.064 | 0.069 | 0.080 |
| Fanfare ES (formulated ounces per acre) | 3.9   | 4.1   | 4.4   | 5.12  |

<sup>1</sup> Use this table to determine the Fanfare ES needs per acre.

**CORN: FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED (PRE & PPI)**

| PEST   | DOSAGE  |   | COMMENTS  |
|--|---|---|---|
|  | LB AI/A   | FL OZ/A                                       |   |
| Armyworm Species,<br>Black Cutworm,<br>Seedcorn Maggot,<br>Stalkborer, White<br>Grub, Wireworm | 0.047 to<br>0.062<br>Pre-Plant<br>Incorporated<br>(PPI) | 3-4<br>Preplant<br>Incorpo-<br>rated<br>(PPI) | <b>Ground application:</b> Apply in water in a minimum of 3 gallons per acre.<br>Use the specified dosage as a preplant incorporated treatment either alone or in tank mix combination with registered preplant incorporated herbicides. Incorporate Fanfare ES to the intended planting depth but no deeper than 3 inches. |
| Armyworm Species,<br>Black Cutworm,<br>Stalkborer  | 0.040<br>Pre-Emer-<br>gence (PRE)                       | 2.56<br>Preemer-<br>gence (PRE)               | The 3 to 4 fluid ounce rate must be applied as PPI and can be tank mixed and applied with PPI herbicides.<br>The 2.56 fluid ounce rate may be applied PRE and can be tank mixed and applied with PRE herbicides.  |

**CORN: FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED (FOLIAR)(30)**

| PEST   | DOSAGE     |          | COMMENTS  |
|--|------------|----------|---|
|  | LB AI/A    | FL OZ/A  |   |
| Aphids, Army Cutworm, Beet Armyworm, Cereal Leaf Beetle, Chinch Bug, Common Stalk Borer, Corn Earworm, Corn Rootworm Adult, Cucumber Beetle Adult, Cutworm Species, European Corn Borer, Fall Armyworm, Flea Beetle, Grasshoppers, Greenbug, Japanese Beetle Adult, Sap Beetle, Southern Armyworm, Southern Corn Leaf Beetle, Southwestern Corn Borer, Stinkbugs, Tarnished Plant Bug, True Armyworm or Armyworm Species, Webworms, Western Bean Cutworm, Yellow-striped Armyworm  | 0.033-0.10 | 2.1-6.4  | <p><b>Ground application:</b> Apply in water in a minimum of 10 gallons per acre except see specific comment below for TX, NM, OK, and AZ mite control.</p> <p><b>Air application:</b> Apply in water in a minimum of 2 to 5 gallons per acre except see specific comment below for TX, NM, OK, and AZ mite control. In all states, insect control will be improved by increasing the finished spray per acre to 5 gallons.</p> <p>In Texas, New Mexico, Oklahoma, and Arizona, use a minimum of 10 gallons of water per acre by ground and 5 gallons of water per acre by air when making applications to control mites.</p> <p>Emulsified oil may be substituted for water. See section entitled <b>MIXING INSTRUCTIONS</b> for details on the amount of oil to use in the spray tank in lieu of water.</p> <p>Make applications of Fanfare ES as necessary to maintain control being careful not to exceed reapplication intervals or maximum dosage rates specified in this section.</p> <p>For pests which attack the ear, apply just before silking.</p> <p>For corn borer control, make application just before or at egg hatch.</p> <p>For mite control, apply when colonies first form prior to leaf damage and before they disperse into the canopy (for Banks Grass Mite, before dispersal into the upper 2/3 of the plant). Use higher rates of Fanfare ES when pest pressure is severe or crop is under stress from drought and/or heat. When these conditions exist, tank mixtures with dimethoate have shown good control.</p> |
| Banks Grass Mite, Carmine Mite, Twospotted Spider Mite   | 0.08-0.10  | 5.12-6.4 |   |
| <ul style="list-style-type: none"> <li>• Do not apply more than 0.3 lb active ingredient (19.2 fluid ounces formulated) per acre per season including pre and PPI, at-planting, plus foliar applications.</li> <li>• Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application.</li> <li>• Use of ultra low volume (ULV) application on corn is prohibited.</li> <li>• Do not make aerial or ground applications to corn if heavy rainfall is imminent.</li> <li>• <b>Use of Fanfare ES on corn is prohibited in all coastal counties.</b></li> </ul> |            |          |   |



**CORN: SWEET CORN, SWEET CORN GROWN FOR SEED (AT PLANTING) (30)**

| PEST  | DOSAGE   |  | COMMENTS   |
|---|--|--|--|
|   | LB AI  | FL OZ  |  |
| Corn Rootworm Larvae (Mexican, Northern, Southern, Western)   | .0046 pound active per 1,000 linear feet of row          | 0.30 fluid ounces per 1,000 linear feet of row         | <b>Ground application:</b> Apply in water in a minimum of 3 gallons per acre.<br>For use on corn at planting, apply in a 5 inch to 7 inch T-band over the open seed furrow. Center the spray nozzle over the row behind the planter shoe in front of the press wheel.<br>In-furrow pop-up fertilizers may be used alone or in tank mixtures with Fanfare ES. See the section entitled <b>MIXING INSTRUCTIONS, Fanfare ES with Fertilizer</b> for additional instructions and precautions when mixing with fertilizers. |
| Army Cutworm, Cutworm Species, Grubs, Seedcorn Beetle, Seedcorn Maggot, True Armyworm or Armyworm Species, Wireworms  | .0023 to .0046 pound active per 1,000 linear feet of row | 0.15 to 0.30 fluid ounces per 1,000 linear feet of row |  |
| <ul style="list-style-type: none"><li>• Do not apply to soil where there is greater than 30% cover of crop residue remaining.</li><li>• Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.</li><li>• Do not apply more than 0.1 lb active ingredient (6.4 fluid ounces formulated) per acre per season as an at plant application.</li></ul> |  |  |  |

| Row spacings (inches) <sup>1</sup>      | 40    | 38    | 36    | 30    |
|---|-------|-------|-------|-------|
| Fanfare ES (pounds ai per acre)         | 0.060 | 0.064 | 0.069 | 0.080 |
| Fanfare ES (formulated ounces per acre) | 3.9   | 4.1   | 4.4   | 5.12  |

<sup>1</sup> Use this table to determine the Fanfare ES needs per acre.

**CORN: SWEET CORN, SWEET CORN GROWN FOR SEED (FOLIAR) (1)**

| PEST  | DOSAGE     |          | COMMENTS   |
|---|------------|----------|--|
|   | LB AI/A    | FL OZ/A  |  |
| Aphids, Army Cutworm, Beet Armyworm, Cereal Leaf Beetle, Chinch Bug, Common Stalk Borer, Corn Earworm, Corn Rootworm Adult, Cucumber Beetle Adult, Cutworm Species, European Corn Borer, Fall Armyworm, Flea Beetle, Grasshoppers, Greenbugs, Japanese Beetle Adult, Sap Beetle, Southern Armyworm, Southern Corn Leaf Beetle, Southwestern Corn Borer, Stinkbugs, Tarnished Plant Bug, True Armyworm or Armyworm Species, Webworms, Western Bean Cutworm, Yellowstriped Armyworm   | 0.033-0.10 | 2.1-6.4  | <p><b>Ground application:</b> Apply in water in a minimum of 10 gallons per acre.</p> <p><b>Air application:</b> Apply in water in a minimum of 2 gallons per acre.</p> <p>Emulsified oil may be substituted for water. See section entitled <b>MIXING INSTRUCTIONS</b> for details on the amount of oil to use in the spray tank in lieu of water. Make applications of Fanfare ES as necessary to maintain control being careful not to exceed reapplication intervals or maximum dosage rates specified in this section.</p> <p>For pests which attack the ear, apply just before silking.</p> <p>For corn borer control, make application just before or at egg hatch.</p> <p>For mite control, apply when colonies first form prior to leaf damage and before they disperse into the canopy (for Banks Grass Mite, before dispersal into the upper 2/3 of the plant). Use higher rates of Fanfare ES when pest pressure is severe or crop is under stress from drought and/or heat. When these conditions exist, tank mixtures with dimethoate have shown acceptable control.</p> |
| Banks Grass Mite, Carmine Mite, Twospotted Spider Mite  | 0.08-0.10  | 5.12-6.4 |  |
| <ul style="list-style-type: none"> <li>• Do not apply more than 0.2 lb active ingredient (12.8 fluid ounces formulated) per acre per season.</li> <li>• Do not graze livestock in treated areas or cut treated crops for feed within 1 day of last application.</li> <li>• Use of ultra low volume (ULV) application on corn is prohibited.</li> <li>• Do not make aerial or ground applications to corn if heavy rainfall is imminent.</li> <li>• <b>Use of Fanfare ES on corn is prohibited in all coastal counties.</b></li> </ul> |            |          |  |

# COTTON (14)

| PEST   | DOSAGE    |         | COMMENTS  |
|--|-----------|---------|---|
|  | LB AI/A   | FL OZ/A |   |
| European Corn Borer,<br>Soybean (Banded)<br>Thrips, Tobacco Thrips   | 0.02-0.10 | 1.3-6.4 | <p><b>Ground application:</b> Apply in water in a minimum of 5 gallons per acre.</p> <p><b>Air application:</b> Apply in water in a minimum of 1 gallon per acre.</p>   |
| Boll Weevil, Bollworm,<br>Cabbage Looper, Cotton<br>Aphid, Cotton Fleahopper,<br>Cotton Leafperforator,<br>Cutworms, Fall Armyworm,<br>Plant Bugs, Saltmarsh Caterpillar,<br>Southern Garden<br>Leafhopper, Stink Bugs,<br>Tobacco Budworm,<br>Whitefly, Yellow Striped<br>Armyworm  | 0.04-0.10 | 2.6-6.4 | <p>Emulsified oil may be substituted for water. See section entitled <b>MIXING INSTRUCTIONS</b> for details on the amount of oil to use in the spray tank in lieu of water.</p> <p><b>ULV application:</b> Apply in a minimum of 1 quart per acre using refined vegetable oil with aircraft calibrated to give adequate coverage.</p> <p>Make applications of Fanfare ES as necessary to maintain control being careful not to exceed reapplication intervals or maximum dosage rates specified in this section.</p> <p><b>To Control Boll Weevil:</b> Apply Fanfare ES at 3 to 4 day intervals until pest populations are reduced below economic threshold levels.</p> |
| Beet Armyworm,<br>Carmine Spider Mite,<br><i>Lygus</i> Spp. , Pink Bollworm,<br>Twospotted Spider Mite   | 0.06-0.10 | 3.8-6.4 | <p><b>To Control Mites and Aphids:</b> Apply when pests first appear. Repeat as necessary to maintain control without exceeding maximum application rates and reapplication intervals. Use higher rates when an economic threshold has been established.</p>  |
| <ul style="list-style-type: none"> <li>Do not apply more than 0.5 lb active ingredient (32 fluid ounces formulated) per acre per season in all states except in California. For California, do not apply more than 0.3 lb active ingredient (19.2 fluid ounces formulated) per acre per season.</li> <li>Do not graze livestock in treated areas or cut treated crops for feed.</li> <li>Do not make more than 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season. Synthetic pyrethroid products include Ambush®, Ammo®, Asana® XL, Baythroid®, Capture®, Danitol®, Karate®, Mustang®, and Scout X-TRA®.</li> </ul> |           |         |   |

### CUCURBITS (3)

Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Edible Gourd [(includes hyotan, cucuzza), *Luffa* spp. (includes hechima, Chinese okra), *Momordica* spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber)], Muskmelon [(hybrids and/or cultivars of *Cucumis melo*) (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon)], Pumpkin (*Cucurbita* spp.), Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Squash, winter [includes butternut squash, calabaza, hubbard squash (*C. mixta*; *C. pepo*)(includes acorn squash, spaghetti squash)], Watermelon (includes hybrids and/or varieties of *Citrullus* spp.)

| PEST  | DOSAGE    |          | COMMENTS   |
|---|-----------|----------|--|
|   | LB AI/A   | FL OZ/A  |  |
| Aphids, Armyworms, Cabbage Looper, Corn Earworm, Cucumber Beetles, Cutworms, Grasshoppers, Leafhoppers, Melonworms, Pickleworms, Plant Bugs, Rindworms, Squash Bugs, Squash Vine Borer, Stink Bugs, Tobacco Budworm   | 0.04-0.10 | 2.6-6.4  | <b>Ground application:</b> Apply in water in a minimum of 20 gallons per acre.<br><b>Air application:</b> Apply in water in a minimum of 5 gallons per acre.<br>Emulsified oil may be substituted for water. See section entitled <b>MIXING INSTRUCTIONS</b> for details on the amount of oil to use in the spray tank in lieu of water. |
| Banks Grass Mite, Carmine Mite, <i>Lygus</i> spp., Twospotted Spider Mite, Whitefly   | 0.08-0.10 | 5.12-6.4 |  |
| <ul style="list-style-type: none"><li>• Do not apply more than 0.3 lb active ingredient (19.2 fluid ounces formulated) per acre per season.</li><li>• Do not make more than two applications after bloom.</li><li>• Repeat applications if needed to maintain control, but do not make applications less than 7 days apart.</li></ul> |           |          |  |

## DRIED BEANS AND PEAS (14)

### Dried cultivars of:

**Bean** (*Lupinus* spp.): Grain Lupin, Sweet Lupin, White Lupin, White Sweet Lupin

**Bean** (*Phaseolus* spp.): Field bean, Kidney Bean, Lima Bean (dry), Navy Bean, Pinto Bean, Tepary Bean

**Bean** (*Vigna* spp.): Adzuki Bean, Blackeyed Pea, Catjang, Cowpea, Crowder Pea, Moth Bean, Mung Bean, Rice Bean, Southern Pea, Urd Bean

Broad Bean (dry); Chickpea; Guar; Lablab Bean; Lentil; Pea (*Pisum* spp.), Field Pea; Pigeon Pea

| PEST  | DOSAGE     |          | COMMENTS   |
|---|------------|----------|--|
|   | LB AI/A    | FL OZ/A  |  |
| Banks Grass Mite, Twospotted Spider Mite, Carmine Mite, <i>Lygus</i> spp.   | 0.08-0.10  | 5.12-6.4 | <b>Ground application:</b> Apply in water in a minimum of 10 gallons per acre.<br><b>Air application:</b> Apply in water in a minimum of 2 gallons per acre.<br>Emulsified oil may be substituted for water. See section entitled <b>MIXING INSTRUCTIONS</b> for details on the amount of oil to use in the spray tank in lieu of water.<br>Thorough coverage is essential to achieve control. |
| Aster Leafhopper, Flea Beetle, Leafhoppers  | 0.025-0.10 | 1.6-6.4  |  |
| Aphids, Beet Armyworm, Fall Armyworm, Southern Armyworm, Yellowstriped Armyworm, Bean Leaf Beetle, Cucumber Beetles, Japanese Beetle Adults, Mexican Bean Beetle, Sap Beetle, Plant Bug, Stink Bugs, Tarnished Plant Bug, Alfalfa Caterpillar, Cloverworm, European Corn Borer, Cutworms, Western Bean Cutworm, Corn Earworm, Loopers, Corn Rootworm Adults, Thrips, Webworms, Pea Weevil, Pea Leaf Weevil, Whitefly, Imported Cabbageworm, Saltmarsh Caterpillar, Tobacco Budworm, Leafminer, Grasshoppers | 0.33-0.10  | 2.1-6.4  |  |
| <ul style="list-style-type: none"><li>• Do not apply more than 0.2 lb active ingredient (12.8 fluid ounces formulated) per acre per season to peas. Do not apply more than 0.3 lb active ingredient (19.2 fluid ounces formulated) per acre per season to beans.</li><li>• Do not make applications less than 7 days apart.</li></ul>   |            |          |  |

### FRUITING VEGETABLES (7)

Eggplant, Groundcherry, Pepino, Pepper (Bell and Non-Bell)

| PEST  | DOSAGE     |          | COMMENTS   |
|---|------------|----------|--|
|   | LB AI/A    | FL OZ/A  |  |
| Armyworms (including Beet Armyworm, Fall Armyworm, Southern Yellowstriped Armyworm), Cabbage Loopers, Colorado Potato Beetle, Corn Earworm, Cucumber Beetles, Cutworms, European Corn Borer, Flea Beetles, Leafminers, Loopers, Pepper Weevil, Plant Bugs, Stink Bugs, Thrips, Tomato Hornworm, Tomato Pinworm, Vegetable Leafminer, Whitefly | 0.033-0.10 | 2.1-6.4  | <b>Ground application:</b> Apply in water in a minimum of 10 gallons per acre.<br><b>Air application:</b> Apply in water in a minimum of 2 gallons per acre.<br>Emulsified oil may be substituted for water. See section entitled <b>MIXING INSTRUCTIONS</b> for details on the amount of oil to use in the spray tank in lieu of water. |
| Banks Grass Mite, Broad Mite, Carmine Mite, <i>Lygus</i> spp., Pacific Spider Mite, Twospotted Spider Mite  | 0.08-0.10  | 5.12-6.4 |  |
| <ul style="list-style-type: none"><li>• To maintain a proper spray interval, do not make applications less than 7 days apart.</li><li>• Do not apply more than 0.2 lb active ingredient (12.8 fluid ounces formulated) per acre per season.</li></ul>   |            |          |  |

### GRAPES (30)

| PEST  | DOSAGE    |         | COMMENTS  |
|---|-----------|---------|---|
|   | LB AI/A   | FL OZ/A |   |
| Cutworms, Eastern Grape Leafhopper, Grape Berry Moth, Japanese Beetles Adults, Lady Beetle ( <i>Scymnus</i> ) Variegated Leafhopper, Western Grape Leafhopper | 0.05-0.10 | 3.2-6.4 | <b>Ground application:</b> Apply in water in a minimum of 25 gallons per acre.<br><b>Air application:</b> Apply in water in a minimum of 10 gallons per acre.<br>Emulsified oil may be substituted for water. See section entitled <b>MIXING INSTRUCTIONS</b> for details on the amount of oil to use in the spray tank in lieu of water.<br>When pest pressure is moderate to severe, use the higher rate. |
| Black Vine Weevil, Glassy-winged Sharpshooter, Twospotted Spider Mite   | 0.10      | 6.4     |   |
| • Do not apply more than 0.1 lb active ingredient (6.4 fluid ounces formulated) per acre per season.  |           |         |   |

### HOPS (14)

| PEST   | DOSAGE    |         | COMMENTS  |
|--|-----------|---------|---|
|  | LB AI/A   | FL OZ/A |   |
| Aphids, Armyworms, Cutworms, Leafrollers, Loopers  | 0.06-0.10 | 3.8-6.4 | <b>Ground application:</b> Apply in water in a minimum of 100-150 gallons per acre in early season; 200-250 gallons per acre late season. |
| Root Weevils   | 0.05-0.10 | 3.2-6.4 | <b>Air application:</b> Apply in water in a minimum of 10 gallons per acre.   |
| Twospotted Spider Mite   | 0.10      | 6.4     | Make a directed spray up the vine 3 feet and the soil surface 1.5 to 2 feet on either side of the plant to control root weevil.           |
| <ul style="list-style-type: none"> <li>• Do not apply more than 0.1 lb active ingredient (6.4 fluid ounces formulated) per acre per application.</li> <li>• Do not apply more than 0.3 lb active ingredient (19.2 fluid ounces formulated) per acre per season.</li> <li>• To maintain a proper spray interval, do not make applications less than 21 days apart.</li> <li>• The use of ultra low volume (ULV) application on hops is prohibited.</li> </ul> |           |         |   |

### LEAFY BRASSICAS (7)

Broccoli Raab, Bok Choy, Collards, Kale, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens, Turnip Greens\*

| PEST   | DOSAGE     |          | COMMENTS   |
|--|------------|----------|--|
|  | LB AI/A    | FL OZ/A  |  |
| Aphids, Armyworms, Corn Earworm, Crickets, Cucumber Beetles, Cutworms, Diamondback Moth, Flea Beetles, Grasshoppers, Ground Beetles, Imported Cabbageworm, Japanese Beetle Adults, Leafhoppers, Loopers, Saltmarsh Caterpillar, Stink Bugs, Thrips, Tobacco Budworm, Whitefly, Wireworm (adults)   | 0.033-0.10 | 2.1-6.4  | <b>Ground application:</b> Apply in water in a minimum of 10 gallons per acre.<br><b>Air application:</b> Apply in water in a minimum of 2 gallons per acre.<br>Emulsified oil may be substituted for water. See section entitled <b>MIXING INSTRUCTIONS</b> for details on the amount of oil to use in the spray tank in lieu of water. |
| Banks Grass Mite, Carmine Mite, Lygus spp., Pacific Spider Mite, Twospotted Spider Mite  | 0.08-0.10  | 5.12-6.4 | Thorough coverage is essential to achieve control.   |
| <p>*Not for use in California unless accompanied by supplemental labeling.</p> <ul style="list-style-type: none"> <li>• Do not apply more than 0.40 lb active ingredient (25.6 fluid ounces formulated) per acre per season.</li> <li>• Repeat applications if needed to maintain control, but do not make applications less than 7 days apart.</li> </ul> |            |          |  |

### LEAFY PETIOLE VEGETABLES\* (7)

Celery, Cardoon, Chinese Celery, Celtuce, Florence Fennel, Rhubarb, Swiss Chard

| PEST  | DOSAGE     |          | COMMENTS   |
|---|------------|----------|--|
|   | LB AI/A    | FL OZ/A  |  |
| Cutworms, Corn Earworm, Leafhoppers, Flea Beetles, Imported Cabbageworm, Cucumber Beetles, Aphids, Armyworms, Loopers, Stink Bugs, Crickets, Ground Beetles, Thrips, Wireworm Adults, Diamondback Moth  | 0.033-0.10 | 2.1-6.4  | <b>Ground application:</b> Apply in water in a minimum of 10 gallons per acre.<br><b>Air application:</b> Apply in water in a minimum of 2 gallons per acre. |
| Twospotted Spider Mite, Carmine Mite, Pacific Spider Mite, <i>Lygus</i> spp.  | 0.08-0.10  | 5.12-6.4 |  |
| <p>* Not for use in California unless accompanied by supplemental labeling.</p> <ul style="list-style-type: none"> <li>• Do not apply more than 0.50 lb active ingredient (32 fluid ounces formulated) per acre per season.</li> <li>• Repeat applications if needed to maintain control, but do not make applications less than 7 days apart.</li> </ul> |            |          |  |

### LETTUCE, HEAD (7)

| PEST   | DOSAGE     |          | COMMENTS  |
|--|------------|----------|---|
|  | LB AI/A    | FL OZ/A  |   |
| Aphids, Armyworms, Cabbage Maggot, Corn Earworm, Cucumber Beetles, Cutworms, Diamondback Moth, Flea Beetle, <b>Grasshoppers</b> , Imported Cabbageworm, Leafhoppers, Loopers, Salt Marsh Caterpillar, Stink Bug Species, Thrips, Tobacco Budworm, Whitefly | 0.033-0.10 | 2.1-6.4  | <b>Ground application:</b> Apply in water in a minimum of 15 gallons per acre.<br><b>Air application:</b> Apply in water in a minimum of 5 gallons per acre. Emulsified oil may be substituted for water. See section entitled <b>MIXING INSTRUCTIONS</b> for details on the amount of oil to use in the spray tank in lieu of water. |
| Carmine Mite, <i>Lygus</i> spp., Twospotted Spider Mite  | 0.08-0.10  | 5.12-6.4 |   |
| <ul style="list-style-type: none"> <li>• To maintain a proper spray interval, do not make applications less than 7 days apart.</li> <li>• Do not apply more than 0.5 lb active ingredient (32 fluid ounces formulated) per acre per season.</li> </ul>     |            |          |   |



**MAYHAW\* (30)**

| PEST   | DOSAGE    |          | COMMENTS   |
|--|-----------|----------|--|
|  | LB AI/A   | FL OZ/A  |  |
| Plum Curculio  | 0.08-0.10 | 5.12-6.4 | <b>Ground application:</b> Apply in water in a minimum of 28 gallons of finished spray per acre.<br><b>Air application:</b> Apply in water in a minimum of 2 gallons per acre. Apply in sufficient water to obtain uniform coverage as needed. |
| *Not for use in California unless accompanied by supplemental labeling.<br>• Do not apply more than 0.2 pound active ingredient (12.8 fluid ounces formulated) per acre per season.<br>• To maintain a proper spray interval, do not make applications less than 7 days apart. |           |          |  |

**OKRA (7)**

| PEST  | DOSAGE     |          | COMMENTS   |
|---|------------|----------|--|
|   | LB AI/A    | FL OZ/A  |  |
| Aphids, Armyworms, Corn Earworm, Cucumber Beetles, Cutworms, European Corn Borer, Flea Beetles, Japanese Beetle Adults, Leafminers, Loopers, Stink Bugs, Thrips, Whitefly                         | 0.033-0.10 | 2.1-6.4  | <b>Ground application:</b> Apply in water in a minimum of 10 gallons of finished spray per acre.<br><b>Air application:</b> Apply in water in a minimum of 2 gallons per acre. |
| Broad Mite, Carmine Mite, <i>Lygus</i> spp., Two Spotted Spider Mite  | 0.08-0.10  | 5.12-6.4 | Apply in sufficient water to obtain uniform coverage as needed.  |
| • To maintain a proper spray interval, do not make applications less than 7 days apart.<br>• Do not apply more than 0.20 lb active ingredient (12.8 fluid ounces formulated) per acre per season. |            |          |  |

### PEANUT (14)

| PEST   | DOSAGE    |          | COMMENTS   |
|--|-----------|----------|--|
|  | LB AI/A   | FL OZ/A  |  |
| Beet Armyworm, Corn Earworm, Cutworm Species, Fall Armyworm, Grasshoppers, Green Cloverworm, Leafhoppers, Lesser Cornstalk Borer, Loopers, Rednecked Peanut Worm, Southern Armyworm, Southern Corn Rootworm, Stink Bugs, Threecornered Alfalfa Hopper, Velvetbean Caterpillar, Yellowstriped Armyworm                      | 0.033-0.1 | 2.1-6.4  | <b>Ground application:</b> Apply in water in a minimum of 10 gallons of finished spray per acre.<br><b>Air application:</b> Apply in water in a minimum of 2 gallons per acre. Apply in sufficient water to obtain uniform coverage as needed. |
| Aphids, Spider Mites, Thrips, Whitefly   | 0.08-0.1  | 5.12-6.4 |  |
| <ul style="list-style-type: none"><li>• Do not apply more than 0.5 pound active ingredient (32 fluid ounces formulated) per acre per season.</li><li>• To maintain a proper spray interval, do not make applications less than 14 days apart.</li><li>• Do not feed immature plants and peanut hay to livestock.</li></ul> |           |          |  |

### PEARS (14)

| PEST   | DOSAGE      |              | COMMENTS  |
|--|-------------|--------------|---|
|  | LB AI/A     | FL OZ/A      |   |
| Aphids, Codling Moth, Cutworms, Green Fruitworm, Leafhoppers, Leafminers, Leafrollers, <i>Lygus</i> spp., Plant bugs, Plum Curculio, San Jose Scale Crawlers, Stink Bugs, Tarnished Plant Bug  | 0.04 to 0.2 | 2.6 to 12.8  | <b>Ground application:</b> Apply in water in a minimum of 200 gallons per acre (dilute) and 50 gallons per acre (concentrate).<br><b>Air application:</b> Apply in water in a minimum of 10 gallons per acre. |
| Twospotted Spider Mite, Yellow Mite  | 0.06 to 0.2 | 3.8 to 12.8  |   |
| European Red Mite  | 0.08 to 0.2 | 5.12 to 12.8 |   |
| <ul style="list-style-type: none"><li>• Do not apply more than 0.5 pound active ingredient (32 fluid ounces formulated) per acre per season with no more than 0.45 (28.8 fluid ounces formulated) pound active per acre applied after petal fall.</li><li>• To maintain a proper spray interval, do not make applications less than 30 days apart.</li><li>• Do not graze livestock in treated orchards or cut treated cover crops for feed.</li></ul> |             |              |   |

### ROOT CROPS (except Sugar Beets) (21)

Burdock, edible; Carrot; Celeriac; Chervil, turnip rooted; Chicory; Ginseng; Horseradish; Parsley, turnip rooted; Parsnip; Radish; Radish, Oriental; Rutabaga; Salsify; Salsify, Black; Salsify, Spanish; Skirret; Turnip

| PEST   | DOSAGE    |          | COMMENTS   |
|--|-----------|----------|--|
|  | LB AI/A   | FL OZ/A  |  |
| Aphids, Beet Armyworm, Celery Leafminer, Corn Earworm, Cross-striped Cabbageworm, Cutworm Species, Diamondback Moth, European Corn Borer, Fall Armyworm, Fire Ants, Flea Beetles, Green Cloverworm, Hornworms, Imported Cabbageworm, Loopers, Southern Armyworm, Spider Mites, Tobacco Budworm, Velvetbean Caterpillar, Whitefly, Yellowstriped Armyworm | 0.08-0.10 | 5.12-6.4 | <b>Ground application:</b> Apply in water in a minimum of 25 gallons of finished spray per acre.<br><b>Air application:</b> Apply in water in a minimum of 2 gallons per acre. Apply in sufficient water to obtain uniform coverage as needed. |
| <ul style="list-style-type: none"> <li>Do not apply more than 0.5 pound active ingredient (32 fluid ounces formulated) per acre per season.</li> <li>To maintain a proper spray interval, do not make applications less than 7 days apart.</li> </ul>  |           |          |  |

### GARDEN BEET\* (1)

| PEST  | DOSAGE    |          | COMMENTS   |
|---|-----------|----------|--|
|   | LB AI/A   | FL OZ/A  |  |
| Aphids, Fire Ants, Flea Beetles, Lepidopterous Larvae, Spider Mites, Whitefly   | 0.08-0.10 | 5.12-6.4 | <b>Ground application:</b> Apply in water in a minimum of 25 gallons of finished spray per acre.<br><b>Air application:</b> Apply in water in a minimum of 2 gallons per acre. Apply in sufficient water to obtain uniform coverage as needed. |
| <p>*Not for use in California unless accompanied by supplemental labeling.</p> <ul style="list-style-type: none"> <li>Do not apply more than 0.40 pound active ingredient (25.6 fluid ounces formulated) per acre per season.</li> <li>To maintain a proper spray interval, do not make applications less than 7 days apart.</li> </ul> |           |          |  |

# SOYBEAN (18)

| PEST  | DOSAGE     |          | COMMENTS   |
|---|------------|----------|--|
|   | LB AI/A    | FL OZ/A  |  |
| Alfalfa Caterpillar, Aphids, Aster leafhopper, Army Worms', Bean Leaf Beetle, Blister Beetle Species, Cloverworm, Corn Earworm, Corn Rootworm Adult, Cucumber Beetles, Cutworms, Cowpea Curculio, Cucumber Beetle Adult, Dectes Stem Borer, European Corn Borer, False Chinch Bug, Flea Beetle, Grasshoppers, Green Cloverworm, Hornworms, Imported Cabbageworm, Japanese Beetle Adult, Pea Weevil, Leaf Skeletonizer Species, Leafhoppers, Leafminer Adults, Lesser Cornstalk Borer Loopers, Mexican Bean Beetle, Painted Lady (Thistle) Caterpillar, Pea Leaf Weevil, Salt-march Caterpillar, Silverspotted Skipper, Seedcorn Maggot Adult, Spittlebug, Stink Bug, Tarnished Plant Bug, Three-Cornered Alfalfa Hopper, Thrips, Tobacco Budworm', Velvetbean Caterpillar, Webworm, Western Bean Cutworm, Whitefly, Soybean Aphid, Woollybear Caterpillar | 0.033-0.10 | 2.1-6.4  | <p><b>Ground application:</b> Apply in water in a minimum of 10 gallons per acre.</p> <p><b>Air application:</b> Apply in water in a minimum of 2 gallons per acre.</p> <p>'Pyrethroid resistance is common for Beet Armyworm and Tobacco Budworm. Consult with state or local extension service representatives to determine if resistance pest populations are present in your area. If resistance has been detected in your area, refer to the <b>RESISTANCE MANAGEMENT</b> statement found</p> |
| Two spotted Spider Mite<br><i>Lygus</i> spp.<br>Whitefly  | 0.08-0.10  | 5.12-6.4 |  |
| <ul style="list-style-type: none"> <li>• To maintain a proper spray interval, do not make applications less than 30 days apart.</li> <li>• Do not apply more than 0.3 lb active ingredient (19.2 fluid ounces formulated) per acre per season.</li> </ul>   |            |          |  |

### SPINACH (40)

| PEST  | DOSAGE     |          | COMMENTS   |
|---|------------|----------|--|
|   | LB AI/A    | FL OZ/A  |  |
| Armyworms, Colorado Potato Beetle, Corn Earworm, Cucumber Beetles, Cutworms, European Corn Borer, Flea Beetles, Leafminers, Loopers, Pepper Weevil, Thrips, Tomato Hornworm, Tomato Pinworm, Whitefly   | 0.033-0.10 | 2.1-6.4  | <b>Ground application:</b> Apply in water in a minimum of 10 to 50 gallons per acre.<br><b>Air application:</b> Apply in water in a minimum of 5 to 50 gallons per acre.<br>For whitefly and fire ant control, either at planting or as a foliar treatment, apply up to 6.4 fluid ounces. (0.1 lb active) per acre being careful not exceed reapplication intervals or maximum dosage rates specified in this section. |
| Banks Grass Mite, Broad Mite, Carmine Mite, Fire Ants, <i>Lygus</i> spp., Pacific Spider Mite, Twospotted Spider Mite   | 0.08-0.10  | 5.12-6.4 |  |
| <ul style="list-style-type: none"><li>• To maintain a proper spray interval, do not make applications less than 7 days apart.</li><li>• Do not apply more than 0.4 lb active ingredient (25.6 fluid ounces formulated) per acre per season.</li></ul> |            |          |  |

### SUCCULENT PEAS AND BEANS (3)

**Pea (*Pisum* spp.):** Dwarf Pea, Edible-pod Pea, English Pea, Garden Pea, Green Pea, Snow Pea, Sugar Snap Pea, Pigeon Pea

**Bean (*Phaseolus* spp.):** Broadbean (succulent), Lima Bean (green), Runner Bean, Snap Bean, Wax Bean

**Bean (*Vigna* spp.):** Asparagus Bean, Black-eyed Pea, Chinese Longbean, Cowpea, Moth Bean, Southern Pea, Yardlong Bean, Jackbean, Soybean (immature seed), Sword Bean

| PEST  | DOSAGE     |          | COMMENTS  |
|---|------------|----------|---|
|   | LB AI/A    | FL OZ/A  |   |
| Aster Leafhopper, Flea Beetle, Grasshoppers, Leafhoppers  | 0.025-0.10 | 1.6-6.4  | <b>Ground application:</b><br>Apply in water in a minimum of 10 gallons per acre.<br><b>Air application:</b> Apply in water in a minimum of 2 gallons per acre.<br>Emulsified oil may be substituted for water.<br>See section entitled <b>MIXING INSTRUCTIONS</b> for details on amount of oil to use in the spray tank. |
| Alfalfa Caterpillar, Aphids, Bean Leaf Beetle, Beet Armyworm, Cloverworm, Corn Earworm, Corn Rootworm Adult, Cucumber Beetle, Cutworms, European Corn Borer, Fall Armyworm, Imported Cabbageworm, Japanese Beetle Adult, Leafminers, Loopers, <b>Mexican Bean Beetle</b> , Pea Leaf Weevil, Pea Weevil, Plant Bugs, Salt Marsh Caterpillar, Sap Beetle, Southern Armyworm, Stink Bugs, Tarnished Plant Bug, Thrips, Tobacco Budworm, Webworms, Western Bean Cutworm, Whitefly, Yellowstriped Armyworm | 0.033-0.10 | 2.1-6.4  |   |
| Banks Grass Mite, Carmine Mite, <i>Lygus</i> spp., Twospotted Spider Mite   | 0.08-0.10  | 5.12-6.4 |   |
| • Do not apply more than 0.2 lb active ingredient (12.8 fluid ounces formulated) per acre per season.   |            |          |   |

# TOBACCO

| PEST   | DOSAGE     |          | COMMENTS   |
|--|------------|----------|--|
|  | LB AI/A    | FL OZ/A  |  |
| Armyworm Species, Cutworm Species, Mole Crickets, Stalkborers, Tobacco Flea Beetle Larvae, White Grubs, Wireworms  | 0.625-0.10 | 4.0-6.4  | <b>Pre-transplant soil applications:</b> Apply 0.0625-0.1 active ingredient per acre in a minimum of 10 gallons per acre to control soil pests. Use of suitable equipment to incorporate into top 4" of the soil is required to control below ground pests.<br><b>At-transplant water treatment application:</b> Apply 0.0625-0.1 lb active ingredient per acre in a water treatment application volume of the 10-200 gallons per acre. May be tank mixed with Command®, Spartan®, and other herbicides approved for tobacco use.<br><br><b>Foliar applications:</b> Apply 0.04-0.10 lb active ingredient per acre foliar application up to and including layby in a minimum of 10 gallons per acre. May be tank mixed with Command, Spartan, and other herbicides approved for tobacco use. |
| Aphid s Species, Armyworm Species, Chinch Bugs, Cutworm Species, Flea Beetle Adults, Grasshoppers, Green Bugs, Japanese Beetles, Stink Bugs, Tarnished Plant Bugs, Thrips, Whiteflies, Tobacco Budworm, Tobacco Hornworm, Saltmarsh Caterpillar, Cucumber Beetle   | 0.04-0.10  | 2.56-6.4 |  |
| Lygus spp., Spider mites   | 0.1        | 6.4      |  |
| <ul style="list-style-type: none"><li>• For foliar applications, do not make more than 2 applications per season.</li><li>• For all applications, do not apply more than 0.2 lb active ingredient (12.8 fluid ounces formulated) per acre per season.</li><li>• Do not apply later than layby.</li></ul> |            |          |  |

## TOMATOES, TOMATILLO (1)

| PEST   | DOSAGE     |          | COMMENTS   |
|--|------------|----------|--|
|  | LB AI/A    | FL OZ/A  |  |
| Aphids, Armyworms (including Beet Armyworm, Fall Armyworm, Southern Yellowstriped Armyworm), Bean Leaf Beetle, Cabbage-worms, Carmine Mite, Cloverworm, Corn Earworm, Corn Rootworm, Cucumber Beetle, Cutworms, Diamondback Moth, European Corn Borer, Flea Beetles, Flea Hoppers, Grasshoppers, Japanese Beetle Adult, Leafhoppers, Loopers, <i>Lygus</i> spp., Melonworms, Pea Weevil, Pea Leaf Weevil, Pickleworms, Plant Bugs, Rindworms, Salt Marsh Caterpillar, Sap Beetle, Seedpod Weevil, Squash Bugs, Stink Bug Species, Tobacco Budworm, Tarnished Plant Bug, Thrips, Whitefly | 0.033-0.08 | 2.1-5.2  | <b>Ground application:</b> Apply in water in a minimum of 15 gallons per acre.<br><b>Air application:</b> Apply in water in a minimum of 3 gallons per acre. |
| Two Spotted Spider Mite  | 0.08-0.10  | 5.12-5.4 |  |
| <ul style="list-style-type: none"> <li>• To maintain a proper spray interval, do not make applications less than 10 days apart.</li> <li>• Do not make more than 4 applications per season.</li> </ul>   |            |          |  |

## TREE NUTS CROPS (21-Pecans) (7-All Other Nut Crops)

Tree Nuts Crops including: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory nut, Macadamia nut (bush nut), Pecan, Pistachio, and Walnut (Black and English)

| PEST  | DOSAGE       |             | COMMENTS  |
|---|--------------|-------------|---|
|   | LB AI/A      | FL OZ/A     |   |
| Black Pecan Aphid, Codling Moth, Filbert Worm, Hickory Shuckworm, Leaf-footed Bugs, Navel Orangeworm, Oblique Banded Leafroller, Peach Twig Borer, Pecan Leaf Casebearer, Pecan Nut Casebearer, Pecan Phylloxera, Plant Bugs, Stink Bugs, Walnut Aphid, Yellow Pecan Aphid  | 0.05 to 0.20 | 3.2 to 12.8 | <b>Application by ground:</b> Apply as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre) spray in sufficient water to provide thorough coverage.<br><b>Application by air:</b> Apply the specified dosage in a minimum of 10 gallons of finished spray per acre. |
| European Red Mite, Spider Mites   | 0.08 to 0.20 | 5.1 to 12.8 |   |
| Fire Ants, Walnut Husk Fly  | 0.1 to 0.20  | 6.4 to 12.8 |   |
| <ul style="list-style-type: none"> <li>• Minimum Spray intervals: Apply Fanfare 2EC as needed to maintain control, but not apply at intervals sooner than 15 days.</li> <li>• Observe a 21 day Pre Harvest Interval (phi) for Pecans and a 7 day Pre Harvest Interval (phi) for all other registered tree nut crops.</li> <li>• Do not exceed 0.2 lb active ingredient (12.8 fluid ounces formulated) per acre per application; do not exceed 0.50 lb active ingredient (32 fluid ounces formulated) per acre per season.</li> <li>• Do not graze livestock in treated orchards or cut treated cover crops for feed.</li> </ul> |              |             |   |

### TUBEROUS AND CORM VEGETABLES (21)

Arracacha; Arrowroot; Chinese Artichoke; Jerusalem Artichoke; Edible Canna; Cassava (bitter and sweet); Chayote (root); Chufa; Dasheen (taro); Ginger; Leren; Potato; Sweet Potato; Tanier; Turmeric ; Yam Bean; True Yam

| PEST  | DOSAGE   |  | COMMENTS  |
|---|--|--|---|
|   | LB AI/A  | FL OZ/A  |   |
| Corn Wireworm,<br>Tobacco Wireworm, Southern<br>Potato Wireworm,<br>Japanese Beetle<br>Grubs, June Beetle, Sweetpotato<br>Flea Beetle,<br>Cucumber Beetle,<br>Sweetpotato Weevil, Banded<br>Cucumber Beetle,<br>Black Flea Beetle,<br>Whitefringed Beetle, White Grub,<br>Sugarcane Beetle,<br>Rootworms  | 0.15-0.30<br>(at plant)<br><br>0.05-0.15<br>(at cultivation or lay-by)<br><br>0.033-0.10<br>(foliar) | 9.6-19.2<br>(at-plant)<br><br>3.2-9.6<br>(at cultivation or lay-by)<br><br>2.1-6.4<br>(foliar) | <p><b>In-furrow planting time treatment:</b> Fanfare ES may be applied as an in-furrow planting time treatment for the control of wireworms, rootworms, and white grubs. Apply Fanfare ES at the rate of 0.15 to 0.3 pounds active ingredient per acre as an in-furrow spray or T-band spray at planting time.</p> <p><b>Cultivation or Lay-by treatment:</b> Fanfare ES may be applied at cultivation or as a lay-by treatment for the control of wireworms, rootworms and white grubs. Apply Fanfare ES to the drill area and cover with soil utilizing cultivation equipment set to throw soil to the drill area.</p> <p>Apply Fanfare ES as a banded spray over the row at a rate of 0.05 to 0.15 pounds active ingredient per acre (3.2 to 9.6 12.8 fluid ounces formulated) in 10 gallons per acre of spray.</p> <p><b>Foliar spray:</b> Fanfare ES may be applied as a foliar spray for the control of the adult life stages of flea beetles, click beetles (wireworms), cucumber beetles (rootworms), white fringed beetles, and May/June beetles (white grubs). Apply Fanfare ES at the rate of 0.033 to 0.1 lb active ingredient per acre (2.1 to 6.4 12.8 fluid ounces formulated) in 10 gallons of spray by ground and 3 gallons of spray by air.</p> |
| <ul style="list-style-type: none"> <li>• For foliar applications, do not make more than 2 foliar applications per season and do not make application less than 21 days apart.</li> <li>• Do not apply more than 0.5 lb active ingredient (32 fluid ounces formulated) ounces formulated) per acre per season, including soil applications.</li> </ul> |  |  |   |



### SOD FARMS\*

The application rates listed in the following table will provide excellent control of the respective pests under typical conditions. However, at the discretion of the applicator, Fanfare ES can be applied at up to 0.32 fluid ounces per 1000 square feet to control each of the pests in this table. Use the higher application rates when maximum residual control is desired or heavy pest populations occur.

| PEST  | DOSAGE    |                  |          | COMMENTS  |
|---|-----------|------------------|----------|---|
|   | LB AI/A   | FL OZ/1000 Sq ft | FL OZ/A  |   |
| Armyworms <sup>1</sup> , Cutworms <sup>1</sup> , Sod Webworms <sup>1</sup>  | 0.03-0.05 | 0.05-0.08        | 2.2-3.5  | <b>Ground Application:</b> Apply as a broadcast treatment.<br>Use higher volumes up to 10 gallons of carrier per 1000 square feet to get uniform coverage when treating dense grass foliage. For low water volume usage, less than 2 gallons/1000 square feet, addition of a non-ionic or silicone based surfactant (0.25% by volume) is recommended. Irrigation to treated area within a few hours following application can improve efficacy to sub-surface pests such as, but not limited to, mole crickets. |
| Annual Bluegrass Weevil ( <i>Hyperoides</i> spp. ) Adults <sup>2</sup> , Banks Grass Mite <sup>6</sup> , Billbug Adults <sup>3</sup> , Black Turfgrass Ataenius Adults <sup>4</sup> , Crickets, Earwigs, Flea Adults, Grasshoppers, Mealybugs, Mites <sup>6</sup> | 0.05-0.11 | 0.08-0.16        | 3.5-7.0  |   |
| Ants, Chich Bugs <sup>5</sup> , Flea Larvae <sup>7</sup> , Imported Fire Ants <sup>8</sup> , Japanese Beetle Adult, Mole Cricket Adults <sup>9</sup> , Mole Cricket Nymphs <sup>10</sup> , Ticks <sup>11</sup>  | 0.11-0.21 | 0.16-0.32        | 7.0-14.0 |   |
|   |           |                  |          |   |

\* Not for use in California unless accompanied by supplemental labeling.

In New York State, this product may NOT be applied to any grass or turf area within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch).

In New York State, make a single repeat application of this product if there are signs of renewed insect activity, but not sooner than two weeks after the first application.

#### Comments on Pests:

**<sup>1</sup>Armyworms, Cutworms and Sod Webworms:** For optimum control, delay watering (irrigation) or mowing for 24 hours after application. If the grass area is being maintained at mowing height of greater than 1 inch, then higher application rates (up to 0.32 fluid ounces. per 1000 sq ft) may be required during periods of high pest pressure.

**<sup>2</sup>Annual Bluegrass Weevil (*Hyperodes*) adults:** Time applications to control adult weevils as they leave their overwintering sites and move into grass areas. This movement usually begins when *Forsythia* is in full bloom and concludes when flowering dogwood (*Cornus florida*) is in full bloom. Consult your State Cooperative

Extension Service for more specific information regarding application timing.

**Billbug adults:** Apply when adult billbugs are first observed during April and May. Degree day models have been developed to optimize application timing. Consult your State Cooperative Extension Service for information specific to your region. In temperate regions, spring applications targeting billbug adults will also provide control of over-wintered chinch bugs.

**Black Turfgrass Ataenius adults:** Apply during May and July to control the first and second generation of black turfgrass Ataenius adults, respectively. Time the May application to coincide with the full bloom stage of Vanhoutte spiraea (*Spiraea vanhouttei*) and horse chestnut (*Aesculus hippocastanum*). Time the July application to coincide with the blooming of Rose of Sharon (*Hibiscus syriacus*).

**Chinch Bugs:** Chinch bugs infest the base of grass plants and are often found in the thatch later. Irrigation of the grass area before treatment will optimize the penetration of the insecticide to the area where the chinch bugs are located. Use higher volume applications if the thatch layer is excessive or if a relatively long mowing height is being maintained. Chinch bugs can be one of the most difficult pests to control in grasses and the higher application rates (up to 0.21 fluid ounces per 1000 sq ft) may be required to control populations that contain both nymphs and adults during the middle of the summer.

**Mites:** To ensure optimal control of eriophyid mites, apply in combination with the labeled rate of a surfactant. A second application, 5-7 days after the first, may be necessary to achieve acceptable control.

**Flea larvae:** Flea larvae develop in the soil of shaded areas that are accessible to pets or other animals. Use higher volume applications when treating these areas to ensure penetration of the insecticide into the soil. Note: if the lawn area is being treated with this product at 0.10 fluid ounce per 1000 sq ft for adult flea control, then the larval application rate may be achieved by increasing the application volume two- to four-fold.

**Imported Fire Ant:** Control will be optimized by combining broadcast applications that will control foraging workers and newly mated fly-in queens with mound drenches that will control existing colonies. If the soil is not moist, then it is important to irrigate before application or use a high volume application. Broadcast treatments should apply 0.32 fluid ounce per 1,000 sq ft. Mounds should be treated by diluting 0.05 fluid ounce per gallon of water and applying 1 to 2 gallons of finished spray per mound. The mounds should be treated with sufficient force to break their apex and allow the insecticide solution to flow into the any tunnels. A four foot diameter circle around the mound should also be treated. For best results, apply in cool weather (65-80F) or in early morning or late evening hours.

**Mole Cricket adults:** Control of adult mole crickets is difficult because preferred grass areas are subject to continuous invasion during the early spring by this extremely active stage. Make applications as late in the day as possible and water in with up to 0.5 inches of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized. Grass areas that receive pressure from adult mole crickets should be treated at peak egg hatch to ensure optimum control of subsequent nymph populations (see below).

**Mole Cricket nymphs:** Grass areas that received intense adult mole cricket pressure in the spring should be treated immediately prior to peak egg hatch. Optimal control is achieved at this time because young nymphs are more susceptible to insecticides and they are located near the soil surface where the insecticide is most concentrated. Control of larger, more damaging, nymphs later in the year may require both higher application rates and more frequent applications to maintain acceptable control. Make applications as late in the day as

possible and water in with up to 0.5 inches of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized.

**"Ticks (Including ticks that may transmit Lyme Disease and Rocky Mountain Spotted Fever):** Do not make spot applications. Treat the entire area where exposure to ticks may occur. Use higher spray volumes when treating areas with dense ground cover or heavy leaf litter. Ticks may be reintroduced from surrounding areas on host animals. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed activity. Limit repeat application to no more than once per seven days.

**Deer Ticks (*Ixodes* spp.):** These ticks have a complicated life cycle that ranges over a two year period and involves four life stages. Make applications in the late fall and/or early spring to control adult ticks that are usually located on brush or grass above the soil surface and in mid- to late spring to control larvae that reside in the soil and leaf litter.

**American dog ticks:** These ticks may be a considerable nuisance in suburban settings, particularly where homes are built on land that was previously field or forest. These ticks commonly congregate along paths or roadways where humans are likely to be encountered. Make applications as necessary from mid-spring to early fall to control American dog tick larvae, nymphs and adults.

## STORAGE AND DISPOSAL

**PROHIBITIONS:** Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.

**PESTICIDE STORAGE:** DO NOT ALLOW PRODUCT TO FREEZE. Do not store below 40° F. If crystals are observed, warm material to above 60° F by placing container in warm location. Shake or roll container periodically to redissolve solids. Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

### **CONTAINER HANDLING:**

**Nonrefillable Container (five gallons or less):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. If recycling is not available, puncture or dispose of in a sanitary landfill or incineration or if allowed by state and local authorities, by burning. If burned stay out of smoke.

**SPILL, FIRE, LEAK or OTHER CHEMICAL EMERGENCY:** In case of spill or leak on floor or paved surfaces, soak up with sand earth, or synthetic absorbent. Remove to chemical waste area.

## LIMITATION OF WARRANTY AND LIABILITY

Read the entire directions for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following **CONDITIONS, DISCLAIMER OF WARRANTIES and LIMITATIONS OF LIABILITY.**

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Makhteshim Agan of North America, Inc. All such risks shall be assumed by the user or buyer.

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**LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Makhteshim Agan of North America, Inc.'s election, the replacement of product.

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