

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

April 4, 2022

Ona E. Maune Senior Regulatory Affairs Manager Bayer CropScience LP 800 N. Lindbergh Blvd. St. Louis MO, 63167

Subject: Label Amendment – Minor revisions, incorporate deltamethrin ID

Product Name: Decis 100 EC Insecticide EPA Registration Number: 264-1199 Application Date: 9/20/2021, 3/30/21 Decision Number: 579315, 572803

Dear Ona E. Maune:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the Registration Review of the above referenced product in connection

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with the Deltamethrin Final and/or Interim Decision, and has concluded that your submission is acceptable

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Rebecca Lasko by phone at 202-565-2469, or via email at lasko.rebecca@epa.gov.

Sincerely,

Jacquelyn Herrick, Product Manager 03 Invertebrate & Vertebrate Branch 1 Registration Division (7505T) Office of Pesticide Programs

Enclosure

# RESTRICTED USE PESTICIDE

DUE TO ACUTE TOXICITY AND TOXICITY TO FISH AND AQUATIC ORGANISMS

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

**DELTAMETHRIN** 

GROUP

**3A** 

**INSECTICIDE** 

# DECIS® 100 EC Insecticide

For: Insect Control on Bulb Vegetables, Cucurbit Vegetables, Fruiting Vegetables, Root Vegetables (except Sugarbeets), Tuberous and Corm Vegetables, Pome Fruits, Tree Nuts, Canola and Rapeseed, Cotton, Field Corn, Popcorn, Sweet Corn. Sovbeans. Sorghum and Sunflowers.

#### **ACTIVE INGREDIENT(S):**

| Deltamethrin:       | 10.50%        |
|---------------------|---------------|
| OTHER INGREDIENTS*: | <u>89.50%</u> |
| TOTAL:              | 100.00%       |

Contains 0.83 pounds active ingredient per U.S. gallon (100 grams Ai/liter)

\*Contains petroleum distillates

EPA Reg. No. 264-1199

**EPA Est.** 



# KEEP OUT OF REACH OF CHILDREN **DANGER - POISON** PELIGRO - VENENO



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.)

For MEDICAL and TRANSPORTATION Emergencies ONLY Call 24 Hours a Day 1-800-334-7577 For PRODUCT USE Information Call 1-866-99BAYER (1-866-992-2937)

See [Back][Side] Panel for First Aid Instructions and [Leaflet][Booklet] for Complete Precautionary Statements and Directions for Use. (Note to reviewer: Location of additional precautionary statements, directions for use will vary between those listed, depending on container type/size.)

**Net Contents:** [Batch Code:]

#### PRODUCED FOR



**Bayer CropScience LP** 800 N. Lindbergh Blvd. St. Louis, MO 63167 1-866-99BAYER (1-866-992-2937)

# ACCEPTED

04/04/2022

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

264-1199

|                            | FIRST AID   |  |  |  |
|----------------------------|---|--|--|--|
| If in Eyes:                | <ul> <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 eyes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>                                    |  |  |  |
| If Swallowed:              | <ul> <li>Immediately call a poison control center or doctor for treatment advice.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give any liquid to the person.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul> |  |  |  |
| If on Skin or<br>Clothing: | <ul> <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>   |  |  |  |
| If Inhaled:                | <ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>                                     |  |  |  |

In case of emergency, call the toll-free Bayer CropScience Emergency Response telephone number: 1-800-334-7577. Have a product container or label with you when calling a poison control center or doctor, or going for treatment.

Note to Physician: Contains petroleum distillate. Vomiting may cause aspiration pneumonia. Probable mucosal damage may contraindicate the use of gastric lavage.

# PRECAUTIONARY STATEMENTS

# HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### DANGER - POISON

- Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear appropriate protective eyewear.
- · Avoid contact with skin, eyes, or clothing.
- · Harmful if absorbed through skin.
- Harmful if swallowed.
- · Wear face shield or goggles.
- Harmful if inhaled. Avoid breathing dust, vapor, or spray mist.
- Wash thoroughly with soap and water after handling and before eating, drinking, using tobacco or using the toilet.
- Wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves made of barrier laminate, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, or viton ≥ 14 mils.
- Remove contaminated clothing and wash before reuse.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, or viton ≥ 14 mils.
- Shoes plus socks
- · Protective eyewear

# **USER SAFETY RECOMMENDATIONS**

- · Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENGINEERING CONTROLS**

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

#### **ENVIRONMENTAL HAZARDS**

This pesticide is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in areas near the application site. Do not contaminate water by cleaning of equipment or disposal of equipment wash waters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. **Protect pollinating insects by following label directions intended to minimize drift and to reduce risk to these organisms.** 

Notify State and/or Federal authorities and Bayer CropScience immediately if you observe any adverse environmental effects due to the use of DECIS 100 EC Insecticide.

NOTICE: It is a Federal offense to use any pesticide in a manner that results in the death of a member of an endangered species.

#### PHYSICAL OR CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flame.

# CONDITIONS OF SALE AND LIMITATIONS OF WARRANTY AND LIABILITY

Read the entire Directions for Use, Conditions, Disclaimer 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 Bayer CropScience LP. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL. INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

**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 BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

# **DIRECTIONS FOR USE**

#### RESTRICTED USE PESTICIDE

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

Read the entire label before using this product.

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.

Shake well before using.

# 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, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers, 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
- Waterproof or chemical-resistant gloves
- Shoes plus socks
- Protective evewear

#### **USE RESTRICTIONS**

• Do not apply DECIS 100 EC Insecticide by aerial application in New York State. Refer to the specific use directions and restrictions in each Crop, Crop Group or Crop Subgroup table.

# **APPLICATION INSTRUCTIONS**

- Dilute DECIS 100 EC Insecticide in water according to the directions shown below and apply to the target crops at the rates listed. Uniform coverage is essential. Consult your local or state agricultural authorities regarding economic thresholds and timing of application for specific pests. Under heavy pest populations, use the highest labeled rate.
- DECIS 100 EC Insecticide may be applied before, during, or after planting. Use the higher labeled rate for soil incorporated
  applications.

# **CHEMIGATION**

# **Sprinkler Irrigation Application**

Apply DECIS 100 EC Insecticide at rates and timing described elsewhere in this label. As local recommendations differ, consult your local State Extension Service or other local experts for recommendations on adjuvant or diluent types, labeled rates, and mixing instructions. These recommendations should be proven, through university and extension field trials, to be effective with DECIS 100 EC Insecticide applied by chemigation.

Check the irrigation system to ensure uniform application of water to all areas. Thorough coverage of foliage is required for good control. Good agitation in the pesticide supply tank should be maintained prior to and during the entire application period. Apply by injecting the labeled rate of DECIS 100 EC Insecticide into the irrigation system using a metering device that will introduce a constant flow and by distributing the product to the target area in 0.1 to 0.2 inches per acre of irrigation water. In general, use the least amount of water required for proper distribution and coverage. It is recommended that the product be injected into the main irrigation line ahead of a right angle turn in the line to ensure adequate dispersion or mixing in the irrigation water. Once the application is completed, flush the entire irrigation and injection system with clean water before stopping the system.

In addition to the above directions, if application is being made during a normal irrigation set of a stationary sprinkler, the labeled rate of DECIS 100 EC Insecticide for the area covered should be injected into the system only during the end of the irrigation set for sufficient time to provide adequate coverage and product distribution.

NOTE: **DO NOT** connect chemigation systems to a public water system. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

#### **Use Precautions**

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 system(s). Do not apply this product through any other type of irrigation system.

- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from no uniform distribution of treated water.
- If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts.
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the
  responsible person, shall shut the system down and make necessary adjustments should the need arise.
- 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.

#### Supplemental Spray

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

• For cotton, do not make more than a total of 6 synthetic pyrethroid applications (of one product or combination of products) to a crop in one growing season.

# MANDATORY SPRAY DRIFT MANAGEMENT

# **Aerial Applications**

- Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to select nozzle and pressure that deliver medium or coarser droplets (ASABE S641).
- Do not apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for the fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- If the windspeed is 10 mph or less, applicators must use ½ swath displacement upwind at the downwind edge of the field.
   When the windspeed is between 11-15 mph, applicators must use ¾ swatch displacement upwind at the downwind edge of the field.
- Do not apply during temperature inversions.
- Do not apply DECIS 100 EC Insecticide by aerial application in New York State.

#### **Airblast Applications**

- Spray must be directed into the canopy.
- Do not apply when wind speeds exceed 15 mph at the application site.
- User must turn off outward pointing nozzles at row ends and when spraying outer row.
- Do not apply during temperature inversions.
- In New York State, this product may not be applied within 100 feet of a coastal marsh or stream that drains directly into a coastal marsh.

# **Ground Boom Applications**

- User must only apply with the nozzle height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to select nozzle and pressure that deliver medium or coarser droplets (ASABE S572).
- Do not apply when wind speeds exceed 15 mph at the application site.
- Do not apply during temperature inversions.
- In New York State, this product may not be applied within 100 feet of a coastal marsh or stream that drains directly into a coastal marsh.

# **Spray Drift Advisories**

# THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

#### IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### **Controlling Droplet Size- Ground Boom**

**Volume-** Increasing the spray volume so that the larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If greater spray volume is needed, consider using nozzle with a higher flow rate.

Pressure- Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.

Spray Nozzle- Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### **Controlling Droplet Size- Aircraft**

**Adjust Nozzles-** Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be orientated parallel with airflow in flight.

#### **BOOM HEIGHT- Ground Boom**

For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### **RELEASE HEIGHT- Aircraft**

Higher release heights increase the potential for spray drift.

#### SHIELDED SPRAYERS

Shielding the boom on individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

#### **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

#### **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under law wind conditions) indicated an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

#### **WIND**

Drift potential increase with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applications need to be familiar with local wind patterns and terrain that could affect spray drift.

# **Buffer Zone Requirements**

OBSERVE THE FOLLOWING PRECAUTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES, RESERVOIRS, RIVERS, STREAMS, MARSHES, PONDS, ESTUARIES, AND COMMERCIAL FISH FARM PONDS.

#### **Ground Application**

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

#### Ultra Low Volume (ULV) Aerial Application

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

#### **Non-ULV Aerial Application**

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

#### **VEGETATIVE FILTER STRIPS**

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

Only apply products containing deltamethrin onto fields where a maintained vegetative filter strip of at least 25 feet exists between the field edge and where a down gradient aquatic habitat exists. This minimum required width of 25 feet may be reduced or removed under the following conditions:

- For Western irrigated agriculture, a maintained vegetative filter strip of at least 10 feet wide is required. Western irrigated
  agriculture is defined as irrigated farmland in the following states: WA, OR, CA, ID, NV, UT, AZ, MT, WY, CO, NM, and TX
  (west of I-35).
  - For Western irrigated agriculture, if a sediment control basin is present, a vegetative filter strip is not required.
- In all other areas, a vegetative filter strip with a minimum width of 25 feet is required, unless the following conditions are met. The vegetative filter strip requirement may be reduced from 25 feet to 15 feet if at least one of the following applies:
  - The area of application is considered prime farmland (as defined in 7 CFR § 657.5).
  - Conservation tillage is being implemented on the area of application. Conservation tillage is defined as any system
    that leaves at least 30% of the soil surface covered by residue after planting. Conservation tillage practices can
    include mulch-till, no-till, or strip-till.
  - A functional terrace system is maintained on the area of application.
  - Water and sediment control basins for the area of application are functional and maintained.
  - o The area of application is less than or equal to 10 acres.

For further guidance on vegetated filter strips, refer to the following publication for information on constructing and maintaining effective buffers: Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. <a href="http://www.regulations.gov/document?D=EPA=HQ-OPP-2008-0331-0175">http://www.regulations.gov/document?D=EPA=HQ-OPP-2008-0331-0175</a>.

# **COMPATIBILITY TESTING AND TANK MIX PARTNERS**

DECIS 100 EC Insecticide may be applied in tank mixtures with other pesticides approved for use on the crops specified. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. If compatibility with another product is not known perform a small-scale test to determine compatibility. When testing combination sprays for compatibility, first add DECIS 100 EC Insecticide to at least an equal amount of water in a clear container, mix thoroughly, and then add combination products to the mixture. Curdling, precipitation, greasing, layer formation, or increased viscosity are symptoms of incompatibility. If any of these symptoms appear, do not use the combination.

DECIS 100 EC Insecticide may also be applied in combination with additive products such as adjuvants, spreader stickers, penetrating agents, and drift control agents. Observe all restrictions and precautions, which appear on the labels of those products. If compatibility with such a product is not known, perform a small-scale test as described above

| RATE CONVERSION CHART Contains 0.83 pounds active ingredient per U.S. gallon (100 grams Ai/liter) |                |                  |  |  |
|---|----------------|------------------|--|--|
| Fluid ounces/Acre   | Pounds ai/Acre | Acres Per Gallon |  |  |
| 1.2   | 0.009          | 107              |  |  |
| 1.5   | 0.012          | 85               |  |  |
| 1.8   | 0.014          | 71               |  |  |
| 2.1   | 0.016          | 61               |  |  |
| 2.4   | 0.019          | 53               |  |  |
| 2.7   | 0.021          | 47               |  |  |
| 3.0   | 0.023          | 43               |  |  |
| 3.3   | 0.026          | 39               |  |  |
| 3.6   | 0.028          | 36               |  |  |
| 3.9   | 0.030          | 33               |  |  |
| 4.2   | 0.033          | 30               |  |  |

| RATE CONVERSION CHART FOR HIGH VOLUME APPLICATIONS |   |        |         |         |         |         |         |
|--|---|--------|---------|---------|---------|---------|---------|
|  | Fluid Ounces Per 100 Gal Of Water When Using Spray Volume Of: |        |         |         |         |         |         |
| Desired fluid ounces/Acre                          | 25 GPA  | 50 GPA | 100 GPA | 150 GPA | 200 GPA | 250 GPA | 500 GPA |
| 1.2  | 4.8   | 2.4    | 1.2     | 0.8     | 0.6     | 0.48    | 0.2     |
| 1.5  | 6.0   | 3      | 1.5     | 1       | 0.75    | 0.6     | 0.3     |
| 1.8  | 7.2   | 3.6    | 1.8     | 1.2     | 0.9     | 0.72    | 0.4     |
| 2.1  | 8.4   | 4.2    | 2.1     | 1.4     | 1.05    | 0.84    | 0.4     |
| 2.4  | 9.6   | 4.8    | 2.4     | 1.6     | 1.2     | 0.96    | 0.5     |
| 2.7  | 10.8  | 5.4    | 2.7     | 1.8     | 1.35    | 1.08    | 0.5     |
| 3.0  | 12.0  | 6.0    | 3.0     | 2.0     | 1.5     | 1.2     | 0.6     |
| 3.3  | 13.2  | 6.6    | 3.3     | 2.2     | 1.65    | 1.32    | 0.7     |
| 3.6  | 14.4  | 7.2    | 3.6     | 2.4     | 1.8     | 1.44    | 0.7     |
| 3.9  | 15.6  | 7.8    | 3.9     | 2.6     | 1.95    | 1.56    | 0.8     |
| 4.2  | 16.8  | 8.4    | 4.2     | 2.8     | 2.1     | 1.68    | 0.8     |

# INSECTICIDE RESISTANCE MANAGEMENT (IRAC) RECOMMENDATIONS

For resistance management, DECIS 100 EC Insecticide contains a Group 3A insecticide. Any insect population may contain individuals naturally resistant to DECIS 100 EC Insecticide and other Group 3A insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance, take one or more of the following steps:

- Rotate the use of DECIS 100 EC Insecticide or other Group 3A insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is
  permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance
  issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following
  recommendations provided by the Insecticide Resistance Action Committee (IRAC):
  - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they
    are individually registered for use against the target species.
  - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
  - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
  - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still
    provide pest management benefits.
  - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to
  pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult
  with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact Bayer CropScience at 1-866-99BAYER (1-866-992-2937).

#### POLLINATOR BEST MANAGEMENT PRACTICE

Following best management practices can help reduce risk to terrestrial pollinators. Examples of best management practices include applying pesticides in the evening and at night when pollinators are not foraging and checking to confirm hive locations before spraying. For additional resources on pollinator best management practices, visit <a href="http://www.epa.gov/pollinator-protection/find-best-management-practices-protect-pollinators">http://www.epa.gov/pollinator-protection/find-best-management-practices-protect-pollinators</a>.

**Managed pollinator protection plans** are developed by states/tribes to promote communication between growers, landowners, farmers, beekeepers, pesticide users, and other pest management professionals to reduce exposure of bees to pesticides. If available, visit state plans for additional information on how to protect pollinators.

**How to Report Bee Kills** - It is recommended that users contact both the state lead agency and the U.S. Environmental Protection Agency to report bee kills due to pesticide application. Bee kills can be reported to EPA at <a href="beekill@epa.gov">beekill@epa.gov</a>. To contact your state state lead agency, see the current listing of state pesticide regulatory agencies at the National Pesticide Information Center's website: <a href="http://npic.orst.edu/reg/state\_agencies.html">http://npic.orst.edu/reg/state\_agencies.html</a>.

# **SPECIFIC CROP DIRECTIONS**

#### **BULB VEGETABLES**

Crops of Crop Group 3 Including: Garlic, bulb; Garlic, great headed; Leek; Onion, dry bulb and green; Onion, Welsh; Shallot

| Pests Controlled     | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |
|----------------------|------------------------|-------------------------|
| Cutworms             | 1.5 - 2.3              | 0.012 - 0.018           |
| Stink bugs<br>Thrips | 2.3 - 3.6              | 0.018 - 0.028           |

# **Application Restrictions:**

Pre-Harvest Interval (PHI): 1 day(s)

Minimum interval between applications: 5 day(s)

Minimum application volumes: 5 gallons/Acre (Ground); 2 gallons/Acre (Aerial)

Maximum DECIS 100 EC Insecticide allowed per season: 14.4 fluid ounces/Acre (0.112 lb Ai/Acre)

| CANOLA; CRAMBE; RAPESEED   |                        |                         |  |  |
|----------------------------|------------------------|-------------------------|--|--|
| Pests Controlled           | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |  |  |
| Beet Armyworm <sup>1</sup> |                        |                         |  |  |
| Bertha Armyworm            |                        |                         |  |  |
| Cabbage seed pod weevil    |                        |                         |  |  |
| Clover Cutworm             | 1.2                    | 0.009                   |  |  |
| Diamondback Moth           | 1.2                    | 0.003                   |  |  |
| Flea Beetle                |                        |                         |  |  |
| Grasshopper                |                        |                         |  |  |
| Lygus bug (plant bug)      |                        |                         |  |  |

# **Application Notes:**

<sup>1</sup> For best control apply to 1<sup>st</sup> and 2<sup>nd</sup> instar larvae.

# **Application Restrictions:**

Pre-Harvest Interval (PHI): 7 day(s)

Minimum interval between applications: 7 day(s)

Minimum application volumes: 5 gallons/Acre (Ground); 2 gallons/Acre (Aerial)

Maximum DECIS 100 EC Insecticide allowed per season: 2.3 fluid ounces/Acre (0.018 lb Ai/Acre)

| CORN (Field and Pop)                 |                        |                         |
|--------------------------------------|------------------------|-------------------------|
| Pests Controlled                     | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |
| Cutworms                             |                        |                         |
| Flea beetles                         | 1.5 - 2.3              | 0.012 - 0.018           |
| Grasshoppers                         |                        |                         |
| Armyworm (all species) <sup>1</sup>  |                        |                         |
| Chinch bugs                          |                        |                         |
| Click beetle                         |                        |                         |
| Corn earworm <sup>1</sup>            |                        |                         |
| Corn rootworm (adult)                |                        |                         |
| European corn borer <sup>1</sup>     |                        |                         |
| Japanese beetle (adult)              | 2.3 - 2.9              | 0.018 - 0.022           |
| June beetle (adult)                  |                        | 0.010 - 0.022           |
| Masked chafer (adult)                |                        |                         |
| Southern corn borer <sup>1</sup>     |                        |                         |
| Southwestern corn borer <sup>1</sup> |                        |                         |
| Stalk borer <sup>1</sup>             |                        |                         |
| Stink bugs<br>Webworm                |                        |                         |
| Pests Suppressed                     | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |
| Aphids                               | 2.3 - 2.9              | 0.018 - 0.022           |

# **Application Restrictions:**

Pre-Harvest Interval (PHI): 21 day(s)

Minimum interval between applications: 21 day(s) for harvest of field corn for grain or fodder.

Minimum interval between applications: 12 day(s) for cutting or grazing field corn for forage.

Minimum application volumes: 5 gallons/Acre (Ground); 2 gallons/Acre (Aerial)

Maximum DECIS 100 EC Insecticide allowed per season: 12.2 fluid ounces/Acre (0.095 lb Ai/Acre)

Do not make more than 5 applications of DECIS 100 EC Insecticide.

<sup>&</sup>lt;sup>1</sup> Apply to early instar larvae prior to boring into the ear or stalk.

| CORN (Sweet)                         |                        |                         |  |
|--------------------------------------|------------------------|-------------------------|--|
| Pests Controlled                     | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |  |
| Cutworms                             |                        |                         |  |
| Flea beetles                         | 1.5 - 2.3              | 0.012 - 0.018           |  |
| Grasshoppers                         |                        |                         |  |
| Armyworm (all species) <sup>1</sup>  |                        |                         |  |
| Chinch bugs                          |                        |                         |  |
| Click beetle                         |                        |                         |  |
| Corn earworm <sup>1</sup>            |                        |                         |  |
| Corn rootworm (adult)                |                        |                         |  |
| European corn borer <sup>1</sup>     |                        |                         |  |
| Japanese beetle (adult)              | 22.20                  | 0.040, 0.000            |  |
| June beetle (adult)                  | 2.3 - 3.6              | 0.018 - 0.028           |  |
| Masked chafer (adult)                |                        |                         |  |
| Southern corn borer <sup>1</sup>     |                        |                         |  |
| Southwestern corn borer <sup>1</sup> |                        |                         |  |
| Stalk borer <sup>1</sup>             |                        |                         |  |
| Stink bugs                           |                        |                         |  |
| Webworm                              |                        |                         |  |
| Pests Suppressed                     | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |  |
| Aphids                               | 2.3 - 3.6              | 0.018 - 0.028           |  |

• As the crop canopy closes, increase water volume to a minimum of 5 gallons per acre for aerial applications and a minimum of 10 gallons of water per acre for ground applications to insure thorough coverage.

<sup>1</sup> Apply to early instar larvae prior to boring into ear or stalk.

# **Application Restrictions:**

Pre-Harvest Interval (PHI): 1 day(s)

Minimum interval between applications: 1 day(s)

Minimum application volumes: 5 gallons/Acre (Ground); 2 gallons/Acre (Aerial)

Maximum DECIS 100 EC Insecticide allowed per season: 57.6 fluid ounces/Acre (0.45 lb Ai/Acre)

Do not graze livestock in treated areas or cut treated crops for feed within 24 hours of the last application to a fresh / green crop.

Do not feed treated stover to livestock within 21 days of application.

| COTTON                              |                        |                         |
|-------------------------------------|------------------------|-------------------------|
| Pests Controlled                    | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |
| Cotton fleahoppers                  |                        |                         |
| Cotton leafperforator               |                        |                         |
| Cotton leafworm                     |                        |                         |
| Cutworm                             | 1.7 - 2.4              | 0.013 - 0.019           |
| Leafhoppers                         |                        |                         |
| Threecornered alfalfa hopper        |                        |                         |
| Thrips                              |                        |                         |
| Armyworm (all species) <sup>1</sup> |                        |                         |
| Boll weevil                         |                        |                         |
| Cabbage looper <sup>1</sup>         |                        |                         |
| Cotton bollworm                     |                        |                         |
| European Corn borer                 |                        |                         |
| Grasshoppers                        | 2.4 - 3.9              |                         |
| Pink bollworm                       | 2.4 - 3.9              | 0.019 - 0.030           |
| Saltmarsh caterpillar               |                        |                         |
| Soybean looper <sup>1</sup>         |                        |                         |
| Stink bugs                          |                        |                         |
| Tarnished plant bug                 |                        |                         |
| Tobacco budworm                     |                        |                         |
| Western plant Bug                   |                        |                         |
| Pests Suppressed                    | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |
| Aphids                              | 0.4.00                 |                         |
| Mites                               | 2.4 - 3.9              | 0.019 - 0.030           |
| Whitefly (adult                     |                        |                         |

- For aerial applications under hot, dry environmental conditions or when the crop canopy is dense, gallonage requirements may need to be increased to 3 to 5 gallons of water plus crop oil concentrate at 1 pint to 1 quart per acre. Increase ground application gallonage to a minimum of 10 gallons per acre obtain thorough coverage.
- Dilute the desired amount of DECIS 100 EC so that at least 2 gallons of spray solution per acre is applied.

# **Application Restrictions:**

Pre-Harvest Interval (PHI): 21 day(s)

Minimum interval between applications: 5 day(s)

Minimum application volumes: 5 gallons/Acre (Ground); 2 gallons/Acre (Aerial); 3 gallons/Acre (Aerial in Arizona)

Maximum DECIS 100 EC Insecticide allowed per season: 23.4 fluid ounces/Acre (0.18 lb Ai/Acre)

Do not make more than 6 applications of DECIS 100 EC Insecticide.

DO NOT apply as a ULV application.

<sup>&</sup>lt;sup>1</sup> For best control apply to 1<sup>st</sup> and 2<sup>nd</sup> instar larvae.

# **CUCURBIT VEGETABLE**

**Crops of Crop Group 9:** Chayote (fruit); Chinese waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); *Momordica* spp (includes balsam apple, balsam pear, bittermelon, Chinese cucumber); muskmelon (includes cantaloupe); pumpkin; squash, summer; squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash)

| Pests Controlled                    | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |
|-------------------------------------|------------------------|-------------------------|
| Cabbage looper                      |                        |                         |
| Cutworms                            | 1.5 - 3.6              | 0.012 - 0.028           |
| Leafhoppers                         |                        |                         |
| Armyworm (all species) <sup>1</sup> |                        |                         |
| Colorado potato beetle              |                        |                         |
| Corn earworm                        |                        |                         |
| Cucumber beetles                    |                        |                         |
| Diamondback moth (larvae)           |                        |                         |
| Flea beetles                        |                        |                         |
| Grasshoppers                        |                        |                         |
| Leafminers                          | 2.3 - 3.6              | 0.018 - 0.028           |
| Melonworm                           |                        |                         |
| Pickleworm                          |                        |                         |
| Stink bugs                          |                        |                         |
| Tarnished plant bug                 |                        |                         |
| Tobacco budworm <sup>1</sup>        |                        |                         |
| Tomato pinworm                      |                        |                         |
| Western plant bug                   |                        |                         |
| Pests Suppressed                    | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |
| Green peach aphid                   |                        |                         |
| Whitefly (adult)                    | 2.3 - 3.6              | 0.018 - 0.028           |
| Vegetable weevil (adult)            |                        |                         |
| A P d M                             |                        |                         |

# **Application Notes:**

<sup>1</sup> For best control apply to 1<sup>st</sup> and 2<sup>nd</sup> instar larvae.

# **Application Restrictions:**

Pre-Harvest Interval (PHI): 3 day(s)

Minimum interval between applications: 3 day(s)

Minimum application volumes: 5 gallons/Acre (Ground); 2 gallons/Acre (Aerial)

Maximum DECIS 100 EC Insecticide allowed per season: 21.6 fluid ounces/Acre (0.168 lb Ai/Acre)

# FRUITING VEGETABLE

**Crops of Crop Group 8:** Eggplant; groundcherry (*Physalis* spp); pepino; pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper); tomatillo; tomato.

| Pests Controlled                    | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |
|-------------------------------------|------------------------|-------------------------|
| Cabbage looper                      |                        |                         |
| Leafhoppers                         | 1.5 - 3.6              | 0.012 - 0.028           |
| Tomato hornworm                     |                        |                         |
| Armyworm (all species) <sup>1</sup> |                        |                         |
| Colorado potato beetle              |                        |                         |
| Cucumber beetle                     |                        |                         |
| Cutworms                            |                        |                         |
| Diamondback moth                    |                        |                         |
| European corn borer                 |                        |                         |
| Flea beetles                        |                        |                         |
| Imported cabbageworm                | 2.3 - 3.6              | 0.018 - 0.028           |
| Pepper weevil                       |                        |                         |
| Stink bugs                          |                        |                         |
| Tarnished plant bug                 |                        |                         |
| Thrips                              |                        |                         |
| Tomato fruitworm (corn earworm)     |                        |                         |
| Tomato pinworm                      |                        |                         |
| Variegated cutworm                  |                        |                         |
| Pests Suppressed                    | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |
| Aphids                              |                        |                         |
| Leafminers                          | 2.3 - 3.6              | 0.018 - 0.028           |
| Whitefly                            |                        |                         |

# **Application Notes:**

# **Application Restrictions:**

Pre-Harvest Interval (PHI): 1 day(s)

Minimum interval between applications: 5 day(s)

Minimum application volumes: 5 gallons/Acre (Ground); 2 gallons/Acre (Aerial)

Maximum DECIS 100 EC Insecticide allowed per season: 21.6 fluid ounces/Acre (0.168 lb Ai/Acre)

<sup>&</sup>lt;sup>1</sup> For best control apply to 1<sup>st</sup> and 2<sup>nd</sup> instar larvae.

| GLOBE ARTICHOKE                     |                        |                         |  |
|-------------------------------------|------------------------|-------------------------|--|
| Pests Controlled                    | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |  |
| Armyworm (all species) <sup>1</sup> |                        |                         |  |
| Cabbage looper <sup>1</sup>         |                        |                         |  |
| Cribrate weevil                     |                        |                         |  |
| Pale striped flea beetles           | 2.3 - 3.6              | 0.018 - 0.028           |  |
| Plume moth                          |                        |                         |  |
| Probas bug                          |                        |                         |  |
| Pests Suppressed                    | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |  |
| Aphids                              |                        |                         |  |
| Leafminers                          | 2.3 - 3.6              | 0.018 - 0.028           |  |
| Lygus bug (plant bug)               |                        |                         |  |

<sup>1</sup> For best control apply to 1<sup>st</sup> and 2<sup>nd</sup> instar larvae.

# **Application Restrictions:**

Pre-Harvest Interval (PHI): 3 day(s)
Minimum interval between applications: 3 day(s)

Minimum application volumes: 5 gallons/Acre (Ground); 2 gallons/Acre (Aerial)

Maximum DECIS 100 EC Insecticide allowed per season: 18.0 fluid ounces/Acre (0.14 lb Ai/Acre)

# **POME FRUIT**

Crops of Crop Group 11: Apple; crabapple; loquat; mayhaw; pear; oriental pear, quince

| Pests Controlled            | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |
|-----------------------------|------------------------|-------------------------|
| Apple leafroller            |                        |                         |
| Apple leaf miner            |                        |                         |
| Apple maggot                |                        |                         |
| Codling moth                |                        |                         |
| Green fruitworm             |                        |                         |
| Obliquebanded leafroller    |                        |                         |
| Oriental fruit moth         |                        | 0.011 - 0.022           |
| Plum curculio               | 1.4 - 2.9              |                         |
| Potato leafhopper           |                        |                         |
| Redbanded leafroller        |                        |                         |
| San Jose scale (crawlers)   |                        |                         |
| Spotted tentiform leafminer |                        |                         |
| Tarnished plant bug         |                        |                         |
| Western plant bug           |                        |                         |
| White apple leafhopper      |                        |                         |
| European apple sawfly       |                        |                         |
| Lesser appleworm            |                        |                         |
| Pear sawfly                 | 1.9                    | 0.022                   |
| Periodic cicada             |                        |                         |
| Stink bugs                  |                        |                         |
| Pests Suppressed            | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |
| Aphids                      | 1.9                    | 0.022                   |
| Pear psylla                 | 1.9                    | 0.022                   |

# **Application Notes:**

• For applications to boring insects, apply prior to the insects entering the wood or fruit. Insects contained within plant tissue may not be controlled.

# **Application Restrictions:**

Pre-Harvest Interval (PHI): 21 day(s)

Minimum interval between applications: 7 day(s)

Minimum application volumes: 25 gallons/Acre (Ground); 10 gallons/Acre (Aerial)

Maximum DECIS 100 EC Insecticide allowed per season: 5.4 fluid ounces/Acre (0.042 lb Ai/Acre)

#### ROOT, TUBEROUS AND CORM VEGETABLES (Except Sugarbeet)

Crops of Crop Group 1B: Carrot, celeriac, chervil (turnip-rooted), chicory, edible burdock, garden beet, ginseng, horseradish, parsley (turnip-rooted), parsnip, radish, oriental radish, rutabaga, salsify, black salsify, spanish salsify, skirret, turnip

Crops of Crop Group 1C: Potato, sweet potato, arracacha, arrowroot, chinese artichoke, jerusalem artichoke, edible canna, bitter and sweet cassava, chayote (root), chufa, dasheen, ginger, leren, tanier, tumeric, yam bean, true yam

| Pests Controlled                    | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |
|-------------------------------------|------------------------|-------------------------|
| Cabbage looper <sup>1</sup>         |                        |                         |
| Cutworms                            | 1.5 - 3.6              | 0.012 - 0.028           |
| Pea aphid                           |                        |                         |
| Armyworm (all species) <sup>1</sup> |                        |                         |
| Colorado potato beetle              |                        |                         |
| European corn borer                 |                        |                         |
| Flea beetles                        | 2.3 - 3.6              | 0.018 - 0.028           |
| Leafhoppers                         |                        |                         |
| Lygus bug (plant bug)               |                        |                         |
| Tarnished plant bug                 |                        |                         |
| Pests Suppressed                    | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |
| Green peach aphid                   | 2.3 - 3.6              | 0.018 - 0.028           |

# **Application Notes:**

#### **Application Restrictions:**

Pre-Harvest Interval (PHI): 3 day(s)

Minimum interval between applications: 3 day(s)

Minimum application volumes: 5 gallons/Acre (Ground); 2 gallons/Acre (Aerial)

Maximum DECIS 100 EC Insecticide allowed per season: 18.0 fluid ounces/Acre (0.14 lb Ai/Acre)

Except for radishes, do not apply to root, tuberous, and corm vegetables whose tops or leaves are to be harvested for human or livestock consumption.

<sup>&</sup>lt;sup>1</sup> For best control apply to 1<sup>st</sup> and 2<sup>nd</sup> instar larvae.

| SORGHUM                                       |                        |                         |
|---|------------------------|-------------------------|
| Pests Controlled                              | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |
| Corn earworm (also known as sorghum headworm) |                        |                         |
| Cutworms                                      |                        | 0.012 - 0.018           |
| Flea beetles                                  | 1.5 - 2.3              |                         |
| Grasshoppers                                  |                        |                         |
| Sorghum webworm                               |                        |                         |
| Armyworm (all species) <sup>1</sup>           |                        |                         |
| Chinch bug                                    |                        | 0.015 - 0.022           |
| Corn rootworm beetles (adult)                 |                        |                         |
| European corn borer <sup>1</sup>              |                        |                         |
| Lesser corn stalk borer <sup>1</sup>          | 2.0 - 2.9              |                         |
| Mexican rice borer <sup>1</sup>               | 2.0 - 2.9              |                         |
| Southern corn borer <sup>1</sup>              |                        |                         |
| Stalk borer <sup>1</sup>                      |                        |                         |
| Sugarcane borer <sup>1</sup>                  |                        |                         |
| Sorghum midge                                 |                        |                         |
| Stink bugs                                    | 2.3 - 2.7              | 0.018 - 0.022           |
| Pests Suppressed                              | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |
| Aphids  | 2.0 - 2.9              | 0.015 - 0.022           |

# **Application Restrictions:**

Pre-Harvest Interval (PHI): 14 day(s)

Minimum interval between applications: 6 day(s)

Minimum application volumes: 5 gallons/Acre (Ground); 2 gallons/Acre (Aerial)

Maximum DECIS 100 EC Insecticide allowed per season: **5.7 fluid ounces/Acre** (0.045 lb Ai/Acre) Do not cut or graze sorghum forage within 14 days after application of DECIS 100 EC Insecticide.

<sup>&</sup>lt;sup>1</sup> Apply to early instar larvae prior to boring into ear or stalk.

| Pests Controlled                    | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |
|-------------------------------------|------------------------|-------------------------|
| Corn earworm <sup>1</sup>           | ,                      | ,                       |
| Cutworms                            |                        | 0.012 - 0.018           |
| Green cloverworm                    |                        |                         |
| Leafhoppers                         | 1.5 - 2.3              |                         |
| Three-cornered alfalfa hopper       |                        |                         |
| Velvetbean caterpillar              |                        |                         |
| Armyworm (all species) <sup>1</sup> |                        | 0.018 - 0.028           |
| Bean leaf beetle                    |                        |                         |
| Cabbage looper <sup>1</sup>         |                        |                         |
| Click beetle                        |                        |                         |
| Corn rootworm beetles (adult)       |                        |                         |
| European corn borer                 |                        |                         |
| Grape colaspis (adult)              |                        |                         |
| Grasshoppers                        |                        |                         |
| Japanese beetle (adult)             |                        |                         |
| Masked chafer                       | 2.3 - 3.6              |                         |
| Mexican bean beetle                 |                        |                         |
| Saltmarsh caterpillar               |                        |                         |
| Soybean aphid                       |                        |                         |
| Soybean looper <sup>1</sup>         |                        |                         |
| Stink bugs                          |                        |                         |
| Tarnished plant bug                 |                        |                         |
| Tobacco budworm <sup>1</sup>        |                        |                         |
| Webworm                             |                        |                         |
| Yellow Woolybear                    |                        |                         |

• For aerial applications under hot, dry environmental conditions or when the crop canopy is dense, gallonage requirements may need to be increased to 4 - 5 gallons of water plus crop oil concentrate at 1 pint to 1 quart per acre. Increase ground application gallonage to a minimum of 15 gallons per acre to obtain thorough coverage.

# **Application Restrictions:**

Pre-Harvest Interval (PHI): 21 day(s)

Minimum interval between applications: 7 day(s)

Minimum application volumes: 5 gallons/Acre (Ground); 2 gallons/Acre (Aerial)

Maximum DECIS 100 EC Insecticide allowed per season: 12.8 fluid ounces/Acre (0.1 lb Ai/Acre)

Do not allow livestock to graze treated forage, or feed treated hay to livestock.

<sup>&</sup>lt;sup>1</sup> For best control apply to 1<sup>st</sup> and 2<sup>nd</sup> instar larvae.

# **SUNFLOWERS**

# (Not registered for use in California)

| Pests Controlled                          | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |
|---|------------------------|-------------------------|
| Banded sunflower moth                     |                        | 0.012 - 0.018           |
| Cabbage looper <sup>1</sup>               |                        |                         |
| Corn earworm <sup>1</sup>                 |                        |                         |
| Cutworms                                  |                        |                         |
| Grasshoppers (except lubber grasshoppers) |                        |                         |
| Leafhoppers                               | 45.00                  |                         |
| Potato flea beetle                        | 1.5 - 2.3              |                         |
| Sunflower beetle                          |                        |                         |
| Sunflower seed weevil                     |                        |                         |
| Sunflower stem weevil (moth)              |                        |                         |
| Sunflower maggot                          |                        |                         |
| Sunflower moth                            |                        |                         |

# **Application Notes:**

<sup>1</sup> For best control apply to 1<sup>st</sup> and 2<sup>nd</sup> instar larvae.

#### **Application Restrictions:**

Pre-Harvest Interval (PHI): 21 day(s)

Minimum application volumes: 5 gallons/Acre (Ground); 2 gallons/Acre (Aerial)

Maximum DECIS 100 EC Insecticide allowed per season: 5.7 fluid ounces/Acre (0.045 lb Ai/Acre)

Do not graze or feed treated sunflower foliage to livestock.

Do not apply to sunflowers as an Ultra-Low Volume (ULV) spray.

# TREE NUTS

Crops of Crop Group 14 plus Pistachio: Almonds, beech nut, Brazil nut, butternut, cashew, chestnut, chinquapin, filbert, hickory nut, macadamia nut, pecan, pistachio, walnut

| Pests Controlled         | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |
|--------------------------|------------------------|-------------------------|
| Codling moth             |                        |                         |
| Filbertworm              |                        |                         |
| Hickory shuckworm        |                        |                         |
| Leafhoppers              |                        |                         |
| Navel orangeworm         |                        |                         |
| Obliquebanded leafroller |                        |                         |
| Peach twig borer         | 2.6 - 4.2              | 0.02 - 0.033            |
| Pecan nut casebearer     |                        |                         |
| Pecan weevil             |                        |                         |
| Stink bugs               |                        |                         |
| Tarnished plant bug      |                        |                         |
| Walnut husk fly          |                        |                         |
| Western peach borer      |                        |                         |
| Pests Suppressed         | Product Rate (fl oz/A) | Product Rate (lbs ai/A) |
| Aphids                   | 2.6 - 4.2              | 0.02 - 0.033            |

# **Application Notes:**

• For best results against over-wintering peach twig borer, apply as a dormant spray or delayed dormant spray. DECIS 100 EC Insecticide may be applied in combination with dormant oil. Refer to the dormant oil product label for additional use directions and restrictions.

#### **Application Restrictions:**

Pre-Harvest Interval (PHI): 21 day(s)

Minimum interval between applications: 7 day(s)

Minimum application volumes: 25 gallons/Acre (Ground); 10 gallons/Acre (Aerial)

Maximum DECIS 100 EC Insecticide allowed per season: 21 fluid ounces/Acre (0.165 lb Ai/Acre)

#### STORAGE AND DISPOSAL

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

#### Pesticide storage

Do not store over 100°F or below 10°F.

#### Pesticide disposal

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

#### Container handling

#### [Non-Refillable Containers]

#### Rigid, Non-refillable containers (equal to or less than 5 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration.

#### Rigid Non-refillable Containers that are too large to shake (i.e., with capacities greater than 5 gallons or 50 lbs)

Non-refillable container. Do not reuse or refill this container. Refer to Bottom Discharge IBC or Top Discharge IBC, Drums, Kegs information as follows.

#### Bottom Discharge IBC (e.g. - Schuetz Caged IBC or Snyder Square Stackable)

Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. To pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

#### Top Discharge IBC, Drums, Kegs (e.g. - Snyder 120 Next Gen, Bonar B120, Drums, Kegs)

Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. To triple rinse the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container at least 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times.

#### Top Discharge IBC, Drums, Kegs (e.g.- Snyder 120 Next Gen, Bonar B120, Drums, and Kegs)

Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. To triple rinse the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container at least 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times.

Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration.

#### Non-Refillable Fiber Drums with Liners

Non-refillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment, then offer for recycling if available or dispose of in a sanitary landfill or by incineration. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner.

#### Non-Rigid, Non-refillable Containers

Nonrefillable container. Do not reuse or refill this container. Completely empty container into application equipment. Then offer for recycling if available or dispose of in a sanitary landfill or by other procedures approved by state and local authorities."

#### [Refillable Containers]

Refillable container. Refer to Bottom Discharge IBC or Top Discharge IBC, Drums, Kegs information as follows. Refill this container with pesticide only. Do not reuse this container for any other purpose. Contact your Ag retailer or Bayer CropScience for container return, disposal and recycling information.

# Bottom Discharge IBC (e.g. - Schuetz Caged IBC or Snyder Square Stackable)

Pressure rinsing 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 pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

#### Top Discharge IBC, Drums, Kegs (e.g. - Snyder 120 Next Gen, Bonar B120, Drums, Kegs)

Triple rinsing 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 triple rinse the containers before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container at least 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times.

Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration.

End users are authorized to remove tamper-evident cables as required to remove the product from the container unless the container is equipped with one-way valves and refilling or returning is planned. If this is the case, end-users are not authorized to remove tamper-evident cables, remove one-way valves, or clean container.

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