# 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 3 Insecticide

# **DELTA GOLD® 100**

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, Soybeans, Sorghum and Sunflowers.

**ACTIVE INGREDIENT(S):** 

 Deltamethrin:
 10.50%

 OTHER INGREDIENTS\*:
 89.50%

 TOTAL:
 100.00%

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

\*Contains petroleum distillates

EPA Reg. No. 264-1199-1381

**EPA Est.** 



# DANGER – POISON PELIGRO - VENENO



চা 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 Emergencies, Call 1-877-424-7452

For Chemical Emergency Involving a Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC 1-800-424-9300

Please refer to booklet for additional precautionary statements and directions for use.

**Net Contents:** 

Distributed by:

Winfield Solutions, LLC P.O. Box 64589 St. Paul, MN 55164-0589

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<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> </ul>
<ul> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<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>
<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>
<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>
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For medical emergencies, call toll free 1-877-424-7452.

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 (such as Natural Rubber).
- 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 any waterproof material such as polyvinyl chloride, nitrile rubber, or butyl rubber
- 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 pesticide is highly toxic to bees exposed to direct treatment. Do not apply it or allow it to drift to crops or weeds on which bees are foraging.

Notify State and/or Federal authorities and Winfield Solutions, LLC immediately if you observe any adverse environmental effects due to the use of Delta Gold 100.

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.

# **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 eyewear

#### **USE RESTRICTIONS**

• Do not apply Delta Gold 100 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 Delta Gold 100 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 of the highest labeled rate is recommended.
- Delta Gold 100 may be applied before, during, or after planting. Use the higher labeled rate for soil incorporated applications.

# **CHEMIGATION**

# **Sprinkler Irrigation Application**

Apply Delta Gold 100 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, rates, and mixing instructions. These recommendations should be proven, through university and extension field trials, to be effective with Delta Gold 100 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 recommended rate of Delta Gold 100 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 recommendations, if application is being made during a normal irrigation set of a stationary sprinkler, the recommended rate of Delta Gold 100 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: Winfield Solutions, LLC does not recommend connecting 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.

# **Buffer Zone Requirements**

Observe the following precautions when spraying in the vicinity of aquatic areas such as lakes; reservoirs; rivers; permanent streams, marshes or natural ponds; estuaries and commercial fish farm ponds.

#### **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 Deltamethrin 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. 2 1 pp. http://www.in.nrcs.usda.gov/technical/agronomy/newconbuf/pdf.

# Ground Application (ground boom, overhead chemigation, or air blast)

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

#### **ULV Aerial Application**

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

# **Non-ULV Aerial Application**

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

# **SPRAY DRIFT MANAGEMENT**

#### **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.

#### Wind Speed

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

#### **Temperature Inversions**

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.

# **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 air blast 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.
- 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.

#### **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 wingspan or 80% 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 crosswind, 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.
- Do not apply Delta Gold 100 by aerial application in New York State.

#### COMPATIBILITY TESTING AND TANK MIX PARTNERS

Delta Gold 100 may be applied in tank mixtures with other pesticides approved for use on the crops specified. Observe all restrictions and precautions, which appear on the labels of those products. If compatibility with another product is not known perform a small-scale test to determine compatibility. When testing combination sprays for compatibility, first add Delta Gold 100 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.

Delta Gold 100 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, a small-scale test as described above should be performed.

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 (IRM) RECOMMENDATIONS

For resistance management, Delta Gold 100 contains a Group 3 insecticide. Any insect population may contain individuals naturally resistant to Delta Gold 100 and other Group 3 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 Delta Gold 100 or other Group 3 insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is
  permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance
  issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following
  recommendations provided by the Insecticide Resistance Action Committee (IRAC):
  - o Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - 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 your Winfield Solutions, LLC representative.

# 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 (Ibs ai/A)
Cutworms	1.5 - 2.3	0.012 - 0.018
Stink bugs 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 Delta Gold 100 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 (Ibs 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:**

# **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 Delta Gold 100 allowed per season: 2.3 fluid ounces/Acre (0.018 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.

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 borer¹			
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 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 Delta Gold 100 allowed per season: 12.2 fluid ounces/Acre (0.095 lb Ai/Acre)

Do not make more than 5 applications of Delta Gold 100 .

<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)		0.018 - 0.028	
European corn borer¹	2.3 - 3.6		
Japanese beetle (adult)			
June beetle (adult)	2.3 - 3.0	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, water volume should be increased 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 Delta Gold 100 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. Ground application gallonage should be increased to a minimum of 10 gallons per acre obtain thorough coverage.
- Dilute the desired amount of Delta Gold 100 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 Delta Gold 100 allowed per season: 23.4 fluid ounces/Acre (0.18 lb Ai/Acre)

Do not make more than 6 applications of Delta Gold 100.

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 Including:** 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)		

# **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 Delta Gold 100 allowed per season: 21.6 fluid ounces/Acre (0.168 lb Ai/Acre)

# FRUITING VEGETABLE

**Crops of Crop Group 8 Including:** 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 (Ibs 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		
A II d. N. d.	•	•

# **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 Delta Gold 100 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>		0.018 - 0.028		
Cribrate weevil	0.2.2.0			
Pale striped flea beetles	2.3 - 3.6			
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)				

**Application Notes:**  $^{\rm 1}$  For best control apply to  $\rm 1^{st}$  and  $\rm 2^{nd}$  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 Delta Gold 100 allowed per season: 18.0 fluid ounces/Acre (0.14 lb Ai/Acre)

# **POME FRUIT**

Crops of Crop Group 11 Including: 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		
Plum curculio	1.4 - 2.9	0.011 - 0.022
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 (Ibs 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 Delta Gold 100 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 Including: (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 Including: (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 Delta Gold 100 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 (Ibs 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 Delta Gold 100 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 Delta Gold 100.

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

SOYBEAN		
Pests Controlled	Product Rate (fl oz/A)	Product Rate (Ibs ai/A)
Corn earworm <sup>1</sup>		0.012 - 0.018
Cutworms		
Green cloverworm	4.5.00	
Leafhoppers	1.5 - 2.3	
Three-cornered alfalfa hopper		
Velvetbean caterpillar		
Armyworm (all species) <sup>1</sup>		
Bean leaf beetle		
Cabbage looper <sup>1</sup>		
Click beetle		
Corn rootworm beetles (adult)		
European corn borer		
Grape colaspis (adult)		
Grasshoppers		
Japanese beetle (adult)		0.18 - 0.028
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. Ground application gallonage should be increased 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 Delta Gold 100 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	1.5 - 2.3	0.012 - 0.018
Cabbage looper <sup>1</sup>		
Corn earworm <sup>1</sup>		
Cutworms		
Grasshoppers (except lubber grasshoppers)		
Leafhoppers		
Potato flea beetle		
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 Delta Gold 100 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 Including: (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 (Ibs 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 (Ibs 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. Delta Gold 100
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 Delta Gold 100 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**

#### 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.

#### WARRANTY DISCLAIMER

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