

34704-1051

3/8/2012

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

Premjit Halarnkar, Ph.D., MPA  
Loveland Products Inc.  
P.O. Box 1286  
Greeley, CO 80632-1286

MAR 08 2012

Subject: Label Amendment – adding a restriction against succulent green beans  
EPA Registration No. 34704-1051  
Submission Date: January 14, 2013  
Decision #: 474110

Dear Dr. Halarnkar:

The labeling referred to above, submitted under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable. Submit two copies of your final printed labeling before you release the product for shipment. A stamped copy is enclosed for your records. If you have any questions, please contact me at (703) 347-0263 or [rogala.jessica@epa.gov](mailto:rogala.jessica@epa.gov).

Sincerely,

*[Handwritten signature]*

Venus Eagle  
Product Manager 01  
Insecticide-Rodenticide Branch  
Registration Division (7505P)

*for*

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# ACEPHATE 90 WDG

## INSECTICIDE

**ACTIVE INGREDIENT:**

Acephate (*O,S*-Dimethyl acetylphosphoramidothioate) ..... 90.0%

**OTHER INGREDIENTS:** ..... 10.0%

**TOTAL** ..... 100.0%

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

### FIRST AID

Acephate is an organophosphate, cholinesterase inhibitor

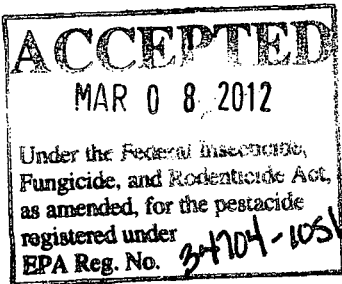
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>

**NOTE TO PHYSICIAN:** Acephate is a cholinesterase inhibitor. Measurement of blood cholinesterase activity may be useful in monitoring exposure but decisions regarding treatment will usually need to be made before test results are available. If signs of cholinesterase inhibition appear, atropine sulfate is antidotal. 2-PAM (PROTOPAM) is also antidotal and may be used in conjunction with atropine but should not be used alone.

### HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565.**



EPA REG. NO. 34704-1051

EPA EST. NO. 069845-CHN-002

NET WEIGHT 20 LB (9.07 KG)

EXP 01/13

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**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
CAUTION**

Harmful if swallowed or inhaled. Causes moderate eye irritation. Avoid contact with eyes or clothing.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):**

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber, nitrile rubber, and Viton. If you want more options, follow the instructions for category F on an EPA chemical-resistance category selection chart.

**Mixers, loaders, applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Socks and shoes
- Chemical-resistant gloves

**In addition, all mixers and loaders and all applicators using low-pressure hand wand application equipment must wear:**

- A NIOSH-approved dust mist filtering respirator with MSHA/NIOSH approval number prefix TC-21C or a NIOSH-approved respirator with any N, R, P, or HE filter.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

See engineering controls for additional requirements.

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

**Engineering Controls**

Pilots must use an enclosed cockpit in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

The use of human flaggers is prohibited.

**USER SAFETY RECOMMENDATIONS**

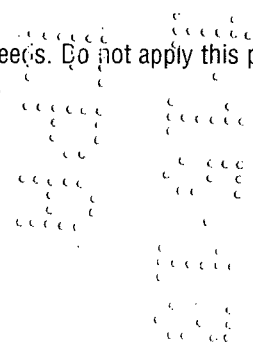
**Users should:**

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 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.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to birds. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

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



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**ACEPHATE 90 WDG  
EPA REG. NO. 34704-1051**

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box 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 24 hours.**

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

- Coveralls
- Chemical-resistant gloves made out of any waterproof material
- Shoes plus socks

**NON-AGRICULTURAL USE REQUIREMENTS**

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

**Do not enter or allow others to enter until sprays have dried.**

**DIRECTIONS FOR USE**

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

**READ THE ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.**

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.

**FAILURE TO FOLLOW THE INSTRUCTIONS IN THIS LABEL MAY RESULT IN POOR INSECT CONTROL, CROP INJURY, AND/OR ILLEGAL RESIDUES**

**PRODUCT INFORMATION**

Acephate 90 WDG is a dispersible granule used as an insecticide for control of pests on selected agricultural crops and in listed non-crop areas. The active ingredient in Acephate 90 WDG is absorbed by plants via the roots and foliage to provide systemic control of feeding insects. Insect pests are generally controlled more effectively by Acephate 90 WDG through ingestion than by contact.

Because it is impossible to test this product for every combination of cultivar, soil and horticultural practice, it is the responsibility of the user to ensure that Acephate 90 WDG is compatible with the variety or cultivar of the ornamental crop to which you are making an application under your specific conditions. Test the product on a limited scale and observe for phytotoxicity over a two-week period prior to making large-scale applications.

Make repeat applications of Acephate 90 WDG to maintain control only as directed.

**RESTRICTIONS**

- Acephate 90 WDG is NOT for indoor residential use.
- This product is not for outdoor residential use on lawns, turf, home gardens, ornamentals, flowers, shrubs, or trees. This restriction applies to all uses listed on this label.
- Turf uses are restricted to ground applications to golf courses only.

**TANK MIXES**

- When tank mixing Acephate 90 WDG with other products, read the entire label of each product being added to the mix and follow the most restrictive guidelines applicable to your situation.
- The user, applicator and/or application advisor accepts full responsibility for using this product with any other product or application method not expressly authorized by this label.

**CHEMIGATION RESTRICTIONS**

- Only cranberries can have this product applied by chemigation (sprinkler irrigation) system.
- Do not apply to cranberries using any other type of irrigation system.

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**HAND WAND RESTRICTIONS**

- Do not make applications by low-pressure hand wand in California.
- Agricultural Uses - Low-pressure hand wand equipment may only be used for mound treatment to control fire ants.
- Non-Agricultural Uses - Low-pressure hand wand equipment may only be used for mound treatment to control fire ants and on ornamental trees, shrubs and floral plants only when grown for non-agricultural or non-commercial use.
- Low-pressure hand wand equipment may not be used for perimeter control or wasp treatments.

**SPRAY DRIFT MANAGEMENT**

Do not allow spray to drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreation areas, nontarget crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals.

For ground boom applications, apply with nozzle height no more than 4 feet above the ground or crop canopy and when wind speed is 10 mph or less at the application site as measured by an anemometer. Use fine or coarser spray according to ASAE 572 definition for standard nozzles or VMD for spinning atomizer nozzles.

For airblast applications, direct spray above foliage and turn off outward pointing nozzles at row ends and outer rows. Apply only when wind speed is 3 to 10 mph at the application site as measured by an anemometer outside of the treated area on the upwind side.

For aerial applications, the boom width must not exceed 75% of the wingspan or 90% of the rotary blade. Use upwind swath displacement and apply only when wind speed is 3 to 10 mph as measured by an anemometer. Use fine or coarser spray according to ASAE 572 definition for standard nozzles or VMD for spinning atomizer nozzles. If application includes a no-spray zone, do not release spray at a height greater than 10 feet above the ground or the crop canopy.

For overhead chemigation, apply only when wind speed is 10 mph or less.

The applicator also must use all other measures necessary to control drift.

**COTTON**

PHI (pre-harvest interval) denotes number of days to harvest.

**RESTRICTIONS:**

- Do not feed treated forage or gin trash to livestock.
- Do not allow animals to graze on treated areas.
- Do not apply more than 4.0 pounds active ingredient per acre per crop cycle. This includes all methods of application.
- The maximum single aerial application rate for use in California and Arizona is 1.0 pound active ingredient per acre. For all remaining areas, the maximum single aerial application rate is 0.75 pound active ingredient per acre.

**COTTON: IN-FURROW**

**By Ground:** AT-PLANTING APPLICATION: 3.0 to 5.0 gallons per acre of spray

<b>PESTS CONTROLLED</b>	<b>RATES OF ACEPHATE 90 WDG/A</b>	<b>REMARKS</b>	<b>MINIMUM SPRAY INTERVAL (DAYS)</b>
Aphids* Black (Greasy) cutworm (Except CA) Thrips (including Western flower thrips) *Excluding Cotton aphids in AZ & CA	0.56 to 1.1 lb <b>NOTE:</b> For the Black Lands Region of Texas, use the 1.1 lb/A application rate	Use flat-fan nozzles for in-furrow application. Align nozzles to ensure good spray deposition into the seed furrow. Do not use cone type nozzles since unacceptable spray deposition may occur. Securely fasten spray-system tubing to furrow opener and check frequently to ensure proper positioning and operation. Acephate 90 WDG can be mixed with fungicides that are sprayed in-furrow for disease control.	N/A

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**ACEPHATE 90 WDG**  
**EPA REG. NO. 34704-1051**

**COTTON: FOLIAR**

**By Ground:** Minimum of 10.0 to 25.0 gallons of water per acre.

PESTS CONTROLLED	RATES OF ACEPHATE 90 WDG/A	REMARKS	MINIMUM SPRAY INTERVAL (DAYS)	PHI
Thrips (including Western flower thrips)	3.2 oz	Apply when eggs or insects first appear. Repeat application as necessary to maintain control.*	7	21
Plantbugs (Lygus)	0.25 to 1.0 lb AZ & CA: 0.5 to 1.1 lb	Apply when eggs or insects first appear. Use higher rate for Lygus adults that have migrated into cotton. Repeat application as necessary to maintain control.*	7	21
Fleahopper	0.25 lb	Apply when eggs or insects first appear. Repeat application as necessary to maintain control.*	7	21
Cotton aphids (excluding AZ & CA)	0.5 to 1.1 lb	This insect may develop resistance to various classes of insecticides. Consult your local Agricultural Extension Service for current control recommendations. Repeat application as necessary to maintain control.*	7	21
Whitefly (excluding Sweet potato whitefly/ Silverleaf whitefly)	0.5 to 1.1 lb	Repeat application as necessary to maintain control.*	7	21
Armyworms (excluding Beet armyworm) Cabbage looper	1.1 lb	Apply when eggs appear and repeat applications using 7-day spray intervals.*	7	21
Bollworm Tobacco budworm (Adults, Larvae)	0.5 to 1.1 lb (East of Rockies) 1.1 lb (AZ & CA)	<b>Early Season:</b> Use 0.5 lb/A for light infestation. <b>Mid and Late Season:</b> Use 0.8 to 1.1 lb/A for moderate to severe infestations. Apply when eggs appear and repeat at 7-day spray intervals. Moths of budworm larvae are controlled by direct contact with spray. Moth kill is most likely to occur when late evening applications are made.	7	21
Eggs/ DEADHATCH®	0.25 to 0.5 lb	<b>DEADHATCH:</b> Control of emerging larvae by consumption of treated egg casings.		
Stink bugs	0.8 lb	Apply when eggs appear and repeat applications using 7-day spray intervals.*	7	21
Pink bollworm (AZ & CA)	1.1 lb	Apply when insects appear and repeat at 7-day spray intervals.*	7	21
Cutworms	0.8 lb	Ground application is recommended. Aerial applications are less effective, but may be also used. Control is most effective when ground application is made in the evenings and sprays are directed toward the base and lower portion of the plant. Apply when insects first appear or damage is first noted and repeat application as necessary to maintain control.*	7	21

**RESTRICTIONS**

\* Not to exceed a maximum of 4.0 pounds active ingredient per acre per crop cycle. This includes all methods of application.

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**ACEPHATE 90 WDG**  
**EPA REG. NO. 34704-1051**

**COTTON: FOLIAR**

By Air: Minimum of 3.0 to 10.0 gallons water per acre (minimum of 5.0 gallons water per acre in AZ & CA)

PESTS CONTROLLED	RATES OF ACEPHATE 90 WDG	REMARKS	MINIMUM SPRAY INTERVAL (DAYS)	PHI
Thrips (including Western flower thrips)	3.2 oz	Apply when eggs or insects first appear. Repeat application as necessary to maintain control.*	7	21
Plantbugs (Lygus)	0.25 to 0.83 lb 0.5 to 1.1 lb (AZ & CA)	Apply when eggs or insects first appear. Use higher rate for Lygus adults that have migrated into cotton. Repeat application as necessary to maintain control.*	7	21
Fleahopper	0.25 lb	Apply when eggs or insects first appear. Repeat application as necessary to maintain control.*	7	21
Cotton aphids (excluding AZ & CA)	0.5 to 0.83 lb	This insect may develop resistance to various classes of insecticides. Consult your local Agricultural Extension Service for current control recommendations. Repeat application as necessary to maintain control.*	7	21
Whitefly (excluding Sweet potato whitefly/ Silverleaf whitefly)	0.5 to 0.83 lb 0.5 to 1.1 lb (AZ & CA)	Repeat application as necessary to maintain control.*	7	21
Armyworms (excluding Beet armyworm) Cabbage looper	0.83 lb 0.5 to 1.1 lb (AZ & CA)	Apply when eggs appear and repeat at 7-day spray intervals.*	7	21
Bollworm Tobacco budworm (Adults, Larvae)	0.5 to 0.83 lb (East of Rockies) 1.1 lb (AZ & CA)	<b>Early Season:</b> Use 0.5 lb/A for light infestation. <b>Mid and Late Season:</b> Use 0.8 to 1.1 lb/A for moderate to severe infestations.	7	21
Eggs/ DEADHATCH	0.25 to 0.5 lb	Apply when eggs appear and repeat at 7-day spray intervals.* Moths of budworm larvae are controlled by direct contact with spray. Moth kill is most likely to occur when late evening applications are made. <b>DEADHATCH:</b> control of emerging larvae by consumption of treated egg casings.		
Stink bugs	0.83 lb	Apply when eggs appear and repeat at 7-day spray intervals.*	7	21
Pink bollworm (AZ & CA)	1.1 lb	Apply when insects appear and repeat at 7-day spray intervals.*	7	21
Cutworms	0.8 lb 0.8 to 1.1 lb (AZ & CA)	Ground application is recommended. Aerial applications are less effective, but may be used. Control is most effective when ground application is made in the evenings and sprays are directed toward the base and lower portion of plant. Apply when insects first appear or damage is first noted and repeat application as necessary to maintain control.	7	21

**RESTRICTIONS**

\*Not to exceed a maximum of 4.0 pounds active ingredient per acre per crop cycle. This includes all methods of application.

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**ACEPHATE 90 WDG  
EPA REG. NO. 34704-1051**

**COTTON TANK MIXES**

Always read and follow all label directions when using any pesticide alone or in tank mix combinations. Observe all restrictions and precautions which appear on all product labels. The most restrictive labeling applies when using a tank mix.

**COTTON TANK MIX: FOLIAR**

**By Ground:** Minimum of 10.0 to 25.0 gallons water per acre of spray

**By Air:** 3.0 to 10.0 gallons per acre of spray (minimum of 5.0 gallons water per acre in CA)

**RESTRICTIONS:**

- Do not feed gin trash or treated forage to livestock.
- Do not allow animals to graze on treated areas.
- Do not apply more than 4.0 pounds active ingredient per acre per crop cycle. This includes all methods of application.
- The maximum single aerial application rate for use in California and Arizona is 1.0 pound active ingredient per acre. For all remaining areas, the maximum single aerial application rate is 0.75 pound active ingredient per acre.

<b>PESTS CONTROLLED</b>	<b>ACEPHATE 90 WDG AND TANK MIX PARTNER</b>	<b>AMOUNT OF ACEPHATE 90 WDG + TANK MIX PARTNER/A</b>	<b>REMARKS</b>	<b>MINIMUM SPRAY INTERVAL (DAYS)</b>	<b>PHI</b>
Sweet potato whitefly (Silverleaf whitefly)	Acephate 90 WDG + Danitol® 2.4 EC Spray	0.5 lb + 10-2/3 to 16.0 fl oz	Follow all applicable directions, restrictions, and precautions on the EPA registered label for Danitol 2.4 EC Spray.	3	21
Armyworms (excluding Beet armyworm) Bollworm Cabbage looper Cotton aphid Cutworms Fleahopper Grasshoppers Pink bollworm Plantbugs (Lygus, Mirids) Saltmarsh caterpillar Thrips (Including Western flower thrips) Tobacco budworm Whitefly (Excluding Sweet potato/Silverleaf whitefly)	Acephate 90 WDG + Warhawk®	0.28 to 1.1 lb (ground) or 0.28 to 0.83 lb (aerial) + 1.0 to 2.0 pt	Follow all applicable directions, restrictions and precautions on the EPA registered label for Warhawk. <b>Cutworms:</b> Use of 0.8 lb/A Acephate 90 WDG <b>By Ground:</b> Ground application is recommended. Control is most effective when ground application is made in the evenings and sprays are directed toward the base and lower portion of the plant. <b>By Air:</b> Aerial applications are less effective, but may be used. Apply when insects first appear or when damage is first noted.	7	21

**RESISTANCE-MANAGEMENT**

For cotton pest control programs, especially those for control of silverleaf whitefly populations, employ a properly designed resistance-management strategy. Such resistance-management strategies include mixture or rotation of alternative classes of chemistry including organophosphates, carbamates, pyrethroids or insect growth regulators. Consult your state or area agricultural extension service for local resistance management strategies and advice on alternative insecticides.



**COTTON TANK MIXES WITH PYRETHROIDS RESTRICTIONS:**

- Do not feed gin trash or treated forage to livestock.
- Do not allow livestock to graze on treated areas.
- Do not apply more than 4.0 pounds active ingredient per acre per season. This includes all methods of application. This includes the use of Acephate 90 WDG as an in-furrow at planting treatment, all foliar spray, liquid in-furrow application and seed treatment uses.

Use synthetic pyrethroids within the guidelines of state and/or regional resistance management programs and recommendations.

Always read and follow all label directions when using any pesticide alone or in tank mix combinations. Observe all restrictions and precautions, which appear on all product labels. The most restrictive labeling applies when using a tank mix.

**COTTON TANK MIX: FOLIAR**

**By Ground:** Minimum of 10.0 to 25.0 gallons water per acre of spray

**By Air:** 3.0 to 10.0 gallons per acre of spray (minimum 5.0 gallons water per acre in CA).

PESTS CONTROLLED	ACEPHATE 90 WDG AND TANK MIX PARTNER	AMOUNT OF ACEPHATE 90 WDG + TANK MIX PARTNER/A	REMARKS	MINIMUM SPRAY INTERVAL (DAYS)	PHI
Aphids Bollworm Cabbage looper Cotton leaf perforator Cutworms Fall armyworms Fleahoppers Pink bollworm (AZ & CA) Plantbugs Stinkbugs Sweet potato/Silverleaf whitefly Thrips (including Western flower whitefly thrips) Tobacco budworm	Acephate 90 WDG + one of the following:	0.5 to 1.1 lb (ground) or 0.5 to 0.83 lb (air) + one of the following:	Apply when eggs or insects first appear or damage is first noted. <b>Stink bugs:</b> Use 0.83 lb/A of Acephate 90 WDG. <b>*Cutworms:</b> Use 0.83 lb/A of Acephate 90 WDG. <b>By Ground:</b> Ground application is recommended. Control is most effective when ground application is made in the evenings and sprays are directed toward the base and lower portion of the plant. <b>By Air:</b> 3.0 to 10.0 gal/A spray (minimum 5.0 gal/A in CA) Aerial applications are less effective, but may be used. Repeat applications as necessary to maintain control.*	7	21
	Holster™*	Refer to the Holster approved label for use instructions.			
	Asana® XL*	Refer to the Asana XL approved label for use instructions.			
	Tombstone™ or Tombstone™ Helios®	Refer to the Tombstone or Tombstone Helios approved label for use instructions.			
	Sniper®	Refer to the Sniper approved label for use instructions.			
	Karate® 1E (except CA)	Refer to the Karate 1E approved label for use instructions.			

**RESTRICTIONS**

\*Do not apply more than a maximum of 4.0 pounds active ingredient per acre per season. This includes all methods of application.

**RESISTANCE MANAGEMENT**

For cotton pest control programs, especially those for control of silverleaf whitefly populations, employ a properly designed resistance-management strategy. Such resistance-management strategies include mixture or rotation of alternative classes of chemistry including organophosphates, carbamates, pyrethroids or insect growth regulators. Consult your state or area agricultural extension service for local resistance management strategies and advice on alternative insecticides.

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**ACEPHATE 90 WDG**  
**EPA REG. NO. 34704-1051**

**FIELD CROPS**

PHI (pre-harvest interval) denotes number of days to harvest.

<b>CROP</b>	<b>INSECTS</b>	<b>AMOUNT OF ACEPHATE 90 WDG/A</b>	<b>FURTHER USE INSTRUCTIONS AND RESTRICTIONS</b>	<b>MINIMUM SPRAY INTERVAL (DAYS)</b>	<b>PHI</b>
Peppermint, Spearmint	Alfalfa looper Aphids Cutworm	1.11 lb	Make the initial application when eggs or insects first appear using a minimum of 20.0 to 100 (ground) or 5.0 to 10.0 (aerial) gal of water/A. <b>RESTRICTIONS</b> The grazing of animals on treated areas and the feeding of spent mint hay to animals is prohibited. Do not apply more than 2.0 lb AI (2.22 lb product)/A/season. Maximum of 2 applications/crop season.	7	14
Peanuts (for postemergence, foliar, ground / aerial)	Grasshoppers	0.28 to 0.55 lb	Apply in water at 10.0 to 50.0 gal spray/A by ground or in 5.0 to 10.0 gal spray/A by air. Begin applications when insects first appear and repeat as needed to maintain control. <b>RESTRICTIONS</b> Do not feed treated forage or hay to livestock or allow animals to graze treated areas. Do not apply more than 4.0 lb AI (4.44 lb product)/A/crop cycle. This includes all methods of application.	7	14 (of digging)
	Thrips	0.55 to 0.83 lb			
	Corn earworms Fall armyworms Leafhopper Loopers Velvetbean caterpillar	0.83 to 1.11 lb			
Soybeans	Grasshopper Thrips	0.28 to 0.55 lb	<b>By Air:</b> 5.0 to 10.0 gal/A of spray <b>By Ground:</b> 10.0 to 50.0 gal/A of spray <b>RESTRICTIONS</b> Do not graze or cut vines for hay or forage. Do not apply more than 1.5 lb AI/A (1.6 lb of Acephate 90 WDG)/season.	7	14
	Potato leafhopper Stinkbugs	0.55 to 1.1 lb			
	Armyworms (except Beet) Bean leaf beetle Cabbage looper Green cloverworm Mexican bean beetle Soybean aphid Three-cornered alfalfa hopper Velvetbean caterpillar	0.83 to 1.1 lb			

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**ACEPHATE 90 WDG**  
**EPA REG. NO. 34704-1051**

**TOBACCO**

**TOBACCO TRANSPLANT WATER APPLICATION**

**RESTRICTIONS:** (Use Prohibited in CA)

<b>CROP</b>	<b>INSECTS</b>	<b>AMOUNT OF ACEPHATE 90 WDG/A</b>	<b>FURTHER USE INSTRUCTIONS AND RESTRICTIONS</b>
Tobacco	Cutworms Flea beetle Green peach aphid Tobacco aphid Tobacco thrips	0.83 lb	Provides control of early season flea beetles, green peach aphids, tobacco aphids, and cutworms for approximately 3 to 4 weeks after transplanting. For later season control of these insects, apply a foliar spray of Acephate 90 WDG. Apply in a minimum of 100 gal of water/A. <b>RESTRICTIONS</b> Do not apply more than 0.83 lb Acephate 90 WDG/A as a transplant water application as some phytotoxicity may occur. Do not apply more than 4.0 lb AI (4.44 lb product)/A/crop cycle. This includes all methods of application.
		1.25 lb	<b>RESTRICTIONS</b> Use limited to TN. Do not apply more than 4.0 lb AI (4.44 lb product)/A/crop cycle. This includes all methods of application. Apply using a minimum of 200 gal of water/A.

Make transplant-water applications using mechanical transplant equipment only. Using such equipment, the insecticide/water mixture is mechanically applied directly into the soil along with the transplanted plants.

**TOBACCO FOLIAR APPLICATION**

**RESTRICTIONS:** (Use Prohibited in CA).

PHI (pre-harvest interval) denotes number of days to harvest.

<b>CROP</b>	<b>INSECTS</b>	<b>AMOUNT ACEPHATE 90 WDG/A</b>	<b>FURTHER USE INSTRUCTIONS AND RESTRICTIONS</b>	<b>PHI</b>
Tobacco (Flue-Cured, Air Cured, Dark Fire Cured)	Grasshoppers	0.28 to 0.83 lb	Apply in 10.0 to 50.0 gal water/A with ground equipment or a minimum of 3.0 gal/A by air. Apply spray at a minimum of 7 days if necessary to maintain control. <b>RESTRICTIONS</b> Do not apply more than 4.0 lb AI (4.44 lb product)/A/crop cycle. This includes all methods of application.	3
	Flea beetle	0.55 to 0.83 lb		
	Green peach aphid			
	Hornworm			
	Tobacco thrips			
	Stinkbugs	0.55 to 0.83 lb		
	Tobacco aphid			
	Vegetable weevils			
	Budworm	0.83 lb		
	Cabbage looper			
	Cutworm			

**TOBACCO PLANT BED APPLICATION**

**RESTRICTIONS**

(Use Prohibited in CA)

<b>CROP</b>	<b>INSECTS</b>	<b>AMOUNT ACEPHATE 90 WDG/A</b>	<b>FURTHER USE INSTRUCTIONS AND RESTRICTIONS</b>
Tobacco Bed Treatment	Cutworm Flea beetle Green peach aphid Tobacco aphid	0.83 lb	Apply to foliage at the equivalent of 1.0 tbs in 1.0 gal of water/every 1000 sq ft of bed. Apply evenly to ensure thorough coverage. Apply spray at a minimum of 7 days if necessary to maintain control. <b>RESTRICTIONS</b> Do not apply more than 4.0 lb AI (4.44 lb product)/A/season. This includes all methods of application.

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**ACEPHATE 90 WDG**  
**EPA REG. NO. 34704-1051**

**TOBACCO FLOATBED/GREENHOUSE APPLICATION**  
**RESTRICTIONS**  
(Use Prohibited in CA)

<b>CROP</b>	<b>INSECTS</b>	<b>AMOUNT ACEPHATE 90 WDG</b>	<b>FURTHER USE INSTRUCTIONS AND RESTRICTIONS</b>
Tobacco	Cutworm Flea beetle Green peach aphid Tobacco aphid	0.83 lb	Apply to foliage at the equivalent of 1.0 tbsp in 3.0 gal of water/every 1000 sq ft of bed. Apply evenly to ensure thorough coverage. Dispose of floatbed water in the transplanted field through the transplant water or through foliar spray. Apply spray at a minimum of 7 days if necessary to maintain control. <b>RESTRICTIONS</b> Do not apply more than 4.0 lb AI (4.44 lb product)/A/season. This includes all methods of application.

**FRUIT CROP**

<b>CROP</b>	<b>INSECTS</b>	<b>AMOUNT OF ACEPHATE 90 WDG/A</b>	<b>FURTHER USE INSTRUCTIONS AND RESTRICTIONS</b>	<b>MINIMUM SPRAY INTERVAL (DAYS)</b>	<b>PHI</b>
Cranberries	Cranberry blossom worm False armyworm Fireworms Gypsy moth Spanworms Sparganothis	1.11 lb	Apply using sufficient water to achieve thorough coverage (ground) or in a minimum of 2.0 gal of water/A (aerial). Do not apply from start of bloom until all berries have set. Apply in water by air, ground or with sprinklers. <b>RESTRICTIONS</b> When applied via irrigation system, only sprinkler type irrigation equipment can be used. Maximum of one application /growing season. Do not apply more than 1.0 lb AI (1.11 lb product)/A/crop cycle. This includes all methods of application.	N/A	90
		1.11 lb	Apply using sufficient water to achieve thorough coverage (ground) or in a minimum of 2.0 gal of water/A (aerial). Do not apply from start of bloom until all berries have set; only one application may be applied post-bloom. <b>RESTRICTIONS</b> Use limited to MA, NJ, WA, and WI. Do not apply more than 1.0 lb AI (1.11 lb product)/A/crop cycle. This includes all methods of application. Limit to one application/growing season. When applied via irrigation system, only sprinkler type of irrigation may be used.	N/A	75

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**SPRINKLER IRRIGATION APPLICATION TO CRANBERRIES**

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop may result from non-uniform distribution of treated water.

If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

A person knowledgeable of the chemigation system and responsible for its operation shall shut the system down and make necessary adjustments should the need arise.

**Solid Set System:\*\*** Apply specified dosage for the entire length of the irrigation period or for a 30 to 60 minute period at the end of a regular irrigation set or as a 30 to 60 minute injection as a separate application not associated with a regular irrigation. Allow time for all lines to flush the pesticide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of remaining pesticide, a dye indicator may be injected into the lines to mark the end of the application period.

**Center Pivot Systems:\*\*** Inject the specified dosage per acre continuously for one complete revolution of the system. \*\*Constant agitation must be maintained in the chemical supply tank during the entire period of insecticide application. Inject the product with a positive displacement pump into the main line ahead of a right turn to ensure adequate mixing.

Application of more than label-specified quantities of irrigation water per acre may result in decreased product performance by removing the chemical from the zone of effectiveness.

**RESTRICTIONS**

Apply to cranberries only by sprinkler irrigation systems. Do not apply by chemigation to any other crop, or this crop using any other type of irrigation system.

For overhead chemigation, apply only when wind speed is 10 mph or less.

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

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the label-prescribed safety devices for public water supplies are in place.

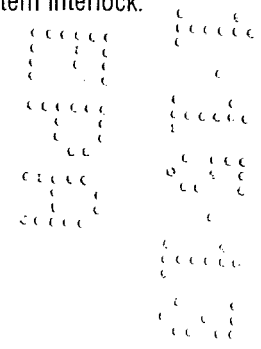
The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, 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 that 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.



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**ACEPHATE 90 WDG**  
**EPA REG. NO. 34704-1051**

**VEGETABLE CROPS**

PHI (pre-harvest interval) denotes number of days to harvest.

<b>CROP</b>	<b>INSECTS</b>	<b>AMOUNT OF ACEPHATE 90 WDG/A</b>	<b>FURTHER USE INSTRUCTIONS AND RESTRICTIONS</b>	<b>MINIMUM SPRAY INTERVAL (DAYS)</b>	<b>PHI</b>
Beans & Lima Beans (Dry & Succulent) excluding succulent green beans	Fleahoppers Grasshoppers	0.28 to 0.55 lb	<p>Make the initial application when eggs or insects first appear using a minimum of 20.0 to 100 gal (ground) or 2.0 gal (aerial) of water/A. For severe insect infestations, use the higher listed rates.</p> <p><b>RESTRICTIONS</b> Do not apply more than 2.0 lb AI (2.22 lb product)/A/crop cycle. The feeding of treated vines to livestock is prohibited. Use on succulent green beans as a food crop is prohibited (includes string beans, snap beans, and wax beans).</p> <p><b>RESTRICTIONS FOR SUCCULENT GREEN BEANS GROWN FOR SEED</b> Do not feed crop residues to livestock or allow animals to graze treated areas. Do not apply to succulent beans grown for fresh market or processing. No portion of the succulent bean plant may be used or distributed for food or feed purposes. Seeds grown from succulent beans shall bear a tag or container label which forbids use of the seed for human consumption or animal feed. Seeds grown from succulent beans may not be distributed for human consumption or animal feed.</p>	7	14 (dry beans)
	Aphids Beanleaf beetle Bean leafroller Cabbage looper Cutworms Green cloverworm Leafhoppers Mexican bean beetle Plantbugs (Lygus) Soybean looper Thrips Whitefly	0.55 to 1.11 lb			1 (lima beans succulent forms)
	Armyworms Corn earworm European cornborer	0.83 to 1.11 lb			
Brussels Sprouts, Cauliflower	Green peach aphid	0.55 to 1.11 lb	<p>Make initial application when eggs or insects first appear using a minimum of 25.0 to 150 gal (ground) or 5.0 gal (aerial) of water/A. Use the higher listed rate when heavy infestations of aphids are present.</p> <p><b>RESTRICTIONS</b> Do not apply more than 2.0 lb AI (2.22 lb product)/A/crop cycle. The feeding of treated trimmings or the grazing of livestock in treated areas is prohibited.</p>	7	14
	Cabbage looper Diamondback moth Imported cabbageworm	1.11 lb			
Celery	Green peach aphid	0.55 to 1.11 lb	<p>Make the initial application when eggs or insects first appear using a minimum of 50.0 to 100 gal (ground) or 5.0 gal (aerial) of water/A.</p> <p><b>RESTRICTIONS</b> All celery must be trimmed (tops removed before shipment). The use of treated tops for food/feed is prohibited. Do not apply more than 2.0 lb AI (2.22 lb product)/A/crop cycle.</p>	7	21
	Beet & Fall armyworm Cabbage looper	1.11 lb		7	21

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**VEGETABLE CROPS cont'd.:**

PHI (pre-harvest interval) denotes number of days to harvest.

<b>CROP</b>	<b>INSECTS</b>	<b>AMOUNT OF ACEPHATE 90 WDG/A</b>	<b>FURTHER USE INSTRUCTIONS AND RESTRICTIONS</b>	<b>MINIMUM SPRAY INTERVAL (DAYS)</b>	<b>PHI</b>
Head Lettuce (Crisphead Type Only)	Aster leafhopper Green peach aphid	0.55 to 1.11 lb	Apply using a minimum of 10.0 to 60.0 gal (ground) or 5.0 gal (aerial) of water/A.	7	21
	Armyworm (excluding Beet armyworm) Cabbage looper	1.11 lb	Applications may be made in spring, summer, and early fall in all areas; winter applications may be made in AZ, CA, FL, and TX; and late fall applications may be made in AZ. In the desert areas of AZ and CA, do not apply after the first head begins to form in crops which germinate from mid-September through November. <b>RESTRICTIONS</b> The feeding of trimmings to livestock, and the grazing of animals on treated areas are prohibited. Maximum of 5 applications/crop season. Do not apply more than 2.0 lb AI (2.22 lb product)/A/crop cycle.		
Peppers (non Bell type)	Aphids	0.55 lb	Apply using a minimum of 40.0 to 150 gal of water/A. <b>RESTRICTIONS</b> Use limited to Midwestern and Eastern states and to PR. Maximum of 2 applications/crop season. Do not apply more than 1.0 lb AI (1.11 lb product)/A/crop cycle.	7	7
Peppers (Bell type)	Grasshoppers	0.28 to 1.11 lb	Make the initial application when eggs or insects first appear using a minimum of 25.0 to 150 gal (ground), 3.0 gal (aerial), or 5.0 gal (aerial in CA) of water/A. <b>RESTRICTIONS</b> Do not apply more than 2.0 lb AI (2.22 lb product)/A/crop cycle.	7	7
	Cabbage looper Green peach aphid	0.55 to 1.11 lb			
	Tobacco hornworm				
	European cornborer	0.83 to 1.11 lb			

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**ACEPHATE 90 WDG**  
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**NON-BEARING CITRUS**

PHI (pre-harvest interval) denotes number of days to harvest.

**RESTRICTIONS:**

- Do not graze treated area.
- Do not harvest citrus fruits for one year after treatment.

<b>CROP</b>	<b>INSECTS</b>	<b>AMOUNT OF ACEPHATE 90 WDG/A</b>	<b>FURTHER USE INSTRUCTIONS AND RESTRICTIONS</b>	<b>MINIMUM SPRAY INTERVAL (DAYS)</b>	<b>PHI</b>
Citrus (Non-bearing)	Aphids Grasshoppers Katydid Mealybugs Orangedogs Plantbugs Thrips Whiteflies (except Sweet Potato/Silverleaf)	1.11 lb	Make initial spray application to individual juvenile or non-bearing trees when eggs or insects first appear using a minimum of 100 to 200 gal of water/A by ground equipment.	7	N/A
	Ants (excluding Fire, Harvester, Carpenter and Pharaoh)	4.44 lb	Make initial spray application to individual juvenile or non-bearing trees using a minimum of 100 to 200 gal of water/A by ground equipment. <b>RESTRICTIONS</b> Use limited to FL.		
	Mound Treatment Ground 2/3 oz in 5.0 gal water		Apply 1.0 gal of the finished spray to each mound area by sprinkling the mound until it is wet and treat a 4 ft diameter circle around the mound.	N/A	
	Citrus Blackfly (not registered for use in CA)	0.5 to 0.83 lb	Apply when eggs or insects first appear. Use the high rate when a heavy infestation is present. Repeat spray application at 7- to 10-day intervals.		

**SPECIALTY USES**

This product is not for outdoor residential use on lawns, turf, home gardens, ornamentals, flowers, shrubs or trees. This restriction applies to all uses listed on this label.

<b>CROP</b>	<b>INSECTS</b>	<b>AMOUNT OF ACEPHATE 90 WDG/A</b>	<b>FURTHER USE INSTRUCTIONS AND RESTRICTIONS</b>
Non-Crop Areas (Field Borders, Fencerows, Roadsides, Ditch-banks and Borrow Pits)	Grasshoppers	0.28 lb	Apply using a minimum of 10.0 to 20.0 gal (ground), 1.0 gal (aerial), or 5.0 gal (aerial in CA) of water/A. <b>RESTRICTIONS</b> The grazing or feeding of vegetation cut from treated areas is prohibited.
Non-Crop Areas	Ants (excluding Fire, Harvester, Carpenter and Pharaoh)	Mound Treatment- <b>Dry Method:</b> Evenly distribute 1.0 to 2.0 tsp over the mound. <b>Drench Method:</b> Mix 2/3 oz in 5.0 gal of water. Apply 1.0 gal of mix to each mound area by sprinkling the mound until it is wet and treat a 4 ft diameter circle around the mound.	For best results apply the material in the early morning or late afternoon when the ants are most active. Applications made under prolonged hot and dry conditions may be ineffective due to the location of the ants deep within the nest. Grass in treated area may be injured. <b>RESTRICTIONS</b> Do not use on turf. The grazing or feeding of vegetation cut from treated areas is prohibited. Do not treat mound more than once/season. Maximum of 2.0 tsp product/mound (dry method)/season.



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**NON-CROP AREAS (WASTELAND)**

<b>CROP</b>	<b>INSECTS</b>	<b>AMOUNT OF ACEPHATE 90 WDG/A</b>	<b>FURTHER USE INSTRUCTIONS AND RESTRICTIONS</b>
Foliar Ground/Aerial	Black grass bugs Grasshoppers Mormon crickets	1.6 to 2.2 oz	Apply using a minimum of 10.0 to 20.0 gal (ground), 1.0 to 5.0 gals (aerial), or 5.0 gal (aerial in CA) of water/A. <b>RESTRICTIONS</b> The grazing or feeding of vegetation cut from treated areas is prohibited.
Mound Treatment Ground	Ants (excluding Fire, Harvester, Carpenter and Pharaoh)	Mix 2/3 oz in 5.0 gal of water. Apply 1.0 gal of mix to each mound area by sprinkling the mound until it is wet and treat a 4 ft diameter circle around this mound. Seasonal Rate: Maximum application-13 mounds/A.	<b>RESTRICTIONS</b> The grazing or feeding of vegetation cut from treated areas is prohibited. Only 1 application/season.

**CONTAINER GROWN NURSERY STOCK**

<b>PLANTS</b>	<b>INSECTS</b>	<b>AMOUNT OF ACEPHATE 90 WDG</b>	<b>TIME OF APPLICATION</b>	<b>APPLICATION DIRECTIONS</b>
Container Grown Nursery Stock (Arborvitae, Azalea, Camellia, Rhododendron, Roses, Viburnum, Yew)	Black vine weevil Strawberry root weevil	0.63 lb	Thorough drench application of liquid formulation should be made by mid-September for greenhouse stock and by mid-October for outdoor stock. Consult your local county extension agent for information on the identification and control of root weevils on ornamentals.	Apply the specified amount of Acephate 90 WDG/100 gal of solution so as to thoroughly drench the root system.
	Ants (excluding Fire, Harvester, Carpenter and Pharaoh)	0.63 lb	Apply as needed to control the pest.	

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**ORNAMENTAL TREES & SHRUBS**

**Restrictions: Do not apply by low pressure handwand.**

This product is not for outdoor residential use on lawns, turf, home gardens, ornamentals, flowers, shrubs or trees. This restriction applies to all uses listed on this label.

<b>PLANTS</b>	<b>INSECTS</b>	<b>AMOUNT ACEPHATE 90 WDG/100 GALS</b>	<b>TIME OF APPLICATION</b>	<b>MINIMUM SPRAY INTERVAL (DAYS)</b>	<b>APPLICATION DIRECTIONS AND RESTRICTIONS</b>
Trees and Shrubs (except Flowering Crabapple, see below)	Aphids Bagworms Birch leafminer Tent caterpillar* Lace bugs Leafrollers	0.28 to 1.1 lb (4.4 to 17.7 oz)	As the insects or damage first appear.	14	Apply the specified amount of Acephate 90 WDG in 100 gal water with a hydraulic sprayer. The addition of a suitable sticker improves control of Gypsy moth larvae.
	Douglas fir Tussock moth larvae Gypsy moth larvae* Webworms	0.55 to 1.11 lb (8.7 to 17.7 oz)	As insects begin to appear.		*Mist blower application. Adjust rates to 1.11 lb/100 gal water for Gypsy moth control and 0.83 lb/100 gal water for Tent caterpillar control.
	Scales (Crawlers)	0.55 to 1.11 lb (8.7 to 17.7 oz)	As crawlers begin to appear. Repeat applications at a 2-week or more interval may be necessary where there is continuous crawler production.		Application to Huckleberry, Balm of Gilead, Cottonwood, Lombardy Poplar and <i>Viburnum suspensum</i> may result in phytotoxicity. Nursery crops - Before treating large plantings, spray only a few plants and observe 2 weeks for phytotoxicity.
	Ponderosa pine needle miner	0.55 to 1.11 lb (8.7 to 17.7 oz)	Time of application is important. Consult your Farm Advisor or County Extension Agent.		Apply the specified amount of Acephate 90 WDG in 100 gal water with a hydraulic sprayer as a full coverage spray.
	Grasshoppers	0.55 to 1.11 lb (8.7 to 17.7 oz)	As the grasshoppers begin to appear.		
	California oakworm Cankerworms (Spring & Fall)	0.28 to 1.1 lb (4.4 to 17.7 oz)	As the insects begin to appear. Use the higher amount when the larger larvae are present.		Apply the specified amount of Acephate 90 WDG in 100 gal water with a hydraulic sprayer.
	Nantucket pine tip moth larvae	1.11 lb (17.7 oz)	Time of application is important. Consult your Farm Advisor or County Extension Agent. Repeat applications will be required for subsequent generations.		
	Root weevil adults	1.11 lb (17.7 oz)	Apply when first feeding damage occurs. Repeat applications at 4-week intervals until the first heavy frost, may be necessary for complete foliage protection.		Apply the specified amount of Acephate 90 WDG in 100 gal water with a hydraulic sprayer as a full coverage spray.
	Box elder bugs Budworms Leafhoppers Sawflies	1.11 lb (17.7 oz)	As the insects begin to appear.		
	Japanese Beetle	1.11 lb (17.7 oz)	As the Japanese Beetles begin to appear. Repeat applications at 2-week intervals may be necessary.		
	Elm leaf beetle larvae	1.11 lb (17.7 oz)	As the larvae begin to appear. Acephate 90 WDG will not prevent Elm leaf beetle eggs from hatching.		

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**Ornamental Trees & Shrubs cont'd.:**

**Restrictions: Do not apply by low pressure handwand.**

<b>PLANTS</b>	<b>INSECTS</b>	<b>AMOUNT ACEPHATE 90 WDG/100 GALS</b>	<b>TIME OF APPLICATION</b>	<b>MINIMUM SPRAY INTERVAL (DAYS)</b>	<b>APPLICATION DIRECTIONS AND RESTRICTIONS</b>
Douglas Fir, Christmas Trees	Douglas fir needle midge	0.55 lb (8.7 oz)	Make application no more than 2 weeks prior to bud burst. For additional pest management information, consult your county extension service.	3 days for rates up to and including 0.5 lb AI/A and 7 days for rates over 0.5 lb AI/A.	Apply a minimum of 2 weeks prior to bud burst using a minimum of 100 (ground) or 2.0 (aerial) gal of water/A. <b>RESTRICTIONS</b> Maximum of 1 application/crop season. Do not apply more than 0.55 lb product/A/crop cycle.
Flowering Crabapples	Aphids Leafrollers Tent caterpillars	0.28 lb (4.4 oz)	As the insects begin to appear.	28	Apply the specified amount of Acephate 90 WDG in 100 gals water with a hydraulic sprayer. <b>Note:</b> Phytotoxicity has occurred on the following Crabapple varieties: Hopa, Ichonoski, Malusfloribunda, Pink Perfection, Red Wine and Snow Cloud. <b>RESTRICTIONS</b> Do not apply more often than 3 times in a growing season.
Crepe Myrtle	Aphids	3.0 to 4.0 level tbsp (0.7 to 1.0 oz)/1.0 tbsp of water	As aphids begin to appear.	3 days for rates up to and including 0.5 lb AI/A and 7 days for rates over 0.5 lb AI/A.	Make a paint-on slurry to the trunk in a band 6 to 12 inches above the ground by mixing the specified amount of Acephate 90 WDG. Remove the loose bark from the trunk areas to be treated. Completely paint a band around each trunk to a width twice its diameter. Make application to trunks within a zone 6 to 12 inches above the ground and below the point where branching begins. For multi-trunk plants be certain to treat all trunks. For either single or multi-trunk plants, make application as low as possible within the specified treatment zone.

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**GOLF COURSE TURF**

**RESTRICTIONS:**

- DO NOT ALLOW LIVESTOCK TO GRAZE TREATED AREAS. DO NOT FEED TREATED GRASS TO LIVESTOCK.
- Use limited to golf courses.
- Aerial applications to turf are prohibited.
- This product is not for outdoor residential use on lawns, turf, home gardens, ornamentals, flowers, shrubs or trees. This restriction applies to all uses listed on this label.
- Do not exceed 4.0 pounds active ingredient per acre per year.

PLANTS	INSECTS	ACEPHATE 90 WDG/1,000 SQ FT	TIME OF APPLICATION	APPLICATION DIRECTIONS
Golf Course Turf	Fall armyworm Southern armyworm Yellow striped armyworm	0.4 to 1.0 oz (1.1 to 2.71 lb/A)	As the insects appear. A repeat application at 2-week intervals may be necessary.	Apply the specified amount of Acephate 90 WDG/1000 sq ft. Use a minimum of 5.0 gal water/1000 sq ft to obtain good coverage.
	Cutworm	1.0 to 1.6 oz (2.71 to 4.44 lb/A)		
	Chinch bugs	1.0 to 1.6 oz (2.71 to 4.44 lb/A)	Apply as needed for adult population knockdown. Repeat application at 10 to 14 days if needed.	Apply the specified amount of Acephate 90 WDG/1000 sq ft. Use 1.0 to 15.0 gal water/1000 sq ft to obtain good coverage.
	Sod webworm ( <i>Crambus</i> spp.)	0.4 to 0.8 oz (1.11 to 2.22 lb/A)	As sod webworms begin to appear. Use the higher amount when quick knock down is needed or with heavy infestations. Repeat application may be necessary. A repeat application at 7-day intervals may be necessary.	Apply the specified amount of Acephate 90 WDG/1000 sq ft. Use 1.0 to 15.0 gal water/1000 sq ft to obtain good coverage.
	Leafhopper	0.8 oz (2.22 lb/A)	As the leafhoppers begin to appear. A repeat application at 7-day intervals may be necessary.	Apply the specified amount of Acephate 90 WDG/1000 sq ft. Use 1.0 to 15.0 gal water/1000 sq ft to obtain good coverage.
	Mole crickets (except CA)	0.8 to 1.6 oz (2.22 to 4.44 lb/A)	As mole crickets begin to appear. For knockdown of existing populations, more than one application may be required throughout the growing season. For heavy infestations, use the higher dosage rate. A repeat application at 7-day intervals may be necessary.	Apply the specified amount of Acephate 90 WDG/1000 sq ft. Use 1.0 to 15.0 gal water/1000 sq ft to obtain good coverage. Apply during late afternoon or early evening hours and after irrigation. The use of a lemon fragrance substance in the spray mix may enhance control by acting as a flushing agent and thus provide increased mole cricket contact with the Acephate 90 WDG. The following lemon-scented products have been shown to be effective flushing agents: Lemon Joy, Lemon Palmolive and Might Myrt Products Manufacturer-Base Pure Lemon Fragrance. The use rate for these lemon-scented products is 2.0 tsp/gal of water for small total mix volumes or 5.0 fl oz/50.0 gal of water for a large total mix volume. <b>Restrictions:</b> Do not irrigate after application.
	Grasshoppers Greenbug ( <i>Schizaphis graminun</i> )	0.4 oz (1.11 lb/A)	Apply when insects or their damage first appear. Repeat as necessary. A repeat application at 7-day intervals may be necessary.	Apply the specified amount of Acephate 90 WDG/1000 sq ft. Use 4.0 to 15.0 gal water/1000 sq ft to obtain good coverage. <b>Restrictions:</b> Do not mow turfgrass for at least 24 hrs after application.

**GOLF COURSE TURF *cont'd.*:**

**RESTRICTIONS:**

- DO NOT ALLOW LIVESTOCK TO GRAZE TREATED AREAS. DO NOT FEED TREATED GRASS TO LIVESTOCK.
- Use limited to golf courses.
- Aerial applications to turf are prohibited.
- This product is not for outdoor residential use on lawns, turf, home gardens, ornamentals, flowers, shrubs or trees. This restriction applies to all uses listed on this label.
- Do not exceed 4.0 pounds active ingredient per acre per year.

PLANTS	INSECTS	ACEPHATE 90 WDG/1000 SQ FT	TIME OF APPLICATION	APPLICATION DIRECTIONS
Dichondra (Golf Course Turf)	Cutworm Flea beetle Southern armyworm Yellow striped armyworm	0.8 to 1.6 oz (2.2 to 4.44 lb/A)	As the insects appear. Repeat at 2-week intervals as necessary.	Apply the specified amount of Acephate 90 WDG/1000 sq ft. Use a minimum of 15.0 gal water/1000 sq ft to obtain good coverage.

**OUTDOOR WASP AND PERIMETER SPRAY**

**RESTRICTIONS:**

- The use of low pressure handwand equipment for perimeter or wasp treatments is prohibited.
- This product is not for outdoor residential use on lawns, turf, home gardens, ornamentals, flowers, shrubs or trees. This restriction applies to all uses listed on this label.

LOCATION	INSECTS	AMOUNT ACEPHATE 90 WDG/GAL	TIME OF APPLICATION	APPLICATION DIRECTIONS
Outdoor Wasp and Perimeter Area	Wasps	1.6 oz (0.10 lb)	Treat early or late in the day as wasps are less active during these times.	Apply the specified amount of Acephate 90 WDG/gal. Apply as a spot treatment to the nest, nest entrance, and surrounding areas where the wasps land.
	Ants (including Imported Fire Ants and Harvester Ants) Cockroaches Crickets Earwigs Pillbugs (Perimeter treatment)	1.6 oz (0.10 lb)	As insects appear.	Apply the specified amount of Acephate 90 WDG/gal. Apply to a band of soil 6 to 10 ft adjacent to the structure and to a height of 2 to 3 ft from the foundation where pests may be active or may find entrances. Also as a residual spray or with a paint brush to surfaces of buildings, window frames, shutters, entryways, screens, eaves, patios, garages, carports, around garage areas and other areas where the insects may be found.

**OUTDOOR FLORAL CROPS AND GROUND COVERS**

**RESTRICTIONS:**

- Do not exceed 0.75 pound active ingredient per 100 gallons water as a single application to crops grown for cut flower production and 1.0 pound active ingredient per 100 gallons for all other greenhouse and outdoor ornamental plants.
- Do not apply using low-pressure hand-wand.
- This product is not for outdoor residential use on lawns, turf, home gardens, ornamentals, flowers, shrubs or trees. This restriction applies to all uses listed on this label.

<b>PLANTS</b>	<b>PESTS CONTROLLED</b>	<b>ACEPHATE 90 WDG APPLICATION RATE/100 GALS</b>	<b>TIME OF APPLICATION</b>	<b>APPLICATION DIRECTIONS</b>
Chrysanthemums Daisies Dahlias Easter Lily Gladioli Gypsophila Pachysandra Pansy Peony Roses Sedum Stative Strawflower Yarrow Zinnia	Aphids Lygus Thrips	0.5 lb (8.0 oz)	As insects begin to appear. To maintain control repeat applications may be necessary. Allow a minimum of 14 days between applications.	Apply the specified amount of Acephate 90 WDG in 100 gal of water with a hydraulic sprayer as a full coverage spray. Multiple applications may cause slight tip burn or marginal leaf necrosis on some varieties. Test on a sample plant to determine if unacceptable damage occurs prior to application to all plants.
Boston Ivy Roses	Japanese beetle	1.11 lb (17.7 oz)	As Japanese beetles begin to appear. To maintain control, repeat applications may be necessary. Allow a minimum of 14 days between applications.	Applications to roses in flower may cause damage to flower.

**COMMERCIAL GREENHOUSE FLORAL AND FOLIAGE PLANT CROPS**

Phytotoxicity has occurred on the following foliage plants:

<i>Blechnum gibbum</i>	<i>Plectranthus australis</i>
<i>Cissus antarctica</i>	<i>Polypodium aureus</i>
<i>Ficus triangularis</i>	<i>Polystichum</i>
<i>Fittonia verschaffeltii</i>	<i>Pteris ensiformis</i>
<i>Maranta leuconeura kerchoveana</i>	<i>Tolmiea menziesii</i>
<i>Pachystachya lutea</i>	

Before treating large plantings, spray a test sample of plants and observe for 2 weeks for varietal phytotoxicity. Acephate 90 WDG applications on certain varieties of Poinsettias after bract formation may result in phytotoxicity.

Phytotoxicity has occurred on the following Chrysanthemum varieties:

Albatross	Pride
Bonnie Jean	Showoff
Dixie	Statesman
Garland	Tally Ho
Gem	Westward Ho
Iceberg	Wild Honey

Before treating large Chrysanthemum plantings, spray a test sample of plants and observe for 2 weeks for varietal phytotoxicity.

**RESTRICTIONS:**

- Do not apply more often than every 5 days.
- Do not exceed 0.75 pound active ingredient per 100 gallons water as a single application to crops grown for cut flower production and 1.0 pound active ingredient per 100 gallons for all other greenhouse and outdoor ornamental plants.

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**ACEPHATE 90 WDG**  
**EPA REG. NO. 34704-1051**

<b>PLANTS</b>	<b>PESTS CONTROLLED</b>	<b>AMOUNT ACEPHATE 90 WDG/100 GALLONS</b>	<b>TIME OF APPLICATION</b>	<b>APPLICATION DIRECTIONS</b>
Roses	Leafrollers	0.5 to 0.83 lb (8.7 to 13.3 oz)	As leafrollers begin to appear. Use the higher amount listed when large larvae are present.	Apply the specified amount of Acephate 90 WDG in 100 gal with a hydraulic sprayer as a full coverage spray. Applications to roses in flower may cause damage to flower.
Anthuriums Cacti Foliage Plants Orchids Poinsettia	Aphids	0.28 lb (4.3 oz)	As aphids begin to appear.	Apply the specified amount of Acephate 90 WDG in 100 gal with a hydraulic sprayer as a full coverage spray. A wetting agent may be necessary when applying to difficult to wet foliage.
	Mealybugs Thrips Whiteflies	0.55 lb (8.7 oz)	As insects begin to appear. To maintain control of mealybugs and whiteflies, repeat applications at a minimum of 14-day spray intervals.	
	Scales (Crawlers)	0.55 lb (8.7 oz)	As insects begin to appear. To maintain control when there is continuous crawler production, repeat applications at a minimum of 14-day spray intervals.	
	Sweet Potato whiteflies (except CA)	0.28 lb (4.3 oz) plus 10 2/3 fl oz (0.2 lb AI) Tame® 2.4 EC Spray	Apply when insects first appear. If a population is well established, make one application of the tank mix and follow in 5 to 7 days with Tame alone at 16.0 fl oz/100 gal (see Tame label for instructions).	
Carnations Chrysanthemums Roses	Aphids Thrips	0.55 lb (8.7 oz)	As aphids begin to appear. As thrips begin to appear or at the tight flower bud stage. Apply as insects appear or at the tight flower bud stage. To maintain control, repeat applications may be necessary using the following restrictions: A minimum of 5 days between applications to roses. A minimum of 28 days between applications to Carnations and Chrysanthemums.	Apply with a hydraulic sprayer as a full coverage spray. Application to Chrysanthemums and Roses with open flowers will cause injury to the flowers.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Keep pesticide in original container. Store in a cool, dry place away from excessive heat. Do not put concentrate or dilute into food or drink containers.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment by shaking and tapping sides and bottom to loosen clinging particles. Offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration. Do not burn, unless allowed by state and local ordinances.

**For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC – 1-800-424-9300.**

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