



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

June 4, 2015

Luz G. Chan  
Registration Manager  
Drexel Chemical Company  
P.O. Box 13327  
Memphis, TN 38113-0327

Subject: Label Amendment – Adding green bean mitigation language, updating cranberry Preharvest interval, and making rates appear the same consistently throughout the label.  
Product Name: Drexel Acephate 90S  
EPA Registration Number: 19713-544  
Application Date: March 20, 2015  
Decision Number: 503390

Dear Ms. Chan:

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

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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

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EPA Reg. No. 19713-544  
Decision No. 503390

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Eric Bohnenblust by phone at (703) 347-0426, or via email at [Bohnenblust.eric@epa.gov](mailto:Bohnenblust.eric@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Gebken", is centered on a light gray rectangular background.

Richard Gebken  
Product Manager 10  
Invertebrate & Vertebrate Branch 2  
Office of Pesticide Programs

Enclosure

**ACCEPTED**

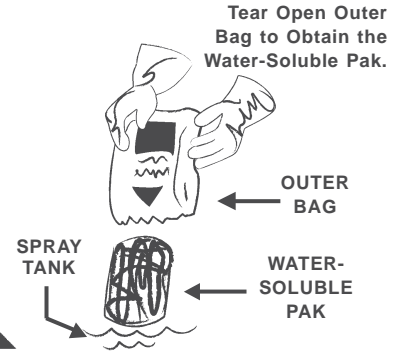
06/04/2015

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 19713-544

MASTER LABEL

SUBLABEL 1 —  
INSECTICIDE IN  
WATER SOLUBLE PAK

**Drexel**



# Acephate 90S

Insecticide

**ACTIVE INGREDIENT:**

Acephate* .....	90.0%
<b>OTHER INGREDIENTS:</b> .....	10.0%
<b>TOTAL:</b> .....	100.0%

\*O,S-Dimethyl acetylphosphoramidothioate

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

See FIRST AID Below

EPA Reg. No. 19713-544

Net Content:

EPA Est. No. 19713-XX-X

As Marked on Container

### FIRST AID

**Acephate is an organophosphate cholinesterase inhibitor.**

**IF SWALLOWED:**

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

**IF IN EYES:**

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

**IF ON SKIN OR CLOTHING:**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.
- Call a poison control center or doctor for treatment advice.

**IF INHALED:**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also call CHEMTREC at 1-800-424-9300 for emergency.

**NOTE TO PHYSICIAN:** This material contains 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.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin and clothing.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are butyl rubber, nitrile rubber or neoprene. If you want more options, follow the instructions for Category A on an EPA chemical-resistance category selection chart.

**Mixers, loaders, applicators and other handlers must wear:** Long-sleeved shirt and long pants, chemical-resistant gloves and shoes plus socks.

**In addition, applicators using low pressure hand wand application equipment must wear:** A NIOSH-approved dust mist filtering respirator with MSHA/NIOSH approved number prefix TC- 21C or a NIOSH-approved respirator with any N, R, P or HE filter.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. As soon as possible, wash thoroughly and change into clean clothing. See Engineering Controls for additional requirements.

### ENGINEERING CONTROLS

Water-soluble packets when used correctly qualify as a closed mixing/loading system under the Worker Protection Standard (WPS) for Agricultural Pesticides [40 CFR 170.240(d)(4)]. Mixers and loaders using water-soluble packets must wear the personal protective equipment required above for mixers/loaders and must be provided, must have immediately available and must use in an emergency, such as a broken package, spill or equipment breakdown the following PPE: coveralls, chemical-resistant footwear and 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. Pilots must use an enclosed cockpit in a manner that meets the requirements listed in the Worker Protection Standard for Agricultural Pesticides [40 CFR 170.240(d)(6)]. The use of human flaggers is prohibited.

### USER SAFETY REQUIREMENTS

**Users should:** 1) Wash hands before eating, drinking, chewing gum using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) 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.

Manufactured By:

**Drexel Chemical Company**

P.O. BOX 13327, MEMPHIS, TN 38113-0327

**SINCE 1972**

## 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.

Cover or soil-incorporate spills.

Exposed treated seed may be hazardous to birds and other wildlife.

Dispose of all excess treated seed and seed packaging by burial away from bodies of water.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

This product and its degradate are highly toxic to bees exposed to direct treatment 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.

## DIRECTIONS FOR USE

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

**READ 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.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 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 (REI). 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 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 of any waterproof material and 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 (WPS) 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.

## TANK-MIXES

**NOTICE: Tank-mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor.**

Read and follow the entire label of each product to be used in the tank-mix with this product.

## WATER SOLUBLE PACKAGING

### MULTIPLE PACKAGING

This bag contains multiple water soluble packets of this product. Do not handle the packets with wet gloves or allow the packets to become wet prior to addition to spray tank. Do not break open packets. Refer to the Table of Equivalents to calculate the number of packets to use. If all packets are not used, close and reseal outer bag to protect remaining packet(s).

## SINGLE PACKAGING

This packet contains one water soluble packet of this product. Do not handle the packet with wet gloves or allow the packet to become wet prior to addition to spray tank. Do not break open packets. Refer to the Table of Equivalents to calculate to the number of packets to use. Open outer bag by pulling perforated tear strip and drop the unopened inner packet of this product into spray tank.

## PREPARATION OF SPRAY SOLUTION

To prepare spray solution, drop the unopened packet(s) of this product into a spray tank containing at least one-half of the total quantity of water required. Direct water at the floating packet(s) and continue to add water with the agitator running until the spray volume is reached.

**Do not add any liquid fertilizers, micronutrients or adjuvants to the spray solution until after the packet and its contents have completely dissolved.** Water soluble packet(s) should completely dissolve in approximately five minutes. Dissolution rate may be slowed by cold water, lack of agitation or water containing high concentrations of Boron or Sulfur.

## TABLE OF EQUIVALENTS

Rate of This Product per Acre	Acres Treated by a 2.5 Lb. Water Soluble Pak
1.6 oz.	25.0
2.2 oz.	18.1
3.2 oz.	12.5
0.28 lb.	8.9
0.4 lb.	6.3
0.56 lb.	4.5
0.8 lb.	3.1
0.83 lb.	3
1.1 lbs.	2.3
2.2 lbs.	1.14
2.3 lbs.	1.10
2.5 lbs.	1
2.7 lbs.	0.9
3.3 lbs.	0.76
3.4 lbs.	0.74
4.4 lbs.	0.57

Rate of This Product per 100 Gals. of Water	Number of Gallons of Water per 2.5 Lb. Water Soluble Pak
0.28 lb.	893
0.56 lb.	446
0.8 lb.	313
1.1 lbs.	227

Note: For other labeled application rates and rate equivalency, refer to specific crop.

## USE INFORMATION

ACEPHATE 90S soluble powder is an insecticide for control of pests on selected agricultural crops and in certain non-crop areas. The active ingredient in this product is Acephate, a water soluble insecticide readily absorbed by plant roots and foliage to give systemic control of feeding insects. Insect pests are generally controlled more effectively by this product through ingestion than by contact.

Application of this product to maintain control should be repeated only as directed.

[The following paragraph is for Ornamental use labels only.]

To ensure that this product, a soluble powder, is compatible with the variety or cultivar of the listed Ornamental crops under your specific conditions, test the product on a limited scale and observe for phytotoxicity over two weeks before making large scale applications.

The large number of existing Ornamental varieties and cultivars coupled with the constant introduction of new variants precludes specific testing of each type. It is impossible to field test this product in every locale where sold or in all of the combinations created by differences including those in soil or media type, pH, moisture or fertility, environmental conditions such as temperature, lighting or degree days and horticultural practice including planting dates, control of other pests, timing of various horticultural practices and the manner of use and application of this product.

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR INSECT CONTROL, CROP INJURY AND/OR ILLEGAL RESIDUES.**

**USE RESTRICTIONS:**

- For use on Turf, use limited to Sod Farms and Golf Courses, except when applying to mound or spot treatment for Fire ant and Harvester ant control.
- Do not apply with low pressure hand wand except for control of Fire ants as a mound treatment and when used on Ornamental trees, shrubs and floral plants grown for non-agricultural or non-commercial use.
- Not for indoor residential use. For greenhouse use, use is limited to commercial greenhouses for use on Ornamental, Floral and Foliage plants and Tobacco (float bed application).

**CHEMIGATION**

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.

**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, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands or animals. A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator and grower must evaluate all factors and make appropriate adjustments when applying this product.

- All aerial, ground and air-assisted/airblast application equipment must be properly maintained and calibrated using water as carrier. Use the largest droplet size consistent good pest control. Small droplets are more prone to spray drift and can be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.
- Do not apply at wind speeds greater than 10 mph at the application site.
- Apply as close to target plants as practical to obtain a good spray pattern for adequate coverage.
- For aerial applications, do not apply at heights greater than 10 feet (consistent with flight safety).
- 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 spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The minimum boom length should be used and must not exceed 75% of wing span or rotor diameter. The width must not exceed 75% of the wing span 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 medium 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.
- 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 medium or coarser spray according to ASAE 572 definition for standard nozzles or VMD for spinning atomizer nozzles. The applicator also must use all other measures necessary to control drift.

**BEANS AND LIMA BEANS [Dry Forms, Succulent Forms (Except Green Beans, which includes String Beans, Snap Beans and Wax Beans) and Succulent Green Beans Grown Only for Seed]**

**USE RESTRICTIONS:**

- Do not feed treated vines to livestock.
- Do not apply more than 2.2 pounds per acre (2 lbs. a.i.) of this product per crop cycle.
- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 0.56 pound per acre and a minimum of 7 days for rates exceeding 0.56 pound per acre.

**RESTRICTIONS:** Use on succulent Green beans as a food crop is prohibited (includes String beans, Snap beans and Wax beans). Succulent Green bean use is permitted ONLY if grown for seed.

**RESTRICTIONS FOR SUCCULENT GREEN BEANS GROWN FOR SEED:**

- Do not feed crop residues to livestock or allow animals to graze treated areas.
- Do not apply to Succulent Green beans grown for fresh market or processing.

- No portion of the Succulent Green bean plant may be used or distributed for food or feed purposes.
- Seeds grown from Succulent Green beans shall bear a tag or container label which forbids use of the seed for human consumption or animal feed.
- Seed grown from Succulent Green beans may not be distributed for human consumption or animal feed.

**TABLE 1: BEANS AND LIMA BEANS [Dry Forms, Succulent Forms (Except Green Beans, Which Includes String Beans, Snap Beans and Wax Beans) and Succulent Green Beans Grown Only for Seed] – Directions For Use**

Application Method	Pests Controlled	Rate of This Product per Acre	Remarks	Days to Harvest
FOLIAR: By Ground: 20 to 100 gals./Ac. of spray By Air: Minimum of 2 gals./Ac. of spray	Fleahoppers, Grasshoppers	0.28 to 0.56 lb. (4.48 to 8.96 oz.)	Apply when eggs or insects first appear. Use higher rates within the specified rate range for severe insect infestations.	14 (Dry beans)
	Aphids (excluding Black bean aphid), Bean leaf beetle, Bean leafroller, Cabbage looper, Cutworms, Green cloverworm, Leafhoppers, Mexican bean beetle, Plantbugs (Lygus), Soybean looper, Thrips, Whitefly (except Sweet potato or Silverleaf)	0.56 to 1.1 lbs. (8.96 to 17.6 oz.)		1 (Lima beans — Succulent form)
	Armyworms (excluding Beet armyworm), Corn earworm, European corn borer	0.8 to 1.1 lbs. (12.8 to 17.6 oz.)		

**CELERY**

**USE RESTRICTIONS:**

- All Celery must be trimmed (tops removed) before shipment for use.
- Do not use trimmed tops for food or feed.
- Do not apply more than 2.2 pounds of this product (2 lbs. a.i.) per acre per crop cycle.
- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 0.56 pound per acre and a minimum of 7 days for rates exceeding 0.56 pound per acre.

**TABLE 2: CELERY**

Application Method	Pests Controlled	Rate of This Product per Acre	Remarks	Days to Harvest
FOLIAR: By Ground: 50 to 100 gals./Ac. of spray By Air: Minimum of 5 gals./Ac. of spray	Green peach aphid	0.56 to 1.1 lbs. (8.96 to 17.6 oz.)	Apply when eggs or insects first appear.	21
	Cabbage looper, Fall armyworms	1.1 lbs. (17.6 oz.)		

**COLE CROPS (Brussels Sprouts and Cauliflower)**

**USE RESTRICTIONS:**

- Do not apply more than 2.2 pounds of this product (2 lbs. a.i.) per acre per crop cycle.
- Do not feed trimmings to livestock or allow animals to graze in treated areas.
- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 0.56 pound per acre and a minimum of 7 days for rates exceeding 0.56 pound per acre.



**TABLE 3: COLE CROPS — Brussels Sprouts and Cauliflower**

Application Method	Pests Controlled	Rate of This Product per Acre	Remarks	Days to Harvest
<b>FOLIAR:</b> <b>By Ground:</b> 25 to 150 gals./Ac. of spray <b>By Air:</b> Minimum of 5 gals./Ac. of spray	Green peach aphid	0.56 to 1.1 lbs. (8.96 to 17.6 oz.)	Use the high rate when heavy infestations of Aphids are present.	14
	Cabbage looper, Diamondback moth larvae, Imported cabbage worm	1.1 lbs. (17.6 oz.)	Apply when eggs or insects first appear. <b>Diamondback moth larvae:</b> This insect has demonstrated an ability to develop resistance to various classes of insecticides. Consult your local Agricultural Extension Service for current recommended control practices for this insect.	

**COTTON RESISTANCE MANAGEMENT**

Cotton pest control programs, especially those for control of Silverleaf whitefly populations, should 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.

**USE RESTRICTIONS:**

- Do not use treated seed for food or feed purposes or process for oil.
- Do not feed treated forage or gin trash to livestock.
- Do not allow animals to graze on treated areas.
- Do not apply more than 4.4 pounds of this product (4 lbs. a.i.) per acre per crop cycle. This includes all foliar spray, in-furrow application and seed treatment uses.
- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 0.56 pound per acre and a minimum of 7 days for rates exceeding 0.56 pound per acre.

**For Aerial Application:**

- Do not apply more than 1.1 pounds per acre of this product per application to Cotton grown in AZ and CA.
- Do not apply more than 0.83 pound per acre of this product per application to Cotton grown in all other states except AZ and CA.

**TABLE 4: COTTON**

Application Method	Pests Controlled	Rate of This Product per Acre	Remarks <sup>1</sup>	Days to Harvest
<b>IN-FURROW:</b> <b>By Ground:</b> 3 to 5 gals./Ac. of spray  <b>AT-PLANTING APPLICATION</b>	Aphids*, Black (Greasy) cutworm [Except CA], Thrips (including Western flower thrips)  *Excluding Cotton Aphids in AZ and CA.	0.56 to 1.1 lbs. (8.96 to 17.6 oz.)  <b>NOTE: For the Blacklands of TX, use 1.1 lbs./Ac. of this product.</b>	Use flat fan nozzles for in-furrow application. Align nozzles to ensure good spray deposition into the seed furrow. Cone type nozzles are not recommended, since unacceptable spray deposition may occur.  Securely fasten spray system tubing to furrow opener and check frequently to ensure proper positioning and operation.  This product can be mixed with fungicides that are sprayed in-furrow for disease control.	At-Planting Application

(Continued)

**TABLE 4: COTTON (Cont.)**

Application Method	Pests Controlled	Rate of This Product per Acre	Remarks <sup>1</sup>	Days to Harvest
<b>FOLIAR:</b> <b>By Ground:</b> 10 to 25 gals./Ac. of spray <b>By Air:</b> 3 to 10 gals./Ac. of spray (minimum of 5 gals./Ac. in AZ and CA) <sup>2</sup>	Thrips (including Western flower thrips)	0.2 lb. (3.2 oz.)	Apply when eggs or insects first appear.	21
	Plantbugs (Lygus)	0.28 to 1.1 lbs. (4.48 to 17.6 oz.)  0.56 to 1.1 lbs. (8.96 to 17.6 oz.) (AZ and CA)	Apply when eggs or insects first appear. Use highest rate for Lygus adults that have migrated into Cotton.	21
	Fleahopper	0.28 lb. (4.48 oz.)	Apply when eggs or insects first appear.	21
	Cotton aphids (excluding AZ and CA)	0.56 to 1.1 lbs. (8.96 to 17.6 oz.)	This insect may develop resistance to various classes of insecticides. Consult your local Agricultural Extension Service for current control recommendations.	21
	Whitefly (excluding Sweet potato and Silverleaf)	0.56 to 1.1 lbs. (8.96 to 17.6 oz.)	—	21
	Armyworms (excluding Beet armyworm), Cabbage looper	1.1 lbs. (17.6 oz.)	Apply when eggs first appear.	21
	Bollworm, Tobacco budworm (Adults, Larvae)	0.56 to 1.1 lbs. (8.96 to 17.6 oz.) (East of Rockies)	Early Season: Use 0.56 lb./Ac. for light infestation. Mid and Late Season: Use 0.8 to 1.1 lbs./Ac. for moderate to severe infestations.	21
	Eggs/DEAD-HATCH®	1.1 lbs. (17.6 oz.) (AZ and CA)	Apply when eggs first appear. Moths of Budworm larvae are controlled by direct contact with spray. Moth kill is most likely to occur when late evening applications are made. DEADHATCH: Control of emerging larvae by consumption of treated egg casings.	
	Stinkbugs	0.8 lb. (12.8 oz.)	Apply when eggs first appear.	21
	Pink bollworm (AZ and CA)	1.1 lbs. (17.6 oz.)	Apply when insects first appear.	21
Cutworms	0.8 lb. (12.8 oz.)	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 the plant. Apply when insects first appear or damage is first noted.	21	

<sup>1</sup> For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 0.56 lb./Ac. and a minimum of 7 days for rates exceeding 0.56 lb./Ac.

<sup>2</sup> **For Aerial Application:** Do not apply more than 1.1 lbs./Ac. of this product per application to Cotton grown in AZ and CA. Do not apply more than 0.83 lb./Ac. of this product per application to Cotton grown in all other states except AZ and CA.

**COTTON TANK-MIXES  
RESISTANCE MANAGEMENT**

Cotton pest control programs, especially those for control of Silverleaf whitefly populations, should 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.

**USE 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 4.4 pounds of this product (4 lbs. a.i.) per acre per crop cycle. This includes all foliar spray, in-furrow application and seed treatment uses.

- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 0.56 pound per acre and a minimum of 7 days for rates exceeding 0.56 pound per acre.

**For Aerial Application:**

- Do not apply more than 1.1 pounds per acre of this product per application to Cotton grown in AZ and CA.
- Do not apply more than 0.83 pound per acre of this product per application to Cotton grown in all other states except AZ and CA.

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.

**TABLE 6: COTTON TANK-MIXES**

Application Method	Pests Controlled	This Product and Tank-Mix Partner	Amount of This Product PLUS Tank-Mix Partner per Acre	Remarks <sup>1</sup>	Days to Harvest
<b>FOLIAR:</b> <b>By Ground:</b> 10 to 25 gals./Ac. of spray  <b>By Air:</b> 3 to 10 gals./Ac. of spray (minimum 5 gals./Ac. in AZ and CA) <sup>2</sup>	Sweet potato whitefly (Silverleaf whitefly)	This Product + Danitol 2.4 EC Spray	0.56 to 1.1 lbs. (8.96 to 17.6 oz.) + 10.6 to 16 fl. oz.	Always read and follow all label directions, restrictions and precautions on the EPA registered label for Danitol 2.4 EC Spray.	21
	Armyworms (excluding Beet armyworm), Bollworm, Cabbage looper, Cotton aphid, Cutworms, Fleahopper, Grasshopper, Pink bollworm, Plantbugs (Lygus, Mirids), Salt marsh caterpillar, Thrips (including Western flower thrips), Tobacco budworm, Whitefly (excluding Sweet potato and Silverleaf whitefly)	This Product + Lorsban® 4E	0.28 to 1.1 lbs. (4.48 to 17.6 oz.) + 1 to 2 pts.	Always read and follow all label directions, restrictions and precautions on the EPA registered label for Lorsban 4E. <b>Cutworms:</b> Use 0.8 lb./Ac. of this product. <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.	21

<sup>1</sup> For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 0.56 lb./Ac. and a minimum of 7 days for rates exceeding 0.56 lb./Ac.

<sup>2</sup> **For Aerial Application:** Do not apply more than 1.1 lbs./Ac. of this product per application to Cotton grown in AZ and CA. Do not apply more than 0.83 lb./Ac. of this product per application to Cotton grown in all other states except AZ and CA.

**TABLE 7: COTTON TANK-MIXES WITH PYRETHROIDS**

Application Method	Pests Controlled	This Product and Tank-Mix Partner	Amount of This Product PLUS Tank-Mix Partner per Acre	Remarks <sup>1</sup>	Days to Harvest
<b>FOLIAR:</b> <b>By Ground:</b> 10 to 25 gals./Ac. of spray  <b>By Air:</b> 3 to 5 gals./Ac. of spray (minimum 5 gals./Ac. in AZ and CA) <sup>2</sup> . See Remarks for Cutworms	Aphids, Bollworm, Cabbage looper, Cotton leaf perforator, Cutworms, Fall armyworm, Fleahoppers, Pink bollworm (AZ and CA), Plantbugs, Stinkbugs, Sweet potato/Silverleaf whitefly, Thrips (including Western flower thrips), Tobacco budworm, Whitefly	This Product + One of the following:	0.56 to 1.1 lbs. (8.96 to 17.6 oz.) + One of the following:	Apply when eggs or insects first appear. <b>Stinkbugs:</b> Use 0.8 lb./Ac. of this product. <b>*Cutworms:</b> Use 0.8 lb./Ac. of this product. <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 lower portion of the plant. <b>By Air:</b> 3 to 10 gals./Ac. of spray (minimum 5 gals./Ac. in CA) Aerial applications are less effective, but may be used. Apply when eggs or insects first appear or damage is first noted.	21
		Ammo® 2.5 EC*	Refer to the Ammo 2.5 EC approved label for use instructions.		21
		Asana® XL*	Refer to the Asana XL approved label for use instructions.		21
		Baythroid® 2EC	Refer to the Baythroid 2EC approved label for use instructions.		21
		Capture® 2EC	Refer to the Capture 2EC approved label for use instructions.		21
		Karate® 1E (except CA)	Refer to the Karate 1E approved label for use instructions.		21
		Scout X-tra® (except CA)	Refer to the Scout X-tra approved label for use instructions.		28

<sup>1</sup> For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 0.56 lb./Ac. and a minimum of 7 days for rates exceeding 0.56 lb./Ac.

<sup>2</sup> **For Aerial Application:** Do not apply more than 1.1 lbs./Ac. of this product per application to Cotton grown in AZ and CA. Do not apply more than 0.83 lb./Ac. of this product per application to Cotton grown in all other states except AZ and CA.

**CRANBERRY**

**USE RESTRICTIONS:**

- Limit to one application per growing season.
- Do not apply more than 1.1 pounds of this product (1 lb. a.i.) per acre per season.
- Do not apply from start of bloom until all berries are set.

**TABLE 8: CRANBERRY**

Application Method	Pests Controlled	Rate of This Product per Acre	Remarks	Days to Harvest
<b>FOLIAR:</b> <b>By Ground or Sprinkler:</b> Sufficient water to give thorough coverage <b>By Air:</b> Minimum of 2 gals./Ac. of spray	Cranberry blossom worm, Cranberry cutworm, Gypsy moth, False armyworm, Fireworm, Spanworm, Sparganothis	1.1 lbs. (17.6 oz.)	For use on sprinkler irrigation, refer to the following "Sprinkler Irrigation Application to Cranberries" section.	75 (In the states of MA, NJ, WA, OR, and WI) 90 (In all other states)

**Sprinkler Irrigation Application to Cranberries**

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.

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, you should contact State Extension Service specialists, equipment manufacturers or other experts. Maximum number of applications per year is 1.

**Chemigation:** 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 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.

**Solid Set Systems:** 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. See **"NOTE."**

**Center Pivot Systems:** Inject the specified dosage per acre continuously for one complete revolution of the system. See **"NOTE."**

**NOTE:** 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 recommended quantities of irrigation water per acre may result in decreased product performance by removing the chemical from the zone of effectiveness.**

**HEAD LETTUCE (Crisphead Type Only)**

**USE RESTRICTIONS:**

- Do not apply more than 2.2 pounds of this product (2 lbs. a.i.) per acre per crop cycle.
- Do not feed trimmings to livestock or allow animals to graze on treated areas.
- AZ and CA (desert areas): Do not apply after first head begins to form in crops which germinate from mid-September through November.
- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 0.56 pound per acre and a minimum of 7 days for rates exceeding 0.56 pound per acre.

**TABLE 9: HEAD LETTUCE – Crisphead Type Only**

Application Method	Pests Controlled	Rate of This Product per Acre	Days to Harvest
<b>FOLIAR:</b> <b>By Ground:</b> 10 to 60 gals./Ac. of spray broadcast <b>By Air:</b> Minimum of 5 gals./Ac. of spray	Aster leafhopper, Green peach aphid Armyworms (excluding Beet armyworm), Cabbage looper	0.56 to 1.1 lbs. (8.96 to 17.6 oz.) 1.1 lbs. (17.6 oz.)	21 Spring, Summer and early Fall crops in all areas, Winter crops in Florida and Texas, late Fall crops in Arizona and Winter crops in Arizona and California.

**MINT (Peppermint and Spearmint)**

**USE RESTRICTIONS:**

- Do not apply more than 2.2 pounds of this product (2 lbs. a.i.) per acre per crop cycle.
- Do not graze treated areas.
- Do not feed spent Mint hay to animals.

**TABLE 10: MINT – Peppermint and Spearmint**

Application Method	Pests Controlled	Rate of This Product per Acre	Remarks	Days to Harvest
<b>FOLIAR:</b> <b>By Ground:</b> 20 to 100 gals./Ac. of spray <b>By Air:</b> 5 to 10 gals./Ac. of spray	Alfalfa looper, Aphids, Cutworms	1.1 lbs. (17.6 oz.)	Apply when eggs or insects first appear. Maximum number of application per year is 2. The minimum application interval is 7 days.	14
<b>FOLIAR:</b> <b>By Ground:</b> 40 to 100 gals./Ac. of spray	Strawberry root weevil (Adult), Black vine weevil (Adult)	1.1 lbs. (17.6 oz.)	Strawberry root and Black vine weevil: For control, apply in water in a minimum of 40 gals. of spray per acre by ground. Good spray coverage and canopy spray penetration is critical for control. Increase spray volume and pressure with tall or dense Mint canopy. Apply after adult emergence is complete but prior to egg laying. Apply at dusk or during the night on a warm still evening. Maximum number of application per year is 2. The minimum application interval is 7 days.	14



**NON-BEARING CITRUS**

**USE RESTRICTIONS:**

- Do not graze treated areas.
- Do not harvest Citrus for one year after treatment.

**TABLE 11: NON-BEARING CITRUS**

Application Method	Pests Controlled	Rate of This Product per Acre	Remarks
<b>FOLIAR:</b> <b>By Ground:</b> 100 to 200 gals./Ac. of spray	Aphids, Grasshoppers, Katydid, Mealybugs, Orangedogs, Plantbugs, Thrips, Whiteflies (except Sweet potato and Silverleaf)	0.56 lb. (8.96 oz.)	For repeat applications, use a minimum spray interval of 7 days.
	Citrus blackfly*	0.56 to 0.8 lb. (8.96 to 12.8 oz.)	Apply when eggs or insects first appear. Use the high rate when a heavy infestation is present. For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 0.56 lb./Ac. and a minimum of 7 days for rates exceeding 0.56 lb./Ac.
	Ants (excluding Fire, Harvester, Carpenter and Pharaoh ants)	0.8 lb. (12.8 oz.)	For repeat applications, use a minimum spray interval of 7 days.

Spray individual juvenile or non-bearing trees for coverage with total application not to exceed specified rate in lbs. per acre. Length of residual activity will depend upon spray coverage and the amount of moisture following application.

<b>SOIL MOUND TREATMENT</b>  <b>DRENCH METHOD</b>	Ants (including Fire ants and Harvester ants*)	Mix one 2.5 lb. water soluble pak in 250 gals. of water	Apply 1 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.
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\* Not registered in California for control of Citrus blackfly and Harvester ant.

**NON-CROP AREAS (Field Borders, Fencerows, Roadsides, Ditchbanks, Borrow Pits)**

**USE RESTRICTIONS:**

- Do not graze or feed vegetation cut from treated areas.

**TABLE 12: NON-CROP AREAS — Field Borders, Fencerows, Roadsides, Ditchbanks, Borrow Pits**

Application Method	Pests Controlled	Rate of This Product per Acre	Remarks
<b>FOLIAR:</b> <b>By Ground:</b> 10 to 20 gals./Ac. of spray  <b>By Air:</b> 1 to 5 gals./Ac. of spray (minimum of 5 gals./Ac. in CA)	Grasshoppers	0.28 lb. (4.48 oz.)	For early to mid-season application. Use the higher volumes when spraying dense foliage. An approved drift retardant may be applied to aid in controlling drift and reducing evaporation of aerial spray.

**NON-CROP AREAS (Wasteland)**

**USE RESTRICTIONS:**

- Do not make more than one application per season.
- Do not graze or feed vegetation cut from treated areas.

**TABLE 13: NON-CROP AREAS — Wasteland**

Application Method	Pests Controlled	Rate of This Product per Acre	Remarks
<b>FOLIAR:</b> <b>By Ground:</b> 10 to 20 gals./Ac. of spray  <b>By Air:</b> 0.5 gal./Ac. of spray (minimum of 5 gals./Ac. in CA)	Black grass bugs, Grasshoppers, Mormon crickets	0.1 to 0.13 lb. (1.6 to 2.2 oz.)	Use the higher volumes when spraying dense foliage. An approved drift retardant may be added to aid in controlling drift and reducing evaporation of aerial sprays.

**PEANUTS**

**USE RESTRICTIONS:**

- Do not feed treated forage or hay to livestock.
- Do not allow animals to graze on treated areas.
- Do not apply more than 4.4 pounds of this product (4.0 lbs. a.i.) per acre per crop cycle. This includes the use of this product on Peanuts as a foliar spray in addition to the Peanut planter box seed treatment use.
- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 0.56 pound per acre and a minimum of 7 days for rates exceeding 0.56 pound per acre.

**TABLE 14: PEANUTS**

Application Method	Pests Controlled	Rate of This Product per Acre	Remarks	Days to Harvest
<b>FOLIAR:</b> <b>By Ground:</b> 10 to 50 gals./Ac. of spray  <b>By Air:</b> 5 to 10 gals./Ac. of spray	Grasshoppers	0.28 to 0.56 lb. (4.48 to 8.96 oz.)	Apply when eggs or insects first appear. This product can be tank-mixed with registered at-cracking and early post-emergence Peanut herbicides, provided those products do not prohibit tank-mixes, provided the most restrictive of label limitations and precautions are observed, and provided no label dosage rates are exceeded. To determine physical compatibility of the tank-mixed product(s), refer to the following "Compatibility Test" section. Combinations should be kept agitated and should be applied immediately. Do not allow combinations to set for prolonged periods in the chemical supply tank or irrigation lines.	14 (of digging)
	Thrips	0.4 to 0.8 lb. (6.4 to 12.8 oz.)		
	Corn earworm, Fall armyworm, Leafhoppers, Loopers, Velvetbean caterpillar	0.8 to 1.1 lbs. (12.8 to 17.6 oz.)		

### Compatibility Test

To determine physical compatibility, pour the recommended proportions of each chemical with the same proportion of water as will be present in the chemical supply tank into a suitable container. Mix thoroughly and allow to stand for 5 minutes. If the combination remains mixed or can be remixed readily, the mixture is considered physically compatible. When mixing wettable powder or dry flowable formulations, add and disperse these first, then add liquid pesticides.

Conduct another compatibility test at concentrations which will be present in the irrigation lines. If there is any separation which can not be remixed readily, Drexel Chemical Company recommends that the combination not be used.

### PEPPERS (Bell)

#### USE RESTRICTIONS:

- Do not apply more than 2.2 pounds of this product (2 lbs. a.i.) per acre per crop cycle.
- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 0.56 pound per acre and a minimum of 7 days for rates exceeding 0.56 pound per acre.

**TABLE 15: PEPPERS — Bell**

Application Method	Pests Controlled	Rate of This Product per Acre	Remarks	Days to Harvest
<b>FOLIAR:</b> By Ground: 25 to 150 gals./Ac. of spray By Air: Minimum of 3 gals./Ac. (minimum of 5 gals./Ac. in CA)	Grasshoppers	0.28 to 0.56 lb. (4.48 to 8.96 oz.)	Apply when eggs or insects first appear.	7
	Cabbage looper, Green peach aphid, Tobacco hornworm	0.56 to 1.1 lbs. (8.96 to 17.6 oz.)		
	European corn borer	0.8 to 1.1 lbs. (12.8 to 17.6 oz.)		

### PEPPERS (Non-Bell)

**For Use ONLY in States East of the Mississippi River and Puerto Rico.**

#### USE RESTRICTIONS:

- Do not apply more than 1.1 pounds of this product (1 lb. a.i.) per acre per crop cycle.
- For repeat applications, use a minimum spray interval of 3 days.

**TABLE 16: PEPPERS — Non-Bell**

Application Method	Pests Controlled	Rate of This Product per Acre	Remarks	Days to Harvest
<b>FOLIAR:</b> By Ground: 40 to 150 gals./Ac. of spray	Aphids	0.56 lb. (8.96 oz.)	—	7

### SOYBEANS

#### USE RESTRICTIONS:

- Do not graze or cut vines for hay or forage.
- Do not apply more than 1.66 pounds of this product (1.5 lbs. a.i.) per acre per season.
- Do not apply this product within 14 days of harvest.
- For rates up to 0.56 pound per acre, at least 3 days must pass between applications of this product.
- For rates between 0.56 and 1.1 pounds per acre, at least 7 days must pass between applications of this product.
- Always read and follow all label directions, restrictions and precautions when using any pesticide alone or in tank-mix combinations. The most restrictive labeling applies when using a tank-mix.

Application Method	Pests Controlled	Rate of This Product per Acre	Remarks	Days to Harvest
<b>FOLIAR:</b> By Air: 5 to 10 gals./Ac. of spray By Ground: 10 to 50 gals./Ac. of spray	Grasshoppers, Thrips	0.28 to 0.56 lb. (4.48 to 8.96 oz.)	Repeat treatment as necessary to maintain control.	14
	Potato leafhopper, Stinkbugs	0.56 to 1.1 lbs. (8.96 to 17.6 oz.)		
	Armyworm (except Beet), Bean leaf beetle, Cabbage looper, Green cloverworm, Mexican bean beetle, Soybean aphid, Three-cornered alfalfa hopper, Velvetbean caterpillar	0.8 to 1.1 lbs. (12.8 to 17.6 oz.)		

### TOBACCO (Except CA)

#### USE RESTRICTIONS:

- Do not apply more than 4.4 pounds of this product (4 lbs. a.i.) per acre per crop cycle. This includes the use of this product in transplant water, plant bed, soil, float bed (greenhouse) and foliar applications.
- 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.

**TABLE 17: TOBACCO — (Except CA)**

Application Method	Pests Controlled	Rate of This Product per Acre	Remarks	Days to Harvest
<b>FLOATBED</b> Foliage	Cutworm, Flea beetle, Green peach aphid, Tobacco aphid	0.8 lb. (12.8 oz.) Mix one 2.5 lb. water soluble pak in 408 gals. of water using 3 gals. of mixture per 1,000 sq. ft. of floatbed.	Apply evenly to ensure thorough coverage. NOTE: Floatbed water should be disposed of in the transplanted field as transplanter water or foliar spray. For repeat applications, use a minimum spray interval of 7 days.	—
<b>PLANT BED</b> Foliage	Cutworm, Flea beetle, Green peach aphid, Tobacco aphid	0.8 lb. (12.8 oz.) Mix one 2.5 lb. water soluble pak in 136 gals. of water using 1 gal. of mixture per 1,000 sq. ft. of plant bed.	Apply evenly to ensure thorough coverage. For repeat applications, use a minimum spray interval of 7 days.	—
<b>TRANS-PLANT</b>	Cutworm, Flea beetle, Green peach aphid, Potato tuberworm, Tobacco aphid, Tobacco thrips	0.8 lb. (12.8 oz.) Mix one 2.5 lb. water soluble pak in 313 gals. of water using 100 gals. of transplant water per acre.	Provides control for approximately 3 to 4 weeks after transplanting. For control late in the season, apply foliar sprays of this product. Maximum number of applications per year is 1.	—

**USE RESTRICTIONS:** Do not apply more than 0.8 lb./Ac. of this product as a transplant water application, as some phytotoxicity may occur.

(Continued)

**TABLE 17: TOBACCO — (Except CA) (Cont.)**

Application Method	Pests Controlled	Rate of This Product per Acre	Remarks	Days to Harvest
<b>FOLIAR:</b> By Ground: 10 to 50 gals./Ac. of spray By Air: Minimum of 3 gals./Ac. of spray	Grasshoppers	0.28 to 0.56 lb. (4.48 to 8.96 oz.)	For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 0.56 lb./Ac. and a minimum of 7 days for rates exceeding 0.56 lb./Ac.	3
	Flea beetle, Green peach aphid, Hornworm, Tobacco thrips	0.56 lb. (8.96 oz.)		
	Stinkbugs, Tobacco aphid, Vegetable weevils	0.56 to 0.8 lb. (8.96 to 12.8 oz.)		
	Budworm, Cabbage looper, Cutworm, Japanese beetle	0.8 lb. (12.8 oz.)		

**SOIL MOUND TREATMENT**

Application Method	Pests Controlled	Rate of This Product per Acre	Remarks	Days to Harvest
<b>DRENCH METHOD</b>	Ants (excluding Carpenter and Pharaoh ants)	Mix one 2.5 lb. water soluble pak in 250 gals. of water.	Apply 1 gallon of mix to each mound area by sprinkling the mound until it is wet and treat a 4 ft. diameter circle around the mound.  Apply in the early morning or late afternoon, when the Ants are most active, for best results.  Applications made under prolonged hot and dry conditions may be ineffective due to the location of Ants deep within the nest.	3

**USE RESTRICTIONS:** Treat a maximum of 13 mounds per acre. Do not treat more than once per crop cycle.

**CONTAINER GROWN NURSERY STOCK**

Plants	Pests Controlled	Amount of This Product per 100 Gals.	Time of Application	Further Use Instructions
Container Grown Nursery Stock: Arborvitae, Azaleas, Camellia, Rhododendron, Roses, Viburnum, Yew	Black vine weevil, Strawberry root weevil	0.8 lb. (12.8 oz.) Mix one 2.5 lb. water soluble pak in 313 gals. of water.	Apply in mid-September on greenhouse stock and by mid-October on 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 this product per 100 gals. of solution so as to thoroughly drench the root system. For repeated applications, use a minimum spray interval of 7 days.
	Ants (excluding Fire, Harvester, Carpenter and Pharaoh ants)	0.8 lb. (12.8 oz.) Mix one 2.5 lb. water soluble pak in 313 gals. of water.	Apply as needed to control the pest.	

**ORNAMENTAL TREES AND SHRUBS**

**USE RESTRICTIONS:**

- Do not exceed 17.6 ounces per acre of this product per 100 gallons of water per application.
- For foliar applications, do not apply with a low-pressure hand wand.
- Foliar applications for all trees except Flowering crabapples and Douglas fir must not be made more than once every 14 days. See "Further Use Instructions" for spray interval information regarding Flowering crabapples and Douglas fir.
- For repeat applications, use a minimum spray interval of 3 days. For rates greater than 0.5 pound active ingredient per acre (0.56 lb. of this product per acre), the minimum application interval is 7 days.

Plants	Pests Controlled	Amount of This Product per 100 Gals.	Time of Application	Further Use Instructions
Trees and Shrubs (Except Flowering crabapple and Douglas fir, see below.)	Aphids, Bagworms, Birch leafminer, Lace bugs, Leafrollers, Tent caterpillars*	0.28 lb. (4.48 oz.)	As the insects begin to appear.	Apply the specified amount of this product in 100 gals. of water with a hydraulic sprayer. The addition of a suitable sticker improves control of Gypsy moth larvae. *Mist Blower Application: Adjust rates to 1.1 lbs. per 100 gals. of water for Gypsy moth control and 1 lb. per 100 gals. of water for Tent caterpillar control. Do not apply to Balm of Gilead, Cottonwood, Huckleberry, Lombardy Poplar and Viburnum suspensum. Nursery Crops: Before treating large plantings, spray only a few plants and observe 2 weeks for phytotoxicity. **Apply the specified amount of this product in 100 gals. of water with a hydraulic sprayer. ***Apply the specified amount of this product in 100 gals. of water with a hydraulic sprayer as a full coverage spray. (Cont.)
	Gypsy moth larvae*, Webworms	0.56 lb. (8.96 oz.)	As the insects begin to appear.	
	Scales (Crawlers)	0.56 lb. (8.96 oz.)	As crawlers begin to appear. Repeat applications at a 2 week or more interval may be necessary where there is continuous crawler production.	
	Ponderosa pine needle miner	0.56 lb. (8.96 oz.)	Time of application is important. Consult your Farm Advisor or County Extension Agent.	
	Grasshoppers	0.56 lb. (8.96 oz.)	As the Grasshoppers begin to appear.	
	California oakworm, Cankerworm (Spring and Fall)**	0.28 to 0.56 lb. (4.48 to 8.96 oz.)	As the insects begin to appear. Use the higher amount when the larger larvae are present.	
	Nantucket pine tip moth larvae**	0.8 lb. (12.8 oz.)	Time of application is important. Consult your Farm Advisor or County Extension Agent. Repeat applications will be required for subsequent generations.	

(Continued)

ORNAMENTAL TREES AND SHRUBS (Cont.)

Plants	Pests Controlled	Amount of This Product per 100 Gals.	Time of Application	Further Use Instructions
Trees and Shrubs (Except Flowering crabapple and Douglas fir, see below.) (Cont.)	Root weevil adults***	0.8 lb. (12.8 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.	(Cont.)
	Box elder bugs, Budworms, Leafhoppers, Sawflies***	0.8 lb. (12.8 oz.)		
	Japanese beetle***	1.1 lbs. (17.6 oz.)	As the Japanese beetles begin to appear. Repeat applications at 2 week intervals may be necessary.	
	Elf leaf beetle (Larvae)***	1.1 lbs. (17.6 oz.)	As the larvae begin to appear. This product will not prevent Elf leaf beetle eggs from hatching.	
Douglas fir (Christmas trees)	Douglas fir needle midge, Douglas fir tussock moth	0.56 lb. (8.96 oz.)	Apply no more than 2 weeks prior to bud burst. For additional pest management information, consult your County Extension Service.	Apply the specified amount of this product in no less than 2 gals. of spray per acre by air or in 100 gals. of spray per acre by ground. Do not make more than 1 application per season.
Flowering crabapples	Aphids, Leafroller, Tent caterpillar	0.28 lb. (4.48 oz.)	As the insects begin to appear.	Apply the specified amount of this product in 100 gals. of water with a hydraulic sprayer. Do not apply more often than 3 times in a growing season at a 4 week interval. <b>Precaution:</b> Phytotoxicity has occurred on the following Crabapple varieties: Hopa, Ichonoski, Malus floribunda, Pink Perfection, Red Wine and Snow Cloud.

GOLF COURSE TURFGRASS

**USE RESTRICTIONS:**

- Do not allow livestock to graze treated areas.
- Do not feed treated grass to livestock.
- Do not apply to Turfgrass by air.
- Do not apply more than 4.4 pounds of this product (4.0 lbs. a.i.) per acre to Golf Courses.
- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 0.56 pound per acre and a minimum of 7 days for rates exceeding 0.56 pound per acre.

Plant	Pests Controlled	Amount of This Product per 1,000 sq. ft.	Time of Application	Further Use Instructions
Golf Course Turfgrass	Cutworm, Fall armyworm, Southern armyworm, Yellow striped armyworm	0.4 to 1.0 oz. (1.1 to 2.7 lbs./Ac.)	As the insects appear. A repeat application at 2 week intervals may be necessary.	Apply the specified amount of this product per 1,000 sq. ft. Use a minimum of 5 gals. of water per 1,000 sq. ft. to obtain good coverage.
	Chinch bugs	0.4 to 1.6 oz. (1.1 to 4.4 lbs./Ac.)	Apply as needed for adult population knockdown (10 to 14 days).	
	Sod webworm	0.4 to 0.83 oz. (1.1 to 2.3 lbs./Ac.)	As Sod webworms begin to appear. Use the higher amount when quick knockdown is needed or with heavy infestations. Repeat applications may be necessary. Do not repeat at more than 1 week intervals.	
	Leafhopper	0.83 oz. (2.3 lbs./Ac.)	As the Leafhoppers begin to appear. A repeat application at 1 week intervals may be necessary.	
	Mole cricket (except CA), Spittlebug (except CA)	0.83 to 1.6 oz. (2.3 to 4.4 lbs./Ac.)	As Mole crickets begin to appear. For knockdown of existing populations, more than 1 application may be required throughout the growing season. For heavy infestations, use the higher dosage rate.	Apply the specified amount of this product per 1,000 sq. ft. Use 1 to 15 gals. of water per 1,000 sq. ft. to obtain good coverage. Apply during late afternoon or early evening hours and after an irrigation. Do not irrigate after application. The use of a lemon fragrance substance in the spray mix enhances control by acting as a flushing agent and thus provides

(Continued)



**GOLF COURSE TURFGRASS (Cont.)**

Plant	Pests Controlled	Amount of This Product per 1,000 sq. ft.	Time of Application	Further Use Instructions
Golf Course Turfgrass (Cont.)	Mole cricket (except CA), Spittlebug (except CA)	0.83 to 1.6 oz. (2.3 to 4.4 lbs./Ac.)	As Mole crickets begin to appear. For knockdown of existing populations, more than 1 application may be required throughout the growing season. For heavy infestations, use the higher dosage rate.	increased Mole cricket contact with this product. The following lemon scented products have been shown to be effective flushing agents: Lemon Joy®, Lemon Palmolive® and Mighty Myrt Products Manufacture-Base Pure Lemon Fragrance. The use rate for these lemon scented products is 2 tsps. per gal. of water for small total mix volumes or 6 fl. oz. per 50 gals. of water for large total mix volumes.
	Greenbug (Schizaphis graminum) Grasshopper	0.4 oz. (1.1 lbs./Ac.)	Apply when insects or their damage first appears. Repeat as necessary. Application is not to be repeated at more than 1 week intervals.	Apply the specified amount of this product. Use 4 gals. of water per 1,000 sq. ft. to obtain good coverage. Do not mow Turfgrass for at least 24 hours after application.
	Black Turfgrass Ataenius (except CA)	1.25 to 1.6 oz. (3.4 to 4.4 lbs./Ac.)	Apply when insects or their damage first appear.	Apply the specified amount of this product per 1,000 sq. ft. Use a minimum of 5 gals. of water per 1,000 sq. ft. Irrigate lightly after application (not more than one-half inch). Use the higher rate for severe infestations.

**SOD FARM TURFGRASS**

**USE RESTRICTIONS:**

- Do not allow livestock to graze treated areas.
- Do not feed treated grass to livestock.
- Do not apply to Turfgrass by air.
- Do not apply more than 3.3 pounds of this product (3.0 lbs. a.i./Ac.) to Sod farms.
- Allow at least 3 days between last application and harvesting of Sod.

Plant	Pests Controlled	Amount of This Product per 1,000 sq. ft.	Time of Application	Further Use Instructions
Sod Farm Turfgrass	Cutworm, Fall armyworm, Grasshoppers, Greenbug, Leafhopper, Sod webworm, Southern armyworm, Yellow striped armyworm	0.4 to 1.0 oz. (1.1 to 2.7 lbs./Ac.)	As the insects appear. A repeat application at 2 week intervals may be necessary.	Apply the specified amount of this product per 1,000 sq. ft. Use a minimum of 5 gals. of water per 1,000 sq. ft. to obtain good coverage. Do not apply more than 4 lbs./Ac. in a single application.
	Chinch bugs, Mole cricket (except CA), Spittlebug (except CA)	1.0 to 1.2 oz. (2.7 to 3.3 lbs./Ac.)	Apply as needed for adult population knockdown (10 to 14 days).	Apply the specified amount of this product per 1,000 sq. ft. Use 1 to 15 gals. of water per 1,000 sq. ft. to obtain good coverage. Do not apply more than 3.3 lbs./Ac. in a single application.
	Sod webworm	0.4 to 0.83 oz. (1.1 to 2.3 lbs./Ac.)	As Sod webworms begin to appear. Use the higher amount when quick knockdown is needed or with heavy infestations. Repeat application may be necessary. Do not repeat at more than 1 week intervals.	

**MOUND TREATMENT OF FIRE ANTS AND HARVESTER ANTS IN TURFGRASS**

Plant	Pests Controlled	Amount of This Product	Time of Application	Further Use Instructions
Turfgrass: Residential, Recreational and Commercial turf	Imported Fire ants and Harvester ants	<b>Drench Method:</b> Mix one 2.5 lb. water soluble pak in 250 gals. of water. Apply 1 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.	Apply the specified amount of this product as directed. Grass in treated areas may be injured. Do not treat mound more than once per season.

**OUTDOOR AND PERIMETER SPRAY**

**USE RESTRICTIONS:**

- Do not apply with a low-pressure hand wand.
- Do not use on residential Turfgrass.

Location	Pests Controlled	Amount of This Product per Gallon	Time of Application	Further Use Instructions
Outdoor and Perimeter Area	Wasp	1.3 oz. (0.08 lb.) Mix one 2.5 lb. water soluble pak in 31.25 gals. of water.	Treat early or late in the day, as Wasps are generally less active during these times.	Apply specified amount of this product per gallon of water used. Apply as a spot treatment to the nest, nest entrance and surrounding areas where the Wasps alight.
	Ants (excluding Fire, Harvester, Carpenter and Pharaoh ants), Crickets, Cockroaches, Earwigs, Pillbugs	1.3 oz. (0.08 lb.) Mix one 2.5 lb. water soluble pak in 31.25 gals. of water.	As the insects appear.	Applications of this product do not provide long-term control. Repeat application as needed. Apply the specified amount of this product per each gallon of water used. Apply to a band of soil 6 to 10 ft. adjacent to the structure and to a height of 2 to 3 ft. on the foundation where pests may be active or may find entrance. Also apply 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 these pests congregate.

**ORNAMENTAL PLANTS GROWN FOR CUT FLOWER PRODUCTION**

**USE RESTRICTIONS:**

- Do not apply more than 8.96 ounces (0.56 lb./Ac.) of this product per 100 gallons of water.
- Do not make more than one application per crop season.

Plants	Pests Controlled	Amount of This Product per 100 Gals.	Time of Application	Further Use Instructions
Chrysanthemums, Daisies, Gladioli, Roses	Aphids, Lygus, Thrips	0.56 lb. (8.96 oz.)	As insects begin to appear.	Apply the specified amount of this product in 100 gals. of water with a hydraulic sprayer as a full coverage spray.

**GREENHOUSE (Commercial Only) AND OUTDOOR ORNAMENTAL PLANTS, FLORAL CROPS, GROUND COVERS AND FOLIAGE PLANT CROPS (Plants Not Used For Cut Flower Production)**

**USE RESTRICTIONS:**

- Do not apply more than 1.1 pounds of this product (17.6 oz./Ac.) per 100 gallons of water.
- Do not apply with low pressure hand wand.
- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 0.5 pound per acre and a minimum of 7 days for rates exceeding 0.5 pound per acre.
- Not for residential greenhouse use.

Plants	Insects Controlled	Amount of This Product per 100 Gals.	Time of Application	Further Use Instructions
Chrysanthemums	Aphids, Thrips	0.56 lb. (8.96 oz.)	As Aphids begin to appear. As Thrips begin to appear or at the tight flower bud stage. Repeat applications may be necessary.	Apply the specified amount of this product in 100 gals. of water with a hydraulic sprayer as a full coverage spray. Application to Chrysanthemums more often than once every 28 days may result in phytotoxicity. <b>Precaution:</b> Phytotoxicity has occurred on the following Chrysanthemum varieties: Albatross, Bonnie Jean, Dixie, Garland, Gem, Iceberg, Pride, Showoff, Statesman, Tally Ho, Westward Ho and Wild Honey. Before treating large plantings, spray only a few plants and observe 2 weeks for varietal phytotoxicity. Drexel does not recommend application be made to plants with open flowers.

(Continued)

GREENHOUSE (Commercial Only) (Cont.)

Plants	Insects Controlled	Amount of This Product per 100 Gals.	Time of Application	Further Use Instructions
Dahlias, Daisies, Easter lily, Gladioli, Gypsophila, Pachysandra, Pansy, Peony, Sedum, Statice, Strawflower, Yarrow, Zinnia  <b>Foliage Plants:</b> Anthuriums, Cacti, Orchids  Poinsettia	Aphids	0.28 to 0.56 lb. (4.48 to 8.96 oz.)	As Aphids begin to appear.	Apply the specified amount of this product in 100 gals. of water with a hydraulic sprayer as a full coverage spray. DO NOT EXCEED 17.6 OZ. OF THIS PRODUCT PER ACRE. The addition of a wetting agent may be required on difficulty to wet foliage.  <b>Precaution:</b> Phytotoxicity has occurred on the following foliage plants: Bletchum gibbum, Cissus antarctica, Ficus triangularis, Fittonia verschaffelti, Maranta leuconeura kerchoveana, Pachystachya lutea, Plectranthus australis, Polypodium aureus, Polystichum, Pteris ensiformis, Tolmiea menziesii. Before treating large plantings, spray only a few plants and observe 2 weeks for varietal phytotoxicity. Application of this product on Poinsettias after bract formation may result in phytotoxicity on certain varieties.
	Mealybugs, Thrips, Whiteflies	0.56 lb. (8.96 oz.)	As the insects begin to appear. A repeat application at a 2 week interval may be necessary for control of Mealybugs and Whiteflies.	
	Scales (Crawlers)	0.56 lb. (8.96 oz.)	As Crawlers begin to appear. Repeat applications at a 2 week or more interval may be necessary where there is continuous Crawler production.	
	Sweet potato whiteflies (except CA)	0.28 lb. (4.48 oz.) + Tame® 2.4 EC Spray 10.6 fl. oz (0.2 lb. a.i.)	Apply when insects first appear. If a population is well established, make one application of the tank-mix and follow 5 to 7 days later with Tame 2.4 EC Spray alone at 16 fl. oz. per 100 gals. of water. See Tame 2.4 EC Spray label for instructions.	For Sweet potato whitefly control: Apply the specified amount of this product (do not exceed 17.6 oz./Ac.) plus Tame 2.4 EC Spray as a tank-mix at a volume necessary to obtain good coverage. Follow the Tame 2.4 EC Spray label for specific

(Continued)

GREENHOUSE (Commercial Only) (Cont.)

Plants	Insects Controlled	Amount of This Product per 100 Gals.	Time of Application	Further Use Instructions
Dahlias, Daisies, Easter lily, Gladioli, Gypsophila, Pachysandra, Pansy, Peony, Sedum, Statice, Strawflower, Yarrow, Zinnia  <b>Foliage Plants:</b> Anthuriums, Cacti, Orchids  Poinsettia (Cont.)	Sweet potato whiteflies (except CA)	0.28 lb. (4.5 oz.) + Tame® 2.4 EC Spray 10.6 fl. oz. (0.2 lb. a.i.)	Apply when insects first appear. If a population is well established, make one application of the tank-mix and follow 5 to 7 days later with Tame 2.4 EC Spray alone at 16 fl. oz. per 100 gals. of water. See Tame 2.4 EC Spray label for instructions.	instructions on the alternation of Tame 2.4 EC plus this product and Tame 2.4 EC alone and the rotation instructions to avoid potential resistance.
Roses	Aphids, Leafrollers, Thrips	0.56 to 0.8 lb. (8.96 to 12.8 oz.)	As Leafrollers begin to appear. Use the higher amount when large larvae are present.	Apply the specified amount of this product in 100 gals. of water with a hydraulic sprayer as a full coverage spray. Drexel does not recommend that application be made to Roses with open flowers.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:**

- Keep in original container.
- Do not put concentrate or dilute into food or drink containers.
- Store in cool, dry place. Protect from excessive heat.
- Do not contaminate food or foodstuffs.
- Do not store or transport near feed or food.
- Do not contaminate water, food or feed by storage, disposal or cleaning of equipment.
- **For help with any spill, leak, fire or exposure involving this material, call day or night 1-800-424-9300.**

**PESTICIDE DISPOSAL:** To avoid wastes, use all materials in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

**CONTAINER DISPOSAL:**

**Outer Bag (For multiple packaging):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or dispose of the empty outer bag in the trash as long as water soluble packet is unbroken.

**Packet (For single packaging):** Offer for recycling if available or dispose of the empty packet in the trash as long as water soluble packet is unbroken.

## **WARRANTY— CONDITIONS OF SALE**

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixture with other chemicals not specifically directed and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable laws, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. To the extent consistent with applicable laws, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

The DREXEL logo is a registered trademark of Drexel Chemical Company. All other brand names, product names or trademarks belong to their respective holders.



SUBLABEL 2 – FOR  
HOPPER BOX AND ANT  
TREATMENT USES



# Acephate 90S

Insecticide

For Hopper Box and Ant Treatment Uses

**ACTIVE INGREDIENT:**

Acephate* .....	90.0%
<b>OTHER INGREDIENTS:</b> .....	10.0%
<b>TOTAL:</b> .....	100.0%

\*O,S-Dimethyl acetylphosphoramidothioate

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

See **FIRST AID** Below

EPA Reg. No. 19713-544

Net Content:

EPA Est. No. 19713-XX-X

As Marked on Container

### FIRST AID

**Acephate is an organophosphate cholinesterase inhibitor.**

**IF SWALLOWED:**

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

**IF IN EYES:**

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

**IF ON SKIN OR CLOTHING:**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.
- Call a poison control center or doctor for treatment advice.

**IF INHALED:**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also call CHEMTREC at 1-800-424-9300 for emergency.

**NOTE TO PHYSICIAN:** This material contains 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.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin and clothing.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are butyl rubber, nitrile rubber or neoprene. If you want more options, follow the instructions for Category A on an EPA chemical-resistance category selection chart.

**Mixers, loaders, applicators and other handlers must wear:** Long-sleeved shirt and long pants, chemical-resistant gloves and shoes plus socks.

**In addition, applicators using low pressure hand wand application equipment must wear:** A NIOSH-approved dust mist filtering respirator with MSHA/NIOSH approved number prefix TC- 21C or a NIOSH-approved respirator with any N, R, P or HE filter.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. As soon as possible, wash thoroughly and change into clean clothing.

### USER SAFETY REQUIREMENTS

**Users should:** 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) 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.

Cover or soil-incorporate spills.

Exposed treated seed may be hazardous to birds and other wildlife.

Dispose of all excess treated seed and seed packaging by burial away from bodies of water.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

This product and its degradate are highly toxic to bees exposed to direct treatment 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.

Manufactured By:

**Drexel Chemical Company**

P.O. BOX 13327, MEMPHIS, TN 38113-0327

**SINCE 1972**

## DIRECTIONS FOR USE

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

**READ 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.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 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 (REI). 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 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 of any waterproof material and 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 (WPS) 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 dusts have settled.

### TANK-MIXES

**NOTICE: Tank-mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of the User, Applicator and/or Application advisor.**

Read and follow the entire label of each product to be used in the tank-mix with this product.

### USE INFORMATION

ACEPHATE 90S soluble powder is an insecticide for control of pests on selected agricultural crops and in certain non-crop areas. The active ingredient in this product is Acephate, a water soluble insecticide readily absorbed by plant roots and foliage to give systemic control of feeding insects. Insect pests are generally controlled more effectively by this product through ingestion than by contact.

Application of this product to maintain control should be repeated only as directed.

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR INSECT CONTROL, CROP INJURY AND/OR ILLEGAL RESIDUES.**

### COTTON [Soluble Powder Hopper Box Use]

#### USE RESTRICTIONS:

- Do not use treated seed for food or feed purposes or process for oil.
- Do not feed gin trash to livestock.
- Do not allow animals to graze on treated areas.
- Do not apply more than 4.4 pounds of this product (4 lbs. a.i./Ac.) per crop cycle. This includes all foliar spray, in-furrow application and seed treatment uses.
- Use of this product for Cotton seed hopper box treatment is not permitted in Arizona, California and Texas.

Application Method	Pests Controlled	Rate of This Product per Acre	Remarks	Days to Harvest
Cotton Seed Hopper Box At-Planting Application	Black (Greasy) cutworm, Cotton aphids, Thrips (including Western flower thrips)	2.5 to 3.25 oz.	Add this product dry to seed in the planter box to achieve an application rate of 2.5 to 3.25 oz./Ac. Even coverage of seed is required for acceptable insect control. Plants grown from improperly treated seed may not exhibit insect control. To obtain even coverage, fill planter one-half full of seed, then add one-half of required rate of this product and mix thoroughly. Add remainder of seed and this product to the hopper box and thoroughly mix. Improved distribution of this product on seed can be achieved by pre-mixing both in a separate container and then transferring treated seed to hopper box. Use of this product with air planters is not recommended, since loss of product will occur.	At-Planting Application

### PEANUTS [Soluble Powder Hopper Box Use]

#### USE RESTRICTIONS:

- Do not feed treated forage or hay to livestock.
- Do not allow animals to graze on treated areas.
- Do not apply more than 4.4 pounds of this product (4.0 lbs. a.i.) per acre per crop cycle.

Crop	Pests Controlled	Rate of This Product per 100 Lbs. of Peanut Seed	Further Use Instructions
Planter Box Seed Treatment Application – Hopper Box	Thrips	3.5 oz. Do not apply more than 3.5 oz. per acre.	Apply this product at a rate of 3.5 oz. per 100 lbs. of Peanut seed in the planter box as a dry powder. Even coverage of seed is required for acceptable insect control.  MIXING: The following procedure for application of this product to Peanut seed must be followed to ensure complete and adequate coverage. STEP 1: Fill planter box one-third full of seed. Apply one-third of total amount of this product evenly over the surface of the Peanuts. STEP 2: Fill planter box two-thirds full of seed. Apply one-third of total amount of this product over the surface of the Peanuts.

(Continued)

**PEANUTS [Soluble Powder Hopper Box Use] (Cont.)**

Crop	Pests Controlled	Rate of This Product per 100 Lbs. of Peanut Seed	Further Use Instructions
Planter Box Seed Treatment Application – Hopper Box (Cont.)	Thrips	3.5 oz. Do not apply more than 3.5 oz. per acre.	STEP 3: Fill planter box with remaining seed. Apply one-third of total required amount of this product evenly over the surface of the Peanuts.  DO NOT attempt to mix this product with the seed Peanuts by stirring or other mechanical agitation. Such action will result in unacceptable damage to seed prior to planting. Do not use treated seed for food or feed.

**TOBACCO (Except CA) [Soluble Powder Ant Use]**

**USE RESTRICTIONS:**

- Do not apply more than 4.4 pounds of this product (4 lbs. a.i.) per acre per crop cycle. This includes the use of this product in transplant water, plant bed, soil floatbed (greenhouse) and foliar applications.
- Treat a maximum of 13 mounds per acre.
- Do not treat more than once per season.

Soil Mound Treatment	Pests Controlled	Rate of This Product	Remarks	Days to Harvest
Dry Method	Ants (excluding Carpenter and Pharaoh)	1 to 2 tsps.	Evenly distribute over the mound. Apply in the early morning or late afternoon, when the Ants are most active, for best results. Applications made under prolonged hot and dry conditions may be ineffective due to the location of the Ants deep within the nest.	3

**NON-CROP AREAS [Ant Mound Treatment]**

Site	Pests Controlled	Amount of This Product	Further Use Instructions
Non-crop areas	Fire ants, Harvester ants	<b>Mound Treatment – Drench Method:</b> Mix one 2.5 lb. water soluble pak in 250 gals. of water. Add 1 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. Do not treat mound more than once per season.

**MOUND TREATMENT OF FIRE AND HARVESTER ANTS IN TURFGRASS [Soluble Powder Ant Use]**

**USE RESTRICTIONS:**

- Do not apply or allow to drift to food forage or other plantings that might be damaged or the crops thereof rendered unfit for sale, use or consumption.

Plants	Pests Controlled	Amount of This Product	Time of Application	Further Use Instructions
Turfgrass Residential, Recreation and Commercial turf	Imported Fire and Harvester ants	<b>Mound Treatment – Dry Method:</b> Evenly distribute 1 to 2 tsps. over 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.	Apply the specified amount of this product as directed. Grass in treated areas may be injured. Do not treat mound more than once per season.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:**

- Keep pesticide in original container.
- Do not put concentrate or dilute into food or drink containers.
- Store in cool, dry place. Protect from excessive heat.
- Do not contaminate food or foodstuffs.
- Do not store or transport near feed or food.
- Do not contaminate water, food or feed by storage, disposal or cleaning of equipment.
- **For help with any spill, leak, fire or exposure involving this material, call day or night 1-800-424-9300.**

**PESTICIDE DISPOSAL:** To avoid wastes, use all materials in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

**CONTAINER DISPOSAL:**

**Outer Bag (For multiple packaging):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or dispose of the empty outer bag in the trash as long as water soluble packet is unbroken.

**Packet (For single packaging):** Offer for recycling if available or dispose of the empty packet in the trash as long as water soluble packet is unbroken.

**For Hopper Box Use:** Completely empty canister into application equipment. Do not reuse container. Dispose of empty canister in a sanitary landfill or by incineration.

**WARRANTY— CONDITIONS OF SALE**

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixture with other chemicals not specifically directed and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable laws, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. To the extent consistent with applicable laws, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

The DREXEL logo is a registered trademark of Drexel Chemical Company. All other brand names, product names or trademarks belong to their respective holders.

SUBLABEL 3 – FOR  
COMMERCIALLY TREATED  
COTTONSEED

Drexel

# Acephate 90S

Insecticide

For Commercially Treated Cottonseed.

**ACTIVE INGREDIENT:**

Acephate* .....	90.0%
<b>OTHER INGREDIENTS:</b> .....	10.0%
<b>TOTAL:</b> .....	100.0%

\*O,S-Dimethyl acetylphosphoramidothioate

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

See FIRST AID Below

EPA Reg. No. 19713-544

Net Content:

EPA Est. No. 19713-XX-X

As Marked on Container

### FIRST AID

**Acephate is an organophosphate cholinesterase inhibitor.**

**IF SWALLOWED:**

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

**IF IN EYES:**

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

**IF ON SKIN OR CLOTHING:**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.
- Call a poison control center or doctor for treatment advice.

**IF INHALED:**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also call CHEMTREC at 1-800-424-9300 for emergency.

**NOTE TO PHYSICIAN:** This material contains 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.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin and clothing.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are butyl rubber, nitrile rubber or neoprene. If you want more options, follow the instructions for Category A on an EPA chemical-resistance category selection chart.

**Mixers, loaders, applicators and other handlers must wear:** Long-sleeved shirt and long pants, chemical-resistant gloves and shoes plus socks.

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. As soon as possible, wash thoroughly and change into clean clothing.

### USER SAFETY REQUIREMENTS

**Users should:** 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) 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.

Cover or soil-incorporate spills.

Exposed treated seed may be hazardous to birds and other wildlife.

Dispose of all excess treated seed and seed packaging by burial away from bodies of water.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

This product and its degradate are highly toxic to bees exposed to direct treatment 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.

Manufactured By:

**Drexel Chemical Company**

P.O. BOX 13327, MEMPHIS, TN 38113-0327

**SINCE 1972**



## DIRECTIONS FOR USE

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

### READ 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.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 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 (REI). 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 24 hours.

**Exception:** If the seed is treated with this product and the treated soil is injected (drilled) or soil incorporated, the WPS under certain circumstances allows workers to enter the treated area if there will be no contact with anything that has been treated.

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 of any waterproof material and shoes plus socks.

Pests Controlled	Amount per 100 Lbs. of Cotton Seed	Efficacy	Additional Use Instructions
Cotton aphids, Thrips (including Western flower thrips)	7.1 oz. Mix one 2.5 lb. water soluble pak in slurry water to treat 563 lbs. of seed.	Gives effective reduction of Thrips and Cotton aphids for up to three weeks after planting.	This product can be mixed in the slurry tank with most of the fungicide seed treatments in common use.
Black (Greasy) cutworm	7.1 oz. Mix one 2.5 lb. water soluble pak in slurry water to treat 563 lbs. of seed.	Gives effective reduction of Black (Greasy) cutworm from planting through 3rd to 4th leaf stage of development.  When planting into fields where large Cutworms are present (5th instar and larger), economic damage may occur.	This product can also be applied as a separate treatment using enough water to give adequate coverage of the seed. This product dissolves quickly in water with minimum agitation.

### TANK-MIXES

Always read and follow all label directions when using this 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.

### USE RESTRICTIONS

- This formulation does not contain dye. Compliance with the Federal Seed Act and 21 CFR Chapter 1, Section 2.5 requires that all seeds treated with this product must be colored to distinguish from and prevent subsequent inadvertent use as food for humans or feed for animals.
- Do not use treated seed for food or feed purposes or process for oil. Excess treated seed may be used for ethanol production only if (1) by-products are not used for livestock feed and (2) no measurable residues of pesticide remain in ethanol by-products that are used in agronomic practice.
- Do not apply more than 4.4 pounds of this product (4 lbs. a.i.) per acre per season. This includes the use of this product in commercial seed-treatment, in-furrow, and foliar applications.
- Store treated seeds away from feeds and other foodstuffs.
- Wear long-sleeved shirt, long pants, and chemical-resistant gloves when handling treated seed.
- Dispose of seed packaging in accordance with local requirements.

- Exposed treated seed may be hazardous to birds. Dispose of all excess treated by seed by burial away from bodies of water. Cover or incorporate spilled treated seeds.

- Treated seeds must be planted into the soil at the depth of 1 inch or greater.

### SEED BAG LABELING REQUIREMENTS

The Federal Seed Act requires that bags containing treated seed be labeled with the following statements:

- This seed has been treated with (insert name of active ingredient of pesticide).

- **DO NOT** use for food, feed or oil purposes.

The US Environmental Protection Agency requires the following statements on bags containing seeds treated with this product:

- All bags containing treated seed must be labeled or tagged with the following information: "This seed has been treated with xx lbs. of Drexel Acephate 90S, which contains x mg active ingredient (ai) per seed." [\* to be filled in]
- Do not apply more than 4.4 pounds of this product (4 lbs. a.i.) per acre per season. This includes the use of Drexel Acephate 90S from seed-treatment, in-furrow, and foliar applications.
- Excess treated seed may be used for ethanol production only if (1) by-products are not used for livestock feed and (2) no measurable residues of pesticide remain in ethanol by-products that are used in agronomic practice.
- Store treated seeds away from feeds and other foodstuffs.
- Wear long-sleeved shirt, long pants, and chemical-resistant gloves when handling treated seed.
- Dispose of seed packaging in accordance with local requirements.
- Exposed treated seed may be hazardous to birds. Dispose of all excess treated seed by burial away from bodies of water. Cover or incorporate spilled treated seeds.
- Treated seeds must be planted into the soil at the depth of 1 inch or greater.

## STORAGE AND DISPOSAL

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

### PESTICIDE STORAGE:

- Keep in original container.
- Do not put concentrate or dilute into food or drink containers.
- Store in cool, dry place. Protect from excessive heat.
- Do not contaminate food or foodstuffs.
- Do not store or transport near feed or food.
- Do not contaminate water, food or feed by storage, disposal or cleaning of equipment.
- **For help with any spill, leak, fire or exposure involving this material, call day or night 1-800-424-9300.**

**PESTICIDE DISPOSAL:** To avoid wastes, use all materials in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

### CONTAINER DISPOSAL:

**Outer Bag (For multiple packaging):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or dispose of the empty outer bag in the trash as long as water soluble packet is unbroken.

**Packet (For single packaging):** Offer for recycling if available or dispose of the empty packet in the trash as long as water soluble packet is unbroken.

## WARRANTY— CONDITIONS OF SALE

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixture with other chemicals not specifically directed and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable laws, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. To the extent consistent with applicable laws, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

The DREXEL logo is a registered trademark of Drexel Chemical Company. All other brand names, product names or trademarks belong to their respective holders.

LABELING FOR THE WSP PVA BAG

**DREXEL ACEPHATE 90S INSECTICIDE**

**Active Ingredient:** Acephate ..... 90.0%

CAUTION  
KEEP OUT OF REACH OF CHILDREN

REFER TO THE ACCOMPANYING LABEL FOR FULL USE INSTRUCTIONS

EPA Reg. No. 19713-544

Net Content: \_\_\_\_\_