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ER PRUTE-TOT	NOTICE OF PESTICIDE: Registration	Term of Issuance Condition	•
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se considerations		e of the label in com	
	nformetic constitues and the registerant, the above man Stelet and the reaction of the the bas, Subjected and		by
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acceptable under FIFR 2. Ma the product	A section 4. ake the labeling changes listed t for shipment: a. Add the phase "EPA Registration b. Add ^w Protective Eyeware under	below before ion No.70506-	you release 66".
acceptable under FIFR 2. Ma the product a equipment s product. Wa	A section 4. ake the labeling changes listed t for shipment: a. Add the phase "EPA Registration b. Add ^w Protective Eyeware under	below before ion No.70506- er personal p after handli	you release 66". rotection ng this

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page 2 EPA Reg. No. 70506-66

e. Delete the heading
 Cole Crops- Brassica Leafy Vegetables
 since tolerances are not set on the entire group. Delete this
 heading from the List of Crops also.

f. Add (Florida Only) after Chrysanthemums on page 15.

3. Submit two (2) copies of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Enclosure

RESTRICTED USE PESTICIDE DUE TO TOXICITY TO FISH AND AQUATIC ORGANISMS For retail sale to and use only by Certified Applicators, or persons under their direct supervision, and only for those uses covered by the Certified Applicator's certification.

PERM-UP 25W Insecticide Wettable Powder Insecticide

ACTIVE INGRED/ENT:	
Permethrin*	
INERT INGREDIENTS	<u>.75.0%</u>
	100.0 %

* (3-Phenoxyphenyl methyl(\pm)-cis, trans-3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate: cis/trans ratio Max. 55% (\pm) *cis* and min. 45% (\pm) *trans*

KEEP OUT OF REACH OF CHILDREN WARNING AVISO

Si usted entiende la ctiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

	FIRST AID
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.
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 IN EYES:	 Hold eye open and tinse 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 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 do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
Have the product container or label v	HOT LINE NUMBER with you when calling a poison control center or doctor, or going for treatment. For

Have the product container of label with you when calling a poison control center of doctor, or going for treatment. For 24-hour emergency inedical assistance, call The National Pesticide Information Center at 1-800-858-7378.

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC at 1-800-424-9300.

See other panels for additional precautionary statements.

United Phosphorus, Inc. 423 Riverview Plaza Tremon, NJ 08611 1-800-247-1557 www.upi-usa.com ACCEPTED with COMMENTS in EPA Lettor Dated

APR 2 7 2004

Under the Federal Interticide, Fundicide, and Rodonticide Act as amended, for the pendicide registered under EPA here. No.

0506-66

EPA Reg. No. 70506-EPA Establishment No. Net Contents: 8x5 lbs.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING

Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear. Harmful if swallowed, inhaled or absorbed through skin. Avoid contact with skin. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

PERSONAL PROTECTION EQUIPMENT (PPE):

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves made of any waterproof material
- Shoes plus socks

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not re-use them. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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

User should:

- USER SAFETY RECOMMENDATIONS
- Wash hands before eating, drinking, chewing gum, using tobacco or using toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and aquatic invertebrates. 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 apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

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

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

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

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

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

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

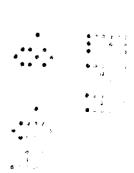
LIST OF CROPS

Food and Feed Crops Alfalfa, Alfalfa Grown for Seed Apples Aruchoke Asparaeus Avocade Brassica Leafy (Cole Crop) Vegetables Broccoli, Chinese Broccoli, Brussels Sprouts, Cauliflower, Cavalo broccolo, Kohlrabi Cabbage, Chinese Cabbage (napa) (tight-heading varieties only) Cherries (Sweet, Tart) Collards and Turnips Corn (Field), Field Corn Grown for Seed, Popcorn Corn (Field). Field Corn Grown for Seed, Popcorn (At Plant Use) Corn, Sweet Corn, Sweet (Florida Only) Cucurbit Vegetables Eggplants Filberts Horseradish Leafy Vegetables (Except Brassica) Mushrooms (Mushroom houses and adjacent premise areas) Onions. Bulb and Garlic Papaya (Florida Only) Peaches and Nectarines Pears (Dormant through Delayed Dormant) Pears (Pre-Bloom) Peppers, Bell **Pistachios** Potatoes Range Grass (New Mexico Only) Sovbeans Tomatoes, Tomatillos Walnuts Ornamentals Chrysanthemums Conifers (Container and Field Grown) Ornamental Nursery Stock (Field Grown) Pine Seed Orchards

Premise Sprays

Roses (Field Grown and Greenhouse)

Dairies, Barns, Feedlots, Stables, Poultry Houses, Swine and Livestock Houses



GENERAL INFORMATION

Apply PERM-UP 25W as shown in DIRECTIONS FOR APPLICATION. Use sufficient water to obtain full coverage of foliage. Tinth g and frequency of applications should be based upon insect populations reaching economic thresholds. The apple rates may be required under conditions of heavy infestation. Do not apply more than 2.0 lbs additioner acre per season. Crops in this label may be planted immediately after last treatment. Do not plant other crops within 60 days after last application. Any other crop may be planted if it is not harvested or grazed.

Resistance: Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your Local or State Agricultural Authorities for details.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control, and resistance is a reasonable cause, immediately consult your local UPI representative or agricultural advisor for the best alternative method of control for your area.

CHEMIGATION USE DIRECTIONS

PERM-UP 25WP mixes readily with water to form a suspension. PERM-UP 25WP should be diluted in sufficient volume of water to ensure accurate application over the area to be treated. Mix the required amount of PERM-UP 25WP with a small quantity of water and add this premix to the supply tank with the required amount of water. Maintain sufficient agitation during both mixing and application to ensure uniformity of the supply tank. Hydraulic or mechanical agitation is recommended. PERM-UP 25WP should be applied continuously for the duration of the water application. When using chemigation, a minimum of 0.1 inch per acre of irrigation water is recommended.

Apply this product only through sprinkler including center pivot, lateral move, and tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

Crop injury, lack of effectiveness, or illegal residues in the crop can result from nonuniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts. 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.

DIRECTIONS FOR APPLICATION ALFALFA, ALFALFA GROWN FOR SEED:

(Includes Lucerne, sainfoin, holy clover, esparcet, birdsfoot trefoil and varieties and/or hybrids of these.)

	Rate	
Target Pests	Of Application	Special Directions and Restrictions
Alfalfa, Caterpillar	0.05-0.2 lb a.i./A	Apply with ground equipment in a minimum of 10 gallons
Armyworm spp.	(3.2-12.8 oz/A)	of finished spray per acre or in a minimum of 2 gallons per
Blue Alfalfa Aphid		acre by aircraft. User higher gallonage, 5-10 gallons by
Cutworms		air, or 20 by ground, finished spray per acre when foliage
Green Cloverworm		is dense and/or when pest populations are high.
Green Peach Aphid		
Loopers		Use higher recommended dosage for increased pest
Pea Aphid		pressure or for increased residual pest control.
Spotted Alfalfa Aphid		
Velvetbean Caterpillar		Do not apply to mixed stands with intentionally grown
Webworms		forage grasses and/or legumes.
		Do not apply more than 0.2 lbs. a.i. per cutting. When rates 0.1 lb a.i. per acre or less are used, application may be made on day of harvest.
Alfalfa Weevil	0.1-0.2 lb a.i./A	
Cucumber Beeile	(6.4-12.8 oz/A)	When rates greater than 0.1 lb. a.i. per acre are used, do
Egyptian Alfalfa Weevil		not apply within 14 days of harvest.
Meadow Spittlebug		
Plant Bugs including Lygus		Avoid application when bees are actively foraging by
spp.		applying during the early morning or during the evening
Potato Leafhopper		hours.
Stink Bugs		·

APPLES		
Target Pests	Rate Of Application	Special Directions and Restrictions
Green Fruitworm	0.1-0.4 lb a.i./A	Apply by ground equipment only. Apply in a minimum of
Oblique banded Leafroller	(6.4-25.6 oz/A))	25 gallons of finished spray per acre when insects appear
Plum Curculio		and repeat as necessary to maintain control.
Redbanded Leafroller		
Rosy Apple Aphid		Do not apply more than 0.6 lb a.i. per acre per season.
Spotted Tentiform		Do not apply after petal fall.
Leafminer		Do not graze livestock in treated areas.
Tarnished Plant Bug		Do not feed cover crops from treated areas to livestock.
White Apple Leafhopper		^

]	ARTICHOKES			
Target Pests	Rate Of Application	Special Directions and Restrictions		
Artichoke Plume Moth Leafminers	0.1-0.3 lb a.i./A (6.4-19.2 oz/A)	Apply by ground equipment only. Apply in a minimum of 10 gallons of finished spray per acre or in a minimum of 2 gallons per acre by aircraft. Use sufficient water to obtain uniform coverage. Apply as needed. Do not make more than 5 applications (1.5 lbs. a.i.) per		
		acre per season. Buds may be harvested on the day of application.		

ASPARAGUS			
Target Pests	Rate Of Application	Special Directions and Restrictions	
Asparagus Beetle Cutworms	0.05-0.1 lb a.i./A (3.2-6.4 oz/A)	Apply by ground equipment only. Apply in a minimum of 10 gallons of finished spray per acre. Use sufficient water to obtain uniform coverage. Apply as needed. Do not apply more than 0.4 lbs. a.i. per acre per season. Do not apply within 1 day of harvest.	
Asparagus Beetle Japanese Beetle (Adult stage [*]) Lygus Bugs Tarnished Plant Bug	0.1 lb a.i./A (6.4 oz/A)	For post harvest application, apply to the fern stage of the asparagus plant after spear harvest when larval and adult state are present. Do not apply more than 0.4 lbs. a.i. per acre per season. *Not for control of this insect in California.	

AVOCADOS		
Target Pests	Rate Of Application	Special Directions and Restrictions
Avocado Caterpillar Avocado Lace Bug Avocado Leathopper Avocado Leatroller Avocado Looper Avocado Tree Girdler Avocado Whitefly Brown Soft Scale Lepidopterous larvae Mirids Omnivorous Looper Orange Tortrix Scale Crawlers Spanworm Thrips Twig Borers	0.2 lb a.i./A (12.8 oz/A)	Apply with ground equipment in a minimum of 25 gallons of finished spray per acre. Apply when insects first appear and repeat at 7 to 10 day intervals as needed to provide control. Do not apply more than 1.2 lbs a.i. per acre per season. Do not apply within 7 days of harvest. Do not graze livestock in treated areas. Do not feed cover crops from treated areas to livestock.

COLE CROPS - BRASSICA LEAFY VEGETABLES:

Broccoli; Chinese Broccoli (gai lon, white flowering broccoli); Brussel Sprouts; Cauliflower; Cavalo broccoli; Kohirabi		
Target Pests	Rate Of Application	Special Directions and Restrictions
Armyworm spp.	0.05-0.1 lb a.i./A	Apply with ground equipment in a minimum of 10 gallons
Cabbage Aphid®	(3.2-6.4 oz/A)	of finished spray per acre or in a minimum of 2 gallons per
Cabbage Looper		acre by aircraft.
Diamondback Moth		Apply every 5 days or as needed.
Imported Cabbageworm		Do not apply more than 0.8 lbs. a.i. per acre per season.
Plant Bugs		Do not apply within 1 day of harvest.
Thrips		* Aids in suppression.

САВВА	GE, CABBAGE, CHIN	IESE (napa) (tight-heading varieties only)
Target Pesis	Rate Of Application	Special Directions and Restrictions
Cabbage Looper Diamondback Meth Imported Cabbaseworm Southern White Dutterfly	0.05-0.2 lb a.i./A (3.2-12.8 oz/A)	Apply with ground equipment in a minimum of 10 gallons of finished spray per acre or in a minimum of 2 gallons per acre by aircraft. Apply as needed. Do not apply more than 1.0 pound a.i. per acre per season.
Armyworm spy . Cutworms Flea Beetles	0.1-0.2 lb a.i./A (6.4-12.8 oz/A)	Do not apply within 1 day of harvest.

C	HERRIES (Includes Sy	weet Cherries and Tart Cherries)
Target Pests	Rate Of Application	Special Directions and Restrictions
Green Fruitworm Lesser Peach Tree Borer Plum Curcillo Redbanded Leatroller Rose Chafer Tarnished Plant Bug	0.1-0.2 lb a.i./A (6.4-12.8 oz/A)	Use PERM-UP 25W as a dilute spray. Apply when insects appear. Apply with ground equipment in a minimum of 25 gallons of finished spray per acre. Do not apply within 3 days of harvest. Do not graze livestock in treated areas. Do not feed cover crops from treated areas to livestock. <i>East of the Rockies</i> , do not exceed 6 applications per season, with no more than 4 applications after petal fall. <i>West of the Rockies</i> , do not make more than 4 applications per season, with no more than 3 applications after petal fall.

Fc	or use on Collards in AR	DS AND TURNIPS , AZ, GA, IL, NC, OK, SC, and TX GA, IL, IN, OK, SC, TX and WA
Target Pests	Rate Of Application	Special Directions and Restrictions
Beet Armyworm	0.05-0.1 lb a.i./A	Apply with ground equipment only. Apply in a minimum
Cabbage Looper	(3.2-6.4 oz/A)	of spray volume of 10 gallons of finished spray per acre.
Corn Earworm		
Cutworms		Do not apply more than 1.0 lb a.i. per acre per season. Do
Diamondback Moth		not apply within 1 day of harvest.
European Corn Borer		
Fall Armyworm		Do not graze treated areas or feed crop refuse to livestock.
Green Cloverworm		
Imported Cabbageworm		Do not apply more than 0.8 lbs. a.i. per acre per season on
Leafhoppers		Collards and Turnips (AR, TX & IN).
Leafminer		Do not apply more than 0.4 lbs. a.i. per acre per season on
Southern Armyworm		Turnips (SC, GA, FL, & WA).
Southern White Butterily		* Suppression only.
Tobacco Budworm		
Vegetable Leafminer		
Aphids*		

COR		N GROWN FOR SEED, POPCORN
	Rate	
Target Pests	Of Application	Special Directions and Restrictions
Preemergent Use:	0.1-0.2 lb a.i./A	PERM-UP 25W may be applied as a preplant
Armyworms	(6.4-12.8 oz/A)	incorporated, preemergence, or at planting time
Cutworms		application. Apply as a broadcast spray by ground or air
Stalk Borers	OR	(minimum of 10 gallons finished spray per acre by ground
		and 2 gallons per acre by air) or 4-15 inch band using
	0.5-1.0 oz per 1000	sufficient spray volume to achieve adequate coverage.
	linear feet row (based	
	on a 4" band and 40"	Linear row calculations should be used proportional to the
	row spacing)	standard Band Width/Row formula to adjust rates for
	······································	different band widths or spacings. Use higher rates of
		PERM-UP 25W when incorporating into the soil without
		exceeding the recommended dosage.
		exceeding the recommonded dostage.
		When using tank mixes, observe all restrictions and
	:	precautions which appear on the labels of these products.
		Provide constant agitation during mixing and application
		to keep the mixture in solution.
		Apply in the time period from 5 days prior to planting up
		to emergence of the crop.
		Do not apply more than 0.6 lb a.i. per season.
		Do not make treatments less than 6 days apart or apply less
		than 30 days prior to harvest of grain or fodder (stover).
		Forage may be harvested on the day of application.
Foliar Use:	0.1-0.2 lb a.i./A	When treating for Stalk Borers, PERM-UP 25W must be
Armyworm (including Fall	(6.4 to 12.8 oz/A)	applied when or shortly before the Stalk Borer larvae are
Armyworm)		moving into the corn from surrounding weeds and grasses.
Corn Borers		Mowing or burn-down herbicides are suggested to initiate
European		movement. For control of Corn Earworm apply just before
Southwestern		silking and continue as necessary to maintain control.
Corn Earworm		Apply a minimum of 2 gallons of finished spray per acre
Corn Rootworm		by air or 10 gallons per acre with ground equipment.
Beetles		
Cutworms		
Flea Beetle		
Hop Vine Borer		
Stalk Borers		
Tobacco Budworm		
Webworms		
Foliar Use:	0.05-0.1 lb a.i./A	• •
Western Bean	(3.2 to 6.4 oz/A)	

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CONNT	IELD), FIELD CORN GRO Rate			<u>(30)</u>
Target Pests	Of Application	Special	Directions and Restr	ictions
Armyworms	0.5 oz per 1,000 linear	Apply as an in-fur	row, band or T-band tr	eatment using a
Cutworms	feet of row	minimum 4" band.	Use table below to de	etermine the
	j	PERM-UP 25W n	eeds for each acre.	
Row Spacings (inches)		40	30	20
PERM-UP 25W (lbs a.i. per acre)		0.10	0.15	0.20
PERM-UP 25W (formulated oz per acre)		6.4	9.6	12.8

Cutworm

CORN. SWEET		
Target Pests	Rate Of Application	Special Directions and Restrictions
Corn Earworm Corn Rootworm Beetles* Cutworms European Corn Borer Fall Armyworm Flea Beetle Hop Vine Borer Leafhoppers Southern Armyworm Stalk Borers	0.1-0.2 lb a.i./A (6.4 to 12.8 oz/A)	 Apply every 3 to 5 days or as needed. Apply with ground equipment in a minimum of 10 gallons of finished spray per acre or in a minimum of 2 gallons per acre by aircraft. Do not apply more than 1.2 lbs a.i. per acre per season. *Pest does not occur on this crop in California.

CORN, SWEET (Florida Only)		
Target Pests	Rate Of Application	Special Directions and Restrictions
Aster Leafhopper Corn Earworm Cutworm	0.1-0.25 lb a.i./A (6.4 to 16.0 oz/A)	Apply every 3 to 5 days or as needed. Apply with ground equipment in a minimum of 10 gallons of finished spray per acre or in a minimum of 2 gallons per
European Corn Borer Fall Armyworm Southern Armyworm		acre by aircraft. Do not apply more than 2.0 lbs a.i. per acre per season.

CUCURBIT VEGETABLES (Including Canteloupes and Pumpkins)

(Including Chayote (fruit) (Sechium edule); Chinese waxgourd (Chinese preserving melon) (Bernincasa hispida); Citron melon (Citrullus lanatus var. citroides); Cucumber (Cucumis sativus); Gherkin (Cucumis anguria); Gourd. edible (Lagenaria spp.) (includes hyotan; cucuzza); (Luffa spp.) (includes hechima, Chinese okra); (Momordica spp.) (includes balsam apple, balsam pear, bitter melon, Chinese cucumber); Muskmelon (hybrids and/or cultivars of Cucumis melo) (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon); Persian melon, pineapple melon, Santa Claus melon, and snake melon: Pumpkin (Cucurbita spp.); Squash, summer (Cucurbita pepo var. melopepo) (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini); Squash, winter (Cucurbita maxima; C. moshata) (includes buttermut squash, calabaza, hubbard squash); (C. mixta; C. pepo) (includes acorn squash, spaghetti squash); Watermelon (includes hybrids and/or varieties of Citrullus spp.))

1	Rate	
Target Pests	Of Application	Special Directions and Restrictions
Aphids	0.2 lb a.i./A	Apply with ground equipment in a minimum spray volume
Leafminers	(12.8 oz/A)	of 20 gallons of finished spray per acre or in a minimum of
Squash Bug		4 gallons per acre by aircraft.
Cabbage Looper	0.1-0.2 lb a.i./A	Do not apply more than 1.6 lbs a.i. per acre per season.
Cucumber Beetle (adults)	(6.4 to 12.8 oz/A)	Applications may be made up to harvest.
Cutworms		
Leafhoppers		
Melonworm		
Pickleworm		
Plant Bugs (including		
Lygus and Stink Bugs)		
Rindworms		
Squash Vine Borer		

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EGGPLANTS		
Target Pests	Rate Of Application	Special Directions and Restrictions
Colorado Potato Destle	0.2 lb a.i./A (12.8 oz/A)	Apply with ground equipment in a minimum of 10 gallons of finished spray per acre or a minimum of 2 gallons per acre by aircraft. Apply using sufficient water to obtain uniform coverage. Apply as needed.
Cabbage Looper Flea Beetles Vegetable Leatminer	0.1-0.2 lb a.i./A (6.4 to 12.8 oz/A)	Do not apply more than 2.0 lbs a.i. per acre per season. Do not apply within 3 days of harvest.

	FILBERTS		
Target Pests	Rate Of Application	Special Directions and Restrictions	
Filbertworm Oblique Banded Leafroller	0.2-0.4 lb a.i./A (12.8 to 25.6 oz/A)	For full coverage application apply 0.05 to 0.1 pound a.i. per 100 gallons (based on 400 gallons finished spray per acre) and spray to run-off, OR for low volume concentrate application apply 0.2 to 0.4 pound a.i. per acre (50 to 200 gallons finished spray per acre). For aerial application apply 0.2 to 0.4 pound a.i. in a minimum of 10 gallons finished spray per acre. Apply when insects appear. Do not apply more than 1.6 lbs a.i. per acre per season. Do not apply within 14 days of harvest. Do not graze livestock in treated areas. Do not feed cover crops from treated areas to livestock.	

HORSERADISH			
Target Pests	Rate of Application	Special Directions and Restrictions	
Imported Crucifer Weevil (Baris lepidii)	0.2 lb a.i./A (12.8 oz/A)	For foliar application, apply with ground equipment in a minimum spray volume of 20 gallons finished spray per acre. Make up to 3 foliar applications as needed to control weevii adults during oviposition. Do not apply within 30 days of harvest.	

LEAFY VEGETABLES (except Brassica)

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(Including: Amaranth (leafy amaranth, Chinese spinach, tampala); Arugula (Roquette); Cardoon; Celery; Celery, Chinese; Celtuce; Chervil; Chrysanthemum; edible-leaved and garland; Corn salad; Cress, garden; Cress, upland (yellow rocket, winter cress); Dandelion; Dock (sorrel); Endive (escarole); Fennel, Florence (finochio); (sweet anise, sweet fennel, finochio)(fresh leaves and leaf petioles only)Lettuce, head and leaf; Orach: Parsley: Purslane, garden: Purslane, winter: Radicchio (red chicory); Rhubarb; Spinach * (including New Zealand and vine, Malabar spinach. Indian spinach); Swiss chard).

	Rate	
Target Pests	Of Application	Special Directions and Restrictions
Aphids	0.1-0.2 lb a.i./A	Apply every 3 to 5 days or as needed by air or ground.
Beet Armyworm	(6.4 to 12.8 oz/A)	Use sufficient water to obtain full coverage of foliage.
Corn Earworm		Apply with ground equipment in a minimum of 10 gallons
Cutworms		of finished spray per acre or in a minimum of 2 gallons per
European Corn Borer		acre by aircraft.
Fall Armyworm		
Green Cloverworm		Do not apply more than 2.0 lbs a.i. per acre per season.
Leafminers		
Southern Armyworm		*For Spinach (including New Zealand and vine,
Tobacco Budworm		Malabar spinach, Indian spinach), do not apply more
		than 1.0 lbs a.i. per acre per season.
Alfalfa Looper	0.05 to 0.2 lb a.i./A	Do not apply within 1 day of harvest.
Cabbage Looper	(3.2 to 12.8 oz/A)	
Leafhoppers		

M	MUSHROOMS (Mushroom houses and adjacent premises areas)		
Target Pests	Rate Of Application	Special Directions and Restrictions	
Mushroom Files (Sciarid and Phorid adults)	Apply 6 oz to 11 gallons of water or 8 level tablespoons to 3 gallons of water. As a guide, use 1 gallon spray per 750 sq. ft. (400-1,400 sq. ft.)	Spray directly to walls and ceilings as residual surface treatment only. Spray to point of runoff. Use PERM-UP 25WP prior to filling house, during cooldown, during spawning, up to pinning and between breaks. Do not use when mushrooms are present. Treat as needed when flies appear. Do not make more than 20 applications prior to pinning of first break; apply no more than two applications between each break. Do not apply more than 30 applications total per crop of 5 breaks. Do not apply within 3 days of harvest.	

ONIONS, BULB AND GARLIC			
Target Pests	Rate Of Application	Special Directions and Restrictions	
Armyworms Onion Thrips	0.15-0.3 lb a.i./A (9.6 to 19.2 oz/A)	Apply with ground equipment in a minimum of 20 gallons of finished spray per acre or in a minimum of 5 gallons per acre by aircraft. Begin applications when pests appear and repeat as necessary to maintain control. Use the higher label rates as Onion Thrips population increases and avoid rescue situations.	
Cutworms Leafminers Onion Maggots (Adults) Stinlt Bugs	0.1-0.3 lb a.i./A (6.4 to 19.2 oz/A)	Do not apply more than 2.0 lbs a.i. per acre per season. Do not apply within 1 day of harvest.	

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PAPAYAS (Florida use only)			
	; Rate		
Target Pests	Of Application	Special Directions and Restrictions	
Aphids	0.2 Ib a.i./A	Apply with ground equipment in a minimum of 25 gallons	
Brown Soft Scale	(12.8 oz/A)	of finished spray per acre. Apply when insects first appear	
Mealybug		and repeat at 7 to 10 day intervals as needed to provide	
Papaya Fruit Fly		control.	
Papaya Webworm		Do not apply within 7 days of harvest.	
Papaya Whitefly		Do not apply more than 1.2 lbs a.i. per acre per season.	
Scale Crawlers		Do not graze livestock in treated areas.	
		Do not feed cover crops from treated areas to livestock.	

PEACHES, NECTARINES		
Target Pests	Rate Of Application	Special Directions and Restrictions
Green Fruitworm	0.1-0.3 lb a.i./A	Apply with ground equipment using a minimum of 25
Lesser Peach Tree Borer	(6.4 to 19.2 oz/A)	gallons of finished spray per acre or a minimum of 10
Oriental Fruit Moth		gallons per acre by aircraft. Spray to wet all foliage.
Peach Twig Borer		Do not apply more than 1.5 lbs a.i. per acre per season.
Rose Chafer		Do not apply within 14 days of harvest.
Plum Curculio		Do not graze livestock in treated areas.
Tarnished Plant Bug		Do not feed cover crops from treated areas to livestock.

PEARS (Dormant through Delayed Dormant)		
Target Pests	Rate Of Application	Special Directions and Restrictions
Pear Psylla	0.2-0.4 lb a.i./A (12.8 to 25.6 oz/A)	 Apply during the dormant through delayed dormant growth periods only. Apply in a minimum of 10 gallons of finished spray per acre by aircraft or a minimum of 25 gallons per acre by ground equipment. Use sufficient water to obtain uniform coverage. Do not apply more than 0.8 lbs a.i. per acre per season. Do not graze livestock in treated areas. Do not feed cover crops from treated areas to livestock.

PEARS (Pre-Bloom)		
Target Pests	Rate Of Application	Special Directions and Restrictions
Codling Moth Green Fruitworm Pear Psylla	0.2-0.4 lb a.i./A (12.8 to 25.6 oz/A)	Apply with ground equipment using a minimum of 25 gallons of finished spray per acre or a minimum of 10 gallons per acre by aircraft. Pre-bloom sprays can be applied from dormant through bud burst stages. Use sufficient water to obtain uniform coverage. Apply two pre-bloom sprays. Do not apply more than 0.8 lbs a.i. per acre per season. Do not graze livestock in treated areas. Do not feed cover crops from treated areas to livestock.



PEPPERS, BELL		
Target Posts	Rate Of Application	Special Directions and Restrictions
Cabbage Looper	0.1-0.2 lb a.i./A	Apply using sufficient water to obtain uniform coverage.
Corn Earworm	(6.4 to 12.8 oz/A)	Apply as needed. Apply with ground equipment using a
Cutworms		minimum of 10 gallons of finished spray per acre or a
Flea Beetles		minimum of 2 gallons per acre by aircraft. Use sufficient
Pepper Weevil	· !	water to obtain uniform coverage.
Vegetable Leatminer		Do not apply more than 1.6 lbs a.i. per acre per season.
European Corn Borer	0.2 lb a.i./A	Do not apply within 3 days of harvest.
_	(12.8 oz/A)	

	PISTACHIOS		
Target Pests	Rate Of Application	Special Directions and Restrictions	
Chinch Bug Leaf-footed Bugs Navel Orangeworm Peach Twig Borer Plant Bugs Stink Bugs	0.2-0.4 lb a.i./A (12.8 to 25.6 oz/A)	Use sufficient water to obtain full coverage of foliage. Apply PERM-UP 25W in a minimum of 10 gallons of finished spray per acre by aircraft or by ground equipment in a minimum of 25 gallons of finished spray per acre. Use sufficient water to obtain full coverage of foliage.	
Ants	0.4 lb a.i./A (25.6 oz/A)	 Application should be after mowing of weed growth to insure maximum coverage of the soil surface. Overhead moisture after application will enhance activity. Do not apply more than 1.6 lbs a.i. per acre per season. Nuts may be harvested on the day of application. Do not apply after 10% hull split. Do not graze livestock in treated areas. Do not feed cover crops from treated areas to livestock. 	

POTATOES		
Target Pests	Rate Of Application	Special Directions and Restrictions
Aster Leafhopper	0.1-0.2 lb a.i./A	Apply with ground equipment in a minimum of 10 gallons
Beet Armyworm	(6.4 to 12.8 oz/A)	of finished spray per acre or in a minimum of 2 gallons per
Cabbage Looper		acre by aircraft. Use sufficient spray volume to obtain full
Colorado Potato Beetle		coverage. Apply as needed.
Cutworms		Do not apply more than 1.6 lbs a.i. per acre per season.
European Corn Borer		Do not apply within 14 days of harvest.
Potato Aphid		
Potato Flea Beetle		
Potato Leafhopper		
Potato Psyllid		
Potato Tuberworm		
Tarnished Plant Bug		

	RANGE GRASS (New Mexico Only)		
Target Pests	Rate Of Application	Special Directions and Restrictions	
Range Caterpillar	0.01 lb a.i./A (0.64 oz/A)	 Apply using sufficient water to obtain uniform coverage. Apply with ground equipment using a minimum of 10 gallons of finished spray per acre or a minimum of 2 gallons per acre by aircraft. Do not apply more than once per year. Cattle may be present during application. Do not harvest or feed hay to livestock 	

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SOYBEANS		
Target Pests	Rate Of Application	Special Directions and Restrictions
Bean Leaf Beetle Cabbage Looper Corn Rootworm Beetles Cutworms Flea Beetles Green Cloverworm Japanese Beetle Mexican Bean Beetle Potato Leafhopper Saltmarsh Caterpillar (Woolybear Caterpillar) Thistle Caterpillar	0.05-0.1 lb a.i./A (3.2 to 6.4 oz/A)	 Apply with ground equipment in a minimum of 10 gallons of finished spray per acre or in a minimum of 2 gallons per acre by aircraft. Do not apply more than 0.4 lbs a.i. per acre per season. Do not apply within 60 days of harvest. Do not graze treated areas or feed soybean forage or hay.
Beet Armyworm Corn Earworm Soybean Looper Webworms	0.1-0.2 lb a.i./A (6.4 to 12.8 oz/A)	

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TOMATOES, TOMATILLOS		
Target Pests	Rate Of Application	Special Directions and Restrictions
Beet Armyworm	0.05-0.2 lb a.i./A	Apply with ground equipment in a minimum of 10 gallons
Cabbage Looper	(3.2 to 12.8 oz/A)	finished spray per acre or in a minimum of 2 gallons per
Colorado Potato Beetle		acre by aircraft. Use sufficient water to obtain uniform
Granulate Cutworm		coverage.
Hornworms		Do not apply more than 1.2 lbs a.i. per acre per season.
Southern Armyworm		May be applied up to the day of harvest.
Tomato Fruitworm		Do not apply to cherry tomatoes or other varieties which
Tomato Pinworm		produce fruit less than one inch in diameter.
Vegetable Leafminers		

WALNUTS		
Target Pests	Rate Of Application	Special Directions and Restrictions
Codling Moth Navel Orangeworm Walnut Husk Fly	0.2 to 0.4 lb a.i./A (12.8 to 25.6 oz/A)	For full coverage application apply 0.05 to 0.1 pound a.i. per 100 gallons (based on 400 gallons finished spray per acre), spray to run-off; OR, for low volume application apply 0.2 to 0.4 pound a.i. per acre (25-200 gallons finished spray per acre). For aerial application, apply 0.2 to 0.4 pound a.i. in a minimum of 10 gallons of finished spray per acre. Use sufficient water to obtain uniform coverage. Apply when insects appear. Do not apply more than 1.6 lbs a.i. per acre per season. Do not apply within 1 day of harvest. Do not graze livestock in treated areas. Do not feed cover crops from treated areas to livestock.

ORNAMENTALS

CHRYSANTHEMUMS		
Target Pests	Rate Of Application	Special Directions and Restrictions
Liriomyza Leafminer Flies	0.5 lb a.i. per 100 gallons of water (32 oz per 100 gallons of water)	Avoid spraying the blooms. PERM-UP 25W may be applied on a weekly schedule. Caution: Cultivars may vary in sensitivity and a small number of plants should be treated to determine plant safety prior to commercial use.

CONIFERS (Container and Field Grown)			
Target Pests	Rate Of Application	Special Directions and Restrictions	
Nantucket Pine Tip Moth	0.1-0.2 lb a.i./A (6.4-12.8 oz /A)	Begin application when adults appear and repeat at 5 to 7 day intervals or as needed throughout the season. Use sufficient water to obtain full coverage of foliage.	

ORNAMENTAL NURSERY STOCK (Field Grown)				
Target Pests	Rate Of Application	Special Directions and Restrictions		
Bagworm Beet Armyworm Cabbage Looper Citrus Thrips <i>Heliothis</i> spp. Lace Bug Leafhoppers Leafminers Whiteflies	0.1-0.2 lb a.i. per 100 gallons of water (6.4 to 12.8 oz per 100 gallons of water)	PERM-UP 25W may be used to control specified pests on non-edible ornamentals and non-bearing plants of fruiting species. Caution: PERM-UP 25W has demonstrated excellent plant safety; however, not all species and varieties have been tested. Before treating large numbers of a particular variety, treat a few plants and observe prior to full scale application.		

	PINE SEE	D ORCHARDS		
Target Pests	Rate Of Application	Special Directions and Restrictions		
Coneworms Seed Bugs	0.2 lb a.i. per 100 gallons of water (12.8 oz in 100 gal of water; 0.025% dilution by weight)	For high volume sprayers, apply 5 to 10 gallons of finished spray per tree.		
	1.6 lb a.i. in 100 gallons of water (66 oz in 100 gallons of water; 0.125% dilution by weight)	For low volume sprayers, apply 100 gallons per acre.		
	1.2 lb a.i. per Acre (48 oz/A)	For aerial application, use in not less than 10 gallons of water.		
To control Webbing Cond flight.		water. within 1 week of female flower closure or peak pollen		

To control other coneworms and seed bugs – make first application within 30 days following female flower closure. Repeat applications at 4 week intervals, but do not make more than 6 applications.

Do not graze livestock in treated areas.

Do not feed cover crops from treated areas to livestock.

Avoid contact with open water.

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ROSES (Field Grown)				
Target Pests	Rate Of Application	Special Directions and Restrictions		
Heliothis spp.	0.1 to 0.2 lb a.i.A (6.4 to 12.8 oz/A)	Apply with ground equipment in a minimum of 10 gallons of finished spray per acre or in a minimum of 2 gallons per acre by aircraft.		

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ROSES (Greenhouse)				
Target Pests	Rate Of Application	Special Directions and Restrictions		
Beet Armyworm	0.2 lb a.i.	Caution: Varieties may vary in their sensitivity PERM-UP		
Cabhage Looper	(12.8 oz)	25W, and a small number of plants should be treated under		
Omnivorous Leatrooler	per 100 gallons of water	local conditions to determine plant safety prior to commercial use.		

		ORNAMENTALS	
Asparagus Fern	Japanese Beetle Asparagus Beetle Lygus Bugs	0.1 lb a.i. (6.4 oz)	Apply when larval and adult stage of the asparagus beetle, lygus bugs and the adult stage of the Japanese beetle are present.
Christmas Trees (container and field grown)	Nantucket Pine Tip Moth	0.1-0.2 lb a.i. (6.4-12.8 oz)	Apply first application when adults appear and repeat at 5-7 day intervals or as needed throughout the season. Use sufficient water to obtain full coverage of foliage.

PREMISES SPRAY					
For Application In	Target Pests	Method of Application	Dilute	Application Rate	Special Directions and Restrictions
Dairies, Barns. Feedlots, Stables, Poultry Houses, Swine and Livestock Houses	House Flies Stable Flies and other Manure Breeding Flies Also aids in the reduction of Cockroaches, Mosquitoes and Spiders	Sprayer	6 oz* to 11 gallons water or 8 level tablespoons to 3 gallons of water (* 1 oz of this powder equals 5 level teaspoonfuls. Make up only as required)	1 gallon per 750 square feet of surface area	For agricultural use only. Spray directly to walls and ceiling as residual surface treatment only. Do not treat manure or litter. Avoid contamination of feed and water. Do not apply directly to livestock or poultry. Re-treat as necessary but not more often than once every 2 weeks. The use of any residual fly spray should be supplemental with proper manure management and general sanitation to reduce or eliminate fly breeding sites.

RATE CONVERSION CHART			
Pounds A.I. per Acre	Formulation Ounces per Acre	Formulation Pounds per Acre	
0.05	3.2	0.2	
0.10	6.4	0.4	
0.125	8.0	0.5	
0.15	9.6	0.6	
0.175	11.2	0.7	
0.20	12.8	0.8	
0.40	25.6	1.6	

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STORAGE AND DISPOSAL

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

Pesticide Storage: Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, fold and roll back bags, clamp and close tightly. Do not put concentrate or dilute material into food or drink containers.

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

Container Disposal: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Dealer Should Sell in Original Package Only.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus and Seller harmless for any claims relating to such factors.

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