

1381-214

4-26-2007

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U.S. ENVIRONMENTAL PROTECTION AGENCY

**Office of Pesticide Programs
Registration Division (7505P)
Ariel Rios Building
1200 Pennsylvania Ave., NW
Washington, D.C. 20460**

EPA Reg. Number:

1381-214

Date of Issuance:

APR 26 2007

Term of Issuance: **Conditional**

Name of Pesticide Product:

Tundra CA

NOTICE OF PESTICIDE:

Registration
 Reregistration
(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

**Agriliance LLC
P.O. Box 64089
St. Paul, MN 55164**

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) and (B) provided that you:

1. **Submit and/or cite all data required for registration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.**

2. **Make the following label change:**

a. **Add "EPA Reg. No. 1381-214".**

Submit two copies of the revised final printed label for the record.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 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.

Signature of Approving Official:
**George LaRocca, PM 13
Insecticide Branch
Registration Division (7505P)**

Date:

APR 26 2007

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RESTRICTED USE PESTICIDE
Toxic to fish and aquatic organisms.
For retail sale to and use only by certified applicators, or persons under their direct supervision and only for the uses covered by the certified applicator's certification.

TUNDRA[®] CA Insecticide/Miticide

For Sale and Use Only in California

Active Ingredient	By Wt.
Bifenthrin: (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)- 2,2-dimethyl-cyclopropanecarboxylate*	25.1%
Inert Ingredients:**	<u>74.9%</u>
	100.0%

**Cis isomers 97% minimum, trans isomers 3% maximum.
**Contains xylene range aromatic solvents.
This product contains 2 pounds active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN

WARNING

AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

This label must be in the possession of the user at the time of application.

Manufactured for
Agrilience, LLC
P.O. Box 64089
St. Paul, MN 55164-0089

EPA Reg. No. 1381-
EPA Est. No. _____
Net Contents _____

ACCEPTED
with COMMENTS
In EPA Letter Docket

APR 26 2007

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.
1381-214

FIRST AID	
If swallowed	<ul style="list-style-type: none"> • Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.
If inhaled	<ul style="list-style-type: none"> • 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 in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 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	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-424-7452 for emergency medical treatment information.	
NOTE TO PHYSICIAN	
This product is a pyrethroid. Contains petroleum distillate – vomiting may cause aspiration pneumonia. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.	
For Emergency Assistance Call 1-877-424-7452.	

PRECAUTIONARY STATEMENTS

Hazards to Humans (and Domestic Animals)

WARNING

May be fatal if swallowed. Harmful if inhaled, or absorbed through skin. Causes moderate eye irritation. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

Handlers who may be exposed to the dilute through application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as Barrier Laminate or Nitrile Rubber or Neoprene Rubber or Viton
- Shoes plus socks.

Handlers who may be exposed to the concentrate through mixing, loading, application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as Barrier Laminate or Nitrile Rubber or Neoprene Rubber or Viton
- Shoes plus socks
- Protective eyewear.

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

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USER SAFETY RECOMMENDATIONS**Users Should:**

Wash hands before eating, drinking, chewing gum, using tobacco or using the 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. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. 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 if bees are visiting the treatment area.

Physical/Chemical Hazards

Do not use or store near heat or open flame

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.

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 company representative or agricultural advisor for the best alternative method of control for your area.

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, such as Barrier Laminate or Nitrile Rubber or Neoprene Rubber or Viton, and Shoes plus socks.

STORAGE AND DISPOSAL

Pesticide Storage

Do not freeze. Do not store below 40°F. If crystals are observed, warm material to above 60°F by placing container in warm location. Shake or roll container periodically to redissolve solids.

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, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call FMC: 1-800-331-3148.

To confine spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal

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

Container Disposal

Metal or Plastic Container: Triple rinse (or equivalent) then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Do not cut or weld metal containers.

U-Turn® Container: Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

Special Equipment

The registration of Tundra CA in California requires that the product be used in closed systems that meet the criteria for closed systems as established by the California Department of Food and Agriculture. The criteria and a list of the closed systems meeting the criteria are available through the California Department of Food and Agriculture.

Rotational Crops

Crops for which bifenthrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days following the final application of bifenthrin.

Tank-Mixture

Tundra CA Insecticide/Miticide may be applied in tank mixtures with other products approved for use on registered crops. Observe all restrictions and precautions which appear on the labels of these products. Test for compatibility of products before mixing.

Application Instructions

Rate of application is variable according to pest pressure, timing of sprays, and field scouting. Use lower rates under light to moderate infestations; higher rates under heavy insect pressure and for mite control. Arid climates generally require higher rates.

Chemigation Use Directions

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation 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.

For LEPA irrigation, a minimum of 0.75 inch of water per acre is recommended. Where non-emulsified oils are used as the diluent, 1 to 2 pints per acre is recommended.

Results from utilizing chemigation have been variable and depend upon the set up and calibration of equipment. Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. Contact your State Agricultural Extension Service specialists, equipment manufacturers or other experts for consultation on the suitability of the equipment set up to obtain effective control of the target insect pests.

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. Failure to cease application during a mechanical stoppage may result in undesirable residues to adjacent areas.

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.

Tundra[®] CA insecticide/miticide should be applied continuously for the duration of the water application. Tundra CA should be diluted in sufficient volume to ensure accurate application over the area to be treated. When using chemigation, a minimum of 0.5 inch per acre of irrigation water is recommended. Agitation generally is not required when a suitable diluent is used. A diluent test should be conducted to ensure that phase separation will not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable control.

Spray Drift Precautions

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

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

Do not apply by ground equipment within 25 feet, or by air within 150 feet of lakes; reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds. Increase the buffer zone to 450 feet when ultra low volume (ULV) application is made in cotton.

Use of ultra low volume (ULV) application on corn and hops is prohibited.

For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or rotor diameter.

Use the largest droplet size consistent with good pest control. Formation of very small droplets may 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.

Spray should be released at the lowest height consistent with pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.

Make aerial or ground applications when the wind velocity favors on target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.

Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Do not cultivate within 10 feet of the aquatic area so as to allow growth of a vegetative filter strip.

Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.

Do not make aerial or ground applications during temperature inversions. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

BRASSICAS

Crop	Pest	Dosage		Remarks
		Lb/A/A	Fl. Oz./A	
Head and Stem Brassica Vegetables, including: Broccoli, Chinese Broccoli (gai lon, white flowering broccoli) Brussels Sprouts Cauliflower Cavalo Broccolo Kohlrabi Cabbage Chinese Cabbage (napa) Chinese Mustard Cabbage (gai choy)	Cutworms Corn Earworm Saltmarsh Caterpillar Flea Beetles Imported Cabbageworm Whitefly Armyworms Loopers Crickets Diamondback Moth	0.033 - 0.10	2.1 - 6.4	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. Do not apply more than 0.5 lb. active ingredient (1 quart) per acre per season.
	Lygus Spp.	0.08 - 0.10	5.12 - 6.4	Do not make more than 5 applications after bloom. Do not make applications less than 7 days apart. Do not apply within 7 days of harvest.

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CANEBERRIES

Crop	Pest	Dosage		Remarks
		Lb/A/A	Fl. Oz./A	
Caneberries including: Blackberries Bingleberries Dewberries Lowberries Marionberries Olallieberries Youngberries Loganberries Raspberries	Leafrollers Orange Tortrix Root Weevils	0.05 - 0.10	3.2 - 6.4	Apply by air or ground equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons per acre by air and 50 gallons per acre by ground). One application may be made pre-bloom and a second application may be made post-bloom.
	Spider Mites	0.10	6.4	Do not apply within 3 days of harvest.

CANOLA, CRAMBE, RAPESEED

Crop	Pest	Dosage		Remarks
		Lb/A/A	Fl. Oz./A	
Canola Crambe Rapeseed	Cutworms Aphids Cutworms Diamondback Moth Loopers Other Lepidopterous Larvae Flea Beetle Flea Hopper Grasshopper Plant Bug Stink Bugs Seedpod Weevil Thrips Whitefly Armyworms	0.033 - 0.04	2.1 - 2.6	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. Do not apply more than 0.8 lb. active ingredient (5.12 ounces) per acre per season. Do not make applications less than 14 days apart. Do not apply within 35 days of harvest.

COTTON

Pest	Dosage		Remarks
	Lb/A/A	Fl. Oz./A	
European Corn Borer Soybean (Banded) Thrips Tobacco Thrips	0.02 - 0.1	1.3 - 6.4	Tundra CA may be applied in water or refined vegetable oil (soybean/cottonseed). Application in Water: Apply in a minimum of 5 gallons per acre with ground equipment or 1 gallon per acre by aircraft. When applying by air, 1 quart of emulsified oil may be substituted for one quart of water in the finished spray.
Boll Weevil Bollworm Cabbage Looper Cotton Aphid Cotton Fleahopper Cotton Leafperforator Cutworms Fall Armyworm Lygus Spp. Plant Bugs Saltmarsh Caterpillar Southern Garden Leafhopper Stink Bugs Tobacco Budworm Whitefly Yellow Striped Armyworm	0.04 - 0.1	2.6 - 6.4	To Control Boll Weevil: Apply Tundra CA at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels. To Control Mites and Aphids: Apply when pests first appear. Repeat as necessary to maintain control. Higher rates will be required once a damaging threshold is established.

Pest	Dosage		Remarks
	Lb/AI/A	Fl. Oz./A	
Beet Armyworm Carmine Spider Mite Pink Bollworm Twospotted Spider Mite	0.06 - 0.1	3.8 - 6.4	
<p>Do not apply more than 0.3 pound active per acre per season. Do not make more than 3 applications per season. Do not apply within 14 days of harvest. Do not graze livestock in treated areas or cut treated crops for feed. Do not make more than 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season. Synthetic pyrethroid products include Ambush[®], Ammo[®], Asana[®] XL, Baythroid[®], Capture[®], Danitol[®], Karate[®], Mustang[®], Pounce[®] and Scout[®] X-TRA.</p>			

**FIELD CORN (GRAIN AND SILAGE), POPCORN,
FIELD CORN GROWN FOR SEED (AT PLANT USE)**

Pest	Dosage		Remarks
	Lb/AI/A	Fl. Oz./A	
Corn Rootworm Larvae Mexican Northern Southern Western	.0046 lb. active per 1,000 linear feet of row	0.30 fl. oz. per 1,000 linear feet of row	Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to determine the Tundra CA needs per acre.
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	.0023 to .0046 lb. active per 1,000 linear feet of row	0.15 to 0.30 fl. oz. per 1,000 linear feet of row	<p>Mix Tundra CA with water or fertilizer in the following manner. Fill the spray tank approximately one-half full with water or liquid fertilizer, add the proper amount of Tundra CA, then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.</p> <p>Applications of Tundra CA alone or in recommended tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of Tundra CA and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application.</p> <p>Do not apply to soil where there is greater than 30% cover of crop residue remaining.</p> <p>Do not apply within 30 days of harvest.</p> <p>Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.</p> <p>Do not apply more than 0.1 pound active per acre per season as an at plant application.</p>
Row Spacings (inches)			40 38 36 30
Tundra CA (pounds ai per acre)			0.060 0.064 0.069 0.080
Tundra CA (formulated ounces per acre)			3.9 4.1 4.4 5.12

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**FIELD CORN (GRAIN AND SILAGE), POPCORN,
FIELD CORN GROWN FOR SEED (FOLIAR USE)**

Pest	Dosage		Remarks & Restrictions
	Lb. A/A.	Fl. Oz./A	
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Leafhopper Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug Thrip True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033 – 0.10	2.1 – 6.4	<p>Restrictions – Corn Do not apply more than 0.2 pound active per acre per season.</p> <p>Do not apply within 30 days of harvest.</p> <p>Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application.</p> <p>Use of ultra low volume (ULV) application on corn is prohibited.</p> <p>Do not make aerial or ground applications to corn if heavy rainfall is imminent.</p> <p>Use of Tundra CA on corn is prohibited in all coastal counties.</p> <p>Remarks – Corn General: Apply in a minimum of 2-5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment. To improve control by aircraft, use 5 gallons of finished spray per acre particularly when initial populations are heavier than normal. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>To control ear-attacking pests: Apply Tundra CA just before silking and repeat as necessary to maintain control.</p> <p>Southwestern Corn Borer, European Corn Borer: Make application for corn borer control with initial application at or shortly before egg hatch.</p> <p>For control of other insect pests: Apply when pests first appear and repeat as necessary.</p>
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08 – 0.10	5.12 – 6.4	<p>For Control of Mites: Apply for Banks Grass Mite control when colonies first form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.</p> <p>For Twospotted Spider Mite and Carmine Mite control, apply when colonies first form prior to leaf damage or discoloration and before wide-spread mite dispersal throughout the canopy.</p> <p>Higher rates will be necessary for heavier initial populations and corn under heat or drought stress. Field experience with dimethoate at 0.5 lb. active per acre in tank mixture has demonstrated good control under these conditions.</p>

SWEET CORN/SWEET CORN GROWN FOR SEED (AT PLANT USE)

Pest	Dosage		Remarks	
	Lb./A/A.	Fl. Oz./A		
Corn Rootworm Larvae Mexican Northern Southern Western	.0046 pound active per 1,000 linear feet of row	0.30 fl. oz. per 1,000 linear feet of row	Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe in front of the press wheel centered over the row. Use the table below to determine the Tundra 2EC needs per acre. Apply in a minimum of 3 gallons of finished spray per acre. Mix Tundra 2EC with water or fertilizer in the following manner. Fill the spray tank approximately one-half full with water or liquid fertilizer, add the proper amount of Tundra 2EC, then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture. Applications of Tundra 2EC alone or in recommended tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of Tundra 2EC and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application.	
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	.0023 to .0046 pound active per 1,000 linear feet of row	0.15 to 0.30 fl. oz. per 1,000 linear feet of row		
Do not apply to soil where there is greater than 30% cover of crop residue remaining. Do not apply within 30 days of harvest. Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment. Do not apply more than 0.1 pound active per acre per season as an at plant application.				
Row Spacings (inches)	40	38	36	30
Tundra 2EC (pounds ai per acre)	0.060	0.064	0.069	0.080
Tundra 2EC (formulated ounces per acre)	3.9	4.1	4.4	5.12

SWEET CORN/SWEET CORN GROWN FOR SEED

Pest	Dosage		Remarks & Restrictions
	Lb./A/A.	Fl. Oz./A	
Aphids	0.033 - 0.10	2.1 - 6.4	<p>Restrictions - Sweet Corn</p> <p>Do not apply more than 0.2 pound active ingredient (12.8 ounces formulated) per acre per season.</p> <p>Do not apply within 1 day of harvest.</p> <p>Do not graze livestock in treated areas or cut treated crops for feed within 1 day of the last application.</p> <p>Use of ultra low volume (ULV) application on corn is prohibited.</p> <p>Do not make aerial or ground applications to corn if heavy rainfall is imminent.</p> <p>Use of Tundra CA on corn is prohibited in all coastal counties.</p> <p>Remarks - Sweet Corn</p> <p>General: Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>To control ear-attacking pests: Apply Tundra CA when silking begins and repeat as necessary to maintain control.</p>
Army Cutworm			
Aster Leafhopper			
Beet Armyworm			
Cereal Leaf Beetle			
Chinch Bug			
Common Stalk Borer			
Corn Earworm			
Corn Rootworm Adults			
Corn Silkworm			
Cucumber Beetle Adult			
Cutworm Species			
European Corn Borer			
Fall Armyworm			
Flea Beetle			
Grasshoppers			
Greenbug			
Japanese Beetle Adult			
Leafhopper			
Sap Beetle			
Southern Armyworm			
Southern Corn Leaf Beetle			
Southwestern Corn Borer			
Stinkbugs			
Tarnished Plant Bug			
Thrip			
True Armyworm or Armyworm Species			
Webworms			
Western Bean Cutworm			

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Pest	Dosage		Remarks & Restrictions
	Lb./A/A.	Fl. Oz./A	
Yellowstriped Armyworm			<p>Southwestern Corn Borer, European Corn Borer: Make 2 applications for corn borer control with the initial application at or shortly before egg hatch.</p> <p>For control of other insect pests: Apply when pests first appear and repeat as necessary.</p>
Banks Grass Mite Carmine Mite Pacific Spider Mite Twospotted Spider Mite	0.08 – 0.10	5.12 – 6.4	<p>For Control of Mites: Apply for Banks Grass Mite control when colonies first form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.</p> <p>For Twospotted Spider Mite and Carmine Mite control, apply when colonies first form prior to leaf damage or discoloration and before wide-spread mite dispersal throughout the canopy.</p> <p>Higher rates will be necessary for heavier initial populations and corn under heat or drought stress.</p>

ARTICHOKE

Pest	Dosage		Remarks
	Lb./A/A.	Fl. Oz./A	
Cribrate Weevil Artichoke Plume Moth	0.10	6.4	<p>Apply when pest population reaches damaging threshold and repeat as necessary to maintain control, but not more often than 15-day intervals.</p> <p>Application by ground: Apply a full cover spray in a minimum of 75 gallons of finished spray per acre.</p> <p>Application by air: Apply specified dosage in a minimum of 10 gallons per acre.</p> <p>A 5-day preharvest interval must be observed.</p>

CUCURBITS:

Crop	Pest	Dosage	
		Lb./AI/A	Fl. Oz/A
Chayote (fruit) Chinese waxgourd (Chinese preserving Melon) Citron melon Cucumber Gherkin Gourd, edible (includes hyotan, cucuzza) (<i>Luffa</i> spp.) (includes hechima, Chinese okra) (<i>Momordica</i> spp.) (includes balsam apple, Balsam pear, bitter melon, Chinese cucumber) Muskmelon (hybrids and/or cultivars of <i>Cucumis melo</i>) (includes true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pine-apple melon, Santa Claus melon, and snake melon) Pumpkin (<i>Cucurbita</i> spp.) Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow zucchini) Squash, winter (includes butternut squash, calabaza, hubbard squash (<i>C. mixta</i> ; <i>C. pepo</i>) includes acorn squash, spaghetti squash) Watermelon (includes hybrids and/or varieties of <i>Citrullis</i> spp.)	Aphids Cutworms Cabbage Looper Leafhoppers Cucumber Beetles Squash Bugs Armyworms Melonworm Pickleworm Plant bug Stink Bugs Rindworm Squash Vine Borer Corn Earworm Tobacco Budworm Grasshopper	0.04 - 0.10	2.6 - 6.4
	Whitefly Twospotted Spider Mite Carmine Mite Banks Grass Mite <i>Lygus</i> spp.	0.08-0.10	5.12-6.4

Apply in a minimum of 5 gallons of finished spray per acre by air or in a minimum of 20 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.

Do not apply more than 0.3 lb. active ingredient (19.2 ounces formulated) per acre per season.

Do not make more than two applications after bloom.

Do not make applications less than 7 days apart.

Do not apply within 3 days of harvest.

LETTUCE, HEAD

Pest	Dosage		Remarks
	Lb./AI/A.	Fl. Oz./A	
Aphids Armyworms Cabbage Maggot Corn Earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Grasshopper Imported Cabbageworm Leafhoppers Loopers Salt Marsh Caterpillar Stink Bug Spp. Thrips Tobacco Budworm Whitefly	0.033 to 0.10	2.1 to 6.4	Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment and 5 gallons per acre by air. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. Do not make applications less than 7 days apart. A maximum of 0.5 lb. active ingredient may be applied per acre per season. Do not apply within 7 days of harvest.
Lygus Spp.	0.08 to 0.10	5.12 to 6.4	

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Pest	Dosage		Remarks
	Lb./A/A.	Fl. Oz./A	
Carmine Mite Two Spotted Spider Mite			

PEPPERS, BELL AND NON-BELL

Pest	Dosage		Remarks
	Lb./A/A.	Fl. Oz./A	
Aphids Armyworms Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafhoppers Leafminers Loopers Pepper Weevil Stink Bug spp. Tobacco Budworm Thrips Whitefly	0.033 to 0.1	2.1 to 6.4	Apply using sufficient water to obtain uniform coverage. Apply as needed. 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 make applications less than 7 days apart. Do not apply more than 0.20 pound active ingredient per acre per season. Do not apply within 7 days of harvest.
Lygus Spp. Broad Mite Carmine Mite Twospotted Spider Mite	0.08 to 0.10	5.12 to 6.4	

SUCCULENT PEAS AND BEANS

Crop	Pest	Dosage		Remarks
		Lb./A/A.	Fl. Oz./A	
Pea (<i>Pisum</i> spp.): Dwarf pea Edible-pod pea English pea Garden pea Green pea Snow pea Sugar snap pea Pigeon pea Bean (<i>Phaseolus</i> spp.) Broadbean (succulent) Lima bean (green) Runner bean Snap bean Wax bean Bean (<i>Vigna</i> spp.) Asparagus bean Blackeyed pea Chinese longbean Cowpea Moth bean Southern pea Yardlong bean Jackbean Soybean (immature seed) Sword bean	Flea Beetle Grasshoppers Aster Leafhopper Leafhoppers Aphids Beet Armyworm Fall Armyworm Southern Armyworm Yellowstriped Armyworm Bean Leaf Beetle Cucumber Beetles Japanese Beetle Adult Sap Beetle Plant Bug Stink Bugs Tarnished Plant Bug Alfalfa Caterpillar Cloverworm European Corn Borer Cutworms Western Bean Cutworm Cutworm Corn Earworm Loopers Corn Rootworm Adult Thrips Webworms Pea Weevil Pea Leaf Weevil Whitefly	0.025 - 0.10 0.033 - 0.10	1.6 - 6.4 2.1 - 6.4	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. Do not apply more than 0.2 lb. active ingredient (12.8 ounces formulated) per acre per season. Do not apply within 3 days of harvest.

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Crop	Pest	Dosage		Remarks
		Lb./A/A	Fl. Oz./A	
	Banks Grass Mite Twospotted Spider Mite Mite Carmine Mite <i>Lygus</i> spp.	0.08 - 0.10	5.12 - 6.4	

EGGPLANT

Pest	Dosage		Remarks
	Lb./A/A	Fl. Oz./A	
Colorado Potato Beetle Corn Earworm European Corn Borer Flea Beetle Cucumber Beetle Cabbage Looper Tomato Pinworm Tomato Hornworm Vegetable Leafminer Whitefly Armyworms Plant Bug Stink Bug Thrips	0.033 - 0.10	2.1 - 6.4	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. Do not make applications less than 7 days apart. Do not apply more than 0.2 lb. active ingredient (12.8 ounces formulated) per acre per season. Do not apply within 9 days of harvest.
Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite <i>Lygus</i> spp.	0.08 - 0.10	5.12 - 6.4	

HOPS

Pest	Dosage		Remarks
	Lb./A/A	Fl. Oz./A	
Aphids Armyworms Cutworms Leafrollers Loopers	0.06 - 0.1	3.8 - 6.4	Do not exceed 0.1 lb ai per acre per application. Do not exceed 0.3 lb ai per acre per season.
Root Weevils	0.05 - 0.1	3.2 - 6.4	A spray interval of 21 days between applications must be maintained. A 14-day pre-harvest interval must be observed.
Twospotted Spider Mite	0.1	6.4	Application by ground: For best results, full coverage is essential. Early season recommend 100-150 gallons of spray per acre. Late season recommend 200-250 gallons of spray per acre. For Root Weevil control, make a directed spray to the base of the plant. Spray up the vine 3 feet and the soil surface 1.5 to 2 feet on either side of the plant. Application by air for late season control of Twospotted Spider Mites: Apply no less than 6.4 oz. (0.1 lb ai) per application in a minimum of 10 gallons per acre. Use of ultra low volume (ULV) application on hops is prohibited.

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TOMATOES (1 day phi)

Insects Controlled	Rate of Application	Method of Application
Aphids Armyworms, including: Beet Armyworm, Fall Armyworm, Southern Yellowstriped Armyworm Bean Leaf Beetle Cabbageworm Carmine Mite Cloverworm Corn Earworm Corn Rootworm Cucumber Beetles Cutworms Diamondback Moth European Corn Borer Flea Beetles Flea Hopper Grasshopper Japanese Beetle (Adult) Leafhoppers Loopers Lygus Spp. Melonworm Pea Weevil Pea Leaf Weevil Pickleworm Plant Bug Rindworm Salt Marsh Caterpillar Sap Beetle Seedpod Weevil Squash Bugs Stink Bug Spp. Tobacco Budworm Tarnished Plant Bug Thrips Twospotted Spider Mite Whitefly	2.1 – 5.2 fl. oz. (0.033 – 0.08 lb. active) per acre	Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment. Thorough coverage is essential to achieve control.
Do not make applications less than 10 days apart. A maximum of 4 applications may be applied per season.		

SPINACH (40 day phi)

Insects Controlled	Rate of Application	Method of Application
Colorado Potato Beetle Tomato Pinworm Tomato Hornworm Armyworms Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Whitefly	2.1 to 6.4 oz. (0.033 to 0.10 pound active) per acre	For control of Whiteflies apply foliar treatments of Tundra [®] insecticide by ground or air at rates of up to 0.4 pt. (0.1 lb active) per acre at minimum 7-day intervals up to a maximum of 4 applications. Do not apply within 40 days of harvest. For control of Fire Ants apply Tundra [®] insecticide to the soil (at planting) or as a foliar treatment by ground or air at rates of up to 0.4 pt. (0.1 lb active) per acre at minimum 7-day intervals up to a maximum of 4 applications. Do not apply within 40 days of harvest.
Broad Mite Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite	5.12 to 6.4 oz. (0.08 to 0.10 pound active) per acre	Apply the specified dosage in 5-50 gallons of finished spray per acre by air or 10-50 gallons finished spray per acre by ground.

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Insects Controlled	Rate of Application	Method of Application
Lygus Spp. Fire Ants		
Do not make applications less than 7 days apart. Do not apply more than 0.4 pounds active ingredient per acre per season.		

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