# IMIDACLOPRID 4L CTN Insecticide for Cotton and Pecans

ACTIVE INGREDIENT: Imidacloprid, 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine. 40.7% INERT INGREDIENTS: 59.3% TOTAL: 100.0%						
Contains 4 pounds	The state of the s					
	KEEP OUT OF REACH OF CHILDREN					
	CAUTION					
	, FIRST AID					
IF SWALLOWED:	· · · · · · · · · · · · · · · · · · ·					
IF ON SKIN OR CLOTHING:	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>					
IF INHALED:	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>					
IF IN EYES:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>					
	gency call CHEMTREC toll free at 1-800-424-9300. Have a product container or label alling a poison control center or doctor, or going for treatment.					
Note To Physicia	n: No specific antidote is available. Treat the patient symptomatically.					

EPA Reg. No. 42750-137

NET CONTENTS: \_\_\_\_\_

Manufactured For: ALBAUGH, INC. ANKENY, IA 50021

ACCEPTED OCT 26 2006

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide Registered under EPA Reg. No. 42750-137

# PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

Harmful if swallowed, absorbed through skin, or inhaled. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

# PERSONAL PROTECTIVE EQUIPMENT (PPE):

Some materials that are chemical resistant to this product are listed below. More for Category C on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear:

- 1. Long-sleeved shirt and long pants
- 2. Chemical-resistant gloves made of any waterproof material such as, nitrile rubber, butyl rubber, neoprene rubber, barrier laminate, polyethylene, polyvinyl chloride (PVC) or viton.
- 3. Shoes plus socks

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

#### **FNGINEFRING CONTROLS STATEMENT**

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 SAFETY RECOMMENDATIONS

#### Users should:

- 1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet
- 2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 3. Remove Personal Protective Equipment 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**

Do not apply directly to water, areas where surface water is present or to intertidal areas below the mean high water mark. 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 area. This product is toxic to wildlife and highly toxic to aquatic invertebrates.

This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

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

#### SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making application decisions. Avoiding spray drift is the responsibility of the applicator.

## Mixing and Loading

To avoid potential contamination of groundwater, the use of a properly designed and maintained containment pad for mixing and loading of any pesticide into application equipment is recommended. If containment pad is not used, maintain a minimum distance of 25 feet between mixing and loading areas and potential surface to groundwater conduits such as field sumps, uncased well head, sinkholes or field drains.

# For Aerial Applications

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

# Importance of Droplet Size

An important factor influencing drift is droplet size. Small droplets (<150 - 200 microns) drift to a greater extent than large droplets. Within typical equipment specifications, applications should be made to deliver the largest droplet spectrum that provides sufficient control and coverage. 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 possible height consistent with good pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.

# Wind Speed Restrictions

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size, canopy and equipment specifications determine drift potential at any given wind speed. Do not apply when winds are greater than 15 mph and avoid gusty and windless conditions. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

# **Restrictions During Temperature Inversions**

Do not make aerial or ground applications during temperature inversions. Drift potential is high during temperature inversions. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however if fog is not present, inversions can also be identified by the movement of smoke from a ground source. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that

moves upward and rapidly dissipates indicates good vertical mixing.

No-Spray Zone Requirements for Foliar Applications

Do not apply by ground 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.

# **Runoff Management**

Do not cultivate within 10 feet of the aquatic areas to allow growth of a vegetative filter strip. When used on erodible soils, best management practices for minimizing runoff should be employed. Consult your local Natural Resources Conservation Service for recommendations in your use area.

## **Endangered Species Notice**

Under the Endangered Species Act, it is a Federal Offense to use any pesticide in a manner that results in the death of a member of an endangered species. Consult your local county bulletin, County Extension Agent, or Pesticide State Lead Agency for information concerning endangered species in your area.

#### RESISTANCE MANAGEMENT

Some insects will develop resistance to insecticides after repeated use. Use of this product should conform to resistance management strategies established for the use area.

IMIDACLOPRID 4L CTN is a neonicitinoid insecticide. Insect species that develop a tolerance to neonicotinoid and other Group 4A insecticides may become dominate in areas that undergo repeated use of those class insecticides.

Applicators should avoid applying Group 4A class insecticides more than three consecutive applications in a row as a resistance management tool. At a minimum the fourth application in a field for control of a specific insect species should be made with a product that uses a different mode of action. That and other IPM strategies will prevent or delay resistance development to Group 4A insecticides.

Consult your local extension specialist or crop advisor information regarding insect resistance management recommendations.

## **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.

Shake well before using.

# AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and 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:

- 1. Coveralls
- 2. Chemical-resistant gloves made of any waterproof material such as, nitrile rubber, butyl rubber, neoprene rubber, barrier laminate, polyethylene, polyvinyl chloride (PVC) or viton.
- 3. Shoes plus socks

## STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a cool, dry place, out of direct sunlight, and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area. Handle and open container in a manner as to prevent spillage. If the container is leaking, invert to prevent leakage. If container is leaking or material spilled for any reason or cause, carefully darn up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides below. In spill or leak incidents, keep unauthorized people away.

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

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

## APPLICATION DIRECTIONS

Restriction: Do not apply IMIDACLOPRID 4L CTN-through any type of irrigation system or in enclosed structures such as greenhouses or plant houses.

<u>Do Not Apply IMIDACLOPRID 4L CTN In Enclosed Structures Such As Greenhouses Or Planthouses.</u>

IMIDACLOPRID 4L CTN should be applied as a directed or broadcast foliar spray. Thorough coverage of foliage is necessary without runoff for optimum insecticidal efficacy. Use adequate spray volumes, properly calibrated application equipment and spray adjuvant if necessary to obtain thorough coverage. Failure to provide adequate coverage and retention

of IMIDACLOPRID 4L CTN on leaves and fruit may result in loss of insect control or delay in onset of activity. IMIDACLOPRID 4L CTN may be applied with properly calibrated ground or aerial application equipment. Minimum recommended spray volumes unless otherwise specified on crop specific recommended application sections are 10 gallons/Acre by ground application and 5 gallons/Acre through aerial equipment. IMIDACLOPRID 4L CTN may also be applied by overhead chemigation (see additional CHEMIGATION DIRECTIONS FOR USE section below) if allowed in crop specific Recommended Application section.

IMIDACLOPRID 4I CTN use on crops grown for production of true seed intended for private or commercial planting is generally not recommended but may be allowed under State specific supplemental labeling. As with any insecticide, care should be taken to minimize exposure of IMIDACLOPRID 4L CTN to honey bees and other pollinators. Use of IMIDACLOPRID 4L CTN on crops requiring bee pollination should be avoided during bloom and a minimum of 10 days prior to bloom. Additional information on IMIDACLOPRID 4L CTN used for these crops and other questions may be obtained form the Cooperative Extension Service, PCAs, consultants or local Albaugh, Inc. representatives.

Do not apply more than 0.5 lb active ingredient per acre, per crop season, regardless of formulation or method of application, unless specified within a crop-science Recommended Application section for a given crop.

## MIXING INSTRUCTIONS

- 1. Fill spray tank with 1/4 to 1/3 water volume to be used
- 2. Add IMIDACLOPRID 4L CTN
- 3. Add final amount of water maintaining agitation
- 4. Add any tank mix products in order listed below

# Mixing Order for Tank Mixes

- 1. Wettable powder or Water Dispersible Granule products
- 2. Other Flowables
- 3. Emulsifiable Concentrates

Maintain agitation as each component is added and do not add next tank mix product until prior product is thoroughly mixed. If a fertilizer solution is added, use of a compatibility agent may be needed.

Maintain constant agitation during both mixing and application to ensure uniformity of spray mixture.

If applicator has no past experience with a particular tank mix then a standard compatibility test should be conducted. Mix intended tank mix components in a clear one quart jar at approximate ratios and shake vigorously for 3-5 minutes. Allow to stand and observe any adverse reactions such as precipitate or separation that indicates incompatibility.

## **CHEMIGATION DIRECTIONS FOR USE**

Refer to DIRECTIONS FOR USE section before proceeding with chemigation application.

#### Types of Irrigation Systems

Chemigation applications of IMIDACLOPRID 4L CTN may be made to crops through overhead sprinkler chemigation systems if specified in crop-specific Recommended Application sections. Do not apply IMIDACLOPRID 4L CTN through any other type of irrigation system.

# **Water Volume**

IMIDACLOPRID 4L CTN chemigation applications should be made as concentrated as possible. Retention of IMIDACLOPRID 4L CTN on target site of insect infestation is necessary for optimum activity. Chemigation of IMIDACLOPRID 4L CTN in water volumes exceeding 0.1 inch/Acre is not recommended.

# **Uniform Water Distribution and System Calibration**

The irrigation system must provide uniform distribution of treated water. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. The system must be calibrated to uniformly apply the rates specified. If you have questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers or other experts.

## **Chemigation Monitoring**

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.

# Drift

Do not apply when wind speed favors drift beyond the area intended for treatment.

## **Required System Safety Devices**

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 closing, 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 irrigatin 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 decreased 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.

# **Using Water from Public Water Systems**

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops or in cases where there is no water pump, 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 fitting with a system interlock.

## ROTATIONAL CROP RESTRICTIONS

Fields treated with IMIDACLOPRID 4L CTN may be replanted with other crops at the intervals below.

IMMEDIATE		30 DAYS	10 MONTHS	12 MONTHS
Barley, Canola, Corn (field, pop & sweet),	Rape seed, Sorghum, Sugarbeet, <b>Wheat</b>	Cereals (including buckwheat, millet, oats, rice, rye and triticale), safflower, soybean	Onion, Bulb vegetables	All other crops

Cover crops for soil building or erosion control may be planted any time, but do not graze or harvest for food or feed.

#### COTTON

Apply as foliar spray at specified rate per acre when insect pressure reaches economic threshold. Followup applications may be required when pest pressure is high. Retreatment should be based on field scout reports.

Treatments made when insects are in early growth stages are most effective. Uniform coverage is required to achieve best control and a spray adjuvant may help improve coverage. Low volume applications made using less than 5 gallons of spray solution may result in slower effect or reduced control.

IMIDACLOPRID 4L CTN may be tank mixed with other labeled insecticides to increase control or control pests not controlled by imidacloprid. Apply only through properly calibrated ground, aerial or chemigation application equipment insuring thorough coverage.

For control of Cotton Aphids, Cotton Flea hoppers, Bandedwinged Whitefly, Plant bugs (excluding *Lygus hesperus*), Green Stink Bug, Southern Green Stink Bug and Bollworn/Budworm (ovicidal effect) apply 1.0 to 1.5 0.9 to 1.8 fluid ounces per acre as a broadcast or directed spray to infested area.

For suppression of Lygus Bug (Lygus Hesperus) and Whitflies (other than bandedwinged) apply  $\frac{1.5}{1.35}$  to  $\frac{1.8}{1.35}$  fluid ounces per acre.

IMIDACLOPRID 4L CTN at a rate of 1.0 0.9 to 1.35 fluid ounce per acre may be tank mixed with Bidrin® 8 to enhance early season control of Thrips and mid to late season control of Plant bugs, Stink bugs (including Brown stink bug), Grasshoppers, Salt marsh caterpillar and Cotton leaf perforator. Refer to the Bidrin® 8 product label for specific use recommendations and application rates.

Observe all restrictions and precautions that appear on the Bidrin label.

Notes and Restrictions for Cotton:

- Pre-Harvest Interval (PHI): 14 days
- Minimum interval between applications: 7 days
- Maximum IMIDACLOPRID 4L CTN allowed per season: 9.9 fluid ounces/Acre (0.31 lb. Al/A)
- Maximum number of IMIDACLOPRID 4L CTN applications per crop season: 5
- Do not graze treated fields after any application of IMIDACLOPRID 4L CTN.
- Regardless of formulation or method of application, apply no more than 0.5 lb active ingredient of imidacloprid per acre per season, including seed treatment, soil and foliar uses.

#### **PECAN**

For control of Aphids (use higher rate for Black pecan aphid), Phylloxera and Spittlebugs apply 1.3 to 2.6 fluid ounces per acre as a broadcast or directed spray to infested area.

Notes and Restrictions for Cotton:

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 10 days
- Maximum IMIDACLOPRID 4L CTN allowed per season: 10.1 fluid ounces/Acre (0.35 lb. Al/A)
- Use not permitted in California unless otherwise directed by supplemental labeling.

#### WARRANTY

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Albaugh. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW ALBAUGH MAKES NO OTHER WARRANTIES. EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Albaugh is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. ALBAUGH DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTS DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

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