



Imidacloprid 4F

INSECTICIDE

GROUP 4A INSECTICIDE

For protection of cotton from certain insects and promoting enhanced plant health and yield

ACTIVE INGREDIENT:	% BY WT.
Imidacloprid, 1-[[6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine	40.7%
INERT INGREDIENTS:	59.3%
TOTAL	100.0%

Contains 4 pounds of active ingredient per gallon.

SHAKE WELL BEFORE USING

EPA Reg. No. 264-783-66222

EPA Est. No. 3125-MO-001

**STOP – Read the label before use
KEEP OUT OF REACH OF CHILDREN
CAUTION**

For additional precautionary statements, see inside booklet.

**FOR FIRE, SPILL, AND/OR LEAK EMERGENCIES,
CONTACT INFOTRAC: 1-800-535-5053.
FOR MEDICAL EMERGENCIES AND HEALTH
AND SAFETY INQUIRIES, CONTACT PROSAR:
1-877-250-9291.**



M A N A

Manufactured for:
**Makhteshim Agan
of North America, Inc.**
4515 Falls of Neuse Road
Suite 300
Raleigh, NC 27609

Net Contents: 1.875 qts. (60 fl. oz.)

FIRST AID

IF SWALLOWED:	<ul style="list-style-type: none">• 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.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15 to 20 minutes.• Call a poison control center or doctor for treatment advice.
IF INHALED:	<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.• 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 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.

In case of medical emergency call PROSAR at 1-877-250-9291. Have a product container or label with you when calling a poison control center or doctor, or going for treatment.

Note To Physician: No specific antidote is available. Treat the patient symptomatically.

**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 options can be obtained by following the instructions for Category *C* on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

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

ENGINEERING 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:

- 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.
- 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, to 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 airstream 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 are known to develop resistance to insecticides after repeated use. As with any insecticide, the use of this product should conform to resistance management strategies established for the use area.

Imidacloprid 4F contains a Group 4A insecticide called imidacloprid. Insect biotypes with acquired or inherent tolerance to group 4A products may eventually dominate the insect population if Group 4A products are used repeatedly as the predominant method of control for targeted species. This may eventually result in partial or total loss of control of those species by Imidacloprid 4F and to other Group 4A products.

The active ingredient in Imidacloprid 4F is a member of neonicotinoid chemical group. Avoid using a block of more than three consecutive applications of Imidacloprid 4F and/or other Group 4A products having the same or similar mode of action. Following a neonicotinoid block of treatments, Makhteshim Agan of North America, Inc. strongly encourages the rotation to a block of applications with effective products from a different mode of action before using additional applications of neonicotinoid products. Using a block rotation or windowed approach, along with other IPM practices, is considered an effective use strategy for preventing or delaying an insect pest's ability to develop resistance to this class of chemistry.

Foliar applications of Imidacloprid 4F or other Group 4A products from the neonicotinoid chemical class should not be used on crops previously treated with a long-residual, soil-applied product from the neonicotinoid chemical class.

Other Group 4A neonicotinoid products used as foliar treatments include: Actara, Assail, CALYPSO, Centric, Intruder, LEVERAGE and Pasada. Other 4A Group neonicotinoid products used as soil treatment include: Alias and Platinum.

Contact your local extension specialist, certified crop advisor, and/or product manufacturer for additional insect resistance management recommendations. Also, for more information on Insect Resistance Management (IRM), visit the Insecticide Resistance Action Committee (IRAC) on the web at <http://irac-online.org/>.

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 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 such as nitrile rubber, butyl rubber, neoprene rubber, barrier laminate, polyethylene, polyvinyl chloride (PVC), or Viton
- 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 dam 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. Contact INFOTRAC at 1-800-535-5053 for emergency spill, fire, or leak.

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: 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.

GENERAL USE INSTRUCTIONS

- Do not apply Imidacloprid 4F through any type of irrigation system.
- Do not apply Imidacloprid 4F in enclosed structures such as greenhouses or plant houses.

Mixing Instructions

To prepare the application mixture, add a portion of the required amount of water to the spray tank and with agitation add Imidacloprid 4F. Complete filling tank with balance of water needed. Maintain sufficient agitation during both mixing and application. Imidacloprid 4F may also be used with other pesticides and/or fertilizer solutions. Please see **Compatibility Note** below. When tank mixtures of Imidacloprid 4F and other pesticides are involved, prepare the tank mixture as recommended above and follow suggested **Mixing Order** below.

Mixing Order

When pesticide mixtures are needed, add wettable powders first, Imidacloprid 4F or other flowables second, and emulsifiable concentrates last. Ensure good agitation as each component is added. Do not add an additional component until the previous is thoroughly mixed. If a fertilizer solution is added, a fertilizer-pesticide compatibility agent may be needed. Maintain constant agitation during both mixing and application to ensure uniformity of spray mixture.

Compatibility Note

Test compatibility of the intended tank mixture before adding Imidacloprid 4F to the spray or mix tank. Add proportionate amounts of each ingredient in the appropriate order, to a pint or quart jar, cap, shake for 5 minutes, and let set for 5 minutes. Poor mixing or formation of precipitates that do not readily re-disperse indicates an incompatible mixture that should not be used. For further information, contact your local Makhteshim Agan of North America, Inc. representative.

ROTATIONAL CROPS

Treated areas may be replanted with any crop specified on an imidacloprid label, or any crop for which a tolerance exists for imidacloprid, as soon as practical following the last application. For crops not listed on an imidacloprid label or for crops for which no tolerances for the active ingredient have been established, a 12-month plant-back interval should be observed. Cover crops for soil building or erosion control may be planted any time but do not graze or harvest for food or feed.

IMMEDIATE PLANT-BACK

All crops on this label plus the following crops:

Barley	Head & stem Brassica vegetables	Root vegetables
Canola	Leafy vegetables	Sorghum
Corn (field, pop, & sweet)	Leafy petiole vegetables	Strawberry
Corn vegetables	Legume vegetables (except soybean, dry)	Sugarbeet
Cucurbit vegetables	Potato	Tobacco
Fruiting vegetables	Rape seed	Tuberous vegetables
Globe artichoke		Wheat

30-DAY PLANT-BACK

Cereals (including buckwheat, millet, oats, rice, rye, and triticale)	Safflower	Soybean, dry
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12-MONTH PLANT-BACK

All Other Crops

Recommended Applications – Imidacloprid 4F Insecticide

Imidacloprid 4F may be applied with properly calibrated ground or aerial application equipment. Apply specified rate per acre as a directed or broadcast spray to infested area at earliest threshold for target pest, as population begins to develop. Thorough uniform coverage of all plant parts is required to achieve optimum control. Scout fields and retreat if needed. Make multiple applications of Imidacloprid 4F to promote plant health and yield.

The lower rates can be used early season when pest pressures are low or when tank-mixing with other effective products registered for target insect control. Degree of control or suppression of additional labeled pests will be determined, in part, by the stage of pest development at application and infestation level of those pests. Imidacloprid 4F provides optimal performance against early instar and early nymphal stages of insects as well as bollworm/budworm eggs. Applications made with less than 5 gallons per acre may result in slower activity and/or less overall control from a single application than an application made with higher gallonages. The addition of an organosilicone-based spray adjuvant is recommended for applications targeting aphids and whiteflies.

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.

COTTON

PESTS CONTROLLED	Rate Fluid Ounces/Acre
Cotton aphid Cotton fleahopper Bandedwinged whitefly Plant bugs (excludes <i>Lygus hesperus</i>) Green stink bug Southern green stink bug Bollworm/Budworm (ovicidal effect)	1.0 – 1.5
PESTS SUPPRESSED	
Lygus bug (<i>Lygus hesperus</i>) Whiteflies (other than bandedwinged whitefly)	1.5
Notes and Restrictions Pre-Harvest Interval (PHI): 14 days Minimum interval between applications: 7 days Maximum Imidacloprid 4F allowed per season: 7.5 fluid ounces/Acre (0.235 lb. AI/A) Maximum number of Imidacloprid 4F applications per season: 5 Do not graze treated fields after any application of Imidacloprid 4F.	

Tank Mix Recommendations

PESTS CONTROLLED (IN ADDITION TO PESTS LISTED ON PREVIOUS PAGE)	Imidacloprid 4F Rate Fluid Ounces/Acre	Bidrin® 8* Rate Fluid Ounces/Acre
For early-season control of: Thrips	1.0	1.6 – 3.2
For mid- to late-season control of: Plant bugs Stink bugs (including Brown stink bug) Grasshoppers Saltmarsh caterpillar Cotton leafperforator	1.0	4.0 – 8.0
Notes and Restrictions (in addition to Notes and Restrictions listed on previous page) *Refer to the Bidrin® 8 product label for specific use recommendations; observe all restrictions and precautions that appear on the label.		

WARRANTY STATEMENT

MAKHTESHIM AGAN OF NORTH AMERICA, INC. warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with 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 MAKHTESHIM AGAN OF NORTH AMERICA, INC. To the extent allowed by law, MAKHTESHIM AGAN OF NORTH AMERICA, INC. shall not be liable for consequential, special, or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the Buyer. In addition to the foregoing, no purchaser of this product (other than an end user) shall be entitled to any reimbursement for any loss suffered as a result of any suspension or cancellation of the registration for this product by the U.S. Environmental Protection Agency. Except as expressly provided herein, MAKHTESHIM AGAN OF NORTH AMERICA, INC. makes no warranties, guarantees, or representations of any kind, either expressed or implied, or by usage of trade, statutory or otherwise, with regard to the product sold, including, but not limited to merchantability, fitness for a particular purpose, use or eligibility of the product for any particular trade usage. The exclusive remedy of any buyer or user of this product for any and all losses, injuries, or damages resulting from or in any way arising from the use, handling, or application of this product, whether in contract, warranty, tort, negligence, strict liability, or otherwise, shall be damages not exceeding the purchase price paid for this product or, at MAKHTESHIM AGAN OF NORTH AMERICA, INC.'s election, the replacement of this product.

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TRIMAX is a trademark of Bayer.

Pasada and Alias are trademarks of Makhteshim Agan of North America, Inc.

Actara, Centric, Cruiser and Platinum are trademarks of the Syngenta Group Company.

Intruder is a registered trademarks of Nippon Soda Company, LTD.

Bidirin is a registered trademark of AMVAC Chemical Corporation.

