

# U.S. ENVIRONMENTAL PROTECTION AGENCY

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

#### NOTICE OF PESTICIDE:

\_ Registration

x Reregistration (under FIFRA, as amended)

EPA Reg. Number:

67760-14

Date of Issuance:

JAN (9 2008

Term of Issuance: I Incom

Unconditional

Name of Pesticide Product:

Nufos 15G Insecticide

Name and Address of Registrant (include ZIP Code):

Cheminova Inc.

1700 Route 23, Suite 300

Wayne, NJ 07470

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.

Based on your response to the Reregistration Eligibility Decision, EPA has reregistered the product listed above. This action is taken under the authority of section 4(g)(2)(C) of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended. Reregistration under this section does not eliminate the need for continual reassessment of pesticides. EPA may require submission of data at any time to maintain the registration of your product.

Generic data requirements that have been identified in the RED as confirmatory data for the active ingredient contained in the subject product will continue to be tracked and assessed in the Agency's continual reassessment of pesticides.

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable with the following comments:

Please see page 2 for comments

You must submit one (1) copy of the final printed label before you release the product for shipment. Products shipped after 12 months from the date of this Notice or the next printing of the label whichever occurs first, must bear the new revised label.

A stamped copy of the label and acute toxicity review are enclosed for your records. Should you have any questions, please contact Registration Review Manager, Dr. Akiva Abramovitch at 703-308-8328.

Signature of Approving Official:

Meredith F. Laws, Chief Meredith Jawa

Insecticide-Rodenticide Branch

Registration Division (7505P)

Date:

JAN

9 2008

## **Label Comments:**

- 1) Revise "For control of various insects....." on the top of page 1 to "For control of **listed** insects.....".
- 2) Delete under Corn last restriction "by aircraft" since the maximum 1 lb ai/acre is applicable to all foliar application to corn.
- 3) Under the Storage and Disposal heading add "Do not contaminate water, food or feed by storage and disposal"
- 4) The maximum application rate for tobacco is 2.0 lb ai/acre and not 2.025 lb ai/acre. The rate must be revised accordingly to 13.3 lb of product/acre/season.
- 5)) Delete centipede from the Asparagus table since the data is insufficient to support the use on this public health pest.

# Nufos® 15G Insecticide

For control of various insects infesting certain field and vegetable crops.

Group **1B** INSECTICIDE

**ACTIVE INGREDIENT:** 

Chlorpyrifos: o, o-diethyl o-(3,5,6-trichloro-2-pyridinyl) phosphorodithioate

15.0% 85.0%

**INERT INGREDIENTS** 

100.0%

**TOTAL** 

® Registered Trademark of Cheminova

# KEEP OUT OF REACH OF CHILDREN

# **CAUTION PRECAUCION**

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.)

IN CASE OF A MEDICAL EMERGENCY INVOLVING THIS PRODUCT, PLEASE CALL **TOLL FREE, DAY OR NIGHT, 1-866-303-6950** 

Read the entire label before using this product. Use only according to label instructions. Read the WARRANTY DISCLAIMER, INHERENT RISKS OF USE, and LIMITATION OF REMEDIES before buying or using. If terms are not acceptable, return product unopened without delay.

AGRICULTURAL CHEMICAL: Do not ship or store with food, feeds, drugs or clothing. GRANULAR INSECTICIDE

Net Weight: 50 lbs. or greater

EPA Reg. No. 67760 - 14

with COMMENTS In EPA Letter Dated:

> 9 2008 JAN

Manufactured for: Cheminova, Inc.

1700 Route 23

Wayne, NJ 07470

Under the Federal Insecticide, Fungicide, and Rodenticide Act. as amended, for the pesticide www.cheminova.us.com

PRECAUTIONARY STATEMENTS

regusered under EPA Reg. No. ZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION PRECAUCION

Harmful If swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reaction is some individuals.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product are nitrile, butyl, barrier laminate and Viton. For more information, follow instructions in Supplement Three of PR Notice 93-7. If you want more options, follow the instructions for category H on an EPA chemical-resistance category selections chart.

Loaders, applicators and all other handlers must wear:

- Coveralls over long-sleeved shirt and long pants;
- Chemical-resistant gloves;
- Chemical-resistant footwear plus socks;
- A NIOSH-approved dust mist filtering respirator with MSHA/NIOSH approval number prefix TC-21C or a NIOSH-approved respirator with any N, R, P, or HE filter.

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

#### **ENGINEERING CONTROLS**

Pilots must use an enclosed cockpit in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

When applicators use closed cab equipment 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/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

# FIRST AID Organophosphate

**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.

**IF IN EYES:** 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: 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. Note to Physician: Chlorpyrifos is a cholinesterase inhibitor. Treat symptomatically. If exposed, plasma and red blood cell cholinesterase tests may

indicate significance of exposure (baseline data are useful). Atropine, only by injection, is the preferable antidote. Oximes, such as 2-PAM/protopam, may be therapeutic if used early; however, use only in conjunction with atropine. In case of severe acute poisoning, use antidote immediately after establishing an open airway and respiration.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-866-303-6950 for emergency medical treatment information.

#### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish, aquatic invertebrates, small mammals and birds. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash water or rinsate.

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.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

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 entry into treated areas during the restricted entry interval (REI). The REI for each crop is listed in the directions for use associated with each crop.

**Exception:** If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

Certified crop advisors or persons entering under their direct supervision under certain circumstances may be exempt from the early reentry requirement pursuant to 40 C.F.R. Part 170.

PPE required for early entry into treated areas that is permitted under the Worker

Protection Standard and involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls over short sleeved shirt and short pants;
- · Chemical-resistant gloves made out of any waterproof material;
- · Chemical-resistant footwear plus socks;
- · Chemical-resistant headgear for overhead exposures.

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

#### STORAGE AND DISPOSAL

Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available.

# Insecticide Resistance Management (IRM)

Nufos 15G contains a Group 1B insecticide. Insect/mite biotypes with acquired resistance to Group 1B may eventually dominate the insect/mite population if Group 1B insecticides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by Nufos 15G or other Group 1B insecticides.

To delay development of insecticide resistance, the following practices are recommended:

- Avoid consecutive use of insecticides with the same mode of action (same insecticide group) on the same insect species.
- Use tank mixtures or premix products containing insecticides with different modes of action (different insecticide groups) provided the products are registered for the intended use.
- Base insecticide use on comprehensive Integrated Pest Management (IPM) programs.
- Monitor treated insect populations in the field for loss of effectiveness.
- Contact your local extension specialist, certified crop advisor, and or manufacturer for insecticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.

For further information or to report suspected resistance, you may contact Cheminova, Inc. by calling 1-800-548-6113 or over the internet at <a href="https://www.cheminova.us.com">www.cheminova.us.com</a>.

#### **Application Rates**

Do not apply by aircraft at a rate greater than 1 lb. ai chlorpyrifos per acre.

Table 1
Application Rates/1000 Ft of Row and Equivalent/Acre
at Different Row Spacings

Ounces of					os 15G Re rious Row	•		
Nufos 15G Per 1000 Feet of Row	40"	38"	36"	34"	32"	30"	22"	18"
3.7	3.0	3.2	3.4	3.6	3.8	4.0	5.5	6.7
4	3.3	3.4	3.6	3.8	4.1	4.4	5.9	7.3
4.5	3.7	3.9	4.1	4.3	4.6	4.9	6.7	8.2
6	4.9	5.2	5.4	5.8	6.1	6.5	8.9	10.9
6.5	5.3	5.6	5.9	6.2	6.6	7.1	9.7	11.8
7.5	6.1	6.4	6.8	7.2	7.7	8.2	11.1	13.6
8	6.5	6.9	7.3	7.7	8.2	8.7	11.9	14.5
9	7.4	7.7	8.2	8.6	9.2	9.8	13.4	16.3
12	9.8	10,3	10.9	11.5	12.3	13.1	17.8	21.8
15	12.3	12.9	13.9	14.4	15.3	16.3	22.3	27.2
16	13.1	13.8	14.5	15.4	16.3	17.4	23.8	29.0

# **Equipment Calibration**

**Note:** The following chart lists suggested initial gauge settings for application of Nufos 15G with one hopper opening per row. Be sure to check the actual application rate under your operating conditions.

- 1. Fill hopper.
- 2. Attach a plastic bag to tube opening.
- 3. Set planter to the initial settings shown on chart.
- 4. Measure off 1000 row feet and drive planter the pre-measured distance at desired speed.
- 5. Each bag should contain 6 to 8 0z. (wt.) of granules depending upon desired rate.
- 6. If the result is over or under the desired rate, adjust the settings and repeat the calibration.

Table 2
Calibration Settings for Different Types of Equipment

					Speed (	mph)				
	4	ļ		5		5	7	,		3
			Appl	ication	Rate, oz.	per 100	0 ft. of ro	w		
	8	16	8	16	8	16	8	16	8	16
Planter Type					Gauge Setting					
Gandy <sup>1</sup>	21.4	30.2	23.7	32.4	26.0	36.0	27.7	39.0	30.2	41.0
John Deere	20	44	26	46	30	49	35	52	40	54
John Deere <sup>1</sup> 7000 Max-Emerge (Odd Nos. on Gate)	14	22	16	24	18	26	19	28	21	30
John Deere 7000 Max-Emerge (Even Nos. on Gate)	17	30	20	33	24	35	26	36	28	38

John Deere <sup>2</sup>	1	2 .	2	2	2	2	2	2	2	3
71 Flexi-Planter and	30	17	5	22	9	27	13	31	16	16
Older Planters										
John Deere <sup>3</sup>	18	-	23	-	29	-	33	-	39	-
MaxEmerge Plus							ļ.	ļ		ļ
Allis Chalmers⁴	8	13	8	13	8	13	8	13	8	13
70 Series										
Allis Chalmers <sup>5</sup>	1	3	2	3	2	4	2	5	3	6
78 & 79 Series	9.0	3.0	3.3	9.5	6.0	3.0	9.0	4.0	2.5	0
Noble <sup>1</sup> (New)	11	19	14	22	16	25	17	28	19	31
White Planter	11	19	14	22	16	25	17	28	19	31
International	1	3	2	3	2	4	2	5	3	6
Harvester <sup>5</sup>	9.0	3.0	3.3	9.5	6.0	3.0	9.0	4.0	2.5	0
Buffalo Ali-Flex <sup>6</sup>	4 7/8	10	4 7/8	10	4 7/8	10	-	-	-	-
(Fleischer Mfg.)										

Gauge setting

notch

<sup>4</sup>Gauge setting is constant regardless of speed.

#### **USES**

# Alfalfa (for use only in Missouri)

**Worker Restricted Entry Interval:** Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for early entry is worn.

Apply Nufos 15G at planting as an in-furrow treatment for suppression of the target pests during establishment. Direct the granules into the planter shoe with the seed, place the applicator tube directly behind the planter shoe so that the granules drop into the seed furrow, or place the granular band applicator behind the planter shoe so that the granules fall on the soil surface and into the open seed furrow and are covered with soil.

Target Pests	Nufos 15G (lb/acre)
Cutworms Grubs	6.6
Wireworms	

#### **Specific Use Restrictions:**

- Preharvest Interval: Do not cut or graze treated alfalfa within 21 days after application.
- Do not make more than 1 application of Nufos 15G per year.
- Maximum single application rate is 1 lb ai chlorpyrifos per acre.

#### Asparagus (for use only in California)

**Worker Restricted Entry Interval:** Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for early entry is worn.

<sup>&</sup>lt;sup>2</sup>Gauge setting with range 1 & 2 – number is <u>range</u>.

<sup>&</sup>lt;sup>3</sup>An application rate of 16 oz. per 1000 ft. of row is not attainable with this equipment.

<sup>&</sup>lt;sup>5</sup>Gauge setting shown with stem gates & dial settings – number is shown gate

<sup>&</sup>lt;sup>6</sup>Number of turns opens on the adjustment nut.

Apply Nufos 15G as a postharvest ground application for suppression of the target pest. Apply as a band over the entire crown area when the asparagus beds have been split (i.e., remove most of the soil from above the asparagus crowns). Cover the area with soil the day of application. **Note:** Control may be reduced in soils with high organic matter content.

Target Pests	Nufos 15G (lb/acre)		
Centipede Symphlans	10		

# **Specific Use Restrictions:**

- Preharvest Interval: Do not apply within 180 days before harvest.
- Do not apply more than a total of 3 lb ai chlorpyrifos per acre between harvests.

#### **Citrus Orchard Floors**

**Worker Restricted Entry Interval:** Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 5 days unless PPE required for early entry is worn.

Apply Nufos 15G as ground broadcast spray directed to the orchard floor to control foraging ants and suppress mounds. Use a suitable granular applicator, such as a cyclone fertilizer spreader, that uniformly broadcasts the granules over the orchard floor. Nufos 15G may be custom blended with granular fertilizers provided that the blended mixtures can be applied uniformly to the orchard floor. Do not apply where weed growth or other obstructions impede uniform coverage of the orchard floor. Foliar applications of Nufos 15G may be made in addition to orchard floor treatments of Nufos 15G (see Specific Use Restrictions).

Target Pests	Nufos 15G (lb/acre)
Ants (excluding broadcast spray treatment for fire ants, harvester ants, carpenter ants, and pharaoh ants)	6.6

#### **Specific Use Restrictions:**

- Preharvest Interval: Do not apply within 28 days before harvest.
- Do not make more than 3 applications of Nufos 15G or other products containing chlorpyrifos per year (does not include foliar applications to citrus trees).
- Do not apply more than 20 lb of Nufos 15G (3 lb ai chlorpyrifos per acre) per year.
- Do not apply more than 1 lb ai chlorpyrifos in a single application.
- Do not make a second application within 10 days of any application of chlorpyrifos to the orchard.
- Do not allow meat or dairy animals to graze in treated areas.

Cole Crop (Brassica) Leafy Vegetables<sup>†</sup> And Radish, Rutabaga and Turnip

**Worker Restricted Entry Interval:** Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours (3 days for cauliflower) unless PPE required for early entry is worn.

<sup>†</sup> Bok choy, broccoli, broccoli raab, Brussels sprout, cabbage, cauliflower, Chinese broccoli, Chinese cabbage, collards, kale, kohlrabi

For direct seeded and transplanted crops, apply Nufos 15G as an at-plant T-band as a 4-inch wide band centered over the row. This application requires a spreader or splitter on the end of the applicator drop tube. Shallow incorporation is necessary. Placement behind the planter shoe and in front of the press wheel is recommended.

Target Pests	Nufos 15G
	(oz/1000 ft of row)
Root maggots	4.6-9.2

# Specific Use Restrictions:

- Preharvest Interval: Do not apply to cauliflower within 21 days before harvest.
   Do not apply to turnips and leafy vegetables within 30 days before harvest.
   Do not apply to raidish and rutabaga within 7 days before harvest.
- Do not make more than 1 application of Nufos 15G per season.
- Do not apply more than 7 ½ lb of Nufos 15G per acre to crops planted in 40-inch rows or more than 15 lb of Nufos 15G per acre to crops planted in 20-inch row (or two rows per bed). Use proportional amounts for other row spacings not to exceed 15 lb of Nufos 15G per acre.
- The maximum single application rate is 1.4 oz. ai chlorpyrifos per 1000 feet of row.
- Do not make a foliar application of Nufos 4E or other product containing chlorpyrifos within 10 days of an at-plant application of Nufos 15G.
- Do not use rutabaga tops for food or feed purposes.

#### Radish

Apply as an at-plant in-furrow treatment. Place the granules in the seed furrow with the seed at planting time.

Target Pests	Nufos 15G (oz/1000 ft of row)
Root maggots	3.3

#### **Specific Use Restrictions:**

- Preharvest Interval: Do not apply within 7 days before harvest.
- The maximum single application rate is 0.5 oz. ai chlorpyrifos per 1000 feet of row (2.75 lb ai chlorpyrifos per acre).
- Do not apply more than 18.3 lb of Nufos 15G per acre or make more than 1 application per seaon.

# CORN (FIELD CORN AND SWEET CORN (Including corn grown for seed)

Worker Restricted Entry Interval: Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for early entry is

worn.

Nufos 15G is compatible with all ALS inhibitor herbicides applied in accordance with label recommendations. Refer to the product labels for additional precautions and directions for use.

**At-Plant T-Band Application** Apply 8 oz of Nufos 15G per 1000 ft of row as a T-band over an open seed furrow over the row behind the planter shoe, in front of the press wheel. In conventional and minimum-till corn, incorporate into the top 1/2 to 1 inch of soil using suitable equipment. A soil applied T-band treatment may be followed by post-applied herbicides such as Callisto. Nufos 15G has demonstrated suppression of certain soil-borne pathogens that may result in physiological and agronomic advantages to corn under environmental stress conditions when compared to corn not treated with Nufos 15G.

**At-Plant In-Furrow Application** Apply 8 oz of Nufos 15G per 1000 ft of row at planting as an infurrow treatment in conventional, minimum and no-till corn. Direct the granules into the planter shoe with the seed, or place the applicator tube directly behind the planter shoe so that the granules drop into the seed furrow, or place the granular band applicator behind the planter shoe so that the granules fall on the soil surface and into the open seed furrow and are covered with soil.

#### **Postplant Application**

To control corn rootworm larvae, apply 8 oz of Nufos 15G per 1000 ft of row at cultivation by placing the granules at the base of the plant on both sides of the row just ahead of the cultivation shovels and covering the granules with soil. To control European and southwestern corn borer larvae, apply Nufos 15G in a band over the row so that the granules are directed into the whorl or use a postplant broadcast treatment. Consult your state agricultural experiment station or extension service specialist for proper time to treat and local threshold information. Scouting for insect damage is strongly encouraged.

#### **Postplant Broadcast Application**

To control European and southwestern corn borers, apply Nufos 15G by uniformly broadcasting the granules over the corn plants by aerial application or by applying the granules into the corn whorls by ground application. For aerial applications, do not apply within 150 feet of rivers, natural ponds, lakes, streams, reservoirs, marshes, estuaries and commercial fish ponds. Apply at a rate of 5 lb per acre for low to moderate first generation infestations or at 6.5 lb per acre for severe first generation infestations and all second generation infestations. Apply before larvae have entered corn stalks. Consult your state agricultural experiment station or extension service specialist for local threshold information. Scouting for insect damage is strongly encouraged.

Target Pests	Band	Aerial Broadcast			
	At-Plant A	pplications	Postplant	Application	
	T-Band	In-Furrow	Application	(lb/acre)	
armyworms	-	-	6 - 8	. •	
billbugs	8	-	-	-	
chinch bug (1)	8	8	-	-	
cutworms (1)	8	8	-	-	
European and					
southwestern					
corn borer (3)	. •				
1st Generation	•	-	3.5 - 8	5 - 6.5	
2nd Generation	•	-	6-8	6.5	

		1		<del></del>
grubs	8	8	_	-
lesser cornstalk borer	8	-		-
northern and western corn rootworm larvae	8	8	8	-
seed corn beetle	8	8	-	
seed corn maggots	8	8	_	-
southern corn rootworm larvae	8	8	8	-
symphylans	. 8		-	•
wireworms (2)	8	8	. =	-

Numbers in parentheses (-) refer to Pest-Specific Use Directions.

#### **Pest-Specific Use Directions:**

- 1. Cutworms and chinch bugs: The 8 oz rate provides suppression only for in-furrow treatments.
- 2. **Wireworms:** For best control, apply as an in-furrow treatment. Consider using a hopper box insecticidal seed treatment with T-band applications.
- 3. **European corn borer:** When using postplant banded applications, use rates of 3.5 to 4 oz of Nufos 15G per 1000 feet of row for low to moderate first generation infestations before larvae have entered corn stalks. Use application rates of 6 to 8 oz of Nufos 15G per 1000 feet of row for severe first generation infestations and all second generation infestations before larvae have entered corn stalks.

- Preharvest Interval: Do not apply within 21 days before harvest of grain or ears.
- Do not make more than 3 applications of any product containing chlorpyrifos per season, including the maximum allowed of 2 granular applications, at the 1 lb ai chlorpyrifos rate. Retreatment with a second soil application of Nufos 15G is allowed under replant situations due to loss of crop during establishment only when initially applied at the rate of 1 lb.
- Do not apply more than a total of 3 lb ai chlorpyrifos per acre per season.
- Maximum single application rate for at-plant applications is 8 oz of Nufos 15G per 1000 ft of row (1.3 lb ai chlorpyrifos per acre).
- Maximum single application rate for postplant applications is 6.5 lb of Nufos 15G (1 lb ai chlorpyrifos) per acre.
- Do not make more than 1 at-plant application and 1 foliar application of Nufos 15G per season at the 1 lb ai chlorpyrifos rate.
- Do not make a second application of Nufos 15G or other product containing chlorpyrifos within 10 days of the first application.
- If more than 1 lb ai granular chlorpyrifos per acre is applied at-plant (for a maximum of 1.3 lb ai per acre per season), only 1 additional application of a liquid product containing chlorpyrifos at 1 lb ai per acre is allowed per season, for a total of 2.3 lb ai chlorpyrifos per acre per season.
- Do not apply by aircraft at a rate greater than 1 lb ai per acre.

# **ONION (DRY BULB)**

**Worker Restricted Entry Interval:** Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for early entry is worn.

Apply as an at-plant in-furrow treatment.

Target Pests	Nufos 15G
	(oz/1000 ft of row)
Onion maggot (1)	3.7

Numbers in parentheses (-) refer to Pest-Specific Use Directions.

#### **Pest-Specific Use Directions:**

1. In Colorado, Idaho, Washington and Oregon, to control onion maggots in onions planted in double rows with rows spaced 2 to 4 inches apart, apply Nufos 15G at the rate of 3.7 oz per 1000 feet of double row. Place the granules in a 5-to 7-inch wide band over both rows behind the planter shoe and in front of the press wheel to achieve shallow incorporation.

# **Specific Use Restrictions:**

- Do not make more than 1 application of Nufos 15G per year or other product containing chlorpyrifos.
- Do not apply more than 1 lb ai chlorpyrifos per crop season.
- The maximum single application rate is 0.56 oz ai chlorpyrifos per 1000 feet of row.

## **PEANUT**

**Worker Restricted Entry Interval:** Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for early entry is worn.

At Plant Preventive Application: Apply Nufos 15G in a 6 to 12 inch band over the row behind the planter shoe and in front of the press wheel. Incorporate granules to a depth of 1-inch with tines or chains or other suitable equipment. If the 7.5 ounce rate is used at planting time, then another application of 7.5 oz. per 1,000 feet of row should be made postplant to extend control.

Postplant Preventive Application: Apply Nufos 15G to peanuts at early flowering to pegging stage of growth in a 6 to 8 inch band over the row. For extended insect control and continued suppression of *white mold* (*southern blight*), a second application of Nufos 15G may be made (see Specific Use Restrictions).

Band Rescue Application: Apply Nufos 15G in a 10-to 18-inch band over the fruiting zone.

•	Banded Applications
	(Oz. per 1000 Feet of Row)

Target Pests	At Plant Application	Postplant Application
Preventative application: Cutworms; lesser cornstalk borer; southern corn rootworm larvae; wireworms; white mold (southern blight) (1)	7.5-15	7.5-15
Potato leafhopper	-	15
Rescue application: Lesser cornstalk borer (2)		7.5-15

Numbers in parentheses (-) refer to Pest-Specific Use Directions.

# **Pest-Specific Use Directions:**

- 1. Suppression of white mold: Best suppression of white mold (southern blight) is obtained by applying the maximum rate of 15 oz per 1000 ft of row. Irrigation or rain following application is needed to enhance treatment effectiveness for suppression of white mold. Under conditions of heavy white mold pressure, a suitable fungicide may also be required and must be applied separately.
- 2. Lesser cornstalk borer: Use Nufos 15G for the control of lesser cornstalk borer as a rescue treatment when the insect first appears, usually just prior to or at pegging.

# **Specific Use Restrictions:**

- Preharvest Interval: Do not apply within 21 days before harvest.
- Do not make more than 2 applications of Nufos 15G per year.
- The combined total of preplant and postplant applications of Nufos 4E and Nufos 15G or other product containing chlorpyrifos must not exceed 4 lb ai chlorpyrifos per acre per crop season.
- Do not apply more than 15 oz of Nufos 15G per 1000 feet of row per crop season or apply more than 4 lb ai per acre chlorpyrifos per season.
- Do not make a second application of Nufos 15G or other product containing chlorpyrifos within 10 days of the first application.
- Aerial application to peanuts is prohibited.
- Do not feed treated peanut forage or hay to meat or dairy animals.

# <u>SORGHUM – GRAIN SORGHUM (MILO)</u>

**Worker Restricted Entry Interval:** Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for early entry is worn.

Apply as an at-plant T-band in a 6-to 8-inch band over the open seed furrow in front of the press wheel and incorporate into the top ½ to 1 inch of soil using suitable equipment. Equivalent rates of Nufos 15G per acre for various row spacings are given in Table 1. Use the lowest rate for lesser cornstalk borer control when protection is desired for 2 to 3 weeks or a higher rate for longer residual activity. It is absolutely necessary to incorporate the granules, especially at lower rates.

	At Plant T-Band Applications
Target Pests	(oz/1000 feet of row)

Lesser cornstalk borer	4-8
Chinch bugs (1)	. 8
Corn rootworm	
Cutworms	<u> </u>

Numbers in parentheses (-) refer to Pest Specific Use Directions

# **Pest-Specific Use Directions:**

1. Chinch bugs: 8 oz rate suppression only.

#### **Specific Use Restrictions:**

- Do not make more than 1 application of Nufos 15G per season.
- The maximum single application rate is 8 oz per 1000 fet of row (1.3 lb ai chlorpyrifos in 30-inch row spacing). Use proportional amounts for other row spacings not to exceed 1.5 lb ai chlorpyrifos per acre.
- Do not make a foliar application of Nufos 4E or other product containing chlorpyrifos within 10 days of an at-plant application of Nufos 15G.

# **SOYBEAN**

**Worker Restricted Entry Interval:** Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for early entry is worn.

Apply as an at-plant T-band in a 4-to 10-inch band over an open seed furrow in front of the press wheel and incorporate into the top ½ to 1 inch of soil using suitable equipment. For postplant application, incorporate the granules in a 4-to 10-inch band to a depth of ½ to 1 inch using a suitable cultivator. Apply Nufos 15G with equipment that provides uniform distribution of the granules over the row. Equivalent rates of Nufos 15G per acre for various row spacing are given in Table 1.

	Banded Applications Oz. per 1000 Feet of Row	
Target Pests	At Plant T-Band	Postplant Treatment
Lesser cornstalk borer Cutworms	8	8

# **Specific Use Precautions:**

Do not apply as an in-furrow treatment.

- Preharvest Interval: Do not apply within 28 days before harvest.
- Do not make more than 1 application of Nufos 15G per season or apply more than 2 applications of other products containing chlorpyrifos.
- The maximum single application rate is 8 oz per 1000 feet of row (1.2 oz ai chlorpyrifos).
- The maximum single application rate is 2 lb ai chlorpyrifos per acre for preplant/atplant incorporation and 1 lb ai chlorpyrifos per acre for foliar and postharvest application.
- Do not make a foliar application of Nufos 4E or other product containing

chlorpyrifos within 10 days of an at-plant application of Nufos 15G.

# **SUGAR BEET**

**Worker Restricted Entry Interval:** Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for early entry is worn.

At Plant Band Application: Apply Nufos 15G in a band 4 - 5 inches wide behind the planter shoe, over the drill row, and in front of the press wheel. Do not apply granules in direct contact with seeds. Apply Nufos 15G at the rate of 4.5 to 9 ounces per 1000 feet of row (equivalent to 6.75 to 13.4 lb. per acre based on a 22-inch row spacing.) Incorporate Nufos 15G into the top 1/2 to 1-inch of soil using suitable equipment.

Postemergence Band Application: Apply Nufos 15G in a band 3 to 5 inches wide over the beet row (up to the 2 to 4 true leaf stage of plant growth). Apply Nufos 15G at the rate of 6.5 to 9 oz. per 1000 feet of row (equivalent to 10 to 13.5 lb per acre based on 22-inch row spacing). Incorporate Nufos 15G into the top 1/2 to 1 inch of soil using a suitable incorporation device.

		Applications 00 Feet of Row
Target Pests	At Plant T-Band	Postplant Application
Sugar beet root maggot (1)	4.5-9	6.5-9
Cutworms	6.6-9	_
Wireworms (suppression)	6.5-9	-

Numbers in parentheses (-) refer to Pest-Specific Use Directions.

## **Pest-Specific Use Directions:**

1. When **root maggot** populations are expected to be low, apply Nufos 15G at a rate of 4.5 oz per 1000 feet of row (equivalent to 6.75 lb per acre based upon 22-inch row spacing). If initial adult fly activity indicates higher than anticipated populations, apply Nufos 4E at or near the time of peak adult emergence to augment control.

**Specific Use Precautions:** Granular insecticides, including Nufos 15G, may contribute to the stress of the sugarbeet plant under certain environmental conditions. This stress may reduce plant stand or interfere with normal plant development. Herbicides used preplant incorporated may interact with insecticides and enhance this stress.

- Preharvest Interval: Do not apply within 30 days before harvest.
- Do not make more than 1 application of Nufos 15G per season or apply more than
   2 lb ai chlorpyrifos per acre per season.
- Do not apply more than a total of 3 lb ai chlorpyrifos per acre per year, or make more than 3 applications of products containing chlorpyrifos per season.
- The maximum single application rate is 1.35 oz ai chlorpyrifos per 1000 feet of row or 2 lb ai chlorpyrifos per acre based upon a 22-inch row spacing.

 Do not make a foliar application of Nufos 4E or other product containing chlorpyrifos within 10 days of an at-plant application of Nufos 15G.

# SUNFLOWER

Worker Restricted Entry Interval: Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for early entry is worn.

Apply as an at-plant T-band. Place the granules in a 7-inch wide band over the row behind the planter shoe in front of the press wheel and incorporate into the top 1 inch of soil using suitable equipment.

Target Pests	Nufos 15G
	(oz/1000 ft of row)
Cutworms	8

# **Specific Use Restrictions:**

- Preharvest Interval: Do not apply within 42 days before harvest.
- Do not make more than 1 application of Nufos 15G per season or apply more than 3 applications of other product containing chlorpyrifos.
- The maximum single application rate is 1.25 oz ai chlorpyrifos per 1000 feet of row or 1.3 lb ai chlorpyrifos per acre based upon a 30-inch row spacing.
- Do not make a foliar application of Nufos 4E or other product containing chlorpyrifos within 10 days of an at-plant application of Nufos 15G.

# **SWEET POTATO**

**Worker Restricted Entry Interval:** Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for early entry is worn.

Apply Nufos 15G as a preplant broadcast treatment by evenly distributing the granules over the soil surface and then incorporating them into the soil to a depth of 4 to 6 inches using a rotary hoe, disc cultivator, or other suitable equipment. Plant the crop in the usual manner no later than 14 days after treatment (any delay in planting will reduce the length of time that Nufos 15G will protect against feeding damage). Nufos 15G will not control false wireworm or whitefringed beetle and other groups that attack sweet potatoes.

Target Pests	Nufos 15G (lb/acre)
Conderus (wireworm)	13.5
Systena (flea beetle)	
Sweet potato flea beetle	

- Preharvest Interval: Do not apply within 125 days before harvest.
- Do not make more than 1 application of Nufos 15G or other product containing

chlorpyrifos per season.

• The maximum single application rate is 2 lb ai chlorpyrifos per acre.

#### **TOBACCO**

**Worker Restricted Entry Interval:** Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for early entry is worn.

Apply Nufos 15G as a preplant broadcast treatment one week before transplanting using equipment that evenly distributes the granules over a treated area. Immediately following application, incorporate the granules into the soil to a depth of 2 to 4 inches using suitable equipment.

Target Pests	Nufos 15G (lb/acre)	
Cutworms Flea beetles Mole crickets	13.5	
Root maggots Wireworms		

#### **Specific Use Restrictions:**

- Preharvest Use Restrictions: Do not apply within 7 days before harvest.
- Do not make more than 1 application of Nufos 15G or other product containing chlorpyrifos per season.
- The maximum single application rate is 2.025 lb ai chlorpyrifos per acre.

#### **WARRANTY DISCLAIMER**

Cheminova warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, CHEMINOVA MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

#### **INHERENT RISKS OF USE**

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Cheminova or the Seller. All such risks shall be assumed by Buyer and User. Buyer and User agree to hold Cheminova and the Seller harmless for any claims related to such factors.

#### **LIMITATION OF REMEDIES**

To the extent consistent with applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to one of the following, at Cheminova's election:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used.

To the extent consistent with applicable law, Cheminova shall not be liable for consequential, incidental, or special damages or losses.

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