67760-14

10-24-2003

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# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460



OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

OCT 2 4 2003

Ms. Kathryn C. Luba Cheminova, Inc. 1700 Route 23, Suite 300 Wayne, NJ 07470

Subject:

EPA Reg. No. 67760-14

Nufos<sup>TM</sup> 4E-SG

Label Amendment per PDCI Letter dated April 14, 2003

Dear Ms. Luba:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable provided you make the following change before you release the product for shipment bearing the amended labeling:

• Please correct the Active Ingredient heading, it should read: "Active Ingredient" rather than "Active Ingredients."

Approval of this labeling amendment does not constitute approval of your application for reregistration of this product. Product reregistration is currently pending and future labeling amendments and/or additional data may be required. Submit two copies of your final printed labeling before you release the product for shipment. A stamped copy is enclosed for your records. If you have any questions, please contact me at (703) 308-6249 or hebert.john@epa.gov.

Sincerely yours,

John Hebert Product Manager 7 Insecticide/Rodenticide Branch Registration Division (7505C)

cc Tom Myers
Jane Mitchell

ACCEPTED with COMMENTS in EPA Letter Dated

Under the Federal Insecticide, chagicide, and Rodenticide Act, amended, for the pesticide ruistered under RPA Reg. No.

# Nufos® 15G Insecticide

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

ACTIVE INGREDIENTS:

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

**INERT INGRÉDIENTS** 

TOTAL

15.0%

85.0% 100.0%

® 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.)

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to labelunder AGRICULTURAL USE REQUIREMENTS in the DIRECTIONS FOR USE section for information about this standard.

Refer to label for additional precautionary information including PERSONAL PROTECTIVE EQUIPMENT (PPE), USER SAFETY RECOMMENDATIONS and DIRECTIONS FOR USE including STORAGE AND DISPOSAL.

Notice: Read the entire label. Use only according to label directions. Before buying or using the product, read WARRANTY DISCLAIMER and LIMITATION OF REMEDIES.

IN CASE OF A MEDICAL EMERGENCY INVOLVING THIS PRODUCT, PLEASE CALL TOLL FREE, DAY OR NIGHT, 1-800-228-5635, EXT. #153.

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

GRANULAR INSECTICIDE

EPA Reg. No. 67760 - 14 EPA Est. No.

Net Weight: 50 lbs. or greater

Manufactured for:
Cheminova, Inc.
1700 Route 23
Wayne, NJ 07470
www.cheminova.us.com

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION PRECAUCION

Harmful If swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Avoid breathing dusts.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product arenitrile, 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 G on an EPA chemical-resistance selection 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)(4-6)].

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**

Contains an organophosphate that inhibits cholinesterase.

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. Donot 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.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-228-5635 ext. 153 for emergency medical treatment information.

NOTE TO PHYSICIAN: Chlorpyrifos is a cholinesterase inhibitor affecting the central and peripheral nervous systems and producing cardiac and respiratory depression. Antidote: Administer atropine sulphate in large doses. TWO to FOUR mg intravenously or intramuscularly as soon as cyanosis is overcome. Repeat at 5 to 10 minute intervals until signs of atropinization appear. 2-PAM chloride is a pharmacological antidote and may be administered as an adjunct to, but not a substitute for, atropine, which is a symptomatic and often lifesaving antidote. DO NOT GIVE MORPHINE OR TRANQUILIZERS. At first sign of pulmonary edema, the patient should be given supplemental oxygen and treated symptomatically. Continued absorption of chlorpyrifos may occur and relapse may occur after initial improvement. VERY CLOSE SUPERVISION OF THE PATIENT IS INDICATED FOR AT LEAST 48 HOURS.

#### **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 tointertidal 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 exemptions 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.

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 over head exposures.

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

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

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

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

## **APPROVED USES**

# CORN, FIELD; SWEET CORN (Including corn grown for seed)★

**Application Rates and Pests Controlled** 

Application (ta	Rates and Pests Controlled  Banded Applications Preplant Ae							
		Ounces per	Broadcast	Broadcast				
Pests Controlled	T-Band	Band	In-Furrow	Postplant Treatment	Application (lb./Acre)	Application (lb./Acre)		
Northern , western & southern corn rootworm larvae	8	8	8	8	-	-		
Cutworms**	8	8	8 to 16	-	6.75 to 13.5	_		
Wireworms***	8 to 16	16	8 to 16	-	13.5			
Billbugs	8 to 16	8 to 16	-	-	13.5	-		
Seed corn maggots	8	-	8	-	_	-		
Grubs_	16	_	8 to 16	-	13.5	-		
Lesser cornstalk borer	8 to 16	8 to 16	•	•	<del>-</del>	-		
Seed corn beetle	8 to 16	-	8 to 16	-	-	-		
Flea beetle larvae_	-	•	-	•	13.5	-		
Symphylans	8 to 12	8 to 12	-	-	-	-		
Armyworms	<u>.</u>	-	-	6 to 8	-	-		
European and southwestern corn borer: - First				3.5 to 8		5.0 to 6.5		
generation - Second generation	-	-	-	6 to 8	-	6.5		
Fire ants**	8			-		_		
Chinch bugs**	8		8	_		-		
Nematodes (NC, SC, VA)	-	16	-	-	-			
Southeast	16		-	<u>.</u>	-	- , ecre		
(Note - See be- low for details)				· · · · · · · · · · · · · · · · · · ·		#		

<sup>\*</sup> Nufos 15G Insecticide is compatible with Accent¹ and Beacon² herbicides applied in accordance with lebel recommendations. Refer to the product labels for Accent and Beacon for additional precautions and directions for use.

At Plant Band Treatment In conventional, minimum and no-till corn, place the granules

<sup>★★8</sup> oz. rate-suppression only for in-furrow treatments.

<sup>\*\*\* 8</sup> oz. rate-suppression only unless used with a hopper box insecticidal seed treatment.

in a 6 or 7 inch wide band over the row behind the planter shoe, in front of the press wheel, and incorporate into the top one inch of soil using tines or chains or other suitable equipment. For *cutworm* control under very dry soil conditions, best results will be obtained through proper incorporation. In soils over 10% organic matter, use the highest rate given. For suppression of *nematodes* in North Carolina, South Carolina and Virginia, apply Nufos 15G insecticide as a 7 to 10 inch wide band at the rate of 16 oz. per 1000 feet of row. Incorporate with drag chains, tines, or other suitable equipment to a depth of 1 or 2 inches.

At Plant T-Band Treatment. In conventional, minimum and no-till corn, for control of rootworm, cutworm, and billbug, in addition to lesser cornstalk borer, symphylans, wireworm, seed corn beetle, seed corn maggot and grubs, apply as a T-band over an open seed furrow. In conventional and minimum-till corn, incorporate into the top 1/2 to 1 inch of soil using suitable equipment. For suppression of nematodes in the Southeast, use Nufos 15G as a T-band treatment at 16 oz. per 1000 feet of row over an open seed furrow. Nufos 15G has demonstrated suppression of certain soil-borne pathogens which may result in certain physiological and agronomic advantages to corn under environmental stress conditions when compared to corn not treated with Nufos 15G.

At Plant In-Furrow Treatment Apply Nufos 15G at planting time as an in-furrow 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. Equivalent rates of Nufos 15G per acre for various row spacings are given in the accompanying table.

Postplant Treatment: To control *corn rootworm larvae*, apply Nufos 15G at cultivation time by placing the granules at the base of the plant on both sides of the row just ahead of the cultivation shovels and cover the 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 post plant broadcast treatment. Use application 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. ofNufos 15G per 1000 feet of row for severe first generation infestations and allsecond generation infestations before larvae have entered corn stalks. 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 Treatment Use Nufos 15G for control of *European* and southwestern corn borers by uniformly broadcasting the granules over the corn plants by aerial application or applying the granules into the corn whorls by ground application. Apply at a rate of 5.0 lbs. per acre for low to moderate first generation infestations or at 6.5 lbs. per acre for severe first generation infestations and allsecond 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.

Preplant Broadcast Treatment Use equipment that will evenly distribute the granules over the treated area. Incorporate the granules into the soil using an S tine, C tine, disc cultivator, or other suitable incorporation equipment set to cut to a depth of 4 to 6 inches. Plant the crop in the usual manner as soon as possible after treatment.

RESTRICTIONS: For soil insect control, do not exceed the equivalent of 16 ounces of

Nufos 15G per 1000 feet of row or 2 pounds ofNufos 15 G per acre per crop season. For foliar insect control, do not exceed the equivalent of 16 ounces ofNufos 15G per 1000 feet of row or 2 pounds of Nufos 15G per acre per crop season. Do not apply more than 1 lb. active ingredient per acre for a single application. Do not make more than 2 applications per season. Do not apply within 35 days before harvest of grain. Do not allow livestock to graze in treated areas nor harvest treated corn silage as feed for meat or dairy animals within 14 days after last treatment. Do not feed treated corn fodder to meat or dairy animals within 35 days after last treatment. The restricted entry interval (REI) is 24 hours.

### **CITRUS GROVE FLOORS**

Pests Controlled:

Fire ants and other ant species

Application Rate

6.7.1b./acre

Postplant Broadcast Treatment To control foraging *ants* and suppress mounds, apply Nufos 15G with ground application equipment. Use a suitable granular applicator, such as a cyclone fertilizer spreader, that will uniformly broadcast the granules over the grove floor. Retreat as needed. Nufos 15G may be custom blended with granular fertilizers provided that application of the blended Nufos 15G plus fertilizer mixture can be applied uniformly to the grove floor. Do not apply where weed growth or other obstructions would impede uniform coverage of the grove floor.

RESTRICTIONS: Do not apply more than 3 pounds of Nufos 15G per acre per crop season. Do not apply last treatment within 28 days before harvest. Do not make more than 3 applications per season. Do not allow livestock to graze in treated areas. The restricted entry interval (REI) is 24 hours.

## SORGHUM / MILO

Application Rates and Pests Controlled

	Banded Applications (Ounces per 1000 feet of row)				
	At Plant Treatments				
Pests Controlled	T-Band	Band			
Lesser cornstalk borer	4 to 12	4 to 12			
Corn rootworm and cutworms	8	8			
Fire ants★	8	-			
Chinch bug★	8				

<sup>★ 8</sup> oz. rate - suppression only

At Plant or T-Band Treatments: Apply in a 6 to 8 inch band over the row and incorporate into the top 1-inch of soil using suitable equipment. Equivalent rates of Nufcs: 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 and higher rates for longer residual activity. It is absolutely necessary to incorporate the granules, especially at lower rates.

RESTRICTIONS: Do not make more than one application per season. Do not apply within 7 days of harvest. The restricted entry interval (REI) is 24 hours.

# **ONIONS (DRY BULB)**

Pest Controlled:

Onion maggot

Application Rate:

3.7 ounces per 1000 feet of row at an 18-inch row spacing

At Plant In-Furrow Treatment Apply as an at planting in-furrow treatment. 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. Do not exceed 6.7 lb per acre.

RESTRICTIONS: Do not make more than one application per year. Do not apply within 7 days of harvest. The restricted entry interval (REI) is 24 hours.

# **PEANUTS**

Use Nufos 15G to control *cutworms*, *lesser cornstalk borer*, *southern cornrootworm larvae*; suppress *wireworms*, and inhibit the growth and development of *white mold* (southern blight) disease caused by *Sclerotium rolfsii*. Nufos 15G will control only those *cutworms* existing in the soil from the time of application up to 30 days following application.

Application Rates and Pests Controlled

	Banded A (Oz. per 1000			
Pests Controlled	At Plant Treatment	Postplant Treatment	Aerial Broadcast (lb./Acre)	
★Preventative treatments: cutworms; lesser cornstalk borers; southern corn rootworm larvae; wireworms; white mold (southern blight)	7.5 to 15	7.5 to 15	-	
★★Rescue treatments: lesser cornstalk borer	-	7.5 to 15	10 to 13	
Burrowing Bug	-	-	13.3	

- ★ At Plant Preventive Treatment. 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 Treatment 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. Best suppression of white mold (southern blight) is obtained by

applying the maximum rate of 15 oz. per 1000 ft of row for eachpostplant treatment. 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.

- \*\* Band Rescue Treatment: Use Nufos 15G for the control of *lesser cornstalk borer* when the insect first appears, usually just prior to or at pegging. Apply in a 10 to 18 inch band over the fruiting zone.
- \*\* Broadcast Rescue Treatment Use Nufos 15G for the control of lesser cornstalk borer when the insect first appears, usually just prior to or at pegging. Uniformly apply at a rate of 10 to 13 pounds per acre by aerial broadcast application. For control of burrowing bugs, use Nufos 15G when adults first appear, usually at mid to late pegging. Uniformly apply at a rate of 13.3 pounds per acre by aerial broadcast application. Care must be taken to ensure proper equipment calibration and delivery.

RESTRICTIONS: Do not apply more than 15 ounces of Nufos 15G per application per 1000 feet of row or 13.3 pounds of Nufos 15G per acre per application. Do not apply more than 30 oz. per 1000 feet of row or 26.6 pounds per acre per crop season. Do not harvest within 21 days after treatment. Do not feed peanut forage or hay to meat or dairy animals. The combined total of preplant and postplant applications of Nufos 4E and Nufos 15G must not exceed 4 pounds of active ingredient per acre per crop season. Aerial application to peanuts is prohibited. The restricted entry interval (REI) is 24 hours.

# **SOYBEANS**

Application Rates and Pests Controlled

	Banded Applications Oz. per 1000 Feet of Row				
	At Plant Tre	At Plant Treatments			
Pests Controlled	T-Band	Band	Postplant Treatment		
Lesser cornstalk borer Cutworms	8	8	8		
Fire ants★	8		-		

\* 8 oz. rate - suppression only

At Plant and Postplant Treatments: Use Nufos 15G insecticide to control larvae of the lesser cornstalk borer and cutworms by application at planting time or postemergence as a band (row) treatment at the rate of 8 oz. per 1000 feet of row. In the Southeast apply 4 to 8 oz. per 1000 feet of row as an at plant treatment. Equivalent rates of Nufos 15G per acre for various row spacings are given in the accompanying table. When applied at planting time incorporate the granules into the top 1 inch of soil by placing ina 4 to 10 inch band over the row behind the planter shoe and ahead of the press wheel. A drag chain can also be used for incorporation. For postemergence treatment when insects first appear incorporate the granules in a 4 to 10 inch band to a depth of 1/2 to 1 inch using a suitable cultivator. Apply Nufos 15G with equipment that will provide uniform distribution of the granules. Do not apply as an in-furrow treatment. For suppression of the ants, use Nufos 15G at 8 oz. per 1000 feet of row as an at-plant T-band treatment.

RESTRICTIONS: Do not make more than one application per season. Do notapply

within 7 days of harvest. The restricted entry interval (REI) is 24 hours.

## **SUGAR BEETS**

Granular Insecticides, including Nufos 15G, may contribute to the stress of the sugar beet 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.

# **Application Rates and Pests Controlled**

	Banded Applications Oz. per 1000 Feet of Row					
	At Plant					
Pests Controlled	T-Band	Band	Postplant Treatment			
Sugar beet root maggot	-	4.5 to 9.0	6.5 to 9.0			
Cutworms	-	6.6 to 9.0	-			
Wireworms (suppression)	_	6.5 to 9.0	-			

At Plant Band Treatment. To control *sugar beet root maggot larvae* and *cutworms* at planting time, place 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 13.5 lb. per acre based on a 22-inch row spacing.) When Root Maggot populations are expected to be low, apply Nufos 15G at a rate of 4.5 ounces per 1000 feet of row (equivalent to 6.75 lb. per acre based on 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. (Review label forNufos 4E for recommended use rates, application timing, methods of application, and insecticide resistance management.) Incorporate Nufos 15G into the top 1/2 to 1-inch of soil using suitable equipment.

Postemergence Band Treatment: For postemergence control of sugar beet maggot larvae, place 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). ApplyNufos 15G at the rate of 6.5 to 9 oz. per 1000 feet of row (equivalent to 10 to 13.5lb 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.

RESTRICTIONS: Do not make more than one application per year. Do not apply more than 2 lbs. active ingredient per acre per season. Do not apply within 7 days of harvest. The restricted entry interval (REI) is 24 hours.

#### SUNFLOWERS

Pest Controlled: Cutworms

Application rate: 8 oz. per 1000 feet of row

At Plant Band Treatment. 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 one inch of soil using suitable equipment.

RESTRICTIONS: Do not make more than one application perseason. Do not apply within 7 days of harvest. The restricted entry interval (REI) is 24 hours.

# **SWEET POTATOES**

Pests Controlled: Wireworms (Conoderus), flea beetles (Systena), and sweet potato

beetle

Application Rate: 13.5 lb. / acre

Preplant Broadcast Treatment Use Nufos 15G to reduce the feeding damage caused by populations of the listed pests. Evenly broadcast the granules over the soil surface and then incorporate the granules 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 grubs that attack sweet potatoes.

RESTRICTIONS: Do not make more than one application per season. Do not harvest within 125 days of treatment. The restricted entry interval (REI) is 24 hours.

# **TOBACCO**

Pests Controlled: Cutworms, flea beetle larvae, root maggots, and wireworms. Application Rate: 12.5 to 20.0 lb. / acre

Preplant Broadcast Treatment: Apply Nufos 15G one week before transplanting, using equipment that will evenly distribute 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. The application of Nufos 15G will also suppress movement of imported *fire ants* into a treated field.

RESTRICTIONS: Do not make more than one application per season. Do not apply more than 3 lbs. active ingredient per acre for a single application. Do not apply within 7 days of harvest. The restricted entry interval (REI) is 24 hours.

#### **BRASSICA (COLE )CROPS**

(Broccoli, Brussels sprouts, Cabbage, Cauliflower, Chinese cabbage, Collards, Kale Kohlrabi, Rutabagas and Turnips)

Pest Controlled: Root maggot

Application Rate: 4.6 to 9.2 ounces per 1000 feet of row

At Plant T-Band Treatment For direct seeded and transplanted crops, applyNufos 15G 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.

RESTRICTIONS: Do not apply more than 7 1/2 pounds of Nufos 15G per acre to crops planted in 40-inch rows or more than 15 pounds of Nufos 15G per acre to crops planted in 20-inch rows (or two rows per bed). Use proportional amounts for other rowspacings not to exceed 15 pounds of Nufos 15G per acre. Do not make more than one application per season. Do not use rutabaga tops for food or feed purposes. Do not apply within 7 days of harvest; 21-30 days for cauliflower. The restricted entry interval (REI) is 24 hours 3 days for cauliflower.

## **RADISHES**

Pest Controlled: Root maggot

Application Rate: 3.3 ounces per 1000 feet of row

At Plant In-Furrow Treatment Place the granules in the seed furrow with the seed at planting time.

RESTRICTIONS: Do not apply more than 18.3 pounds of Nufos 15G per acre or make more than one application per season. Do not apply within 7 days of harvest. The restricted entry interval (REI) is 24 hours.

Table 1
Application Rate Table - Application Rates per 1000 Ft of Row and Equivalent per Acre Rates for Different Row Widths

## Pounds of Nufos 15G Required Per Acre for Different Row Widths

Amount of Nufos 15G Per 1000 feet of row	40"	38"	36"	34"	32"	30"	22"	18"
3.7 ounces	3.0	3.2	3.4	3.6	3.8	4.0	5.5	6.7
4 ounces	3.3	3.4	3.6	3.8	4.1	4.4	5.9	7.3
4.5 ounces	3.7	3.9	4.1	4.3	4.6	4.9	6.7	8.2
6 ounces	4.9	5.2	5.4	5.8	6.1	6.5	8.9	10.9
6.5 ounces	5.3	5.6	5.9	6.2	6.6	7.1	9.7	11.8
7.5 ounces	6.1	6.4	6.8	7.2	7.7	8.2	11.1	13.6
8 ounces	6.5	6.9	7.3	7.7	8.2	8.7	11.9	14.5
9 ounces	7.4	7.7	8.2	8.6	9.2	9.8	13.4	16.3
12 ounces	9.8	10.3	10.9	11.5	12.3	13.1	17.8	21.8
15 ounces	12.3	12.9	13.9	14.4	15.3	16.3	22.3	27.2
16 ounces	13.1	13.8	14.5	15.4	16.3	17.4	23.8	29.0

#### Table 2

Equipment Calibration and Calibration Settings for Different Types of Equipment

General Instructions for Equipment Calibration

Caution: 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 your planter to the initial settings shown on chart.
- 4. Measure off 1,000 row feet and drive your planter the pre-measure I distance at your desired speed.
- 5. Each bag should contain 6 to 8 ounces (wt.) of granules depending on your desired rate.
- 6. If the result is over or under the desired rate adjust the settings and repeat the calibration.

# Calibration Settings

	Speed (mph)									
	4			5 6		7		8		
		Application Rate, oz. per 1000 row feet								
	88	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 <sup>1</sup> Max-Emerge	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 <sup>1</sup> 7000 Max-Emerge (Even Nos. on Gate)	17	30	20	33	24	35	26	36	28	38
John Deere <sup>2</sup> 71 Flexi-Planter and Older Planters	<u>1</u> 30	<u>2</u> 17	<u>2</u> 5	<u>2</u> 22	<u>2</u> 9	<u>2</u> 27	<u>2</u> 13	<u>2</u> 31	<u>2</u> 16	<u>3</u> 1
John Deere³ MaxEmerge Plus	18	-	23	-	29	-	33	-	39	-
Allis Chalmers⁴ 70 Series	8	13	8	13	8	13	8	13	8	13
Allis Chalmers⁵ 78 and 79 Series	<u>1</u> 9.0	<u>3</u> 3.0	<u>2</u> 3.3	<u>3</u> 9.5	<u>2</u> 6.0	<u>4</u> 3.0	<u>2</u> 9.0	<u>5</u> 4.0	<u>3</u> 2.5	<u>6</u> 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 Harvester <sup>4</sup>	<u>1</u> 9.0	<u>3</u> 3.0	<u>2</u> 3.3	<u>3</u> 9.5	<u>2</u> 6.0	<u>4</u> 3.0	<u>2</u> 9.0	<u>5</u> 4.0	<u>3</u> 2.5	<u>6</u> 0
Buffalo All-Flex <sup>6</sup> (Fleischer Mfg.)	4 7/8	10	4 7/8	10	4 7/8	10	-	-	-	-

- 1 Gauge setting
- 2 Gauge setting with range 1 & 2 number is range notch
- 3 An application rate of 16 oz per 1000 feet of row is not attainable with this equipment.
- 4 Gauge setting is constant regardless of speed
- 5 Gauge setting shown with stem gates & dial settings number shown is gate dial
- 6 Number of turns open on the adjustment nut

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> CHEMINOVA, INC. 1700 Route 23 Wayne, NJ 07470 Tel: (973) 305-6600

Fax: (973) 305-1382

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