

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

February 17, 2016

Carrie Tackema Regulatory Manager Nufarm 4020 Aerial Center Parkway, Suite 101 Morrisville, NC 27560

Subject: Label Amendment – Revise the Directions for Use

Product Name: GWN-6010 Plant Growth Regulator

EPA Registration Number: 1001-91

Application Date: 1-27-16 Decision Number: 513550

Dear Ms. Tackema:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance

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with FIFRA section 6. If you have any questions, please contact Erik Kraft by phone at 703-308-9358, or via email at kraft.erik@epa.gov.

Sincerely,

Heather Garvie, Product Manager 24 Fungicide and Herbicide Branch Registration Division (7505P) Office of Pesticide Programs

in the for

Enclosure

GWN-6010

Plant Growth Regulator

[Alternate Brand Name: ANUEW™]

For managing growth, improving quality and stress tolerance of turf.

ACTIVE INGREDIENT: Prohexadione calcium		
[calcium 3-oxido-5-oxo-4-propionylcyclohex-3-enecar	rboxylate]	27.5%
	<i>,</i> .	
OTHER INGREDIENTS		72.5%
Т	OTAL 10	00.0%

KEEP OUT OF REACH OF CHILDREN CAUTION

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.

See Booklet For FIRST AID and PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300 For Medical Emergencies Only, Call (877) 325-1840

	Cleary	
EPA Reg. No. 1001-91 EPA Est. No	ACCEPTED	
	02/17/2016	
	Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the	

Net Contents: ____ Pounds

001001-00091.20160204.draft

MANUFACTURED FOR Cleary Chemicals, LLC 11901 S. Austin Ave Alsip, IL 60803

1001-91

pesticide registered under

EPA Reg. No.

FIRST AID		
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. 	
• 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.		
HOTH ME NUMBER		

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals CAUTION

Harmful if absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- Shoes plus socks

Follow the manufacturer's instructions for cleaning and maintaining 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

User 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 PPE 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, or 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 wash waters or rinsate.

ENDANGERED SPECIES CONCERNS

The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of Federal Law.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Do not enter treated areas without footwear until sprays have dried.

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.

All applicable directions, restrictions, precautions and Conditions of Sale and Warranty are to be followed.

PRODUCT INFORMATION

ANUEW is a tool for plant growth management. It works by inhibiting late stage biosynthesis of gibberellin, resulting in a decrease in cell elongation, a slowing of vertical growth, and an improvement in plant physiology leading to plant health and stress tolerance.

Turf: In turfgrass inhibiting late stage biosynthesis of gibberellin results in a reduction of both the mowing frequency and the amount of grass clippings in the treated area. ANUEW reduces clippings within 2-5 days depending on species. The turfgrass treated with ANUEW grows in a more compact form, often resulting in the enhancement of its color and quality. ANUEW is active through foliar uptake and is not taken up by the plant from the soil therefore, when applying it is important to use enough spray volume to thoroughly wet the turfgrass leaves without significant runoff. A non-ionic spreader to spread spray droplets should be used to assure effective spray coverage. Due to rapid foliar absorption, Anuew is rainfast within 1-4 hours. ANUEW is most effective when used on actively growing, well-maintained turf. The risk of scalping may be reduced on turfgrass areas treated with ANUEW. It can be applied to golf course fairways, tees, greens and roughs, residential and commercial lawns, sod farms, sports fields, cemeteries, andmunicipal sites. Re-application of Anuew should be based on a Growing Degree Day (GDD) modeling using environmental data from the use location. Research has shown that 280-350 GDD should be used for re-application timings for common golf situations to assure even turf regulation and to avoid rebound growth.

NOTICE TO USER: Turf tolerance to ANUEW has been found to be acceptable for the turf species listed on this label. Due to the large number of species cultivars and growing situations it is impossible to test every one for tolerance efficacy and plant safety to ANUEW. Neither the manufacturer nor the seller has determined whether or not ANUEW can be used safely on turf species not specified on this label. For these turf species the professional user should determine if ANUEW can be utilized effectively and safely prior to large scale commercial use. Before using ANUEW on turf species not listed on this label test ANUEW on a small scale first. Start with the lowest directed rate and evaluate the treated turf for plant safety and effective growth regulation prior to widespread use.

RESTRICTIONS

- Do not use on food crops.
- Do not apply ANUEW through any irrigation/chemigation system.
- Do not apply more than 26 oz per 1000 square feet of ANUEW per year.
- Under certain environmental conditions and growth stage conditions on annual bluegrass (*Poa annua*), a transient foliar chlorosis or bronzing may be observed. For optimal results apply to healthy actively growing turfgrass.
- ANUEW may be used on sodded or sprigged turf after it has knitted down and rooted firmly.
- Do not graze treated areas or feed clippings to livestock.
- Do not apply ANUEW to grass grown for seed.

USE DIRECTIONS / APPLICATION METHODS FOR TURFGRASS

See the ANUEW Application Rates Table for product use and application rates, which can be used for growth management and turfgrass color and quality enhancement.

ANUEW performance can be affected by many factors, including environmental conditions, turf vigor and growth stage, soil moisture, fertility levels, and other cultural practices that affect plant growth.

Application Timing:

Apply ANUEW when the turf is green and actively growing. Delay the application or use a lower rate of ANUEW as designated in the ANUEW Application Rates Table if the turf is entering stressful growing conditions, such as pest pressure, high temperatures, low moisture conditions or certain cultural practices such as, but not limited to, aerification or verticutting. Repeat applications of ANUEW may be made as noted in the ANUEW Application Rates Table.

Re-application of Anuew should be based on a Growing Degree Day (GDD) model using environmental data from the use location. Research has shown that 280-350 GDD should be used for re-application timings for common golf situations to assure even turf regulation and to avoid rebound growth.

Spray Preparation:

Apply ANUEW in a sufficient volume of water to provide uniform and complete wetting of the turfgrass foliage. 0.5 to 5 gallons water/1,000 sq ft may be used, however, for best results 1-2 gallon water/1,000 sq ft is recommended.

Adjuvants: Use of a non-ionic surfactant in the spray mixture may improve coverage of the turf foliage and product performance consistency. Follow the manufacturer's label rate recommendation.

Hard Water: If the water source used for the spray mixture is high (greater than 40 ppm or 40 mg/l) in calcium, add 1 pound of ammonium sulfate for every pound of ANUEW used in the spray tank. Use a high quality, spray-grade ammonium sulfate product to avoid nozzle plugging.

Compatibility Test for Tank Mix: All possible tank mixes have not been evaluated for safety and/or physical compatibility. Tank mix user assumes all risk.

A jar test can be used to evaluate the physical compatibility of components to be mixed in a spray tank with ANUEW before making an application. Use a clear glass quart jar with lid by mixing components in the order shown below under "Mixing Order" in the same relative proportions as it will be used in the spray tank. Cap the jar and invert 10 cycles after adding each component. After all ingredients have been added, let the mixture stand for 15 minutes. Visually, evaluate the suspension for uniformity and stability. The spray mixture should not have particles that precipitate to the bottom of the jar, nor have any oily films or layers visible at the surface, nor contain flakes, balls, or sludge-appearing particles. If the spray mixture doesn't stay uniform in appearance, it is not compatible and the combination should not be used in a tank mix.

Mixing Order:

- Water Fill a clean spray tank half full with water and begin continuous agitation.
- Products in PVA bags Place any product contained in water-soluble PVA bags (VVSB) into the
 mixing tank. Wait until all water-soluble bags have fully dissolved and the product is evenly mixed in the spray
 tank before adding any further products.
- ANUEW and water-dispersible products (WDG; DF), wettable powders (WP), and suspension concentrates (SC) Add to the spray tank while maintaining agitation
- Adjuvants Includes non-ionic surfactants
- Water-soluble products Includes micro emulsion products
- Emulsifiable concentrates (EC)
- Water-soluble additives (S)
- Remaining quantity of water

Agitate spray tank mixture constantly during application. Prepare sufficient quantity of product for the immediate application needs. The spray tank mix should not be allowed to sit for prolonged periods without agitation. Do not leave product mix in the tank overnight.

Calcium or boron-containing products should not be added to the spray mixture. These products will reduce the activity of ANUEW.

Mowing and Irrigation:

After application: For best results-wait at least one day after applying ANUEW before resuming mowing and do not irrigate treated area for 4 hours after application.

Program Scheduling: Turfgrass areas treated with ANUEW should continue to be maintained normally using proper irrigation, fertility, and pest control product(s) when necessary. Precaution is advised when tank mixing with ANUEW. The spray mixture should be applied on a small area first as a test before treating larger areas.

Conditions for Best Performance of ANUEW: Treated turfgrass is actively growing.

- * Use a non-ionic surfactant to help improve leaf coverage and plant uptake of the active ingredient.
- * Maximize the time the applied spray mixture remains as a moist film on the turfgrass foliage by avoiding treatments during warm, low humidity, and windy conditions. Longer drying times enhance absorption of ANUEW.

ANUEW APPLICATION RATES TABLE

		rtical Growth, Remproves Color		
	FAIRWAYS, ROUGHS (280-350 GDD Interval)		GREENS AND TEES (280-300 GDD interval)	
	oz/acre	oz/1,000 sq ft	oz/acre	oz/1,000 sq ft
Warm Season Turf *				
Common and Hybrid Bermudagrass cultivars such as 419, Tifway, TifSport, TifEagle, TifGreen, Champion, MiniVerde, and Riviera	12-24	0.28 – 0.55	8-16	0.18 – 0.37
Zoysiagrass cultivars such as Empire, Zenith, Emerald, El Toro and Meyer St. Augustine sp. Paspalum sp. Kikuyugrass sp.	12-24	0.28 – 0.55		
Cool Season Turf				
Bentgrass cultivars such as: L-93, Penn A4, Penn G2, Pennlinks, Penneagle, Southshore, Declaration, Independence and SR series	6-12	0.14 – 0.28	2-8	0.05 – 0.18
Annual and Perennial Poa annua cultivars	4-8	0.09 – 0.18	2-8	
Kentucky bluegrass cultivars such as Midnight, Odyssey, Merion	8-16	0.18 – 0.37		
Perennial ryegrass cultivars such as Manhattan IV Tall Fescues Fine Fescue	8-16	0.18 – 0.37		

^{*}For color and quality enhancement, lower rates may apply.

When using shorter application intervals, performance should first be evaluated using the lower directed rates.

FOR OVERSEEDING ENHANCMENT IN BERMUDAGRASS			
Turf Type	Ounces/ Acre	Application Interval	Notes
Common and Hybrid Bermudagrass cultivars such as 419, Tifway, TifSport, TifEagle, TifGreen, MiniVerde, Riviera, Yukon	1-2	Apply ANUEW once 3-5 days prior to seeding. Any preparation of the site, such as verticutting, spiking, or scalping, should be done 1-2 days after application of ANUEW.	ANUEW is a foliar-active product; therefore germination and seedling growth of the overseeding are not affected when used as directed. Use good cultural practices in conjunction with this product, such as fertilization and irrigation, to optimize results. Some temporary yellowing of the bermudagrass turf may be observed, however, this will not affect the overseeding.

FOR GROWTH MANAGEMENT AND COLOR AND QUALITY ENHANCEMENT ON TURF GROWN FOR SOD			
Turf Type	Ounces/ Acre	Application Interval	Notes
Warm Season Turf such as, but not limited to, Bermudagrass, St. Augustine, etc.	12-24	2-4 week interval	Since turfgrass response can be influenced by a variety of factors, it is recommended that the initial evaluation of ANUEW should be limited to a small area. The acceptability of the
Cool Season Turf such as, but not limited to, Kentucky bluegrass, perennial ryegrass, fescues	8-16	2-4 week interval	turfgrass response should be determined using a lower use rate and shorter interval before gradually moving to higher rates and longer intervals

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place. Do not remove the product from the container except for immediate use.

Pesticide Disposal: Wastes resulting from this product may be disposed of at an approved waste disposal facility. Excess pesticide, spray mixture or rinsate must be handled and disposed of in accordance with federal, state or local procedures. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

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

FOR 24-HOUR EMERGENCY ASSISTANCE (SPILL, LEAK OR FIRE), CALL CHEMTREC (800) 424-9300

NOTICE OF CONDITIONS OF SALE AND WARRANTY AND LIABILITY LIMITATIONS

<u>Important:</u> Read the entire Directions for Use and Notice of Conditions of Sale and Warranty and Liability Limitations before using this product. If terms are not acceptable return the unopened container for a full refund.

Our directions for use of this product are based on tests believed to be reliable. However, it is impossible to eliminate all risk associated with the use of this product. Crop injury, inadequate performance, or other unintended consequences may result due to soil or weather conditions, off target movement, presence of other materials, method of use or application, and other factors, all of which are beyond the control of Cleary Chemicals, LLC. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer and User.

Cleary Chemicals, LLC warrants that this product conforms to the specifications on the label when used in strict conformance with Direction for Use, subject to the above stated risk limitations. TO THE EXTENT CONSISENT WITH APPLICABLE LAW, CLEARY CHEMICALS, LLC MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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