ANUEW™

PLANT GROWTH REGULATOR
COMMERCIAL

Wettable Granule

For turf grass growth management.

ACTIVE INGREDIENT:
Prohexadione-calcium– 27.5%

READ THE LABEL AND BOOKLET BEFORE USE
KEEP OUT OF REACH OF CHILDREN.

WARNING: Contains the allergen sulfites

REGISTRATION NO.: 34508 PEST CONTROL PRODUCTS ACT

Net Contents: 680 g

Nufarm Agriculture Inc.
5101, 333 - 96th Avenue NE
Calgary, Alberta
T3K 0S3

24 Hour Emergency Contact Number 1-877-325-1840
Product Information Number 1-800-868-5444

ANUEW™ is a trademark of Nufarm Agriculture Inc.

1. PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

DO NOT use in residential areas. Residential areas are defined as any use site where bystanders or the public, including children, could be exposed during or after application. This includes areas in and around homes.

For sod farms: DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

For all other sites: DO NOT enter or allow entry into treated areas until sprays have dried.

Apply only when the potential for drift to non-target areas of human habitation and human activity is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment, and sprayer settings.

2. PROTECTIVE CLOTHING AND EQUIPMENT

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. Gloves are not required during application within a closed cab.
Wash well after handling and before eating, drinking, smoking or using the bathroom. Remove contaminated clothing immediately after use. Wash contaminated clothing with soap and hot water, separately from household clothing, before reuse. Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product concentrate.

3. ENVIRONMENTAL PRECAUTIONS

Toxic to aquatic plants. Observe spray buffer zones specified under DIRECTIONS FOR USE.

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil or clay.

Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative filter strip between the treated area and the edge of the water body.

4. FIRST AID

If swallowed Call a poison control centre or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

If on skin or clothing	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.
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 centre or doctor for treatment advice.
If inhaled	Move the person to fresh air. If the person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor. Do not give anything by mouth to an unconscious person. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

5. TOXICOLOGICAL INFORMATION

Treat symptomatically.

6. EMERGENCY TELEPHONE NUMBERS

For spills or transportation accidents, Chemtrec, 1-800-424-9300
For health or environmental emergencies, ProPharma, 1-877-325-1840
For product and use information, Nufarm Agriculture Inc., 1-800-868-5444

7. STORAGE

Store this product away from food or feed.

Do not contaminate water, food, feed or fertilizer by storage. Keep product in original container. Store in a cool, dry, secure, well-ventilated area. Do not put formulation or dilute spray solution into food or drinks containers. Do not store or transport near feed or food. Not for use or storage in or around the home.

8. DISPOSAL

For Recyclable Containers:
DO NOT reuse this container for any purpose. This is a recyclable container and is to be disposed of at a container collection site. Contact your local distributor/ dealer or municipality for the location of the nearest collection site.
Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsing to the spray mixture in the tank.

2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

9. NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the ***PEST CONTROL PRODUCTS ACT*** to use this product in a way that is inconsistent with the directions on the label.

10. GENERAL 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 and a slowing of vertical growth.

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 colour 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 rain fast 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, sod farms, sports fields, municipal sites and cemeteries. Research has shown that 280-350 Growing Degree Day (GDD) can be used for re-application timings to assure even turf regulation and to avoid rebound growth.

RESTRICTIONS

- Do not use on food crops.
- Do not apply ANUEW through any irrigation/chemigation system
- Do not apply more than 21.82 kg/Ha (218.2 g/100 sq.m) 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.

11. DIRECTIONS FOR USE/APPLICATION METHODS FOR TURFGRASS

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

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 of ANUEW 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.

Re-application of ANUEW should be based on turf species and 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 to assure even turf regulation and to avoid rebound growth. Re-applications of ANUEW can occur between 1 and 4 weeks after application. Re-application should occur no sooner than 7 days when applying to golf courses and 14 days when applying to sod farms, sports fields, municipal sites and cemeteries.

Spray Preparation:
Apply ANUEW in a sufficient volume of water to provide uniform and complete wetting of the turfgrass foliage. 2.03-20.36 L /100 sq.m (1.89 to 18.92 L water/1,000 sq.ft) may be used, however, for best results 4.07-8.15L/ 100 sq.m (3.78- 7.57 L water /1,000 sq.ft) is recommended.

Adjuvants:
Use of a non-ionic surfactant in the spray mixture, such as Agral 90 or Ag-Surf at a rate of 0.125% v/v (125 mL/100L), may improve coverage of the turf foliage and product performance consistency, especially under hot, quick drying conditions.

Hard Water:
If the water source used for the spray mixture is high (greater than 140 ppm or 140 mg/L) in calcium, add 0.45 kilogram of ammonium sulfate for every 0.45 kilogram of ANUEW used in the spray tank. Use a high quality, spray-grade ammonium sulfate product to avoid nozzle plugging.

12. ANUEW APPLICATION RATES TABLE

		Slows Vertical Growth, Reduces Mowing Intervals, Improves Colour and Quality	
Use Site	**Turf Type**	**FAIRWAYS AND ROUGHS 280-350 GDD Interval**	**GREENS AND TEES 280-300 GDD Interval**
		g / 100 m^2	**g / 100 m^2**
Golf Courses	Bent grass	4.20-8.41	1.40-5.60
	Annual and Perennial *Poa annua* cultivars	2.80-5.60	1.40-5.60
	Kentucky Bluegrass Perennial Ryegrass Tall Fescues Fine Fescue	5.60-11.21	N/A
		g / 100 m^2 (280-350 GDD)	
Sod Farms, Sports Fields, Municipal Sites, Cemeteries	Kentucky Bluegrass Perennial Ryegrass Tall Fescues Fine Fescue	5.60-11.21	

NOTES:

- 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 turfgrass response should be determined using a lower use rate and longer interval before gradually moving to higher rates and shorter intervals until a desired level of regulation is achieved.
- ANUEW is an effective growth regulator on *Poa annua* and you may experience over-regulation and temporary yellowing with early season applications.
- This is a GDD model with a base temperature of 0° Celsius.

13. SPRAYER INFORMATION

ANUEW may be applied with backpack sprayers, hand sprayers, boom sprayers and with spray gun application devices. Clean spray equipment thoroughly before use. Make sure the sprayer is capable of accurate and uniform application. Calibrate the sprayer before applying ANUEW. Rinse sprayer with clean water after use and dispose of rinsate in an approved manner.

SPRAY BUFFER ZONES

A spray buffer zone is NOT required for uses with hand-held application equipment permitted on this label.

The spray buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands).

Method of application	Crop	Spray Buffer Zones (metres) Required for the Protection of Freshwater Habitat of Depths Less than 1 m:
Field sprayer	Turf	1

When tank mixes are permitted, consult the labels of the tank-mix partners and observe the largest (most restrictive) spray buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

14. TANK MIX INFORMATION

In some cases, tank mixing a pest control product with another pest control product or a fertilizer can result in biological effects that could include, but are not limited to: reduced pest efficacy or increased host crop injury. The user should contact Nufarm Agriculture Inc. at 1-800-868-5444 for information before mixing any pesticide or fertilizer that is not specifically recommended on this label.

Compatibility Test for Tank Mix:

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. Using a clear glass jar (0.95L) with a lid, mix the components in the order shown below under “Mixing Order” in the same relative proportions to 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 does not stay uniform in appearance, then it is not compatible, and the combination should not be used in a tank mix.

15. MIXING INFORMATION

Mixing Order:

1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water. Engage gentle agitation.
2. While agitating, slowly add ANUEW to the spray tank. Agitation should create a rippling or rolling action on the water surface.

3. If tank mixing ANUEW with other labelled products follow the **WALES [W**ettable powders/Water Dispersible granules**, A**gitate tank mix thoroughly**, L**iquid flowables and suspensions**, E**mulsifiable concentrate formulations**, S**urfactants/Solutions**] or WAMLEGS [W**ettable powders/flowable, **A**gitate Anti-flowing compounds/buffers, **M**icrocapsule suspension, **L**iquid and soluble, **E**mulsifiable concentrates, High load **G**lyphosates, **S**urfactants**]** mixing order system:
    - Add water soluble bags first.
    - Followed by dry formulations, flowables, emulsifiable concentrates and then solutions.
    - Prepare no more spray mixture than is required for the immediate spray operation.
4. Add adjuvants or surfactants, if recommended.
5. Fill spray tank to desired level with water. **Agitation should continue until spray solution has been applied.**

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.

Note: *Calcium, iron or boron-containing products should not be added to the spray mixture above 140 ppm without the addition of AMS. These products will reduce the activity of ANUEW.*

16. 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.

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