

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

February 7, 2020

Jolanta Ozatalay Regulatory Affairs Project Manager Fine Agrochemical Ltd Hill End House, Whittington Worcester, WRS 2RQ, UK

Subject: PRIA Label Amendment – New Use on Alfalfa Inter-seeded in Corn

Product Name: Kudos 27.5 WDG EPA Registration Number: 62097-41

Application Date: 10/22/2018 Decision Number: 545302

## Dear Ms Ozatalay:

The application referred to above, submitted under the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable under FIFRA sec 3 (c)(5). You must submit and/or cite all data required for registration/registration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) 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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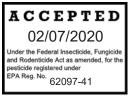
with FIFRA section 6. If you have any questions, please contact Manjula Unnikrishnan by phone at 703-347-8520, or via email at <a href="mailto:unnikrishnan.manjula@epa.gov">unnikrishnan.manjula@epa.gov</a>.

for Rachel Holloman, Chief

Shaja B. Joyner, Product Manager 20

Fungicide-Herbicide Branch Registration Division 7505P

Enclosure



#### **MASTER LABEL**

## **KUDOS® 27.5 WDG**

Plant growth regulator for use on alfalfa inter-seeded in corn, apples, grass grown for seed, peanuts, [d'Anjou] pears, strawberries, sweet cherries, turf, and watercress.

Sublabel A: Agricultural Uses

Sublabel B: Turf Uses

# CAUTION

[See inside panel for additional Precautionary Statements.]

EPA Reg. No. 62097-41

EPA Est. No.

Net Contents:

© Fine Agrochemicals Limited, Hill End House, Whittington, Worcester, WR5 2RQ, United Kingdom

Kudos® 27.5 WDG is a registered trademark of Fine Agrochemicals, Ltd.

<sup>\*\*</sup>Equivalent to 0.275 pounds of active ingredient per pound of product

## SUBLABEL A: Agricultural Uses

## **KUDOS® 27.5 WDG**

Plant growth regulator for use on alfalfa inter-seeded in corn, apples, grass grown for seed\*, peanuts\*, [d'Anjou] pears, strawberries\*, sweet cherries, and watercress\*.

\*Not for use in California.

Active ingredient: Pronexacione-calcium""	
[calcium 3-oxido-5-oxo-4-propionylcyclohex-3-enecarboxylate]	27.5%
Other Ingredients:	72.5%
Total:	100.0%

<sup>\*\*</sup>Equivalent to 0.275 pounds of active ingredient per pound of product

# KEEP OUT OF REACH OF CHILDREN CAUTION

[See inside panel for additional Precautionary Statements.]

EPA Reg. No. 62097-41

EPA Est. No.

## **Net Contents:**

Net Contents.		
FIRST AID		
IF SWALLOWED	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>	
IF ON SKIN OR CLOTHING	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
IF IN EYES	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact the National Poison Control Hotline at 1-800-222-1222 for emergency medical treatment information 24 hours a day, seven days a week.		

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION.** Harmful if swallowed or absorbed through the skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

## Applicators and other handlers must wear:

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

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

#### **USER SAFETY RECOMMENDATIONS**

#### Users should:

- 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.

#### **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.

#### **ENVIRONMENTAL HAZARDS**

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate.

#### **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 requirement specific to your state or tribe, consult the state or tribal 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 the label about personal protective equipment (PPE) and restricted entry intervals. The requirements in this box only apply to uses of this product covered by the Worker Protection Standard.

Do not enter or allow entry into treated areas during the restricted entry interval level (REI) of 12 hours unless wearing appropriate PPE.

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, plants, soil or water is:

- Coveralls
- Shoes plus socks
- Chemical resistant gloves made of any waterproof material

Kudos 27.5 WDG is a plant growth regulator which inhibits the biosynthesis of gibberellins. Inhibition of gibberellin reduces vegetative growth.

- Thorough spray coverage of plant foliage is necessary for good uptake.
- The performance of Kudos 27.5 WDG can be affected by many factors including: crop growth stage, environmental conditions and crop vigor due to moisture availability, fertility level, etc.
- Correct timing of application is critical. Apply Kudos 27.5 WDG to actively growing trees at rates and stages of growth listed in this label.
- Add one pound of a spray grade ammonium sulfate (AMS) for every pound of Kudos 27.5 WDG.
- Use a standard spray adjuvant, preferably a non-ionic surfactant, to improve leaf coverage and performance consistency. Follow the manufacturer's rate directions.
- Rainfall within 1 hour of application on grass grown for seed and within 8 hours for apples, peanuts, and sweet cherries may reduce the efficacy of Kudos 27.5 WDG.
- Clean spray equipment thoroughly using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions before and after applying Kudos 27.5 WDG.

#### Restrictions

- DO NOT apply to crops under stress due to lack of moisture, hail damage, flooding, mechanical injury, or injury caused by other prior products, i.e., phytotoxicity.
- **DO NOT** apply this product through any type of irrigation system.
- This product cannot be used to formulate or reformulate any other pesticide product.

## **Tank Mixing Information:**

Testing has shown that Kudos 27.5 WDG when used in combination with AMS and a wide range of adjuvants does not result in phytotoxicity. Kudos 27.5 WDG has shown to be compatible with many commonly used fungicides and insecticides. However, not all crop varieties and cultivars have been tested with possible tank-mix combinations. Since local conditions can influence crop sensitivity, test any tank-mix combination on a small portion of the crop to be treated to ensure crop safety. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

## Mixing Order:

- 1. Fill spray tank half full with clean water and begin agitation.
- 2. Place any product contained in a water-soluble PVA bag into the tank and make sure the bag(s) have fully dissolved before continuing.
- 3. Add Ammonium Sulfate (AMS).
- 4. Add Kudos 27.5 WDG.
- 5. Add any water dispersible formulations, i.e., Water Dispersible Granules, Wettable Powders, Suspension Concentrates, etc.
- 6. Add adjuvants.
- 7. Add any water soluble products, i.e., Soluble Powders, Soluble Liquids, Emulsifiable Concentrates, etc.
- 8. Add remaining quantity of water and continue agitation through application.

Maintain constant agitation during application.

**Note:** If calcium or boron are tank mixed with Kudos 27.5 WDG, the resulting growth control may be less than favorable.

## **Mandatory Spray Drift**

## Aerial Applications

- Do not release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For all applications, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

## **Ground Applications**

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

## **Spray Drift Advisories**

- THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.
- BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.
- IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### Controlling Droplet Size - Ground Boom

- Volume Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle Use a spray nozzle that is designed for the intended application.
   Consider using nozzles designed to reduce drift.

## Controlling Droplet Size - Aircraft

- Adjust Nozzles Follow nozzle manufacturer's recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.
- BOOM HEIGHT Ground Boom
   Use the lowest boom height that is compatible with the spray nozzles that will
   provide uniform coverage. For ground equipment, the boom should remain level
   with the crop and have minimal bounce.
- RELEASE HEIGHT Aircraft
   Higher release heights increase the potential for spray drift. When applying
   aerially to crops, do not release spray at a height greater than 10 feet above the
   crop canopy, unless a greater application height is necessary for pilot safety.
- SHIELDED SPRAYERS
   Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.
- ORCHARD AIRBLAST APPLICATIONS
   Sprays should be directed into the canopy. User should turn off outward pointing nozzles at row ends and when spraying outer row.

- TEMPERATURE AND HUMIDITY
   When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.
- TEMPERATURE INVERSIONS Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.
- WIND
   Drift potential generally increases with wind speed. AVOID APPLICATIONS
   DURING GUSTY WIND CONDITIONS.

   Applicators need to be familiar with local wind patterns and terrain that could
   affect spray drift.

#### APPLICATION INSTRUCTIONS

## ALFALFA INTER-SEEDED IN CORN (for use in PA and WI only):

Kudos 27.5 WDG can be used as a production management tool on alfalfa to suppress vegetative growth in the year of planting in a production program where the alfalfa is seeded between rows of corn. Applying Kudos 27.5WDG will suppress the growth of the alfalfa in the first growing season and reduce competitive vertical growth with the corn. The resulting shorter alfalfa plants will be healthier at the end of the planting season resulting in improved winter survival rate and a healthier plant coming out of winter dormant stage. Use Kudos 27.5 WDG as part of the alfalfa production plan which includes an insecticide/fungicide program for alfalfa being inter-seeded in corn to prevent reduction in plant health and vigor resulting from disease and insect infestations.

This use is intended for alfalfa being established under corn grown for silage. After alfalfa seedlings reach a height of 5 to 15 inches, apply a rate of 12 to 24 oz of Kudos 27.5 WDG (0.21-0.41 lbs ai) per acre; the appropriate rate will depend on corn population, the alfalfa variety sown, and growing conditions. A 12 to 16 oz rate of Kudos 27.5 WDG (0.21-0.28 lbs ai) product may be used if corn populations are at or below 26,000 plants per acre. At higher corn populations, use 16 to 24 oz of Kudos 27.5 WDG (0.28-0.41 lbs ai) on alfalfa varieties that are well-adapted for inter-seeding. Kudos 27.5 WDG application will limit stem growth of alfalfa seedlings and a short-term height reduction of corn may be observed.

For consistent performance on alfalfa, add one pound of spray grade ammonium sulfate (AMS) for every pound of Kudos 27.5 WDG. Ensure the pH of the spray tank solution is below 5.0. If pH is above 5.0, add an acidifier (e.g. citric acid) to the tank mix to reduce the pH of the spray mix to below 5.0. Based on research trial work, apply with a COC (Crop Oil Concentrate) type adjuvant at a rate of 1.25% v/v, to improve leaf coverage and performance consistency. Follow the manufacturer's rate directions.

## Restrictions on alfalfa inter-seeded in corn:

**DO NOT** apply more than 29 oz (0.5 lbs ai A) of Kudos 27.5 WDG per acre per year.

**DO NOT** apply more than 24 oz (0.41 lbs ai) of Kudos 27.5 WDG in any single application.

**DO NOT** make more than 2 applications of Kudos 27.5 WDG in alfalfa inter-seeded into corn per year when applied at the lowest rate specified

**DO NOT** use if crop (corn or alfalfa) is under drought stress.

Kudos 27.5 WDG applications **MUST** be made using drop nozzles or other equipment that can direct the spray to alfalfa foliage and limit contact with corn plants.

**DO NOT** harvest corn silage for a minimum of 50 days following the last application of Kudos 27.5 WDG.

**DO NOT** harvest corn grain for a minimum of 65 days following the last application of Kudos 27.5 WDG.

**DO NOT** make applications to the corn/alfalfa after mid-July.

**DO NOT** graze livestock on alfalfa or harvest alfalfa forage or hay for at least 10 months after the last application of Kudos 27.5 WDG.

Restricted Entry Interval (REI): 12 hours.

Minimum Retreatment Interval (MRI): 7 days

**ONLY** for use in Pennsylvania and Wisconsin.

## **APPLES:**

Kudos 27.5 WDG can be used as a production management tool on apples to suppress vegetative growth, i.e., shoot growth reduction, resulting in a balance between canopy development and fruit production. Growth suppression with Kudos 27.5 WDG generally lasts for 2-5 weeks per application. Kudos 27.5 WDG does not affect vegetative growth the year following application.

Benefits resulting from the use of Kudos 27.5 WDG include:

- Reduction in vegetative shoot growth
- Lessens the need or frequency for summer and/or dormant pruning
- Improved fruit color in red or bi-color apple varieties due to better light penetration into the tree canopy
- Reduced incidence and severity of fire blight of shoots

During years when both Kudos 27.5 WDG and products containing gibberellins, e.g., Novagib<sup>®</sup> 10L (EPA Reg. No. 62097-7) are used, reductions in efficacy may occur in the Kudos 27.5 WDG and/or gibberellin treatments.

The use of Kudos 27.5 WDG may result in an increase in fruit retention. Therefore, thinning programs may need to be adjusted when using Kudos 27.5 WDG.

When used as directed, Kudos 27.5 WDG will reduce the incidence and severity of fire blight infection of shoots and leaves, i.e., shoot blight, by reducing vegetative growth, thus decreasing host susceptibility. This decrease in susceptibility will not become effective until approximately 10 days after application. Kudos 27.5 WDG does not have direct antibiotic activity against the fire blight bacteria (*Erwinia amylovora*) and is not

effective for the suppression of blossom blight. For maximum reduction in fire blight susceptibility, apply Kudos 27.5 WDG at least 10 days before the occurrence of weather conditions favorable for shoot and leaf infections, and used as one component of a comprehensive control strategy against fire blight.

## **Application Timings:**

Early Timings for Reducing Shoot/Fire Blight: Early applications of Kudos 27.5 WDG can be made to help reduce shoot/fire blight infestations. Research has shown that these early applications of prohexadione calcium can help reduce the incidence and severity of fire blight in shoots. Kudos 27.5% WDG does not act directly on the fire blight and needs to be used as part of an overall program for controlling fire blight in orchards. For best results, make the first application at Pink stage with subsequent applications made at 1-4 week intervals. These early applications can also reduce shoot growth in the early part of the growing season.

The amount of shoot growth reduction observed following these early applications may vary due to variety, root stock, age of trees, growing conditions and production programs used in each orchard. The rate, number of applications and application interval may vary by orchard due to the amount of fire/shoot blight pressure in the orchard and the vigor of the trees present. The applications made at this early stage would be considered part of the overall vegetative growth suppression/control program for the trees in the orchard for that production year.

<u>Vegetative Growth Control</u>: For vegetative growth control, make the first application of Kudos 27.5 WDG when shoots have 1-3" of new growth. For best results, make subsequent applications at 1-4 week intervals, before or immediately following signs of shoot regrowth.

**Number of Applications:** The number of applications will vary depending on the timing of the first application, tree vigor, fruit load, pruning, variety, rootstock, and/or the management history of the orchard. For apple orchards in locations with a long growing season or on high vigor trees and/or trees with light fruit load, 3 to 5 applications per year may be required.

**Tree Vigor:** Adjust the Kudos 27.5 WDG rate according to the vegetative vigor of the trees (see Table 1). Vegetative vigor can be influenced by many factors, including variety, rootstock, fruit load, cultural management and location.

**Tree Size:** Calculate the rate per acre of Kudos 27.5 WDG based on tree size. Base the application rate on the volume of water needed to spray the trees to drip i.e. dilute spray or Tree Row Volume (TRV). Consult your local extension agent or consultant for advice on spray volume.

**Application Rates:** Specified rates will be based on desired treatment effect, i.e., vegetative growth control, shoot blight suppression, etc. For vegetative growth control,

base Kudos 27.5 WDG rates on level of tree vigor and/or length of growing season. Refer to Table 1 for directed rates per application.

For consistent performance on apples, add one pound of a spray grade ammonium sulfate (AMS) for every pound of Kudos 27.5 WDG. Use a standard spray adjuvant, preferably a non-ionic surfactant, to improve leaf coverage and performance consistency. Follow the manufacturer's rate directions.

Table 1. Specified Application Rates on Apples

Desired Rate per Application Directions				
Treatment Effect	Acre <sup>1</sup>	Application Directions		
Early Season application for reduction of fire blight incidence & severity in shoots and shoot growth reduction	2-6 oz (0.03-0.11 lbs ai)	Apply beginning at Pink stage.     Make subsequent applications at 1-4 week intervals to help suppress fire blight infestations.     These applications will also reduce early season shoot growth.		
Growth Reduction on Medium to High Vigor Trees	18-36 oz (0.31-0.62 lbs ai)	<ul> <li>Apply at 1-3" of new shoot growth.</li> <li>Make subsequent applications at 1-4 week intervals and before or immediately after shoot regrowth occurs.</li> </ul>		
Growth Reduction on Low Vigor Trees	9-24 oz (0.16-0.41 lbs ai)	<ul> <li>Apply at 1-3" of new shoot growth.</li> <li>Make subsequent applications at 1-4 week intervals and before or immediately after shoot regrowth occurs.</li> </ul>		
Growth Reduction During Long Growing Season	9-24 oz (0.16-0.41 lbs ai)	<ul> <li>Apply at 1-3" of new shoot growth.</li> <li>Make a second and third application at 7-14 day intervals.</li> <li>Make subsequent applications as needed at 10-14 day intervals.</li> </ul>		
To Decrease June Drop on Trees With Light Bloom	30-36 oz (0.51-0.62 lbs ai)	Apply at 1-3" of new shoot growth.		
To Shape Tree Canopy	See footnote 2	<ul> <li>Apply at 1-3" of new shoot growth.</li> <li>Direct the spray to the portion of the tree where growth control is desired.</li> </ul>		
To Reduce Fire Blight Infections of Shoot by Decreasing Vegetative Growth	18-36 oz (0.31-0.62 Ibs ai)	<ul> <li>Apply at 1-3" of new shoot growth.</li> <li>Make a second application if new shoot growth occurs.</li> </ul>		

<sup>&</sup>lt;sup>1</sup>Based on 300 gallons of dilute spray per acre.

<sup>2</sup>Apply 6-12 oz of Kudos 27.5 WDG (0.10-0.21 lbs ai) per 100 gallons of dilute spray until run-off.

**Ground Application:** Apply Kudos 27.5 WDG to actively growing trees using calibrated ground equipment. Kudos 27.5 WDG may be applied using either dilute or concentrate spray equipment as long as sufficient spray coverage is achieved. Direct spray to the portion of the tree where growth control is desired. To achieve good coverage, apply Kudos 27.5 WDG in a sufficient spray volume per acre utilizing proper spray pressure, nozzles, nozzle spacing and tractor speed.

**Aerial Application (all approved states except California):** Apply Kudos 27.5 WDG in a minimum of 10 gallons of spray solution per broadcast acre. Aerial applications generally only provide spray coverage in the top part of the tree canopy. Vegetative growth control will be limited to those areas of the canopy that receive spray coverage.

Special Directions for Vegetative Growth Control on Apples Grown in Idaho, Oregon and Washington: Apply Kudos 27.5 WDG to actively growing trees according to the tree size, rates and application timings listed in Table 2. It is important to take into consideration the size and vigor of the trees when determining the spray volume and application frequency, timing and rate required to achieve vegetative growth control. Spray volumes are based on the amount of solution required to thoroughly wet the tree foliage to the point of runoff. Consult your local extension agent or consultant for advice on spray volume.

Table 2. Specified Application Rates for Vegetative Growth Control of Apples in

Idaho, Oregon or Washington.

Apple Tree Size	Rate per Acre <sup>1</sup>	Application Directions
Small Trees (8-10 feet tall on dwarf rootstocks)	6-12 oz (0.10-0.21	
tall off dwarf footstocks)	(0.10-0.21 lbs ai)	
Medium Trees (10-14 feet tall on semi-dwarf rootstocks)	6-18 oz (0.10-0.31 lbs ai)	Apply at 1-3" of new shoot growth. Make subsequent applications at 1-4 week intervals when shoots show signs of regrowth.  High vigor trees may require more frequent applications through the growing season.
Large Trees (greater than 14 feet tall on standard non-dwarf rootstocks)	18-24 oz (0.31-0.41 lbs ai)	

<sup>1</sup>Spray volumes must be a minimum of 100 gallons per acre and increase as necessary to achieve thorough canopy coverage.

## **Limitations on Apples:**

- Kudos 27.5 WDG is rainfast 8 hours after application.
- The active ingredient in Kudos 27.5 WDG has been shown to increase fruit cracking on apple varieties, for example, Empire and Stayman, which are known to be prone to cracking.

## **Restrictions on Apples:**

- **DO NOT** apply more than 36 oz per acre of Kudos 27.5 WDG (0.62 lbs ai acre) per application.
- **DO NOT** apply more than a total of 99 oz per acre of Kudos 27.5 WDG (1.7 lbs ai per acre) per acre per year.
- **DO NOT** apply more than a total of 48 oz per acre of Kudos 27.5 WDG (0.83 lbs ai acre) within any 21-day interval.
- **DO NOT** make more than 16 applications of 6 oz of Kudos 27.5 WDG (0.11 lbs ai) per acre per year or more than 2 applications of 36 oz of Kudos 27.5 WDG (0.62 lbs ai) per acre per year. The rate applied for individual applications may vary depending on conditions, age of trees and vigor of trees, but the overall rate applied per acre per year may still not exceed 99 oz of product.
- DO NOT retreat in less than 1 week.
- **DO NOT** apply within 45 days before harvest.
- **DO NOT** apply to crops that show injury (leaf phytotoxicity) produced by any other prior pesticide applications because this injury can be enhanced or prolonged.

## **GRASS GROWN FOR SEED (all approved states except California):**

Kudos 27.5 WDG can be used as a production management tool on grass grown for seed production to suppress vegetative growth i.e. shorten internode length, resulting in a lower potential for lodging. Reducing lodging can result in improved pollination, increased seed set and improved yields. Kudos 27.5 WDG must be absorbed by foliage to be effective. Always use sufficient spray volume to thoroughly wet the leaves without runoff. The growth regulator effects of Kudos 27.5 WDG do not occur by soil uptake. Kudos 27.5 WDG does not affect vegetative growth the following year.

For consistent performance on grass grown for seed, add one pound of a spray grade ammonium sulfate (AMS) for every pound of Kudos 27.5 WDG. Use a standard spray adjuvant, preferably a non-ionic surfactant, to improve leaf coverage and performance consistency. Follow the manufacturer's rate directions.

Refer to Table 3 for application rates and timings of Kudos 27.5 WDG to reduce vegetative growth in grass grown for seed.

Table 3. Application Rates and Timings for Vegetative Growth Control in Grass Grown for Seed.

Application Timing	Application Rate per Acre
Single application:	
Apply from flag leaf emergence up to	14-29 oz
early heading growth stage.	(0.24-0.50 lbs ai)
Split applications:	
Apply from flag leaf emergence up to	
early heading growth stage.	7-14 oz
Make a second application 7-10 days	(0.12-0.24 lbs ai)
later when new growth occurs.	

**Ground Application:** Use a minimum of 10 gallons of spray solution per broadcast acre.

**Aerial Application:** Use a minimum of 10 gallons of spray solution per acre.

## Suppression of Annual Bluegrass in Washington, Oregon, Idaho and Utah:

Kudos 27.5 WDG can be used to for the suppression of annual bluegrass in grass grown for seed production. For maximum suppression, annual bluegrass must be sprayed when in the flowering stage, and must receive thorough coverage. Kudos 27.5 WDG may not be effective against some annual bluegrass biotypes.

#### **Limitation on Grass Grown for Seed:**

• Kudos 27.5 WDG is rainfast 1 hour after application.

#### Restrictions on Grass Grown for Seed:

- **DO NOT** apply more than 29 oz of Kudos 27.5 WDG (0.50 lbs ai) per acre per application.
- **DO NOT** apply more than a total of 29 ounces of Kudos 27.5 WDG (0.50 lbs ai) per acre, per year.
- DO NOT retreat in less than 1 week.
- **DO NOT** make more than 2 applications of 14 oz of Kudos 27.5 WDG (0.24 lbs ai) per acre per year or more than 1 application of 29 oz of Kudos 27.5 WDG (0.50 lbs ai) per acre per year.
- DO NOT apply within 35 days before harvest.
- **DO NOT** graze livestock for 49 days following application.
- **DO NOT** cut forage or hay for livestock feed for 49 days following application.
- Plant-back/rotation restriction: If replanting or crop rotation is necessary in fields treated with Kudos 27.5 WDG, **DO NOT** plant any crop other than grass grown for seed for 30 days following application.

## **PEANUTS** (all approved states except California):

Kudos 27.5 WDG can be used as a production management tool on peanuts to suppress vegetative growth i.e. shorten internode length, resulting in better harvest

efficiency. Kudos 27.5 WDG does not affect vegetative growth the year following application.

For consistent performance on peanuts, add one pound of a spray grade ammonium sulfate (AMS) for every pound of Kudos 27.5 WDG. Use a standard spray adjuvant, preferably a non-ionic surfactant, to improve leaf coverage and performance consistency. If Kudos 27.5 WDG is being applied without a tank-mix partner, a non-phytotoxic crop oil concentrate (COC) can be used in place of a non-ionic surfactant. Always follow the manufacturer's rate directions.

Apply Kudos 27.5 WDG to actively growing peanut plants according to the rates directed in Table 4. Initially apply 7.25 ounces (0.13 lbs ai) per acre when 50% of the peanut stems are touching the row middle i.e. row closure. Make a second application at 100% row closure, as needed. Under conditions that are favorable to extremely rank growth, a third application may be required. Make Kudos 27.5 WDG applications prior to loss of visual row pattern. Crops under stress due to lack of moisture, hail damage, flooding, mechanical injury, etc. will show little response to Kudos 27.5 WDG.

Table 4. Application Rates and Timings for Vegetative Growth Control in Peanuts.

Application Timing	Application Rate per Acre
<ul><li>First application:</li><li>Apply when 50% of the peanut stems are touching in row middle (row closure).</li></ul>	7.25 oz (0.13 lbs ai)
<ul><li>Second application:</li><li>Make a second application at 100% row closure as needed.</li></ul>	3.6-7.25 oz (0.06-0.13 lbs ai)

**Ground Application:** Use a minimum of 20 gallons of spray solution per broadcast acre.

#### **Limitation on Peanuts:**

• Kudos 27.5 WDG is rainfast 8 hours after application.

## **Restrictions on Peanuts:**

- **DO NOT** apply more than 7.25 oz of Kudos 27.5 WDG per acre (0.13 lbs ai) per application.
- **DO NOT** apply more than a total of 21.75 oz of Kudos 27.5 WDG (0.38 lbs ai) per acre per year.
- DO NOT retreat in less than 1 week.
- DO NOT make more than 2 applications of Kudos 27.5 WDG in less than 6 weeks.
- Following the initial application of 7.25 oz per acre (0.13 lbs ai), **DO NOT** make more than 2 subsequent applications of 7.25 oz of Kudos 27.5 WDG per acre per year (0.13 lbs ai) or more than 4 applications of 3.6 oz (0.06 lbs ai) of Kudos 27.5 WDG per acre per year.
- DO NOT treat within 25 days before harvest.

- DO NOT graze or feed livestock treated crops.
- DO NOT apply Kudos 27.5 WDG on peanuts by air.
- DO NOT apply to crops under stress due to lack of moisture, hail damage, flooding, herbicide injury, or mechanical injury as reduced activity may result.
- DO NOT apply to crops that show injury (leaf phytotoxicity or plant stunting) produced by any other prior product applications because this injury can be enhanced or prolonged.
- Plant back/rotation restriction: If replanting or crop rotation is necessary in fields treated with Kudos 27.5 WDG, **DO NOT** plant any crop other than peanuts for 30 days following the last application.

## PEARS - [d'Anjou]:

Kudos 27.5 WDG can be used as a production management tool on [d'Anjou] pears to suppress vegetative growth, i.e., shoot growth reduction, resulting in a balance between canopy development and fruit production. Growth suppression with Kudos 27.5 WDG generally lasts for 2-5 weeks per application. Kudos 27.5 WDG does not affect vegetative growth the year following application.

Benefits resulting from the use of Kudos 27.5 WDG include:

- Reduction in vegetative shoot growth
- Lessens the need or frequency for summer and/or dormant pruning
- Improved light penetration into the tree canopy
- Reduced incidence and severity of fire blight of shoots

During years when both Kudos 27.5 WDG and products containing gibberellins, e.g. Novagib® 10L (EPA Reg. No. 62097-7), are used, reductions in efficacy may occur in the Kudos 27.5 WDG and/or gibberellin treatments.

The use of Kudos 27.5 WDG may result in an increase in fruit retention. Therefore, thinning programs may need to be adjusted when using Kudos 27.5 WDG.

When used as directed, Kudos 27.5 WDG can reduce the incidence and severity of fire blight infection in [d'Anjou] pears in two ways: 1) The active ingredient in Kudos 27.5 WDG can reduce latent bloom in [d'Anjou] pear. During bloom pear trees are more susceptible to infection from fire blight. By reducing the bloom period and thusly reducing the time frame for infection to occur, the chance of fire blight infection may be decreased. 2) Applications of Kudos 27.5 WDG reduce vegetative growth in [d'Anjou] pears. This reduction in vegetative growth helps lessen host susceptibility. This decrease in susceptibility will not become effective until approximately 10 days after application. Kudos 27.5 WDG does not have direct antibiotic activity against fire blight. For maximum reduction in fire blight susceptibility, apply Kudos 27.5 WDG at least 10 days before the occurrence of weather conditions favorable for shoot and leaf infections. Use Kudos 27.5 WDG as just one component of a comprehensive control strategy against fire blight.

**Application Timings:** For vegetative growth control, make the first application of Kudos 27.5 WDG when shoots have 1-3" of new shoot growth. For best results, make subsequent applications at 1-4 week intervals, before or immediately following signs of shoot regrowth.

**Number of Applications:** The number of applications will vary depending on the timing of the first application, tree vigor, fruit load, pruning, variety, rootstock, and/or the management history of the orchard. For pear orchards in locations with a long growing season or on high vigor trees and/or trees with light fruit load, 3 to 5 applications per year may be required.

**Tree Vigor:** Adjust the Kudos 27.5 WDG rate according to the vegetative vigor of the trees (see Table 5). Vegetative vigor can be influenced by many factors, including variety, rootstock, fruit load, cultural management and location.

**Tree Size:** Calculate the rate per acre of Kudos 27.5 WDG based on tree size, volume of water needed to spray the trees to drip, i.e., dilute spray or Tree Row Volume (TRV), level of tree vigor, and/or length of growing season. Consult your local extension agent or consultant for advice on spray volume.

**Application Rates:** Specified rates will be based on desired treatment effect, i.e., vegetative growth control, shoot blight suppression, etc. Refer to **Table 1** for directed rates per application.

For consistent performance on pears, add one pound of a spray grade ammonium sulfate (AMS) for every pound of Kudos 27.5 WDG. Use a standard spray adjuvant, preferably a non-ionic surfactant, to improve leaf coverage and performance consistency. Follow the manufacturer's rate directions.

Table 5. Specified Application Rates on [d'Anjou] Pears

Application Timing	Rate per Acre <sup>1</sup>	Rate per 100 Gallons of Dilute Spray <sup>2</sup>	Restrictions
<ul> <li>For Vegetative Growth Control: First application: <ul> <li>Apply at 1-3" of new shoot growth</li> </ul> </li> <li>Subsequent applications:</li> <li>Make any subsequent applications at 1-4 week intervals and before or immediately after shoot regrowth occurs.</li> </ul>	18 oz (0.31 lbs ai)	6 oz (0.10 lbs ai)	See "Restrictions & Limitations on [d'Anjou] Pears" section below"
For Vegetative Growth Control and Reduced Latent Bloom (Fire Blight Management):	30-36 oz 0.51-0.62 lbs ai)	10-12 oz (0.17-0.21 lbs ai)	See "Restrictions & Limitations on [d'Anjou] Pears" section below.

•	Apply at 1-3" inches of new shoot		
•	growth. Make a second application after		
	21 days.		

<sup>&</sup>lt;sup>1</sup> Based on 300 gallons of dilute spray per acre.

**Ground Application:** Apply Kudos 27.5 WDG to actively growing trees using calibrated ground equipment. Kudos 27.5 WDG may be applied using either dilute or concentrate spray equipment as long as sufficient spray coverage is achieved. Direct spray to the portion of the tree where growth control is desired. To achieve good coverage, apply Kudos 27.5 WDG in a sufficient spray volume per acre utilizing proper spray pressure, nozzles, nozzle spacing and tractor speed.

**Aerial Application (all approved states except California):** Apply Kudos 27.5 WDG in a minimum of 10 gallons of spray solution per broadcast acre. Aerial applications generally only provide spray coverage in the top part of the tree canopy. Vegetative growth control will be limited to those areas of the canopy that receive spray coverage.

## Limitation on [d'Anjou] Pears:

• Kudos 27.5 WDG is rainfast 8 hours after application.

## **Restrictions on [d'Anjou] Pears:**

- DO NOT apply more than 36 oz per acre of Kudos 27.5 WDG (0.62 lbs ai) per application.
- **DO NOT** apply more than a total of 99 oz of Kudos 27.5 WDG (1.7 lbs ai) per acre, per year.
- **DO NOT** apply more than a total of 48 oz per acre of Kudos 27.5 WDG (0.83 lbs ai) within any 21-day interval.
- DO NOT retreat in less than 1 week.
- **DO NOT** make more than 5 applications of 18 oz of Kudos 27.5 WDG (0.31 lbs ai) per acre per year or more than 2 applications of 36 oz of Kudos 27.5 WDG (0.62 lbs ai) per acre per year. The rate applied for individual applications may vary depending on conditions, age of trees and vigor of trees, but the overall rate applied per acre per year may still not exceed 99 oz of product (1.7 lbs ai).
- **DO NOT** apply within 45 days before harvest.
- **DO NOT** apply to crops that show injury (leaf phytotoxicity) produced by any other prior pesticide applications because this injury can be enhanced or prolonged.
- DO NOT apply Kudos 27.5 WDG to [d'Anjou] pears through any type of irrigation system.

## STRAWBERRIES (all approved states except California):

Kudos 27.5 WDG can be used as a production management tool on strawberries to suppress vegetative growth i.e. shoot growth reduction. The growth suppression effects of Kudos 27.5 WDG on strawberries will normally last for 2-5 weeks per application

<sup>&</sup>lt;sup>2</sup> Apply 6-12 oz of Kudos 27.5 WDG (0.10-0.21 lbs ai) per 100 gallons of dilute spray.

during the current growing season. Kudos 27.5 WDG does not affect vegetative growth the year following application.

For consistent performance on strawberries, add one pound of a spray grade ammonium sulfate (AMS) for every pound of Kudos 27.5 WDG. Use a standard spray adjuvant, preferably a non-ionic surfactant, to improve leaf coverage and performance consistency. Follow the manufacturer's rate directions.

Apply Kudos 27.5 WDG to strawberries at a rate of 2.0 oz (0.03 lbs ai) per acre per application. Make the first application of Kudos 27.5 WDG in the fall once a minimum of 80% of the strawberry plants have 5 fully expanded leaves and before any runner formation has begun. If additional vegetative growth control is needed, make subsequent applications at 14-21 day intervals.

**Ground Application:** Apply Kudos 27.5 WDG to the foliage of actively growing strawberries using calibrated ground application equipment. Kudos 27.5 WDG is taken up through the leaves of the plants so good spray coverage of the plant foliage is essential to get good uptake and consistent growth suppression. To achieve good coverage, apply Kudos 27.5 WDG in a sufficient spray volume per acre utilizing proper spray pressure, nozzles, nozzle spacing and tractor speed. It is advised to apply in a minimum spray volume of 10 gallons per acre and not more than 30 gallons per acre.

#### **Limitation on Strawberries:**

• Kudos 27.5 WDG is rainfast 8 hours after application.

**Note:** If calcium or boron are tank mixed with Kudos 27.5 WDG, the resulting growth control may be less than favorable.

#### **Restrictions on Strawberries:**

- **DO NOT** apply more than 2 oz of Kudos 27.5 (0.03 lbs ai) per acre per application.
- **DO NOT** apply more than 6 oz of Kudos 27.5 WDG (0.11 lbs ai) per acre per year.
- DO NOT retreat in less than 2 weeks.
- **DO NOT** make more than 3 applications of 2 oz of Kudos 27.5 WDG (0.03 lbs ai) per acre per year.
- **DO NOT** apply within 21 days before harvest.
- **DO NOT** use Kudos 27.5 WDG on strawberries grown in greenhouses.
- **DO NOT** apply this product to strawberries using air-blast or aerial spray equipment.
- **DO NOT** apply Kudos 27.5 WDG to strawberries using any type of irrigation system.
- **DO NOT** apply to crops that show injury (leaf phytotoxicity) produced by any other prior pesticide applications as this injury can be enhanced or prolonged. Refer to Tank Mixing Information for additional tank mixing instructions and precautions.

## **SWEET CHERRIES:**

Kudos 27.5 WDG can be used as a production management tool on sweet cherries to suppress vegetative growth i.e. shoot growth reduction, which can reduce or delay the

need for pruning. Kudos 27.5 WDG does not affect vegetative growth the year following application.

For consistent performance on sweet cherries, add one pound of a spray grade ammonium sulfate (AMS) for every pound of Kudos 27.5 WDG. Use a standard spray adjuvant, preferably a non-ionic surfactant, to improve leaf coverage and performance consistency. Follow the manufacturer's rate directions.

Apply Kudos 27.5 WDG to sweet cherries according to the rates directed in **Table 6**. Make the first application of Kudos 27.5 WDG in the spring when shoots have 1-3" of new growth. If additional vegetative growth control is needed, make subsequent applications at 1 to 4 week intervals, before or immediately following signs of shoot regrowth.

**Number of Applications:** The number of applications will vary depending on the timing of the first application, tree vigor, fruit load, pruning, variety, rootstock, and/or the management history of the orchard. For sweet cherry orchards in locations with a long growing season or on high vigor trees and/or trees with light fruit load, 3-5 applications per year may be required.

Table 6. Application Rates for Vegetative Growth Control in Sweet Cherries

Tree Vigor	Application Rate per Acre	Restrictions
High Vigor Trees	8-20 oz	DO NOT apply more than 20
	(0.14-0.34 lbs ai)	oz/A (0.34 lbs ai) within any
		14-day interval.
		DO NOT apply more than 40
		oz/A (0.63 lbs ai) per year.
Medium Vigor	8-12 oz (CA only)	DO NOT apply more than 12
Trees	(0.14-0.21 lbs ai)	oz/A (0.75 lbs ai) within any
		14-day interval.
	6-12 oz (all other states)	DO NOT apply more than 30
	(0.10-0.21 lbs ai)	oz/A (1.88 lbs ai) per year.
Low Vigor Trees	Not applicable	DO NOT apply Kudos 27.5
		WDG to low vigor trees.

**Ground Application:** Apply Kudos 27.5 WDG to actively growing trees using calibrated ground equipment. Kudos 27.5 WDG may be applied using either dilute or concentrate spray equipment as long as sufficient spray coverage is achieved. To achieve good coverage, apply Kudos 27.5 WDG in a sufficient spray volume per acre utilizing proper spray pressure, nozzles, nozzle spacing and tractor speed.

**Aerial Application (all approved states except California):** Apply Kudos 27.5 WDG in a minimum of 10 gallons of spray solution per broadcast acre. Aerial applications generally only provide spray coverage in the top part of the tree canopy. Vegetative growth control will be limited to those areas of the canopy that receive spray coverage.

Post-Harvest Applications to Control Vegetative Growth in Sweet Cherries (all approved states except California): Flushes of vegetative growth can occur in fruit trees that are harvested when temperatures and day length are still favorable for vegetative growth to occur. This can result in undesirable shoot growth and waste of resources for the trees. To reduce this growth, apply Kudos 27.5 WDG to the trees after commercial harvest is complete.

Once vegetative growth begins, 1-3 applications of Kudos 27.5 WDG may be applied at 1-4 week intervals. Follow the application rates described in Table 6 above based on the vigor of the trees being treated. Exclude post-harvest applications of Kudos 27.5 WDG from the total ounces of product that may be applied to cherry trees in the current growing season.

#### **Limitation on Sweet Cherries:**

• Kudos 27.5 WDG is rainfast 8 hours after application.

#### **Restrictions on Sweet Cherries:**

- DO NOT apply more than 40 oz of Kudos 27.5 WDG (0.69 lbs ai) per acre per year
  as outlined in the Application Rates for Vegetative Growth Control in Sweet
  Cherries table in this label.
- **DO NOT** apply more than a total of 20 oz of Kudos 27.5 WDG (0.34 lbs ai) per acre in any 14-day interval.
- **DO NOT** apply more than 20 oz of Kudos 27.5 WDG (0.34 lbs ai) per acre per application.
- DO NOT retreat in less than 1 week.
- **DO NOT** make more than 5 applications of 8 oz of Kudos 27.5 WDG (0.14 lbs ai) per acre per year or more than 1 application of 20 oz of Kudos 27.5 WDG (0.34 lbs ai) per acre per year for High Vigor Trees.
- **DO NOT** make more than 5 applications of 6 oz of Kudos 27.5 WDG (0.11 lbs ai) per acre per year or more than 1 application of 12 oz of Kudos 27.5 WDG (0.21 lbs ai) per acre per year for Medium Vigor Trees.
- **DO NOT** apply within 20 days before harvest.
- **DO NOT** use Kudos 27.5 WDG on tart cherries.
- **DO NOT** apply to crops that show injury (leaf phytotoxicity) produced by any other prior pesticide applications because this injury can be enhanced or prolonged. Refer to Tank Mixing Information for additional tank mixing instructions and precautions.
- **DO NOT** apply Kudos 27.5 WDG on low vigor trees.
- **DO NOT** begin post-harvest applications until the cherry fruit harvest is completed in the trees to be treated.

## **WATERCRESS** (all approved states except California):

Kudos 27.5 WDG can be used as a production management tool on watercress to suppress vegetative growth and increase stem diameter in watercress. Following an application of Kudos 27.5 WDG to watercress a reduction in growth will typically be observed after 4 days. This reduction in growth may last up to 14 days depending on growing conditions.

Apply Kudos 27.5 WDG to watercress which has regrown from the plant stubble remaining following the previous harvest. Depending on the growing conditions the first application may be made from 5 to 10 days. If deemed necessary a second application of Kudos 27.5 WDG may be applied. Application rates and volumes are noted in **Table 11. Kudos 27.5 WDG Application Rates and Timings for Vegetative Growth Control of Watercress.** 

Kudos 27.5 WDG may be applied through ground or sprinkler application equipment. Application equipment must be properly designed and calibrated before making applications of Kudos 27.5 WDG to watercress. To achieve desired results, apply Kudos 27.5 WDG in a sufficient spray volume per acre that will provide good coverage based on the size and density of the watercress foliage. Adequate coverage of the plant foliage must be achieved for good activity but avoid over application that results in runoff.

**Ground Application:** Apply Kudos 27.5 WDG to the foliage of actively growing watercress using properly calibrated ground application equipment. Ensure adequate spray coverage is applied to achieve good uptake of the spray solution.

**Sprinkler Irrigation Application:** Chemigation applications of Kudos 27.5 WDG to watercress are to <u>only</u> be made through sprinkler type irrigation systems including center pivot, lateral move, solid set or hand move irrigation systems.

The chemical tank and injector system must be thoroughly cleaned before an application of Kudos 27.5 WDG is made. Flush system with clean water prior to beginning the Kudos 27.5 WDG application.

**Application Instructions:** Apply Kudos 27.5 WDG at the rates and timings stated in this label. Chemigation applications must be made as concentrated as possible. To achieve best results apply at 0.1 inch up to 0.15 inch (2,716 to 4,073 gallons) of water per acre.

## **Sprinkler Irrigation Application Use Directions:**

- Apply Kudos 27.5 WDG only through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems.
- Add Kudos 27.5 WDG to the pesticide supply tank containing sufficient water to maintain a continuous flow by the injection equipment. In continuous moving systems, inject this product/water mixture continuously, to apply the proper labeled rate per acre for that crop. In stationary or non-continuous moving systems, inject the product/water mixture in the last 15 to 30 minutes of each set allowing sufficient time for all of the required pesticide to be applied by all the sprinkler heads and applying the labeled rate per acre for that crop. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of

- treated water. Thorough coverage of foliage is required for good control. Good agitation must be maintained during the entire application period.
- Contact state extension service specialists, equipment manufacturers or other experts if you have questions or concerns about calibration of the system.
- The system must contain a functional check valve, vacuum-relief valve, and lowpressure drain appropriately located on the irrigation pipeline to prevent watersource contamination from back-flow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- Functional interlocking controls must be contained in the system to automatically shut off the pesticide-injection pump when the water pump motor stops.
- In order to prevent a water pressure decrease to the point where pesticide distribution is adversely affected, the irrigation line or water pump must include a functional pressure switch that will stop the motor.
- Systems must use a metering pump, a positive displacement injection pump (e.g. diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- The irrigation water may not be turned off before allowing sufficient time for the
  pesticide to be flushed through all lines and all nozzles. A person knowledgeable of
  the chemigation system and responsible for its operation, or under supervision of the
  responsible person, needs to shut down the system and make necessary
  adjustments if the need arises.

## **Specific Instructions for Public Water Systems:**

- 1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- 2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system may be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- 3. The pesticide injection pipeline must contain a functional, automatic, quickclosing check valve to prevent the flow of fluid back toward the injection pump.
- 4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the

- supply tank when the irrigation system is either automatically or manually shut down.
- 5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering pump, a positive displacement injection pump (e.g. diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Table 8. Kudos 27.5 WDG Application Rates and Timings for Vegetative Growth Control of Watercress

Application Timing
Apply to watercress which has regrown leaves/foliage from the plant stubble remaining following the previous
harvest (5 to 10 days).
If deemed necessary a second application may be
made 7 days after the first application. This second
application may or may not be needed depending on growing conditions.

#### Limitation on Watercress:

• Kudos 27.5 WDG is rainfast 8 hours after application.

## **Restrictions on Watercress:**

- **DO NOT** apply more than 16 oz of Kudos 27.5 WDG (0.28 lbs ai) per acre per year.
- DO NOT retreat in less than 1 week.
- **DO NOT** make more than 2 applications of 8 oz of Kudos 27.5 WDG (0.14 lbs ai) per acre per year.
- **DO NOT** apply more than 8 oz of Kudos 27.5 WDG (0.14 lbs ai) per acre per application.
- **DO NOT** apply Kudos 27.5 WDG within 3 days before harvest.
- **DO NOT** use Kudos 27.5 WDG on watercress grown in greenhouses.
- **DO NOT** apply to watercress crops that show injury (leaf phytotoxicity) produced by any other prior pesticide applications as this type of injury can be enhanced or prolonged. Refer to Tank Mixing Information for additional tank mixing instructions and precautions.
- **DO NOT** apply Kudos 27.5 WDG to watercress with any additive, adjuvant, fertilizer, nutrient or any other pesticide product added to the spray mix. Only mix Kudos 27.5 WDG with water when making applications to watercress.
- **DO NOT** apply this product through any other type of irrigation system.
- **DO NOT** exceed <sup>1</sup>/<sub>2</sub> inch water (13,577 gallons) per acre for watercress.
- **DO NOT** apply if wind speed favors drift beyond the intended area of the treatment.

 DO NOT connect an irrigation system (including greenhouse systems) used for pesticide to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in original container only. After partial use, close the container tightly. Store in a secure place that is cool and dry. Use spray and stock solutions within 24 hours. Immediate use is required if another component is added to the spray solution.

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

**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. 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.

{for container sizes of 50 pounds and less} **CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, if available, or puncture or dispose of in a sanitary landfill, or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

{for container sizes greater than 50 pounds} **CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ½ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning, if available, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

## WARRANTY DISCLAIMER AND LIMITATION OF LIABILITY

Fine Agrochemicals Limited ("FINE") warrants that this Product conforms to the specifications on this label. To the extent consistent with applicable law, FINE makes no other warranties and disclaims all other warranties, express or implied, including but not limited to warranties of merchantability and fitness for a particular purpose. No agent of

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It is impossible to eliminate all risks associated with this Product. Plant injury, lack of performance, or other unintended consequences may result because of factors including abnormal weather conditions, use of the Product other than in strict accordance with this label's instructions, presence of other materials, the manner of application or other factors, all of which are beyond the control of FINE or the seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

To the extent consistent with applicable law: 1) FINE disclaims any liability whatsoever for special, incidental or consequential damages resulting from the handling or use of this Product and 2) FINE's liability under this label shall be limited to the amount of the purchase price or, at the election of FINE, the free replacement of the Product.

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## SUBLABEL B: Turf uses

## **KUDOS® 27.5 WDG**

Plant growth regulator for use on turf\*.

<sup>\*</sup>Not for use in California.

Active Ingredient: Prohexadione-calcium**	
[calcium 3-oxido-5-oxo-4-propionylcyclohex-3-enecarboxylate]	27.5%
Other Ingredients:	<u>72.5%</u>
Total:	100.0%

<sup>\*\*</sup>Equivalent to 0.275 pounds of active ingredient per pound of product

# KEEP OUT OF REACH OF CHILDREN CAUTION

[See inside panel for additional Precautionary Statements.]

EPA Reg. No. 62097-41

EPA Est. No.

## Net Contents:

FIRST AID		
	Call a poison control center or doctor immediately for treatment advice.	
IF SWALLOWED	Have person sip a glass of water if able to swallow.	
	<ul> <li>Do not induce vomiting unless told to by a poison control center or doctor.</li> </ul>	
	<ul> <li>Do not give anything by mouth to an unconscious person.</li> </ul>	
IF ON SKIN OR CLOTHING	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
IF IN EYES	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact the National Poison Control Hotline at 1-800-222-1222 for emergency medical treatment information 24 hours a day, seven days a week.		

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION.** Harmful if swallowed or absorbed through the skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

## **Applicators and other handlers must wear:**

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

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

#### **USER SAFETY RECOMMENDATIONS**

#### Users should:

- 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.

#### **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.

#### **ENVIRONMENTAL HAZARDS**

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate.

#### **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 requirement, specific to your state or tribe, consult the state or tribal 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 the label about personal protective equipment (PPE) and restricted entry intervals. The requirements in this box only apply to uses of this product covered by the Worker Protection Standard.

Do not enter or allow entry into treated areas during the restricted entry interval level (REI) of 12 hours unless wearing appropriate PPE.

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, plants, soil or water is:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical resistant gloves made of any waterproof material

## **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. Keep unprotected persons out of treated areas until sprays have dried.

## **TURF (all approved states except California):**

Kudos 27.5 WDG can be used as a production management tool on turf to reduce vegetative growth. The active ingredient in Kudos 27.5 WDG, prohexadione-ca, reduces the growth of turf by inhibiting the biosynthesis of gibberellin, a natural plant hormone that regulates cell elongation. The inhibition of gibberellin slows the growth of turf which will result in reduced frequency of mowing and amounts of grass clippings in treated areas. Following an application of Kudos 27.5 WDG to turf, a reduction in growth and grass clippings will typically be observed by three days.

Kudos 27.5 WDG can be applied to turf that is green and actively growing. Under conditions of stress, applications need to be delayed. Apply lower rates if the turf is entering stressful growing conditions like pest pressure, high temperatures, low moisture conditions or certain cultural practices including, but not limited to, aerification or verticutting. Under certain environmental conditions, including those that may occur early in the season, transient bronzing may be observed. For information on application scheduling, rates and timings on turf for Kudos 27.5 WDG see "Table 1: Application Rates & Timings for Using a Set/Calendar Spray Schedule" and "Table 2: Application Rates and Timings Using Growing Degree Days (GDD) to Determine Spray Timings" for Kudos 27.5 WDG in Turf located below.

For consistent performance on turf, add one pound of a spray grade ammonium sulfate (AMS) for every pound of Kudos 27.5 WDG applied. Use a standard spray adjuvant, preferably a non-ionic surfactant, to improve leaf coverage and performance consistency. Follow the manufacturer's rate directions.

## **Mandatory Spray Drift**

## Aerial Applications

- Do not release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For all applications, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

## **Ground Applications**

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

## **Spray Drift Advisories**

- THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.
- BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.
- IMPORTANCE OF DROPLET SIZE
  - An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

## Controlling Droplet Size - Ground Boom

- Volume Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.

Spray Nozzle - Use a spray nozzle that is designed for the intended application.
 Consider using nozzles designed to reduce drift.

## Controlling Droplet Size - Aircraft

- Adjust Nozzles Follow nozzle manufacturer's recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.
- BOOM HEIGHT Ground Boom
   Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the turf and have minimal bounce.
- RELEASE HEIGHT Aircraft
   Higher release heights increase the potential for spray drift. When applying aerially to target area, do not release spray at a height greater than 10 feet above the target area, unless a greater application height is necessary for pilot safety.
- SHIELDED SPRAYERS
- Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.TEMPERATURE AND HUMIDITY When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.
- TEMPERATURE INVERSIONS Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air
- mixing. Avoid applications during temperature inversions.
   WIND
   Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.
   Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

**Ground Application:** Apply Kudos 27.5 WDG to actively growing turf using calibrated application equipment. Kudos 27.5 WDG is taken up through the leaves of the plants. So, good spray coverage of the plant foliage is essential to get good uptake and consistent growth suppression. To achieve good coverage, apply Kudos 27.5 WDG in a sufficient spray volume utilizing proper spray pressure, nozzles, nozzle spacing and applicator speed. Apply Kudos 27.5 WDG in a spray volume of 1 to 2 gallons water per 1000 sq. ft. but it can be applied in a spray volume of 0.5 to 5.0 gallons water per 1000 sq. ft. Avoid applying Kudos 27.5 WDG during warm, low humidity or windy conditions. The absorption of the spray mix is improved with longer drying times.

Maintain constant agitation during mixing of the spray solution and application. Do not allow the spray tank to sit for prolonged periods without any agitation. Do not allow the spray mix to sit in the tank overnight.

**Mowing & Irrigation:** Mowing and irrigation events can affect the efficacy of the Kudos 27.5 WDG applications. After mowing, do not make an application of Kudos 27.5 WDG for at least one hour. Following an application of Kudos 27.5 WDG, do not mow the treated turf for at least one day and do **not** apply irrigation for 4 hours.

**Turf Maintenance:** Following applications of Kudos 27.5 WDG, maintain the areas of turf that were treated as normal with proper levels of irrigation and fertility. Implement a good pest control plan as necessary to maintain the turf in a healthy condition. If tank mixing with other product(s) precaution is advised. The user needs to test tank mixes that are unfamiliar on a small area before the treatment is applied to larger areas. Test tank mixes for compatibility before mixing a larger quantity for an application. User assumes all risk for tank mixes as it is not possible for manufacturer to test all possible tank mix combinations for compatibility, safety and effect on efficacy of the products. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions, limitations, and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

## **Application Timing Methods**

Kudos 27.5 WDG may be applied to control vegetative growth in turf by two different application timing methods in turf. The product may be applied to the turf on a set/calendar spray schedule at regular intervals or it may be applied by assessing potential for turf growth using **Growing Degree Days (GDD)** to time the applications to control turf growth. These methods allow the person(s) managing the turf to select the best and most efficient use method of Kudos 27.5 WDG for their particular facility.

Kudos 27.5 WDG may be applied on a regular set/calendar schedule to maintain an even turf regulation or height control. Make the first application when turf is green and actively growing. Instructions for making repeat applications are provided in Table 1 below by turf type, species and growing area (Fairways, Roughs, Greens and/or Tees).

When applying Kudos 27.5 WDG using the Growing Degree Day (GDD) model, use the environmental data from the location or immediate area. Make the first application of Kudos 27.5 WDG once the turf is green and actively growing. Research has shown that 280-350 GDD needs to be used for re-application timings for common golf situations to assure even turf regulation and to avoid rebound growth. Table 2 below details the application rates and timings when using **GDD** to determine application timings.

With either application scheduling method, delay applications to the turf when the turf is under conditions of stress. Apply lower rates if the turf is entering stressful growing conditions including pest pressure, high temperatures, low moisture conditions or

certain cultural practices including, but not limited to, aerification or verticutting. Under certain environmental conditions, including those that may occur early in the season, transient bronzing may be observed.

Table 1. Applica		Timings for Using		
	Kudos 27.5 WDG Applications to Slow Vertical Growth,			
	Reduce Mowing, Improve Color & Quality Fairway & Rough Areas Green & Tee Areas			
	Fairway & Rough Areas (Application Intervals: 2-4 Weeks)		(Application Intervals: 1-2 Weeks)	
	oz/acre	oz/1000 sq. ft.	oz/acre	oz/1000 sq. ft.
Warm Season Turf*				
Hybrid Bermudagrass including Champion, MiniVerde, Riviera, TifEagle, TifGreen, TifSport, Tifway & 419	29.1 – 43.6 (0.50-0.75 lbs ai)	0.67 – 1.0 (0.013-0.019 lbs ai)	7.25 – 14.5 (0.13-0.25 lbs ai)	0.17 – 0.34 (0.003-0.006 lbs ai)
Zoysiagrass cultivars including Empire, Zenith, Emerald, El Toro and Meyer  St. Augustine spp. Paspalum spp. Kikuyugrass spp.	29.1 – 43.6 (0.50-0.75 lbs ai)	0.67 – 1.0 (0.013-0.019 lbs ai)		
Cool Season Turf				
Bentgrass: L-93, Penn A4, Penn G2, Pennlinks, Penneagle, Southshore, Declaration, Independence and SR series	7.25 – 14.5 0.13-0.25 lbs ai)	0.17 – 0.34 0.003-0.006 lbs ai)	1.8 – 7.25 (0.03-0.13 lbs ai)	0.04 – 0.17 0.0006-0.003 lbs ai)
Annual & Perennial Poa annua cultivars	5.43 – 10.87 (0.09-0.19 lbs ai)	0.125 – 0.25 (0.002-0.004 lbs ai)	1.8 – 7.25 (0.03-0.13 lbs ai)	
Kentucky bluegrass: Midnight, Oddyssey	14.5 – 21.8 (0.25-0.38 lbs ai)	0.34 – 0.50 (0.006-0.009 lbs ai)		
Perennial ryegrass: Manhattan IV Tall Fescues Fine Fescues	21.8 – 29.1 (0.38-0.50 lbs ai)	0.50 – 0.67 (0.009-0.01 lbs ai)		

<sup>\*</sup>Lower rates may be applied for color and quality enhancement. When using shorter application intervals, evaluate performance using the lower directed rates.

32 1/16/20 Table 2. Application Rates & Timings Using Growing Degree Days (GDD) to

Determine Spra				
	Kudos 27.5 WDG Applications to Slow Vertical Growth,			
	Reduce Mowing, Improve Color & Quality Fairway & Rough Areas Green & Tee Areas			
	(280-350 GDD Interval)		(280-300 GDD Interval)	
	oz/acre	oz/1000 sq. ft.	oz/acre	oz/1000 sq. ft.
Warm Season Turf*				
Hybrid Bermudagrass including Champion, MiniVerde, Riviera, TifEagle, TifGreen, TifSport, Tifway & 419	12 – 24 (0.21-0.41 lbs ai)	0.28 – 0.55 (0.005-0.009 lbs ai)	8 – 16 (0.14-0.28 lbs ai)	0.18 – 0.37 (0.003-0.006 lbs ai)
Zoysiagrass cultivars including Empire, Zenith, Emerald, El Toro and Meyer  St. Augustine spp. Paspalum spp.	12 – 24 (0.21-0.41 lbs ai)	0.28 – 0.55 (0.005-0.009 lbs ai)		
Kikuyugrass spp.				
Cool Season Turf				
Bentgrass: L-93, Penn A4, Penn G2, Pennlinks, Penneagle, Southshore, Declaration, Independence and SR series	6 – 12 (0.11-0.21 lbs ai)	0.14 – 0.28 (0.003-0.005 lbs ai)	2 – 8 (0.03-0.14 lbs ai)	0.05 – 0.18 (0.0006-0.003 lbs ai)
Annual & Perennial Poa annua cultivars	4 – 8 (0.07-0.14 lbs ai)	0.09 – 0.18 (0.001-0.003 lbs ai)	2 – 8 (0.03-0.14 lbs ai)	
Kentucky bluegrass: Midnight, Oddyssey	8 – 16 (0.14-0.28 lbs ai)	0.18 – 0.37 (0.003-0.006 lbs ai)		
Perennial ryegrass: Manhattan IV Tall Fescues Fine Fescues	8 – 16 (0.14-0.28 lbs ai)	0.18 – 0.37 (0.003-0.006 lbs ai)		

<sup>\*</sup>Lower rates may be applied for color and quality enhancement. When using shorter application intervals, evaluate performance using the lower directed rates.

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Table 3. Applications for Overseeding Enhancement in Bermudagrass.

oz/acre	Application Interval	Notes
1 0	Apply one application of Kudos	Kudos 27.5 WDG is a foliar-
· —		active product. Therefore, germination and seedling growth
lbs ai)	the site including verticutting,	of the over-seeding are not
		affected when used as directed. Use good cultural practices,
	application.	including fertilization and
	• •	irrigation, in conjunction with
		Kudos 27.5 WDG to optimize results. Some temporary
		yellowing of the bermudagrass
		turf may be observed, however,
		this will not affect the over- seeding.
	1 – 2 (0.02-0.03	Apply one application of Kudos 27.5 WDG 3-5 days prior to seeding. Any preparation of the site including verticutting, spiking or scalping needs to be done 1-2 days after the

Table 4. Applications for Reduction of *Poa annua* in Bermudagrass Overseeding.

Turf Type	oz/acre	Application Interval
Hybrid Bermudagrass	0.90 - 1.75	Reapply Kudos 27.5 WDG at 3-4 week intervals during periods of
(including Tifway 419,	(0.02-0.03	active <i>Poa annua</i> growth.
TifSport & Riviera	lbs ai)	

#### **Limitation on Turf:**

• Kudos 27.5 WDG is rainfast 1 hour after application.

**Note:** If calcium or boron are tank mixed with Kudos 27.5 WDG, the resulting growth control may be less than favorable.

#### **Restrictions on Turf:**

- **DO NOT** apply more than 1132.6 oz of Kudos 27.5 WDG (19.47 lbs ai) per acre per year.
- **DO NOT** apply more than 26 oz of Kudos 27.5 WDG (0.45 lbs ai) per 1000 sq. ft. per year.
- **DO NOT** apply more than 1 oz per 1000 sq. ft. or 43.6 oz per acre (0.02 lbs ai) per 1000 sq. ft. or 0.75 lbs ai per acre of Kudos 27.5 WDG in a single application.
- **DO NOT** retreat in less than 1 week.
- DO NOT make more than 52 applications per year when applied at lower rate.
- **DO NOT** apply Kudos 27.5 WDG to turf that has been sodded or sprigged until it has knitted down and rooted firmly.
- DO NOT apply to turf growing in conditions that are not ideal for good growth. Also,
  DO NOT apply to turf that shows injury (leaf phytotoxicity) produced by any other
  prior pesticide applications as this type of injury can be enhanced or prolonged.
  Refer to Tank Mixing Information for additional tank mixing instructions and
  precautions.
- **DO NOT** graze treated areas or feed clippings previously treated with Kudos 27.5 WDG to livestock.
- DO NOT apply Kudos 27.5 WDG to turf using any type of irrigation/chemigation system.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in original container only. After partial use, close the container tightly. Store in a secure place that is cool and dry. Use spray and stock solutions within 24 hours. Immediate use is required if another component is added to the spray solution.

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

**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. 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.

{for container sizes of 50 pounds and less} **CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, if available, or puncture or dispose of in a sanitary landfill, or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

{for container sizes greater than 50 pounds} **CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ½ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning, if available, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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