

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

November 19, 2014

Lydia Cox, PhD Director of Regulatory Affairs Nichino America, Inc. 4550 New Linden Hill Rd. Wilmington, DE 19808

Subject: Label Amendment – Multiple label changes associated with company transfer Product Name: Strada Herbicide (ABN: Strada CA Herbicide) EPA Registration Number: 71711-44 Application Date: October 21, 2014 Decision Number: 497420

Dear Dr. Cox:

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

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

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

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

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with FIFRA section 6. If you have any questions, please contact Sarah Meadows by phone at 703-347-0505, or via email at meadows.sarah@epa.gov.

Sincerely,

Mindy Ondish

Mindy Ondish Acting Product Manager 25 Herbicide Branch Registration Division (7505P) Office of Pesticide Programs

Group 2 Herbicide

# **STRADA<sup>®</sup> Herbicide**

#### **ACTIVE INGREDIENT:**

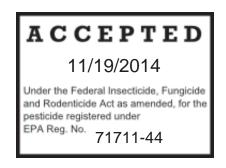
Orthosulfamuron	
OTHER INGREDIENTS	
TOTAL	
Contains 0.50 lb. active ingredient per pound of product	

EPA Reg. No. 71711-44

[Alternate Brand Name: Strada CA Herbicide]

# KEEP OUT OF REACH OF CHILDREN CAUTION

This master label is composed of 2 sub-labels. Sub-label A is for Strada Herbicide for use in the states of Arkansas, Louisiana, Mississippi, Missouri, Tennessee, and Texas. Sub-label B is for Strada CA Herbicide for use in California only.



# **STRADA<sup>®</sup> Herbicide**

For use as a selective herbicide for rice weed control in the states of Arkansas, Louisiana, Mississippi, Missouri, Tennessee, and Texas.

### **ACTIVE INGREDIENT:**

Orthosulfamuron	
OTHER INGREDIENTS	
TOTAL	
Contains 0.50 lb. active ingredient per pound of product	

# KEEP OUT OF REACH OF CHILDREN CAUTION/AVISO

#### Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail).

	FIRST AID	
If swallowed:	• Call poison control center or doctor immediately for treatment advice.	
	• Have person sip a glass of water if able to swallow.	
	• Do not induce vomiting unless told to do so by the poison control center 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 center or doctor for further treatment advice.	
If inhaled:	• Move person to fresh air.	
	• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.	
	Call a poison control center or doctor for further 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 center or doctor for further treatment advice.	
HOTLINE NUMBER		
Have the product container or label with you when calling a poison control center or doctor, or going		
	al information on this pesticide product (including human health concerns	
-	you may call 1-800-348-5832. In case of fire or spills, information may	
be obtained by calling 1-8	00-424-9300.	
EDA Dog No. 71711 14	EDA Est No.	

EPA Reg. No. 71711-44

EPA Est. No.: \_\_\_\_\_

Net Contents:

Formulated and packaged in U.S.A. for Nichino America, Inc. 4550 New Linden Hill Rd. Wilmington, DE 19808 888-740-7700

## PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

## CAUTION

Harmful if swallowed, absorbed through skin, or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing spray.

**Personal Protective Equipment (PPE):** Applicators and other handlers must wear the following:

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

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

#### **User Safety Recommendations**

Users should:

- Wash hands thoroughly after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash skin thoroughly and put on clean clothing.

**Engineering Controls:** 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**

With the exception of treating rice fields as specified in this label, do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate arable land and/or water when disposing of equipment wash water or rinsate.

### **IMPORTANT**

Injury to or loss of desirable trees, vegetation and/or adjacent sensitive crops may result from failure to observe the following:

Avoid all direct or indirect contact with crops other than rice or land scheduled to be planted with crops other than rice due to the potential for sensitivity to the active ingredient in STRADA.

## **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read the entire label. Use strictly in accordance with Precautionary Statement and Directions, and with applicable State and Federal regulations.

Do not apply this product in a way that will contact workers or other people, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling, and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

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

- coveralls
- shoes plus socks
- chemical resistant gloves made of any waterproof material
- protective eyewear

### **PRODUCT INFORMATION**

STRADA is a systemic herbicide formulated as a water dispersible granule suitable for selective postemergence weed control. When applied according to label directions it is effective in the control of several annual and perennial broadleaf weeds and sedges.

To achieve the best control apply STRADA to young, actively growing weeds. This stage usually corresponds to a rice growth stage between 2 and 4 leaves. Mix STRADA with water and apply at specified rates as a foliar spray by ground or air application to water-seeded or dry-seeded rice.

Efficacy may depend on the following parameters:

- Weed size at application
- Growing and environmental conditions (e.g. soil moisture, relative humidity and temperature) prior to and following treatment
- Soil pH, texture and organic matter content
- Water management

STRADA contains the active ingredient orthosulfamuron, a sulfonylurea herbicide which inhibits the plant enzyme acetolactate synthase (ALS), which is also known as acetohydroxy acid synthase (AHAS). Inhibition of this enzyme blocks branched-chain amino acid biosynthesis of valine, leucine and isoleucine which leads to plant death.

STRADA is particularly efficient by foliar application. Once in the target weed, it is translocated by xylem and phloem. Soon after STRADA is applied, growth of susceptible weeds is inhibited and the plants are no longer competitive with rice. Typically, weed leaves turn yellow, then reddish and within 10 to 20 days, depending on weed size, species and growing conditions, the stem and roots die. Treated target weeds may stay green, but are stunted and not competitive with the crop.

## **Use Restrictions**

- Do not apply after <sup>1</sup>/<sub>2</sub> inch internode elongation
- Do not enter treated fields until 12 hours after application (REI = 12 hours)
- Use of an approved agricultural surfactant or adjuvant is necessary for STRADA.
- Do not apply where runoff or irrigation water may flow directly onto agricultural land other than rice fields
- Do not apply STRADA directly or indirectly to crops other than rice
- Do not make more than 1 application or apply more than 2.1 ounces of STRADA per acre (equivalent to 0.067 lb ai/a) during the growing season in both the first and ration crops combined
- Do not allow tank mixtures containing STRADA to sit overnight
- Do not apply this product through any type of irrigation system.
- Refer to the SPRAY DRIFT MANAGEMENT and ENDANGERED SPECIES sections of the label for buffer restrictions.

## **Use Precautions**

- Rainfast within 6 hours
- Application of STRADA to fields which have been levelled (except water levelling) within 12 months prior to application may result in rice injury in areas that have been cut or filled
- Poor weed control may result from application of STRADA made to plants under stress from abnormally hot or cold weather; environmental conditions such as drought, hail damage, hydrogen sulphide or prior herbicide applications

### **Mixing Instructions**

#### Adjuvants

To improve STRADA performance an addition of 0.125% organo silicon surfactant (0.5 quart per 100 gallons spray solution volume) or 0.25% nonionic surfactant (1 quart per 100 gallons of spray solution volume) is recommended.

#### **Dilution Information**

#### **STRADA alone:**

Apply STRADA in a minimum of 10 gallons of water per acre for ground application and a minimum of 5 gallons of water per acre for aerial application. Fill the spray tank to about one half of the desired volume with clean water. Add the specified amount of STRADA and complete the filling process while maintaining agitation until the product is fully dispersed.

#### **STRADA Tank mixtures:**

STRADA fits well with typical weed management programs. Tank mix or sequential applications with commonly used herbicides registered for use on rice is suggested to complete the weed spectrum, especially for grass weeds.

**Tank mixture compatibility testing**: Before tank mixing STRADA with other pesticides or materials, it is recommended that a compatibility or jar test be performed. In order to perform the compatibility test, the relative proportions of the materials being considered for tank mixture should be added to a clear quart jar. After addition to the jar, invert or shake the jar numerous times to ensure complete mixing then observe the jar for at least one-half hour. If precipitates (sludges, layers, flakes, balls, etc.) form, the tank mixture combination is not compatible and should not be used.

### Order of mixing:

- 1. Fill the tank at least one-half full of water and begin agitation
- 2. Add materials in the following order: STRADA, dry flowables (DF), wettable powders (WP), aqueous suspensions (AS), flowables (F), and liquids (L)
- 3. Allow each material to completely disperse before adding the next material
- 4. While continuing agitation, fill the tank to three-fourths full
- 5. Add any solution (S) formulations and surfactants
- 6. Bring the tank to final volume
- 7. Maintain agitation during the filling process and until the application is complete. If agitation and application are stopped, suspended materials may settle out to the bottom of the tank. It is very important to re-suspend all materials in the tank before applications are resumed. Sparger-type agitators are useful for these circumstances. Tank mixtures should not be allowed to remain in the spray tank overnight

Refer to the companion herbicide label(s) for all applicable use directions, restrictions (including any water-holding requirements), and precautions. Read and follow the entire label of each product to be used in the tank mixture with this product.

Tank mixtures should not be applied if the crop is under severe stress due to drought, water saturated soils, poor fertility (especially low nitrogen levels), hail, frost, insects or when the maximum daytime temperature is above 92°F. Tank mix applications under these conditions may cause temporary crop injury.

## SPRAYER TANK CLEANOUT

## DO NOT USE CHLORINE BLEACH WITH AMMONIA

To avoid injury to desirable crops, clean all mixing and spray equipment before and immediately following applications of STRADA as follows:

- Drain remaining spray solution from spray tank. Thoroughly rinse spray tank, boom, and hoses with clean water. Remove the nozzles, screens and any components contacting the spray solution and clean separately in a bucket containing ammonia and water. Loosen and physically remove any visible deposits.
- Fill the tank with clean water and 1 gallon of household ammonia (minimum 3% ammonia) for every 100 gallons of water. Flush the hoses, boom, and nozzles with the cleaning solution.\*
- Refill the spray tank back to full. Circulate the cleaning solution through the tank and hoses for at least 15 minutes. Again flush the hoses, boom, and nozzles with the cleaning solution and then drain the tank.
- Remove the nozzles, screens and components as before and clean separately in a bucket containing ammonia and water.
- Repeat step 2.
- Rinse the tank, boom, and hoses with clean water.
- The rinsate may be disposed of on-site or at an approved disposal facility.

\* If using an ammonia product that is not 3% ammonia, an equivalent amount of an alternate strength ammonia solution can be used in the clean out procedure. Carefully read and follow the individual cleaner instructions.

## **APPLICATION INFORMATION**

### Use Rate

STRADA: 1.7 to 2.1 ounces per acre per year.

The lowest rate is intended for use of STRADA in tank mixture with other compounds effective on the same weeds and/or with low-medium weed infestation of annual weeds. The highest rate is intended for use of STRADA alone for the target weeds listed in the weeds controlled section of this label and/or when treating fields with high weed infestations.

### **Application Timing**

To achieve optimum weed control apply STRADA to young, actively growing weeds up to 4 leaves. This stage usually corresponds to a rice growth stage between 2 and 4 leaves.

For dry-seeded rice, apply STRADA from early-postemergence to pre-flood.

For water-seeded rice, apply STRADA from early-postemergence to middle-late post emergence.

Due to the selectivity for use on rice, STRADA can be applied at very early stages of the crop. Occasionally, in the presence of very high temperatures, transient symptoms of chlorosis and slight reduction in vigor may appear on rice, but the crop recovers within a few days without any adverse effect on yield.

### Water Management

Before applying STRADA to water seeded rice, water level in the rice field must be drained or lowered to allow exposure of the weed leaf surface for maximum uptake of the product by the leaves. Drain the field or lower the water level the day before the application. If the field cannot be drained before application, the water level must be reduced so that at least 70% of the weed leaf surface area is above the floodwater. Bring the field to normal flood level 24 to 48 hours after application.

If the soil is allowed to dry after application, a reduction in efficacy and weed re-growth may occur. Additional weed emergence may occur if the field is not flooded soon after application.

Do not apply this product through any type of irrigation system.

## SPRAY DRIFT MANAGEMENT

**Avoiding spray drift is the responsibility of the applicator**. The interaction of weather related factors and equipment determine the potential for spray drift. Application should only be made when there is little or no hazard of spray drift. The applicator, crop consultant, and/or grower are responsible for considering all factors when determining whether or not to apply this product. **Avoid all direct or indirect contact with non-target plants.** Do not apply directly to or near desirable vegetation. Allow an adequate distance between target application area and desirable plants to minimize any potential exposure.

**Sensitive Areas**: Pesticides should only be applied when the potential for spray drift to adjacent sensitive non-target areas (e.g., residential areas, known habitat for threatened or endangered plant species, bodies of water, non-target crops, etc.) is minimal (e.g., when wind is blowing away from the sensitive areas). Avoid disturbing (e.g. cultivating) treated areas for at least 7 days following application.

### **Sensitive Crops:**

Sensitive crops are defined as all non-target crops.

### **Buffer Zones**

Buffer zone is defined as the distance between the application site and the non-target sensitive crop.

Aerial applications shall not be made closer than 200 feet from sensitive crops.

Ground applications shall not be closer than 25 feet from sensitive crops when wind direction during the ground application is away from sensitive crops.

Ground applications shall not be closer than 200 feet from sensitive crops when wind direction is towards sensitive crops.

For All Areas: The following drift management requirements must be followed to avoid offtarget spray drift movement from aerial applications:

- 1. The distance between the outer most nozzles on the boom must not exceed 70% of the wingspan of fixed-wing aircraft or 80% of the helicopter rotor width
- 2. Nozzle set up must use a coarse spray quality category per ASABE S-572.1 Standard States that have more stringent spray drift regulations must be followed.

The applicator should be familiar with and take into account the information covered in the Aerial Spray Drift Reduction Section. In general, the best spray drift management strategy is to apply the largest droplets that provide sufficient coverage and control.

## **Endangered Species**

If endangered plant species occur in the proximity of the application site, the following mitigation measure is required to avoid adverse nontarget effects:

• Leave untreated downwind buffer zones of 25 feet for ground applications or 200 feet for aerial applications

To determine whether your county has an endangered terrestrial plant species, consult http://www.epa.gov/espp/usa-map.htm. Endangered Species Bulletins may also be obtained from state or county extension offices or state pesticide agencies. If the bulletin is not available for your specific area, check with the appropriate local state agency to determine if known populations or terrestrial endangered plants occur in the area to be treated.

## **Aerial Spray Drift Reduction Section**

**Spray Droplet Size:** For ASABE S-572.1 Standard compliance, see nozzle manufacturer catalogs, NAAA booklet, USDA literature, or website http://apmru.usda.gov/ for nozzle and application conditions. The best drift management strategy is to apply the largest droplets that provide sufficient plant coverage and pest control. Larger droplets reduce drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

## **Spray Droplet Size Control:**

- **Volume** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** Do not exceed the nozzle manufacturer's specified pressures. For many nozzle types lower pressure produces larger droplets.
- **Number of Nozzles** Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** Orient nozzles so that the spray is released parallel to the air stream, which produces larger droplets than any other orientation.

• **Nozzle Type** – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Use low-drift nozzles. Solid stream nozzles orientated straight back produce the largest droplets and the lowest drift.

**Boom Length:** Reducing the effective overall boom length to 70% of the wingspan of fixedwing aircraft or 80% of a helicopter rotor width may further reduce drift without reducing swath width.

**Application Height:** Applications should not be made at a height greater than 10 feet above the top of the largest plants.

**Application Swath Adjustment**: When applications are made with a crosswind, the swath will be displaced downwind. Therefore, the applicator must compensate for this displacement by adjusting the path of the aircraft or boom on-off. Swath adjustment distances should increase, with increasing drift potential (higher wind, height, smaller drops, etc.).

Wind: Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. Application is not allowed when wind speeds exceed 10 mph due to risk of direct drift to nontarget sensitive crops or locations. Note: Wind patterns can be affected by local terrain. All applicators must be familiar with local wind patterns and how they affect spray drift. Note: Follow State and local regulations with regard to minimum and maximum wind speeds during aerial application, as they may be more restrictive. Applicators must be familiar with State and local regulations.

**Temperature and Humidity:** Applications made during periods of low relative humidity require set-up of equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is typically greatest when conditions are both hot and dry.

**Surface Temperature Inversion:** Do not apply this product during a local, low level temperature inversion because drift potential is high. Small droplets can be transported in unpredictable directions due to the light and variable winds common during temperature inversions. Temperature inversions are typically characterized by temperatures that increase with altitude and they are common on nights with limited cloud cover and light to no wind. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified 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.

### **Resistance Management**

The mode of action (MOA) of STRADA is via the inhibition of the acetolactate synthase (ALS) inhibiting enzyme. The repeated use of herbicides with the same mode of action may result in the emergence of weed species biotypes that are resistant to that mode of action or family of herbicides. Resistance may develop in a number of ways such as altered target site sensitivity, enhanced metabolism, or altered plant characteristics that affect the absorption and translocation of the herbicide to the site of action.

STRADA and other pesticides should be incorporated into an Integrated Pest Management (IPM) program that can include the use of cultural, biological, and other chemical practices to prevent

economical pest damage. Effective IPM practices include the use of weed free seed, proper scouting and identification of weeds within each field or paddy, optimum water management (adequate soil moisture at the time of application and maintaining the permanent flood), pesticide treatment at the appropriate target stage, crop rotation, and mechanical weed control when appropriate. This list in not inclusive and should be used in conjunction with other practices to further prevent resistance development.

To delay or avoid resistance, any or all of the following practices are important:

- 1. Always apply STRADA at a minimum of 1.7 oz formulated product per acre
- 2. Avoid following an ALS-inhibiting herbicide application with another herbicide application of the same mode of action unless in tank mixture with a product with a different mode of action
- 3. The use of ALS herbicides in consecutive years should be done in conjunction with herbicides containing other modes of action
- 4. Monitor escaped weeds and control them before they can produce seed
- 5. Contact and follow local extension and/or consultant recommendations relative to resistance management

#### **Rotational Crop Information**

Use the time intervals listed below to determine the minimum required time interval between last STRADA application and new crop planting.

Rotational Crop Guideline		
Crop	<b>Time Interval in Months Before Planting</b>	
Sugarcane	1	
Corn (all)	3	
Small Grains	3	
Cotton	6	
Soybean	6	
All Other Crops	12	

Weeds	Controlled		
Common name	Scientific name	Weed Size at Application	Rate of Application
Ammannia, Purple *	Ammannia coccinea *		
Arrowhead, spp. *	Sagittaria spp. *		
Bulrush, Ricefield *	Schoenoplectus mucronatus*		
Dayflower, Spreadling	Commelina diffusa		
Ducksalad *	Heteranthera limosa *		
Eclipta	Eclipta prostrata		
Falsepimpernel spp.	Lindernia spp.		
Flatsedge, Rice	Cyperus iria		
Gooseweed	Sphenoclea zeylanica		STRADA 1.7 to 2.1 Ounces/Acre
Jointvetch spp.	Aeschynomene spp.	Un to 4 loof	
Monochoria	Monochoria vaginalis	Up to 4 leaf	
Morningglory spp.	Ipomoea spp.	or 4 inches	
Redstem *	Ammannia auriculata *	4 menes	
Sesbania, Hemp	Sesbania exaltata		
Sida, Prickly	Sida spinosa		
Smallflower umbrella sedge *	Cyperus difformis *		
Smartweed spp.	Polygonum spp.		
Waterhyssop spp.	Bacopa spp.		
Waterplantain spp. (seedling) *	Alisma spp. *		
Yellow nutsedge **	Cyperus esculentus **	_	2.1 Ounces/Acre
Weeds Partially Controlled or S	Suppressed ***		
Alligatorweed	Alternanthera philoxeroides	< 4 inch runner	STRADA
Texasweed	Caperonia palustris	< 3 leaf	2.1
Mexicanweed	Caperonia castaniifolia	< 3 leaf	Ounces/Acre

\* STRADA does not control ALS resistant biotypes of this weed, which might be present in the field.

\*\* An earlier treatment is suggested to prevent nutsedge from competing with the crop. An additional herbicide application may be needed for effective control of heavy infestations.

\*\*\*Control of suppressed weeds may be significantly improved using tank mixtures.

Notes: Weeds with gradual and late emergence (like purple ammannia) may escape an early herbicide application. As previously mentioned, optimum weed control is generally obtained when applications are made to young (less than 4-leaf) weeds that are actively growing.

### STORAGE AND DISPOSAL

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

Pesticide Storage:	Store under well-vented, cool and dry storage conditions. Do not store under moist conditions.
Pesticide Disposal:	Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

#### **Container Handling:**

#### Nonrefillable plastic container (Less than 50 pounds)

Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container <sup>1</sup>/<sub>4</sub> 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 if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

#### Nonrefillable paper and plastic bag

Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment, then offer for recycling if available or dispose of empty bag in a sanitary landfill or by other procedures approved by state and local authorities.

#### **IMPORTANT: READ BEFORE USE**

By using this product, user or buyer accepts the following conditions, warranty, disclaimer of warranties, and limitations of liability.

**CONDITIONS:** The directions for use of this product are believed to be accurate and must be followed carefully. However, because of extreme weather and soil conditions, use methods and other factors beyond the control of Nichino America, Inc. (NAI), it is impossible for NAI to eliminate all risks associated with the use of this product. As a result, crop injury or ineffectiveness is always possible. To the extent consistent with applicable law, all such risks are assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, WHICH EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of NAI is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, NAI disclaims any liability whatsoever for incidental or consequential damages, including, but not limited to, liability arising out of breach of contract, express or implied warranty (including warranties of merchantability and fitness for a particular purpose), tort, negligence, strict liability or otherwise.

**LIMITATIONS OF LIABILITY:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT THE ELECTION OF NICHINO AMERICA, THE REPLACEMENT OF PRODUCT.

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# **STRADA<sup>®</sup> CA Herbicide**

For use as a selective herbicide for weed control in rice only in the state of California.

## **ACTIVE INGREDIENT:**

Orthosulfamuron	
OTHER INGREDIENTS	
TOTAL	
Contains 0.50 lb. active ingredient per pound of product	

#### KEEP OUT OF REACH OF CHILDREN CAUTION/AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail).

If swallowed:       • Call poison control center or doctor immediately for treatment advice.         Have person sip a glass of water if able to swallow.       • Do not induce vomiting unless told to do so by the poison control center or doctor.         • Do not give anything by mouth to an unconscious person.       • Take off contaminated clothing         If on skin or clothing:       • Take off contaminated clothing         • Call a poison control center or doctor for further treatment advice.       • Call a poison control center or doctor for further treatment advice.         If inhaled:       • Move person to fresh air.       • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.         • Call a poison control center or doctor for further treatment advice.       • Hold eye open and rinse slowly and gently with water for 15-20 minutes.         • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.       • Call a poison control center or doctor for further treatment advice.         HortLINE NUMBER       Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For additional information on this pesticide product (including human health concerns and medical emergencies), you may call 1-800-348-5832. In case of fire or spills, information may be obtained by calling 1-800-424-9300.	FIRST AID		
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EPA Reg. No.: 71711-44

EPA Est. No.: \_\_\_\_\_\_ Net Contents: \_\_\_\_\_\_

Formulated and packaged in U.S.A. for Nichino America, Inc. 4550 New Linden Hill Rd. Wilmington, DE 19808 888-740-7700

## PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

## CAUTION

Harmful if swallowed, absorbed through skin, or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing spray.

**Personal Protective Equipment (PPE):** Applicators and other handlers must wear the following:

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

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

#### **User Safety Recommendations**

Users should:

- Wash hands thoroughly after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash skin thoroughly and put on clean clothing.

**Engineering Controls:** 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**

With the exception of treating rice fields as specified in this label, do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate arable land and/or water when disposing of equipment wash water or rinsate.

## IMPORTANT

Injury to or loss of desirable trees, vegetation and/or adjacent sensitive crops may result from failure to observe the following:

Avoid all direct or indirect contact with crops other than rice or land scheduled to be planted with crops other than rice due to the potential for sensitivity to the active ingredient in STRADA CA.

## **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read the entire label. Use strictly in accordance with Precautionary Statement and Directions, and with applicable State and Federal regulations.

Do not apply this product in a way that will contact workers or other people, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling, and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

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

- coveralls
- shoes plus socks
- chemical resistant gloves made of any waterproof material
- protective eyewear

## **PRODUCT INFORMATION**

STRADA CA is a systemic herbicide formulated as a water dispersible granule suitable for selective postemergence weed control. When applied according to label directions it is effective in the control of several annual and perennial broadleaf weeds and sedges.

To achieve the best control apply STRADA CA to young, actively growing weeds. This stage usually corresponds to a rice growth stage between 2 and 4 leaves. Mix STRADA CA with water and apply at specified rates as a foliar spray by ground or air application to water-seeded or dry-seeded rice.

Efficacy may depend on the following parameters:

- Weed size at application
- Growing and environmental conditions (e.g. soil moisture, relative humidity and temperature) prior to and following treatment
- Soil pH, texture and organic matter content
- Water management

STRADA CA contains the active ingredient orthosulfamuron, a sulfonylurea herbicide which inhibits the plant enzyme acetolactate synthase (ALS), which is also known as acetohydroxy acid synthase (AHAS). Inhibition of this enzyme blocks branched-chain amino acid biosynthesis of valine, leucine and isoleucine which leads to plant death.

STRADA CA is particularly efficient by foliar application. Once in the target weed, it is translocated by xylem and phloem. Soon after STRADA CA is applied, growth of susceptible weeds is inhibited and the plants are no longer competitive with rice. Typically, weed leaves turn yellow, then reddish and within 10 to 21 days, depending on weed size, species and growing conditions, the stem and roots die. Treated target weeds may stay green, but are stunted and not competitive with the crop.

## **Use Restrictions**

- Do not apply after <sup>1</sup>/<sub>2</sub> inch internode elongation
- Do not enter treated fields until 12 hours after application (REI = 12 hours)
- Use of an approved agricultural surfactant or adjuvant is required for STRADA CA applications
- Do not apply where runoff or irrigation water may flow directly onto agricultural land other than rice fields
- Do not apply STRADA CA directly or indirectly to crops other than rice
- Do not make more than 1 application or apply more than 2.1 ounces of STRADA CA per acre (equivalent to 0.067 lb ai/a) during the growing season
- Do not apply STRADA CA to the same field in the same use or growing season that an application of STRADA GR has been applied.
- Do not allow tank mixtures containing STRADA CA to sit overnight
- Do not apply this product through any type of irrigation system.
- Refer to the SPRAY DRIFT MANAGEMENT and ENDANGERED SPECIES sections of the label for buffer restrictions and other use restrictions.

## **Use Precautions**

- Rainfast within 6 hours
- Poor weed control may result from application of STRADA CA made to plants under stress from abnormally hot or cold weather; environmental conditions such as drought, hail damage, hydrogen sulphide or prior herbicide applications
- Application of STRADA CA to fields which have been levelled (except water levelling) within 12 months prior to application may result in rice injury in areas that have been cut or filled

#### **Mixing Instructions**

#### Adjuvants

To improve STRADA CA performance an addition of 0.125% organo silicon surfactant (0.5 quart per 100 gallons spray solution volume) or 0.25% nonionic surfactant (1 quart per 100 gallons of spray solution volume) is recommended.

#### **Dilution Information**

### STRADA CA alone:

Apply STRADA CA using a minimum of 10 gallons of water per acre for ground or aerial applications to achieve adequate coverage and optimum performance. Fill the spray tank to about one half of the desired volume with clean water. Add the specified amount of STRADA CA and complete the filling process while maintaining agitation until the product is fully dispersed.

#### **STRADA CA Tank mixtures:**

STRADA CA fits well in typical weed management programs. Tank mix or sequential application with commonly used herbicides registered for use on rice is suggested to complete the weed spectrum, especially versus grass weeds.

**Tank mixture compatibility testing**: Before tank mixing STRADA CA with other pesticides or materials, it is recommended that a compatibility or jar test be performed. In order to perform the compatibility test, the relative proportions of the materials being considered for tank mixture should be added to a clear quart jar. After addition to the jar, invert or shake the jar numerous times to ensure complete mixing then observe the jar for at least one-half hour. If precipitates (sludges, layers, flakes, balls, etc.) form, the tank mixture combination is not compatible and should not be used.

#### **Order of mixing:**

- 8. Fill the tank at least one half full of water and begin agitation
- 9. Add materials in the following order: STRADA CA, dry flowables (DF), wettable powders (WP), aqueous suspensions (AS), flowables (F), and liquids (L)
- 10. Allow each material to completely disperse before adding the next material
- 11. While continuing agitation, fill the tank to three-fourths full
- 12. Add any solution (S) formulations and surfactants
- 13. Bring the tank to final volume
- 14. Maintain agitation during the filling process and until the application is complete. If agitation and application are stopped, suspended materials may settle out to the bottom of the tank. It is very important to re-suspend all materials in the tank before applications are resumed. Sparger-type agitators are useful for these circumstances. Tank mixtures should not be allowed to remain in the spray tank overnight

Refer to the companion herbicide label(s) for all applicable use directions, restrictions (including any water-holding requirements), and precautions. Read and follow the entire label of each product to be used in the tank mixture with this product.

Tank mixtures should not be applied if the crop is under severe stress due to drought, water saturated soils, poor fertility (especially low nitrogen levels), hail, frost, insects or when the maximum daytime temperature is above 92°F. Tank mix applications under these conditions may cause temporary crop injury.

## SPRAYER TANK CLEANOUT DO NOT USE CHLORINE BLEACH WITH AMMONIA

To avoid injury to desirable crops, clean all mixing and spray equipment before and immediately following applications of STRADA CA as follows:

- Drain remaining spray solution from spray tank. Thoroughly rinse spray tank, boom, and hoses with clean water. Remove the nozzles, screens and any components contacting the spray solution and clean separately in a bucket containing ammonia and water. Loosen and physically remove any visible deposits.
- Fill the tank with clean water and 1 gallon of household ammonia (minimum 3% ammonia) for every 100 gallons of water. Flush the hoses, boom, and nozzles with the cleaning solution.\*
- Refill the spray tank back to full. Circulate the cleaning solution through the tank and hoses for at least 15 minutes. Again flush the hoses, boom, and nozzles with the cleaning solution and then drain the tank.
- Remove the nozzles, screens and components as before and clean separately in a bucket containing ammonia and water.
- Repeat step 2.
- Rinse the tank, boom, and hoses with clean water.
- The rinsate may be disposed of on-site or at an approved disposal facility.

\* If using an ammonia product that is not 3% ammonia, an equivalent amount of an alternate strength ammonia solution can be used in the clean out procedure. Carefully read and follow the individual cleaner instructions.

## **APPLICATION INFORMATION**

### **Use Rate**

STRADA CA: 1.7 to 2.1 ounces per acre per year.

The lowest rate is intended for use of STRADA CA in tank mixture with other herbicides effective on the same weeds and/or with low to medium weed infestation of annual weeds. The highest rate is intended for use of STRADA CA alone for the target weeds listed in the weeds controlled section of this label and/or when treating fields with high weed infestations.

#### **Application Timing**

To achieve optimum weed control, apply STRADA CA to young, actively growing weeds up to 4 leaves. This stage usually corresponds to a rice growth stage between 2 and 4 leaves.

For dry-seeded rice, apply STRADA CA from early-postemergence to pre-flood.

For water-seeded rice, apply STRADA CA from early-postemergence to middle-late post emergence.

Due to the selectivity for use on rice, STRADA CA can be applied at very early stages of the crop. Occasionally, in the presence of very high temperatures, transient symptoms of chlorosis and slight reduction in vigor may appear on rice, but the crop recovers within a few days without any adverse effect on yield.

#### Water Management

Before applying STRADA CA to water seeded rice, water level in the rice field must be drained or lowered to allow exposure of the weed leaf surface for maximum uptake of the product by the leaves. Drain the field or lower the water level the day before application. If the field cannot be drained before application, the water level must be reduced so that at least 70% of the weed leaf surface area is above the floodwater. Bring the field to normal flood level 24 to 48 hours after application.

If the soil is allowed to dry after application, a reduction in efficacy and weed re-growth may occur. Additional weed emergence may occur if the field is not flooded soon after application.

Do not apply this product through any type of irrigation system.

### SPRAY DRIFT MANAGEMENT

**Avoiding spray drift is the responsibility of the applicator**. The interaction of weather related factors and equipment determine the potential for spray drift. Application should only be made when there is little or no hazard of spray drift. The applicator, crop consultant, and/or grower are responsible for considering all factors when determining whether or not to apply this product. **Avoid all direct or indirect contact with non-target plants.** Do not apply directly to or near desirable vegetation. Allow an adequate distance between target application area and desirable plants to minimize any potential exposure.

**Sensitive Areas**: Pesticides should only be applied when the potential for spray drift to adjacent sensitive non-target areas (e.g., residential areas, known habitat for threatened or endangered plant species, bodies of water, non-target crops, etc.) is minimal (e.g., when wind is blowing away from the sensitive areas). Avoid disturbing (e.g. cultivating) treated areas for at least 7 days following application.

### **Buffer Zones**

Buffer zone is defined as the distance between the application site and the non-target sensitive crop.

Sensitive Crops	Ground Restrictions	Aerial Restrictions
All Non-target Crops	450 feet	2 miles

For All Areas: The following drift management requirements must be followed to avoid offtarget spray drift movement from aerial applications:

- 3. The distance between the outer most nozzles on the boom must not exceed 70% of the wingspan of fixed-wing aircraft or 80% of the helicopter rotor width
- 4. Nozzle set up must use a coarse spray quality category per ASABE S-572.1 Standard

The applicator should be familiar with and take into account the information covered in the Aerial Spray Drift Reduction Section. In general, the best spray drift management strategy is to apply the largest droplets that provide sufficient coverage and for optimum weed control.

# **Endangered Species**

If endangered plant species occur in the proximity of the application site, the following mitigation measure is required to avoid adverse non-target effects:

• Leave untreated downwind buffer zones of 25 feet for ground applications or 200 feet for aerial applications

To determine whether your county has an endangered terrestrial plant species, consult http://www.epa.gov/espp/usa-map.htm. Endangered Species Bulletins may also be obtained from state or county extension offices or state pesticide agencies. If the bulletin is not available for your specific area, check with the appropriate local state agency to determine if known populations or terrestrial endangered plants occur in the area to be treated.

# **Aerial Spray Drift Reduction Section**

**Spray Droplet Size:** For ASABE S-572.1 Standard compliance, see nozzle manufacturer catalogs, NAAA booklet, USDA literature, or website http://apmru.usda.gov/ for nozzle and application conditions. The best drift management strategy is to apply the largest droplets that provide sufficient plant coverage and pest control. Larger droplets reduce drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

# **Spray Droplet Size Control:**

- **Volume** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** Do not exceed the nozzle manufacturer's specified pressures. For many nozzle types lower pressure produces larger droplets.
- **Number of Nozzles** Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation Orient nozzles so that the spray is released parallel to the air stream, which produces larger droplets than any other orientations.
- **Nozzle Type** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Use low-drift

nozzles. Solid stream nozzles orientated straight back produce the largest droplets and the lowest drift.

**Boom Length:** Reducing the effective overall boom length to 70% of the wingspan of fixedwing aircraft or 80% of a helicopter rotor width may further reduce drift without reducing swath width.

**Application Height:** Applications should not be made at a height greater than 10 feet above the top of the largest plants.

**Application Swath Adjustment**: When applications are made with a crosswind, the swath will be displaced downwind. Therefore, the applicator must compensate for this displacement by adjusting the path of the aircraft or boom on-off. Swath adjustment distances should increase, with increasing drift potential (higher wind, height, smaller drops, etc.).

Wind: Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. Application is not allowed when wind speeds exceed 10 mph due to risk of direct drift to non-target sensitive crops or locations. Note: Wind patterns can be affected by local terrain. All applicators must be familiar with local wind patterns and how they affect spray drift. Note: Follow State and local regulations with regard to minimum and maximum wind speeds during aerial application, as they may be more restrictive. Applicators must be familiar with State and local regulations.

**Temperature and Humidity:** Applications made during periods of low relative humidity require set-up of equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is typically greatest when conditions are both hot and dry.

**Surface Temperature Inversion:** Do not apply this product during a local, low level temperature inversion because drift potential is high. Small droplets can be transported in unpredictable directions due to the light and variable winds common during temperature inversions. Temperature inversions are typically characterized by temperatures that increase with altitude and they are common on nights with limited cloud cover and light to no wind. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified 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.

### **Resistance Management**

The mode of action (MOA) of STRADA CA is via the inhibition of the acetolactate synthase (ALS) inhibiting enzyme. The repeated use of herbicides with the same mode of action may result in the emergence of weed species biotypes that are resistant to that mode of action or family of herbicides. Resistance may develop in a number of ways such as altered target site sensitivity, enhanced metabolism, or altered plant characteristics that affect the absorption and translocation of the herbicide to the site of action.

STRADA CA and other pesticides should be incorporated into an Integrated Pest Management (IPM) program that can include the use of cultural, biological, and other chemical practices to prevent economical pest damage. Effective IPM practices include the use of weed free seed, proper scouting and identification of weeds within each field or paddy, optimum water

management (adequate soil moisture at the time of application and maintaining the permanent flood), pesticide treatment at the appropriate target stage, crop rotation, and mechanical weed control when appropriate. This list in not inclusive and should be used in conjunction with other practices to further prevent resistance development.

To delay or avoid resistance, any or all of the following practices are important:

- 1. Always apply STRADA CA at a minimum of 1.7 oz formulated product per acre
- 2. Avoid following an ALS-inhibiting herbicide application with another herbicide application of the same mode of action unless in tank mixture with a product with a different mode of action
- 3. The use of ALS herbicides in consecutive years should be done in conjunction with herbicides containing other modes of action
- 4. Monitor escaped weeds and control them before they can produce seed
- 5. Contact and follow local extension and/or consultant recommendations relative to resistance management
- 6. Do not apply STRADA CA to the same field in the same use or growing season that an application of STRADA GR has been applied

## **Rotational Crop Information**

Use the time intervals listed below to determine the minimum required time interval between last STRADA CA application and new crop planting.

Rotational Crop Guideline		
Сгор	Time Interval in Months Before Planting	
Sugarcane	1	
Corn (all)	3	
Small Grains	3	
Cotton	6	
Soybean	6	
All Other Crops	12	

### **STRADA CA Spectrum**

Weeds Controlled		Rate of Application
Common name	Scientific name	
Ammannia, Purple *	Ammannia coccinea *	
Arrowhead, California *	Sagittaria montevidensis *	
Bulrush, Ricefield *	Schoenoplectus mucronatus*	
Ducksalad *	Heteranthera limosa *	
Eclipta	Eclipta prostrata	STRADA CA
Monochoria	Monochoria vaginalis	1.7 to 2.1 Ounces/Acre
Redstem *	Ammannia auriculata *	
Smallflower umbrella sedge *	Cyperus difformis *	
Smartweed spp.	Polygonum spp.	
Waterplantain spp. (seedling) *	Alisma spp. *	
Waterhyssop spp.	Bacopa spp.	
		· · ·
Yellow nutsedge **	Cyperus esculentus **	STRADA CA
-		2.1 Ounces/Acre

Weeds Partially Controlled or Suppressed ***		Rate of Application
Alligatorweed	Alternanthera philoxeroides	
Watergrass, Early*	Echinochloa oryzoides *	STRADA CA 2.1 Ounces/Acre
Watergrass, Late*	Echinochloa phyllopogon *	2.1 Ounces/Acre

- \* STRADA CA does not control ALS resistant biotypes of this weed, which might be present in the field.
- \*\* An earlier treatment (up to 4-leaf or 4") is suggested for effective control and to prevent nutsedge from competing with the crop. An additional herbicide application may be needed for effective control of heavy infestations.
- \*\*\*Control of suppressed weeds may be significantly improved using tank mixtures that incorporate other herbicides with activity against the target weeds listed as partially controlled or suppressed.
- Notes: Weeds with gradual and late emergence (like Redstem and bulrush) may escape an early herbicide application. As previously mentioned, optimum weed control is generally obtained when applications are made to young (up to 4-leaf) weeds that are actively growing.

## STORAGE AND DISPOSAL

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

Pesticide Storage:	Store under well-vented, cool and dry storage conditions. Do not store under moist conditions.
Pesticide Disposal:	Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

#### **Container Handling:**

#### Nonrefillable plastic container (Less than 50 pounds)

Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container <sup>1</sup>/<sub>4</sub> 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 if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

### Nonrefillable paper and plastic bag

Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment, then offer for recycling if available or dispose of empty bag in a sanitary landfill or by other procedures approved by state and local authorities.

#### **IMPORTANT: READ BEFORE USE**

By using this product, user or buyer accepts the following conditions, warranty, disclaimer of warranties, and limitations of liability.

**CONDITIONS:** The directions for use of this product are believed to be accurate and must be followed carefully. However, because of extreme weather and soil conditions, use methods and other factors beyond the control of Nichino America, Inc. (NAI), it is impossible for NAI to eliminate all risks associated with the use of this product. As a result, crop injury or ineffectiveness is always possible. To the extent consistent with applicable law, all such risks are assumed by the user or buyer.

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