



GROUP 2 HERBICIDE

# ARROZ 80

For use on rice, except in California.

ACTIVE INGREDIENT:	By Wt.
*Bispyribac-sodium .....	80.0%
OTHER INGREDIENTS:.....	20.0%
<b>TOTAL:</b> .....	<b>100.0%</b>
*Sodium 2,6-bis[(4,6-dimethoxypyrimidin-2-yl)oxy]benzoate	

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

See booklet for additional Precautionary Statements and Directions for Use.

EPA Reg. No. 89799-2

EPA Est. No. 65387-AR-001

**NET WEIGHT: 8 OUNCES (4/2 OUNCE PACKET/BAG)**

Manufactured for:

**RAYMAT CROP SCIENCE, INC.**

440 Boulder Court, Suite 300, Pleasanton, CA 94566

## FIRST AID

<b>IF SWALLOWED</b>	<ul style="list-style-type: none"><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 the poison control center or doctor.</li><li>• Do not give anything to an unconscious person.</li></ul>
<b>IF IN EYES</b>	<ul style="list-style-type: none"><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>
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"><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>
<b>IF INHALED</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact <b>Chemtrec at 1-800-424-9300</b> for emergency medical treatment information.	

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

### CAUTION

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

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

- Long-sleeved shirt and long pants,
- Chemical-resistant gloves such as Barrier Laminate or Butyl Rubber  $\geq$  14 mils or Nitrile Rubber  $\geq$  14 mils or Viton Rubber  $\geq$  14 mils,
- Shoes plus socks

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 before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **PHYSICAL OR CHEMICAL HAZARDS**

Do not mix or allow coming in contact with oxidizing agent. Hazardous chemical reaction may occur.

#### **ENVIRONMENTAL HAZARDS**

This product is toxic to non-target plants. For terrestrial uses, do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water cleaning of equipment or disposal of equipment washwaters.

#### **DIRECTIONS FOR USE**

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

**READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.**

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

#### **AGRICULTURAL USE REQUIREMENTS**

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

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

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

- Coveralls
- Chemical-resistant gloves, such as Barrier Laminate or Butyl Rubber  $\geq$  14 mils or Nitrile Rubber  $\geq$  mils and
- Shoes plus socks

## **PRODUCT INFORMATION**

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

Arroz 80 provides control of listed weeds that infest rice. It behaves selectively, by postemergent contact to the emerged weeds. Arroz 80 is a Group 2 herbicide which works by inhibiting the ALS (acetolactate synthase) enzyme in the weeds. Vulnerable weeds will stop growing and take on a yellow color within 3 to 7 days after application; will exhibit browning within 7 to 14 days after application; will experience death of stem and weeds 14 to 21 days after application (complete control after application of Arroz 80 will occur in 14 to 21 days). Arroz 80 is a contact herbicide, and does not have any soil activity, therefore make certain that weeds are fully and completely covered with Arroz 80 for desired results. Eight hours after treatment Arroz 80 is considered rainfall. Arroz 80 has a broad application period, and can be a key component in a weed management system, when employed alongside an effective resistance management strategy. After application of this product, some temporary injury to rice may be observed. This will not affect yields. Any injury to rice can be mitigated by top dressing with fertilizer (which will hasten injury recovery). Arroz 80 will not provide any residual control or prevent reinfestation of weeds that germinate after treatment.

## **RESISTANCE MANAGEMENT**

Bispyribac sodium, the active ingredient in Arroz 80 is a Group 2 herbicide (ALS inhibitor). Plants with resistance to Group 2 herbicides can occur in any weed population, and may not be effectively managed with Group 2 herbicides. Additionally, resistant biotypes can overtake the weed population in time if herbicides with the same mode of action or class of chemistry are continually applied over consecutive years, resulting in an increasing or complete loss of weed control over time. In that case, suitable resistance management approaches must be employed. The following practices can help:

- Use another herbicide from a different class of herbicide in consecutive years
- Use known effective mechanical or cultural practices (crop rotation, cultivation, etc.), as well as agronomic practices that improve crop performance
- Apply integrated pest management practices (including scouting, recordkeeping, use of weed free crop seed, etc.)
- After applying herbicides, scout fields to determine the effectiveness of herbicides and other weed control cultural or mechanical practices, paying particular attention to identify weed profile shift or resistance. Report any suspected resistance.
- Use full listed application rate, and follow label instructions for application timing (particularly for effectiveness against resistant weed species)

Any herbicide mode of action classification by itself may not adequately address specific weeds that are resistant to specific herbicides. Other factors, such as enhanced weed metabolism, may also occur and contribute to weed resistance. Consult your state cooperative extension service, professional consultants, or other qualified authorities to determine appropriate actions for treating specific resistant weeds

## APPLICATION INSTRUCTIONS

For adequate weed control, weeds must be fully and completely covered with Arrozo 80, since it is a postemergent contact herbicide (and does not have any soil or systemic activity). If weeds are not completely covered with Arrozo 80, weed regrowth can occur and/or weed control will be deficient. Arrozo 80 can be applied:

- By aircraft, with a total spray volume of 10 gallons or greater
- By ground equipment with a total spray volume of 15 to 20 gallons or greater

If spray volume is not sufficient, weed control can be compromised. If foliage canopy is heavy, use enough spray volume to reach and completely cover weeds. Any factor that unfavorably affects weed coverage can result in compromised weed control. Application parameters:

- Select nozzle types and arrange nozzles in such a way as to minimize spray drift while maximizing weed coverage
- For ground application use flat fan nozzles only; flood type or air inducing nozzles cannot be used
- Buffer the application water if the pH is above 7.0 or below 6.0. Do not use turbid, high sediment or ditch water
- Apply MEDIUM size droplets\*

\* See "Spray Nozzle Classification by Droplet Spectra" ASAE S572, August 1999

## SPRAY DRIFT MANAGEMENT

**Do not allow spray from ground or aerial equipment to drift onto adjacent land or crops.** The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all factors involved in minimizing drift potential. **When drift may be a problem, do everything possible to reduce spray drift, including:**

1. Do not spray if wind speed is greater than 8 mph. If sensitive crops or plants are downwind, extreme caution must be used under all conditions.
2. The distance of the outer most nozzles on the boom must not exceed  $\frac{1}{4}$  the length of the wingspan or rotor.
3. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they must be observed.
4. Do not apply under conditions involving possible drift to food, forage or other plantings that might be damaged or the crops thereof rendered unfit for sale, use or consumption.
5. When making tank mixture application follow the most restrictive label directions, including application buffer zones, of each product in the mixture.

### Importance of Droplet Size

The best drift management strategy is to apply the largest droplets that proved sufficient coverage and control. Use nozzle types and nozzle arrangements that will provide maximum coverage and minimize the potential for off target movement of spray particles. Apply "Medium" size droplets for both ground and air applications, as defined in the August 1999 ASAE S572 publication entitled, "Spray Nozzle Classification by Droplet Spectra". Refer to that publication for additional information. Regardless of droplet size, if applications are made improperly, or under unfavorable environmental conditions there will be off target movement of spray particles. (See Wind, Temperature and Humidity, and Temperature Inversion sections of this label).

### Controlling Droplet Size

- **Volume** – Use high flow rate nozzles that produce medium droplets to apply the highest practical spray volume.
- **Pressure** – Use the lower spray pressures recommended for the nozzle and do not exceed the manufacturer's recommended pressure. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use the higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** – Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** – Orienting nozzles so that the spray is released backwards, parallel to the airstream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** – Use a nozzle type that is designed for the intended application. Do not use air inducing or flood type nozzles.
- **Boom Length** – For some use patterns reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application Height** – Do not make applications at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

### Swath Adjustment

When applications are made with a cross wind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Increase swath adjustment distance with increasing drift potential (higher wind, smaller drops, etc.).

### Wind

Variable wind speeds with changing directions may pose the largest potential for drift damage if crops other than rice are adjacent to the field to be sprayed. Drift potential is lowest between wind speeds of 2 to 8 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. Avoid application below 2 mph due to variable wind direction and high inversion potential. **Note:** Local terrain can influence wind patterns. Every applicator must be familiar with local wind patterns and how they affect spray drift.

### Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation, while still maintaining droplets within the medium size category. Droplet evaporation is most severe when conditions are both hot and dry.

### Temperature Inversions

Do not spray at times when spray particles may be entrained into a temperature inversion layer. If inversion conditions are suspected, consult with local weather services before making application. Do not make applications during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. 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.

### Sensitive Areas

Apply this pesticide only when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

### **INSTRUCTIONS FOR USING WATER SOLUBLE PACKAGES DIRECTLY INTO SPRAY TANKS:**

Water Soluble Packages (WSPs) are designed to dissolve in water. Agitation may be used, if necessary, to help dissolve the WSP. Failure to follow handling and mixing instructions can increase your exposure to the pesticide products in WSPs. WSPs, when used properly, qualify as a closed mixing/loading system under the Agricultural Worker Protection Standard [40 CFR 170.607(d)].

#### **HANDLING INSTRUCTIONS**

- 1) Follow these steps when handling pesticide products in WSPs.
- 2) Mix in spray tank only.
- 3) Handle WSP(s) in a manner that protects package from breakage and/or unintended release of contents. If package is broken, put on PPE required for clean-up and then continue with mixing instructions.
- 4) Keep the WSP(s) in outer packaging until just before use.
- 5) Keep the WSP dry prior to adding to the spray tank.
- 6) Handle with dry gloves and according to the label instructions for PPE.
- 7) Keep WSP intact. Do not cut or puncture WSP.
- 8) Reseal the WSP outer package to protect any unused WSP(s)

#### **MIXING INSTRUCTIONS**

Follow the steps below when mixing this product, including if tank mixed with other pesticide products. If being tank mixed, the mixing directions 1 through 9 below take precedence over the mixing directions of the other tank mix products. WSPs may, in some cases, be mixed with other pesticide products so long as the directions for use of all mixed products do not conflict. Do not tank mix this product with products that prohibit tank mixing or have conflicting mixing directions.

- 1) If a basket or strainer is present in the tank hatch, remove prior to adding the WSP to the tank.
- 2) Fill tank with water to approximately one-third to one-half of the desired final volume of spray.
- 3) Stop adding water and stop any agitation.
- 4) Place intact/unopened WSP(s) into the tank.
- 5) Do not spray water from a hose or fill pipe to break or dissolve the WSP(s).
- 6) Start mechanical and recirculation agitation from the bottom of tank without using any overhead recirculation, if possible. If overhead recirculation cannot be turned off, close the hatch before starting agitation.
- 7) Dissolving the WSP(s) may take up to 5 minutes or longer, depending on water temperature, water hardness and intensity of agitation.
- 8) Stop agitation before tank lid is opened.
- 9) Open the lid to the tank, exercising caution to avoid contact with dusts or spray mix, to verify that the WSP's have fully dissolved and the contents have been thoroughly mixed into the solution.
- 10) Do not add other allowed products or complete filling the tank until the bags have fully dissolved and pesticide is thoroughly mixed.
- 11) Once the WSP have fully dissolved and any other products have been added to the tank, resume filling the tank with water to the desired level, close the tank lid, and resume agitation.
- 12) Use the spray solution when mixing is complete.
- 13) Maintain agitation of the diluted pesticide mix during transport and application.
- 14) It is unlawful to use any registered pesticide, including WSP's, in a manner inconsistent with its labeling.

Observe the following precautions when mixing:

- Make sure all spray and application equipment are clean prior to mixing Arroz 80; clean equipment well after completing application of Arroz 80 (see **PREPARATION AND CLEANUP OF APPLICATION EQUIPMENT**, below)
- Do not allow Arroz 80 packets to become wet prior to mixing, and do not handle packets with wet gloves
- If any Arroz 80 packets are unused, outer container must be closed and tightly resealed to protect the packets and preserve the integrity of the water soluble packaging
- Make sure that water soluble packets have completely dissolved prior to adding any additional ingredients (it should take the packets about 5 minutes to wholly dissolve)
- Cold water, insufficient agitation or water with high rates of sulfur or boron could unfavorably affect dispersal of Arroz 80, resulting in potential clogging of nozzle or spray screen

Arroz 80 can be kept in the mix or spray tank for three days following mixing, without a reduction in efficacy. If spray solution is held for a period of time, be sure to mix/agitate fully prior to use.

#### **PREPARATION AND CLEANUP OF APPLICATION EQUIPMENT**

**PRECAUTION: DO NOT USE chlorine bleach for cleaning, or mix chlorine bleach with ammonia. Make certain that all traces of any fertilizer containing ammonia or ammonium are completely removed before adding any chlorine (including chlorine bleach) to the mix tank.**

Adverse crop reaction may result if residues of previously applied products are left in application equipment, or if residues of Arroz 80 are left in spray equipment following application. Clean spray equipment prior to using Arroz 80, and clean immediately after treatment with Arroz 80, and before applications with other products.

Before using Arroz 80, completely drain, rinse and clean all spray and mixing equipment, following procedures instructed for the previously used product. If previously sprayed product is not completely removed, Arroz 80 residues could collect in the spray equipment resulting in clogged equipment or greater difficulty in cleaning after use of Arroz 80

After spraying Arroz 80, use the following procedure to clean equipment:

1. Remove any visible residue
2. Drain the spray application equipment, including tank, hoses, spray boom and nozzles.
3. Fill tank 50% full of water, spraying the interior sides of the tank while filling
4. Use a tank cleaner that DOES NOT contain chlorine, and fill the remainder of the tank with clean water. Follow tank cleaner instructions regarding agitation/recirculation of the cleaner throughout the tank, boom and hoses; completely flush boom and hoses prior to draining the tank
5. Rinse with clean water to remove tank cleaner from tanks, boom, hoses, nozzles and strainers (follow any directions provided with tank cleaner)
6. Fill tank 50% full of water, and add 3% active household ammonia (1 gallon per every 100 gallons tank size). Finish filling the tank with clean water, and recirculate the ammonia solution for 15 minutes; completely flush tank, boom, hoses, nozzles and strainers prior to draining the tank
7. Remove strainers, screens and nozzles, and clean independently in a solution of 3% active household ammonia and water, then replace all strainers, nozzles and screens
8. Repeat step 6 (ammonia cleaning step)
9. Completely rinse tank and equipment with clean water, and flush clean water through hoses, boom and nozzles so that all ammonia is removed

Dispose rinse solution at an approved waste disposal location or on-site.

## USE DIRECTIONS: DRY-SEEDED OR WATER-SEEDED RICE – U.S. RICE GROWING REGIONS (Except California)

Arroz 80 can be applied in the following use patterns, either by itself or as a tank mix partner (see **TANK MIXES** section, below):

- Single Arroz 80 application (solo or tank mix)
- Early postemergence Arroz 80 application (tank mixed with preemergence herbicide) followed by pre- or post- flood Arroz 80 application (solo or tank mix)
- Mid postemergence Arroz 80 application (solo or tank mix) followed by pre- or post-flood Arroz 80 application

**Single Application** – See **WEEDS AND USE RATES** chart for rates and timings and weeds controlled

**Early Postemergence** – When rice has reached the 2-leaf growth stage (when 2<sup>nd</sup> leaf is fully expanded), make first application of Arroz 80 at 0.2 oz. / A tank mixed with a rice preemergence herbicide containing the active ingredients thibencarb (including Bolero 8 EC), clomazone (including Command 3ME), quinclorac (including Facet) or pendimethalin (including Prowl 3.3 EC) – see **TANK MIX** section, below, and check tank mix partner label for specified use rate. Make second application of Arroz 80 at 0.53 to 0.67 oz./A just before permanent flood, or early post-flood (see **WEEDS AND USE RATES** chart).

**Mid Postemergence** – When barnyardgrass reaches the 3- to 5-leaf growth stage, make first application of Arroz 80 at 0.5 oz. / A. Make second application of Arroz 80 at 0.5 oz./a just before permanent flood, or early post-flood (see **WEEDS AND USE RATES** chart).

<b>WEEDS AND USE RATES</b> FOR USE IN RICE GROWING REGIONS (EXCEPT CALIFORNIA)			
<b>Weed</b>	<b>Weed Size</b>	<b>Control or Suppression</b>	<b>Use Rate (oz. / A)</b>
Alligatorweed ( <i>Alternanthera philoxeroides</i> )	Up to 10 inch runners	S	0.53-0.57
Annual Rice Flatsedge ( <i>Cyperus iria</i> )	1 -3 tillers	C	0.57-0.67
Barnyardgrass / Junglerice <sup>1</sup> ( <i>Echinochloa crus-galli</i> / <i>Echinochloa colona</i> )	2-leaf up to 5 leaf	C	0.4
	5 leaf through 1 tiller	C	0.53
	Up to 3 tillers	C	0.57
Barnyardgrass / Junglerice ( <i>Echinochloa crus-galli</i> / <i>Echinochloa colona</i> ) – Late Application <sup>2</sup>		S	0.57-0.67
Barnyardgrass, perennial ( <i>Echinochloa polystachya</i> )	Up to 2 tillers	S	0.53-0.57
Baronet grass (bayonetgrass) – ( <i>Echinochloa pungens</i> ) – <b>Post Flood Only</b>	1 to 3 tillers	C	0.57-0.67
Dayflower ( <i>Commelina communis</i> )	1 leaf up to 4 leaf	C	0.4-0.57
Ducksalad ( <i>Heteranthera</i> spp.)	1 leaf up to 4 leaf	C	0.4-0.57
Eclipta ( <i>Eclipta</i> spp.)	1 leaf up to 4 leaf	S	0.4-0.57
Gooseweed ( <i>Sphenoclea zeylanica</i> )	1 leaf up to 4 leaf	C	0.4-0.57

(continued)

Weed	Weed Size	Control or Suppression	Use Rate (oz. / A)
Hemp Sesbania ( <i>Sesbania exaltata</i> )	3 to 18 inches	C	0.4-0.57
Johnsongrass ( <i>Sorghum halepense</i> )	3 to 24 inches	C	0.4-0.57
Jointvetch, Indial ( <i>Aeschynomene indica</i> )	3 to 18 inches	C	0.4-0.57
Jointvetch, Northern ( <i>Aeschynomene virginica</i> )	3 to 18 inches	C	0.4-0.57
Knotgrass ( <i>Paspalum ditichum</i> ) – <b>Post Flood Only</b> <sup>1</sup>	Up to Heading	S	0.53-0.57
Morningglory, entireleaf ( <i>Ipomoea hederacea</i> )	1 to 4 inches	S	0.4-0.57
Morningglory, pitted ( <i>Ipomoea lacunose</i> )	1 to 4 inches	S	0.4-0.57
Pigweeds ( <i>Amaranthus</i> spp.)	1 to 12 inches	S	0.4-0.57
Redstem ( <i>Ammannia</i> spp.)	1 to 4 inches	S	0.4-0.57
Smartweed, Pennsylvania ( <i>Polygonum pensylvanicum</i> )	1 to 4 inches	C	0.4-0.57
	4 to 24 inches	S	0.4-0.57
Texas / Mexicanweed ( <i>Caperonia</i> spp.)	1 leaf up to 4 leaf	S	0.4-0.57
Water Hyssop ( <i>Bacopa rotundifolia</i> )	1 leaf up to 4leaf	C	0.4-0.57

<sup>1</sup> Includes propanil and or Facet (quinclorac) resistant barnyardgrass)

<sup>2</sup> If barnyardgrass reaches the 4-tiller up to booting growth stages, it has begun to adversely affect rice yields. Suppression or control at this time will be beneficial by reducing production of barnyardgrass seed, and by making the most of remaining rice yield

<sup>3</sup> For best results in suppressing knotgrass, apply before knotgrass heading, after rice is in permanent flood, when a minimum of 70% of the knotgrass is above the water level.

- When making an early postemergence split application, make application to rice that has reached the 2-leaf growth stage (2<sup>nd</sup> leaf fully expanded) or after panicle initiation growth stage (green ring appears, just before joint movement) at the lower specified use rate
- For all other applications, do not apply to rice until it has reached the 3-leaf growth stage (3<sup>rd</sup> leaf fully expanded) – irrespective of seeding method - with a root system totally underneath soil surface. Application can be made up to the point of panicle initiation (green ring appears, just before joint movement).
- After application of Arroz 80, rice plants may exhibit temporary chlorosis, stunting or other injury. This injury is not permanent, and rice plants will recover. Top dressing with fertilizer can hasten recovery.
- If rice is not fully pegged (root system totally underneath soil surface), application of Arroz 80 could result in considerable injury, despite growth stage.
- **Pre-Flood Application** - When applying Arroz 80 pre-flood, optimum results are obtained when soil is wet to the surface and weeds are actively growing. Allow herbicide at least one day for uptake after application before establishing the permanent flood. If permanent flood is delayed (to allow rice to become tolerant to flood), flush as required to support rice growth and weed growth (which, in turn, supports herbicide uptake). Herbicidal efficacy can be compromised if soil becomes dry after application of Arroz 80. For best results, establish permanent flood 2 to 7 days after application of Arroz 80. Weed reinfestation and/or reinvigorated growth of existing weeds can result if permanent flood is held off too long.

- **Post-Flood Application** - When applying Arroz 80 post-flood, optimum results are obtained when flood water is adjusted so that a minimum of 70% of the weed plant is above the water level. 2 to 3 days after treatment, water level can be raised to normal flood level.
- For best results make application of Arroz 80 when nighttime temperatures have been at 60° F or higher for at least 3 consecutive nights before application. Lower nighttime temperatures can result in reduced herbicidal efficacy.
- Rice under stress due to environmental conditions (drought, temperature, etc.) or other conditions (nutrient deficiencies or injury due to herbicide or fertilizer applications) which reduce the plant's metabolism and development can exhibit sensitivity to Arroz 80. Likewise, weeds under similar stress will not be as susceptible to Arroz 80 treatment. Do not apply to stressed rice or weeds.
- Medium grain rice varieties, and pubescent (hairy) leaf rice varieties may exhibit more sensitivity to Arroz 80 WP than long grain or glabrous (smooth) leaf rice varieties. Rice varieties with low seedling vigor (including M-206 or Japanese cultivars) may exhibit sensitivity to Arroz 80 WP, particularly if they are under environmental or other stress. Do not apply Arroz 80 to Bengal rice variety.
- Arroz 80 can be applied to hybrid varieties of rice, including Clearfield® rice
- When a use rate range is given for a particular weed species, use the upper end of the specified rate range if weed infestation is elevated or if weeds are approaching upper end of specified weed size. If infestation is severe, a second application of Arroz 80 or another herbicide may be required for control.
- Growers can make additional applications of Arroz 80, as long as the maximum seasonal application rate of 1.06 oz. product per acre and application interval of 3 weeks are observed.

## ADDITIVES

**Surfactants** - Apply Arroz 80 with a surfactant, unless specific label section or supplemental label indicates otherwise. See 'Arroz 80 Approved Surfactants' bulletin for a list of permitted surfactants and use rates. Use of any surfactant other than those indicated in the approved surfactants bulletin is done at the sole discretion and risk of the user.

**Urea-ammonium Nitrate (UAN)** – If chosen surfactant does not already contain UAN, addition of 2% volume/volume of 28% to 32% UAN, in addition to an approved surfactant can heighten the efficacy of Arroz 80.

## TANK MIXES

For broader weed spectrum control, Arroz 80 may be used in combination with other herbicides. It is the pesticide user's responsibility to ensure that all products are registered for 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.

Tank mix partners for Arroz 80 include products containing the following herbicide active ingredients:

2,4-D	Pendimethalin (including Prowl 3.3 EC)
Bensulfuron methyl (including Londax®)	Quinclorac (including Facet)
Clomazone (including Command 3ME)	Sodium acifluorfen (including Blazer® or Ultra Blazer)
Diflufenzuron (including Cavalier 2L or Dimilin®)	Thiobencarb (including Bolero 8 EC)
Fenoxaprop-p-ethyl (including Ricestar® HT)	Triclopyr (including Grandstand® R)
Halosulfuron-methyl (including Permit®)	

Arroz 80 can also be tank mixed with Clearpath® or Newpath® herbicides in Clearfield rice only.

Arroz 80 can also be tank mixed with other pesticides, including those containing the insecticide active ingredients lambda cyhalothrin (including Karate® or Karate Z) or zeta-cypermethrin (including Fury®); or fungicide active ingredient azoxystrobin (including Quadris®).

Take care when tank mixing Arroz 80 with products containing the herbicide active ingredient carfentrazone-ethyl (including Aim®). Carfentrazone ethyl can result in antagonism to bispyribac sodium activity, and may result in the need for an additional application of Arroz 80 or other herbicide. If applying an Arroz 80 – carfentrazone ethyl tank mix, go up to the next Arroz 80 use rate for the particular weed size, and limit use rate of Aim to no more than 1 fl. oz. product per acre (please refer to Aim label for current labeled use rate on rice – if it is lower than 1 fl. oz. per acre, DO NOT EXCEED the labeled rate).

When tank mixing Arroz 80 with quinclorac, use adjuvants/surfactants instructed for Arroz 80, and do not include a crop oil concentrate.

Not all rice varieties have been tested with all possible tank mix combinations. If you are not familiar with an Arroz 80 tank mix with any of the listed products, or a tank mix with a pesticide product that is not listed in this section, it is your responsibility to test the combination for crop safety on a small portion of your rice crop to ensure that a phytotoxic or other adverse response will not occur. In addition, test the physical compatibility of Arroz 80 with tank mix partners before use. In a lidded glass jar (~1 quart size), add all mix partners, in their relative proportions. Invert, shake or mix the jar thoroughly. Observe mixture for approximately 30 minutes (though signs of incompatibility will often be seen within 5 minutes).

#### **Tank Mix Restrictions:**

- To avoid injury or antagonism, do not tank mix Arroz 80 with pesticide products containing the active ingredients malathion, methyl parathion or propanil
- Do not apply Arroz 80 within 7 days of treatment with malathion or methyl parathion

#### **USE RESTRICTIONS**

- Do not irrigate other crops with water that has been drained directly from fields treated with Arroz 80
- Field ends cannot be double-sprayed
- Apply a maximum 1.06 oz. Arroz 80 per acre per year. Do not make application to second crop (stubble/ratoon crop) rice.
- Observe a 3-week application interval for subsequent applications of Arroz 80
- Do not treat stressed rice or weeds with Arroz 80
- If fields have been land leveled and have extreme cut and heavy fill areas, Arroz 80 cannot be applied to the first rice crop in these fields (this restriction does not pertain to maintenance leveling).
- If commercial crayfish farming is practiced in rice paddies, Arroz 80 cannot be applied.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a cool dry place. Keep pesticide in original container. Keep container closed when not in use. Do not put concentrate or dilute into food or drink containers. Not for use or storage in or around the home. For help with any spill, leak, fire, or exposure involving this material, call day or night 800-424-9300.

**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:

#### **For outer bag containing water soluble packets**

Nonrefillable outer bag. Do not reuse or refill the outer bag. Offer for recycling, if available or dispose of outer 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 bulk fiber drum with liner**

Nonrefillable drum. Do not reuse or refill this container. Offer for recycling, if available, or dispose of drum in a sanitary landfill or by incineration. Liner: Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into packaging equipment. Offer for recycling, if available, or dispose of liner in a sanitary landfill or by incineration.

## LIMITED WARRANTY

Raymat Crop Science, Inc. warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law AND AS SET FORTH ABOVE, RAYMAT CROP SCIENCES, INC. MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. No agent or representative of Raymat Crop Sciences or Seller is authorized to make or create any other express or implied warranty.

### LIMITATION OF LIABILITY

To the fullest extent allowed by law, Raymat Crop Sciences, Inc., or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. TO THE FULLEST EXTENT ALLOWED BY LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF RAYMAT CROP SCIENCES, INC. OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF RAYMAT CROP SCIENCES, INC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

### PROMPT NOTICE OF CLAIM

To the extent consistent with applicable law allowing such requirements Raymat Crop Science, Inc. must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from the date of application, whichever is later, so that an immediate inspection of the affected property and growing crops can be made.

To the extent consistent with applicable law if Buyer does not notify Raymat Crop Sciences, LLC of any claims in such period, it shall be barred from obtaining any remedy.

#### NO AMENDMENTS

Raymat Crop Sciences, Inc. and Seller offer this product, and Buyer accepts it, subject to the foregoing Disclaimer, Risks of Using This product, Limited Warranty and Limitation of Liability, which may not be modified by any oral or written agreement.

Bolero is a registered trademark of Kumiai Chemical Industry Co., Ltd.

Aim, Command, and Fury are registered trademarks of FMC Corporation.

Blazer is a registered trademark of United Phosphorus Inc.

Clearfield, Clearpath and Newpath are registered trademarks of BASF.

Dimilin is a registered trademark of Uniroyal Chemical Co.

Facet and Prowl are registered trademarks of BASF Ag.

Grandstand is a registered trademark of Dow AgroSciences, LLC.

Karate and Quadris are registered trademarks of Syngenta.

Londax is a registered trademark of E.I. du Pont de Nemours and Co., Inc.

Permit is a registered trademark of Gowan Company, LLC.

Ricestar is a trademark of Bayer Crop Science.

20170823

# Arroz 80

GROUP 2 HERBICIDE

For use on rice, except in California.

<b>ACTIVE INGREDIENT:</b>	<b>By Wt.</b>
*Bispyribac-sodium .....	80.0%
<b>OTHER INGREDIENTS:</b> .....	20.0%
<b>TOTAL:</b> .....	100.0%

\*Sodium 2,6-bis[(4,6-dimethoxypyrimidin-2-yl)oxy]benzoate

## KEEP OUT OF REACH OF CHILDREN CAUTION

See booklet for additional  
Precautionary Statements and Directions for Use.

### FIRST AID

<b>IF SWALLOWED</b>	<ul style="list-style-type: none"><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 the poison control center or doctor.</li><li>• Do not give anything to an unconscious person.</li></ul>
<b>IF IN EYES</b>	<ul style="list-style-type: none"><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>
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"><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>
<b>IF INHALED</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>

### HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact Chemtrec at 1-800-424-9300 for emergency medical treatment information.

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

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

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants,
- Chemical-resistant gloves such as Barrier Laminate or Butyl Rubber  $\geq$  14 mils or Nitrile Rubber  $\geq$  14 mils or Viton Rubber  $\geq$  14 mils,
- Shoes plus socks

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.

### STORAGE AND DISPOSAL

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

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**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:

##### For outer bag containing water soluble packets

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##### For bulk fiber drum with liner

Nonrefillable drum. Do not reuse or refill this container. Offer for recycling, if available, or dispose of drum in a sanitary landfill or by incineration. Liner: Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into packaging equipment. Offer for recycling, if available, or dispose of liner in a sanitary landfill or by incineration.

EPA Reg. No. 89799-2  
EPA Est. No. 65387-AR-001  
NET WEIGHT: 8 OUNCES  
(4/2 OUNCE PACKET/BAG)

Manufactured for:  
Raymat Crop Science, Inc.  
440 Boulder Court, Suite 300,  
Pleasanton, CA 94566

PULL HERE TO OPEN  
PRESS TO RESEAL