UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

June 9, 2016

Craig Kleppe
Product Registration Manager
BASF Corporation, Crop Protection
26 Davis Drive
Research Triangle Park, NC 27709

Subject: Label Amendment – minor label changes
Product Name: Zidua Herbicide
EPA Registration Number: 7969-338
Application Date: 2-2-16
Decision Number: 513808

Dear Mr. Kleppe:

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

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

Sincerely,

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

Enclosure

BASF

We create chemistry

**Group 15 Herbicide**

# Zidua®

## Herbicide

**For weed control in corn, cotton, soybean, and wheat**

**Active Ingredient:**

**pyroxasulfone:** 3-[[[5-(difluoromethoxy)-1-methyl-3-(trifluoromethyl)-1*H*-pyrazol-4-yl]methyl]sulfonyl]-4,5-dihydro-5,5-dimethylisoxazole . . . . . 85.0%

**Other Ingredients:** . . . . . 15.0%

**Total:** . . . . . 100.0%

Contains 0.85 pound of pyroxasulfone per pound formulated as a water-dispersible granule (WG)

**EPA Reg. No. 7969-338** **EPA Est. No.**

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION/PRECAUCION

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

See inside for complete **First Aid**, **Precautionary Statements**, **Directions For Use**, **Conditions of Sale and Warranty**, and state-specific crop and/or use site restrictions.

**In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).**

**Net Contents:**

ACCEPTED

06/09/2016

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 7969-338

Manufactured for:
BASF Corporation
26 Davis Drive, Research Triangle Park, NC 27709

| FIRST AID | |
|---|---|
| **If on skin** | • Take off contaminated clothing.<br>• Rinse skin immediately with plenty of water for 15 to 20 minutes.<br>• Call a poison control center or doctor for treatment advice. |
| **If swallowed** | • Call a poison control center or doctor immediately for treatment advice.<br>• Have person sip a glass of water if able to swallow.<br>• **DO NOT** induce vomiting unless told to do so by the poison control center or doctor.<br>• **DO NOT** give anything to an unconscious person. |
| **If in eyes** | • Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.<br>• Remove contact lenses, if present, after first 5 minutes; then continue rinsing.<br>• Call a poison control center or doctor for treatment advice. |
| **If inhaled** | • Move person to fresh air.<br>• If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth to mouth if possible.<br>• 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 for treatment. You may also contact BASF Corporation for emergency medical treatment information at 1-800-832-HELP (4357). | |

# Precautionary Statements

## Hazards to Humans and Domestic Animals

**CAUTION.** Harmful if absorbed through skin. Harmful if swallowed. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

## Personal Protective Equipment (PPE)

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride ≥ 14 mils, or viton ≥ 14 mils
- Shoes plus socks

For aerial application, mixers and loaders must also wear a PF5 respirator.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Remove and wash contaminated clothing before reuse. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them.

## Engineering Controls

When handlers use closed systems or enclosed cabs that meet the requirements listed in the Worker Protection Standards (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

## USER SAFETY RECOMMENDATIONS

**Users should:**

- Wash thoroughly with soap and water after handling and 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.

## Environmental Hazards

**DO NOT** apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwater or rinsate.

**DO NOT** discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. **DO NOT** discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

## Groundwater Advisory

This chemical has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

## Surface Water Advisory

**DO NOT** apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. **DO NOT** contaminate water when disposing of equipment washwater or rinsate. This product may impact surface water quality due to runoff or rainwater. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce potential loading of pyroxasulfone and its degradation product, [5-(difluoromethoxy)-1-methyl-3-(trifluoromethyl)-1H-pyrazol-4-yl]methanesulfonic acid (M1), from runoff water and sediment. Runoff of this product will be reduced by avoiding application when rainfall is forecast to occur within 48 hours.

**Point-source Contamination.** To prevent point-source contamination, **DO NOT** mix or load this or any other pesticide within 50 feet of wells (including abandoned wells and drainage wells, sinkholes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs). This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or dike mixing/loading areas as described below. Mixing, loading, rinsing, or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self-contained to prevent surface water flow over or from the pad. The pad capacity must be maintained at 110% of that of the largest pesticide container or application equipment used on the pad and have sufficient capacity to contain all product spills, equipment or container leaks, equipment washwater, and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixes, or rinsates. Check valves or anti-siphoning devices must be used on all mixing equipment.

## Endangered Species Protection Requirements

This product may have effects on federally listed threatened or endangered plant species or their critical habitat. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the county or parish in which you are applying the pesticide. To determine whether your county or parish has a Bulletin, and to obtain that Bulletin, consult http://www.epa.gov/espp/, or call 1-800-447-3813 no more than 6 months before using this product. Applicators must use Bulletins that are in effect in the month in which the pesticide will be applied. New Bulletins will generally be available from the above sources 6 months before their effective dates.

# 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 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.

Failure to follow directions and precautions on this label may result in crop injury, poor weed control, and/or illegal residues.

## 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, greenhouses, and handlers of agricultural insecticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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

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

- Coveralls
- Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride ≥ 14 mils, or viton ≥ 14 mils
- Shoes plus socks

## STORAGE AND DISPOSAL

**DO NOT** contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

### Pesticide Storage

**DO NOT** use or store near heat or open flame. Store in original container only, in cool, dry, and well-ventilated area, separately from fertilizer, feed, or foodstuffs and away from other pesticides. **DO NOT** store this product under wet conditions. Avoid cross-contamination with other pesticides.

### Pesticide Disposal

Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### Container Handling

**Nonrefillable Container. DO NOT** reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

**Triple rinse containers small enough to shake (capacity ≤ 50 pounds) as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 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.

**Pressure rinse as follows:** Empty the remaining contents into application equipment or mix tank. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

### In Case of Emergency

In case of large-scale spill of this product, call:

- CHEMTREC 1-800-424-9300
- BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

**Steps to take if material is released or spilled:**

- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

## Product Information

**Zidua® herbicide** is a selective rate-dependent preemergence herbicide for controlling annual grass weeds, sedges, and annual broadleaf weeds (including biotypes resistant to ACCase inhibitors, ALS inhibitors, and glyphosate) that infest corn, cotton, fallow, and soybean listed in **Table 1** and wheat listed in **Table 2**. Refer to **Crop-specific Information** section for recommendations on herbicide tank mixes or sequential programs.

Periods of dry weather following application of **Zidua** may reduce herbicidal effectiveness. **Zidua** must be activated by at least 1/2 inch of rainfall or irrigation before weed germination and emergence. When **Zidua** is not activated and weeds emerge, a labeled postemergence herbicide or shallow cultivation may be needed to control weed escapes.

**Table 1. Weeds Controlled with a Residual Application of Zidua® herbicide in Corn, Cotton, Fallow, and Soybean**

| Common Name | Scientific Name |
|---|---|
| **Annual Grass Weeds** | |
| Barley, hare | *Hordeum murinum* spp. *leporinum* |
| Barnyardgrass | *Echinochloa crus-galli* |
| Bluegrass, annual | *Poa annua* |
| Brome, downy[1] | *Bromus tectorum* |
| Brome, Japanese[1] | *Bromus japonicus* |
| Canarygrass | *Phalaris canariensis* |
| Cheat[1] | *Bromus secalinus* |
| Crabgrass, large | *Digitaria sanguinalis* |
| Crabgrass, smooth | *Digitaria ischaemum* |
| Crowfootgrass | *Dactyloctenium aegyptium* |
| Cupgrass, southwestern | *Eriochloa acuminata* |
| Cupgrass, woolly[1] | *Eriochloa villosa* |
| Foxtail, giant | *Setaria faberi* |
| Foxtail, green | *Setaria viridis* |
| Foxtail, yellow | *Setaria pumila* |
| Goosegrass | *Eleusine indica* |
| Johnsongrass, seedling | *Sorghum halepense* |
| Millet, Texas[1] | *Urochloa texana* |
| Millet, wild-proso[1] | *Panicum miliaceum* |
| Oat, wild[1] | *Avena fatua* |
| Panicum, fall | *Panicum dichotomiflorum* |
| Red rice | *Oryza sativa* |
| Ryegrass, Italian | *Lolium perenne* spp. *multiflorum* |
| Ryegrass, rigid | *Lolium rigidum* |
| Sandbur, longspine[1] | *Cenchrus longispinus* |
| Shattercane[1] | *Sorghum bicolor* spp. *arundinaceum* |
| Signalgrass, broadleaf | *Urochloa platyphylla* |
| **Sedge** | |
| Nutsedge, yellow[1] | *Cyperus esculentus* |

*(continued)*

**Table 1. Weeds Controlled with a Residual Application of Zidua® herbicide in Corn, Cotton, Fallow, and Soybean** *(continued)*

| Common Name | Scientific Name |
|---|---|
| **Annual Broadleaf Weeds** | |
| Amaranth, Palmer | *Amaranthus palmeri* |
| Amaranth, Powell | *Amaranthus powellii* |
| Buckwheat, wild[1] | *Polygonum convolvulus* |
| Carpetweed | *Mollugo verticillata* |
| Chickweed, common[1] | *Stelleria media* |
| Fleabane, hairy[1] | *Conyza bonariensis* |
| Groundsel, common[1] | *Senecio vulgaris* |
| Henbit[1] | *Lamium amplexicaule* |
| Horseweed (Marestail)[1] | *Conyza canadensis* |
| Jimsonweed[1] | *Datura stramonium* |
| Kochia[1] | *Kochia scoparia* |
| Lambsquarters, common[1] | *Chenopodium album* |
| Morningglory, entireleaf[1] | *Ipomoea hederacea* |
| Morningglory, pitted[1] | *Ipomoea lacunosa* |
| Nightshade, black | *Solanum nigrum* |
| Nightshade, Eastern black | *Solanum ptycanthum* |
| Pigweed | *Amaranthus* spp. |
| Pigweed, redroot | *Amaranthus retroflexus* |
| Pigweed, smooth | *Amaranthus hybridus* |
| Pigweed, tumble | *Amaranthus albus* |
| Purslane, common | *Portulaca oleracea* |
| Pusley, Florida | *Richardia scabra* |
| Ragweed, common[1] | *Ambrosia artemisiifolia* |
| Shepherdspurse[1] | *Capsella bursa-pastoris* |
| Sida, prickly (Teaweed) | *Sida spinosa* |
| Velvetleaf[1] | *Abutilon theophrasti* |
| Waterhemp | *Amaranthus tuberculatus* |

[1] Partial control or suppression only. **Zidua** should be used in tank mixes or sequential applications with other labeled herbicides that provide additional control of noted weeds.

**Table 2. Weeds Controlled[1] or Suppressed[2] with a Residual Application of Zidua® herbicide in Wheat**

| Common Name | Scientific Name | **C = Control** (only at the maximum application rate per soil texture)<br>**S = Suppression**<br>See **Crop-specific Information** section for specific rates. |
|---|---|---|
| **Annual Grass Weeds** | | |
| Barley, hare | *Hordeum murinum* spp. *leporinum* | S |
| Barnyardgrass | *Echinochloa crus-galli* | S |
| Bluegrass, annual | *Poa annua* | C |
| Brome, downy | *Bromus tectorum* | S |
| Brome, Japanese | *Bromus japonicus* | S |
| Canarygrass | *Phalaris canariensis* | C |
| Cheat | *Bromus secalinus* | S |
| Foxtail, giant | *Setaria faberi* | S |
| Foxtail, green | *Setaria viridis* | S |
| Foxtail, yellow | *Setaria pumila* | S |
| Oats, wild | *Avena fatua* | S |
| Rattail fescue | *Vulpia myuros* | C |
| Ryegrass, Italian | *Lolium perenne* spp. *multiflorum* | C |
| Ryegrass, rigid | *Lolium rigidum* | S |
| **Annual Broadleaf Weeds** | | |
| Buckwheat, wild | *Polygonum convolvulus* | S |
| Carpetweed | *Mollugo verticillata* | S |
| Chickweed, common | *Stellaria media* | S |
| Flixweed | *Descurainia sophia* | S |
| Horseweed (Marestail) | *Conyza canadensis* | S |
| Groundsel, common | *Senecio vulgaris* | S |
| Henbit | *Lamium amplexicaule* | S |
| Kochia | *Kochia scoparia* | S |
| Lambsquarters, common | *Chenopodium album* | S |
| Mustard, wild | *Sinapis arvensis L.* | S |
| Pigweed spp. | *Amaranthus* spp. | S |
| Ragweed, common | *Ambrosia artemisiifolia* | S |
| Shepherdspurse | *Capsella bursa-pastoris* | S |

[1] Weeds such as annual bluegrass and Italian ryegrass have the ability to adapt to several different herbicide sites of action. Even though **Zidua** will control these species, some weed escapes are possible. Multiple herbicides with multiple different effective sites of action **MUST** be used in tank mixtures **or** sequentially to limit these weed escapes to prevent or delay the onset of herbicide-resistant weed biotypes.

[2] For control of these weeds, a tank mix partner or a sequentially applied herbicide partner is needed.

## Mode of Action

**Zidua® herbicide** acts to inhibit very long-chain fatty acid synthesis as a **Group 15 (WSSA)/Group $K_3$ (HRAC)** herbicide. It is a root-and-shoot growth inhibitor that controls susceptible germinating seedlings before or soon after they emerge from the soil.

## Resistance Management

**Zidua** is a **Group 15/Group $K_3$** herbicide. Any weed population may contain or develop plants naturally resistant to **Zidua** and other **Group 15** herbicides. Weed species with resistance to **Group 15** may eventually dominate the weed population if **Group 15** herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by **Zidua** or other **Group 15** herbicides.

**To delay herbicide resistance consider:**

- Avoiding the consecutive use of **Zidua** or other target-site-of-action **Group 15** herbicides that have a similar target site of action on the same weed species
- Using tank mixes or premixes with herbicides from different target-site-of-action groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank mix or prepack rate on the weed(s) of concern
- Basing herbicide use on a comprehensive IPM (Integrated Pest Management) program including cultural and mechanical methods
- Monitoring treated weed populations for loss of field efficacy, and control of escapes with effective alternative herbicides or mechanical methods
- Contacting your local extension specialist, certified crop advisors, and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes

## Crop Tolerance

Crops are tolerant to **Zidua** when applied according to label directions and under normal environmental conditions. Application to crops under stress because of inadequate or excess of moisture for normal crop development, cool and hot temperatures, sodic soils, poorly drained soils, hail damage, flooding, pesticide injury, mechanical injury, or widely fluctuating temperatures may result in crop injury.

# Application Instructions

Application rates of **Zidua** may vary depending on soil texture. Refer to **Table 3** for soil texture groups used in this label unless a specific soil texture is mentioned. When use rates are in ranges, apply the low rate for soils with coarse texture or low organic matter; apply the high rates for fine soil textures, high organic matter, heavy soil surface plant residue, or heavy weed pressure.

**Table 3. Soil Texture Groups**

| Coarse | Medium | Fine |
|---|---|---|
| Sand | Loam | Sandy clay |
| Loamy sand | Silt loam | Silty clay loam |
| Sandy loam | Silt | Silty clay |
| | Sandy clay loam | Clay loam |
| | | Clay |

**Zidua** may be used on **peat soils** and **muck soils**, and **mineral soils with 10% or more organic matter**, but weed control may be inconsistent and/or reduced. Use maximum labeled use rate allowed in the specific crop.

## Application Timing

Refer to the **Crop-specific Information** section for specific application rates, timings, and the restrictions and limitations by crop and use pattern.

**Zidua** may be applied preplant surface, preplant incorporated, preemergence, early postemergence, postemergence-directed (layby), or in the fall. For each application timing, refer to **Crop-specific Information** for specific application instructions by crop.

**Preplant Surface Application.** Apply **Zidua** alone or in tank mix up to 45 days before planting. If weeds are present at the time of application, use additional weed control methods such as a tank mix with an appropriate postemergence herbicide(s) to control emerged weeds.

**Preplant Incorporated (PPI) Application.** Incorporate **Zidua** into the upper (1 to 2 inches) soil surface up to 14 days before planting. Deeper incorporation may increase the potential for crop injury and also may result in reduced weed control. Use appropriate equipment for uniform shallow incorporation, such as a field cultivator, harrow, rolling cultivator, or finishing disc.

**Preemergence Surface Application.** After planting and before crop emergence, apply a uniform broadcast treatment to the soil surface. If weeds are present, apply **Zidua** in a tank mix with an appropriate postemergence herbicide, such as a glyphosate-containing product.

**Early Postemergence Application. Zidua** must be applied and activated before weed seedling emergence or in a tank mixture that controls emerged weeds.

**Postemergence-directed (Layby) Application. Zidua** must be applied as a directed spray between crop rows and activated before weed seedling emergence or in a tank mix that controls emerged weeds.

**Fall/Winter Application for controlling weeds germinating in the fall, or winter weeds. Zidua** may be broadcast surface applied in the fall or winter after crop harvest. **DO NOT** apply to frozen or snow-covered soil. Tillage operations may be conducted before or after applying **Zidua**. If tillage is used following an application, tillage should be shallow (no more than 2-inches deep) to uniformly incorporate the herbicide into the upper soil surface.

## Application Methods and Equipment

**Zidua® herbicide** may be applied by aerial or ground application. **DO NOT** apply through any type of irrigation system.

Thorough spray coverage is required for optimum weed control and can be improved with proper nozzle and spray volume selection. Use and configure application equipment to provide an adequate spray volume, an accurate and uniform distribution of spray droplets over the treated area, and to avoid spray drift to nontarget areas. Adjust equipment to maintain continuous agitation during spraying with good mechanical or bypass agitation. Avoid overlaps that will increase rates above the use rates specified in this label.

**Zidua** may be applied using water or sprayable fluid nitrogen fertilizer solutions as the spray carrier. **DO NOT** apply this product without dilution in a spray carrier. Additionally, **Zidua** may be impregnated on and applied with dry bulk fertilizer.

## Spray Mix Preparation Advisory

Always pre-dissolve **Zidua** before adding it into the spray tank. When dissolving **Zidua** for a spray mix, use a minimum of 4 gallons water per container of **Zidua** (80 ounces) in an external container (e.g. 5-gallon bucket) or in the sprayer induction system with constant agitation. **DO NOT** pour **Zidua** straight into the sprayer inductor system without minimum water and agitation.

## Aerial Application Requirements

**Spray Carrier Volume.** Use 3 or more gallons of water per acre. The actual minimum spray volume per acre is determined by the spray equipment used. Use adequate spray volume to provide accurate and uniform distribution of spray particles over the treated area and to avoid spray drift.

The following measures must be followed to reduce the potential of spray drift to nontarget areas from aerial application:

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or 90% of rotor blade diameter.
2. Use low-drift nozzles such as straight-stream nozzles (D-4 or larger). **DO NOT** use nozzles producing a mist droplet spray.
3. Nozzles must always point backward parallel with the airstream and never be pointed downward more than 45 degrees.
4. Without compromising aircraft safety, application should be made at a height of 10 feet or less above the crop canopy or tallest plants. Applicators must follow the most restrictive use cautions to avoid drift hazards, including those found in this labeling as well as applicable state and local regulations and ordinances.
5. **DO NOT** apply during periods of temperature inversions or stable atmospheric conditions.
6. Avoid potential adverse effects to nontarget areas by maintaining a 30-feet buffer between the application area and the **closest downwind edge** of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas, shrub lands, and crop lands).

## Ground Application Requirements

**Spray Carrier Volume.** Use 5 or more gallons of water per treated acre or 15 or more gallons of sprayable fluid nitrogen fertilizer per treated acre for weed control application.

The following measures must be followed to reduce the potential of spray drift to nontarget areas from ground application:

1. Apply this product using nozzles which deliver **medium-to-ultra-coarse spray droplets** as defined by ASABE standard S-572.1 and as shown in nozzle manufacturer's catalogs. Flood-jet or Air Induction-type nozzles are recommended for residual soil surface application. Nozzles that deliver coarse spray droplets may be used to reduce spray drift provided spray volume per acre (GPA) is increased to maintain coverage of target (i.e. soil surface). **DO NOT** use nozzles that produce fine (e.g. cone) spray droplets.
2. Apply this product only when the potential for drift to adjacent nontarget areas is minimal (e.g. when the wind is **10 MPH or less and is blowing away** from sensitive areas). **DO NOT** apply during periods of temperature inversions or stable atmospheric conditions.
3. Avoid potential adverse effects to nontarget areas by maintaining a 10-feet buffer between the application area and the **closest downwind edge** of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas, shrub lands, and crop lands).

**Ground Boom Application Height.** Application should not be made at a height greater than 4 feet above the top of the largest plants. Applying at the lowest possible height reduces exposure of droplets to evaporation and wind.

## Ground Application (Dry Bulk Fertilizer)

**Zidua** may be impregnated or coated onto dry bulk granular fertilizer carriers for residual soil surface (fall, preplant surface, preplant incorporated) applications. Impregnation or coating may be conducted by in-plant bulk or on-board systems. Perform the mixing operation in well-ventilated areas.

All individual state regulations relating to dry bulk granular fertilizer blending, registration, labeling, and application are the responsibility of the individual and/or company selling the herbicide/fertilizer mixture.

**Zidua** may be impregnated on many commonly used dry fertilizers. **DO NOT** impregnate on ammonium nitrate, fertilizers containing ammonium nitrate, potassium nitrate, sodium nitrate, or powdered limestone.

Generally, fertilizer application rates of at least 200 lbs to 700 lbs per acre of herbicide and fertilizer blend will provide adequate distribution or coverage of **Zidua® herbicide** across the soil surface. Application of impregnated fertilizer must be made uniformly to the soil to prevent possible crop injury and offer satisfactory weed control. Impregnated fertilizer spread at half rate and overlapped to obtain a full rate offers a more uniform distribution. A shallow (less than 2 inches) incorporation is desirable for improved weed control. Deeper incorporation dilutes the herbicide layer near the soil surface and may result in unsatisfactory weed control.

To calculate the herbicide rate when using dry bulk fertilizer applications:

$$\frac{[\text{ozs of } \textbf{Zidua} \text{ per acre X } 2000]}{\text{pounds fertilizer per acre}} = \text{ozs of } \textbf{Zidua} \text{ for 1 ton of fertilizer}$$

To impregnate **Zidua** on bulk fertilizer, use a closed rotary-drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment. Mix **Zidua** with sufficient water to form a sprayable slurry mixture. Spray nozzles must be directed to provide uniform fertilizer coverage while avoiding spray contact with mixing equipment. Nonuniform impregnation can cause crop injury or unsatisfactory performance. Spray herbicide mixture onto fertilizer after blending has started. Addition of a suitable drying agent may be necessary if the fertilizer and herbicide blend is too wet for uniform application due to high humidity, high urea concentration, or low fertilizer use rate. Slowly add the drying agent to the blend until a flowable mixture is obtained. Drying agents are not recommended for use with on-board impregnation systems.

Under some conditions, fertilizer impregnated with **Zidua** may clog air tubes or deflector plates on pneumatic application systems. Mineral oil may be added to **Zidua** before blending with fertilizer to reduce plugging. **DO NOT** use drying agents when mineral oil is used. To avoid separation of **Zidua** and mineral oil mixes in cold temperatures, keep mixture heated or agitated before blending with fertilizer. Mineral oil may be used with inplant blending stations or with on-board injection systems.

Uniformly apply the treated fertilizer with accurately calibrated and proper equipment immediately after impregnation to avoid lump formation and spreading difficulties.

Accurate calibration of fertilizer application equipment and uniform fertilizer distribution is essential for satisfactory weed control.

## Cleaning Spray Equipment

Clean application equipment thoroughly by using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions. Triple rinse the equipment before and after applying **Zidua**.

## Spray Drift Management

The interaction of many equipment-related and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all factors involved in minimizing drift potential.

## Droplet Size

The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Use nozzle types and nozzle arrangements that provide maximum coverage and minimize the potential for off-target movement of spray particles. Droplet size for both air and ground applications must be in the "medium" size category as defined in the August 1999 ASAE S572 publication entitled "Spray Nozzle Classification by Drop Spectra". Refer to that publication for additional information. Regardless of droplet size, if applications are made improperly or under unfavorable environmental conditions off-target movement will occur. See **Wind**; **Temperature and Humidity**; and **Temperature Inversion** sections in 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 nozzle manufacturer's recommended pressures. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use 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 the spray is released backwards parallel to the airstream produces larger droplets than other orientations. Significant deflection from the horizontal reduces droplet size and increases drift potential.

**Nozzle Type.** Use a nozzle type designed for the intended application. **DO NOT** use air inducting or flood-type nozzles.

## Swath Adjustment

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

## Wind

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 speed. Application must be avoided if wind speed is below 2 mph due to variable wind direction and high inversion potential.

**NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

### Temperature and Humidity

When applying in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation, but they should remain within the medium droplet size category. Droplet evaporation is most severe when conditions are both hot and dry.

### Temperature Inversions

If inversion conditions are suspected, consult with local weather services before making an application. Applications must not occur during temperature inversions, 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 temperatures 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

This pesticide must only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

## Additives

**Zidua® herbicide** is formulated to provide optimal preemergence weed control. However, several tank mixes with **Zidua** may require an adjuvant to improve burndown of emerged weeds. Therefore, an adjuvant may be used with **Zidua** tank mixes that are applied fall, preplant, preemergence, or early postemergence. Follow the adjuvant recommendation for the tank mix partner of **Zidua**.

## Tank Mixing Information

**Zidua** can be mixed with one or more registered herbicide products according to the specific tank mixing instructions in this label and respective product labels. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Always follow the most restrictive label use directions. Refer to **Crop-specific Information** section for tank mixing details for each crop.

Physical incompatibility, reduced weed control, or crop injury may result from mixing **Zidua** with other pesticides, additives, or fertilizers.

### Compatibility Test for Tank Mix Products

Before mixing components, always perform a compatibility jar test.

1. For 20 gallons per acre spray volume, use 3.3 cups (800 mL) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.
2. Add components in the sequence indicated in the mixing order using 2 teaspoons for each pound or 1 teaspoon for each pint of label rate per acre.
3. Always cap the jar and invert 10 cycles between component additions.
4. When the components have all been added to the jar, let the solution stand for 15 minutes.
5. Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface, or fine particles that precipitate to the bottom, or thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, **DO NOT** mix the ingredients in the same tank.

### Mixing Order

Maintain agitation throughout mixing and application until spraying is completed.

1. **Water** - Fill tank 1/2 to 3/4 full with clean water and start agitation.
2. **Inductor** - If an inductor is used, rinse it thoroughly after each component has been added.
3. **Products in PVA bags** - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
4. **Water-soluble additives** (including dry and liquid fertilizers such as ammonium sulfate or urea ammonium nitrate)
5. **Water-dispersible products** (such as dry flowables, wettable powders, suspension concentrates, or suspoemulsions) - Add **Zidua** at this point in the mixing process.
6. **Water-soluble products**
7. **Emulsifiable concentrates** (including methylated seed oil adjuvants)
8. **Remaining quantity of water**

If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed. Continue agitation while spraying.

## Use Precautions and Restrictions

- **Maximum seasonal use rate** - Refer to **Crop-specific Information** section for maximum cropping seasonal application use rates of **Zidua® herbicide** in each crop and use pattern. A cropping season is defined as the period following harvest of the preceding crop through the harvest of the planned or current crop.
- Refer to **Crop-specific Information** for additional crop use restrictions.
- **Application** - **DO NOT** apply through any type of irrigation system.
- **DO NOT** contaminate irrigation ditches or water used for domestic purposes.
- **Irrigation** - **DO NOT** use flood irrigation to apply, activate, or incorporate **Zidua**.
- **Zidua is not for sale, distribution, or use in Nassau and Suffolk counties in New York State.**
- **Emergency replanting intervals** - If a labeled crop treated with **Zidua** is lost to crop failure (because of environmental factors such as drought, frost, hail, etc.), the crop may be replanted immediately. However, **DO NOT** repeat application of **Zidua** after crop failure. A sequential application can be made as long as the maximum cumulative rate for the crop and soil per season is not exceeded.
- **Crop rotation intervals** - Use **Table 4** to determine the proper interval between **Zidua** application and the planting of rotational crops. Determine the crop rotation interval for tank mix products, and use the most restrictive interval of all products applied.

**Table 4. Rotational Crop Planting Intervals by Zidua Application Rate**

| Crop | Zidua Use Rate (ozs/A) | | | |
|---|---|---|---|---|
| | 1.0 | 2.0 | 3.0 | 4.0 |
| | Rotational Crop Interval (months after application) | | | |
| **Alfalfa** | 10 | 10 | 10 | 10 |
| **Canola (Rapeseed)** | 12 | 12 | 15 | 18 |
| **Corn** | 0 | 0 | 0 | 0 |
| **Cotton** | 1 | 2 | 4 | 4 |
| **Edible peas, succulent edible beans, and other edible dry beans** | 11 | 11 | 11 | 11 |
| **Grain sorghum** | 6 | 6 | 10 | 12 |
| **Grasses grown for seed** | 18 | 18 | 18 | 18 |
| **Lentil** | 6 | 6 | 6 | 8 |
| **Peanut** | 4 | 4 | 4 | 4 |
| **Peas, field** (dry) | 4 | 6 | 6 | 8 |
| **Potato** | 4 | 4 | 4 | 4 |
| **Rice** | 10 | 12 | 18 | 24 |
| **Small grains** (other than wheat) | 11 | 11 | 11 | 18 |
| **Soybean** | 0 | 0 | 0 | 4 |
| **Sugar beet** | 12 | 12 | 15 | 15 |
| **Sunflower** | 4 | 4 | 4 | 4 |
| **Sweet potato** | 9 | 9 | 9 | 9 |
| **Wheat** | 1 | 1 | 4 | 6 |
| **Other Crops** | 18 | 18 | 18 | 18 |

## Crop-specific Information

Read product information, mixing, application, weeds controlled, and additive instructions in preceding sections of the label. Read and follow tank mix product labels for restrictions, precautions, instructions, and rotational crop restrictions.

## Corn

**Zidua® herbicide** may be applied preplant surface, preplant incorporated, preemergence, or early postemergence to corn for residual preemergence control of listed weeds (**Table 1**). Corn in this label refers to field corn (grown for grain, seed, or silage), popcorn, and sweet corn (grown for fresh, processing, or seed). Before applying to seed corn, sweet corn, or popcorn, verify with your local seed company (supplier) the selectivity of **Zidua** on your inbred line or hybrid to avoid potential injury.

### Application Rate

**Zidua** can be applied as part of a one-pass or planned sequential (two-pass) weed control program. A one-pass weed control program should be used where no cultivation or postemergence herbicide application is anticipated. One-pass application rates for **Zidua** when applied alone, in tank mix, or sequentially are provided in **Table 5** for corn.

**Table 5. Residual Rates of Zidua in Corn**

| Application Timing | Use Rate by Soil Texture[1] (ozs/A) | | |
|---|---|---|---|
| | Coarse | Medium | Fine |
| **Preplant surface** | 1.5 to 2.75 | 2.0 to 3.0 | 2.5 to 4.0 |
| **Preplant incorporated** | 1.5 to 2.75 | 2.0 to 3.0 | 2.5 to 4.0 |
| **Preemergence** | 1.5 to 2.75 | 2.0 to 3.0 | 2.5 to 4.0 |
| **Early postemergence** | 1.0 to 2.75 | 1.5 to 3.0 | 2.0 to 4.0 |

[1] Refer to **Table 3** for definition of soil-texture groups.

**Zidua** use rates applied as the residual component of a planned sequential (two-pass) program (see **Table 6**) will provide control or suppression of listed weeds (**Table 1**) through early to mid-season. For full-season weed control, apply a labeled postemergence treatment such as **Status® herbicide** plus glyphosate (in glyphosate-tolerant field corn) as the sequential component.

**Table 6. Residual Rates of Zidua in a Planned Sequential Program in Corn**

| Application Timing | Use Rate by Soil Texture[1] (ozs/A) | | |
|---|---|---|---|
| | Coarse | Medium | Fine |
| **Preplant surface** | 1.0 to 2.0 | 1.5 to 3.0 | 2.0 to 4.0 |
| **Preplant incorporated** | 1.0 to 2.0 | 1.5 to 3.0 | 2.0 to 4.0 |
| **Preemergence** | 1.0 to 2.0 | 1.5 to 3.0 | 2.0 to 4.0 |

[1] Refer to **Table 3** for definition of soil-texture groups.

### Application Timing

**Zidua** may be applied in a single application or in sequential applications.

### Fall/Winter Application for controlling weeds germinating in the fall, or winter annual weeds

**Zidua** may be broadcast surface applied in the fall or winter to control winter annual weeds and other weeds germinating in the fall. Use on coarse, medium, or fine soils at rates listed for preplant surface timing. A sequential preemergence or postemergence application can be made, but **DO NOT** exceed the maximum cumulative rate allowed by soil type per season (per year). See the main **Application Timing** section of this label for restrictions and recommendations.

### Preplant Surface Application (15 to 45 days before planting)

Application rates in **Table 5** should be used when making preplant surface applications, using the highest application rate for a given soil texture. Preplant surface applications are not recommended on coarse soils, in areas where average annual rainfall (or rainfall plus irrigation) typically exceeds 40 inches, or for popcorn or sweet corn. Cultivation or a labeled postemergence herbicide application may still be required under certain conditions for complete weed control.

### Preplant Surface or Preplant Incorporated Application (up to 14 days before planting)

Apply **Zidua** at the use rates specified in **Table 5** or **Table 6** as a broadcast spray to the soil surface or incorporated up to 14 days before planting on all soil types.

### Preemergence Surface Application

Apply **Zidua** at use rates specified in **Table 5** or **Table 6** as a broadcast spray to the soil surface after planting and before crop emergence.

### Early Postemergence Application

Apply **Zidua** at use rates specified in **Table 5** as a broadcast spray to corn at spiking up to the V4 stage (visible fourth leaf collar).

### Sequential Application

If a sequential application program of **Zidua** is used (e.g. fall application followed by spring application, or sequential applications in the spring), the maximum combined rate of **Zidua** that may be applied in a cropping season is 2.75 ozs/A on coarse soils or 5.0 ozs/A on all medium-to-fine soils.

### Crop-specific Restrictions

- **On coarse soil** - **DO NOT** apply more than a maximum cumulative amount of 2.75 ozs/A of **Zidua** (0.146 lb ai/A of pyroxasulfone) per cropping season (per year).
- **On all soils other than coarse** - **DO NOT** apply more than a maximum cumulative amount of 5.0 ozs/A of

**Zidua® herbicide** (0.266 lb ai/A of pyroxasulfone) per cropping season (per year).

- **DO NOT** harvest sweet corn ears for human consumption less than 37 days after application of **Zidua**.

### Crop-specific Precautions

- **Seeding depth** - Corn seed must be planted a minimum 1-inch deep.

### Tank Mixes

**Zidua** may be tank mixed or applied sequentially with one or more of, but not limited to, the following herbicide products for a broader spectrum of control and/or control of emerged weeds. Refer to the tank mix product labels to confirm that the respective tank mix products are registered for use on specific corn types; not all corn products are registered for use on field corn, popcorn, and sweet corn.

- **Outlook® herbicide**
- **Prowl® $H_2O$ herbicide**
- **Sharpen® powered by Kixor® herbicide**
- **Status® herbicide**
- **Verdict® powered by Kixor® herbicide**
- atrazine
- glyphosate[1]

[1] Includes postemergence tank mixes on glyphosate-tolerant corn hybrids

Always follow the most restrictive label use directions when mixing herbicide products.

## Cotton

**Zidua** can be applied preplant surface, preplant incorporated, preemergence, early postemergence, or postemergence-directed (layby) to cotton for residual preemergence control of listed weeds (**Table 1**). Before applying to cotton, verify with your local seed company (supplier) the selectivity of **Zidua** on your variety to avoid potential injury.

## Crop Tolerance

**Zidua** applied preplant surface, preemergence, or early postemergence can cause cotton injury. Under stressful conditions (such as inadequate or excessive moisture, cool or hot temperatures, compacted soils, injury from other pesticides, disease or other pest damage, mechanical injury, nutrient imbalances, or other conditions known to cause plant stress), **Zidua** injury will be in intensified.

Cotton is tolerant to **Zidua** when applied postemergence-directed (layby). However, some visual cotton response is possible when **Zidua** is applied under stressful conditions such as inadequate or excessive moisture, cool or hot temperatures, compacted soils, injury from other pesticides, disease or other pest damage, mechanical injury, nutrient imbalances, or other conditions known to cause plant stress.

Cotton response is most often visible as stunting and/or discoloration of leaf tissue (e.g. chlorosis), but in its most severe form can result in stand thinning which could impact cotton yield. The greatest potential for cotton response occurs when **Zidua** concentrates in the crop row. Unacceptable cotton response may be caused by uneven application, soil clods or disturbances, an open/cracked seed furrow that allows herbicide to directly contact the seed, or a deep seed furrow that allows herbicide concentration after a rain/irrigation event.

## Application Information

### Application Timing

**Zidua** may be applied in a single application or in sequential applications.

### Preplant Surface or Preplant Incorporated Application (within 45 days before planting)

Apply **Zidua** at the use rates specified in **Table 7** as a broadcast spray to the soil surface or incorporated within 45 days before planting.

### Preemergence Surface Application

Apply **Zidua** at use rates specified in **Table 7** as a broadcast spray to the soil surface after planting and before crop emergence.

### Early Postemergence Application

Apply **Zidua** at use rates specified in **Table 7** as a broadcast spray to cotton from first true-leaf stage to beginning bloom stage. **Zidua** provides residual control of weeds germinating after application. **Zidua** will not control emerged weeds. Weeds emerged at the time of application must be controlled by another means, such as cultivation **or** a tank mix or sequential application of herbicide labeled for postemergence control of the target weeds in cotton. **Zidua** application to emerged cotton may result in temporary leaf burn and stunting, but a reduction in cotton yield is not expected.

### Postemergence-directed (Layby) Application

Apply **Zidua** at use rates specified in **Table 7** as a broadcast-directed spray between cotton rows from 5-leaf stage to beginning bloom stage. **Zidua** will provide residual control of weeds germinating after application. **Zidua** will not control emerged weeds. Weeds emerged at the time of application must be controlled by another means, such as cultivation **or** a tank mix or sequential application of herbicide labeled for postemergence control of the target weeds in cotton. The use of hooded or shielded sprayers is recommended when applying **Zidua** as postemergence-directed (layby) spray. Avoid contacting cotton leaves with **Zidua** spray solution or injury may occur.

### Sequential Application

If a sequential application program of **Zidua** is used (e.g. preplant application followed by a preemergence application, preplant or preemergence application followed by early postemergence or postemergence-directed (layby) application), the maximum combined rate of **Zidua** that

may be applied in a cropping season is 4.2 ozs/A on all soils. Separate sequential applications by at least 14 days.

## Application Rate

Apply **Zidua® herbicide** alone, in tank mix, or sequentially in cotton at the residual rates in **Table 7**.

**Table 7. Residual Rates of Zidua**

| Application Timing | Use Rate by Soil Texture[1] (ozs/A) | | |
|---|---|---|---|
| | Coarse | Medium | Fine |
| **Preplant surface** | DO NOT USE | 1.0 to 1.5 | 1.5 to 2.1 |
| **Preplant incorporated** | DO NOT USE | 1.0 to 1.5 | 1.5 to 2.1 |
| **Preemergence** | DO NOT USE | 1.0 to 1.5 | 1.5 to 2.1 |
| **Early postemergence** | DO NOT USE | 0.75 to 1.5 | 1.5 to 2.1 |
| **Postemergence-directed (Layby)** | 0.75 to 1.5 | 0.75 to 1.5 | 1.5 to 2.1 |

[1] Refer to **Table 3** for definition of soil-texture groups.

## Crop-specific Restrictions

- *{Alternate Text: **DO NOT** apply **Zidua** as a preplant, preemergence, or postemergence over-the-top treatment in cotton.}*
- **DO NOT** apply more than 2.1 ozs/A of **Zidua** in a single application.
- **DO NOT** apply more than a maximum cumulative amount of 4.2 ozs/A of **Zidua** (0.223 lb ai/A of pyroxasulfone) per cropping season (per year) from sequential applications.
- There is no required (preharvest) interval between a preplant, preemergence, postemergence, or postemergence-directed (layby) application of **Zidua** and the harvest of cotton.
- **DO NOT** apply adjuvants with **Zidua** when making early postemergence application.
- **DO NOT** apply **Zidua** to cotton from emergence (at-cracking) through cotyledon stage or injury may occur.

## Crop-specific Precautions

- **Seeding depth** - Cotton seed must be planted a minimum 1-inch deep.
- The use of **Zidua** may result in temporary growth suppression in cotton if extreme conditions of high rainfall and extended periods of water-saturated soil occur during cotton germination or early seedling development.
- Cotton gin byproducts may be fed to livestock.

## Tank Mixes

**Zidua** may be tank mixed or applied sequentially with one or more of, but not limited to, the following herbicide products:

- **Prowl® $H_2O$ herbicide**
- glufosinate[1]
- glyphosate[2]

[1] Includes postemergence-directed (layby) tank mixes on glufosinate-tolerant cotton varieties

[2] Includes postemergence and postemergence-directed (layby) tank mixes on glyphosate-tolerant cotton varieties

Always follow the most restrictive label use directions when mixing herbicide products. Follow the adjuvant recommendation for the tank mix partner of **Zidua**.

# Fallow

**Zidua** may be used as a residual treatment to control listed weeds at any time of the year during the fallow period following crop harvest and before the following crop is planted (see paragraph below pertaining to rotational crop planting intervals).

## Application Rate and Timing

Apply **Zidua** as a broadcast spray at 1.0 to 4.0 ozs/A. Best product performance is obtained when weeds are not emerged before application.

Sequential applications may be made with a minimum of 30 days between applications, but **DO NOT** exceed the maximum seasonal cumulative amount of 5.0 ozs/A of **Zidua** per cropping season (per year).

Specific rotational crop planting intervals must be observed between an application of **Zidua** and planting of the following crops (see **Table 4** for rotational crop planting intervals).

# Soybean

**Zidua** may be applied preplant surface, preplant incorporated, preemergence, early postemergence, or in the fall to soybean for residual preemergence control of listed weeds (**Table 1**). Before applying to soybean, verify with your local seed company (supplier) the selectivity of **Zidua** on your variety to avoid potential injury.

## Application Rate

Apply **Zidua** alone, in tank mix, or sequentially in soybean at the residual rates in **Table 8**.

**Table 8. Residual Rates of Zidua® herbicide in Soybean**

| Application Timing | Use Rate by Soil Texture[1] (ozs/A) | | |
|---|---|---|---|
| | Coarse | Medium | Fine |
| **Preplant surface** | 1.5 to 2.1 | 2.0 to 3.0 | 2.5 to 3.5 |
| **Preplant incorporated** | 1.5 to 2.1 | 2.0 to 3.0 | 2.5 to 3.5 |
| **Preemergence** | 1.5 to 2.1 | 2.0 to 3.0 | 2.5 to 3.5 |
| **Early postemergence** | 1.0 to 2.1 | 1.5 to 3.0 | 2.0 to 3.5 |

[1] Refer to **Table 3** for definition of soil-texture groups.

## Application Timing

**Zidua** may be applied in a single application or in sequential applications.

## Fall/Winter Application for controlling weeds germinating in the fall, or winter annual weeds

**Zidua** may be broadcast surface applied in the fall or winter to control winter annual weeds and other weeds germinating in the fall. Use on coarse, medium, or fine soils at rates listed for the preplant surface timing. Sequential preemergence and/or postemergence applications can be made, but **DO NOT** exceed the maximum cumulative rate allowed by soil type per season (per year). See the main **Application Timings** section of this label for restrictions and recommendations.

## Early Preplant Surface Application (15 to 45 days before planting)

Use the higher application rates listed in **Table 8** for preplant surface applications when applied earlier (15 to 45 days) before planting. A lower rate within the list range could be used if a later sequential application is planned. Preplant surface applications are not recommended on coarse soils or in areas where average annual rainfall (or rainfall plus irrigation) typically exceeds 40 inches. Cultivation or a labeled postemergence herbicide application may still be required under certain conditions for complete weed control.

## Preplant Surface or Preplant Incorporated Application (up to 14 days before planting)

Apply **Zidua** at the use rates specified in **Table 8** as a broadcast spray to the soil surface or incorporated up to 14 days before planting on all soil types.

## Preemergence Surface Application

Apply **Zidua** at use rates specified in **Table 8** as a broadcast spray to the soil surface after planting and before crop emergence.

## Early Postemergence Application

Apply **Zidua** at use rates specified in **Table 8** as a broadcast spray to soybean at first-trifoliate leaf stage to third-trifoliate leaf stage. *{Alternate text: Apply **Zidua** at use rates specified in **Table 8** as a postemergence broadcast spray to soybean from emergence (cracking stage) to third-trifoliate leaf stage. Additional crop response may occur if **Zidua** is applied between emergence (cracking stage) and the first trifoliate stage especially when mixed with other herbicides and adjuvants.}* **Zidua** provides residual control of weeds germinating after application. Weeds that are already emerged at the time of application must be controlled with cultivation, tank mix, or sequential application of another herbicide labeled for postemergence control of the target weeds in the crop. **Zidua** applications to emerged soybeans may result in temporary leaf burn and stunting, but a reduction in soybean yield is unexpected. Tank mixes of **Zidua** with other crop protection products or adjuvants may significantly enhance this effect. Depending upon growing conditions, recovery from this injury begins immediately but may take several weeks for the injury to dissipate entirely.

**DO NOT** apply **Zidua** to soybean from emergence (at-cracking) through unifoliate stage or injury may occur.

## Sequential Application

If a sequential application program of **Zidua** is used (e.g. fall application followed by spring application, or sequential applications in the spring), the maximum combined rate of **Zidua** that may be applied in a cropping season is 2.1 ozs/A on coarse soils or 3.5 ozs/A on medium-to-fine soils.

## Crop-specific Restrictions

- **On coarse soil** - **DO NOT** apply more than a maximum cumulative amount of 2.1 ozs/A of **Zidua** (0.112 lb ai/A of pyroxasulfone) per cropping season (per year).
- **On all soils other than coarse** - **DO NOT** apply more than a maximum cumulative amount of 3.5 ozs/A of **Zidua** (0.186 lb ai/A of pyroxasulfone) per cropping season (per year).
- There is no required (preharvest) interval between a preplant, preemergence, or early postemergence application of **Zidua** and the harvest of soybean grain.

## Crop-specific Precautions

- **Seeding depth** - Soybean seed must be planted a minimum 1-inch deep.
- The use of **Zidua** may result in temporary growth suppression in soybean if extreme conditions of high rainfall and extended periods of water-saturated soil occur during soybean germination or early seedling development.

## Tank Mixes

**Zidua® herbicide** may be tank mixed or applied sequentially with one or more of, but not limited to, the following herbicide products:

- **Extreme® herbicide**
- **Optill® PRO powered by Kixor® herbicide**
- **Outlook® herbicide**
- **Prowl® $H_2O$ herbicide**
- **Pursuit® herbicide**
- **Raptor® herbicide**
- **Sharpen® powered by Kixor® herbicide**
- **Verdict® powered by Kixor® herbicide**
- glyphosate[1]

[1] Includes postemergence tank mixes on glyphosate-tolerant soybean varieties

Always follow the most restrictive label use directions when mixing herbicide products. Follow the adjuvant recommendation for the tank mix partner of **Zidua**.

# Wheat

## Crop Tolerance

**Zidua** applied preplant surface or preemergence can cause wheat injury. Under stressful conditions (such as inadequate or excessive moisture, cool or hot temperatures, compacted soils, injury from other pesticides, disease or other pest damage, mechanical injury, nutrient imbalances, or other conditions known to cause plant stress), **Zidua** injury will be in intensified.

Wheat is tolerant to **Zidua** when applied delayed preemergence or early postemergence. However, some visual wheat response is possible when **Zidua** is applied to wheat under stressful conditions such as inadequate or excessive moisture, cool or hot temperatures, compacted soils, injury from other pesticides, disease or other pest damage, mechanical injury, nutrient imbalances, or other conditions known to cause plant stress.

Wheat response is most often visible as stunting and/or discoloration of leaf tissue (e.g. chlorosis), but in its most severe form can result in stand loss and yield reduction. The greatest potential for wheat response occurs when **Zidua** concentrates in the crop row. Unacceptable wheat response may be caused by uneven application, soil clods or disturbances, an open/cracked seed furrow that allows herbicide to directly contact the seed, or a deep seed furrow that allows herbicide concentration after a rain/irrigation event during wheat germination.

Certain wheat varieties can be more sensitive to **Zidua**. Before applying to wheat, verify tolerance with your local seed company (supplier), university extension specialist (e.g. wheat breeder, weed scientist, county agent, etc.), or BASF representative.

## Weed Control

**Zidua** is a selective rate-dependent residual herbicide for control or suppression of annual grass and broadleaf weeds including biotypes resistant to ACCase inhibitors, ALS inhibitors, and glyphosate.

When applied as directed in wheat, **Zidua** provides residual control or suppression of the weeds listed in **Table 2** and also provides suppression of other weeds listed in **Table 1**. For broad-spectrum weed control, a tank mix partner or a sequentially applied herbicide partner is needed. Refer to **Tank Mixes** following in **Wheat** section of this label for additional information.

## Application Information

**Zidua** can be applied preplant surface, preemergence, delayed preemergence, or early postemergence in fall-seeded or spring-seeded wheat for residual weed control.

Apply **Zidua** only to a uniform seedbed that is firm and free of clods, cracks, excess trash (previous crop residue), and weed growth. The seedbed **MUST** be prepared to ensure good seed row closure and soil coverage of the seed. Open furrows or poor furrow closure can result in crop injury. Use high quality seed. Plant seed at least 3/4-inch deep to avoid crop injury.

The use of **Zidua** in wheat may result in temporary or sustained growth suppression and chlorosis if high rainfall or irrigation leads to extended periods of water-saturated soil during early seedling development. To reduce crop response, avoid applying **Zidua** if a long period of rain is expected before wheat emergence.

Herbicidal activity of **Zidua** may be reduced if trash from the previous crop covers more than 25% of the soil surface. Manage trash levels with combine straw shredder/spreaders, earlier burndown of emerged weeds, or light tillage.

Prolonged periods of dry weather following application of **Zidua** may reduce herbicidal effectiveness. When **Zidua** is not activated and weeds emerge, a labeled and effective postemergence herbicide in wheat may be needed to control weed escapes.

**Zidua** will not control germinated or emerged weeds, and should be applied with a tank mix partner or sequential application with a labeled burndown or postemergence wheat herbicide(s) for control of emerged weeds.

### Application Rate

Apply **Zidua** alone, in tank mix, or sequentially in wheat at the residual rates in **Table 9**.

**Table 9. Residual Rates of Zidua® herbicide in Wheat**

| Application Timing | Use Rate by Soil Texture[1] (ozs/A) | | |
|---|---|---|---|
| | Coarse | Medium | Fine |
| **Preplant surface** or **Preemergence** | 0.5 to 1.25 | 1.0 to 1.5 | 1.00 to 1.75 |
| **Delayed preemergence** | 0.7 to 1.0 | 1.0 to 1.5 | 1.0 to 2.0 |
| **Early postemergence** | 1.0 to 2.5 | 1.0 to 2.5 | 1.0 to 2.5 |

[1] Refer to **Table 3** for definition of soil-texture groups.

## Application Timing

**Zidua** may be applied in a single application or in sequential applications relative to the growth stage of wheat.

## Preplant Surface Application

Apply **Zidua** at the use rates specified in **Table 9** as a broadcast spray to the soil surface no more than 14 days before planting on all soil types. Soil disturbance after application from planters/drills may result in herbicide incorporation that can result in unacceptable crop injury, or displacement of **Zidua** that can result in inconsistent weed control. See **State-specific Use Instructions** for applications in Idaho, Montana, Oregon, and Washington.

## Preemergence Surface Application

Apply **Zidua** at the use rates specified in **Table 9** after planting but before wheat spiking as a broadcast spray to the soil surface with uniform seedbed that is firm and free of clods. Ensure good seed row closure and soil coverage to avoid contact with **Zidua**. As the interval from planting to application increases, the potential for crop injury decreases. **See State-specific Use Instructions** for applications in Idaho, Montana, Oregon, and Washington.

## Delayed Preemergence Surface Application

Apply **Zidua** at the use rates specified in **Table 9** as a broadcast spray to the soil surface following wheat planting when 80% of germinated wheat seeds have a shoot at least 1/2-inch long until wheat spiking.

## Early Postemergence Application

Apply **Zidua** at the use rates specified in **Table 9** as a broadcast spray to wheat at spiking up to the 4th-tiller growth stage. **Zidua** will only suppress or control labeled weeds that germinate after the early postemergence application and rainfall/irrigation activation. Apply **Zidua** as early as possible after wheat emergence to prevent weed emergence.

## Sequential Application

**Zidua** may be applied as a sequential or split application program where a preplant, preemergence, or delayed preemergence application is followed by an early postemergence application or where multiple early postemergence applications are made. **DO NOT** apply more than a maximum cumulative amount of 2.5 ozs/A (0.133 lb ai/A of pyroxasulfone) per cropping season (per year).

**State-specific Use Instructions for Preplant and Preemergence Applications in Idaho, Montana, Oregon, and Washington.** Apply **Zidua** preplant surface or preemergence in fall-seeded winter wheat for residual weed control. **DO NOT** apply on spring wheat. Apply **Zidua** only to a uniform seedbed that is firm and free of clods, cracks, excess trash (previous crop residue), and weed growth. The seedbed **MUST** be prepared to ensure good seed row closure and soil coverage of the seed. Open furrows or poor furrow closure can result in crop injury. Use high quality seed. Plant seed at least 1-inch deep, but not greater than 1.5-inches deep to avoid crop injury. Avoid planting seed into loose, powdery soil because unacceptable crop injury may result if soil settles and final planting depth is less than 1-inch. Apply **Zidua** preplant surface or preemergence at 1.0 to 1.5 ozs/A on medium soils and at 1.25 to 1.75 ozs/A on fine soils. **DO NOT** apply on coarse soils. Avoid application to soils with less than 2% organic matter and/or pH greater than 7.5 because unacceptable crop injury may occur. Follow all other application instructions and restrictions and limitations for preplant and preemergence applications of **Zidua** in wheat.

## Crop-specific Restrictions

- **DO NOT** apply more than a maximum cumulative amount of 2.5 ozs/A of **Zidua** (0.133 lb ai/A of pyroxasulfone) per cropping season (per year).
- **DO NOT** apply **Zidua** to durum wheat.
- Wheat forage and hay can be fed or grazed 7 or more days after application.
- **DO NOT** seed wheat deeper than 1.5 inches after a preplant application or before a preemergence or delayed preemergence application.
- **DO NOT** apply **Zidua** to flooded fields or saturated soils.
- **DO NOT** apply preemergence if 1/4 inch or more rain is expected within 48 hours after application.
- **DO NOT** irrigate fields after a preemergence or delayed preemergence application until wheat spiking.
- **DO NOT** apply preplant, preemergence, or delayed preemergence to broadcast-seeded wheat.
- **DO NOT** apply **Zidua** *{Alternate Text - preplant surface}*, preplant incorporated, *{Alternate Text - preemergence}* in wheat.

## Tank Mixes

**Preplant or Preemergence. Zidua** may tank mixed with one or more of, but not limited to, the following herbicide products for a broader spectrum of control and/or control of emerged weeds:

- **Sharpen® powered by Kixor® herbicide**
- glyphosate

**Delayed Preemergence. Zidua® herbicide** may tank mixed with one or more of, but not limited to, the following herbicide products for a broader spectrum of control and/or control of emerged weeds:

- **Sharpen® powered by Kixor® herbicide**
- glyphosate

**NOTE:** Applying **Sharpen** or glyphosate to emerged wheat will severely injure or kill the crop. **DO NOT** tank mix with **Sharpen**, glyphosate, or any other burndown herbicides if wheat has emerged (i.e. spiking or later).

**Early Postemergence. Zidua** may be tank mixed with one or more of, but not limited to, the following herbicide products for a broader spectrum of control and/or control of emerged weeds:

- **Beyond® herbicide**
  (for **Clearfield®** or **Clearfield® Plus** wheat only)
- **Clarity® herbicide**
- **Prowl® $H_2O$ herbicide**
- metribuzin (winter wheat only)
- **Axial® XL herbicide**

Always follow the most restrictive label use directions when mixing herbicide products. Follow the adjuvant recommendation for the tank mix partner of **Zidua**.

## Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.**

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT.**

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.**

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF. 1108



007969-00338.20160129b.**NVA 2016-04-388-0028**
Supersedes: NVA 2014-04-388-0292
Based on: 063588-00092.20160520KIH485-85WG-01
Supplemental: NVA 2016-04-388-0029

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| Group | 15 | Herbicide |
|---|---|---|

# Supplemental Label

# Zidua®
## Herbicide

## For weed control in cotton grown on coarse soils from postemergence-directed (layby) application

This supplemental label expires May 1, 2019, and must not be used or distributed after this date.

**Active Ingredient:**

| | |
|---|---|
| **pyroxasulfone:** 3-[[[5-(difluoromethoxy)-1-methyl-3-(trifluoromethyl)-1*H*-pyrazol-4-yl]methyl]sulfonyl]-4,5-dihydro-5,5-dimethylisoxazole | 85.0% |
| **Other Ingredients:** | 15.0% |
| **Total:** | 100.0% |

Contains 0.85 pound of pyroxasulfone per pound formulated as a water-dispersible granule (WG)

**EPA Reg. No. 7969-338**

## Directions For Use

- It is a violation of federal law to use this product in a manner inconsistent with its labeling.
- The supplemental labeling and the entire **Zidua® herbicide** container label, EPA Reg. No. 7969-338, must be in possession of the user at the time of application.
- Read the label affixed to the container for **Zidua** before applying.
- Use of **Zidua** according to this labeling is subject to the use precautions and limitations imposed by the label affixed to the container for **Zidua**.

## Product Information

**Zidua** is a selective rate-dependent residual herbicide for controlling annual grass weeds, sedges, and annual broadleaf weeds. Refer to the **Zidua** container label for a complete list of weeds controlled.

Periods of dry weather following application of **Zidua** may reduce herbicidal effectiveness. **Zidua** must be activated by at least 1/2 inch of rainfall or irrigation before weed germination and emergence. When **Zidua** is not activated and weeds emerge, a labeled postemergence herbicide or shallow cultivation may be needed to control weed escapes.

## Application Information

**Zidua** can be applied postemergence-directed (layby) to cotton for residual weed control. Before applying to cotton, verify with your local seed company (supplier) the selectivity of **Zidua** on your variety to avoid potential injury.

### Application Timing

**Zidua herbicide** may be applied in a single application.

### Postemergence-directed (Layby) Application

Apply **Zidua** as a broadcast-directed spray between cotton rows from 5-leaf stage to beginning bloom stage. **Zidua** provides residual control of weeds germinating after application. **Zidua** will not control emerged weeds. Weeds emerged at the time of application must be controlled by another means, such as cultivation **or** a tank mix or sequential application of herbicide labeled for postemergence control of the target weeds in cotton. The use of hooded or shielded sprayers is recommended when applying **Zidua** as postemergence-directed spray. Avoid contacting cotton leaves with **Zidua** spray solution or injury may occur.



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## Application Rate

Apply **Zidua® herbicide** alone, in tank mix, or sequentially in cotton at the residual rates in the table following.

| Application Timing | Zidua Use Rate by Soil Texture[1] (ozs/A) |
|---|---|
| | **Coarse** |
| Postemergence-directed (Layby) | 0.75 to 1.5 |

[1] Refer to **Zidua** container label for definition of soil-texture groups.

## Crop-specific Restrictions and Limitations

- **DO NOT** apply **Zidua** as a preplant, preemergence, or postemergence over-the-top treatment in cotton.
- **DO NOT** apply more than 1.5 ozs/A of **Zidua** in a single application.
- **DO NOT** apply more than a maximum cumulative amount of 4.2 ozs/A of **Zidua** (0.223 lb ai/A of pyroxasulfone) per cropping season (per year).
- There is no required (preharvest) interval between a postemergence-directed (layby) application of **Zidua** and the harvest of cotton.
- Cotton gin byproducts may be fed to livestock.
- The use of **Zidua** may result in temporary growth suppression in cotton if extreme conditions of high rainfall and extended periods of water-saturated soil occur during cotton germination or early seedling development.

## Tank Mixes

**Zidua** may be tank mixed or applied sequentially with one or more of, but not limited to, the following herbicide products:

- **Prowl® $H_2O$ herbicide**
- **Sharpen® powered by Kixor® herbicide**
- glufosinate[1]
- glyphosate[2]

[1] Includes postemergence-directed (layby) tank mixes on glufosinate-tolerant cotton varieties

[2] Includes postemergence-directed (layby) tank mixes on glyphosate-tolerant cotton varieties

Always follow the most restrictive label use directions when mixing herbicide products. Follow the adjuvant recommendation for the tank mix partner of **Zidua**.

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**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.**

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF. 1108



007969-00338.20160202b.**NVA 2016-04-388-0029**
Based on: NVA 2016-04-388-0028
Supersedes: NVA 2013-04-388-0158

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