

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

April 4, 2021

Rebecca Clemmer Sr. Regional Regulatory Manager UPL NA Inc. 630 Freedom Business Center, Suite 402 King of Prussia, PA 19406

Subject: Registration Review Label Mitigation for Mepiquat

Product Name: PIX ULTRA PLANT REGULATOR

EPA Registration Number: 66330-350

Application Date: June 6, 2018 Decision Number: 572752

#### Dear Ms. Clemmer:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Mepiquat Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

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.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label 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.

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If you have any questions about this letter, please contact Marisa Wright by phone at (703) 347-0463, or via email at wright.marisa@epa.gov.

Sincerely,

Linda Arrington, Branch Chief

Risk Management and Implementation Branch 4

Pesticide Re-Evaluation Division

Office of Pesticide Programs

Enclosure

[Text in brackets is optional]

# PIX® ULTRA PLANT REGULATOR

## For Use on Cotton

ACTIVE INGREDIENT:	% BY WT.
Mepiquat Chloride*: N, N-dimethylpiperidinium chloride	3.9%
OTHER INGREDIENTS:	96.1%
TOTAL:	
*Equivalent to 0.35 pounds of active ingredient per gallon.	

KEEP OUT OF REACH OF CHILDREN

## CAUTION / PRECAUCIÓN

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 [front][back][side][inside] panel for First Aid Instructions and [Leaflet][Booklet] for complete Precautionary Statements and Directions for Use.

	FIRST AID		
IF ON SKIN OR	Take off contaminated clothing.		
CLOTHING:	Rinse skin immediately with plenty of water for 15-20 minutes.		
	Call a poison control center or doctor for treatment advice.		
IF INHALED:	<b>IF INHALED:</b> • Move person to fresh air.		
	• If person is not breathing, call 911 or an ambulance, then give artificial		
	respiration, preferably by mouth-to-mouth, if possible.		
	Call a poison control center or doctor for further treatment advice.		
IF IN EYES:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes.		
	• Remove contact lenses, if present, after the first 5 minutes, then continue		
	rinsing eye.		
	Call a poison control center or doctor for treatment advice.		
IF SWALLOWED:	F SWALLOWED: • Call a poison control center or doctor immediately for treatment advice.		
	<ul> <li>Have person sip a glass of water if able to swallow.</li> </ul>		
	<ul> <li>Do not induce vomiting unless told to do so by a poison control center or doctor</li> </ul>		
	Do not give anything by mouth to an unconscious person.		

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

FOR 24-HOUR MEDICAL EMERGENCY ASSISTANCE CALL ROCKY MOUNTAIN POISON AND DRUG SAFETY: 1-866-673-6671

FOR 24-HOUR CHEMICAL EMERGENCY (Spill, leaks, fire, exposure or accident)

**CALL CHEMTREC:** 1-800-424-9300 or +1-703-527-3887.

EPA Reg. No. 66330-350

**EPA Est. No.:** 

#### **NET CONTENTS:**

[Batch Code will be placed on the container.]

**Produced For:** 

ARYSTA LIFESCIENCE NORTH AMERICA, LLC c/o UPL NA Inc. 630 Freedom Business Center, Suite 402 King of Prussia, PA 19406 – 1-800-438-6071

## ACCEPTED

Apr 04, 2021

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 2000 050

66330-350

## PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Avoid contact with eyes, skin, or clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists. Harmful if absorbed through skin. Wash thoroughly with soap and water after handling.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

## Applicators and other handlers must wear:

- Long-sleeved shirt and long pants;
- · Chemical-resistant gloves; and
- · Shoes plus socks.

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

## **ENGINEERING CONTROLS STATEMENT**

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

## **USER SAFETY RECOMMENDATIONS**

Users should:

- Wash hands 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 change into 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 washwaters or rinsate.

## **Non-Target Organism Advisory Statement**

This product may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by minimizing spray drift.

## DIRECTIONS FOR USE

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

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

All applicable directions, restrictions, precautions, and Warranty and Disclaimer Statement are to be followed. This labeling must be in the user's possession during application.

## **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 Nitrile, Butyl, Neoprene, and/or Barrier Laminate); and
- Shoes plus socks.

## **RUNOFF PREVENTION**

To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

## Steps to be taken in case material is released or spilled:

Wear the personal protective equipment specified on the label or the Material Safety Data Sheet. Recover the material for re-use according to label whenever possible. Cover the liquid with an absorbent material (such as pet litter). Sweep up and place in an appropriate container for disposal. Remove and wash clothing and personal protective equipment prior to re-use. Keep the spill out of all sewers and open bodies of water.

#### **GENERAL INFORMATION**

**PIX**® **ULTRA PLANT REGULATOR** is a foliar-applied plant regulator that contains a borate additive which can improve early boll retention. **PIX ULTRA PLANT REGULATOR** allows the grower to manage the cotton plant for **short-season production**, reducing the risk of a prolonged harvest. Delayed harvest may lead to yield loss and fiber quality reduction. The use of **PIX ULTRA PLANT REGULATOR** will result in several or all of the following:

- height reduction and more open canopy;
- better early boll retention and/or larger bolls;
- less boll rot;
- improved defoliation;
- reduced trash and lower ginning costs;
- better harvest efficiency;
- darker green leaf color.

Most of these effects often favorably influence the yield potential of the cotton plant.

## **SPRAY COVERAGE**

Under most circumstances, water is the recommended diluent, however oil is permitted in the following states for ultra-low volume (ULV) aerial applications: Alabama, Arkansas, Florida, Georgia, Louisiana, Missouri, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, and Texas. Refer to **Air Application** and **Ground Application** sections for spray volumes. Regardless of method or gallonage of application, thorough coverage of the cotton foliage is required.

## **CLEANING APPLICATION EQUIPMENT**

Clean application equipment thoroughly using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions before and after applying this product, particularly if a product with the potential to injure crops was used.

## **APPLICATION INSTRUCTIONS**

#### **Early Application**

The grower has the option of low-rate multiple applications (see **Table 1**) or higher, less frequent dosages (see **Table 2**) which greatly facilitates the grower's management flexibility. The multiple application option gives the producer the ability to discontinue usage of **PIX ULTRA PLANT REGULATOR** if any significant stresses occur after an earlier application. In such a case, the total quantity of **PIX ULTRA PLANT REGULATOR** used over a season may be reduced. If stress is relieved, the grower has the option of continuing treatments with **PIX ULTRA PLANT REGULATOR**. In addition, the rate and timing ranges indicated in the **Application Rates and Timing** tables allow the grower to tailor his usage of **PIX ULTRA PLANT REGULATOR** to the degree of vegetative vigor in a given field. In areas where insecticides, miticides or foliar fertilizers are frequently applied, the timings are such that tank-mixing is often possible. (See **GENERAL RESTRICTIONS AND LIMITATIONS**)

Fields should be carefully scouted and **PIX ULTRA PLANT REGULATOR** should not be applied if plants are under severe stress from weather factors, mite, insect or nematode damage, disease stress, herbicide injury, or fertility stress.

Table 1. Application Rates and Timing: Low Rate Multiple Applications

The times and rates of application have been carefully researched and the **DIRECTIONS FOR USE** must be observed as specified below, See **GENERAL RESTRICTIONS AND LIMITATIONS.** 

Geographic Area	Time of Application	Fields with Moderate Vegetative Vigor: Rate Per Acre	Fields with High Vegetative Vigor: Rate Per Acre
AL, AR, AZ, CA, FL, GA LA, MO,	First application: Optimal results will be achieved when plants are in the matchhead square <sup>1</sup> stage of growth.	2 fluid ounces	4 fluid ounces
MS, NC, NM, OK, SC, TN,	Second application: 7 to 14 days later, or when regrowth occurs.	2 fluid ounces	4 fluid ounces
TX, VA	Third application: 7 to 14 days later, or when regrowth occurs.	2 - 4 fluid ounces <sup>2</sup>	4 - 8 fluid ounces <sup>2</sup>
	Fourth application: 7 to 14 days later, or when regrowth occurs.	2 - 8 fluid ounces <sup>2</sup>	4 - 12 fluid ounces <sup>2</sup>
	Fifth application (if needed): 7 to 14 days later, or when regrowth occurs.	4 - 8 fluid ounces <sup>2</sup>	4 - 12 fluid ounces <sup>2</sup>
	Late season: Refer to Late Season Application of PIX ULTRA PLANT REGULATOR	8 - 16 fluid ounces <sup>2</sup>	12 - 24 fluid ounces <sup>2</sup>

<sup>&</sup>lt;sup>1</sup> Matchhead square is when the first square of a typical cotton plant is 1/8 to 1/4 inches in diameter. The first application should be applied when 50% of the plants have one or more matchhead squares.

**Table 2. Application Rates and Timing** 

The times and rates of application have been carefully researched and **APPLICATION INSTRUCTIONS** must be observed as specified below. See **GENERAL RESTRICTIONS AND LIMITATIONS**.

Geographic Area	Time of Application	
AL, AR,	First application:	8 - 16 fluid
AZ, CA,	Apply PIX ULTRA PLANT REGULATOR to actively growing cotton that is 20 to 30" tall,	ounces
FL, GA,	provided cotton is not more than 7 days beyond early bloom stage (5 to 6 blooms per 25	
LA, MO,	row feet). If cotton is 24" tall and has no blooms, apply PIX ULTRA PLANT REGULATOR.	
MS, NM,	Use 8 - 16 fluid ounces per acre on cotton where excessive vegetative growth is not likely	
NC, OK,	to be a problem, and 16 fluid ounces per acre in areas tending to have excessive vegetative	
SC, TN,	growth.	8 - 16 fluid
TX (including	Second application for control of excessive vegetative growth:	
Rio	If the cotton field has a history of vigorous growth or if conditions after the first application	ounces
Grande	of <b>PIX ULTRA PLANT REGULATOR</b> favor vigorous growth, make a second application 2	
Valley), VA	to 3 weeks after the first application.	
	Third application for control of excessive vegetative growth:	8 - 16 fluid
	If the cotton field has a history of vigorous growth or if conditions continue to favor vigorous	ounces
	growth, make a third application 1 to 2 weeks after the second application.	
	Late season application:	8 - 24 fluid
	Refer to Late Season Application in APPLICATION INSTRUCTIONS.	ounces
OK, TX	Areas where excessive vegetative growth is not a problem	8 fluid
(except	First application:	ounces
Rio Grande	Apply PIX ULTRA PLANT REGULATOR to actively growing cotton in the early bloom stage	
Valley)	(5 to 6 blooms per 25 row feet). If no blooms are present and the cotton is 20" tall and actively growing, apply <b>PIX ULTRA PLANT REGULATOR.</b>	
	Second application:	
	If the cotton field has a history of vigorous growth or if conditions continue to favor vigorous growth, make a third application 1 to 2 weeks after the second application.	

<sup>&</sup>lt;sup>2</sup> Use higher rates if previous application was not made or if growing conditions are conducive to vigorous growth.

Third application: If conditions after the second application of PIX ULTRA PLANT REGULATOR continue to favor vigorous growth, make a third application 1 to 2 weeks after the second application.	8 fluid ounces
Late season applications: Refer to Late Season Application in APPLICATION INSTRUCTIONS.	8 - 24 fluid ounces

In the absence of these stresses, up to 5 low-rate multiple applications can be made each season. After the first application (at matchhead square in the absence of stress), the rate and timing of subsequent applications will depend on vegetative vigor. Under good growing conditions, additional treatments should be made at 7- to 14-day intervals. However, if new growth at any time is excessive, higher rates of **PIX ULTRA PLANT REGULATOR** can be used.

If significant loss of squares or young bolls has occurred earlier due to insect pressure or other stresses, but now these stresses have been alleviated, the need for **PIX ULTRA PLANT REGULATOR** is increased - excess vegetative growth is likely because of poor fruit load.

## **Late Season Application**

Late application of **PIX ULTRA PLANT REGULATOR** (approximately during the fourth to sixth week of blooming) can provide certain benefits to cotton. However, it should not and does not substitute for early season use - the time of the greatest benefit from the use of **PIX ULTRA PLANT REGULATOR**. Late season application can lead to one or more of the following:

- Reduction in late season vegetative growth or regrowth after cutout or defoliation;
- More complete and manageable cutout;
- Better defoliation;
- Earlier maturity;
- · Reduction in trash;
- Lower ginning costs.

Some of these effects may favorably influence the yield potential and fiber quality. A late season application of **PIX ULTRA PLANT REGULATOR** should be applied only if fields are not drought or nutrient stressed; that is, those fields likely to experience additional vegetative growth or regrowth. However, fields that are very rank and extremely vigorous due to a combination of poor boll load and excellent growing conditions may not respond as much as desired to late season applications at the suggested rates.

## **Timing for Late Season Applications**

- On fields where cotton cuts out and then starts regrowth: Apply when regrowth begins; as evidenced by new leaves in the terminal and stem elongation. This application time is often, but not always, 5 to 6 weeks after the first bloom.
- On fields where cotton never completely cuts out: Apply PIX ULTRA PLANT REGULATOR when there are 4 to 6 nodes above the white flower (NAWF). Measure NAWF by counting the number of mainstream nodes from the first position white bloom (the one closest to the mainstem) to the terminal. Count the node with the first position white bloom as zero and the last node in the terminal, which is counted, should have a leaf at least the size of a quarter. Generally, the NAWF first reaches 4 to 6 nodes during the fourth to sixth week of bloom.
  - During this time, the NAWF should be decreasing about one node every 5 to 6 days if its rate of decrease is less, the plant is not cutting out soon enough (the crop is too vigorous). If the fifth week of bloom arrives and NAWF is still above 5 to 6, apply **PIX ULTRA PLANT REGULATOR.**

## **Use Rate for Late Season Application**

Apply 8 - 24 fluid ounces of **PIX ULTRA PLANT REGULATOR** per acre. Use the lower rate on cotton with only moderate additional growth potential, and the higher rate on fields likely to continue vigorous growth.

## **AIR APPLICATION**

#### Spray Volume

- Water as Diluent: Use a minimum of 2 gallons of spray solution per acre in all states except California. In California, use a minimum of 1 quart of oil per acre. When using oil as a diluent, the oil concentrate must contain either a petroleum or vegetable oil base and must meet all of the following criteria:
  - 1. be nonphytotoxic;
  - 2. contain only EPA-exempt ingredients;

- 3. provide good mixing quality in the jar test;
- 4. be successful in local experience.

The exact composition of suitable products will vary; however, vegetable and petroleum oil concentrates should contain emulsifiers to provide good mixing quality. If the oil does not contain an emulsifier, one must be added during mixing at a volume equal to 3% of the final volume of the mixing-tank. Do not apply PIX ULTRA PLANT REGULATOR ULV without using emulsifiers. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. For additional information, see Compatibility Test for Mix Components.

#### **GROUND APPLICATION**

#### Spray volume

• Water as Diluent: Use a minimum of 2 gallons of spray solution per acre in all states except California. In California, use a minimum of 5 gallons per acre.

## **SPRAY DRIFT**

## **Aerial Applications:**

- Applicators are required to use a <u>medium to coarser</u> droplet size, as defined by ASABE Standard S572.1.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.
- Do not release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.
- The spray boom must be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.
- When applying to crops via aerial application equipment, use 1/2 swath displacement upwind at the edge of the field.
- Orient nozzles so the spray is directed toward the back of the aircraft.

## **Ground Applications:**

- Applicators are required to use a <u>medium to coarser</u> droplet size, as defined by ASABE Standard S572.1.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.
- When using ground application equipment, apply with nozzle height no more than 3 feet above the ground or crop canopy.
- When applying via airblast, turn off outward spraying nozzles on the outside row of the vineyard. In addition, applications must be directed into the canopy foliage. Applications must not be made over the top of the canopy.

## **SPRAY DRIFT ADVISORIES**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.

BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

## IMPORTANCE OF DROPLET SIZE

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

## **Controlling Droplet Size – Ground Boom**

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

## **Controlling Droplet Size – Aircraft**

• Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

#### **BOOM HEIGHT – Ground Boom**

For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### **RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift.

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

#### **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

#### **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

#### WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

#### **ADDITIVES**

If rain is expected within 8 hours, use a high-quality, EPA-exempt surfactant to make **PIX ULTRA PLANT REGULATOR** rain-safe after 4 hours.

## COMPATIBILITY TEST FOR MIX COMPONENTS

Add components in the following sequence using 2 teaspoons for each pound or 1 teaspoon for each pint of specified label rate per acre.

- 1) **Water:** For 20 gallons per acre spray volume, use 3.3 cups (800 ml) of water. For other spray volumes, adjust rates accordingly. Use only water from the intended source at the source temperature.
- 2) **Products in PVA bags:** Cap the jar and invert 10 cycles.
- 3) **Water-dispersible products:** (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions) Cap the jar and invert 10 cycles.
- 4) Water-soluble products: (such as PIX ULTRA PLANT REGULATOR) Cap the jar and invert 10 cycles.
- 5) **Emulsifiable concentrates:** oil concentrate Cap the jar and invert 10 cycles.
- 6) Water-soluble additives: Cap the jar and invert 10 cycles.
- 7) Let the solution stand for 15 minutes.
- 8) **Evaluate** the solution for uniformity and stability. The spray solution should not have free oil on the surface, nor fine particles that precipitate to the bottom, not thick (clabbered) texture. Do not use any spray solution that could clog spray nozzles.

## **MIXING ORDER**

- 1) Water: Begin by agitating a thoroughly clean sprayer tank half full of clean water.
- 2) **Products in PVA bags:** Rinse the tank thoroughly before adding any material in PVA bags as boron rescue will prevent adequate mixing. Place the water-soluble PVA bag into the mixing-tank. The water-soluble PVA bag will dissolve in water to allow the contents to disperse. Wait until all water-soluble PVA bags have fully dissolved and the plant regulator is evenly mixed in the spray-tank before continuing.

To prepare spray solution for aerial application, use a mixing-tank or mixing-vat first to get the product into suspension before transferring suspension to air application equipment.

- 3) **Water-dispersible products:** (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions).
- 4) Water-soluble products.
- 5) Emulsifiable concentrates.
- 6) Water-soluble additives.
- 7) Remaining quantity water.

Only moderate agitation should be used while mixing and transporting.

#### **GENERAL TANK-MIXING INFORMATION**

PIX ULTRA PLANT REGULATOR has an aqueous base, and as such, is compatible with most insecticides and miticides. You may combine PIX ULTRA PLANT REGULATOR with foliar fertilizers if prior experience has shown the original liquid formulation of PIX ULTRA PLANT REGULATOR to be compatible and non-injurious under your conditions. Always perform a Compatibility Test for Mix Components before preparing a tank-mix application. Read and follow the applicable GENERAL RESTRICTIONS AND LIMITATIONS and DIRECTIONS FOR USE on all products involved in tank-mixing. The most restrictive labeling applies to tank-mixes.

## **GENERAL RESTRICTIONS AND LIMITATIONS**

- Maximum seasonal use rate: Do not apply more than a total of 48 fluid ounces (3 pints) of PIX ULTRA PLANT REGULATOR (0.132 pounds ai) per acre; per season.
- The sum of all products and formulations containing mepiquat chloride must not exceed 0.132 pounds of mepiquat chloride per acre per season. This maximum amount equals 48 fluid ounces (3 pints) of standard PIX or PIX ULTRA PLANT REGULATOR (0.35 pounds ai per gallon) or 8.4 fluid ounces of PIX concentrate (2.0 pounds) ai per gallon) or 0.375 pounds of PIX DF PLANT REGULATOR (35% active) or 1 water-soluble packet of PIX DF PLANT REGULATOR per 0.33 acre.
- Preharvest Interval (PHI): Do not apply within 30 days of harvest.
- Restricted Entry Interval (REI): 12 hours.
- Do not plant another crop within 75 days of last treatment.
- Stress: Do not apply to cotton plants under severe stress due to adverse weather conditions, mite, insect, or nematode damage, disease, herbicide injury, or fertility stress. If using the low-rate multiple option, discontinue use until the stress is alleviated. Do not apply a single application of 8 16 fluid ounces of PIX ULTRA PLANT REGULATOR to cotton that is stressed due to lack of soil moisture.
- Do not graze or feed cotton forage to livestock.
- Do not apply through any type of irrigation equipment.

**Table 3. Restrictions and Limitations** 

Crop	Minimum Time From Application To Harvest (PHI)	Maximum Rate Per Acre Per Application	Maximum Rate Per Acre Per Season	Livestock Grazing or Feeding	Aircraft Application
Cotton	30 days	24 fluid ounces (1.5 pints)	48 fluid ounces (3 pints)	No	Yes

CROPS:
This product can be used on the following crop:
Cotton
See Restrictions and Limitations
and APPLICATION INSTRUCTIONS.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Do not store below 32° F or above 100° F. Store in a dry place away from heat or open flame.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Wastes resulting from 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. Containers small enough to shake (5 gallons or 50 lb or less). Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix-tank and drain for 10 seconds after the flow begins to drip. Fill the container 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. Offer for recycling, if available, or dispose of in a sanitary landfill.

Nonrefillable container. Do not reuse or refill this container. Containers too large to shake (larger than 5 gallons or 50 lbs). Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty remaining contents into application equipment or a mix-tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and for the several times. Empty the rinsate into application equipment or a mix-tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling, if available, or dispose of in a sanitary landfill.

## **Warranty and Disclaimer Statement**

The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Such risks may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of UPL NA Inc. (UPL), and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. All such risks shall be assumed by the user or buyer.

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