



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460**

**OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION**

April 5, 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 DF PLANT REGULATOR
EPA Registration Number: 66330-349
Application Date: June 6, 2018
Decision Number: 572751

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,

A handwritten signature in blue ink, appearing to read 'Linda Arrington', with a stylized flourish at the end.

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[®] DF PLANT REGULATOR

FOR USE ON COTTON

ACTIVE INGREDIENT:	% BY WT.
Mepiquat chloride: N, N-dimethylpiperidinium chloride.....	35.0%
OTHER INGREDIENTS:.....	65.0%
TOTAL:	100.0%

KEEP OUT OF REACH OF CHILDREN

DANGER / PELIGRO

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

Complete First Aid Instructions affixed to front panel. See [Leaflet] [Booklet] for complete
Precautionary Statements and Directions for Use.

FIRST AID	
IF IN EYES:	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none"> Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. 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. 66330-349

EPA Est. No.:

NET CONTENTS:

[Batch Code will be placed on the container.]

Produced For:

ARYSTA LIFESCIENCE NORTH AMERICA, LLC

c/o UPL NA Ltd.

630 Freedom Business Center, Suite 402

King of Prussia, PA 19406 – 1-800-438-6071

ACCEPTED

Apr 05, 2021

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

66330-349

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: Corrosive. Causes irreversible eye damage. May be fatal if swallowed. Harmful if absorbed through skin. Do not get in eyes or on clothing. Avoid contact with skin. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants;
- Chemical-resistant gloves made of any waterproof material (nitrile rubber \geq 14 mils, butyl rubber \geq 14 mils, neoprene rubber \geq 14 mils, natural rubber \geq 14 mils, polyethylene, polyvinyl chloride (PVC) \geq 14 mils, viton \geq 14 mils, and/or barrier laminate);
- Shoes plus socks; and
- Goggles or face shield.

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

ENGINEERING CONTROLS STATEMENT

Water-soluble packets, when used correctly, qualify as a closed mixing/loading system under the Worker Protection Standard [40 CFR 170.607(d)]. Mixers and loaders handling this product while it is enclosed in intact water-soluble packets may elect to wear reduced PPE of long-sleeved shirt, long pants, shoes, socks, a chemical-resistant apron, and chemical-resistant gloves. When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment break-down."

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.

PHYSICAL OR CHEMICAL HAZARDS

Do not mix this product with a strong oxidizer.

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, and precautions 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 over long-sleeved shirt and long pants;
- Socks and shoes;
- Chemical-resistant gloves made of any waterproof material (nitrile rubber ≥ 14 mils, butyl rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride (PVC) ≥ 14 mils, viton ≥ 14 mils, and/or barrier laminate); and
- Goggles or face shield.

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.

GENERAL INFORMATION

PIX® DF PLANT REGULATOR is a foliar-applied plant regulator that modifies the cotton plant in several beneficial ways. It is the only such compound that allows the grower to manage the cotton plant for **short-season production leading** to reduced risk of yield and quality loss due to delayed and prolonged harvest.

The use of **PIX DF PLANT REGULATOR** will also 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.

This box contains **PIX DF PLANT REGULATOR**, a 35% water-dispersible granule in water-soluble packets inside a foil liner (outer bag). The inner packets dissolve in water and the contents will disperse and dissolve. Each foil bag contains eight water-soluble packets. Each packet contains 2 dry ounces (57 grams) of formulated product, equivalent to one pint of 4.2% (liquid) PIX plant regulator.

SPRAY COVERAGE

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

On both short-staple and Pima cotton, the grower has the option of low-rate multiple applications (see **Table 1**) or higher, less frequent dosages (see **Table 2**) which greatly facilitates management flexibility. The multiple application option gives the producer the ability to discontinue usage of **PIX DF PLANT REGULATOR** if any significant stresses occur after an earlier application. In such a case, the total quantity of **PIX DF PLANT REGULATOR** used over a season may be reduced. If stress is relieved, the grower has the option of continuing treatments with **PIX DF PLANT REGULATOR**. In addition, the rate and timing ranges indicated in the **Application Rates and Timing** tables allow the grower to tailor usage of **PIX DF 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 DF 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. 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 DF 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 DF PLANT REGULATOR** is increased --- excess vegetative growth is likely because of poor fruit load.

Late Season Application

Late application of **PIX DF 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 DF 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 DF 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 DF PLANT REGULATOR** when there are 4 to 6 nodes above the white flower (NAWF). Measure NAWF by counting the number of mainstem 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 DF PLANT REGULATOR**.

Use Rate for Late Season Application

Apply 1 packet of **PIX DF PLANT REGULATOR** per 2 acres to 1 packet of **PIX DF PLANT REGULATOR** per 0.66 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 water per acre in all states except California. In California, use a minimum of 5 gallons per acre.

Ground Application

Spray Volume

- **Water as Diluent:** Use 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 medium to coarser 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 medium to coarser 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.

INSTRUCTIONS FOR USING WATER-SOLUBLE PACKAGES DIRECTLY INTO SPRAY-TANKS:

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

HANDLING INSTRUCTIONS:

Follow these steps when handling pesticide products in WSPs.

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

MIXING INSTRUCTIONS

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

1. If a basket or strainer is present in the tank hatch, remove prior to adding the WSP to the tank
2. Fill tank with water to approximately one-third to one-half of the desired final volume of spray.
3. Stop adding water and stop any agitation.

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

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** should be observed as specified below. See section **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, MS, NC, NM, OK, SC, TN, TX, VA	First application: Optimal results will be achieved when plants are in the matchhead square ¹ stage of growth.	1 packet per 8 acres	1 packet per 4 acres
	Second application: 7 to 14 days later, or when regrowth occurs.	1 packet per 8 acres ²	1 packet per 4 acres ²
	Third application: 7 to 14 days later, or when regrowth occurs.	1 packet per 8 acres to 1 packet per 4 acres ²	1 packet per 4 acres to 1 packet per 2 acres ²
	Fourth application: 7 to 14 days later, or when regrowth occurs.	1 packet per 8 acres to 1 packet per 2 acres ²	1 packet per 4 acres to 1 packet per 1.33 acres ²
	Fifth application (if needed): 7 to 14 days later, or when regrowth occurs.	1 packet per 4 acres to 1 packet per 2 acres ²	1 packet per 4 acres to 1 packet per 1.33 acres ²
	Late season: Refer to Late Season Application of PIX DF PLANT REGULATOR	1 packet per 2 acres to 1 packet per 1 acre ²	1 packet per 1.33 acres to 1 packet per 0.66 acre ²

¹Matchhead 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.

²Use higher rates if previous application was not made or if growing conditions are conducive to vigorous growth.

Table 2. Application Rates and Timing

The times and rates of application have been carefully researched and **Application Instructions** should be observed as specified below. See **General Restrictions and Limitations**.

Geographic Area	Time of Application	Rate Per Acre
AL, AR, AZ, CA, FL, GA, LA, MO, MS, NM, NC, SC, TN, VA	First application: Apply PIX DF PLANT REGULATOR to actively growing cotton that is 20 to 30" tall, provided cotton is not more than 7 days beyond early bloom stage (5 to 6 blooms per 25 row feet). If cotton is 24" tall and has no blooms, apply PIX DF PLANT REGULATOR . Use 1 PVA packet per 4 acres on cotton where excessive vegetative growth is not likely to be a problem, and 1 packet per 2 acres in areas tending to have excessive vegetative growth.	1 packet per 2 acres to 1 packet per 1 acre
	Second application for control of excessive vegetative growth: If the cotton field has a history of vigorous growth or if conditions after the first application of PIX DF PLANT REGULATOR favor vigorous growth, make a second application 2 to 3 weeks after the first application.	1 packet per 2 acres to 1 packet per 1 acre
	Third application for control of excessive vegetative growth:	1 packet per 2 acres to 1 packet

	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.	per 1 acre
	Late season application: Refer to Late Season Application in Application Instructions .	1 packet per 2 acres to 1 packet per 0.66 acre
OK, TX (except Rio Grande Valley)	Areas where excessive vegetative growth is not a problem First application: Apply PIX DF PLANT REGULATOR to actively growing cotton in the early bloom stage (5 to 6 blooms per 25 row feet). If no blooms are present and the cotton is 20" tall and actively growing, apply PIX DF PLANT REGULATOR .	1 packet per 2 acres
	Second application: If conditions after the first application of PIX DF PLANT REGULATOR favor vigorous growth, make a second application 2 to 3 weeks after the first application.	1 packet per 2 acres
	Third application: If conditions after the second application of PIX DF PLANT REGULATOR continue to favor vigorous growth, make a third application 1 to 2 weeks after the second application.	1 packet per 1 acre
	Late season application: Refer to Late Season Application in Application Instructions .	1 packet per 2 acres to 1 packet per 0.66 acre
OK, TX (including Rio Grande Valley)	Areas where excessive vegetative growth is a problem First application: Apply PIX DF PLANT REGULATOR to actively growing cotton that is 20 to 30" tall, provided cotton is not more than 7 days beyond early bloom stage (5 to 6 blooms per 25 row feet). If cotton is 24" tall and has no blooms, apply PIX DF PLANT REGULATOR .	1 packet per 1 acre
	Second application for control of excessive vegetative growth: If cotton field has a history of vigorous growth, or conditions after the first application of PIX DF PLANT REGULATOR favor vigorous growth, make a second application 2 to 3 weeks after the first application.	1 packet per 2 acres to 1 packet per 1 acre
	Third application: If conditions after the second application of PIX DF PLANT REGULATOR continue to favor vigorous growth, make a third application 1 to 2 weeks after the second application.	1 packet per 2 acres to 1 packet per 1 acre
	Late season application: Refer to Late Season Application in Application Instructions .	1 packet per 2 acres to 1 packet per 0.66 acre

Table 3. Conversion Table

Rate of PIX DF PLANT REGULATOR compared to original PIX (4.2%)	
Amount of PIX DF PLANT REGULATOR per acre	Amount of PIX (4.2%)
0.125 packet	2 fluid ounces (0.125 pint)
0.25 packet	4 fluid ounces (0.25 pint)
0.5 packet	8 fluid ounces (0.5 pint)
1.0 packet	16 fluid ounces (1.0 pint)
1.5 packets	24 fluid ounces (1.5 pints)
2.0 packets	32 fluid ounces (2.0 pints)
2.5 packets	40 fluid ounces (2.5 pints)
3.0 packets	48 fluid ounces (3.0 pints)

Additives

If rain is expected within 8 hours, use a high-quality, EPA-exempt surfactant to make **PIX DF 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 recommended 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 DF 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, nor 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 residue will prevent adequate mixing. After opening foil outer bag, place one or more of the inner packets into the mixing-tank. If all water-soluble packets are not used, carefully reseal the foil bag. 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) Remaining quantity water.

Only moderate agitation should be used while mixing and transporting.

General Tank-Mixing Information

PIX DF PLANT REGULATOR is readily soluble in water. Once dissolved, it is compatible with most insecticides and miticides. You may combine **PIX DF PLANT REGULATOR** with foliar fertilizers if prior experience has shown the original liquid formulation of **PIX DF PLANT REGULATOR** to be compatible and non-injurious under your conditions. Always add **PIX DF PLANT REGULATOR** to water in the spray-tank and allow the contents to dissolve before adding insecticides or miticides and always perform a **Compatibility Test for Mix Components** before preparing a tank-mix application.

Read and follow the applicable **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 3 packets of **PIX DF 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 ai** of mepiquat chloride per acre per season. This maximum amount equals **48 fluid ounces (3 pints)** of standard **PIX** (0.35 pounds ai per gallon) or **8.4 fluid ounces of PIX Concentrate** (2.0 ai pounds per gallon) or **0.375 pound ai 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.
- Do not use **PIX DF PLANT REGULATOR** in ultra-low volume applications.
- **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 1 packet of **PIX DF PLANT REGULATOR** per 2 acres to 1 packet of **PIX DF PLANT REGULATOR** per 1 acre 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 4. Restrictions and Limitations

Crop	Minimum Time from Application	Maximum Rate Per Acre Per		Livestock Grazing or	Aircraft Application
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		Application	Maximum Rate Per Acre Per Season	Feeding	
Cotton	30 days	1.5 packets	3 packets	No	Yes

Crops:
This product can be used on the following crops:
Cotton
Look inside for complete Restrictions and Limitations and Application Instructions .

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Do not store this product in proximity to a strong oxidizer.

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. Offer for recycling, if available, or dispose of outer bag in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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.

UPL warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions. This warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to UPL, and is subject to the inherent risks described above.

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