Reg # 7969-52 PM-22 179

Robert Rohde
BASF Corporation
Agricultural Products
P.O. Box 13528
Research Triangle Park, NC 27709-3528

Dear Mr. Rohde:

Subject: Label Amendments - Modification to the Directions For Use
PIX Plant Regulator
EPA Reg No 7969-52
PIX Concentrate Plant Regulator
EPA Reg No 7969-97
Your Submissions Dated February 28, 1992

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, are acceptable provided that you:

Change the first sentence under Environmental Hazards to "Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark."

On page 6, Column 1, delete the first OK, TX (except Rio Grande Valley) since this second application applies to the geographic area AL, AR etc.

Submit five copies of your final printed labeling before you release the product for shipment.

A stamped copy of each draft label is enclosed for your records.

Sincerely,

(S)

Cynthia L. Giles-Parker
~~Product Manager (22)~~
~~Fungicide-Herbicide Branch~~
Registration Division (H7505C)

Enclosures

	CONCURRENCE					
SYMBOL	H7505C					
SURNAME	D. Wilson					
DATE	12-14-92					

EPA Form 1320-1A (1/90)

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BASF

February 20, 1992

ACCEPTED
with COMMENTS
In EPA Letter Dated:

1 0 1992

Under the Federal Insecticide ...icide, and Rodenticide Act ...mended, for the pesticide ...red under EPA Reg. No. 7969-52

Pix®

plant regulator

Active Ingredient*	
Mepiquat Chloride:	
N,N-dimethylpiperidinium chloride	4.2%
Inert Ingredients	95.8%
TOTAL	100.0%

*Equivalent to 0.35 pounds active ingredient per gallon.

EPA Reg. No. 7969-52

KEEP OUT OF REACH OF CHILDREN

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.

Environmental Hazards

Keep out of lakes, ponds or streams. Do not contaminate water when disposing of equipment washwaters.

Net contents 1 gallon

BASF Corporation
P.O. Box 13528
Research Triangle Park
North Carolina 27709-3528

DIRECTIONS FOR USE

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

IN CASE OF EMERGENCY

In case of large-scale spillage regarding this product, call:

CHEMTREC. 800-424-9300
BASF CORPORATION. . . . 800-832-HELP

In case of medical emergency regarding this product, call:

1. Your local doctor for immediate treatment.
2. Your local poison control center (hospital).
3. BASF CORPORATION. . 800-832-HELP

STORAGE AND DISPOSAL

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

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: Triple rinse container (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

General Information

Pix® plant regulator is a foliar applied plant regulator which modifies the cotton plant in several bene.icial ways. It is the only such compound which 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 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; and darker green leaf color. Most of these effects often favorably influence the yield potential of the cotton plant.

On both short-staple and Pima cotton, the grower has the option of single, dual, or up to four low-rate multiple applications, which greatly facilitates his management flexibility. One of the major factors affecting cotton growth and development is soil moisture. If significant drought stress occurs when PIX is applied, or occurs after a full rate (½-1 pint) is applied, results may not be optimal.The low-rate multiple option gives the producer the ability to discontinue usage of PIX if any significant stresses occur after an earlier application; in such a case, the total quantity of PIX used over a season may be reduced. If stress is relieved, the grower has the option of continuing treatments with PIX. In addition, the rate range indicated allows the grower to tailor his usage of PIX 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 Restrictions and limitations) Fields should be carefully scouted and PIX 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 four low-rate multiple applications could be made each season, generally using ⅛-¼ pt/A each time. After the first application (at matchhead square in the absence of stress), the rate and timing of subsequent application(s) will depend on vegetative vigor; under good growing conditions, additional treatments (⅛-¼ pt/A) should be made at 7-14 day intervals. However, if new growth at any time is excessive, higher rates of PIX (¼-½ pt/A) can be used. If significant loss of squares and/or young bolls has occurred earlier due to insect pressure or other stresses, but now these stresses have been alleviated, the need for PIX is increased - excess vegetative growth is likely because of poor fruit load. Total use per season should not exceed 1½ pts/A.

SPRAY VOLUME

Water as diluent

Ground and aerial application:
When applying PIX with ground equipment, in all states but California, use a minimum of two gallons of water per acre; in California, use a minimum of five gallons per acre. For aerial application in all states but California, use a minimum of two gallons of water per acre; in California, use a minimum of five gallons per acre. Regardless of method or gallonage of application, thorough coverage of the cotton foliage is required.

Oil as diluent

Ultra low volume (ULV) aerial application:
Only permitted in the following states: AL, AR, FL, GA, LA, MO, MS, NC, OK, SC, TN, and TX. A non-phytotoxic oil concentrate should be used which must contain either a petroleum or vegetable oil base and must meet the following criteria: (1) be non-phytotoxic; (2) contain only EPA-exempt ingredients; and (3) be successful in local experience. The exact composition of suitable products will vary; however, vegetable and petroleum oil concentrates should contain emulsifiers which 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 no apply PIX ULV without using emulsifiers. It is recommended that vegetable oil concentrates be highly refined.

Mixing Directions

Oil as Diluent:
While agitating, pour approximately one-half of the required volume of oil (total final spray solution at least 2 pts/A) into the mixing tank, followed by the emulsifier (if the oil does not already contain one) at approximately 3% of the final spray tank volume, and then simultaneously pour in the PIX and the remainder of the oil. Only moderate agitation should be employed while mixing and transporting.

RAIN-SAFE AND COMPATIBILITY

Rain-safe period:
If rain is expected within 8 hours, use of a high quality, EPA-exempt surfactant is recommended, which will result in a rain-safe period of 4 hours.

Compatibility:
PIX has an aqueous base, and as such is compatible with most insecticides and miticides. If in doubt, test compatibility by adding a teaspoon of the insecticide or miticide to a pint of ready-to-use spray solution of **PIX**. You may combine **PIX** with foliar fertilizers if your prior experience has shown the combination to be compatible and non-injurious under your conditions.

RESTRICTIONS AND LIMITATIONS

Significant insect or mite damage after application(s) of **PIX** is likely to eliminate or greatly reduce the benefits derived from **PIX**.

Do not apply a single application of ½ - 1 pint of **PIX** to cotton that is drought stressed; i.e., stressed due to lack of soil moisture. If using the low-rate multiple option, discontinue use until the moisture stress is alleviated.

Do not apply more than 1½ pints of **PIX** per acre per season.

Do not apply **PIX** within 30 days of harvest.

Do not graze or feed cotton forage to livestock within 30 days of application, or after applying **PIX** in oil as a ULV application by air.

The pink color of **PIX** may fade under some conditions; however, effectiveness is not related to color of spray solution nor the color of **PIX**.

Do not tank mix with other products other than those mentioned under **Compatibility**.

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

TIME AND RATE OF APPLICATION: SHORT-STAPLE AND LONG-STAPLE (PIMA) COTTON

The times and rates of application have been carefully researched and the Directions for use should be observed as specified below.

Single or Dual Applications

AREA	TIME OF APPLICATION	RATE PER ACRE
AL, AR, AZ, CA, FL, GA, LA, MO, MS, NM, NC, SC, TN, VA	**First application:** Apply when cotton is actively growing and is between 20" and 30" tall, provided cotton is not more than 7 days beyond early bloom stage (5-6 blooms per 25 row feet). If cotton is 24" tall and has no blooms, apply PIX. Use ½ pint per acre on cotton where excessive vegetative growth is not likely to be a problem, and 1 pint per acre in areas tending to have excessive vegetative growth. See Restrictions and limitations.	½ to 1 pint
OK, TX (except Rio Grande Valley)	**Second application for control of excessive vegetative growth:** If the cotton field has a history of vigorous growth, and/or conditions after the first application of PIX favor vigorous growth, apply a second application 2 to 4 weeks after the first application.	½ pint
OK, TX (except Rio Grande Valley)	Areas where excessive vegetative growth is not a problem **First application:** Apply when cotton is in early bloom stage (5-6 blooms per 25 row feet) and actively growing. If no blooms are present and the cotton is 20" tall and actively growing, apply PIX. See Restrictions and limitations.	½ pint
	Second application: If conditions after the first application of PIX favor vigorous growth, apply a second application 2-4 weeks after the first application.	½ pint
OK, TX	Areas where excessive vegetative growth is a problem **First application:** Apply when cotton is actively growing and between 20" and 30" tall, provided cotton is not more than 7 days beyond early bloom stage (5-6 blooms per 25 row feet). If cotton is 24" tall and has no blooms, apply PIX).	1 pint
	Second application for control of excessive vegetative growth If cotton field has a history of vigorous growth, and/or conditions after the first application of PIX favor vigorous growth, apply a second application 2-4 weeks after the first application.	½ pint

Low-rate Multiple Applications

GEOGRAPHIC AREA (STATES)	TIME OF APPLICATION	AVG. HISTORICAL USE RATE = ½ PINT/A (OR = NEW USERS OF PIX)	AVG. HISTORICAL USE RATE = 1 PINT/A (OR = FULLY IRRIGATED)
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* stage of growth.	⅛ pint	¼ pint
	Second application: 7-14 days later, or when regrowth occurs.	⅛ to ¼ pint	¼ to ½ pint*
	Third application: 7-14 days later, or when regrowth occurs.	⅛ to ¼ pint	¼ to ½ pint*
	Fourth application: 7-14 days later, or when regrowth occurs.	⅛ to ¼ pint	¼ to ½ pint*

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

*matchhead square is when the first square of a typical cotton plant is 1/8-1/4" in diameter. The first application should go on when 50% of the plants have one or more matchhead squares.

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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 should be followed carefully. However, it is impossible to eliminate all risks inherently associated with 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. 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. BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. IN NO CASE SHALL BASF OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, 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.

ADDITIONAL INFORMATION

For additional information concerning this label and the use of PIX, call BASF's "COMMSERV" at 1-800-367-8896.

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