PM 22 1812-426 11/08/99 1/11

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (H7505C)
401 "M" St., S.W.
Washington, D.C. 20460

NOTICE OF PESTICIDE:
__x__ Registration
_____ Reregistration

(under FIFRA, as amended)

EPA Reg. Number:	Date of Issuance:
1812-426	NOV 8 1999

Term of Issuance: Conditional

Name of Pesticide Product: Mepex Plus-CP

Name and Address of Registrant (include ZIP Code):

Griffin LLC
P.O. Box 1847
Valdosta, GA 31603-1847

Note: *Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.*

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.

2. Make the following label changes:
   a. Revise the EPA Registration Number to read, "EPA Reg. No. 1812-426 ".

3. Submit one copy of the revised final printed label for the record.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Signature of Approving Official:	Date:
/s/	NOV 8 1999

2/11

MEPEX PLUS-CP

A co-pack containing Mepiquat chloride and various plant hormonal compounds for use on cotton.

For medical emergencies involving this product, call toll Free 1-888-324-7598

See Label for Additional Precautions and Directions for Use

ACCEPTED
with COMMENTS
In EPA Letter Dated:
NOV 8 1999
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 1812-406

Net Contents

GRIFFIN L.L.C.
Valdosta, GA 31601

EPA Registration No. 1812-UEA
EPA Establishment No. _____

GRIFFIN PGR I
PLANT REGULATOR

ACTIVE INGREDIENT*

Mepiquat chloride:
N,N-dimethylpiperidinium chloride.....4.2%
INERT INGREDIENTS.....95.8%
TOTAL.....100.0%

*Contains 0.35 pounds active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

Statement of Practical Treatment

If in eyes: Flush with plenty of water. Get Medical attention if irritation persists.

GRIFFIN PGR II
PLANT GROWTH REGULATOR

ACTIVE INGREDIENTS

*Cytokinins, as Kinetin.....0.0900%
*Gibberellic Acid.....0.0300%
*Indole Butyric Acid.....0.0450%
INERT INGREDIENTS.....99.8350%
TOTAL.....100.0000%

Contains 26.8 mg cytokinins per fluid ounce
Contains 13.4 mg indole butyric acid per fluid ounce
Contains 8.9 mg gibberellic acid per fluid ounce
*Hormone like compounds in a nutrient solution to stimulate plant growth. Concentrations based on biological activity.

KEEP OUT OF REACH OF CHILDREN

CAUTION

STATEMENT OF PRACTICAL TREATMENT

IN ON SKIN: Wash with plenty of soap and water. Get medical attention.
IF IN EYES: Flush eyes with plenty of water. Call a physician if irritation persists.
See label for Additional Precautions and Directions for Use.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

GRIFFIN PGR I
PLANT REGULATOR

Avoid contact with eyes, skin, or clothing. Incase of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

GRIFFIN PGR II
PLANT GROWTH REGULATOR
CAUTION

Harmful if absorbed through the skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Causes eye irritation

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:
-Long-sleeved shirt and long pants
-Waterproof gloves and shoes plus socks
Follow manufacturers instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Control 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

User should:
-Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
-Remove clothing 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 washwaters.

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.

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 involve contact with anything that has been treated, such as plants, soil, or water, is:

-Coveralls
-Waterproof gloves
-Shoes plus socks

STORAGE AND DISPOSAL

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

PGR I:

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: **Plastic containers:** 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.

PGR II:

Do not contaminate water, food or feed by storage or disposal. Protect from freezing. Store out of direct sunlight.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Triple rinse (or equilivant). Then offer for recycling or puncture and dispose in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. The container may also be wrapped in newspaper after emptying, and dispose in household trash.

GENERAL INFORMATION

MEPEX PLUS-CP plant regulator is a foliar applied plant regulator, which modifies the cotton plant in several beneficial 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. Mepex Plus CP consists of two products: Griffin PGR1 and Griffin PGR II. The use of Griffin PGR I 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; and darker green leaf color. Most of these effects often favorably influence the yield potential of the cotton plant. Griffin PGR II is a tool to increase plant efficiency. Test results have shown that this product can stimulate higher yields through a larger root mass, earlier fruiting and increased fruit retention.

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 and Ground Application** sections for spray volumes.

Regardless of the 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, The multiple application option gives the producer the ability to discontinue usage of MEPEX Plus-CP if any significant stresses occur after an earlier application. In such a case, the total quantity of MEPEX Plus-CP used over the season may be reduced. If stress is relieved, the grower has the option of continuing treatments with MEPEX Plus-CP. In addition, the rate and timing ranges indicated in the **Application Rates and Timings Table** allow the grower to tailor his usage of MEPEX Plus-CP 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 section **General Restrictions and Limitations**)

Fields should be carefully scouted and MEPEX Plus-CP 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 7-14 day intervals. However, if new growth at any time is excessive, higher rates of MEPEX Plus-CP 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 MEPEX Plus-CP is increased - excess vegetative growth is

likely because of poor fruit load.

Air Application

Spray Volume

1. **Water as Diluent:** Use a minimum of 2 gallons of water per acre in all state except California. In California, use a minimum of 5 gallons per acre.
2. **Oil as Diluent:** 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:
   - be nonphytotoxic
   - contain only EPA-exempt ingredients
   - provide good mixing quality in the jar test
   - 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 MEPEX Plus-CP 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.***

Drift Management

Avoiding spray drift at the application site is the responsibility of the applicator. The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

Application Height: Applications should not be made more than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest safe height reduces exposure of droplets to evaporation and wind.

Boom Length: The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor. Reducing this length may further reduce drift without reducing swath width.

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

Wind: Drift potential is lowest between wind speeds of 2-10 mph. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. Note: Local terrain can influence wind patterns. Every application should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity: When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are bot hot and dry.

Controlling Droplet Size

The most effective way to reduce drift potential is to apply large droplets. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions.

Pressure: Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increased pressure.

Number of Nozzles: Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation: Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

Nozzle Type: Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets. Use a nozzle type that is designed for the intended application. With most nozzles, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Temperature Inversion

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin for 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 form 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

The pesticide should 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, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

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.

9/11

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	Application Rate Per Acre PGR1	PGR2
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.	4 Fl. Oz.	2 Fl. Oz.
	Second application: 7-14 days later, or when regrowth occurs.	4 Fl. Oz.	2 Fl. Oz.
	Third application: 7-14 days later, or when regrowth occurs.	4 Fl. Oz.	2 Fl. Oz.
	Fourth application: 7-14 days later, or when regrowth occurs.	4 Fl. Oz.	2 Fl. Oz
	Fifth application: (If needed) 7-14 days later, or when regrowth occurs.	4 Fl. Oz.	2 Fl. Oz

** 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.

Additives
If rain is expected within 8 hours, use a high-quality EPA-exempt surfactant to make MEPEX Plus-CP 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, use3.3 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 MEPEX Plus-CP) 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, for fine particles that precipitate to the bottom, nor thick (clabbered) texture. Do not use any spray solution that cold clog spray nozzles.

TANK MIX DIRECTIONS

Fill spray tank one half full of water and begin agitation. Pour content of both containers into spray tank and finish filling tank to desired level.

General Restrictions and Limitations

I. **Maximum seasonal use rate: Rate for Mepex Plus CP (PGR I/PGR II).** Do not apply more than a total of 20 fl. oz. of Griffin PGR I (0.055 lbs. a.i. per acre per season). Do not apply more than a total of 10 fl. ozs. of PGR II per season.

II. Pre-harvest interval (PHI): Do not apply within 30 days of harvest.

III. Restricted Entry Interval (REI): 12 hours.

IV. Do not plant another crop within 75 days of last treatment

V. **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 graze or feed cotton forage to livestock.

VI. Do not apply through any type of irrigation equipment.

Table 2. Restrictions and Limitations

Crop Cotton	Minimum Time from Application to Harvest (PHI)	Maximum Rate of Griffin PGR I Per Acre Per Application	Maximum Rate of Griffin PGR I per Acre Per Season	Livestock Grazing or Feeding	Aircraft Application
Griffin PGR I	30 days	4 fl. oz.	20 fl. oz.	no	Yes
Griffin PGR II	30 days	2 fl. oz.	10 fl. oz.	no	yes

Crops
This product can be used on the following crop (s)

Cotton
Read label for complete **Restrictions and Limitations** and **Application Instructions**

WARRANTY STATEMENT

GRIFFIN warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. 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 the manner of use or application, all of which are beyond the control of GRIFFIN. In no case shall GRIFFIN be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the Buyer. The exclusive remedy of any buyer or user of this product for any and all losses, injuries, or damages resulting from or in any way arising from the use, handling, or application of this product, whether in contract, warranty, tort, negligence, strict liability, or otherwise, shall not exceed the purchase price paid for this product or at GRIFFIN'S election, the replacement of this product GRIFFIN MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANATY EXCEPT AS STATED ABOVE.