

PM 22

U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Progra Registration Division (7505C) 401 "M" St., S.W. Washington, D.C. 20460

NOTICE OF PESTICIDE:

x Registration Reregistration

(under FIFRA, as amended)

EPA Reg.

5-19-97

Date of Issuance: MAY | 9 | 1997

264-564 Term of Issuance:

Conditional

Name of Pesticide Product:

Finish Brand Harvest Aid For Cotton

Name and Address of Registrant (include ZTP Code):

Rhone-Poulenc AG Company P.O. Box 12014, 2 T.W. Alexander Drive Research Triangle Park, NC 27709-2014

Note: Changes in labeling differing in substance from that accepted in connection with this registration must he submitted to and accepted by the Registration Division prior to use of the label in commerce, 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)(C) provided that you:

- 1. Submit by December 31, 1998 the following Studies conducted on accordance with the Good Laboratory Practice Standards, 40 CFR Part 160 and appropriate test quidelines as referenced in EPA's Data Requirements for Registration Regulations, 40 CFR Part 158:
 - A Rat Unscheduled DNA Synthesis (UDS) Test [Guideline Line Number (GLN) 84-4]
 - b. Tier II Vegetative Vigor and Seedling Emergence Studies [GLN 123-1]
 - c. Storage Stability Data for Field Dissipation Study [GLN 164-1] (the stability data is currently awaiting EPA review)
- Add the phrase "EPA Registration No. 264-564" to your label before you release the product for shipment.

Signature of Approving Official:

Date:

MAY 1.9 1997

EPA Form 8570-6

page 2 ______EPA Req. No. 264-564

3. Submit production information (pounds or gallons produced) for this product for the fiscal year in which the use on cotton is conditionally registered, in accordance with FIFRA section 29. The fiscal year begins October 1, and ends September 30. The product information will be submitted to the Agency no later than November 15, following the end of the preceding fiscal year.

This information is to be submitted to:

Registration Support Branch Registration Division (7505W) Environmental Protection Agency Washington, DC 20460

4. Submit one (1) copy of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of final printed labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 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.

Cynthia Giles-Parker Team Leader (22) Fungicide Branch Registration Division (7505C)

Enclosure

FINISH®

brand HARVEST AID FOR COTTON

ACTIVE INGREDIENTS: Ethephon * (2-chloroethyl)phosphonic acid	35.1%
Cyclanilide** 1-(2,4-dichlorophenylaminocarbonyl)-cycloprop	
TOTAL	
* This product contains 4.0 pounds ethephon per gallon ** This product contains 0.5 pounds cyclanilide per gallon	

EPA Reg. No. 264-564

EPA Est. No. 264-PA-1

KEEP OUT OF REACH OF CHILDREN DANGER PELIGRO

Si usted no entiende la étiqueta, 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.)

For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577

For PRODUCT USE Information Call 1-800-334-9745

STATEMENT OF PRACTICAL TREATMENT

IF IN EYES: Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Get medical attention, preferably an ophthalmologist.

Call a physician in cases of suspected poisoning. If poisoning is suspected in animals, call a veterinarian.

IF SWALLOWED: Do not induce vomiting. Promptly drink a large quantity of milk, egg whites, gelatin solution or if these are not available, drink large quantities of water. Avoid alcohol. Call a physician immediately.

IF ON SKIN: Immediately wash with plenty of soap and water.

IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration. Administer oxygen if necessary. Get medical attention.

NOTE TO PHYSICIAN

Treat symptomatically. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. No specific antidote is available. Probable mucosal damage may contraindicate the use of gastric lavage.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER

Corrosive. Causes îrreversible eye damage. Harmful if swallowed. Harmful if inhaled or absorbed through the skin. Causes skin irritation. Do not get in eyes on skin or clothing. Avoid breathing vapor or spray mist. Keep away from domestic animals. Avoid contamination of food.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear long-sleeved shirts and long pants, waterproof gloves, shoes plus socks and protective eye wear.

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

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.

ACCEPTED
with COMMENTS
In EPA Letter Dated

MAY 1 9 1997

Under the Federal Insecticide, Fundicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. BEST AVAILABLE COPY

64-564

User Safety Recommendations

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove clothing immediately if pesticide gets inside. Then wash body thoroughly and put on clean clothing.

User should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing. Wash the outsides of gloves before removing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Do not contaminate water used for irrigation or domestic purposes.

This chemical has properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

SPRAY DRIFT

Avoid spray drift. Do not apply when weather conditions may cause drift. Do not allow this product to drift on to non-target areas. Drift may result in illegal residues or injury to adjacent crops and vegetation, in the form of leaf yellowing and defoliation. To avoid spray drift, DO NOT apply aerially when wind speed is greater than 10 mph or during periods of temperature inversions. Use of larger droplet size will also reduce spray drift.

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target 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.

- 1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor,
- 2. 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.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory below:

AERIAL DRIFT REDUCTION ADVISORY

[This section is advisory in nature and does not supersede the mandatory label requirements].

INFORMATION ON DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (See Wind, Temperature and Humidity, and Temperature Inversions).

CONTROLLING DROPLET SIZE

Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

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 increasing 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.

Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, 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.

BOOM LENGTH

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

APPLICATION HEIGHT

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

SWATH ADJUSTMENT

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator should 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. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

When 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 both hot and dry.

TEMPERATURE INVERSIONS

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 to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SENSITIVE AREAS

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).

DIRECTIONS FOR USE

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

Read entire label before using this product.

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 regulations.

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), notification to workers and restricted-entry intervals. 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 48 hours. The REI is 72 hours in areas where average rainfall is less than 25 inches per year.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with hything that has been treated such as plants, soil or water is coveralls, waterproof gloves, shoes plus socks and protective eyewear.

Notify workers of the application by warning them orally and posting warning signs at entrances to treated areas.

STORAGE AND DISPOSAL

STORAGE

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

PESTICIDE DISPOSAL

Pesticide wastes are hazardous. Do not contaminate water, food, or feed by storage or disposal. 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 (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, by incineration or if allowed by state and local authorities, by open burning. If burned, stay out of smoke.

GENERAL INFORMATION

A foliar spray of FINISH® brand Harvest Aid For Cotton will accelerate opening of mature cotton bolls, defoliate leaves and inhibit terminal regrowth of foliage. FINISH® brand Harvest Aid For Cotton treatment promotes earlier harvest and enhances the potential for high quality, high yield, once-over harvest.

SPRAY PREPARATION

SHAKE WELL BEFORE USING. Add 1/2 to 3/4 of the required amount of water to the spray tank. Start agitation. Add the required amount of FINISH® brand Harvest Aid For Cotton, and the remaining amount of water. Mix only as much spray solution as can be used on the day of application. Storage and use of previous day's spray mix may result in equipment corrosion and reduced activity.

Do not spill the concentrated product on spray equipment, or any airplane parts. ANY SPILLS SHOULD BE IMMEDIATELY RINSED WITH PLENTY OF WATER AS FINISH[®] IS CORROSIVE. Use of a nurse tank is highly recommended for avoiding possible spills of concentrated formulation on spray equipment.

TANK MIXTURES WITH OTHER PRODUCTS

FINISH® brand Harvest Aid For Cotton may be applied as a tank mix or in sequential application with other harvest aid and insecticide products.

In some cases, crop conditions, such as rank growth or weed or insect infestation, will require the inclusion of other products. FINISH® brand Harvest Aid For Cotton can be mixed or sequentially applied with other products such as DEF® 6, FOLEX® 6EC, DROPP® 50WP, HARVADE® 5F, GINSTAR®, DROPP® ULTRA™, ROUNDUP®, METHYL PARATHION 4E or 4 lb, GUTHION® 2L or 3 and MALATHION™ 57EC for use on cotton in accordance with the most restrictive of the label limitations and precautions. No label dosage rates should be exceeded. Proper mixing sequences should be followed when making a tank mix. This product cannot be mixed with any product containing a label prohibition against such mixing. Follow all applicable use precautions and rate per acre recommendations on labels of products applied as tank mixtures or in sequence with FINISH®. In some cases, slight reduction in boll opening response has been observed when tank mixes with defoliants were used.

Under some conditions such as high temperatures or low soil moisture, tank mixtures with products such as FOLEX®, DEF®, GINSTAR® and METHYL PARATHION may result in leaf stick or leaf burn due to increased desiccation activity. To minimize leaf stick and leaf burn occurrence under these conditions, it is important to follow local recommendations and use the lower labeled rate of the tank mix partner product(s).

To not tank mix FINISH® brand Harvest Aid For Cotton with a desiccant if the cotton is to be spindle harvested.

Good agitation in the spray tank is essential. A tank mixture should not be allowed to stand without agitation for more than 5 to 10 minutes. Read and observe all appropriate label use directions and precautions for the defoliants used.

FINISH® brand Harvest Aid For Cotton and tank mixtures of FINISH® may be mixed with adjuvants which are cleared for application on cotton. FINISH® should be added to the tank prior to the addition of an adjuvant. Read and observe all appropriate label use directions and precautions for the adjuvant used.

NOTE: UNDER CERTAIN CONDITIONS, TANK MIXTURES OF FINISH® BRAND HARVEST AID FOR COTTON WITH DESICCANTS CONTAINING SODIUM CHLORATE COULD RESULT IN THE FORMATION OF A HYPOCHLOROUS ACID WHICH ON HEATING WILL EMIT TOXIC CHLORIDE FUMES.

DO NOT MIX FINISH® BRAND HARVEST AID FOR COTTON WITH AMMONIUM THIOSULPHATE. SUCH TANK MIXTURES MAY RESULT IN FORMATION OF TOXIC FUMES.

EQUIPMENT CLEANING

Because of the acidic nature of this product, prolonged exposure to spray deposit will damage acrylic plastics, certain paints and metals.

Rinse thoroughly with detergent and water all exposed acrylic plastic-type materials (e.g. aircraft windshields), and painted surfaces within an hour after exposure to spray deposits.

At the end of each day, rinse thoroughly with detergent and water all metal parts of the aircraft and the associated spray equipment apposed to the spray deposits.

COTTON

USE	EXPECTED CONDITIONS	FINISH® brand HARVEST AID FOR COTTON RATE	MINIMUM SPRAY VOLUME GALLONS PER ACRE*		TIME OF APPLICATION
		QUARTS/ACRE	GROUND	AIR	
Boll Opening, Defoliation, and Terminal Regrowth Inhibition	Hot, dry over 80° F Dry 75 to 80° F	1 1 1/2	10	2**	Sufficient mature unopened bolls present to produce desired crop.
	Cool, but over 65° F	2		**In California use a minimum of 5GPA.	See definition of boli maturity below.
	Rank cotton	2			
	NOTE: Crop should be in cutout condition.				

^{*} For best performance, by ground or air application, choose equipment and spray volumes that will insure uniform coverage of foliage and bolls.

SE PRECAUTION

Do not apply FINISH® brand Harvest Aid For Cotton if rain is expected within 6 hours. Rainfall within 6 hours of application may reduce product performance.

RESTRICTIONS

- Do not harvest cotton sooner than 7 days after a treatment with FINISH[®] brand Harvest Aid For Cotton.
- · Do not apply this product through any kind of irrigation equipment.
- Do not plant small grain or leafy vegetable crops within 1 month after last application. Small grains planted earlier than 1 month or intercropped within the cotton crop to which FINISH® will be applied may only be used as cover crops and may not be harvested for food or feed. FINISH® may cause yellowing and growth inhibition of treated small grains.
- Do not plant any crops other than small grain and leafy vegetable crops within 4 months after last application.
- Do not exceed a maximum of 2.0 lb ethephon active ingredient per acre per year through combined or repeated uses of any
 ethephon products.
- · Do not exceed 0.25 lbs cyclanilide active ingredient per acre per year.

BOLL MATURITY

) boll is mature when it is too hard to be dented when squeezed between the thumb and fingers, too hard to be sliced with a sharp knife, and when the seed coat becomes light brown in color.

WHEN TO HARVEST COTTON

Observe the treated crop and harvest when optimum boll opening has been reached. Premature or late harvest may reduce the full advantage of the FINISH® treatment.

LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants that this product conforms to the chemical description on the label; that this product is reasonably fit for the purposes set forth in the directions for use when it is used in accordance with such directions; and that the directions, warnings and other statements on this label are based upon responsible experts' evaluation of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants, and of residues on food crops and upon reports of field experience. Tests have not been made on all varieties or in all states or under all conditions. THE MANUFACTURER NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE, ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IT EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS, WARNINGS, OR CAUTIONS.

BUYER'S EXCLUSIVELY REMEDY AND MANUFACTURER'S OR SELLER'S EXCLUSIVE LIABILITY FOR ANY AND ALL CLAIMS, LOSSES. DAMAGES OR INJURIES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OF, OR THE REPAYMENT OF THE PURCHASE PRICE FOR, THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT WHEN USE OR HANDLING IS NOT IN ACCORDANCE WITH LABEL DIRECTIONS.

NOTICE TO BUYER

Purchase of this material does not confer any rights under patents governing this product or the use thereof in countries outside of the United States.

BEST AVAILABLE COPY

Rhône-Poulenc Ag Company
P.O. Box 12014, 2 T.W. Alexander Drive
Research Triangle Park, North Carolina 27709

FINISH® and FOLEX® are registered trademarks of Rhône-Poulenc Ag Company.

DEF and GUTHION are registered trademarks of Bayer AG, Germany.

DROPP, DROPP ULTRA and GINSTAR are registered trademarks of AgrEvo Chemical Company.

HARVADE is a registered trademark of Uniroyal Company.

ROUNDUP is a registered trademark of Monsanto Company.

MALATHION is a trademark of American Cyanamid Company.

FINISH® brand HARVEST AID FOR COTTON (Pending) Submitted 10/20/95, Resubmitted 6/14/96, 9/23/96, 11/15/96, 5/5/97.