



Reg # 352-451

PM-25

File  
197

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

JAN 31 1994

Nancy B. Lomax  
E.I. DUPONT DE NEMOURS AND CO., INC.  
Barley Mill Plaza, Walker's Mill  
Wilmington, DE 19880

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Subject: Label Amendment Submission of 09/08/93 in Response to PR Notice 93-7  
EPA Reg. No. 352-451  
DUPONT LOROX PLUS HERBICIDE

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted subject to the comments reflected on the enclosed sheet. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

**WHAT THIS ACCEPTANCE MEANS:**

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

**WHAT YOU NEED TO DO NEXT:**

By the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

- BEFORE selling or distributing any product bearing the final printed labeling
- AND
- WITHIN one year from date of this acceptance.



Recycled/Recyclable  
Printed with Soy/Canola Ink on paper that  
contains at least 50% recycled fiber

297

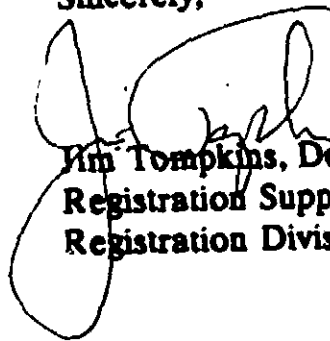
Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL)  
Office of Pesticide Programs (7505C)  
U.S. Environmental Protection Agency  
401 M Street, SW  
Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

Document Processing Desk (FIN-LABEL)  
Office of Pesticide Programs  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

Sincerely,



Jim Tompkins, Deputy Chief  
Registration Support Branch  
Registration Division (7505W)

Attachment

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# LOROX PLUS<sup>337</sup>®

## HERBICIDE

### DISPERSIBLE GRANULES

#### FOR USE ON SOYBEANS ONLY

BY WEIGHT

ACTIVE INGREDIENTS ..... 60%

Linuron: [3-(3,4-dichlorophenyl)-1-methoxy-1-methylurea] ..... 56.9%

Chlorimuron Ethyl: Ethyl 2-[[[(4-chloro-6-methoxypyrimidin-2-yl)amino]carbonyl]-amino]sulfonyl]benzoate ..... 3.1%

INERT INGREDIENTS ..... 40%

TOTAL ..... 100%

EPA Reg. No. 352-451

U.S. Pats. 4,394,506 & 4,547,215

### KEEP OUT OF REACH OF CHILDREN

## WARNING

## AVISO

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.)

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**WARNING!** CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY AND CAUSES SKIN IRRITATION. AVOID CONTACT WITH SKIN, EYES AND CLOTHING. AVOID BREATHING DUST OR SPRAY MIST.

#### STATEMENT OF PRACTICAL TREATMENT

If in eyes: Flush with plenty of water and get medical attention.

If on skin: Wash with soap and water and get medical attention.

If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

For medical emergencies involving this product, call toll free 1-800-441-3637.

#### PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- Coveralls over short (sleeve) shirt and short pants.
- Waterproof gloves.
- Chemical-resistant footwear plus socks.
- Protective eyewear.
- Chemical-resistant headgear for overhead exposure.
- Chemical-resistant apron when cleaning equipment, mixing, or loading.

ACCEPTED  
with COMMENTS  
in EPA Letter Dated

JAN 31 1994

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

352-451

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's 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.

#### USER SAFETY RECOMMENDATIONS

**USER SHOULD:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

#### ENGINEERING CONTROL STATEMENTS

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170 Section 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### ENVIRONMENTAL HAZARDS

Do not apply directly to water or wetlands. Do not contaminate water by cleaning of equipment or disposal of wastes.

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### IMPORTANT

Injury to or loss of desirable trees or vegetation may result from failure to observe the following: Do not apply or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots. Do not use on lawns, walks, driveways, tennis courts, or similar areas. Prevent drift of spray to desirable plants. Do not contaminate any body of water. Keep from contact with fertilizers, insecticides, fungicides, and seeds during storage.

Prior to using "Lorox Plus", consideration should be given to crop rotation plans. Crops other than soybeans can be extremely sensitive to low concentrations of "Lorox Plus" remaining in the soil the next planting season. Choice of rotational crop is restricted following application of "Lorox Plus". (See "ROTATIONAL CROP GUIDELINES").

*Do not apply if soil pH is greater than 6.8.*

"Lorox Plus" is registered for use on soybeans only. Use on crops other than soybeans will result in severe crop injury or crop death.

### GENERAL INFORMATION

Du Pont "Lorox Plus" Herbicide is a dispersible granule formulation to be mixed with water and sprayed for selective preemergence weed control in soybeans. When applied according to the instructions on this label, it will control many broadleaf weeds and provide partial control of nutsedge.

Preemergence applications of "Lorox Plus" require rainfall or sprinkler irrigation to activate the herbicide. Degree of control and duration of effect depend on: rate used, weed spectrum, growing conditions at and following time of treatment, soil pH, texture, organic matter, moisture and precipitation.

Because most crops are highly sensitive to "Lorox Plus", all direct or indirect contact (such as spray drift) to crops or to land scheduled to be planted to crops other than soybeans should be avoided.

### BIOLOGICAL ACTIVITY

"Lorox Plus" rapidly inhibits the growth of susceptible weeds. Following preemergence treatment, susceptible weeds may germinate and emerge, but growth then ceases and leaves become yellow 3-5 days after emergence. Death of leaf tissue and growing point will follow in some species while others will remain green but stunted and noncompetitive. "Lorox Plus" provides partial control of some annual grasses, but other products may be needed to ensure adequate grass control.

### DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with the terms of the label.

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

- Coveralls over short-sleeve shirt and short pants.
- Waterproof gloves.
- Chemical-resistant footwear plus socks.
- Protective eyewear.
- Chemical-resistant headgear for overhead exposure.

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

### EQUIPMENT-SPRAY VOLUMES

Apply uniformly by ground equipment with a properly calibrated low pressure (20 to 40 psi) fixed-boom sprayer equipped with fan-type nozzles or other carefully calibrated nozzles and screens no finer than 50 mesh. Use 10 to 40 gals of water per acre.

Continuous agitation in the spray tank is required to keep the material in suspension. Avoid overlap and shut off spray boom while starting, turning, slowing or stopping, as injury to the crop may result.

### EARLY PREPLANT OR PREPLANT INCORPORATED (See Rate Chart)

"Lorox Plus" can be applied at planting or up to 30 days prior to planting either preemergence or preplant incorporated. If incorporated, "Lorox Plus" should be uniformly incorporated no deeper than the top 1-2" of soil prior to planting soybeans. Use equipment suited for proper incorporation into the top 1-2 inches of soil e.g.: Do-all, field cultivator or Roterra. If tank-mixed with a grass herbicide, such as a DNA like "Treflan"[4], "Sonalan"[4], or acetanilide such as "Dual"[2], or "Lasso"[1], follow label instructions for proper incorporation of the grass herbicide into the top 1 to 2" of soil. Improper soil incorporation can result in erratic weed control or crop injury. Rainfall\* (~1") is required to activate preplant incorporated herbicides such as "Lorox Plus" before weed emergence.

Use of a disk for incorporation is not recommended.

**PREEMERGENCE USE ON SOYBEANS**

(See Rate Chart)

Apply before soybeans emerge. Do not spray over top of emerged soybeans or severe crop injury or crop death will occur. Preemergence activity of "Lorox Plus" requires rainfall or irrigation to activate. Best results are obtained if treatment is made to moist soil and followed by rainfall or irrigation ( 1/2" to 1") before weeds germinate. On dry soil, chemical activation requires more moisture (1-2"). If moisture is insufficient to activate the herbicide, a rotary hoeing or shallow cultivation should be made after emergence of crop while weeds are small enough to be controlled by mechanical means. "Lorox Plus" can be applied preemergence in combination with "Lasso", "Dual", "Prowl"[3], "Surflan"[4] or following the use of a preplant grass material such as "Treflan" "Prowl" or "Sonalan". Consult labels for rates and use instructions.

**SOYBEANS - MINIMUM TILLAGE OR NO-TILL**

(See Rate Chart)

"Lorox Plus" applied preemergence to soybeans but postemergence to broadleaf weeds and small annual grasses will provide limited burndown of existing weeds. When used for burndown add 0.25% V/V surfactant (1 qt/100 gal) such as Surfactant WK or crop oil concentrate at 0.25% V/V (1 qt/100 gal). For added burndown of broadleaf weeds, "Lorox Plus" may be tank mixed with 2,4-D low volatile ester. Do not apply 2,4-D ester within 30 days of planting. For added postemergence control, especially on grasses, "Lorox Plus" can be applied with "Roundup"[1], paraquat or "Bronco"[1]. For added preemergence control, especially on grasses, "Lorox Plus" can be mixed with "Dual", "Lasso", or "Surflan". Consult labels for rates and use instructions. Maintain constant agitation of spray mixture.

**RATE CHART**

Apply within 2 weeks of planting as follows:

Soil Texture (1/2-3% Organic Matter*)	Rate (Ounces Per Acre)
<b>Coarse:</b>	
Loamy sand, Sandy loam	12-14
<b>Medium:</b>	
Loam, Silty loam, Silt	14-16
<b>Fine:</b>	
Silty clay loam, Clay loam, Clay	16-18

\* Do not apply to soil with less than 1/2% O.M.

Do not apply "Lorox Plus" to soils with pH greater than 6.8.

Dosage rates listed are broadcast rates. For band applications use proportionally less.

Plant seed 1 1/2" to 2" deep on a flat or raised seedbed only, or crop injury may occur.

Soybean stunting may occur if excessive rainfall occurs after application but before soybeans germinate. Injury is more prevalent under poor drainage or compacted conditions or when soil is saturated for long periods of time. Soybeans rapidly outgrow stunting once favorable growing conditions return.

NOTE: Seedling disease, cold weather, deep planting (more than 2"), excessive moisture, high salt concentration or drought may weaken soybean seedlings and increase the possibility of crop injury.

**WEEDS CONTROLLED**

The following weeds will be controlled at the above rates preemergence:

- Carpetweed
- Cocklebur\*
- Eastern black nightshade\*\*
- Jimsonweed
- Lambsquarters
- Mustards
- Pigweed species
- Palmer amaranth
- Redroot
- Smooth
- Spiny amaranth
- Tall waterhemp
- Prickly sida (teaweed)
- Purslane
- Ragweed, common
- Smartweeds, annual
- Spotted spurge
- Velvetleaf

**Partial Control:**

- Burcucumber
- Crabgrass species
- Eastern black nightshade
- Foxtail species
- Johnsongrass, seedling
- Morningglory, annual\*
- Entireleaf
- Ivyleaf
- Pitted
- Tall
- Nutsedge species
- Panicum species
- Ragweed, giant\*
- Sunflower\*

\* Large seeded weeds, germinating deep in the soil, such as morningglory, sunflower, cocklebur and giant ragweed or weeds with subsequent flushes may require a cultivation or an application of Du Pont "Classic" Herbicide postemergent for season-long control. Consult "Classic" label for application directions, recropping intervals and use restrictions. NOTE: Consult "Lasso", "Dual", "Prowl", "Treflan", "Sonalan" or "Surflan" labels for additional weeds-controlled when "Lorox Plus" is used in conjunction with these herbicides.

\*\* Requires the addition of "Lasso".

**SPRAY TANK PREPARATION**

Fill tank 1/4 full with water. Start agitation system, add "Lorox Plus" and continue adding water. Add separately each additional component of any tank mix while adding water. Continue agitation throughout. If poor mixing should occur with any component, premix the component with two parts water before adding to the spray tank. A fertilizer solution may be used in the spray mixture. Small quantities should be tested for compatibility by the following procedures before full scale mixing.

1. Put 1 pint of fertilizer solution in quart jar.
2. Mix 2 teaspoons "Lorox Plus" with 2 tablespoons of water; mix thoroughly and add to fertilizer solution.
3. Close jar and shake well.

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4. If other herbicides are to be used in the mixture, premix 2 teaspoons of wettable powder or 1 teaspoon of liquid with 2 tablespoons of water; add to "Lorox Plus"/fertilizer solution mixture.
5. Close jar and shake well.
6. Watch mixture for several seconds; check again in 30 minutes.
7. If mixture does not separate, foam, gel or become lumpy, it may be used.
8. Mixing ability may be improved by adding compatibility agents such as Kalo Laboratories "Compex"[5] or Witco Chemicals "Sponto"[6] 168D. Follow directions on container.

Provided the above procedure shows the mixture to be compatible, prepare the tank mixture as follows: Add the fertilizer solution to the spray tank first; with the agitator running, add the required amount of "Lorox Plus" and thoroughly mix. For tank mixtures with other herbicides, follow directions above.

When tank mixing with other herbicides, all applicable directions, restrictions and precautions for the additional herbicides are also to be followed. Use "Lorox Plus" spray preparations the same day as mixed or product degradation may occur. Thoroughly reagitrate before using if allowed to settle.

**ROTATIONAL CROP GUIDELINES**

Crops that can be planted after using "Lorox Plus" are listed below. Choice of rotational crop is determined by time interval elapsed since last application. Prior to 18 months following application, do not rotate crops used for food or feed, which are not registered for use with "Lorox Plus" or Du Pont "Lorox" Herbicide onto areas previously treated with these chemicals.

Crops	Time Interval in Months Before Replanting
Soybeans	anytime
Wheat, Barley, Oats, Rye	4
Field Corn	10**
Clover	12
Sorghum 10**	
Tobacco (transplant)	10**
Tomato (transplant)	10**
<b>All Other Crops require a successful Field Bioassay***</b>	

- \*\* For applications of "Lorox Plus" after June 15, extend recrop interval one month.
- \*\*\*Field Bioassay - The season before planting any crop not listed above, a successful field bioassay must be completed. The field bioassay will detect small quantities of "Lorox Plus" which can remain in the soil and injure rotational crops. A successful field bioassay means growing to maturity a test strip of the crop(s) intended for production the following year. The test strip should cross the whole field including knolls and low areas.

**Combination Treatment:** When recommended tank mix combinations are used, consult the product label for replanting and recropping instructions and observe the directions that are the most restrictive.

**SPRAYER CLEANUP**

To avoid subsequent injury to crops other than soybeans, immediately after spraying and prior to spraying other crops, thoroughly remove all traces of "Lorox Plus" from mixing and spray equipment. Be careful to rinse both the spray tank, boom and clean nozzles and screens. For more information, consult supplemental bulletin on sprayer cleanout following use of Du Pont "Classic", "Canopy", "Gemini", "Preview" or "Lorox Plus" Herbicides.

**PRECAUTIONS**

*Do not apply "Lorox Plus" Herbicide to soils with a pH greater than 6.8.*

**CAUTION:** Soil pH varies greatly even within the same field. pH variations as much as 2 pH units are common when the soil has a calcareous sub soil. Determine soil pH by laboratory analysis using a 1:1 soil:water suspension.

Do not graze treated fields or harvest for forage or hay.

Use of "Lorox Plus" may affect rotational crops. Follow "ROTATIONAL CROP GUIDELINES."

Do not use on sand, muck, or peat soils, nor on soils with less than 1/2% organic matter, as crop injury may occur.

Do not apply "Lorox Plus" after the soybean crop has emerged.

If "Scepter"[3], "Pursuit"[3] or any product containing the active ingredients, imazaquin or imazethapyr (such as "Squadron"[3], "Partner"[3]) is applied the same year as "Lorox Plus", do not plant crops other than soybeans for at least 15 months from the last application. Crops listed in the "Lorox Plus" Rotational Crop Guidelines" may be planted after 15 months; all other crops require a successful field bioassay.

Do not apply to land that has been or will be treated with "Glean", "Ally" or "Finesse" herbicides in the States of Nebraska, Kansas, North Dakota and South Dakota.

**STORAGE AND DISPOSAL**

**Storage:** Store product in original container only, away from other pesticides, fertilizer, food or feed.

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

**NOTICE TO BUYER:** Purchase of this material does not confer any rights under patents of countries outside of the United States.

737

**NOTICE OF WARRANTY**

Du Pont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purposes stated on such label only when used in accordance with the directions under normal conditions. It is impossible to eliminate all risks inherently associated with the 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 Du Pont. In no case shall Du Pont be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks are assumed by the buyer. **DU PONT MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

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- 6 Registered Trademark of Witco Chemical Corp., Houston, TX

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