



# LOROX® DF

## HERBICIDE

### DISPERSIBLE GRANULES

#### ACTIVE INGREDIENT

Linuron [3-(3,4-dichlorophenyl)-1-methoxy-1-methylurea] ..... 50%

INERT INGREDIENTS ..... 50%

TOTAL ..... 100%

EPA Reg. No. 352-394

### KEEP OUT OF REACH OF CHILDREN

## CAUTION

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION!** HARMFUL IF SWALLOWED. CAUSES EYE IRRITATION. MAY IRRITATE NOSE, THROAT AND SKIN. Avoid breathing dust or spray mist. Avoid contact with skin, eyes and clothing.

#### STATEMENT OF PRACTICAL TREATMENT

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

**If on skin:** Wash with plenty of soap and water. Get medical attention if irritation persists.

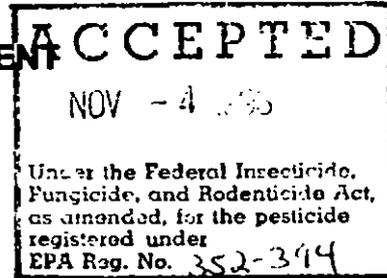
**If swallowed:** Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

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-sleeved shirt and short pants.
- Waterproof gloves.
- Shoes plus socks.
- Chemical-resistant headgear for overhead exposure.



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.

#### 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 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### USER SAFETY RECOMMENDATIONS

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

#### 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 by cleaning of equipment or disposal of wastes.

**IMPORTANT--**Injury to or loss of desirable trees or other plants may result from failure to observe the following:

Do not apply (except as recommended), 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 home plantings of trees, shrubs or herbaceous plants, nor on lawns, walks, driveways, tennis courts, or similar

areas. Prevent drift of dry powder or spray to desirable plants. Do not contaminate any body of water. Keep from contact with fertilizers, insecticides, fungicides and seeds.

Do not apply aerially.

Thoroughly clean all traces of "Lorox" DF from application equipment immediately after use. Flush tank, pump, hoses, and boom with several changes of water after removing nozzle tips and screens (clean these parts separately).

**GENERAL INFORMATION**

Du Pont "Lorox" DF Herbicide is a dispersible granule to be mixed in water and applied as a spray for selective control of weeds in certain crops and for non-selective weed control on non-cropland areas. It is non-corrosive to equipment, non-flammable and non-volatile.

"Lorox" DF is an effective preemergence treatment of soybeans, asparagus, bulbs, carrots, corn, hybrid poplar, parsnips, potatoes and sorghum for control of weeds listed below. "Lorox" DF is particularly effective in non-tillage soybean production. Treatment is made after planting but before emergence of soybeans. Weeds have usually emerged and the treatment controls susceptible weeds. Treatment also controls susceptible emerging weeds for an extended time.

"Lorox" DF may be sprayed postemergence over-the-top of emerged asparagus (before or after cutting and to small ferns), carrots (at least 3" tall) and celery (transplants) to effectively control susceptible emerged seedling weeds.

Directed postemergence applications of "Lorox" DF, where spray nozzles are adjusted so that weeds are sprayed but the crop is not, may be used in emerged asparagus (larger ferns), corn (field and sweet), sorghum and soybeans to effectively control susceptible emerged seedling weeds.

"Lorox" DF may be applied to soil prior to emergence of weeds to control susceptible weed seedlings for an extended period of time; the degree of control and duration of effect will vary with:

**Soil Organic Matter Content**--High organic matter requires higher dosages than low organic matter for equivalent herbicide performance. Best results accompany preemergence use of "Lorox" DF on soils of 1/2% to 3% organic matter. The combination of "Lorox" DF plus Du Pont LEXONE DF Herbicide (or Du Pont LEXONE 4L Herbicide) provides most effective preemergence weed control on soils from 1% to 4% organic matter content.

**Soil Texture**--High clay content requires higher dosage rates than those with less clay. Best results accompany preemergence use of "Lorox" DF on coarse to medium soils.

**Rainfall**--Moisture is required to activate the chemical following preemergence application to soil. Best results accompany rainfall (or irrigation) that occurs within 2 weeks of application. In the Colombia River Basin, use "Lorox" DF only if the crop is sprinkler irrigated.

**Weed Species And Conditions of Growth**--Species vary in susceptibility and may be more difficult to control when under stress.

"Lorox" DF is recommended for use in conjunction with certain other herbicides for treatment of field corn, potatoes, sorghum, and soybeans; observe all cautions and limitations on labeling of all products used in mixtures.

Since the effect of "Lorox" DF varies with soils, crop varieties, uniformity of application, and environmental conditions, it is suggested that growers limit their first use to small areas.

**PREEMERGENCE USE (GERMINATING WEEDS):**

"Lorox" DF, at recommended rates, controls annual weeds such as:

**Broadleaves**

|                    |                          |
|--------------------|--------------------------|
| Florida beggarweed | Mustards                 |
| Carpetweed         | Nettleleaf goosefoot     |
| Chickweed          | Pigweeds                 |
| Common dayflower   | Purslane (common)        |
| Florida purslane   | Wild radish              |
| (Florida pusley)   | Ragweed (common)         |
| Galinsoga          | Smartweed (Pennsylvania) |
| Lambsquarters      |                          |

**Grasses**

|                            |                            |
|----------------------------|----------------------------|
| Barnyardgrass (watergrass) | Foxtails (including giant) |
| Canarygrass                | Goosegrass                 |
| Crabgrasses                | Fall panicum               |

**Partial Control**

|                        |                         |
|------------------------|-------------------------|
| Cocklebur (common)     | Sicklepod               |
| Annual morningglory    | Velvetleaf (buttonweed) |
| Prickly sida (teaweed) |                         |

"Lorox" DF will not control established perennials such as bermudagrass, Canada thistle, field bindweed, johnsongrass and purple nutsedge. The lower dosage rates are effective on coarser soils and the higher rates on finer soils and on the more resistant seedling weeds. Sufficient moisture (1/2" to 1" on moist soils; 1" to 2" on dry soils) in the form of rainfall or sprinkler irrigation is necessary after treatment to carry the chemical into the root zone of germinating weeds; best results are obtained when this occurs within two weeks after application. If heavy rainfall occurs soon after application, injury to crop may result.

"Lorox" DF applied preemergence, before emergence of soybeans, asparagus, bulbs, carrots, corn (field), parsnips, potatoes, and sorghum, and weeds, is an effective procedure because susceptible weeds are controlled in an early, vulnerable seedling stage before they compete with the crop. With favorable moisture conditions, "Lorox" DF continues to control weeds for some time as the crop becomes better able to compete. Should weed seedlings begin to break through the preemergence treatment in significant numbers, secondary weed control procedures should be implemented; these include cultivation and postemergence herbicide application.

A good seed bed must be prepared before application of "Lorox" DF as crop injury may result if application is made to ground which is cloddy or compacted resulting in improperly planted seed. Plant seed to depth specified. Surface of the soil should not be cultivated or disturbed after application of "Lorox" DF and before emergence of the crop as weed control may be reduced and crop injury may result. However, if moisture is insufficient to activate the herbicide, a shallow cultivation (rotary hoe preferred) should be made after emergence of row crops while weeds are small enough to be controlled by mechanical means. Deep cultivation reduces the effectiveness of "Lorox" DF.

Note: Consult "Amiben", atrazine, "Bronco", "Dual" 8E, "Lasso", paraquat, propazine, "Prowl", "Ramrod", "Roundup", "Surflan", and "Treflan" labels for additional weeds controlled when "Lorox" DF is used in conjunction with these herbicides.

**POSTEMERGENCE USE (EMERGED SEEDLING WEEDS):**

"Lorox" DF, at recommended rates, controls weeds such as:

**Broadleaves**

|                        |                |                |
|------------------------|----------------|----------------|
| Annual morningglory    | Knawel         | Lambsquarters  |
| Carpetweed             | Mustards       |                |
| Cocklebur (common)     | Nettleleaf     | goosefoot      |
| Common dayflower       | Pigweeds       |                |
| Common ragweed         | Prickly sida   | (teaweed)      |
| Dog fennel             | Purslane       | (common)       |
| Fiddleneck (amsinckia) | Sesbania       |                |
| Florida beggarweed     | Sicklepod      |                |
| Florida purslane       | Smartweed      | (Pennsylvania) |
| (Florida pusley)       | Velvetleaf     | (buttonweed)   |
| Groundsel              | Wild buckwheat |                |

**Grasses**

|                            |                            |
|----------------------------|----------------------------|
| Annual ryegrass            | Fall panicum               |
| Barnyardgrass (watergrass) | Foxtails (including giant) |
| Broadleaf signalgrass      | Goosegrass                 |
| Canarygrass                | Rattail fescue             |
| Crabgrasses                | Texas panicum              |

Results of postemergence treatment of emerged weeds vary with rate applied and environmental conditions; best results are obtained on succulent weeds growing under conditions of high humidity and temperatures of 70 degrees F or higher. Addition of a surfactant to the spray (where recommended) increases contact effects of "Lorox" DF. Application will also provide control of emerging susceptible weed seedlings for an extended period of time.

Note: Consult bromoxynil, "Butoxone", and "Butyrac" 2001 labels for additional weeds controlled when "Lorox" DF is used in conjunction with these herbicides. Best results are obtained under conditions of high humidity and temperatures over 70 degrees F. Control of emerged weeds under drought stress is usually impractical.

**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 17. 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 24 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.
- Shoes plus socks.
- Chemical-resistant headgear for overhead exposure.

"Lorox" DF Herbicide should be used only in accordance with recommendations on this label, or in separate published Du Pont recommendations available through local dealers. Do not use on any crop in Kern County, California, except carrots and asparagus when a permit has been obtained from the Agricultural Commission.

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

Du Pont will not be responsible for losses or damages resulting from use of this product in any manner not specifically recommended by Du Pont. User assumes all risk associated with such non-recommended use.

Fill tank 1/4 full with water. Start agitation system; add "Lorox" DF, and continue adding water. Add separately each additional component of any tank mix while adding water. If a surfactant is used, add it last when the tank is nearly full. Continue agitation throughout. If poor mixing should occur with any component, premix the component with two parts water before adding to the spray tank.

**FERTILIZER SPRAY MIXTURES:** For preemergence application, nonpressure nitrogen or fertilizer solution may be used in the spray mixture unless otherwise directed. Small quantities should be tested for compatibility by the following procedure before full scale mixing:

1. Put 1 pint of fertilizer solution in a quart jar.
2. Mix 2 teaspoons "Lorox" DF with 2 tablespoons of water; mix thoroughly and add to fertilizer solution.
3. Close jar and shake well.
4. If other herbicides are to be used in the mixture, premix 2 teaspoons of wettable powders or 1 teaspoon of liquids with 2 tablespoons of water; add to "Lorox" DF/ fertilizer 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 "Complex" or Witco Chemicals "Sponto" 168D. Follow directions on container.

If the mixture is compatible, prepare spray by adding the fertilizer solution to the spray tank first; then dilute "Lorox" DF with 2 parts of water, thoroughly mix, and add slowly to spray tank with agitator running. For tank mixtures with other herbicides, follow directions above.

#### **EQUIPMENT--SPRAY VOLUMES AND PRESSURES:**

Application is limited to a ground boom sprayer properly calibrated to a constant speed and rate of delivery. Openings in screens should be equal to or larger than 50 mesh. Continuous agitation in the spray tank is required to keep the material in suspension. Agitate by mechanical or hydraulic means; if bypass or return line is used, it should terminate at bottom of tank to minimize foaming. Avoid overlapping and shut off spray booms while starting, turning, slowing or stopping, or injury to the crop may result.

For preemergence application, use 20 to 60 gals per acre and spray pressure of 30 to 40 psi.

For postemergence application, use sufficient volume (min 20 gals per acre) for thorough coverage of weed foliage; use spray pressure of 20 to 25 psi to keep spray drift to a minimum.

**USE RATES:** All rates of "Lorox" DF (and tank mixtures) are expressed as broadcast rates; for band treatment, use proportionately less. For example, use 1/3 of the broadcast rate when treating a 14" band where row spacing is 42". Where a range of dosages is given, use the lower rate on coarser soils (low in clay or organic matter) and the higher rate on finer soils (high in clay or organic matter); for postemergence application, use the lower rate on smaller weeds and the higher rate on larger weeds.

**SOIL LIMITATIONS:** Unless otherwise directed, do not use on sand, loamy sand, gravelly soils or exposed subsoils nor on soils containing less than 1% organic matter as injury to the treated or subsequent crops may result.

**REPLANTING:** If initial seeding fails to produce a stand, crops registered for the rate of "Lorox" DF that has been applied may be replanted into the treated area. Thoroughly rework soil before replanting. Do not retreat during the same crop year as injury to the crop may result.

**CROP ROTATION RECOMMENDATIONS:** Unless otherwise directed, any crop may be planted after 4 months except for cereals where only barley, oats, rye, and wheat may be planted.

**West of the Rocky Mountains:** Carrots or celery may be planted 4 months after last application; do not plant any other crop until 1 year after the last application as injury may result.

## **CROP USES**

### **ASPARAGUS**

(California, Michigan, Minnesota, North Carolina, Oregon, Washington only)

**Direct Seeded or Newly Planted Crowns:** Do not exceed 4 lbs total per acre per season; do not use surfactant or fertilizer solution in spray mixture.

**Preemergence Application:**\* Make a single application of 2 to 4 lb. per acre after planting seed 1 1/2" deep in coarse soil and 1" deep in fine soils. During planting operation, spray activated charcoal ("Aqua Nu-Char"® or "Gro-Safe"®) as a 1" band on soil surface directly over seed rows at the rate of 300 lbs per acre (equivalent to 15 lbs per acre of crop with 20" row spacing).

**Postemergence Application:** Make 1 or 2 applications of 1 to 2 lbs per acre when ferns are in 6" to 18" stage and weeds are not over 4" tall.

**Established Beds:** Do not apply within 1 day of harvest; do not exceed 8 lbs total per acre per season; do not use surfactant or fertilizer solution in spray mixture.

**Preemergence Application:**\* Make a single application of 2 to 4 lbs per acre.

**Postemergence Application:** Make 1 to 4 applications of 1 to 2 lbs per acre before weeds exceed 4" in height. Apply before cutting season or immediately after cutting.

**Directed Postemergence Application (Fern Stage):** Make a single application of 4 to 8 lbs per acre as a directed. Spray to base of plants for control of dudain melon.

**Note:** If more than 4 lbs "Lorox" DF per acre is applied per season, do not plant any other crop until 1 year after last application. See "Replanting". In California, dudain melon and annual nightshade are controlled.

\* Preemergence weed control will be reduced in soils with high organic matter (greater than 5% and peat or muck.)

### **BULBS**

*(Tulip, Calla Lily, Daffodil and Dutch Iris Only)*

#### **California**

After planting of bulbs, settle the soil with sprinkler irrigation (rainfall will serve the same purpose); then before emergence of plants (bulbs), apply 2 pounds "Lorox" DF per acre in a minimum of 20 gallons of water per acre. Treat only once during the growing season.

**Note:** Unless other directed, do not use on sand, loamy sand, gravelly soils, or exposed subsoils nor on soils containing less than 1% organic matter as injury to the crop may result.

### **CARROTS**

**Preemergence Application--Florida, Michigan, Ohio, and Wisconsin:** Make a single application of 1 to 2 lbs per acre in Florida and 1 to 3 lbs per acre in Michigan, Ohio, and Wisconsin; apply after planting but before carrots emerge; plant seed at least 1/2" deep. Use the lower rate on lighter soils (low in clay or organic matter) and higher rate on heavier soils (high in clay or organic matter). Subsequent postemergence application may be made provided the total does not exceed 4 lbs "Lorox" DF per acre per season. Do not apply within 14 days of harvest.

**Postemergence Application--U.S.:** Apply 1 1/2 to 3 lbs per acre as a non-directed spray after carrots are at last 3" tall. Apply before annual grasses exceed 2" in height and before broadleaf weeds exceed 6" in height. Repeat application may be made but do not exceed 4 lbs "Lorox" DF per acre (West of Rocky Mountains, do not exceed 3 lbs "Lorox" DF per acre). Do not exceed 40 psi spray nozzle pressure as crop injury may result.

"Lorox" DF may be applied following an application of Stoddard solvent provided treatments are at least one day apart. Stoddard solvent may be applied following application of "Lorox" DF provided treatments are at least 2 weeks apart. Shorter time intervals between applications may result in injury to the crop. Do not apply "Lorox" DF as a tank mixture with Stoddard solvent, surfactants, nitrogen or fertilizer solution, other pesticides, nor when temperature exceeds 85 degrees F as crop injury may result.

**Note:** Because carrot varieties vary in their resistance, determine tolerance to "Lorox" DF prior to adoption as a field practice to prevent possible crop injury; do not treat susceptible varieties which show an initial burning of foliage following postemergence treatment with "Lorox" DF. See "Replanting".

**CELERY**

**East of Rocky Mountains--Post-transplant Application:** Make a single application of 1 1/2 to 3 lbs per acre. Apply as a non-directed spray after celery is transplanted and established, but before celery is 8" tall. Apply before annual grasses exceed 2" in height and before broadleaf weeds exceed 6" in height. In the Northeast, use only on celery grown on muck soils.

Do not exceed 40 psi spray nozzle pressure, and do not apply when temperature exceeds 85 degrees F nor as a tank mixture with surfactants, nitrogen or fertilizer solution, or other pesticides as injury to the crop may result. Do not replant to crops other than celery or carrots within 4 months after application as injury to subsequent crops may result. See "Replanting".

**CORN (Field)**

**Preemergence Application--East of Rocky Mountains:** Select one of the following herbicide treatments for application as a tank mixture. Make a single application after planting but before crop emerges. Plant seed at least 1 3/4" deep on flat or raised seedbeds only or injury to the crop may result. Do not spray over top of emerged corn.

"Lorox" DF at 3/4 to 1 lb per acre (tank mixed with standard registered herbicides for corn) controls triazine-resistant lamb-squarters on soils of 1 to 4% organic matter east of the Rocky Mts.

**"Lorox" DF + "Lasso"**

| Pounds of "Lorox" DF + Quarts of "Lasso" per acre  |                                |                             |
|--|--------------------------------|-----------------------------|
| Soil Texture Description                           | Percent Organic Matter in Soil |                             |
|  | 1 to 3%                        | 3 to 6%                     |
| Coarse: Sandy Loam                                 | 2/3 to 1-1/4 + 3/4 to 1        | 1-1/4 to 2 + 1 to 1-1/2     |
| Medium: Loam,                                      |                                |                             |
| Silt loam, Silt, Sandy clay, Sandy clay loam       | 1 to 1-2/3 + 1 to 1-1/2        | 1-2/3 to 2-1/2 + 1-1/2 to 2 |
| Fine: Silty clay, Silty clay loam, Clay, Clay loam | 1-1/4 to 2 + 1-1/2 to 2        | 2 to 3 + 2 to 2-1/2         |

**Replanting:** Corn or soybeans may be replanted within 4 months. See "Replanting".

**"Lorox" DF + "Ramrod"**

| Pounds of "Lorox" DF + Gallons of "Ramrod" (4 lb/gal) per acre |                                |                                 |
|--|--------------------------------|---------------------------------|
| Soil Texture Description                                       | Percent Organic Matter in Soil |                                 |
|  | 1 to 3%                        | 3 to 6%                         |
| Coarse: Sandy Loam   | 2/3 to 1-1/3 + 1-1/3 to 2-3/5  | 1-1/3 to 2 + 2-3/5 to 3-9/10    |
| Medium: Loam,  |                                |                                 |
| Silt loam, Silt, Sandy clay, Sandy clay loam                   | 1 to 1-2/3 + 2 to 3-1/3        | 1-2/3 to 2-1/2 + 3-1/3 to 5-1/5 |
| Fine: Silty clay, Silty clay loam, Clay, Clay loam             | 1-1/4 to 2 + 2-3/5 to 3-9/10   | 2 to 3 + 3-9/10 to 6-1/5        |

**Replanting:** Corn may be replanted within 4 months; after 4 months, see "Replanting".

**"Lorox" DF + atrazine (Tank Mixture)--**

For improved control of annual grasses, add "Lasso" as recommended on "Lasso" labeling for "Lasso"/atrazine combinations.

**"Lorox" DF + atrazine**

| Pounds of "Lorox" DF + Pounds of atrazine 80% per acre |                                |                             |
|--|--------------------------------|-----------------------------|
| Soil Texture Description                               | Percent Organic Matter in Soil |                             |
|  | 1 to 2%                        | 2 to 5%                     |
| Coarse: Sandy Loam                                     | 2/3 to 1 + 1/2 to 2/3          | 1 to 2 + 2/3 to 1-1/4       |
| Medium: Loam,  |                                |                             |
| Silt loam, Silt, Sandy clay, Sandy clay loam           | 1 to 1-1/2 + 2/3 to 1          | 1-1/2 to 2-1/2 + 1 to 1-1/2 |
| Fine: Silty clay, Silty clay loam, Clay, Clay loam     | 1-1/3 to 1-2/3 + 3/4 to 1      | 1-2/3 to 3 + 1 to 2         |

**Replanting:** Corn may be replanted within 6 months; after 6 months, see "Replanting".

**CORN (Field and Sweet)**

**Directed Postemergence Application:** Make a single application as a directed spray after corn is at least 15" high (measured to the highest leaf surface on free standing plants). Do not spray over top of corn. Apply only when there is sufficient differential between height of corn and weeds so that the directed spray thoroughly covers all weed foliage without contact of upper leaves or whorl of corn by spray or drift, as such contact may cause crop injury. Early cultivation (rotary hoe or other suitable equipment) will aid in achieving proper differential between height of corn and weeds.

Use 1 1/4 to 3 lbs per acre; add 1 pint surfactant for each 25 gals spray mixture. For field corn, non-pressure nitrogen solution may be substituted for all or part of the water. Use the lower rate on lighter soils (low in clay or organic matter) and when weeds do not exceed 2" in height; use the higher rate on heavier soils (high in clay or organic matter) for weeds up to 5" in height. See "Replanting".

**HYBRID POPLAR (Midwest)**

Apply to 2 to 4 lbs "Lorox" DF per acre before bud break in the spring.

For application after bud break, apply to 2 to 4 lbs "Lorox" DF per acre as a directed spray. Spray should be directed weed growth and to avoid contact with the poplar plant; do not spray over the top of the poplar as injury to the plant will result.

Use the lower rate on light soils and higher rate on heavier soils. For best results on emerged weeds, treat at the seedling stage.

More than one treatment may be made but no more than 8 lbs "Lorox" DF per acre should be applied per year.

### PARSNIPS

**Preemergence Application:** Make a single application of 1 1/2 to 3 lbs per acre. Apply after planting but before crop emerges. Plant seed at least 1/2" deep. See "Replanting".

### POTATOES

**Preemergence Application:** Make a single application as a broadcast spray after planting but before crop emerges. Plant seed at least 2" deep. Do not spray over top of emerged potatoes. If beds are to be "dragged" and/or "hilled", apply after the final "dragging" or "hilling" operation. Apply before grasses are 2" tall and before broadleaf weeds are 6" tall, preferably just before or when weed seedlings emerge. If emerged weeds are present, add 1 pint surfactant for each 25 gals spray mixture. In irrigated areas, best results are obtained when application is made to moist soil, followed within 2 weeks by 1" to 2" of sprinkler irrigation (or rainfall). On powder dry soils, irrigate prior to herbicide application and follow with sprinkler irrigation to activate the herbicide.

**East of Rocky Mountains:** Apply 1 1/2 to 2 1/2 lbs per acre on the coarser soils (sandy loams, silt loams; 1 to 2% organic matter) and 2 1/2 to 4 lbs per acre on finer soils (silts, clay loams; 2 to 5% organic matter); on soils over 5% organic matter, use 4 lbs per acre and apply to emerged weeds (before potatoes emerge).

**Wisconsin--Central Sands Area:** Apply 1 lb per acre on sands and 2 lbs per acre on loamy sands.

**Northeast:** For improved control of annual grasses (see "Dual" labeling), apply:

#### "Lorox" DF + "Dual" 8E

| Soil Texture Description                                   | Pounds of "Lorox" DF + Pints of "Dual" 8E per acre |         |            |              |
|--|--|---------|------------|--------------|
|  | Percent Organic Matter in Soil 1 to 3%             |         | 3 to 5%    |              |
| Coarse: Sandy Loam   | 1 to 1-1/2   | + 1-1/2 | 1-1/2 to 2 | + 2          |
| Medium: Loam, Silt loam, Silt, Sandy clay, Sandy clay loam | 1-1/2 to 2   | + 2     | 2 to 2-1/2 | + 2-1/2 to 3 |

See Replanting.

### SORGHUM

**Preemergence Application:** Select a registered herbicide treatment for application as a tank mixture with "Lorox" DF. Make a single application after planting but before crop emerges. Plant seed at least 1" deep on flat or raised seedbeds only or injury to the crop may result. Do not spray over top of emerged sorghum.

#### "Lorox" DF--Southwest

| Soil Texture Description                                   | Pounds of "Lorox" DF per acre  |            |
|--|--------------------------------|------------|
|  | Percent Organic Matter in Soil |            |
| Coarse: Sandy Loam   | 5/8 to 1                       | 1 to 1-1/2 |
| Medium: Loam, Silt loam, Silt, Sandy clay, Sandy clay loam | 1 to 1-1/2                     | 1 to 2     |

Replanting: See "Replanting" and replanting on the combination product labeling. Prior to replanting, thorough seedbed preparation including fall or spring plowing is recommended.

**Directed Postemergence Application:** Make a single application of "Lorox" DF as a directed spray; add 1 pint surfactant for each 25 gals spray mixture. If sprayer is equipped with skids, shoes or shields, apply 1 lb per acre when sorghum is 12" tall (free standing plants) and weeds are up to 2" in height; Use 1 to 2 lbs per acre when sorghum is 15" tall and weeds are 2" to 4" in height. If boom drops are used, apply 1 to 2 lbs per acre when sorghum is at least 18" tall and weeds are 2" to 4" in height. Apply only when there is sufficient differential between height of sorghum and weeds so that the directed spray thoroughly covers all weed foliage without contact of upper leaves or whorl of sorghum by spray or drift as such contact may cause crop injury.

**Note:** Do not graze or feed plants to livestock within 3 months after postemergence application. See "Replanting".

### SOYBEANS-CONVENTIONAL TILLAGE

**Preemergence Application:** For broad spectrum weed control, select one of the following herbicide combination treatments and make a single application after planting but before crop emerges. Plant seed at least 1 3/4" deep on flat or raised seedbeds only or injury to the crop may result. Injury to soybeans may result if application is made to fields with standing water or fields too wet to cultivate. Do not spray over top of emerged soybeans. Do not use on sand or loamy sand nor any soil containing less organic matter than listed below. "Lorox" DF + "Lexone" DF\*

For control of common ragweed, hemp sesbania, jimsonweed, lambsquarters, pigweeds, prickly sida, sicklepod, velvetleaf, spotted spurge, Venice mallow, purslane, carpetweed, Pennsylvania smartweed, and partial control of cocklebur\*, use the following:

#### "Lorox" DF + "Lexone" DF\*

| Soil Texture Description                                   | Pounds of "Lorox" DF + "Lexone" DF* Per Acre |                                |         |
|--|--|--------------------------------|---------|
|  | Percent Organic Matter in Soil 1/2 to 3%     |                                | 3 to 6% |
| Coarse: Sandy Loam   | 1/3 to 1/2 + 1/6 to 1/4                      | 1/2 to 3/4 + 1/4 to 1/3        |         |
|  | OR   | OR                             |         |
|  | ("Lexone" 4L -- 1/4 to 2/5 pt)               | ("Lexone" 4L -- 2/5 to 1/2 pt) |         |
| Medium: Loam, Silt loam, Silt, Sandy clay, Sandy clay loam | 1/2 to 3/4 + 1/4 to 1/3                      | 3/4 to 1 1/2 + 1/3 to 1/2      |         |
|  | OR   | OR                             |         |
|  | ("Lexone" 4L -- 2/5 to 1/2 pt)               | ("Lexone" 4L - 1/2 to 3/4 pt)  |         |
| Fine: Silty clay, Silty clay loam, Clay, Clay loam         | 3/4 to 1 1/2 + 1/3 to 1/2                    | 1 1/2 to 2 + 1/2 to 2/3        |         |
|  | OR   | OR                             |         |
|  | ("Lexone" 4L -- 1/2 to 3/4 pt)               | ("Lexone" 4L -- 3/4 to 1 pt)   |         |

\*For improved control of annual grasses, tank mix with "Lasso" or "Dual" (per labeling):

#### Herbicide Recropping/Restrictions

**"Lasso"** Soybeans or field corn may be replanted within 4 months; after 4 months, see "Replanting". Treated vines may be grazed or fed to livestock 40 days after application.

OR

**"Dual"** Soybeans or field corn may be replanted within 4 months, for rotation crops, see "Replanting" and follow instructions on "Dual" label.

Do not graze or feed forage from treated areas to livestock.

Note: Soybean varieties such as Altona, Coker 102 and 156, Govan, NKS 1884, Semmes, Tracy, Vansoy, Terra Vig 505 and 606, Agripro 55, Asgrow 6520, Maple Amber, Portage, Vinton 81, and AP 71 are sensitive to "Lexone". Injury may occur if "Lexone" is used on these varieties. Before use on any other soybean variety, tolerance to "Lexone" must first be determined. Varieties showing above average tolerance to "Lexone" are Americana Revere, Asgrow 1937, Asgrow 3659, Asgrow 3860, DSR 171, DSR 207, Essex, Fayette, Hisoy 170, Lakota, Lawrence, LOL 4207, NKS 1492, Pride B216, Pride B242, SRF 250, SRF 350 P, Union, Wayne, Wells II and Williams 82; for maximum weed control, use the higher rate (where a range of rates is listed) for the appropriate soil type and organic matter as shown in the following tables. Injury to soybeans may occur if "Lexone" is used on soils having a calcareous surface layer or pH of 7.5 or higher, or if used in conjunction with soil applied organic phosphate pesticides such as "Dasanit", "Disyston", "Mocap", "Nemacur", "Thimet", "Parathion", "Lorsban" 15G or "Counter". Injury may occur if atrazine was applied on the soil the year before use of "Lexone". Seedling disease, cold weather, deep planting (more than 2"), excessive moisture, high soil pH (pH 7.5 or higher), high salt concentration, or drought may weaken soybean seedlings and increase possibility of crop injury.

Do not use on sand nor loamy sand.

**Cultivation after planting:** Treated soil may be shallow-cultivated, rotary-hoed, or hand-hoed without reducing the weed control activity of the tank mixture. Do not cultivate deeper than the treated layer of soil since this may bring untreated soil to the surface and poor weed control may result.

**Replanting:** If initial seeding fails to produce a stand, treated fields may be replanted to soybeans; do not rework soil; do not retreat field with a second application as injury to the crop may result. Do not replant treated areas to any crop other than soybeans within four months after treatment as injury to subsequent crops may result. See "Replanting".

**"Lorox" DF\***

| Pounds of "Lorox" DF per acre                             |                                |                |
|---|--------------------------------|----------------|
| Soil Texture  | Percent Organic Matter in Soil |                |
| Description   | 1/2 to 3%                      | 3 to 6%        |
| <b>Coarse:</b> Sandy Loam                                 | 2/3 to 1 1/4                   | 1 1/4 to 2     |
| <b>Medium:</b> Loam,                                      |                                |                |
| Silt loam, Silt, Sandy clay, Sandy clay loam              | 1 to 1 2/3                     | 1 2/3 to 2 1/2 |
| <b>Fine:</b> Silty clay, Silty clay loam, Clay, Clay loam | 1 1/4 to 2                     | 2 to 3         |

\*For improved control of annual grasses, add as per the following labeling:

**Herbicide Recropping/Restrictions**

**"Lasso"** Soybeans or field corn may be replanted within 4 months; after 4 months, see "Replanting."  
or

**"Dual"** Soybeans or field corn may be replanted with 4 months; for rotation crops, see "Replanting" and follow instructions on "Dual" label. Do not graze or feed forage from treated areas to livestock.  
or

**"Prowl"** Soybeans or field corn may be replanted within 4 months; crops listed in "Replanting" may be planted the following year.

or

**"Surflan"** Soybeans may be replanted within 4 months; after 4 months, see "Replanting" but do not plant potatoes within 12 months. Do not use treated vines for feed or forage.

or

**"Amiben"** Soybeans or field corn may be replanted within 4 months; after 4 months, see "Replanting."

For control of black nightshade, apply:

**"Lorox" DF + "Lasso"**

| Pounds of "Lorox" DF + Quarts of "Lasso" per acre         |  |   |
|---|--|---|
| Soil Texture  | 1 to 3% Percent Organic Matter in Soil |   |
| Description   | 3/4 to 1 1/2                           | + |
| <b>Coarse:</b> Sandy Loam                                 | 3/4 to 1 1/2                           | + |
| <b>Medium:</b> Loam,                                      |  |   |
| Silt loam, Silt, Sandy clay, Sandy clay loam              | 1 to 1 2/3                             | + |
| <b>Fine:</b> Silty clay, Silty clay loam, Clay, Clay loam | 1 1/4 to 2                             | + |

Do not use on sand or loamy sands.

**Replanting:** Soybeans or field corn may be replanted within 4 months; after 4 months, see "Replanting".

For control of black nightshade in Kentucky, Illinois, Indiana and Ohio:

**"Lorox" DF + "Dual" 8E**

| Pounds of "Lorox" DF + Pints of "Dual" 8E per acre        |  |   |
|---|--|---|
| Soil Texture  | 1 to 3% Percent Organic Matter in Soil |   |
| Description   | 3/4 to 1 1/2                           | + |
| <b>Coarse:</b> Sandy Loam                                 | 3/4 to 1 1/2                           | + |
| <b>Medium:</b> Loam,                                      |  |   |
| Silt loam, Silt, Sandy clay, Sandy clay loam              | 1 to 1-2/3                             | + |
| <b>Fine:</b> Silty clay, Silty clay loam, Clay, Clay loam | 1 1/4 to 2                             | + |

Do not use on sand or loamy sands.

**Replanting:** Soybeans or field corn may be replanted within 4 months; after 4 months, see "Replanting".

**Preemergence Following "Treflan" or "Prowl" Preplant:**

Where "Treflan" or "Prowl" has been used as a preplant incorporated treatment (according to directions on product label), apply "Lorox" DF preemergence (after planting and before emergence of soybeans) as a separate operation using rates recommended below for "Lorox" DF alone. For rotation crops, follow instructions on "Treflan" or "Prowl" labels and see "Replanting". Plant seed at least 1 3/4" deep on flat or raised seedbeds only or injury to the crop may result. Injury to soybeans may result if application is made to fields with standing water or fields too wet to cultivate. Do not spray over top of emerged soybeans. Do not use on sand or loamy sand nor any soil containing less organic matter than listed below.

"Lorox" DF Alone--If weeds have emerged, add 1 pint surfactant for each 25 gals spray mixture.

**"Lorox" DF\***

| Pounds of "Lorox" DF per acre                                    |                                |   |
|--|--------------------------------|---|
| Soil Texture   | Percent Organic Matter in Soil |   |
| Description  | 1/2 to 2%                      | 2 to 5%   |
| Coarse: Sandy Loam   | 1 to 1 2/3                     | 1-2/3 to 3  |
| Medium: Loam,<br>Silt loam, Silt, Sandy<br>clay, Sandy clay loam | 1 1/4 to 2 1/3                 | 2 1/3 to 4  |
| Fine: Silty clay, Silty<br>clay loam, Clay,<br>Clay loam         | 1 1/3 to 2 2/3                 | 2 2/3 to 5<br>(Over 5% organic<br>matter, use 6 lbs.) |

Replanting: Soybeans or field corn may be replanted within 4 months; after 4 months, see "Replanting".

**Preemergence Followed by Postemergence (Directed)**

Application: Both preemergence and postemergence (directed to weeds with minimum contact with soybean plants) treatment may be required for control of:

Annual morningglory--"Lorox" DF preemergence (any combination listed) followed by a directed postemergence spray of "Lorox" DF + 2,4-DB.

Broadleaf signalgrass--"Lorox" DF + "Lexone" DF preemergence followed by a directed postemergence spray of "Lorox" DF, if needed.

Cocklebur (common)--"Lorox" DF + "Lexone" DF preemergence followed by a directed postemergence spray of "Lorox" DF + 2,4-DB.

Hemp sesbania--"Lorox" DF + "Lexone" DF preemergence followed by a directed postemergence application of "Lorox" DF, if needed.

Prickly sida--"Lorox" DF + "Lexone" DF preemergence followed by a directed postemergence spray of "Lorox" DF, if needed.

Velvetleaf--"Lorox" DF + "Lexone" DF preemergence followed by a directed postemergence application of "Lorox" DF, if needed.

Other weeds--Directed postemergence application of "Lorox" DF should be used as a backup treatment for listed preemergence treatments and will extend the duration and degree of weed control obtained with preemergence treatment. Postemergence treatment should be used only as needed.

For dosage rates, refer to "Preemergence" and "Directed Postemergence" sections under "Soybeans".

**SOYBEANS-Minimum or No-Tillage**

**Preemergence to Soybeans Postemergence to Weeds:**  
"Lorox" DF preemergence to soybeans may be used for preemergence and postemergence control of many broadleaf weeds and grasses where soybeans will be planted directly into a preformed bed (stale seed bed), cover crop or in previous crop residues such as corn or small grain stubble. Apply with ground equipment immediately before, during or after planting but before crop emerges; maintain constant agitation of spray mixture.

**"Lorox" DF Alone**

**"Lorox" DF\***

| Pounds of "Lorox" DF per acre                                    |                                |   |
|--|--------------------------------|---|
| Soil Texture   | Percent Organic Matter in Soil |   |
| Description  | 1/2 to 2%                      | 2 to 5%   |
| Coarse: Sandy Loam   | 1 to 1 2/3                     | 1-2/3 to 3  |
| Medium: Loam,<br>Silt loam, Silt, Sandy<br>clay, Sandy clay loam | 1 1/4 to 2 1/3                 | 2 1/3 to 4  |
| Fine: Silty clay, Silty<br>clay loam, Clay,<br>Clay loam         | 1 1/3 to 2 2/3                 | 2 2/3 to 5<br>(Over 5% organic<br>matter, use 6 lbs.) |

Replanting: Soybeans or field corn may be replanted within 4 months; after 4 months, see "Replanting".

If small seedling weeds are present, add 1 pint surfactant for each 25 gals spray mixture for improved contact activity. On larger weeds, add "Paraquat" or "Roundup" or "Bronco" as described under these combinations; these treatments will also suppress some perennial weeds.

"Lorox" DF + "Lasso" or "Dual" 8E or "Surflan"--will improve control of grasses and volunteer small grains.

"Lorox" DF + "Lasso"\* (or "Dual"\* or "Surflan"\*) + Paraquat or "Roundup"--Thoroughly mix "Lorox" DF and companion herbicide in spray tank first according to directions; then add paraquat, or "Roundup" as directed under Paraquat Combinations or "Roundup" Combinations below.

**"Lorox" DF + "Lasso"**

| Pounds of "Lorox" DF + Quarts of "Lasso" per acre                |                                |                        |
|--|--------------------------------|------------------------|
| Soil Texture   | Percent Organic Matter in Soil |                        |
| Description  | 1/2 to 3%                      | 3 to 6%                |
| Coarse: Sandy Loam   | 3/4 to 1 1/2 + 2               | 1 1/2 to 2 2/5 + 2 1/2 |
| Medium: Loam,<br>Silt loam, Silt, Sandy<br>clay, Sandy clay loam | 1-1/8 to 2 + 2-1/2             | 2 to 3 + 3             |
| Fine: Silty clay, Silty<br>clay loam, Clay,<br>Clay loam         | 1-1/4 to 2-1/4 + 2-1/2         | 2-1/4 to 3-1/2 + 3     |

\*For improved control of annual grasses and volunteer small grains, add as per labeling:

**Herbicide                      Recropping/Restrictions**

"Lasso" Soybeans or field corn may be replanted within 4 months; after 4 months, see "Replanting".

or

"Dual" Soybeans or field corn may be replanted within 4 months; for rotation crops see "Replanting" and follow instructions on "Dual" label. Do not graze or feed forage from treated areas to livestock.

or

"Surflan" Do not use treated vines for feed or forage. Soybeans may be replanted within 4 months; after 4 months, see "Replanting" and do not plant potatoes within 12 months.

90410

For control of black nightshade apply with paraquat or "Roundup" as shown below:

**"Lorox" DF + "Lasso"**

Pounds of "Lorox" DF + Quarts of "Lasso" per acre

Soil Texture

| Description  | 1 to 3% Percent Organic Matter in Soil |   |            |
|--|--|---|------------|
| Coarse: Sandy Loam   | 3/4 to 1 1/2                           | + | 2          |
| Medium: Loam,<br>Silt loam, Silt, Sandy<br>clay, Sandy clay loam | 1 to 2                                 | + | 2 1/2 to 3 |
| Fine: Silty clay, Silty<br>clay loam, Clay,<br>Clay loam         | 1 1/4 to 2 1/4                         | + | 3          |

Replanting: Soybeans or field corn may be replanted within 4 months; after 4 months, see "Replanting".

Paraquat Combinations-Select and tank mix in water one of the above treatments; then add 1/4 to 1/2 lb. active ingredient paraquat per acre for control of emerged weeds. Use the higher rate for weeds 4" to 6" tall. As the last ingredient,

**SOYBEANS-**

**Conventional or Minimum or No-Tillage**

Directed Postemergence Application: Apply "Lorox" DF alone or as a tank mixture with 2,4-DB, as a directed spray to cover weed foliage with minimum contact of the soybean plant. Do not spray higher than 3" on the soybean stem or crop injury may result. Do not spray over top of soybean plants. For broadcast application, use a single flood-type spray nozzle ("K" series or equivalent) per middle mounted on an oiling shoe or gauge wheel. For band treatment, use two nozzles per row mounted on an oiling shoe or gauge wheels, one of each side of row. To avoid spray drift, which may cause crop injury, do not exceed nozzle pressure of 25 psi nor use nozzle tips smaller than 8002 T-Jet (or equivalent) and do not spray under windy conditions. Add 1 pint surfactant for each 25 gals spray mixture. For best results, use a preemergence treatment (such as "Lorox" DF) or cultivation to control early weed growth and to increase the differential between height of soybeans and weeds.

NOTE: Do not use on soils with less than 1/2% organic

- 3 Registered trademark of Monsanto Company, "Lasso" contains 4 lbs alachlor per gal. "Roundup" contains 4 lbs glyphosate per gal. "Bronco" contains 2.6 lbs alachlor and 1.04 lbs glyphosate per gal. "Ramrod" contains 4 lbs propachlor per gal.
- 4 Paraquat contains 2 lbs active per gal, paraquat is a restricted use pesticide.
- 5 Registered trademark of American Cyanamid Company, "Prowl" contains 4 lbs pendimethalin per gal.
- 6 Registered trademark of Elanco Products Company, "Surflan" 75W contains 75% W.P. oryzalin, "Surflan" AS contains 4 lbs oryzalin per gal. "Treflan" contains 4 lbs trifluralin per gal.
- 7 Registered trademark of Rhone-Poulenc Inc., "Butoxone" contains 1.75 lbs dimethylamine salt and 2 lbs isooctyl ester of 2,4-DB per gal.
- 8 Registered trademark of Westvaco Corporation.
- 9 Registered trademark of ICI United States, Inc.

**D-101593**

© 1993 E.I. DU PONT DE NEMOURS AND COMPANY, AGRICULTURAL PRODUCTS, WILMINGTON, DELAWARE 19898