

SEP 23 1994

Ms. Jeanine H. Betsher
Cedar Chemical Corporation
5100 Poplar Ave.
Suite 2414
Memphis, TN 38137

Dear Ms. Betsher:

SUBJECT: Butoxone Herbicide
EPA Reg. No. 56077-31
Label Amendment
Your Submission Dated February 17, 1994

The labeling referred to above, submitted in accordance with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. A stamped copy is enclosed for your records. Please submit five (5) final printed copies for the above mentioned label before releasing the product for shipment.

Sincerely yours,

Joanne I. Miller
Product Manager (23)
Fungicide-Herbicide Branch
Registration Division (7505C)

CONCURRENCES

SYMBOL	7.57.5C						
SURNAME	J. Miller						
DATE	9/23/94						

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BUTOXONE HERBICIDE

For the control of certain seedling broadleaf weeds in peanuts, soybeans, and seedling stands of alfalfa, and for use on established stands of alfalfa.

Active Ingredients:

Dimethylamine salt of 4-(2,4-dichlorophenoxy)	
butyric acid*.....	23.00%
Inert Ingredients:.....	77.00%
TOTAL.....	100.00%

*Equivalent to 19.5% by weight of 4-(2,4-dichlorophenoxy) butyric acid, or not less than 1.75/lbs. 4-(2,4-DB) acid per gal. at 68°F.

EPA Registration No. 56077-31
EPA Establishment No.

KEEP OUT OF REACH OF CHILDREN

CAUTION

STATEMENT OF PRACTICAL TREATMENT

If Swallowed: Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not give anything by mouth to an unconscious person. Get medical attention.

If on Skin: Wash contaminated areas thoroughly with soap and water. Do not reuse contaminated clothing until washed. Get medical attention if irritation persists.

If in Eyes: Flush with copious amounts of clean water for 10-15 minutes. Get medical attention.

APPROVED
without conditions
by EPA on 9/23/94

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Under the Federal Insecticide, Fungicide, and Rodenticide Act, this pesticide is registered under the number 56077-31

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Avoid breathing spray mist. Avoid contact with skin, eyes, and clothing. When handling this product wear chemical resistant gloves. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

PERSONAL PROTECTIVE EQUIPMENT:

Applicators and other handlers must wear:
Long-sleeved shirt and long pants
Chemical-resistant gloves
Shoes plus socks
Chemical-resistant headgear for overhead exposure

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:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet
 - Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.
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ENVIRONMENTAL HAZARDS

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters. Do not contaminate water intended for irrigation or domestic purposes. Do not apply when weather conditions favor drift from target area.

FOR CHEMICAL SPILL, LEAK, FIRE OR EXPOSURE, CALL TOLL FREE 1-800-424-9300

**AGRICULTURAL CHEMICAL
DO NOT SHIP OR STORE WITH FOODS, FEEDS,
DRUGS, OR CLOTHING.**

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DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 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
- chemical-resistant gloves
- shoes plus socks
- chemical-resistant headgear for overhead exposure

STORAGE AND DISPOSAL

STORAGE: Do not contaminate water, food, or feed, by storage or disposal. Open dumping is prohibited. Do not store this product near fertilizers, seeds, insecticides, or fungicides. Store at temperatures above 32°F. If product is allowed to freeze warm to 50°F and agitate thoroughly before using. Containers should not be stacked more than six (6) high. Reclose all partially used containers by thoroughly tightening screw cap. Damaged or leaking containers which cannot be used immediately should be transferred to suitable sound containers and properly marked. Absorb any spill with a suitable clay absorbent and dispose of as indicated under "Pesticide Disposal".

For safety and prevention of unauthorized use, all pesticides should be stored in locked facilities.

To prevent accidental misuse, different pesticides should be stored in separate areas with enough distance between to provide clear identification.

Opened, partially used pesticides should be stored in original labeled containers when possible. When transfer to another container is necessary because of leakage or damage, carefully mark, and identify contents of the new container.

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

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

Apply this product only as specified on this label.

NOTE: Avoid spray drift to susceptible plants and crops: cotton, tobacco, tomatoes, ornamentals, etc. Coarse sprays are less likely to drift.

Spray equipment previously used to apply another phenoxy must be thoroughly cleaned with alkali and water prior to use with Butoxone. Similarly after using Butoxone wash sprayer thoroughly before using again to spray susceptible crops. Do not use near greenhouses. Observe all caution and limitations on labelling of all products used in mixtures.

Use agitation to keep solution well mixed, especially if it has been allowed to stand unagitated.

Calibrate spray accurately.

DO NOT APPLY WHEN CROP IS STRESSED FROM LACK OF MOISTURE.

DO NOT APPLY THIS PRODUCT THROUGH ANY TYPE OF IRRIGATION SYSTEM.

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GROUNDWATER CONTAMINATION

Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-DB have been associated with mixing/loading and disposal sites. Caution should be exercised when handling 2,4-DB pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will prevent groundwater contamination.

ALFALFA

APPLICATION:

For use in seedling alfalfa, spray when the crop has reached the 1 to 2 trifoliolate leaf stage and growing conditions are good. In established alfalfa certain weeds will emerge in the fall and over winter in a rosette stage. Best control of these weeds will result from application in late fall or early winter rather than in the spring. Do not apply after flowering.

WHEN TO APPLY:

Weeds must be in the young seedling stage and actively growing to achieve satisfactory results. For best results spray weeds in the 2 to 5 leaf stage of growth.

AMOUNT TO USE:

Apply Butoxone as an overall spray by ground sprayer or airplane. Apply at rates listed below according to weed problems. Use the higher rate if weeds are past the seedling stage. Aerial applications should be made in at least 5 gallons of water per acre, while ground sprayer applications should be in a minimum of 10 gallons of water per acre. Higher spray gallonage per acre will give better coverage and weed control. Spray gallonage should give adequate coverage of the weeds without run-off. The use of a non-ionic or non-ionic/anionic surfactant or crop oil concentrate approved for agricultural uses at their label rates will usually result in better wetting of foliage and weed control, especially if weeds are beyond the seedling stage.

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BROADLEAF WEEDS	Rate of Butoxone Per Acre
Annual Morningglory (Ipomoea spp.)	4-1/2 pints
Cocklebur (Xanthium spp.)	
Common Lambsquarters (Chenopodium album)	
Jimsonweed (Datura stramonium)	
Kochia or Mexican Fireweed (Kochia scoparia)	
Pigweed (Amaranthus spp.)	
Velvetleaf (Abutilon theophrasti)	
<u>Wild Turnip (Brassica campestris)</u>	
Black Mustard (Brassica nigra)	6-1/2 pints
Buckhorn Plantain (Plantago lanceolata)	
Common Ragweed (Ambrosia artemisiifolia)	
Curly Dock (Rumex crispus)	
Field Pennycress (Fanweed or Stinkweed) (Thlaspi arvense)	
Hedge Smartweed (Polygonum scandens)	
Ladysthumb (Polygonum persicaria)	
Prickly Lettuce (Lactuca serriola)	
Shepherdspurse (Capsella bursa-pastoris)	
Sweetclover (Volunteer plants) (Melilotus spp.)	
Wild Beet (Beta maritima)	
<u>Wild Mustard (Brassica Kaber)</u>	

Do not graze established alfalfa, nor feed straw or hay from established alfalfa to livestock within 30 days after application. Do not graze or feed SEEDLING alfalfa within 60 days after application. Irrigation, in particular, overhead sprinkler irrigation should be delayed as long as possible (10 days or more) following application of Butoxone to avoid washing the chemical into the root zone. Do not apply when crop is stressed from lack of moisture. DO NOT use on peas.

Apply as a postemergent spray. When properly timed there is little or no effect on the crop. In established alfalfa there may be some twisting of stems and malformation of leaves. This condition is usually outgrown.

Do not spray when daytime temperatures are expected to exceed 90°F within the next 2 or 3 days. Do not apply if temperatures are likely to fall below 40°F during or shortly after treatment.

Use of a surfactant or crop oil concentrate in the desert areas of California and Arizona may cause some crop injury under certain climatic and crop stress conditions. Do not use a surfactant unless possible crop injury is acceptable.

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PEANUTS

APPLICATION: Apply Butoxone postemergent as an overall spray by ground sprayer or airplane. With ground applications use a boom sprayer with flat fan-type nozzle. Adjust the height of the boom above the crop so the growing terminals of weeds are sprayed. Use low pressure (about 20 to 40 lbs. per sq. inch). Do not use boom jet nozzles. With airplane applications Butoxone has been successfully applied using 5 gallons of total solution per acre. The height of the application should insure THOROUGH COVERAGE of the tops of the weeds. Best control has resulted from airplane application with coarse spray when cocklebur is at least crop high and actively growing. Other weed species should be in the seedling stage and actively growing. Airplane application is not recommended in the vicinity of susceptible crops.

Do not apply if peanuts are suffering from lack of moisture.

Amount to Use: Apply the recommended rates as indicated in the tables below.

<u>BROADLEAF WEEDS</u>	<u>Rate of Butoxone Per Acre</u>
<u>Cocklebur (Xanthium spp.)</u>	<u>1 pint</u>
Annual Morningglory (Ipomoea spp.)	1- $\frac{1}{2}$ pints
Common Lambsquarters (Chenopodium album)	
Common Ragweed (Ambrosia artemisiifolia)	
Jimsonweed (Datura stamonium)	
Sicklepod (Coffeeweed) (Cassia obtusifolia)	
<u>Velvetleaf (Abutilon theophrasti)</u>	

Do not apply more than two (2) applications per season; second application should be made no later than the late bloom stage of peanuts (about 90 to 100 days after planting). Do not feed treated peanut vines or peanut hay to livestock. Do not apply to peanuts within 30 days of harvest.

SOYBEANS

APPLICATION: Apply Butoxone postemergent as an overall spray by ground sprayer or airplane. With ground applications use a boom sprayer with flat fan-type nozzles. Adjust the height of the boom above the crop so the growing terminals of all weeds are sprayed. Use low pressure (about 20 to 40 lbs. per sq. inch). Do not use boom jet nozzles. With airplane applications Butoxone has been

successfully applied using 5 gallons of total spray solution per acre. The height of the application should insure thorough coverage of the tops of the weeds. Best control has resulted when cocklebur is at least crop high and actively growing. Airplane application is not recommended in the vicinity of susceptible crops. Do not apply if soybeans are suffering from lack of moisture.

**TOPICAL (OVERHEAD)
APPLICATIONS**

Apply from 7 to 10 days before soybeans bloom through mid-bloom. A good indication that the beans are about to bloom is when the soybean plants have turned a dark green color. If application is made 7 to 10 days before bloom, apply one (1) gallon of Butoxone per 10 acres; if application is made from early-bloom through mid-bloom, apply 1 gallon of Butoxone per 8 acres. Use sufficient water to obtain adequate coverage. The rates recommended are for the control of cocklebur. These rates will also stunt or partially control certain other weeds including annual morningglory, velvetleaf, and jimsonweed. In the Midwest use only a directed application since topical application may reduce soybean yields.

NOTICE: Application should not be made to sparsely foliated stands stressed because of disease or lack of moisture. It is essential that the canopy above the soybeans be complete. To apply the product otherwise could result in crop damage such as stalk and stem splitting, and reduction in yield.

DIRECTED APPLICATIONS

For best results apply when weeds do not exceed 3 inches in height. Good coverage of the growing terminals of weeds is essential for effective control. Do not allow spray pattern to contact more than the lower one-third of the soybean plants.

Do not apply more than two (2) applications per season. Precise application is essential to prevent damage to the crop. In order to maintain the correct spraying height, nozzles must be mounted on oiling shoes, skid shoes, or on cultivators with gauge wheels. Do not use booms with drop nozzles.

First Application: Apply as directed spray when soybeans are 8 to 12 inches tall and weeds have emerged.

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Second Application: Apply as directed spray no later than mid-bloom stage.

Amount to Use: Apply the recommended rates as indicated in the table below.

<u>BROADLEAF WEEDS</u>	Rate of Butoxone Per Acre
<u>Cocklebur (Xanthium spp.)</u>	1 pint
Annual Morningglory (Ipomoea spp.)	1- $\frac{1}{4}$ pints
Common Lambsquarters (Chenopodium album)	
Common Ragweed (Ambrosia artemisiifolia)	
Jimsonweed (Datura stramonium)	
Sicklepod (Coffeeweed) (Cassia obtusifolia)	
<u>Velvetleaf (Abutilon theophrasti)</u>	

While some temporary twisting of soybean plants may follow an application, this will have little or no permanent effect on the crop.

Applications made under adverse growing conditions, such as periods of drought, will result in injury to the beans; under such conditions the crop should not be sprayed.

Do not spray Butoxone on soybeans showing a general infestation of Phytophthora.

Do not apply more than the recommended amount.

Do not harvest soybeans within 60 days after application.

Do not use on soybeans grown West of the Rocky Mountains.

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**DIRECTED
BAND APPLICATIONS
OF MIXTURES OF BUTOXONE
AND LOROX 50 W**

Application: Apply directed spray when beans are at least 8 inches tall and when weeds do not exceed two inches in height. Direct spray to cover weed foliage with minimum contact of the soybean plant. Do not spray higher than 3 inches on the soybean stem or crop injury may result. Use an 8002T-Jet (or equivalent) or larger with minimum of 25 gallons per broadcast acre and spray pressure of 20 to 25 psi, to avoid spray drift. For each 25 gallons of spray mixture a pint of surfactant such as Surfactant WK may be added. Continuous agitation in the spray tank is required to keep the material in suspension. Agitate by mechanical or hydraulic means; if by-pass or return line is used, it should terminate at the bottom of the tank to minimize foaming. Openings in nozzle screen should be equal to or larger than 50 mesh. Apply with sprayer nozzles mounted on skid shoes, oiling shoes, or on cultivators with gauge wheels. Do not mount on booms with drop nozzles or on cultivators without gauge wheels.

Amount to Use: Apply the recommended rates as indicated in the table below.

<u>BROADLEAF WEEDS</u>	<u>Rate of Butoxone and Lorox per broadcast acre</u>
Annual Morningglory (Ipomoea spp.)	1 pint +
Cocklebur (Xanthium spp.)	1 pound
Common Lambsquarters (Chenopodium album)	
Common Ragweed (Ambrosia artemisiifolia)	
Crabgrass (Digitaria spp.) (2 leaf)	
Jimsonweed (Datura stramonium)	
Prickly Sida (Teaweed) (Sida spinosa)	
Sesbania (Sesbania spp.)	
<u>Velvetleaf (Abutilon theophrasti)</u>	

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Use a proportional amount of the two chemicals on the band (for example, on a 12 inch band in 36 inch rows use $\frac{1}{4}$ pint of Butoxone and $\frac{1}{2}$ lb. of Lorox per acre). If a new flush of weeds occur after initial treatment, make a second application but do not apply within 60 days of harvest or make more than 2 applications per growing season. Do not allow spray or spray drift to contact growing terminals of beans, as excessive crop injury will result. Do not feed soybean forage or hay to livestock from fields treated with this mixture. Harvested soybeans may be used for feed or oil purposes.

NOTE: Do not use on sands, loamy sands, gravelly soils, or on exposed sub-soils. Do not use on soils containing less than $\frac{1}{2}$ % organic matter as crop injury may result. Observe all cautions and limitations of labeling of all products used in mixture.

** Lorox 50W-registered trademark of E.I. duPont de Nemours & Co. (Inc.)

CONDITIONS OF SALE AND WARRANTY

CEDAR AND SELLER OFFER THIS PRODUCT AND THE BUYER AND USER ACCEPTS THIS PRODUCT UNDER THE FOLLOWING AGREED CONDITIONS OF SALE AND WARRANTY.

The directions for use of this product are believed to be reliable and should be followed carefully. However, it is impossible to take into account all variables and to eliminate all risks associated with its use. Injury or damage may result because of conditions which are beyond the control of Cedar or the Seller. Cedar warrants only that this product conforms to the chemical description on the label and is believed to be reasonably fit for the purposes referred to in the Directions for Use when used as directed under normal conditions. CEDAR MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. In no case shall Cedar or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product. Any variation or exception from this warranty must be in writing and signed by an authorized Cedar representative.

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