

PM23

56077-31

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

JUN 22 1994

E. M. Bellet, Ph.D.  
Chemical Consultants  
International, Inc.  
7270 West 98th Terrace  
Suite 100  
Overland Park, Kansas 66212

Dear Dr. Bellet:

SUBJECT: Butoxone-A Selective Weed Killer  
EPA Registration No. 56077-31  
Label Amendment  
Your Submission Dated April 27, 1993

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended is acceptable with the following provisions:

1. This labeling does not bear the required Worker Protection statements as outlined in PR Notices 93-7 and 93-11. We note that you have submitted labels in accordance with the instructions in those Notices, and a reviewed copy of your proposed labeling stamped "Accepted with Comments", dated March 17, 1994 was forwarded to you.
2. Under the Precautionary Statements, in the section entitled, Environmental Hazards, change the first sentence to read as follows: "Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark."
3. In the Directions for Use make the following changes:
  - a) Under the Reentry Statement, third paragraph, revise the second sentence to read:  
  
"The front panel PRECAUTIONARY STATEMENTS should be read to workers as well as the..."

CONCURRENCES							
SYMBOL	7585C						
SURNAME	Morgan						
DATE	6/21/94						

- 4. Under the Storage and Disposal section, in the Container Disposal Statement add the words "or incineration" to the second sentence. It should read:

"...in a sanitary landfill, or incineration, or..."

- 5. Under the section on Soybean Application:
  - a) Correct the spelling of "best" in sentence number eight. It should read, "Best control has..."
  - b) In the last sentence in this section, add the word "if". It should read, "Do not apply if..."
- 5. Under the section on Directed Applications, change the heading from "Third Application", to read as "Amount to Use", per your latest accepted label dated June 23, 1993.
- 6. The proposed labeling contains small typographical errors which should be corrected before final printing.

A stamped copy is enclosed for your records. Please submit five (5) final printed copies of the referenced label incorporating the above changes, before releasing the product for shipment.

Sincerely yours,

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

3-8-14

**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.

**PRECAUCION AL USUARIO:** SI USTED NO LEE INGLES, NO USE ESTE PRODUCTO HASTA QUE LA ETIQUETA LE HAYA SIDO EXPLICADA AMPLIAMENTE.

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION-CAUCION**

**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.

**BEST AVAILABLE COPY**

ACCEPTED  
with COMMENTS  
In EPA Letter Dated

JUN 22 1994

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended for the pesticide  
registered under EPA Reg. No.  
56077-31

4/8/14

**PRECAUTIONARY STATEMENTS**  
**CAUTION**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

Harmful if swallowed. Avoid breathing spray mist. Avoid contact with skin, eyes, and clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists. Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water, ~~or wetlands~~ (swamps, bogs, marshes, or potholes). 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.**

**DIRECTIONS FOR USE**

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

**REENTRY STATEMENT:** Do not enter treated areas without protective clothing until sprays have dried. Protective clothing should include hat or other suitable head covering, long-sleeved shirt and long-legged trousers, or a coverall type garment, shoes and socks.

Because certain states may require more restrictive re-entry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. The front panel PRECAUTIONARY STATEMENTS should be read to workers as the instruction not to enter until sprays have dried. When oral warnings are given, warnings shall be given in language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information:

CAUTION: Area treated with 2,4-DB on (date of application). Do not enter without appropriate protective clothing until sprays have dried. (Insert here Statements of Practical Treatment as on front panel).

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**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 between of as indicated under "Pesticide Disposal".

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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.

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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 10 gallons of water per acre, while ground sprayer applications should be in 20 to 30 gallons of water per acre. Spray gallonage should give adequate coverage of the weeds without run-off. The use of an approved non-ionic surfactant for agricultural uses (such as X-77, Surfactant WK, etc.) at their label rates will usually result in better weed control, especially if weeds are beyond the seedling stage. Do not use with surfactant in the desert areas of Arizona and California.

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BROADLEAF WEEDS	Rate of Butoxone Per Acre	
Annual Morningglory (Ipomoea spp.)	4-½ pints	
Cocklebur (Xanthium spp.)		
Common Lambsquarters ✓ (Chenopodium album)		
Jimsonweed (Datura stramonium) -		
Kochia or Mexican Fireweed - (Kochia scoparia)		
Pigweed (Amaranthus spp.) -		
Velvetleaf (Abutilon theophrasti) -		
Wild Turnip (Brassica campestris) -		
Black Mustard (Brassica nigra) -		6-½ 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) -		
Wild Mustard (Brassica Kaber) -		

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.

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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>
Cocklebur (Xanthium spp.)	1 pint
Annual Morningglory (Ipomoea spp.)	1- <sup>3</sup> / <sub>4</sub> pints
Common Lambsquarters (Chenopodium album)	
Common Ragweed (Ambrosia artemisiifolia)	
Jimsonweed (Datura stamonium)	
Sicklepod (Coffeeweed) (Cassia obtusifolia)	
Velvetleaf (Abutilon theophrasti)	

Do not apply more than two 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

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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 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 mornigglory, 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.

*Apply to the*  
**Third Application:** Apply the recommended rates as indicated in the labels below.

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

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 Phythophthora.

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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12/3/57

**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 without gauge wheels.

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

<u>BROADLEAF WEEDS</u>	Rate of Butoxone and Lorox per broadcast acre
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>	

Use a proportional amount of the two chemicals on the band (for example, on a 12 inch band in 36 inch rows use  $\frac{1}{4}$  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.)

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**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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