

Reg # 45639-86

PM-25

198

United States Environmental Protection Agency  
Washington, D.C. 20460

OCT 8 1993

Office of  
Prevention, Pesticides and  
Toxic Substances

Lesley Palmer Czocho, Ph.D.  
NOR-AM CHEMICAL COMPANY  
3509 SILVERSIDE ROAD  
WILMINGTON DE 19803

Subject: Label Amendment Submission of 06/10/93  
in Compliance with WPS Labeling Requirements  
EPA Reg No. 45639-86  
BETANEX

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is accepted subject to the comments listed below.

Based on your certification, the Agency has accepted only those changes to your labeling which are necessary to comply with PR Notices 93-7 and 93-11, which reflect the WPS labeling requirements of 40 CFR part 156, subpart K. Any other labeling changes submitted in connection with this amendment application and not directly related to compliance with PR Notice 93-7 or 93-11 have neither been reviewed nor accepted by the Agency. If you wish to make any such changes, you must submit a separate amendment application proposing them. If your product registration is currently suspended, acceptance of this labeling amendment does not affect the suspension in any way.

A copy of your proposed labeling stamped "Accepted with comments" is attached. Make any required changes described in the attached and send three copies of final labeling as soon as it is available to:

**BEST AVAILABLE COPY**

Document Processing Desk (FIN-LABEL)

298  
Office of Pesticide Programs (H-7504C)  
U.S. Environmental Protection Agency  
401 M Street SW  
Washington, DC 20460-0001

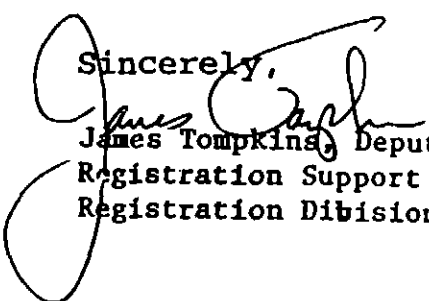
Hand or courier deliveries of final labels may be made to:

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

Please correct the typographical errors circled on the draft before printing final labeling.

In your final labeling the "Agricultural Use Requirements" text must be contained in a clearly separate box. This box may be set apart by a line, by another graphical device, by a different color background, or in any other way that clearly distinguishes it from surrounding text.

Sincerely,

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

# SPECIMEN LABEL

ACCEPTED  
with COMMENTS  
In EPA Letter Dated

398

OCT 8 1993

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

45639-86

FOR AGRICULTURAL USE ONLY

# Betanex®

## SUGAR BEET HERBICIDE

Postemergence Herbicide for Control of Redroot Pigweed and Other  
Weeds in Sugar Beets

### ACTIVE INGREDIENT:

Desmethopram

### INERT INGREDIENTS:

Contains 1.6 lb. active ingredient per gallon

1.6 lb. Desmethopram (40% w/w) in 1.0 gallon of solvent

1.0 gallon of solvent (60% w/w) in 1.0 gallon of solvent

TOTAL

1.600  
1.000  
2.600

EPA Reg. No. 45639-86

EPA Est. No. 407-MN-1

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.)

## STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED

NOTE TO PHYSICIAN

IF IN EYES

IF ON SKIN

DO NOT REUSE THIS CONTAINER. DESTROY WHEN EMPTY.

**NOR-AM**

NOR-AM

1.600  
1.000  
2.600

NET CONTENTS:

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## **PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS (AND DOMESTIC ANIMALS) WARNING**

**HARMFUL IF SWALLOWED. MAY PRODUCE SEVERE IRRITATION OF EYES AND IRRITATION OF SKIN. AVOID BREATHING SPRAY MIST. AVOID CONTACT WITH SKIN AND EYES.**

**AVOID CONTAMINATION OF FEED AND FOOD-STUFFS.**

### **PERSONAL PROTECTIVE EQUIPMENT**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category F on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- ☐ Long-sleeved shirt and long pants
- ☐ Chemical resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or Viton
- ☐ Shoes plus socks
- ☐ Protective eyewear

Discard clothing and 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 CONTROLS STATEMENT**

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

### **ENVIRONMENTAL HAZARDS**

**THIS PRODUCT IS TOXIC TO FISH. FOR TERRESTRIAL USES, 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 APPLY DIRECTLY TO WATER, OR TO AREAS WHERE SURFACE WATER IS PRESENT, OR TO INTERTIDAL AREAS BELOW THE MEAN HIGH WATER MARK. DO NOT APPLY WHERE RUNOFF IS LIKELY TO OCCUR. DO NOT APPLY WHEN WEATHER CONDITIONS FAVOR DRIFT FROM AREAS TREATED. DO NOT CONTAMINATE WATER THROUGH DISPOSAL OF EQUIPMENT WASHWATERS.**

### **PHYSICAL OR CHEMICAL HAZARDS**

**DO NOT USE OR STORE NEAR HEAT OR OPEN FLAME.**

**IN CASE OF FIRE, LEAKY, OR DAMAGED CONTAINERS, OR OTHER EMERGENCY, REPORT AT ONCE BY TOLL-FREE TELEPHONE TO: 800-424-9300.**

## **STORAGE AND DISPOSAL**

**Storage:** Store in original container and keep closed. Store in a cool, dry place. Do not use or store near heat or open flame.

**Pesticide Disposal:** Do not contaminate water, food or feed by storage or 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.

### **DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read the entire Directions for Use before using this product.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide 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 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
- ☐ Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, or Viton
- ☐ Shoes plus socks
- ☐ Protective eyewear

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## GENERAL INFORMATION

BETANEX is a selective postemergence herbicide for use in sugar beets for control of the following weeds:

|                            |                                |
|----------------------------|--------------------------------|
| Annual sowthistle .....    | <i>Sonchus oleraceus</i>       |
| Black nightshade .....     | <i>Solanum nigrum</i>          |
| Hairy nightshade .....     | <i>Solanum sarachoides</i>     |
| Coast fiddleneck .....     | <i>Amsinckia intermedia</i>    |
| Common chickweed .....     | <i>Stellaria media</i>         |
| Common lambsquarters ..... | <i>Chenopodium album</i>       |
| Common ragweed .....       | <i>Ambrosia artemisiifolia</i> |
| Groundcherry .....         | <i>Physalis lanceifolia</i>    |
| London rocket .....        | <i>Sisymbrium irio</i>         |
| Nettleleaf goosefoot ..... | <i>Chenopodium murale</i>      |
| Prostrate pigweed .....    | <i>Amaranthus gracizans</i>    |
| Purslane .....             | <i>Portulaca oleracea</i>      |
| Redroot pigweed .....      | <i>Amaranthus retroflexus</i>  |
| Shepherdspurse .....       | <i>Capsella bursa-pastoris</i> |
| Wild buckwheat .....       | <i>Polygonum convolvulus</i>   |
| Wild mustard .....         | <i>Brassica kaber</i>          |

## USE PRECAUTIONS

DO NOT APPLY BETANEX® TO SUGAR BEETS LATER THAN 75 DAYS PRIOR TO HARVEST.

DO NOT EXCEED A TOTAL OF 12 PINTS BETANEX PER ACRE PER SEASON.

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

BETANEX MAY CAUSE BEET INJURY IF THE CROP IS UNDER STRESS FROM ONE OR MORE OF THE FOLLOWING CONDITIONS:

- ☐ Rapid climatic changes from cool, overcast days, to hot (85° or over), bright days.
- ☐ Windy conditions or drought.
- ☐ Frost within 7 days following treatment.
- ☐ Use of a preplant or preemergence herbicide or other chemicals.
- ☐ Insect or disease injury.
- ☐ Close cultivation.

If stress conditions are present, delay application in order to give plants a chance to recover.

If extreme weather conditions are of short duration, delay spraying until the end of such a period.

DO NOT OVERTREAT: The use of higher than recommended rates may cause beet injury.

Do not spray while dew is present.

Rainfall within 6 hours of spraying may reduce weed kill. Do not allow spray drift to contact adjacent crops which may be injured by spray drift.

Important: BETANEX may cause temporary growth retardation and/or chlorosis or tip-burn on sugar beets. Beets usually resume normal growth within 10 days.

When used as directed, BETANEX is selective in sugar beets past the two-true leaf stage. Beets may be severely injured if treated before the two-true leaf stage. For best results, spray when the weeds are at the two-true leaf stage. Best results are obtained when the weeds are actively growing and are not under water or heat stress.

Mixing the Spray: Make sure the Sprayer is CLEAN.

BETANEX emulsifiable concentrate formulation contains sufficient wetting agents for optimum coverage. Do not add additional wetting agents or other spray adjuvants. Add sufficient water to fill the lines. Then add the desired amount of BETANEX and the remaining quantity of water with the bypass agitator running. Bypass agitation is sufficient. Mechanical agitation is not necessary. Only use freshly prepared spray emulsions.

## RATE OF APPLICATION

By Ground: Apply BETANEX at the rate of 4 1/2 to 7 1/2 pints per acre in 20 to 50 gallons of water broadcast basis. For band application, see dosage Chart 2.

By Air: Apply BETANEX at the rate of 4 1/2 to 7 1/2 pints per acre using 5 to 15 gallons of spray per acre.

Apply the 4 1/2 to 7 1/2 -pint rates only to sugar beets past the two-true leaf stage. Use the 7 1/2-pint rate only on well-established beets which are not under stress.

In order to avoid phytotoxic spray drift to non-target crops during application of BETANEX the following buffer zones should be observed:

|  |          |
|--|----------|
| Cotton, Potatoes, Sunflowers, Sorghum, |          |
| Wheat .....                            | 50 feet  |
| Blackeye Beans, Cabbage, Flax .....    | 100 feet |
| Lettuce, Rape, Tomatoes .....          | 300 feet |

DO NOT APPLY WHEN WIND SPEED IS OVER 10 MILES PER HOUR. AVOID APPLICATIONS WHEN CONDITIONS FAVOR DRIFT.

For Aerial Applications: In order to avoid excessive phytotoxicity to fall-planted sugar beets south of the Tehachapi Mountains in California when temperatures are above 85°F, apply BETANEX at the rate of 1 pint per acre (broadcast equivalent). Evening applications are recommended.

For further information, contact your County Agricultural Agent, Farm Advisor or NOR-AM Chemical Company.

Repeat Application of BETANEX®: For control of later germinating weeds, make a second application of BETANEX. Use 4 1/2 to 6 pints of BETANEX. Allow at least 7 days between first and second applications. Apply when beets have at least 4 leaves. For best results, use the higher rate and spray when weeds are at the two-true leaf stage. Apply lower rates when the beets are under stress as explained on the left panel.

SPLIT (LOW RATE) APPLICATIONS: (ALL SUGAR BEET AREAS EXCEPT CALIFORNIA): Split (low rate) applications of BETANEX may be applied to sugar beets to control early germinating weeds. The first spray must be applied when the earliest emerging weeds have reached cotyledon size. See Chart 1, below for broadcast rates. See Chart 2, below for equivalent band rates. For band applications, apply in 5-10 gallons of water per acre.

Any weeds which are not completely controlled by the first treatment will usually be checked and controlled by repeat applications. The repeat application should be made 5 to 7 days after the preceding application or when another flush of weeds germinates. If the second application is delayed, conventional treatment as described above will be necessary.

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Tank-Mix: BETANEX applied postemergence in a tank-mix with NORTRON® SC broadens and enhances the control of troublesome weeds including the following:

#### ANNUAL BROADLEAF WEEDS

|                              |                                 |
|------------------------------|---------------------------------|
| Annual sowthistle .....      | <i>Sonchus oleraceus</i>        |
| Black nightshade .....       | <i>Solanum nigrum</i>           |
| Hairy nightshade .....       | <i>Solanum serrachoides</i>     |
| Coast fiddleneck .....       | <i>Amsinckia intermedia</i>     |
| Common chickweed .....       | <i>Stellaria media</i>          |
| Common lambsquarters .....   | <i>Chenopodium album</i>        |
| Common ragweed .....         | <i>Ambrosia artemisiifolia</i>  |
| Groundcherry .....           | <i>Physalis lanceifolia</i>     |
| Kochia* .....                | <i>Kochia scoparia</i>          |
| Ladysthumb .....             | <i>Polygonum persicaria</i>     |
| London rocket .....          | <i>Sisymbrium irio</i>          |
| Nettleleaf goosefoot .....   | <i>Chenopodium murale</i>       |
| Pennsylvania smartweed ..... | <i>Polygonum pennsylvanicum</i> |
| Prostrate pigweed .....      | <i>Amaranthus gracilis</i>      |
| Purslane .....               | <i>Portulaca oleraceus</i>      |
| Redroot pigweed .....        | <i>Amaranthus retroflexus</i>   |
| Shepherdspurse .....         | <i>Capsella bursa-pastoris</i>  |
| Wild buckwheat .....         | <i>Polygonum convolvulus</i>    |
| Wild mustard .....           | <i>Brassica kaber</i>           |

\*Spray kochia while in the rosette stage, less than one inch in diameter.

#### ANNUAL GRASS WEEDS

|                        |                             |
|------------------------|-----------------------------|
| Annual bluegrass ..... | <i>Poa annua</i>            |
| Canarygrass .....      | <i>Phalaris canariensis</i> |

See Chart 1, below, for broadcast rates. See Chart 2 for equivalent band rates.

#### CHART 1

#### DOSAGE CHART FOR BROADCAST APPLICATION

| Sugar Beet Stage | Pints/Acre Broadcast |                      |
|------------------|----------------------|----------------------|
|                  | BETANEX              | BETANEX + NORTRON SC |
| Cotyledon        | 1.5                  | 1.5 + 0.25           |
| 2 leaf           | 2.0                  | 2.0 + 0.33           |
| 4 leaf           | 3.0                  | 3.0 + 0.5            |

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**CHART 2  
BETANEX DOSAGE CHART FOR BAND APPLICATION**

| Broadcast Rate | Band Width | Band Rate — Row Spacing |              |              |
|----------------|------------|-------------------------|--------------|--------------|
|                |            | 22"                     | 28"          | 30"          |
| 1.5 pints/acre | 5"         | 5.5 fl. oz.             | 4.3 fl. oz.  | 4.0 fl. oz.  |
|                | 7"         | 7.6 fl. oz.             | 6.0 fl. oz.  | 5.6 fl. oz.  |
| 2 pints/acre   | 5"         | 7.3 fl. oz.             | 5.7 fl. oz.  | 5.3 fl. oz.  |
|                | 7"         | 10.2 fl. oz.            | 8.0 fl. oz.  | 7.5 fl. oz.  |
| 3 pints/acre   | 5"         | 10.9 fl. oz.            | 8.6 fl. oz.  | 8.0 fl. oz.  |
|                | 7"         | 15.3 fl. oz.            | 12.0 fl. oz. | 11.2 fl. oz. |
| 4.5 pints/acre | 5"         | 16.4 fl. oz.            | 12.9 fl. oz. | 12.0 fl. oz. |
|                | 7"         | 22.9 fl. oz.            | 18.0 fl. oz. | 16.8 fl. oz. |
| 6 pints/acre   | 5"         | 21.8 fl. oz.            | 17.1 fl. oz. | 16.0 fl. oz. |
|                | 7"         | 30.5 fl. oz.            | 24.0 fl. oz. | 22.4 fl. oz. |
| 7.5 pints/acre | 5"         | 27.3 fl. oz.            | 21.4 fl. oz. | 20.0 fl. oz. |
|                | 7"         | 38.2 fl. oz.            | 30.0 fl. oz. | 28.0 fl. oz. |

**NORTRON SC DOSAGE CHART FOR BAND APPLICATION**

| Broadcast Rate | Band Width | Band Rate — Row Spacing |             |             |
|----------------|------------|-------------------------|-------------|-------------|
|                |            | 22"                     | 28"         | 30"         |
| 0.25 pint/acre | 5"         | 0.9 fl. oz.             | 0.7 fl. oz. | 0.7 fl. oz. |
|                | 7"         | 1.3 fl. oz.             | 1.0 fl. oz. | 0.9 fl. oz. |
| 0.33 pint/acre | 5"         | 1.2 fl. oz.             | 0.9 fl. oz. | 0.9 fl. oz. |
|                | 7"         | 1.7 fl. oz.             | 1.3 fl. oz. | 1.2 fl. oz. |
| 0.5 pint/acre  | 5"         | 1.8 fl. oz.             | 1.4 fl. oz. | 1.3 fl. oz. |
|                | 7"         | 2.5 fl. oz.             | 2.0 fl. oz. | 1.9 fl. oz. |

**POSTEMERGENCE USE PRECAUTIONS**

**NORTRON® SC + BETANEX MAY CAUSE SUGAR BEET INJURY OR STAND LOSS IF THE CROP IS UNDER STRESS FROM ONE OR MORE OF THE FOLLOWING CONDITIONS:**

- ☐ Rapid climatic changes from cool, overcast days, to hot (80°F or over), bright days. When the air temperature is, or is likely to be, above 80°F on the day of spraying, application should be made in the evening when the temperature is lower.
- ☐ Frost within seven days following treatment;
- ☐ Windy or drought conditions;
- ☐ Use of a preplant or preemergence herbicide or other chemicals;
- ☐ Insect or disease injury;
- ☐ Close cultivation.

If stress conditions are present, delay application until crop has recovered.

Do not apply BETANEX + NORTRON SC tank-mix to sugar beets later than 75 days prior to harvest.

**DO NOT OVERTREAT:** The use of higher-than-recommended rates may cause beet injury and/or carry over problems.

Do not spray while dew is present.

Rainfall or sprinkler irrigation within 6 hours of application may reduce weed kill.

Do not allow spray drift to contact adjacent crops which may be injured by spray drift.

**IMPORTANT:** This tank-mix may cause temporary growth retardation and/or chlorosis or tip-burn on sugar beets. Sugar beets usually resume normal growth within 10 days.

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**IMPORTANT: READ BEFORE USE**

By using this product, user or buyer accepts the following conditions, warranty, disclaimer of warranties and limitations of liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and should be followed carefully. However, because of extreme weather and soil conditions, manner of use and other factors beyond NOR-AM Chemical Company's control, it is impossible for NOR-AM to eliminate all risks associated with the use of this product. As a result, crop injury or ineffectiveness is always possible. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OR MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, WHICH EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of NOR-AM Chemical Company is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. UNDER NO CIRCUMSTANCES SHALL NOR-AM CHEMICAL COMPANY BE LIABLE FOR ANY SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES RESULTING FROM USE OR HANDLING OF THIS PRODUCT.

**LIMITATIONS OF LIABILITY:** THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES, OR DAMAGE RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT NOR-AM'S ELECTION, THE REPLACEMENT OF PRODUCT.

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