

Reg # 45639-87

PM-25

File

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

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OCT 13 1993

Office of
Prevention, Pesticides and
Toxic Substances

Lesley Palmer Czochor, 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. 45639-87
BETAMIX HERBICIDE

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:

Document Processing Desk (FIN-LABEL)

SPECIMEN LABEL

ACCEPTED
with COMMENTS
in EPA Letter Dated

OCT 13 1993

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FOR AGRICULTURAL USE ONLY

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

Betamix®

SUGAR BEET HERBICIDE

Postemergence Herbicide for Control of Weeds in Sugar Beets

ACTIVE INGREDIENTS:

Phenmedipham*

80%

Desmedipham**

80%

INERT INGREDIENTS:

81.0%

TOTAL

100.0%

Contains 1.3 lbs. active ingredient per gallon.

This product contains the toxic inert ingredient isophorone.

*3-methoxycarbonylamino-phenyl-3-methylcarbanilate

**Ethyl m-hydroxycarbanilate carbanilate (ester)

EPA Reg. No. 45639-87

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.

SEE OTHER PANELS FOR ADDITIONAL PRECAUTIONS.

NOR-AM

NOR-AM CHEMICAL COMPANY

2700 W. 13th Street

Minneapolis, MN 55425

A FERTILIZER DIVISION

1000 Park Center One

1000 Center One Road

Minneapolis, MN 55425

NET CONTENTS:

U.S. Patent No. 3,461,475

U.S. Patent No. 3,462,471

**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 foodstuffs.

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:

- Overall's over short-sleeved shirt and short pants
- Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or Viton
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading

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 PESTICIDE IS TOXIC TO FISH AND AQUATIC ORGANISMS. 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. DRIFT AND RUNOFF FROM TREATED AREAS MAY BE HAZARDOUS TO FISH AND AQUATIC ORGANISMS IN ADJACENT AQUATIC SITES. DO NOT CONTAMINATE WATER THROUGH DISPOSAL OF EQUIPMENT WASHWATERS.

**PHYSICAL OR CHEMICAL HAZARDS
DO NOT USE OR STORE NEAR HEAT OR OPEN FLAME.**

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 procedure approved by state and local authorities.

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

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 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-sleeved shirt and short pants
- Chemical-resistant gloves such as barrier laminate or butyl rubber or nitrile rubber or Viton
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure

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GENERAL INFORMATION

BETAMIX® is a selective postemergence herbicide for use in sugar beets (including beets grown for seeds) for the control of the following weeds:

- Annual sowthistle *Sonchus oleraceus*
- Black nightshade *Solanum nigrum*
- Coast fiddleneck *Amsinckia intermedia*
- Common chickweed *Stellaria media*
- Common lambequarters *Chenopodium album*
- Common ragweed *Ambrosia artemisiifolia*
- Green foxtail *Setaria viridis*
- Groundcherry *Physalis lanceifolia*
- Hairy nightshade *Solanum sarrachoides*
- Kochia* *Kochia scoparia*
- London rocket *Sisymbrium irio*
- Nettleleaf goosefoot *Chenopodium murale*
- Pigeon grass (yellow foxtail) *Setaria glauca*
- Prostrate pigweed *Amaranthus gradizans*
- Redroot pigweed *Amaranthus retroflexus*
- Shepherdspurse *Capsella bursa-pastoris*
- Wild buckwheat *Polygonum convolvulus*
- Wild mustard *Brassica kaber*

* Spray kochia while in the rosette stage, less than 1" in diameter. For best results, spray when the weeds are at the two-leaf stage.

USE PRECAUTIONS: DO NOT APPLY BETAMIX TO SUGAR BEETS LATER THAN 75 DAYS PRIOR TO HARVEST.

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

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

BETAMIX 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 seven days following treatment
- Use of a preplant or pre-emergence 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. If BETAMIX applications must be made on days with extreme temperature and/or brightness, delay spraying until evening.

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: BETAMIX may cause temporary growth retardation and/or chlorosis or tipburn on sugar beets. Beets usually resume normal growth within 10 days.

When used as directed, BETAMIX is selective in beets past the two-true leaf stage. Beets may be severely injured if treated before the two-true leaf stage. The stage of growth of the weeds is very important for satisfactory control. 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. BETAMIX 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 BETAMIX 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.

Always spray immediately after preparing the spray solution. Prepare only enough spray solution to last less than four hours.

RATE OF APPLICATION

By Ground: Apply BETAMIX at the rate of 4.5 to 7.5 pints in 20 to 50 gallons of water broadcast basis. For band application, see dosage chart 2.

By Air: Apply BETAMIX at the rate of 4.5 to 7.5 pints per acre using 5 to 15 gallons of spray per acre.

Apply the 4.5 to 7.5 pint rates only to sugar beets past the two-true leaf stage. Use the 7.5-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 BETAMIX, 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: to avoid excessive phytotoxicity to fall-planted sugar beets south of the Tehachapi Mountains in California when temperatures are above 85°F, apply BETAMIX 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 BETAMIX: For control of later germinating weeds, make a second application of BETAMIX. Use 4.5 to 6 pints of BETAMIX. 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 previous page, the General Information section.

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SPLIT (LOW RATE) APPLICATIONS: Split (low rate) applications of BETAMIX 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.

TANK MIX: BETAMIX 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 *Sonchus oleraceus*
- Black nightshade *Solanum nigrum*
- Field nightshade *Solanum sanchooides*
- Coast fiddleneck *Amsinckia intermedia*
- Common chickweed *Stellaria media*
- Common lambsquarters *Chenopodium album*
- Common ragweed *Ambrosia artemisiifolia*
- Groundcherry *Physalis lanceifolia*
- Kochia* *Kochia scoparia*
- Ladysthumb *Polygonum persicaria*
- London rocket *Sisymbrium irio*
- Nettleleaf goosefoot *Chenopodium murale*
- Pennsylvania smartweed *Polygonum pennsylvanicum*
- Prostrate pigweed *Amaranthus gracizans*
- Purslane *Portulaca oleraceus*
- Redroot pigweed *Amaranthus retroflexus*
- Shepherdspurse *Capsella bursa-pastoris*
- Wild buckwheat *Polygonum convolvulus*
- Wild mustard *Brassica kaber*

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

ANNUAL GRASS WEEDS

- Annual bluegrass *Poa annua*
- Canarygrass *Phalaris canariensis*
- Green foxtail *Setaria viridis*
- Pigeon grass (Yellow foxtail) *Setaria glauca*

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	
	BETAMIX	BETAMIX + 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
BETAMIX DOSAGE CHART FOR BAND APPLICATION**

Broadcast Equivalent	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 Equivalent	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.

POST-EMERGENCE USE PRECAUTIONS

NORTRON® SC + BETAMIX 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 BETAMIX + 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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