

264-613

8-8-2008

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

AUG 8 2008

Nang-Ly Chow, Ph.D.  
Registration Manager  
Bayer CropScience LP  
P.O. Box 12014  
2 T.W. Alexander Drive  
Research Triangle Park, NC 27709

Subject: Label Notification for Pesticide Registration Notice 2007-4

Dear Dr. Chow,

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 2007-4 dated July 1, 2008 for the product Nortron<sup>®</sup> SC Herbicide (EPA Registration Number 264-613). The Registration Division (RD) has conducted its review of this request for its applicability under PRN 2007-4 and finds that the label changes requested fall within the scope of PRN 2007-4. The label submitted with the application has been stamped "Notification" and will be placed in our records.

Please be reminded that 40 CFR Part 156.140(a)(4) requires that a batch code, lot number, or other code identifying the batch of the pesticide distributed and sold be placed on nonrefillable containers. The code may appear either on the label (and can be added by non-notification/PR Notice 98-10) or durably marked on the container itself.

If you have any questions, please call me directly at 703-305-6249 or Steve Schaible of my staff at 703-308-9362.

Sincerely,

A handwritten signature in black ink, appearing to read "Linda Arrington".

Linda Arrington  
Notifications & Minor Formulations Team Leader  
Registration Division (7505P)  
Office of Pesticide Programs

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United States  
**Environmental Protection Agency**  
 Washington, DC 20460

- Registration
- Amendment
- Other

OPP Identifier Number

**Application for Pesticide - Section I**

1. Company/Product Number <b>264-613</b>	2. EPA Product Manager <b>Ms. Joanne Miller</b>	3. Proposed Classification
4. Company/Product (Name) <b>Nortron SC Herbicide</b>	<b>PM Team 23                  (Registration Division)</b>	<input type="checkbox"/> None <input type="checkbox"/> Restricted
5. Name and Address of Application (Include ZIP Code) <b>Bayer CropScience (BCS)                  PO Box 12014, 2 Alexander Drive,                  Research Triangle Park, NC 27709</b>	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. <b>NOTIFICATION</b> Product Name <b>AUG 08 2008</b>	

Check if this is a new address

**Section - II**

Amendment - Explain below.                       Agency letter dated \_\_\_\_\_  
 Resubmission in response to Agency letter dated \_\_\_\_\_     "Me Too" Application.     Other - Explain below.  
 Notification - Explain below.

**Explanation:** Use additional page(s) if necessary. (Sect. I and II.):  
 Submit the Application of Pesticide Notification under PR Notice 2007-4 for NORTRON SC Herbicide (Ref. The Final Rule for the Standards for Pesticide Container and Containment, August 16, 2006) - for adding the required labelling under Container Disposal. See the cover letter for the required certified statements

**1. Material This Product Will Be Packaged In:**

Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* Certification must be submitted If "Yes", Unit Packaging wgt.    No. per container		If "Yes" Package wgt    No. per container	
3. Location of Net Contents Information <input type="checkbox"/> Label <input checked="" type="checkbox"/> Container		4. Size(s) Retail Container - <b>2.5 Gallon</b>	5. Location of Label Directions <input type="checkbox"/> On Label <input checked="" type="checkbox"/> On Labeling accompanying product
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Other _____ <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled			

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)

Name <b>Nang-Ly Chow, Ph.D.</b>	Title <b>Registration Manager</b>	Phone: <b>919-549-2147</b> Fax: <b>919-549-2545</b>
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**Certification**  
 I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature <i>Nang-Ly Chow</i>	3. Title: <b>Registration Manager</b>	6. Date Application Received <b>(Stamped)</b> EPA Form 8570-1 (Rev. 8-94) EPA Form 8570-1 - PRC.DRESS Amend -11-10-04.doc
4. Typed Name: <b>Nang-Ly Chow, Ph.D.</b>	5. Date: <b>July 1, 2008</b>	

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NOTIFICATION

AUG 08 2008

# Nortron® SC HERBICIDE

## SUSPENSION CONCENTRATE

### BROAD SPECTRUM HERBICIDE

For selective control of weeds in sugar beets, garden beets, onions, garlic, shallots (in all states) and carrots in (WA and OR only)

### GRASS SEED HERBICIDE

For Selective Control of Weeds in Certain Grass Seed Crops and Commercial Sod Production in California, Idaho, Nevada, Oregon, and Washington

ACTIVE INGREDIENT	Percent by Weight
Ethofumesate: (2-ethoxy-2,3-dihydro-3,3-dimethyl-5-benzofuranyl methanesulfonate*)	42%
INERT INGREDIENTS:	58%
<b>TOTAL</b>	<b>100%</b>

\*Protected by U.S. Patent No. 4,188,202  
This product contains 4.0 lbs. active ingredient per gallon.  
Product of United Kingdom

EPA Reg No. 264-613

EPA Est. No. 000264-DEU-004

## KEEP OUT OF REACH OF CHILDREN CAUTION

For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577

For PRODUCT USE Information Call 1-866-99BAYER (1-866-992-2937)

Avoid contact with skin, eyes, or clothing.

Avoid breathing vapor or spray mist.

### FIRST AID

<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>Immediately call a poison control center or doctor for treatment advice.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>

For **MEDICAL** Emergencies Call 24 Hours A Day 1-800-334-7577.

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or spray mist.

### PERSONAL PROTECTIVE EQUIPMENT

#### Applicators and Other Handlers Must Wear:

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

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.
- Shoes plus socks

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.

### USER SAFETY RECOMMENDATIONS

#### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 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.

### 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 when disposing of equipment washwaters.

### GENERAL USE PRECAUTIONS

Nortron® SC Herbicide or tank mixes should be used for recommended purposes and at recommended rates only. (DO NOT OVERTREAT.)

Do not graze livestock on treated crops.

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

If crop is lost due to climatic or soil conditions following application of Nortron® SC or tank mixes, do not plant crops other than sugar beets or ryegrass in treated land during the same season. Do not retreat field with Nortron® SC. If fields are replanted to sugar beets, reseed into treated band.

Do not rotate with any crops other than sugar beets or ryegrass for:

- 12 months following preplant incorporated, preemergence, conventional postemergence applications, or split (low rate) applications totaling more than 12 fl. oz. (0.375 lb. ai/acre);
- 6 months following split (low rate) postemergence applications totaling 12 fl. oz. (0.375 lb. ai/acre) or less.

Thorough tillage, including moldboard plowing, should precede the planting of crops other than sugar beets or ryegrass. Do not use Nortron® SC on muck or peat soils.

Do not allow spray mixture to stand in tank overnight. Flush and drain spray equipment after each day's use.

Store unused spray mixture in tightly-sealed containers and protect from frost.

This label must be in the possession of the user at the time of pesticide application.

### STORAGE AND DISPOSAL

**STORAGE:** Protect Nortron® SC Herbicide from freezing temperatures.

**PESTICIDE DISPOSAL:** Do not contaminate water, food or feed by storage or disposal. Pesticide wastes are acutely hazardous. 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:** Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available or reconditioning, if appropriate. Then 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 entire Directions for Use and Disclaimer of Warranties before using this product.

**SHAKE CONTAINER WELL BEFORE USING.**

Do not apply this product in a way that will contact workers or others 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 12 hours.

Exception: if the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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 made of any waterproof material
- Shoes plus socks

### SUGAR BEETS

#### GENERAL INFORMATION

Nortron® SC is a selective herbicide for use in sugar beets for the control of the weed species listed below. It provides effective control of these weeds for up to 10 weeks following application.

Residual control of weeds is dependent upon soil moisture conditions, rate of herbicide used, and soil texture. The activity of Nortron® SC in the soil is reduced as the soil texture becomes finer and organic matter increases.

#### PRECAUTIONS

Following a preemergence treatment of Nortron® SC Herbicide, do not apply conventional rates of Nortron® SC postemergence where more than 6 pints were applied preplant or preemergence. No more than a total of 1 gallon of Nortron® SC should be applied in a single growing season. See *Use Precautions* for additional information on proper use.

## WEED SPECIES CONTROLLED

### Annual Broadleaf Weeds

Black nightshade .....	<i>Solanum nigrum</i>
Common chickweed .....	<i>Stellaria media</i>
Common lambsquarters .....	<i>Chenopodium album</i>
Common purslane .....	<i>Portulaca oleracea</i>
Kochia .....	<i>Kochia scoparia</i>
Ladysthumb .....	<i>Polygonum persicaria</i>
Pennsylvania smartweed.....	<i>Polygonum pennsylvanicum</i>
Redroot pigweed .....	<i>Amaranthus retroflexus</i>
Russian thistle .....	<i>Salsola kali var. tenuifolia</i>
Wild buckwheat .....	<i>Polygonum convolvulus</i>

### Annual Grass Weeds

Annual bluegrass.....	<i>Poa annua</i>
Barnyardgrass*.....	<i>Echinochloa crus-galli</i>
Canarygrass .....	<i>Phalaris canariensis</i>
Green foxtail .....	<i>Setaria viridis</i>
Large crabgrass .....	<i>Digitaria sanguinalis</i>
Volunteer barley .....	<i>Hordeum sp.</i>
Volunteer wheat .....	<i>Triticum sp.</i>
Wild oats**.....	<i>Avena fatua</i>
Yellow foxtail .....	<i>Setaria glauca</i>

\*Control of barnyardgrass may be reduced with the Nortron® SC + Pyramin® tank mix because of the lower rate of Nortron® SC recommended.

\*\*Control of wild oats has been inconsistent in Minnesota and North Dakota.

### Nortron® SC alone will also reduce competition from these HARD-TO-CONTROL weeds:

Annual Sowthistle.....	<i>Sonchus oleraceus</i>
Puncturevine .....	<i>Tribulus terrestris</i>
Shepherdspurse .....	<i>Capsella bursa-pastoris</i>
Purple nutsedge .....	<i>Cyperus rotundus</i>
Yellow nutsedge .....	<i>Cyperus esculentus</i>

Apply tank mixes only in specified regions or States and in accordance with directions on label.

## PREPLANT INCORPORATED AND PREEMERGENCE APPLICATIONS

**SOIL PREPARATION:** The soil should be prepared according to good agricultural practices. Large clods can reduce the effectiveness of Nortron® SC Herbicide and tank mixes. All existing vegetative growth should be thoroughly worked into the soil before treatment.

**SPRAY EQUIPMENT:** Apply Nortron® SC Herbicide alone or in tank mixes to the soil using standard low pressure (20 to 50 psi) spray equipment. Spray equipment should be carefully calibrated before use and checked frequently during application to see that it is functioning properly. Do not use smaller than 50-mesh strainer. Uniformly apply the recommended rates of Nortron® SC or tank mixes in 10 to 60 gallons of water per acre on a broadcast basis. Avoid overlaps since crop injury may result. When applying Nortron® SC or tank mixes in a band, check to make certain that the band width is accurate for the dosage rate being applied.

The spray tank and lines should be thoroughly cleaned and rinsed prior to using Nortron® SC.

**INCORPORATION EQUIPMENT:** Where soil incorporation is recommended, use a hooded power- or ground-driven rotary tiller, rolling cultivator, or similar equipment properly adjusted to uniformly incorporate Nortron® SC Herbicide or tank mixes to a depth of 1 to 2 inches. Deeper incorporation may reduce effectiveness. Do not apply Nortron® SC or tank mixes through soil injector shanks. Incorporation should be accomplished prior to planting. If done after planting, proper precautions should be taken to avoid damaging or moving the crop seed. See below for Layering Application.

**LAYERING APPLICATION: Spring:** Form beds with appropriate bedding equipment. Pre-irrigate field if necessary. Remove bed top with suitable de-ridging machinery to provide a minimum width of 10" across the top of the bed. Apply Nortron® SC Herbicide in a band at the recommended rate indicated in the appropriate regional dosage table and cover the treated band with 1 inch of soil using ditchers or discs equipment. Shape the bed with roller shaper and irrigate until the tops of the beds are thoroughly wetted. Irrigate from furrows on both sides of the row.

**Fall:** This method of application can be used when spring moisture is marginal or where irrigation water is not available at planting time. Fall bedding utilizes the winter-accumulated moisture to enhance activation of the herbicide and to aid in germination of the sugar beet crop.

Prepare the field (as for planting; plow, pack, and float, etc.), in the fall, usually late September or October. Apply Nortron® SC in a band to the soil surface at the recommended rate indicated in the appropriate regional dosage table. Be sure that the soil surface to be treated is free of trash and vegetation.

Cover the treated bands with soil and form beds or ridges using ditchers or discs. In the spring when the soil is sufficiently dry to be worked, de-ridge the beds down to within 1/2" to 1" of the treated layer using suitable equipment such as the Kirchner bedder or Oregon Northslope harrow. When de-ridging, maintain the original bedding guidance system by using a bull tongue chisel, slide guides or similar equipment. This will ensure that the planter will follow in the treated band. Plant sugar beets in the de-ridged area when the soil conditions allow.

**GENERAL APPLICATION**

**Sugar beets grown under rainfall:** Apply Nortron® SC Herbicide alone or in a tank mix preemergence at time of planting or shortly after, but prior to weed germination. Nortron® SC or tank mix does not require mechanical soil incorporation provided that sufficient rainfall occurs shortly following application to activate the chemical. One-half inch of rainfall is usually adequate for activation. In areas where rainfall can be marginal for activation, such as the Red River Valley (Minnesota and North Dakota), it is recommended that Nortron® SC or the tank mix be applied before or at the time of planting and incorporated into the soil.

**Sugar beets grown under furrow irrigation:** Apply Nortron® SC Herbicide alone or in a tank mix to the soil surface preplant or at time of planting, but prior to weed germination, and incorporate into the soil. Where sugar beets are grown in beds, apply Nortron® SC or tank mix after bedding and incorporate. Since Nortron® SC or tank mix must have moisture to control weeds effectively, irrigate until tops of beds are thoroughly wetted.

**Sugar beets grown under sprinkler irrigation:** Apply Nortron® SC Herbicide alone or in tank mix preemergence at time of planting or shortly after, and irrigate prior to crop and weed germination. Repeat irrigation as necessary to maintain good moisture in upper soil layer. Apply at least one-half inch of water during first irrigation. Do not mechanically incorporate Nortron® SC or tank mix into the soil under sprinkler irrigation.

**CULTURAL PRACTICES FOLLOWING APPLICATION:** When properly applied, Nortron® SC Herbicide alone or in a tank mix will provide up to 10 weeks control of susceptible weed species. When cultivating fields in which Nortron® SC or tank mixes have been banded, care should be exercised to minimize the movement of untreated soil into the treated band. Where a broadcast application has been made, do not cultivate deeper than two inches, as this reduces the effectiveness of Nortron® SC or tank mixes.

**NORTRON® SC ALONE**

**DOSAGE TABLE 1**

(All Regions Except North Dakota and Minnesota):

Soil Texture	Rate of Nortron® SC per Acre <sup>1</sup>			
	Broadcast	7-inch Band Width <sup>2</sup>		
		22" Row	28" Row	30" Row
<b>Coarse Textured Soils:</b>				
Sands, loamy sands and sandy loams	2 1/4 to 3 3/4 Pints	3/4 to 1 1/4 Pints	2/3 to 1 Pints	1/2 to 1 Pints
<b>Medium Textured Soils:</b>				
Silt loams, clay loams which contain less than 3% organic matter	3 3/4 to 6 Pints	1 1/4 to 2 Pints	1 to 1 1/2 Pints	1 to 1 1/2 Pints
<b>Fine Textured Soils:</b>				
Silt loams, clay loams, clays which contain more than 3% organic matter	6 to 7 1/2 Pints	2 to 2 1/2 Pints	1 1/2 to 2 Pints	1 1/2 to 1 3/4 Pints

<sup>1</sup> Use the higher rate within each soil texture category on the finer texture soils and/or where Kochia, barnyardgrass or black nightshade are expected to be a problem.

<sup>2</sup> For other band or row widths, adjust the rate in proportion to the area actually treated.

**DOSAGE TABLE 2**  
(North Dakota and Minnesota only):

Soil Texture	Nortron® SC per Acre	
	Broadcast	7-inch Band Width <sup>1</sup>
		22" Row
<b>Coarse Textured Soils:</b>		
Sandy loams only	6 Pints	2 Pints
<b>Medium Textured Soils:</b>		
Silt loams and clay loams	6 Pints	2 Pints
<b>Fine Textured Soils:</b>		
Heavy clays	7 1/2 Pints	2 1/2 Pints

<sup>1</sup> For other band or row widths, adjust the rate in proportion to the area actually treated.

**NORTRON® SC + PYRAMIN® (TANK MIX)**

**This tank mix controls these additional broadleaf weeds:**

- Annual sowthistle ..... *Sonchus oleraceus*
- Black mustard..... *Brassica nigra*
- Buffalobur..... *Solanum rostratum*
- Coast fiddleneck..... *Amsinckia intermedia*
- Common groundsel ..... *Senecio vulgaris*
- Common ragweed ..... *Ambrosia artemisiifolia*
- Cutleaf nightshade ..... *Solanum triflorum*
- Groundcherry ..... *Physalis* spp.
- Henbit..... *Lamium amplexicaule*
- Nettleleaf goosefoot ..... *Chenopodium murale*
- Prickly lettuce ..... *Lactuca serriola*
- Prostrate knotweed ..... *Polygonum aviculare*
- Shepherdspurse ..... *Capsella bursa-pastoris*

**MIXING DIRECTIONS:** When mixing Nortron® SC Herbicide in the spray tank with Pyramin, fill the spray tank with 1/2 of the total amount of water to be used and add Nortron® SC first. Agitate spray solution thoroughly and continuously. See Pyramin label for additional mixing directions.

**CALIFORNIA (winter-grown sugar beets only):** Under sprinkler irrigation or where natural rainfall is adequate, apply this tank mix preemergence. See Pyramin label for precautions regarding application of sprinkler irrigation. Where furrow irrigation is to be used, apply preplant incorporated. Prepare seedbed or form beds for planting. Then use rotary tiller type of incorporation and incorporate not more than 2 inches deep. Plant sugar beets and irrigate. Sub-irrigate until tops of beds are thoroughly wetted. Refer to *Dosage Table 3* for recommended rates.

**DOSAGE TABLE 3**  
(California, winter-grown sugar beets only):

Soil Texture	Nortron® SC per Acre		PYRAMIN DF per Acre	
	Broadcast (For calibration purposes only)	10-inch Band Width <sup>1,2</sup> 30" Row	Broadcast (For calibration purposes only)	10-inch Band Width 30" Row
<b>Coarse Textured Soils:</b> Sands, loamy sands and sandy loams	<b>NOT RECOMMENDED</b>			
<b>Medium Textured Soils:</b> Silt loams, clay loams which contain less than 3% organic matter	3 to 3 1/4 Pints	1 to 1 1/4 Pints	4 1/2 Pounds	1 1/2 Pounds
<b>Fine Textured Soils:</b> Clay loams which contain more than 3% organic matter and clays	4 to 5 1/4 Pints	1 1/3 to 1 3/4 Pints	4 1/2 Pounds	1 1/2 Pounds

<sup>1</sup> For other band or row widths, adjust rates in proportion to the area actually treated. Do not apply this mixture broadcast.

<sup>2</sup> Use the higher rate of Nortron® SC within each soil texture category on the finer-textured soils and/or where volunteer barley or wheat are expected to be a problem.

**PRECAUTIONS:** Do not exceed 3/4 inch of sprinkler irrigation per set until the beets have two true leaves. Do not use the tank mix under conditions where Pyramin alone is not recommended. Before use, read the Pyramin label for additional information and precautions.

**CENTRAL AND EASTERN STATES, INCLUDING MICHIGAN AND OHIO:** This tank mix controls the additional weed, common ragweed, and other broadleaf weeds specified in the weed table. Apply preemergence at the time of planting or shortly after, but before weed germination, using recommended rates listed in *Dosage Table 4*. Do not mechanically incorporate the herbicides into the soil as crop injury may result. Do not use this tank mix where Pyramin alone is not recommended. Before use, read Pyramin label for additional information and precautions.

**DOSAGE TABLE 4**  
(Central and Eastern States Only):

Soil Texture	Nortron® SC/Acre			PYRAMIN FL/Acre		
	Broadcast	7-inch Band Width <sup>1</sup>		Broadcast	7-inch Band Width <sup>1</sup>	
		22" Row	28" Row		22" Row	28" Row
<b>Coarse Textured Soils:</b> Sandy loams only	3 Pints	1 Pint	3/4 Pint	2 1/4 Qts.	3/4 Qt.	1/2 Qt.
<b>Medium Textured Soils:</b> Silt and clay loams which contain less than 3% organic matter	4 Pints	1 1/4 Pints	1 Pint	3 Qts.	1 Qt.	3/4 Qt.
<b>Fine Textured Soils:</b> Clay loams which contain more than 3% organic matter and clays	5 Pints	1 1/2 Pints	1 1/4 Pints	3 Qts.	1 Qt.	3/4 Qt.

<sup>1</sup> For other band or row widths, adjust the rate in proportion to the area actually treated.

**PREPLANT AND PREEMERGENCE USE PRECAUTIONS**

Nortron® SC Herbicide applied alone or in tank mixes according to label directions and under normal growing conditions may cause temporary leaf fusion, distortion and stunting. Crop injury may occur during early growth when crop is stressed due to herbicide residue carryover, highly saline or alkaline soils, unusually cold and wet weather or improperly placed fertilizers or soil insecticides.

Unusually dry, windy weather, which dries the upper soil layer, following application of Nortron® SC, may reduce effectiveness.

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

**Crop Planting Precautions:** If crop is lost due to unfavorable growth conditions following treatment, do not replant with crops other than sugar beets or ryegrass in treated land during the same season. If fields are replanted to sugar beets, reseed into treated band. Do not retreat field with conventional rates of Nortron® SC in the same season.

## POSTEMERGENCE APPLICATION

### GENERAL INFORMATION

The tank mixes of Nortron® SC Herbicide plus Betamix® or Betanex® Herbicides applied postemergence broaden and enhance the control of weeds. The choice of tank mixes is dependent upon weed species present. Nortron® SC alone is not recommended for postemergence use.

Tank mixes of Nortron® SC plus Betamix® or Betanex® applied postemergence control the following weeds:

#### Annual Broadleaf Weeds

- Annual sowthistle ..... *Sonchus oleraceus*
- Black nightshade ..... *Solanum nigrum*
- Hairy nightshade ..... *Solanum sarrachoides*
- 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*
- Redroot pigweed ..... *Amaranthus retroflexus*
- Purslane ..... *Portulaca oleraceus*
- 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*

Additionally, a tank mix of Nortron® SC plus Betamix® applied postemergence also controls the following annual grass weeds:

- Green foxtail ..... *Setaria viridis*
- Pigeon grass (Yellow foxtail) ..... *Setaria glauca*

**Mixing the Spray:** Add Nortron® SC to the water in the spray tank followed by Betamix® or Betanex® while agitating the spray solution thoroughly. Refer to the Betamix® or Betanex® labels for additional precautions and information on mixing.

**Spray Equipment:** Apply the mixture using standard low pressure (20–60 psi) spray equipment. Ensure that the sprayer is thoroughly clean. Spray equipment should be carefully calibrated before use and checked frequently during application to see that it is functioning properly. Uniformly apply the recommended rate in 20–60 gallons of water per acre on a broadcast basis or 5–10 gallons of water per acre in a band. Avoid overlaps, since crop injury may result. When applying in a band, check to make certain that the band width is accurate for the dosage rate being applied. Do not use strainer smaller than 50-mesh.

**Moisture Following Application/Residual Weed Control:** Rainfall or sprinkler irrigation within 6 hours of spraying may reduce weed control; however, with conventional rates, moisture after this period of time is advantageous for moving Nortron® SC into the top layer of soil where it can be absorbed by the roots of sprayed and germinating weeds to provide optimum control. One-half inch or more of sprinkler irrigation is required to activate Nortron® SC on most soil types.

Residual control of weeds is dependent upon soil moisture conditions, rate of herbicide used, and soil texture. The activity of Nortron® SC in the soil is reduced as the soil texture becomes finer and organic matter increases.

**PRECAUTIONS**

Following a preemergence treatment of Nortron® SC Herbicide, do not apply conventional rates of Nortron® SC postemergence where more than 6 pints were applied preplant or preemergence. No more than a total of 1 gallon of Nortron® SC should be applied in a single growing season. See *Use Precautions* for additional information on proper use.

**SPLIT (LOW RATE) APPLICATIONS**

Split (low rate) applications of Nortron® SC Herbicide + Betamix® or Betanex® Herbicides may be applied to sugar beets to control early germinating weeds (the tank mix of Nortron® SC + Betanex® may be used in all sugar beet areas except California). The first spray must be applied when the earliest emerging weeds have reached cotyledon size. See *Dosage Table 5* for broadcast rates. See *Dosage Table 6* and *7* 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 second application is delayed, conventional applications as described below will be necessary.

**DOSAGE TABLE 5  
DOSAGE CHART FOR BROADCAST APPLICATION**

Sugar Beet Stage	Pints/Acre Broadcast	
	NORTRON® SC + BETAMIX®	NORTRON® SC + BETANEX®
Cotyledon	0.25 + 1.50	0.25 + 1.50
2 Leaf	0.33 + 2.00	0.33 + 2.00
4 Leaf	0.50 + 3.00	0.50 + 3.00

**DOSAGE TABLE 6  
BETAMIX® OR BETANEX® DOSAGE CHART FOR BAND APPLICATION**

BAND RATE — ROW SPACING				
Broadcast Equivalent	Band Width	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.
2.0 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.
3.0 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.

**DOSAGE TABLE 7  
NORTRON® SC DOSAGE CHART FOR BAND APPLICATION**

BAND RATE — ROW SPACING				
Broadcast Equivalent	Band Width	22"	28"	30"
0.25 pints/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 pints/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 pints/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.

**CONVENTIONAL APPLICATIONS**

**Timing of Application:** Apply the tank mix Nortron® SC + Betanex® or Nortron® SC + Betamix® when sugar beets have at least 4 fully expanded true leaves. Apply at rates recommended in the Dosage Tables. Use the higher rate of Nortron® SC where increased residual weed control is desired. Where Eptam® has been applied preplant (fall or spring applied), do not apply Nortron® SC + Betamix® or Betanex® tank mix before the sugar beets have 6 expanded true leaves.

See *Postemergence Use Precautions* for additional information on proper use.

**NORTRON® SC + BETAMIX® (TANK MIX)**

Nortron® SC Herbicide applied postemergence in a tank mix with Betamix® Herbicide broadens and enhances the control of troublesome weeds. Furthermore, preemergence control of susceptible weeds which may germinate following treatment can be obtained provided overhead moisture is sufficient to activate Nortron® SC.

**WEED SPECIES CONTROLLED**

**Group I: Weeds controlled up to the 6-leaf stage.**

- Redroot pigweed ..... *Amaranthus retroflexus*
- Wild mustard ..... *Brassica kaber*
- Nettleleaf goosefoot ..... *Chenopodium murale*
- London rocket..... *Sisymbrium irio*
- Common lambsquarters ..... *Chenopodium album*

**Group II: Weeds controlled up to the 4-leaf stage.**

- Common chickweed ..... *Stellaria media*
- Black nightshade ..... *Solanum nigrum*
- Common ragweed ..... *Ambrosia artemisiifolia*
- Shepherdspurse ..... *Capsella bursa-pastoris*
- Groundcherry ..... *Physalis lanceifolia*
- Pennsylvania smartweed..... *Polygonum pennsylvanicum*
- Ladysthumb..... *Polygonum persicaria*
- Prostrate pigweed ..... *Amaranthus blitoides*
- Coast fiddleneck..... *Amsinckia intermedia*

**Group III: Weeds controlled up to the 2-leaf stage.**

- Annual sowthistle ..... *Sonchus oleraceus*
- Kochia\* ..... *Kochia scoparia*
- Common purslane\*\* ..... *Portulaca oleracea*
- Prostrate knotweed ..... *Polygonum aviculare*
- Wild buckwheat ..... *Polygonum convolvulus*
- Green foxtail\*\*\* ..... *Setaria viridis*
- Yellow foxtail (pigeongrass)\*\*\* ..... *Setaria glauca*
- Annual bluegrass\*\*\* ..... *Poa annua*
- Canarygrass\*\*\* ..... *Phalaris canariensis*

\*Spray kochia while in the rosette stage, less than 1" in diameter.

\*\*Group II weed in California.

\*\*\*For best control, overhead moisture required

**DOSAGE TABLE 8**

Rate of Nortron® SC Per Acre <sup>1</sup>					Rate of Betamix® Per Acre <sup>1</sup>				
Broadcast Rate	Band <sup>2</sup> Width (in.)	Row Spacing			Broadcast Rate	Band <sup>2</sup> Width (in.)	Row Spacing		
		22"	28"	30"			22"	28"	30"
2 1/4 - 3 Pints	7	3/4 - 1 Pint	1/2 - 3/4 Pint	1/2 - 2/3 Pint	4 1/2 - 6 Pints	7	1 1/2 - 2 Pints	1 - 1 1/2 Pints	1 1/3 Pints

<sup>1</sup> Use the higher rate on larger weeds and sugar beets.

<sup>2</sup> For other band or row widths, adjust rates in proportion to the area actually treated.

**NORTRON® SC + BETANEX® (TANK MIX)**

**ALL AREAS EXCEPT CALIFORNIA:** Nortron® SC Herbicide applied postemergence in a tank mix with Betanex® Herbicide broadens and enhances the control of troublesome weeds. Furthermore, preemergence control of susceptible weeds which may germinate following treatment can be obtained provided overhead moisture is sufficient to activate Nortron® SC.

**WEED SPECIES CONTROLLED**

**Group I: Weeds controlled up to the 6-leaf stage.**

- Redroot pigweed ..... *Amaranthus retroflexus*
- Wild mustard ..... *Brassica kaber*
- Nettleleaf goosefoot ..... *Chenopodium murale*
- London rocket..... *Sisymbrium irio*
- Common lambsquarters ..... *Chenopodium album*

**Group II: Weeds controlled up to the 4-leaf stage.**

- Common chickweed ..... *Stellaria media*
- Black nightshade ..... *Solanum nigrum*
- Common ragweed ..... *Ambrosia artemisiifolia*
- Shepherdspurse ..... *Capsella bursa-pastoris*
- Groundcherry ..... *Physalis lanceifolia*
- Pennsylvania smartweed..... *Polygonum pennsylvanicum*
- Ladysthumb..... *Polygonum persicaria*

**Group III: Weeds controlled up to the 2-leaf stage.**

- Annual sowthistle ..... *Sonchus oleraceus*
- Common purslane ..... *Portulaca oleracea*
- Wild buckwheat ..... *Polygonum convolvulus*
- Kochia\* ..... *Kochia scoparia*

\*Spray Kochia while in the rosette stage, less than 1" in diameter

**DOSAGE TABLE 9**  
**(all areas except California):**

Rate of Nortron® SC Per Acre <sup>1</sup>					Rate of Betanex® Per Acre <sup>1</sup>				
Broadcast Rate	Band <sup>2</sup> Width (in.)	Row Spacing			Broadcast Rate	Band <sup>2</sup> Width (in.)	Row Spacing		
		22"	28"	30"			22"	28"	30"
2 1/4 - 3 Pints	7	3/4 - 1 Pint	1/2 - 3/4 Pint	1/2 - 2/3 Pint	4 1/2 - 6 Pints	7	1 1/2 - 2 Pints	1 1/8 - 1 1/2 Pints	1-1 1/3 Pints

<sup>1</sup> Use the higher rate on larger weeds and sugar beets.

<sup>2</sup> For other band or row widths, adjust rates in proportion to the area actually treated.

**POSTEMERGENCE USE PRECAUTIONS:** Make only one conventional application of Nortron® SC + Betanex® or Betamix® tank mix during each growing season.

Do not apply Nortron® SC + Betanex® or Betamix® tank mix to sugar beets later than 90 days prior to harvest.

**Crop Planting Precautions:** If crop is lost due to unfavorable growth conditions following treatment, do not replant with crops other than sugar beets or ryegrass in treated land during the same season. If fields are replanted to sugar beets, reseed into treated band. Do not retreat field with conventional rates of Nortron® SC in the same season.

**NORTRON® SC + BETANEX® OR 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 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.

If Nortron® SC is applied on fields with heavy crop residue, such as from a previous corn crop, reduced weed control may occur.

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.

## NORTRON® SC MIXTURES WITH FERTILIZERS

### NORTRON® SC IMPREGNATION ON DRY BULK FERTILIZERS

Nortron® SC Herbicide may be impregnated on many dry bulk fertilizers (See "1" below.) and applied and incorporated into the soil before planting for the control of labeled grasses and broadleaf weeds in sugar beets.

All Nortron® SC label and supplementary literature instructions and precautions regarding rates per acre, soil type and soil incorporation, application, and other directions must be followed.

All individual State regulations relating to dry bulk fertilizer blending, registration, labeling and application are the responsibility of the individual and/or company selling the Nortron®/fertilizer mixtures.

A minimum of 200 pounds and a maximum of 700 pounds of approved fertilizer ingredients (See "2" below.) impregnated with the appropriate amount of Nortron® SC must be applied per acre.

For impregnating the pesticide on dry fertilizers, use a closed rotary-drum type mixer equipped with suitable spraying equipment. The spray nozzles should be positioned inside of the mixer to provide uniform spray coverage of the tumbling fertilizer. The Nortron® SC should be sprayed uniformly onto the fertilizer using a fine spray pattern.

The physical properties of fertilizers vary, particularly in liquid absorptive capacity. When absorptivity is sufficient, simple spray impregnation of the fertilizer with Nortron® SC provides a satisfactory dry mixture.

If the absorptivity is not adequate, use of a highly absorptive powder is required to provide a dry, free-flowing mixture. Microcel E (Johns-Manville Products Corporation) is the recommended absorbent powder. It should be added separately and uniformly to the prepared pesticide/fertilizer mixture in a quantity that is sufficient to provide a suitably free-flowing mixture. Generally, less than 2% by weight of Microcel E is required.

The amount of Nortron® SC actually required in the formulation of specific fertilizer mixtures should be calibrated carefully for each production operation. This is necessary to ensure that the amount of Nortron® SC actually contained in the fertilizer mixture applied to the soil represents the correct dosage rate.

Bulk fertilizers impregnated with Nortron® SC should be applied immediately, NOT STORED.

### NORTRON® SC IMPREGNATION ON DRY BULK FERTILIZERS

#### 1. Approved dry fertilizer ingredients for use with Nortron® SC:

	N	P	K
Ammonium nitrate	34	0	0
Ammonium sulfate	21	0	0
Ammonium phosphate-sulfate	16	20	0
Diammonium phosphate	18	46	0
Monoammonium phosphate	11	56	0
Potassium chloride	0	0	60
Potassium sulfate	0	0	52
Single superphosphate	0	20	0
Triple superphosphate	0	46	0
Urea	45	0	0

#### Nortron® SC Physical Data

Density	1.14 g/cm <sup>3</sup>
Pounds/gallon	9.50
Flashpoint	Noncombustible

2. Rate Chart for the Impregnation of Dry Bulk Fertilizers with Nortron® SC:

Gallons of Nortron® SC Per Ton of Dry Bulk Fertilizer

Fertilizer Rate lb/acre	Impregnation Rate		
	0.75 gal/acre	1 gal/acre	1.50 gal/acre
200	2.80	3.75	5.63
250	2.25	3.00	4.50
300	1.88	2.50	3.75
350	1.59	2.16	3.19
400	1.41	1.88	2.81
450	1.25	1.69	2.50
500	1.13	1.50	2.25
550	1.03	1.38	2.06
600	0.94	1.25	1.88
650	0.87	1.13	1.75
700	0.80	1.08	1.62

**NORTRON® SC WITH LIQUID FERTILIZERS**

The following procedure is suggested for evaluation of physical compatibility of Nortron® SC Herbicide in mixtures with liquid fertilizers for spray tank application.

**MATERIAL REQUIRED**

1. Nortron® SC—components of tank mixes if intended for use
2. Liquid fertilizer to be used
3. Adjuvant for fertilizer tank mix: Compex\* or E-Z Mix\*\*.
4. Two (or more) one quart, wide mouth containers with lids or stoppers
5. Measuring spoons—(25 ml pipette or graduated cylinder provides more accurate measurement)
6. Measuring cup, 8 fl. oz. (237 ml)

\*Compex—Kalo Laboratories, Inc., Kansas City, MO

\*\*E-Z Mix—United Agri-Products, Greeley, CO

**PROCEDURE**

1. Pour one pint (473 ml) of the liquid fertilizer into each of the quart containers.
2. Add adjuvant(s) to one or more of the containers and mix; follow label directions of adjuvant.
3. Add the Nortron® SC and tank mix components to the containers (see rate table below).
4. Close the containers with lids or stoppers and mix contents by inverting the containers ten times.
5. Inspect the surface and body of the mixture:
  - a. immediately after mixing,
  - b. after allowing mixtures to stand quietly for 30 minutes,
  - c. immediately after mixing again (invert the containers ten more times).

If a uniform mixture does not occur, the spray tank mixture should not be used. If any of the mixtures remain uniform for 30 minutes, that mixture may be used in spray tank applications. Should any of the mixtures separate after 30 minutes but remix readily into a uniform mixture with inversion of the container, the mixture may be used provided that adequate agitation is maintained in the spray tank. If a Nortron® SC + fertilizer mixture utilizing an adjuvant is satisfactory, but the one without adjuvant is not, be sure to use the adjuvant in the spray tank at the rate recommended on the label which was used in this test.

If non-dispersible oil, sludge, or clumps of solids form in the mixtures, those combinations should not be used for spray tank application

**RATE TABLE FOR NORTRON® SC MIXTURES  
WITH LIQUID FERTILIZERS**

Gal. of Liquid Fertilizer to be applied per acre	*ml or tsp. of Nortron® SC to be added to 1 pint of fertilizer	
	ml	tsp.
20	17.6	3.6
30	12.0	2.4
40	9.0	1.9
50	7.1	1.5
60	6.0	1.2

\*Based on field use rate of 3.0 lb. ai/acre (3/4 gal/acre) in the fertilizer volumes indicated. Adjust amount of Nortron® SC added proportionately to correspond with intended field use rate recommended on Nortron® SC label for soil type. Add the proportionate amount of tank mix component (e.g., Pyramin) if intended for use, based on volume of Nortron® SC used in the test.

**RYEGRASS, TALL FESCUE, BENTGRASS, AND KENTUCKY BLUEGRASS SEED CROPS  
(For use in California, Idaho, Nevada, Oregon, and Washington only)**

**GENERAL INFORMATION**

Nortron® SC is a selective herbicide for use in ryegrass, tall fescue, and bentgrass seed crops in California, Idaho, Nevada, Oregon, and Washington. It effectively controls or reduces competition from those weed species listed below. Nortron® SC may be applied preemergence to new seedings of annual or perennial ryegrass or postemergence to perennial ryegrass, tall fescue, or bentgrass. Application to bentgrass is restricted to plantings which have been established for one year or longer. Soil should be moist at time of application. Nortron® SC is less effective when applied to dry soil. Rainfall or overhead irrigation shortly after application is necessary for activation.

Residual control of weeds is dependent upon soil moisture conditions, rate of herbicide used, and soil texture. The activity of Nortron® SC in the soil is reduced as the soil texture becomes finer and organic matter/thatch increases.

**WEEDS CONTROLLED**

- Annual bluegrass..... *Poa annua*
- Seedling Rattail fescue..... *Festuca myuros*
- Seedling volunteer wheat..... *Triticum* spp.
- Seedling volunteer barley..... *Hordeum* spp.
- Soft chess..... *Bromus mollis*
- Seedling Wild oats..... *Avena fatua*
- Downy brome..... *Bromus tectorum*
- Common chickweed..... *Stellaria media*
- Common vetch..... *Vicia sativa*
- Common velvetgrass..... *Holcus lanatus*
- Mannagrass..... *Glyceria* spp.
- Barnyardgrass..... *Echinochloa crus-galli*
- Canarygrass..... *Phalaris canariensis*
- Green foxtail..... *Setaria viridis*
- Large crabgrass..... *Digitaria sanguinalis*
- Yellow foxtail..... *Setaria glauca*

**Spray equipment:** Use a fixed-boom power sprayer properly calibrated to a constant speed and rate of delivery. Do not use smaller than 50-mesh strainer. Avoid overlapping of spray swath. Shut off boom while starting, turning or stopping to avoid overlapping. Apply in 10 to 50 gallons of water per acre at low pressure (20 to 50 psi).

**Soil preparation:** A firm, fine and level seedbed free of trash and vegetative matter will provide best results from preemergence applications. Large clods can reduce effectiveness of Nortron® SC. All existing vegetative growth should be thoroughly worked into the soil before treatment.

**NEW SEEDINGS OF ANNUAL OR PERENNIAL RYEGRASS**

**Before weed emergence:** Apply Nortron® SC Herbicide after seeding and prior to weed emergence. For best results apply to moist soil. Apply 1 1/2 to 3 pints per acre. Use the lower rate for control of common chickweed. For control of rattail fescue, wild oats, and volunteer cereals and other weeds listed, use 2 1/4 to 3 3/4 pints per acre.

**After weed emergence:** Apply Nortron® SC at earliest possible weed growth stage but not later than the 4-leaf stage. Rattail fescue, wild oats, and volunteer cereals which are more difficult to control, must be treated no later than the 2-leaf stage. Apply 2 1/4 to 3 3/4 pints per acre. Use the highest rate where rattail fescue, wild oats, and volunteer cereals are present and where weed infestation is heavy.

**NEW SEEDINGS OF FALL-PLANTED PERENNIAL RYEGRASS AND TALL FESCUE TREATED WITH DIURON PLUS CHARCOAL**

**Timing of application:** Apply Nortron® SC Herbicide following crop emergence and after sufficient rainfall and/or overhead irrigation has occurred to dissipate the charcoal band (approximately 4 inches). Use dosage rates listed in *Dosage Table 10*. Surface debris may result in reduced weed control. Failure to allow for complete dissipation of the charcoal band may result in reduced weed control within the crop row. For best results, apply Nortron® SC to a moist soil surface.

Before using diuron, read the diuron label for rate recommendations, timing of applications, directions for use, and precautionary statements. Do not exceed maximum dosage rates for either herbicide.

NOTE: Do not apply Nortron® SC when crop shows diuron injury.

**DOSAGE TABLE 10**

Crop	Rate Per Acre	Remarks
Perennial ryegrass and tall fescue	1 1/2 to 3 pints	For effective control, annual bluegrass must be treated before the 4-leaf stage; rattail fescue, wild oats, and volunteer wheat must be treated before the 2-leaf stage. Use the lower rate for control of annual bluegrass and common chickweed; use the higher rate for control of rattail fescue, wild oats, and other weeds listed.

**After weed emergence:** Apply Nortron® SC at earliest possible weed growth stage but not later than the 4-leaf stage. Rattail fescue, wild oats, and volunteer cereals which are more difficult to control, must be treated no later than the 2-leaf stage. Apply 2 1/4 to 3 3/4 pints per acre. Use the highest rate where rattail fescue, wild oats, and volunteer cereals are present and where weed infestation is heavy.

**ESTABLISHED STANDS OF PERENNIAL RYEGRASS AND TALL FESCUE**

**Before weed emergence:** Apply Nortron® SC Herbicide at 2 1/4 to 3 3/4 pints per acre prior to weed emergence. Use higher rate where rattail fescue, wild oats, and volunteer cereals are expected to be a problem. For best results, apply to moist soil. Crop residue and debris will reduce effectiveness of treatment and should be removed or destroyed.

**After weed emergence:** Apply Nortron® SC Herbicide at earliest possible weed growth stage but not later than the 4-leaf stage. Rattail fescue, wild oats, and volunteer cereals which are more difficult to control, must be treated no later than the 2-leaf stage. Apply 2 1/4 to 3 pints per acre. Use the higher rate where rattail fescue, wild oats, and volunteer cereals are present. Where weed pressure is very heavy and rattail fescue is at the maximum stage of growth for treating, a rate of 3 3/4 pints of Nortron® SC is recommended.

**ESTABLISHED STANDS OF BENTGRASS**

Apply only to well-established stands which have been seeded for not less than 12 months. Straw from previous crop must be removed or destroyed. Failure to do so may result in reduced weed control.

**Before weed emergence:** Apply Nortron® SC Herbicide at 1 1/2 to 3 pints per acre prior to weed emergence. Use higher rate where rattail fescue, wild oats, and volunteer cereals are expected to be a problem. For best results, apply to moist soil.

**After weed emergence:** Apply Nortron® SC at earliest possible weed growth stage, but no later than the 4-leaf stage. Rattail fescue, wild oats, and volunteer cereals which are more difficult to control, must be treated no later than the 2-leaf stage. Apply at the rate of 1 1/2 to 3 pints per acre. Use higher rate when rattail fescue, wild oats, and volunteer cereals are a problem. Do not apply more than 3 pints of Nortron® SC per acre on bentgrass.

**ESTABLISHED STANDS OF KENTUCKY BLUEGRASS(UNDER IRRIGATION ONLY)**

Apply only to established stands which have been seeded for at least 12 months. Crop residues, carbon, and debris should be removed. Failure to do so may result in reduced weed control. Nortron® SC Herbicide is compatible with currently labeled grass seed herbicides. Consult your local fieldman for recommended uses.

**Before weed emergence:** Apply Nortron® SC at 2 pints per acre prior to weed emergence. For best results, apply to moist soil. Apply at least 1/2 inch irrigation within 2 to 3 days after treatment to incorporate NOTRON SC.

**After weed emergence:** Apply Nortron® SC at 2 pints per acre at the earliest possible weed growth stage, but no later than the 4-leaf stage. For best results, apply to moist soil. Apply at least 1/2 inch irrigation within 2 to 3 days after treatment to incorporate NOTRON SC.

**USE PRECAUTIONS**

Nortron® SC Herbicide may cause stunting and stand reduction of newly seeded perennial ryegrass and tall fescue if the crop is planted late in the fall and subjected to adverse climatic conditions or pesticides which restrict normal growth.

If vegetative matter or stover from previous crop was burned, sufficient rainfall or overhead irrigation must have occurred to dissipate the charcoal residue remaining after burning prior to Nortron® SC treatment. Failure to allow for dissipation of charcoal residue may result in reduced weed control.

**COMMERCIAL SOD PRODUCTION  
(For use in California, Idaho, Nevada, Oregon, and Washington only)**

**GENERAL INFORMATION**

Nortron® SC is a selective herbicide for use in established and newly planted tall fescue and perennial ryegrass grown for sod in California, Idaho, Nevada, Oregon and Washington. Nortron® SC may be applied preemergence or postemergence for the control of weed species listed below. Overhead irrigation or rainfall shortly after application is necessary for activation.

Residual control of weeds is dependent upon soil moisture conditions, rate of herbicide used, and soil texture. The activity of Nortron® SC in the soil is reduced as the soil texture becomes finer and organic matter/thatch increases.

**WEEDS CONTROLLED**

- Annual bluegrass..... *Poa annua*
- Large crabgrass ..... *Digitaria sanguinalis*
- Green foxtail ..... *Setaria viridis*
- Yellow foxtail ..... *Setaria glauca*
- Canarygrass ..... *Phalaris canariensis*
- Volunteer barley ..... *Hordeum sp*
- Volunteer wheat ..... *Triticum sp.*
- Wild oats..... *Avena fatua*
- Rattail fescue..... *Festuca myuros*
- Common velvetgrass..... *Holcus lanatus*
- Mannagrass..... *Glyceria sp.*
- Downy brome ..... *Bromus tectorum*
- Soft chess..... *Bromus mollis*

**Spray equipment:** Use a fixed-boom power sprayer properly calibrated to a constant speed and rate of delivery. Do not use smaller than a 50-mesh strainer. Avoid overlapping of spray swath. Shut off boom while starting, turning, or stopping to avoid over-application. Make applications in 10 to 50 gallons of water per acre at low pressure (20 to 50 psi).

**Soil preparation:** All existing vegetative matter should be thoroughly worked into the soil surface before planting. Large clods, trash, or vegetative matter left on the soil surface will reduce effectiveness of the Nortron® SC treatment.

**NEWLY PLANTED PERENNIAL RYEGRASS AND TALL FESCUE GROWN FOR SOD**

Apply Nortron® SC Herbicide to newly planted areas when crop reaches the 2- to 3-leaf stage of growth. For best results, apply to moist soils.

**Before weed emergence:** Apply Nortron® SC at 2 1/4 to 3 pints per acre prior to weed emergence. Use the higher rate where rattail fescue, wild oats, and volunteer cereals are expected to be a problem.

**After weed emergence:** Apply Nortron® SC at earliest possible weed growth stage but no later than the 4-leaf stage. Rattail fescue, wild oats, and volunteer cereals which are more difficult to control, must be treated no later than the 2-leaf stage. Apply Nortron® SC at 2 1/4 to 3 pints per acre.

**ESTABLISHED PERENNIAL RYEGRASS AND TALL FESCUE SOD**

For preemergence and/or postemergence control of susceptible weeds, apply Nortron® SC Herbicide prior to weed emergence or at the earliest possible weed growth stage, but not later than the 4-leaf stage. For best results, apply to moist soils. Apply Nortron® SC at 2 1/4 to 3 pints per acre. Repeat applications at 4 to 8 week intervals may be needed to maintain weed control. DO NOT apply more than 1 gallon of Nortron® SC per acre per growing season.

**USE PRECAUTIONS**

Nortron® SC may cause stunting and stand reduction of newly seeded perennial ryegrass and tall fescue, if the crop is planted late in the fall and subjected to adverse climatic conditions or pesticides which restrict normal growth.

If vegetative matter or stover from previous crop was burned, sufficient rainfall or overhead irrigation must have occurred to dissipate the charcoal residue remaining after burning prior to Nortron® SC treatment. Failure to allow for dissipation of charcoal residue may result in reduced weed control.

# BEETS, TABLE (GARDEN)

## GENERAL INFORMATION

Nortron® SC is a selective herbicide for use in table beets for the control of the weed species listed below.

Residual control of weeds is dependent upon soil moisture conditions, rate of herbicide used, and soil texture. The activity of Nortron® SC in the soil is reduced as the soil texture becomes finer and organic matter increases.

## WEED SPECIES CONTROLLED

### Annual Broadleaf Weeds

- Black nightshade ..... *Solanum nigrum*
- Common chickweed ..... *Stellaria media*
- Common lambsquarters ..... *Chenopodium album*
- Common purslane ..... *Portulaca oleracea*
- Eastern black nightshade ..... *Solanum ptycanthum*
- Kochia ..... *Kochia scoparia*
- Ladysthumb ..... *Polygonum persicaria*
- Pennsylvania smartweed ..... *Polygonum pennsylvanicum*
- Redroot pigweed ..... *Amaranthus retroflexus*
- Russian thistle ..... *Salsola kali var. tenuifolia*
- Wild buckwheat ..... *Polygonum convolvulus*

### Annual Grass Weeds

- Annual bluegrass ..... *Poa annua*
- Barnyardgrass ..... *Echinochloa crus-galli*
- Canarygrass ..... *Phalaris canariensis*
- Green foxtail ..... *Setaria viridis*
- Large crabgrass ..... *Digitaria sanguinalis*
- Volunteer barley ..... *Hordeum sp.*
- Volunteer wheat ..... *Triticum sp.*
- Wild oats\*\* ..... *Avena fatua*
- Yellow foxtail ..... *Setaria glauca*

\*\*Control of wild oats has been inconsistent in Minnesota and North Dakota.

### Nortron® SC alone will also reduce competition from these HARD-TO-CONTROL weeds:

- Annual Sowthistle ..... *Sonchus oleraceus*
- Puncturevine ..... *Tribulus terrestris*
- Shepherdspurse ..... *Capsella bursa-pastoris*
- Purple nutsedge ..... *Cyperus rotundus*
- Yellow nutsedge ..... *Cyperus esculentus*

Apply tank mixes only in specified regions or States and in accordance with directions on label.

## GENERAL APPLICATION

**Table beets grown under rainfall:** Apply Nortron® SC Herbicide alone or in a tank mix preemergence at time of planting or shortly after, but prior to weed germination. Nortron® SC or tank mix does not require mechanical soil incorporation provided that sufficient rainfall occurs shortly following application to activate the chemical. One-half inch of rainfall is usually adequate for activation. In areas where rainfall can be marginal for activation, it is recommended that Nortron® SC be applied before or at the time of planting and incorporated into the soil.

**Table beets grown under furrow irrigation:** Apply Nortron® SC Herbicide alone or in a tank mix to the soil surface preplant or at time of planting, but prior to weed germination. Where table beets are grown in beds, apply Nortron® SC or tank mix after bedding and incorporate. Since Nortron® SC must have moisture to control weeds effectively, irrigate until tops of beds are thoroughly wetted.

**Table beets grown under sprinkler irrigation:** Apply Nortron® SC Herbicide alone or in tank mix preemergence at time of planting or shortly after, and irrigate prior to crop and weed germination. Repeat irrigation as necessary to maintain good moisture in upper soil layer. Apply at least one-half inch of water during first irrigation. Do not mechanically incorporate Nortron® SC into the soil under sprinkler irrigation.

**CULTURAL PRACTICES FOLLOWING APPLICATION:** When properly applied, Nortron® SC Herbicide alone can provide up to 6 weeks control of susceptible weed species. When cultivating fields in which Nortron® SC has been banded, care should be exercised to minimize the movement of untreated soil into the treated band. Where a broadcast application has been made, do not cultivate deeper than two inches, as this reduces the effectiveness of Nortron® SC.

**NORTRON® SC ALONE**

**DOSAGE TABLE 11**

**DOSAGE FOR BROADCAST APPLICATIONS**

<b>Table Beet Stage</b>	<b>NORTRON® SC FLUID OUNCES/ACRE BROADCAST</b>
Preemergence	60
Postemergence	
2-Leaf	5.25
4-Leaf	5.25
6-Leaf to 8-Leaf	10.5

Do not exceed 96 fluid ounces (0.75 gallon) of product per season.

**PREPLANT AND PREEMERGENCE USE PRECAUTIONS**

Nortron® SC Herbicide applied alone or in tank mixes according to label directions and under normal growing conditions may cause temporary leaf fusion, distortion and stunting. Crop injury may occur during early growth when crop is stressed due to herbicide residue carryover, highly saline or alkaline soils, unusually cold and wet weather or improperly placed fertilizers or soil insecticides.

Unusually dry, windy weather, which dries the upper soil layer, following application of Nortron® SC, may reduce effectiveness.

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

**Crop Planting Precautions:** If crop is lost due to unfavorable growth conditions following treatment, do not replant with crops other than sugar beets, table beets, garlic, onions, shallots or ryegrass in treated land during the same season. If fields are replanted to sugar beets, reseed into treated band. Do not retreat field with preemergence rates of Nortron® SC in the same season.

**PRECAUTIONS**

No more than a total of 0.75 gallon of Nortron® SC should be applied in a single growing season. See *Use Precautions* for additional information on proper use.

**PREPLANT AND PREEMERGENCE APPLICATIONS**

**SOIL PREPARATION:** The soil should be prepared according to good agricultural practices. Large clods can reduce the effectiveness of Nortron® SC Herbicide and tank mixes. All existing vegetative growth should be thoroughly worked into the soil before treatment.

**SPRAY EQUIPMENT:** Apply Nortron® SC Herbicide alone or in tank mixes to the soil using standard low pressure (20 to 50 psi) spray equipment. Spray equipment should be carefully calibrated before use and checked frequently during application to see that it is functioning properly. Do not use smaller than 50-mesh strainer. Uniformly apply the recommended rates of Nortron® SC or tank mixes in 10 to 60 gallons of water per acre on a broadcast basis. Avoid overlaps since crop injury may result. When applying Nortron® SC or tank mixes in a band, check to make certain that the band width is accurate for the dosage rate being applied.

The spray tank and lines should be thoroughly cleaned and rinsed prior to using Nortron® SC.

# POSTEMERGENCE APPLICATION

## GENERAL INFORMATION

Nortron® SC Herbicide applied postemergence broadens and enhances the control of weeds.

**Mixing the Spray:** Add Nortron® SC to the water in the spray while agitating the spray solution thoroughly.

**Spray Equipment:** Apply the mixture using standard low pressure (20–60 psi) spray equipment. Ensure that the sprayer is thoroughly clean. Spray equipment should be carefully calibrated before use and checked frequently during application to see that it is functioning properly. Uniformly apply the recommended rate in 10–40 gallons of water per acre on a broadcast basis or 5–10 gallons of water per acre in a band. Avoid overlaps, since crop injury may result. When applying in a band, check to make certain that the band width is accurate for the dosage rate being applied. Do not use strainer smaller than 50-mesh.

**Moisture Following Application/Residual Weed Control:** Rainfall or sprinkler irrigation within 6 hours of spraying may reduce weed control; however, with preemergence rates, moisture after this period of time is advantageous for moving Nortron® SC into the top layer of soil where it can be absorbed by the roots of sprayed and germinating weeds to provide optimum control. One-half inch or more of sprinkler irrigation is required to activate Nortron® SC on most soil types.

Residual control of weeds is dependent upon soil moisture conditions, rate of herbicide used, and soil texture. The activity of Nortron® SC in the soil is reduced as the soil texture becomes finer and organic matter increases.

NORTRON® SC MAY CAUSE CROP 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 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.

If Nortron® SC is applied on fields with heavy crop residue, such as from a previous corn crop, reduced weed control may occur.

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

# ONION, DRY BULB; GARLIC, BULB; SHALLOT, BULB

## GENERAL INFORMATION

Nortron® SC is a selective herbicide for use in onion, garlic and shallot for the control of the weed species listed below.

Residual control of weeds is dependent upon soil moisture conditions, rate of herbicide used, and soil texture. The activity of Nortron® SC in the soil is reduced as the soil texture becomes finer and organic matter increases.

## WEED SPECIES CONTROLLED

### Annual Broadleaf Weeds

- Black nightshade ..... *Solanum nigrum*
- Common chickweed ..... *Stellaria media*
- Common lambsquarters ..... *Chenopodium album*
- Common purslane ..... *Portulaca oleracea*
- Eastern black nightshade ..... *Solanum ptycanthum*
- Kochia ..... *Kochia scoparia*
- Ladysthumb ..... *Polygonum persicaria*
- Pennsylvania smartweed ..... *Polygonum pennsylvanicum*
- Redroot pigweed ..... *Amaranthus retroflexus*
- Russian thistle ..... *Salsola kali var. tenuifolia*
- Wild buckwheat ..... *Polygonum convolvulus*

### Annual Grass Weeds

- Annual bluegrass ..... *Poa annua*
- Barnyardgrass ..... *Echinochloa crus-galli*
- Canarygrass ..... *Phalaris canariensis*
- Green foxtail ..... *Setaria viridis*
- Large crabgrass ..... *Digitaria sanguinalis*
- Volunteer barley ..... *Hordeum sp.*
- Volunteer wheat ..... *Triticum sp.*
- Wild oats\*\* ..... *Avena fatua*
- Yellow foxtail ..... *Setaria glauca*

\*\*Control of wild oats has been inconsistent in Minnesota and North Dakota.

### Nortron® SC alone will also reduce competition from these HARD-TO-CONTROL weeds:

- Annual Sowthistle ..... *Sonchus oleraceus*
- Puncturevine ..... *Tribulus terrestris*
- Shepherdspurse ..... *Capsella bursa-pastoris*
- Purple nutsedge ..... *Cyperus rotundus*
- Volunteer potato ..... *Solanum tuberosum*
- Yellow nutsedge ..... *Cyperus esculentus*

Apply tank mixes only in specified regions or States and in accordance with directions on label.

## GENERAL APPLICATION

**Onion, garlic and shallot grown under rainfall:** Apply Nortron® SC Herbicide alone or in a tank mix preemergence at time of planting or shortly after, but prior to weed germination. Nortron® SC or tank mix does not require mechanical soil incorporation provided that sufficient rainfall occurs shortly following application to activate the chemical. One-half inch of rainfall is usually adequate for activation. In areas where rainfall can be marginal for activation, it is recommended that Nortron® SC be applied before or at the time of planting and incorporated into the soil.

**Onion, garlic and shallot grown under furrow irrigation:** Apply Nortron® SC Herbicide alone or in a tank mix to the soil surface preplant or at time of planting, but prior to weed germination. Where these crops are grown in beds, apply Nortron® SC or tank mix after bedding and incorporate. Since Nortron® SC must have moisture to control weeds effectively, irrigate until tops of beds are thoroughly wetted.

**Onion, garlic and shallot grown under sprinkler irrigation:** Apply Nortron® SC Herbicide alone or in tank mix preemergence at time of planting or shortly after, and irrigate prior to crop and weed germination. Repeat irrigation as necessary to maintain good moisture in upper soil layer. Apply at least one-half inch of water during first irrigation. Do not mechanically incorporate Nortron® SC into the soil under sprinkler irrigation.

**CULTURAL PRACTICES FOLLOWING APPLICATION:** When properly applied, Nortron® SC Herbicide alone can provide up to 6 weeks control of susceptible weed species. When cultivating fields in which Nortron® SC has been banded, care should be exercised to minimize the movement of untreated soil into the treated band. Where a broadcast application has been made, do not cultivate deeper than two inches, as this reduces the effectiveness of Nortron® SC.

### NORTRON® SC ALONE

#### DOSAGE TABLE 12

#### DOSAGE FOR BROADCAST APPLICATIONS TO ONION, GARLIC AND SHALLOT

Use Pattern	NORTRON® SC FLUID OUNCES/ACRE BROADCAST
Preemergence, soil surface	
Coarse Soils (sand, loamy sand, sandy loam)*	16
Medium and Fine Soils**	32
Postemergence	
up to 4 foliar applications at evenly spaced intervals, with last application 30 (+/- 2) days before harvest	16

\*On coarse soils: Do not exceed 48 fluid ounces (0.375 gallon) of product per season

\*\*On medium and fine textured soils: Do not exceed 96 fluid ounces (0.75 gallon) of product per season.

### PREPLANT AND PREEMERGENCE USE PRECAUTIONS

Nortron® SC Herbicide applied alone or in tank mixes according to label directions and under normal growing conditions may cause temporary leaf fusion, distortion and stunting. Crop injury may occur during early growth when crop is stressed due to herbicide residue carryover, highly saline or alkaline soils, unusually cold and wet weather or improperly placed fertilizers or soil insecticides.

Unusually dry, windy weather, which dries the upper soil layer, following application of Nortron® SC, may reduce effectiveness.

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

**Crop Planting Precautions:** If crop is lost due to unfavorable growth conditions following treatment, do not replant with crops other than sugar beets, table beets, garlic, onions, shallots or ryegrass in treated land during the same season. If fields are replanted to sugar beets, reseed into treated band. Do not retreat field with preemergence rates of Nortron® SC in the same season.

#### PRECAUTIONS

No more than a total of 0.75 gallon of Nortron® SC should be applied in a single growing season. See *Use Precautions* for additional information on proper use.

### PREPLANT AND PREEMERGENCE APPLICATIONS

**SOIL PREPARATION:** The soil should be prepared according to good agricultural practices. Large clods can reduce the effectiveness of Nortron® SC Herbicide and tank mixes. All existing vegetative growth should be thoroughly worked into the soil before treatment.

**SPRAY EQUIPMENT:** Apply Nortron® SC Herbicide alone or in tank mixes to the soil using standard low pressure (20 to 50 psi) spray equipment. Spray equipment should be carefully calibrated before use and checked frequently during application to see that it is functioning properly. Do not use smaller than 50-mesh strainer. Uniformly apply the recommended rates of Nortron® SC or tank mixes in 10 to 60 gallons of water per acre on a broadcast basis. Avoid overlaps since crop injury may result. When applying Nortron® SC or tank mixes in a band, check to make certain that the band width is accurate for the dosage rate being applied.

The spray tank and lines should be thoroughly cleaned and rinsed prior to using Nortron® SC.

### POSTEMERGENCE APPLICATION

#### GENERAL INFORMATION

Nortron® SC Herbicide applied postemergence broadens and enhances the control of weeds.

**Mixing the Spray:** Add Nortron® SC to the water in the spray while agitating the spray solution thoroughly.

**Spray Equipment:** Apply the mixture using standard low pressure (20–60 psi) spray equipment. Ensure that the sprayer is thoroughly clean. Spray equipment should be carefully calibrated before use and checked frequently during application to see that it is functioning properly. Uniformly apply the recommended rate in 10–40 gallons of water per acre on a broadcast basis or 5–10 gallons of water per acre in a band. Avoid overlaps, since crop injury may result. When applying in a band, check to make certain that the band width is accurate for the dosage rate being applied. Do not use strainer smaller than 50-mesh.

**Moisture Following Application/Residual Weed Control:** Rainfall or sprinkler irrigation within 6 hours of spraying may reduce weed control; however, with preemergence rates, moisture after this period of time is advantageous for moving Nortron® SC into the top layer of soil where it can be absorbed by the roots of sprayed and germinating weeds to provide optimum control. One-half inch or more of sprinkler irrigation is required to activate Nortron® SC on most soil types.

*Residual control of weeds is dependent upon soil moisture conditions, rate of herbicide used, and soil texture. The activity of Nortron® SC in the soil is reduced as the soil texture becomes finer and organic matter increases.*

**NORTRON® SC MAY CAUSE CROP 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 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.

If Nortron® SC is applied on fields with heavy crop residue, such as from a previous corn crop, reduced weed control may occur.

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

# CARROT

## (For Use in Washington and Oregon Only)

### GENERAL INFORMATION

Nortron® SC is a selective herbicide for use in carrot for the control of volunteer potatoes and the weed species listed below.

Residual control of weeds is dependent upon soil moisture conditions, rate of herbicide used, and soil texture. The activity of Nortron® SC in the soil is reduced as the soil texture becomes finer and organic matter increases.

### WEED SPECIES CONTROLLED

#### Annual Broadleaf Weeds

- Black nightshade ..... *Solanum nigrum*
- Common chickweed ..... *Stellaria media*
- Common lambsquarters ..... *Chenopodium album*
- Common purslane ..... *Portulaca oleracea*
- Kochia ..... *Kochia scoparia*
- Ladysthumb ..... *Polygonum persicaria*
- Pennsylvania smartweed ..... *Polygonum pennsylvanicum*
- Redroot pigweed ..... *Amaranthus retroflexus*
- Russian thistle ..... *Salsola kali var. tenuifolia*
- Wild buckwheat ..... *Polygonum convolvulus*

#### Annual Grass Weeds

- Annual bluegrass ..... *Poa annua*
- Barnyardgrass ..... *Echinochloa crus-galli*
- Canarygrass ..... *Phalaris canariensis*
- Green foxtail ..... *Setaria viridis*
- Large crabgrass ..... *Digitaria sanguinalis*
- Volunteer barley ..... *Hordeum sp.*
- Volunteer wheat ..... *Triticum sp.*
- Wild oats ..... *Avena fatua*
- Yellow foxtail ..... *Setaria glauca*

#### Nortron® SC alone will also reduce competition from these HARD-TO-CONTROL weeds:

- Annual Sowthistle ..... *Sonchus oleraceus*
- Puncturevine ..... *Tribulus terrestris*
- Shepherdspurse ..... *Capsella bursa-pastoris*
- Purple nutsedge ..... *Cyperus rotundus*
- Volunteer potato ..... *Solanum tuberosum*
- Yellow nutsedge ..... *Cyperus esculentus*

Apply tank mixes only in specified regions or States and in accordance with directions on label.

### GENERAL APPLICATION

**Carrot grown under rainfall:** Apply Nortron® SC Herbicide alone or in a tank mix preemergence at time of planting or shortly after, but prior to weed germination. Nortron® SC or tank mix does not require mechanical soil incorporation provided that sufficient rainfall occurs shortly following application to activate the chemical. One-half inch of rainfall is usually adequate for activation. In areas where rainfall can be marginal for activation, it is recommended that Nortron® SC be applied before or at the time of planting and incorporated into the soil.

**Carrot grown under furrow irrigation:** Apply Nortron® SC Herbicide alone or in a tank mix to the soil surface preplant or at time of planting, but prior to weed germination. Where carrots are grown in beds, apply Nortron® SC or tank mix after bedding and incorporate. Since Nortron® SC must have moisture to control weeds effectively, irrigate until tops of beds are thoroughly wetted.

**Carrot grown under sprinkler irrigation:** Apply Nortron® SC Herbicide alone or in tank mix preemergence at time of planting or shortly after, and irrigate prior to crop and weed germination. Repeat irrigation as necessary to maintain good moisture in upper soil layer. Apply at least one-half inch of water during first irrigation. Do not mechanically incorporate Nortron® SC into the soil under sprinkler irrigation.

**CULTURAL PRACTICES FOLLOWING APPLICATION:** When properly applied, Nortron® SC Herbicide alone can provide up to 6 weeks control of susceptible weed species. When cultivating fields in which Nortron® SC has been banded, care should be exercised

to minimize the movement of untreated soil into the treated band. Where a broadcast application has been made, do not cultivate deeper than two inches, as this reduces the effectiveness of Nortron® SC.

## NORTRON® SC ALONE

### DOSAGE TABLE 13

#### DOSAGE FOR BROADCAST APPLICATIONS TO CARROT

Use Pattern	NORTRON® SC FLUID OUNCES/ACRE BROADCAST
Preemergence, soil surface	
Coarse Soils (sand, loamy sand, sandy loam)	48
Medium and Fine Soils	64
Postemergence	64
2-Leaf to 4-Leaf Stage	

Do not exceed 128 fluid ounces (1 gallon) of product per season.

### PREPLANT AND PREEMERGENCE USE PRECAUTIONS

Nortron® SC Herbicide applied alone or in tank mixes according to label directions and under normal growing conditions may cause temporary leaf fusion, distortion and stunting. Crop injury may occur during early growth when crop is stressed due to herbicide residue carryover, highly saline or alkaline soils, unusually cold and wet weather or improperly placed fertilizers or soil insecticides.

Unusually dry, windy weather, which dries the upper soil layer, following application of Nortron® SC, may reduce effectiveness.

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

**Crop Planting Precautions:** If crop is lost due to unfavorable growth conditions following treatment, do not replant with crops other than sugar beets, table beets, carrots, garlic, onions, shallots, or ryegrass in treated land during the same season. If fields are replanted to sugar beets, reseed into treated band. Do not retreat field with preemergence rates of Nortron® SC in the same season.

### PRECAUTIONS

No more than a total of 1 gallon of Nortron® SC should be applied in a single growing season. See *Use Precautions* for additional information on proper use.

### PREPLANT AND PREEMERGENCE APPLICATIONS

**SOIL PREPARATION:** The soil should be prepared according to good agricultural practices. Large clods can reduce the effectiveness of Nortron® SC Herbicide and tank mixes. All existing vegetative growth should be thoroughly worked into the soil before treatment.

**SPRAY EQUIPMENT:** Apply Nortron® SC Herbicide alone or in tank mixes to the soil using standard low pressure (20 to 50 psi) spray equipment. Spray equipment should be carefully calibrated before use and checked frequently during application to see that it is functioning properly. Do not use smaller than 50-mesh strainer. Uniformly apply the recommended rates of Nortron® SC or tank mixes in 10 to 60 gallons of water per acre on a broadcast basis. Avoid overlaps since crop injury may result. When applying Nortron® SC or tank mixes in a band, check to make certain that the band width is accurate for the dosage rate being applied.

The spray tank and lines should be thoroughly cleaned and rinsed prior to using Nortron® SC.

### POSTEMERGENCE APPLICATION

#### GENERAL INFORMATION

Nortron® SC Herbicide applied postemergence broadens and enhances the control of weeds.

**Mixing the Spray:** Add Nortron® SC to the water in the spray while agitating the spray solution thoroughly..

**Spray Equipment:** Apply the mixture using standard low pressure (20–60 psi) spray equipment. Ensure that the sprayer is thoroughly clean. Spray equipment should be carefully calibrated before use and checked frequently during application to see that it is functioning properly. Uniformly apply the recommended rate in 10–40 gallons of water per acre on a broadcast basis or 5–10 gallons of water per acre in a band. Avoid overlaps, since crop injury may result. When applying in a band, check to make certain that the band width is accurate for the dosage rate being applied. Do not use strainer smaller than 50-mesh.

**Moisture Following Application/Residual Weed Control:** Rainfall or sprinkler irrigation within 6 hours of spraying may reduce weed control; however, with preemergence rates, moisture after this period of time is advantageous for moving Nortron® SC into the top layer

of soil where it can be absorbed by the roots of sprayed and germinating weeds to provide optimum control. One-half inch or more of sprinkler irrigation is required to activate Nortron® SC on most soil types.

Residual control of weeds is dependent upon soil moisture conditions, rate of herbicide used, and soil texture. The activity of Nortron® SC in the soil is reduced as the soil texture becomes finer and organic matter increases.

NORTRON® SC MAY CAUSE CROP 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 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.

If Nortron® SC is applied on fields with heavy crop residue, such as from a previous corn crop, reduced weed control may occur.

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

**IMPORTANT: READ BEFORE USE**

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, 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, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** BAYER CROPSCIENCE MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. BAYER CROPSCIENCE DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

**LIMITATIONS OF LIABILITY:** THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES 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 BAYER CROPSCIENCE'S ELECTION, THE REPLACEMENT OF PRODUCT.

**NET CONTENTS: 2.5 GALLONS**

Nortron is a registered trademark of Bayer.  
Eptam is a registered trademark of Zeneca Ag  
Pyramin is a registered trademark of BASF Aktiengesellschaft.



**Bayer CropScience**

**Bayer CropScience LP  
P.O. Box 12014, 2 T.W. Alexander Drive  
Research Triangle Park, North Carolina 27709  
1-866-99BAYER (1-866-992-2937)**

Nortron SC Herbicide (MASTER) EPA 09/27/06, Notification 09/29/06, Notification 07/01/08.

# Bayer CropScience



July 1, 2008

Document Processing Desk (NOTIF)  
Office of Pesticide Program (H7504P)  
U.S. EPA, Room S4900  
One Potomac Yard  
Arlington, VA 22202 -4525

ATTN: Ms. Joanne Miller (PM 23)  
Registration Division (7505P)

Subject: Nortron ® SC Herbicide (Reg. No.: 264-613): Submission of the  
Application of Pesticide Notification under PR Notice 2007-4 (Ref.: the  
Pesticide Container and Containment Final Rule, August 16, 2006)

Dear Ms. Miller:

Bayer CropScience herein submits the NOTIFICATION application for the Nortron SC Herbicide (Reg. No.: 264-613), an suspension concentrate formulated product containing ethofumesate as the active ingredient. The Notification is to comply with the label language required by the new regulation in 40 CFR part 156 established by the Final Rule "Pesticide Management and Disposal; Standards for Pesticide Container and Containment" (August 16, 2006). Based on the Guidance issued under the PR Notice 2007-4 and the product-specific information, we added the following "Container Disposal" labeling (see Section for "Storage and Disposal", on page 3 as highlighted):

- "Non refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: empty remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available, or reconditioning, if appropriate. Then..  
...."

The Notification is based on the most current Nortron SC Herbicide label on file at the Agency (EPA approved label on 27-Sept-06 and BCS 09/29/06 Notification submission).

Enclosed are the EPA Form 8570-1, one copy of the revised Nortron label for approval, and an extra page 3 (with the Container Disposal Section) where the revised/new text is highlighted. We certify below this is the only change made in this notification label.