

264-613

03-05-2012

 $\frac{1}{21}$ 

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

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

George J. Sabbagh Ph.D
Bayer CropScience
PO Box 12014
2 Alexander Drive
Research Triangle Park, NC 27709

MAR - 5 2012

Subject: Label Amendment adding restrictions on harvesting sod as specified in an Agency letter dated October 19, 2011 as well as official confirmation of the acceptance of previously submitted CSFs

Product Name: Norton® SC Herbicide

EPA Reg. No: 264-613

Application dated: December 6, 2011

Dear Mr. Sabbagh

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

The amended label will supersede all previously accepted ones. A stamped copy of the label is enclosed for your records.

The following CSFs have been accepted by the Agency

- Basic CSF dated 12/8/2008
- Alternate Formulation #1 dated 12/9/2008
- Alternate Formulation #2 dated 12/10/2008

Submit one (1) copy of final printed labeling before you release the product for shipment.

Sincerely,

A handwritten signature in black ink, appearing to read "Kathryn V. Montague".

Kathryn V. Montague
Product Manager 23
Herbicide Branch
Registration Division (7505P)

Nortron[®] SC HERBICIDE

GROUP 16 HERBICIDE

SUSPENSION CONCENTRATE

BROAD SPECTRUM HERBICIDE

For selective control of weeds in sugar beets, garden beets, onions, garlic, shallots; 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%

OTHER INGREDIENTS: 58%

TOTAL 100%

This product contains 4.0 lbs. active ingredient per gallon.

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)

FIRST AID

IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

MAR - 5 2012

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 absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

All mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt, long pants, shoes and socks, and chemical resistant gloves made out of any water proof materials (except flaggers, or applicators in cockpits, and enclosed cabs)

The handlers:

- Must wear the PPE listed on this label and
- Must wear protective eyewear if the system operates under pressure

- Must have immediately available for use in an emergency, such as a spill, or equipment breakdown, chemical resistant footwear and chemical resistant apron.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, 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.

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

For Commercial Dry Bulk Fertilizer Impregnation Only

- Handlers must use a closed system designed by the manufacturer to provide dermal and inhalation protection to enclose the pesticide to prevent it from contacting handlers or other people AND the system is functioning properly and is used and maintained in accordance with the manufacturer's written operating instructions.

USER SAFETY RECOMMENDATIONS

- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should 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

This pesticide is toxic to fish. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE 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.

SHAKE CONTAINER WELL BEFORE USING.

Read entire Directions for Use and Disclaimer of Warranties 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 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
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material

USE RESTRICTIONS

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

Do not graze livestock on treated crops.

Do not use on onions, garlic, and shallots grown in California.

Do not apply more than 3 pints (1.5 lb a.i./acre) of Nortron SC Herbicide with aircraft.

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

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

Do not use Nortron® SC Herbicide on muck or peat soils.

Do not harvest treated sod for 3 days following application

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.

ROTATIONAL CROP GUIDELINES

See chart below for recropping intervals to all crops following applications of Nortron® SC Herbicide. Planting at shorter than the specified intervals may result in injury to the rotational crop and/or illegal residues in the harvested commodity.

If crop is lost due to unfavorable growth conditions following application of Nortron® SC Herbicide or tank mixes, do not replant with crops other than sugar beets, table beets, carrots, onions, shallots, or ryegrass in treated land during the same season. Do not retreat field with preemergence rates of Nortron® SC Herbicide in the same season. If Nortron® SC Herbicide applications were banded and fields are replanted to sugar beets, reseed into treated band.

When Nortron® SC Herbicide is used in combination with other products, always follow the most restrictive recropping requirements of all products in the combinations.

Recropping intervals following applications of Nortron SC Herbicide

Immediate	6 months	12 months
	following split (low rate) postemergence applications totaling 12 fl oz per acre or less	following applications totaling greater than 12 fl oz per acre
sugar beets beets, table (garden) onion shallots carrots – OR, WA ryegrass	all other crops ¹	all other crops ¹

¹Thorough tillage, including moldboard plowing, should precede the planting of crops other than those listed for immediate recropping in the above table.

5
21

PRODUCT INFORMATION - SUGAR BEETS, BEETS, TABLE (GARDEN), ONION (DRY BULB), GARLIC (BULB), SHALLOT (BULB), AND CARROT (For Use in Washington and Oregon Only)

Nortron® SC Herbicide is a selective herbicide for use in sugar beets, table beets, onion, shallot and carrot for the control of the weed species listed in the table "WEED SPECIES CONTROLLED".

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

APPLICATION INFORMATION

Crops 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 Herbicide 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) for sugar beets, it is recommended that Nortron® SC Herbicide be applied before or at the time of planting and incorporated into the soil.

Crops 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 crops are grown in beds, apply Nortron® SC Herbicide or tank mix after bedding and incorporate. Since Nortron® SC Herbicide must have moisture to control weeds effectively, irrigate until tops of beds are thoroughly wetted.

Crops 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 Herbicide 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 (see table "WEED SPECIES CONTROLLED") in table beets, onion, shallot and carrot, and up to 10 weeks control in sugar beets. When cultivating fields in which Nortron® SC Herbicide 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 Herbicide.

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 Herbicide, may reduce effectiveness.

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

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 specified rates of Nortron® SC Herbicide 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 Herbicide 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 Herbicide.

POSTEMERGENCE APPLICATION

APPLICATION INFORMATION

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

Mixing the Spray: Add Nortron® SC Herbicide 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 specified 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 Herbicide 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 Herbicide 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 Herbicide in the soil is reduced as the soil texture becomes finer and organic matter increases.

NORTRON® SC HERBICIDE 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-specified rates may cause crop 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 Herbicide 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.

SPRAY DRIFT MANAGEMENT

This chemical can contaminate surface water through spray drift. A variety of factors including weather conditions (e.g., wind directions, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

Damage to sensitive crops can occur as a result of spray drift. Spray drift can be managed by several application factors and by spraying under the appropriate climatic conditions. Consequently, avoidance of spray drift is the responsibility of the applicator and grower.

WIND:

Do not apply at wind speeds greater than 15 mph.

Drift potential is lowest between wind speeds of 2 - 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

For all non-aerial applications, wind speed must be measured adjacent to the application site, on the upwind side, immediately prior to application.

TEMPERATURE INVERSIONS:

Do not make applications into areas of temperature inversion or stable atmospheric conditions.

Do not make ground applications into areas of temperature inversions because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SENSITIVE AREAS: The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitats for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Avoiding spray drift at the application site is the responsibility of the applicator and grower. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

Do not apply under circumstances where possible drift to unprotected persons or to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption can occur.

7
21

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.
3. All ground application equipment must be properly maintained and calibrated using appropriate carriers.

Where states have more stringent regulations, they shall be observed.

INFORMATION ON DROPLET SIZE:

The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions below).

Uniform, thorough spray coverage is important to achieve consistent weed control. Select nozzles and pressure that deliver medium spray droplets as indicated in nozzle manufacturer's catalogs and in accordance with ASAE Standard S-572. Nozzles that deliver coarse spray droplets may be used to reduce spray drift provided spray volume per acre (GPA) is increased to maintain coverage of weeds.

CONTROLLING DROPLET SIZE:

- Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles - Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

BOOM LENGTH:

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

APPLICATION HEIGHT:

For ground boom applications, apply with nozzle height no more than 4 feet above the ground or crop canopy. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

TEMPERATURE AND HUMIDITY:

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry. Avoid spraying during conditions of low humidity and/or high temperatures.

DIRECTIONS FOR USE OF NORTRON SC HERBICIDE SPECIFIC TO CROPS

SUGAR BEETS

PRECAUTIONS

Following a preemergence treatment of Nortron® SC Herbicide, do not apply conventional rates of Nortron® SC Herbicide postemergence where more than 6 pints were applied preplant or preemergence. Do not apply more than a total of (4 lbs ai/A) 1 gallon of Nortron® SC Herbicide in a single growing season. See *Use Restrictions* for additional information on proper use.

PREPLANT INCORPORATED, LAYERING AND FALL APPLICATIONS

See the General Information section for instructions on making preplant and preemergence applications.

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 Herbicide 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 specified 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 Herbicide in a band to the soil surface at the specified 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.

NORTRON® SC HERBICIDE ALONE

DOSAGE TABLE 1

(All Regions Except North Dakota and Minnesota):

Rate of Nortron® SC Herbicide per Acre ¹				
Soil Texture	Broadcast	7-inch Band Width ²		
		22" Row	28" Row	30" Row
Coarse Textured Soils:				
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
Medium Textured Soils:				
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
Fine Textured Soils:				
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

¹ 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.

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

DOSAGE TABLE 2

(North Dakota and Minnesota only):

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

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

NORTRON® SC HERBICIDE + PYRAMIN® (TANK MIX)

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 Herbicide 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 specified rates.

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

Soil Texture	Nortron® SC Herbicide per Acre		PYRAMIN DF per Acre	
	Broadcast (For calibration purposes only)	10-inch Band Width ^{1,2} 30" Row	Broadcast (For calibration purposes only)	10-inch Band Width 30" Row
Coarse Textured Soils: Sands, loamy sands and sandy loams	NOT RECOMMENDED			
Medium Textured Soils: 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
Fine Textured Soils: 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

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

² Use the higher rate of Nortron® SC Herbicide 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 specified 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 Herbicide /Acre			PYRAMIN FL/Acre		
	Broadcast	7-inch Band Width ¹		Broadcast	7-inch Band Width ¹	
		22" Row	28" Row		22" Row	28" Row
Coarse Textured Soils: Sandy loams only	3 Pints	1 Pint	3/4 Pint	2 1/4 Qts.	3/4 Qt.	1/2 Qt.
Medium Textured Soils: 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.
Fine Textured Soils: 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.

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

POSTEMERGENCE APPLICATION

APPLICATION INFORMATION

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

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

POSTEMERGENCE USE PRECAUTIONS

Following a preemergence treatment of Nortron® SC Herbicide, do not apply conventional rates of Nortron® SC Herbicide postemergence where more than 6 pints were applied preplant or preemergence. Do not apply more than a total of (4 lbs ai/A) 1 gallon of Nortron® SC Herbicide should be applied in a single growing season. See *General Use Precautions* for additional information on proper use.

SPLIT (LOW RATE) APPLICATIONS

Split (low rate) applications of Nortron® SC Herbicide + Betamix® Herbicide or Betanex® Herbicides may be applied to sugar beets to control early germinating weeds (the tank mix of Nortron® SC Herbicide + Betanex® Herbicide 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

Pints/Acre Broadcast

Sugar Beet Stage	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® HERBICIDE OR BETANEX® HERBICIDE 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

11
21

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

Broadcast Equivalent	Band Width	BAND RATE — ROW SPACING		
		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 Herbicide + Betanex® Herbicide or Nortron® SC Herbicide + Betamix® Herbicide when sugar beets have at least 4 fully expanded true leaves. Apply at rates specified in the Dosage Tables. Use the higher rate of Nortron® SC Herbicide where increased residual weed control is desired. Where Eptam® has been applied preplant (fall or spring applied), do not apply Nortron® SC Herbicide + Betamix® Herbicide or Betanex® Herbicide tank mix before the sugar beets have 6 expanded true leaves.

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

NORTRON® SC HERBICIDE + BETAMIX® HERBICIDE (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 Herbicide.

MAXIMUM WEED SIZE CONTROLLED WITH NORTRON® SC HERBICIDE + BETAMIX® HERBICIDE

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

Common Lambsquarters	London rocket	Nettleleaf goosefoot
Redroot pigweed	Wild mustard	

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

Black nightshade	Coast fiddleneck	Common chickweed
Common ragweed	Groundcherry	Ladysthumb
Pennsylvania smartweed	Prostrate pigweed	Shepherdspurse

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

Annual bluegrass***	Annual sowthistle	Canarygrass***
Common purslane**	Green foxtail***	Kochia*
Prostrate knotweed	Wild buckwheat	Yellow foxtail (pigeongrass)***

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

**Group II weed in California.

***For best control, overhead moisture required

12
21

DOSAGE TABLE 8

Rate of Nortron® SC Herbicide Per Acre ¹					Rate of Betamix® Herbicide Per Acre ¹				
Broadcast Rate	Band ² Width (in.)	Row Spacing			Broadcast Rate	Band ² 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

¹ Use the higher rate on larger weeds and sugar beets.

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

NORTRON® SC HERBICIDE + BETANEX® HERBICIDE (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 Herbicide.

MAXIMUM WEED SIZE CONTROLLED WITH NORTRON® SC HERBICIDE + BETANEX® HERBICIDE

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

Common lambsquarters	London rocket	Nettleleaf goosefoot
Redroot pigweed	Wild mustard	

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

Black nightshade	Common chickweed	Common ragweed
Groundcherry	Ladysthumb	Pennsylvania smartweed
Shepherdspurse		

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

Annual sowthistle	Common purslane
Wild buckwheat	Kochia*

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

DOSAGE TABLE 9
(all areas except California):

Rate of Nortron® SC Herbicide Per Acre ¹					Rate of Betanex® Herbicide Per Acre ¹				
Broadcast Rate	Band ² Width (in.)	Row Spacing			Broadcast Rate	Band ² 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

¹ Use the higher rate on larger weeds and sugar beets.

² 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 Herbicide + Betanex® Herbicide or Betamix® Herbicide tank mix during each growing season.

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

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.

13
21

NORTRON® SC MIXTURES WITH FERTILIZERS

NORTRON® SC HERBICIDE 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 Herbicide 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® SC Herbicide /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 Herbicide 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 Herbicide 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 Herbicide 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 Herbicide 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 Herbicide actually contained in the fertilizer mixture applied to the soil represents the correct dosage rate.

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

NORTRON® SC HERBICIDE IMPREGNATION ON DRY BULK FERTILIZERS

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

	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 Herbicide Physical Data

Density	1.14 g/cm ³
Pounds/gallon	9.50
Flashpoint	Noncombustible

14
21

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

Gallons of Nortron® SC Herbicide Per Ton of Dry Bulk Fertilizer

Fertilizer Rate lb/acre	0.75 gal/acre	Impregnation Rate 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 HERBICIDE 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 Herbicide —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 Herbicide 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 Herbicide + 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 specified 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.

15
21

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

Gal. of Liquid Fertilizer to be applied per acre	*ml or tsp. of Nortron® SC Herbicide 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 Herbicide added proportionately to correspond with intended field use rate specified on Nortron® SC Herbicide 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 Herbicide used in the test.

BEETS, TABLE (GARDEN)

NORTRON® SC HERBICIDE ALONE

DOSAGE TABLE 10

DOSAGE FOR BROADCAST APPLICATIONS

Table Beet Stage	NORTRON® SC HERBICIDE FLUID OUNCES/ACRE BROADCAST
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 (3 lbs ai/A per season).

PRECAUTIONS

Do not apply more than a total of 0.75 gallon of Nortron® SC Herbicide in a single growing season. See *Use Restrictions* for additional information on proper use.

16
21

ONION (DRY BULB), GARLIC (BULB), SHALLOT (BULB) (NOT FOR USE IN CALIFORNIA)

NORTRON® SC HERBICIDE ALONE

DOSAGE TABLE 11†

DOSAGE FOR BROADCAST APPLICATIONS TO ONION, GARLIC AND SHALLOT

Use Pattern	NORTRON® SC HERBICIDE 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 (1.5 lbs ai/A per season).

**On medium and fine textured soils: Do not exceed 96 fluid ounces (0.75 gallon) of product per season (3 lbs ai/A per season).

† Not for use in California

CARROT (For Use in Washington and Oregon Only)

NORTRON® SC HERBICIDE ALONE

DOSAGE TABLE 12

DOSAGE FOR BROADCAST APPLICATIONS TO CARROT

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

Do not exceed 128 fluid ounces (1 gallon) of product per season (4 lbs ai/A per season).

PRECAUTIONS

Do not apply more than a total of 1 gallon of Nortron® SC Herbicide in a single growing season. See *Use Restrictions* for additional information on proper use.

17
21

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

PRODUCT INFORMATION

Nortron® SC Herbicide 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 in the table "WEED SPECIES CONTROLLED".

Nortron® SC Herbicide may be applied preemergence to new seedlings 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 Herbicide 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 Herbicide in the soil is reduced as the soil texture becomes finer and organic matter/thatch increases.

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 Herbicide. 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 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 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 13*. 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 Herbicide to a moist soil surface.

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

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

DOSAGE TABLE 13

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 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 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.

18
21

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, apply Nortron® SC Herbicide at a rate of 3 3/4 pints.

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 Herbicide 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 Herbicide 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 Herbicide 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 Nortron® SC Herbicide.

After weed emergence: Apply Nortron® SC Herbicide 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 Herbicide.

COMMERCIAL SOD PRODUCTION

(For use in California, Idaho, Nevada, Oregon, and Washington only)

PRODUCT INFORMATION

Nortron® SC Herbicide 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 Herbicide may be applied preemergence or postemergence for the control of weed species listed in the table "WEED SPECIES CONTROLLED".

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 Herbicide in the soil is reduced as the soil texture becomes finer and organic matter/thatch increases.

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 Herbicide treatment.

19
21

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 Herbicide at 2 1/4 to 3 pints per acre prior to weed emergence. Use the higher rate where raitail fescue, wild oats, and volunteer cereals are expected to be a problem.

After weed emergence: Apply Nortron® SC Herbicide at earliest possible weed growth stage but no later than the 4-leaf stage. Raitail 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 Herbicide 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 Herbicide 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 Herbicide per acre per growing season (4lbs ai/A).

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 Herbicide treatment. Failure to allow for dissipation of charcoal residue may result in reduced weed control.

WEED SPECIES CONTROLLED

		Sugar beets ¹		Bentgrass, Kentucky Bluegrass, Ryegrass, Tall Fescue for seed ¹	Commercial sod ¹	Table (garden) beets, Onion , Garlic, Shallot. Carrot ¹
		Soil- applied	Postemergence ²			
Annual Broadleaf Weeds						
Buckwheat, wild	<i>Polygonum convolvulus</i>	C	C			C
Buffalobur	<i>Solanum rostratum</i>	C ³				
Chickweed, common	<i>Stellaria media</i>	C	C	C		C
Fiddleneck, coast	<i>Amsinckia intermedia</i>	C ³	C			
Goosefoot, nettleleaf	<i>Chenopodium murale</i>	C ³	C			C
Groundcherry	<i>Physalis lanceifolia</i>	C ³	C			
Groundsel, common	<i>Senecio vulgaris</i>	C ³				
Henbit	<i>Lamium amplexicaule</i>	C ³	C			
Knotweed, prostrate	<i>Polygonum aviculare</i>	C ³	C ³			
Kochia	<i>Kochia scoparia</i>	C	C			
Ladysthumb	<i>Polygonum persicaria</i>	C	C			C
Lambsquarters, common	<i>Chenopodium album</i>	C				C
Lettuce, prickly	<i>Lactuca serriola</i>	C ³				C
Mustard, black	<i>Brassica nigra</i>	C ³				
Mustard, wild	<i>Brassica kaber</i>		C			
Nightshade, black	<i>Solanum nigrum</i>	C	C			
Nightshade, cutleaf	<i>Solanum triflorum</i>	C ³				C
Nightshade, eastern black	<i>Solanum ptycanthum</i>					
Nightshade, hairy	<i>Solanum</i>		C			C

20
21

	<i>sarrachoides</i>					
Pigweed, prostrate	<i>Amaranthus gracizans</i>		C			
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C	C			C
Potato, volunteer	<i>Solanum tuberosum</i>					PC ⁸
Puncturevine	<i>Tribulus terrestris</i>	PC				PC
Purslane, common	<i>Portulaca oleracea</i>	C	C			C
Ragweed, common	<i>Ambrosia artemisiifolia</i>	C ³	C			
Rocket, London	<i>Sisymbrium irio</i>		C			
Russian thistle	<i>Salsola kali</i> var. <i>tenuifolia</i>	C				C
Shepherdspurse	<i>Capsella bursa-pastoris</i>	PC ³	C			PC
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>	C	C			C
Sowthistle, annual	<i>Sonchus oleraceus</i>	PC ³	C			PC
Vetch, common	<i>Vicia sativa</i>			C		

WEED SPECIES CONTROLLED contd

		Sugar beets ¹		Bentgrass, Kentucky Bluegrass, Ryegrass, Tall Fescue for seed ¹	Commercial sod ¹	Table (garden) beets, Onion, Garlic, Shallot. Carrot ¹
		Soil-applied	Postemergence ²			
Annual Grass and Sedge Weeds						
Barley, volunteer (seedling)	<i>Hordeum</i> sp.	C		C	C	C
Barnyardgrass	<i>Echinochloa crus-galli</i>	C ⁴	C	C	C	C
Bluegrass, annual	<i>Poa annua</i>	C	C	C	C	C
Brome, downy	<i>Bromus tectorum</i>			C	C	
Canarygrass	<i>Phalaris canariensis</i>	C	C	C	C	C
Chess, soft	<i>Bromus mollis</i>			C	C	
Crabgrass, large	<i>Digitaria sanguinalis</i>	C		C	C	C
Fescue, rattail (seedling)	<i>Festuca myuros</i>			C	C	
Foxtail, green	<i>Setaria viridis</i>	C	C ⁷	C	C	C
Foxtail, yellow (Pigeongrass)	<i>Setaria pumila</i>	C	C ⁷	C	C	C
Mannagrass	<i>Glyceria</i> spp.			C	C	
Nutsedge, purple	<i>Cyperus rotundus</i>	PC				PC
Nutsedge, yellow	<i>Cyperus esculentus</i>	PC				PC
Oat, wild (seedling)	<i>Avena fatua</i>	C ⁵		C	C	C ⁵
Velvetgrass, common	<i>Holcus lanatus</i>			C	C	
Wheat, volunteer (seedling)	<i>Triticum</i> sp.	C		C	C	C

C = control, PC = partial control⁸; blank cells = control not claimed for the particular crops and applications

¹See details for applications of Nortron® SC Herbicide under the specific crop use directions for SUGAR BEETS, and RYEGRASS, TALL FESCUE, BENTGRASS, and Kentucky bluegrass seed crops (For use in California, Idaho, Nevada, Oregon, and Washington only), and COMMERCIAL SOD PRODUCTION (For use in California, Idaho, Nevada, Oregon, and Washington only), and TABLE (GARDEN) BEETS (in all states); and ONION (DRY BULB), SHALLOT (BULB) (in all states except CA); AND CARROT (in WA and OR only).

²Nortron® SC Herbicide alone is not recommended for postemergence use in sugar beets. Tank mixes of Nortron® SC Herbicide + Betamix® Herbicide or + Betanex® Herbicide applied postemergence control the listed weeds, see details under the specific crop use

21
21

directions tank-mixed with Nortron® SC Herbicide and the choice of tank-mix partners should be based upon the weed species targeted. Apply tank mixes only in specified regions or States and in accordance with directions on label of each tank-mix partner.

³Controls of these additional broadleaf weeds can be attained by tank-mixing Nortron® SC Herbicide + Pyramin® see details under the specific crop use directions for sugar beets.

⁴Control of barnyard grass may be reduced with the Nortron® SC Herbicide + Pyramin® tank-mix because of the lower rate of Nortron® SC Herbicide recommended.

⁵Control of wild oat has been inconsistent in Minnesota and North Dakota.

⁶Spray kochia while in the rosette stage, less than one inch in diameter.

⁷Tank-mix Nortron® SC Herbicide plus Betamix® Herbicide to control these weeds postemergence in sugar beets.

⁸Partial control of volunteer potato in carrots only.

Hard-to-control weeds that are partially controlled will be stunted in growth and/or be reduced in numbers as compared to non-treated areas; performance may not be commercially acceptable. The degree of weed control will vary with weed size, density, spray coverage, and/or growing conditions. These weeds may require the addition of an additional tank-mix partner, or a sequential herbicide application to gain complete control.

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 must 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 LP. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP 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 LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, 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 LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

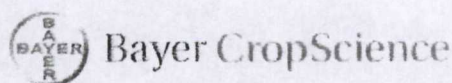
NET CONTENTS: 2.5 GALLONS

Nortron®, Betamix®, Betanex®, are registered trademarks of Bayer.

Eptam® is a registered trademark of Zeneca Ag

Pyramin® is a registered trademark of BASF Aktiengesellschaft.

Produced for



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 (Pending) 12/06/2011