



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (H7505C)
401 "M" St., S.W.
Washington, D.C. 20460

EPA Reg. Number:

100-956

Date of Issuance:

OCT 27 1999

NOTICE OF PESTICIDE:

- Registration
- Reregistration

Term of Issuance:

Conditional

Name of Pesticide Product:

Centric

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Thomas J. Parshley
Senior Regulatory Manager
NOVARTIS CROP PROTECTION, INC.
P. O. Box 18300
Greensboro, NC 27419-8300

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5), 3(g), or 4 when the Agency requires all registrants of similar products to submit such data.
2. Submit the results of corrosion characteristic study carried out together with one year storage stability. The storage stability study is to be carried out at warehouse conditions with the test substance stored in commercial packaging container. These studies must be submitted no later than October 30, 2001.
3. Make the following label changes:
 - a. It is recommended that the Hazards to Human & Domestic Animals" statement be revised to read as follows:

(continued on page 2)

Signature of Approving Official:

Jim Tompkins
Jim Tompkins, PM-25
Herbicide Branch
Registration Division, (7505C)

Date:

10-27-99

"Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. ."

b. Revise the EPA Registration Number to read, "EPA Reg. No. 100-956."

c. On page 3 of booklet in the "Agricultural Use Requirements" box add to the end of the next to last sentence "and restricted-entry interval".

d. It is recommended that the "Statement of Practical Treatment" be changed to "First Aid" and placed on the front panel. The Agency has recently revised its first aid recommendations for pesticides. If you choose to use the revised first aid statements, please use the following statements:

"IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor."

"IF ON SKIN: 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."

"IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advise."

NOTE TO PHYSICIAN: If ingested, induce emesis or lavage stomach. Treat symptomatically.

3. Submit one (2) copies of the revised final printed label for the record.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Enclosure

RESTRICTED USE PESTICIDE
(GROUND AND SURFACE WATER CONCERNS)
FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS
OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE
USES COVERED BY THE APPLICATOR'S CERTIFICATION.

THIS PRODUCT IS A RESTRICTED-USE HERBICIDE DUE TO GROUND AND
SURFACE WATER CONCERNS. USERS MUST READ AND FOLLOW ALL
PRECAUTIONARY STATEMENTS AND INSTRUCTIONS FOR USE IN ORDER TO
MINIMIZE POTENTIAL FOR ATRAZINE TO REACH GROUND AND SURFACE
WATER

Centric™

HERBICIDE

For season-long weed control in sorghum

Active Ingredients:

Prosulfuron (CAS No. 94125-34-5) 1.78%

Atrazine (CAS No. 1912-24-9) 73.40%

Related compounds: 1.53%

Other Ingredients: 23.29%

Total: 100.00%

Centric is a water-dispersible granule.

25 POUNDS
NET WEIGHT

KEEP OUT OF REACH OF CHILDREN.

CAUTION

See additional precautions and directions for use inside booklet.

EPA Reg. No. 100-
EPA Est. 100-LA-1

NCP (DRAFT)

ACCEPTED
with COMMENTS
In EPA Letter Dated
OCT 27 1999

Under the Federal Insecticide,
 Fungicide, and Rodenticide Act
 as amended, for the pesticide
 registered under EPA Reg. No.
100-156

DIRECTIONS FOR USE

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

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

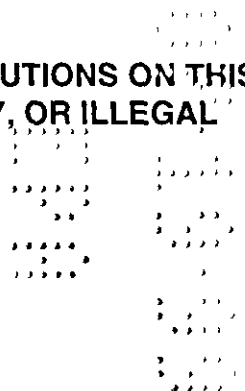
Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements 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). 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.

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
- Waterproof gloves
- Shoes plus socks

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.



Weed Resistance to Sulfonylurea Herbicides

This herbicide controls weeds through two different modes of action*. One mode is through the inhibiting of a biochemical process that produces certain essential amino acids necessary for plant growth. The inhibited enzyme system is acetolactate synthase (ALS). The other component is a triazine herbicide that inhibits photosynthesis. Because Centric is a herbicide with two modes of action, weed resistance is less likely to be a problem than when products with a single mode of action are used.

In some fields there are naturally-occurring biotypes of kochia, Russian thistle, chickweed, and prickly lettuce that will not be controlled by sulfonylurea herbicides. Control of these weeds may be excellent with the use of Centric in many fields; but where there is known occurrence of these ALS-resistant biotypes, Centric must be tank mixed or applied sequentially with an appropriate registered herbicide having a different mode of action* (such as 2,4-D, Banvel®, Clarity®, or Buctril®) to insure control.

*Mode of action is the biochemical mechanism for interfering with plant growth.

APPLICATION PROCEDURES

Ground Spray Equipment

Nozzles: Spray nozzles should be uniformly spaced and of the same size, and should provide accurate and uniform application. Use spray nozzles that produce medium droplets.

Water Volume: To help ensure accuracy, calibrate sprayer at the beginning of the season before use and recalibrate frequently. For ground application, use a minimum of 5 gals. of water per acre. Use higher volumes (i.e., at least 20 gals./A) for severe weed infestations to ensure adequate spray coverage. Always include crop oil concentrate or nonionic surfactant in the spray mixture (see the **Mixing Instructions** section which follows).

Pump: Use a pump with capacity to: (1) maintain 35-40 psi pressure at nozzles and (2) provide sufficient agitation within the tank to keep product in suspension. Lower pressures may be used with extended range or drift reduction flat fan nozzles. A centrifugal pump that provides shear action for dispersing and mixing the product is recommended. The pump should provide a minimum of 20 gals./minute/100 gals. tank size circulated through a correctly positioned sparger tube or jet agitators. If jet agitators are used, at least 2 agitators should be aligned on the bottom of the tank pointing toward each end. Agitation during both mixing and application is essential. Screens or strainers placed on the suction side of the pump should be 16-mesh or coarser. Do not place a screen in the recirculation line unless a roller or piston pump is used for spraying the solution. Use 50-mesh or coarser screens between the pump and boom, and when required, at the nozzles. Check nozzle manufacturer's recommendations.

Spraying: Good weed coverage with the spray mixture is essential for optimum weed control results. Observe sprayer nozzles frequently during the spraying operation to ensure that the spray pattern is uniform. Avoid large spray overlaps which result in excessive rates in the overlap areas. Also, avoid application under conditions when uniform coverage cannot be obtained or when excessive spray drift may occur. To reduce spray drift, do not apply under windy conditions. Allow adequate distance between target area and desirable vegetation to prevent drift to nontarget areas. Avoid placing nozzles directly over the row and concentrating spray into the sorghum whorls. Boom height for broadcast over-the-top application should be based upon the free-standing height of the crop, not height above the soil surface; and should be at least 15 inches above the crop.

For band applications, calculate amount to be applied per acre as follows:

$$\frac{\text{band width in inches}}{\text{row width in inches}} \times \text{broadcast rate per acre} = \text{amount needed per acre of field}$$

Centric can be applied to the crop postemergence over-the-top or directed. Apply Centric with drop nozzles directed onto the weeds, if the crop canopy would prevent adequate coverage.

Avoid all direct or indirect contact (such as spray drift) of Centric with crops other than those recommended for treatment on this label, since injury may occur.

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

Aerial Application: Apply Centric in water using a minimum spray volume of 2 gals./A. Include crop oil concentrate or nonionic surfactant in the spray mixture (see following **Mixing Instructions** section). Avoid application when uniform coverage cannot be obtained or when excessive spray drift may occur. Make applications at a maximum height of 10 ft. above the crop with low-drift nozzles at a maximum pressure of 40 psi and wind speed not exceeding 10 mph to help assure accurate application within the target area.

Avoid application to humans or animals. Flagmen and loaders should avoid inhalation of spray mist and prolonged contact with skin.

Recommendations to Avoid Spray Drift

As with all crop protection products, it is important to avoid off-target movement. Do not allow spray to drift onto adjacent land or crops, as even small amounts may injure sensitive plants. When drift may be a problem, take steps to reduce spray drift, including:

- Do not spray if wind speed is 10 mph or greater. Do not spray if winds are gusty. If sensitive crops or plants are downwind, extreme caution must be used under all conditions.

- Use extreme caution when conditions are favorable for drift (high temperatures, drought, low relative humidity), especially when sensitive plants are located nearby.
- Do not apply when a temperature inversion exists. If an inversion condition is suspected, consult with local weather services before making an application.
- Further reductions in drift can be obtained by:
 1. Using nozzles that provide a uniform droplet size. Do not use nozzles that produce extremely small droplets which are more prone to result in spray drift.
 2. Applying as close to target plants as practical to obtain a good spray pattern for adequate coverage, while maintaining a minimum boom height of 15 inches over the crop canopy.

Mixing Instructions

Important: Follow the correct mixing order on the label or the material may not mix properly. Poor mixing may result in crop injury or poor product performance.

1. Make sure the spray tank is clean before using. If it is contaminated with other materials, mixing problems and/or clogging may occur, or injury to the crop may result.
2. Prepare no more spray mixture than is required for the immediate operation.
3. Fill the spray tank 1/4-1/2 full with **clean water** and begin agitation.
4. Make certain that the agitation system is working properly and creates a rippling or rolling action on the water surface. Maintain agitation throughout the mixing and spraying process.
5. Add any products packaged in water-soluble film to the tank at the same time. Allow the packets to completely dissolve and the contents of the packets to fully disperse. **Important: Water-soluble packets must always be the first material put into the spray tank after water.**
6. Pour the required amount of this product into the spray tank all at once.
7. While maintaining agitation, continue filling the spray tank. When the tank is 3/4 full, add any tank mix partners. If AAtrex® (atrazine), Banvel, Buctril, Buctril + atrazine, Clarity, Marksman®, or 2,4-D is desired as a tank mix partner, add it next while continuing to agitate. Do not use crop oil concentrate as the spray adjuvant or add liquid nitrogen when using Banvel, Buctril, Buctril + atrazine, Marksman, or 2,4-D tank mixtures, i.e., use only nonionic surfactant.
8. Add either (A) a high quality petroleum- or vegetable-based crop oil concentrate

containing not less than 12% emulsifier at 1-4 pts./A as specified on the oil adjuvant label, or (B) a good nonionic surfactant with a minimum of 80% of the constituents effective as a spray adjuvant, at the rate of 1-2 qts./100 gals. of spray mixture (0.25-0.5% volume/volume). Liquid nitrogen fertilizer (28-34%) at 0.5-1 gal./A or 2 lbs./A spray grade ammonium sulfate may also be added to enhance activity. Liquid nitrogen should not be used as a substitute for crop oil concentrate or nonionic surfactant. **Do not use liquid fertilizer as the total spray carrier.**

- 9. Complete filling the tank, maintaining sufficient agitation at all times to ensure surface action until the spray tank mixture is uniform.
- 10. An anti-foaming agent may be added to reduce excessive foaming, if it occurs.
- 11. **Do not leave spray in the spray tank without continuous agitation.** Always maintain agitation to avoid separation and build-up of undesirable residues on the walls of the spray tank.
- 12. Make only sufficient spray mixture that can be used the day in which it will be sprayed; however, Centric will remain active in the spray solution for at least 36 hours.

Cleaning Equipment after Application

Because some broadleaf crops are extremely sensitive to low rates of Centric, special attention must be given to cleaning equipment before spraying a crop other than those registered for use and on this label. Mix only as much spray solution as needed. Immediately after spraying, clean equipment thoroughly using this procedure:

- 1. Flush tank, hoses, boom, and nozzles with clean water.
- 2. Prepare a tank cleaning solution of one gal. of household ammonia per 50 gals. of water. Many commercial spray tank cleaners may be used. Please request and read a copy of the Novartis brochure "Clean It Up! - A Guide to Cleaning your Sprayers" (NCP 175-00088-A 3/97). Do not use chlorine-based cleaners, such as Clorox®.
- 3. Use a pressure washer to clean the inside of the spray tank with this solution. Take care to wash all internal parts of the tank, including the inside top surface. If a pressure washer is not available, **completely** fill the sprayer with the cleaning solution to ensure contact of the cleansing solution with all internal surfaces of the tank and plumbing. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.
- 4. Flush hoses, spray lines, and nozzles for at least one minute with the cleaning solution.
- 5. Dispose of rinsate from steps 1-3 in an appropriate manner.

6. Repeat steps 2-5.
7. Remove nozzles, screens, and strainers and clean separately in the ammonia cleaning solution after completing the above procedures.
8. Rinse the complete spraying system with clean water.
9. **Note:** If the tank is equipped with the proper number of correctly mounted 360° tank washing nozzles that are attached to a dedicated rinsing system, less cleaning solution than a full tank may be used. Use sufficient cleaning solution to thoroughly rinse all surfaces. Start the sprayer agitation and recirculate the cleaning solution for at least 15 minutes. Flush the spray boom with the cleaning solution. Repeat the rinsing procedure 1-2 times.

APPLICATION INSTRUCTIONS

Rate: Postemergence application of 1 lb./A should be made to sorghum within the optimum weed size range noted in Table 1. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 lbs. active ingredient per acre per calendar year. **If weeds are larger than the optimum size range recommended, only partial control may be obtained.** For optimum control, if cultivation is to be used, cultivation is recommended 7-14 days after application of Centric.

Timing: Centric may be applied postemergence (over-the-top or directed) to actively growing sorghum between 5-12 inches. Within that window of application, it is more important to time applications to the optimum weed heights listed in Table 1, rather than crop height. Applications made to sorghum that is less than 5 inches tall increase the likelihood of crop injury.

In drier climates, crop oil concentrate (COC) is the preferred additive, instead of nonionic surfactant, when applying Centric alone.

Table 1: WEEDS CONTROLLED WITH CENTRIC APPLIED AT 1 LB. PRODUCT/A POSTEMERGENCE ON GRAIN SORGHUM

Weeds Controlled	Weed Size Range for Optimum Control (inches)
Broadleaf Weeds:	
Amaranth, Palmer (<i>Amaranthus palmeri</i>)	1-4*
Beggarweed, Florida (<i>Desmodium tortuosum</i>)	1-3
Bindweed, Field (<i>Convolvulus arvensis</i>)	2-4*
Bindweed, Hedge (<i>Calystegia sepium</i>)	1-3*
Buckwheat, Wild (<i>Polygonum convolvulus</i>)**	2-3*
Buffalobur (<i>Solanum rostratum</i>)	1-3*
Buttercup, Hairy (<i>Ranunculus sardous</i>)	1-4
Chamomile, Mayweed (<i>Anthemis cotula</i>)	1-3
Chickweed, Common (<i>Stellaria media</i>)	1-3*
Cocklebur, Common (<i>Xanthium strumarium</i>)	2-6
Devil's Claw (<i>Proboscidea louisianica</i>)	2-6
Eveningprimrose, Cutleaf (<i>Oenothera laciniata</i>)	1-4
Fiddleneck, Coast (<i>Amsinckia intermedia</i>)	1-3
Fixweed (<i>Descurainia sophia</i>)	1-6
Garlic, Wild (<i>Allium vineale</i>)	1-8
Henbit (<i>Lamium amplexicaule</i>)	1-2*
Horseweed (Marestail) (<i>Conyza canadensis</i>)	1-3*
Jimsonweed (<i>Datura stramonium</i>)	1-4
Kochia (<i>Kochia scoparia</i>)	1-3*
Ladysthumb (<i>Polygonum persicaria</i>)	1-3
Lambsquarters, Common (<i>Chenopodium album</i>)	1-3*
Lettuce, Prickly (<i>Lactuca serriola</i>)	1-4
Mallow, Common (<i>Malva neglecta</i>)	1-3*
Mallow, Venice (<i>Hibiscus trionum</i>)	1-3
Morningglory, Ivyleaf (<i>Ipomoea hederacea</i>)	1-3*
Morningglory, Pitted (<i>Ipomoea lacunosa</i>)	1-3*
Morningglory, Tall (<i>Ipomoea purpurea</i>)	1-3*
Mustard, Blue (<i>Chorispora tenella</i>)	1-6
Mustard, Tumble (<i>Sisymbrium altissimum</i>)	1-6
Mustard, Wild (<i>Brassica kaber</i>)	1-6
Pennycress, Field (<i>Thlapsi arvense</i>)	1-6
Pigweed, Redroot (<i>Amaranthus retroflexus</i>)	1-3
Pigweed, Smooth (<i>Amaranthus hybridus</i>)	1-3
Pigweed, Tumble (<i>Amaranthus albus</i>)	1-3

Table 1: WEEDS CONTROLLED WITH CENTRIC APPLIED AT 1 LB. PRODUCT/A POSTEMERGENCE ON GRAIN SORGHUM (Continued)

Weeds Controlled	Weed Size Range for Optimum Control (inches)
Puncturevine (<i>Tribulus terrestris</i>)	1-4
Pusley, Florida (<i>Richardia scabra</i>)	1-3
Radish, Wild (<i>Raphanus raphanistrum</i>)	1-4
Ragweed, Common (<i>Ambrosia artemisiifolia</i>)	2-6
Ragweed, Giant (<i>Ambrosia trifida</i>)	1-3*
Sesbania, Hemp (<i>Sesbania exaltata</i>)	1-3
Shepherdspurse (<i>Capsella bursa-pastoris</i>)	1-3
Sicklepod (<i>Cassia obtusifolia</i>)	1-3*
Sida, Prickly (<i>Sida spinosa</i>)	1-3*
Smartweed, Pennsylvania (<i>Polygonum pensylvanicum</i>)	1-3
Sunflower, Common (<i>Helianthus annuus</i>)	1-6
Tansymustard (<i>Descurainia pinnata</i>)	1-6
Thistle, Canada (<i>Cirsium arvense</i>)	1-2*
Thistle, Russian (<i>Salsola iberica</i>)	1-2
Velvetleaf (<i>Abutilon theophrasti</i>)***	1-4
Waterhemp, Common (<i>Amaranthus rudis</i>)	1-3*
Waterhemp, Tall (<i>Amaranthus tuberculatus</i>)	1-3

*Partially controlled or suppressed.

**Spray after true leaves have emerged; earlier applications may result in unacceptable control.

***For optimum control, include nitrogen in the spray mixture; refer to the **Mixing Instructions** section.

Postemergence Tank Mixtures

Centric may be tank mixed with other herbicides to control weeds in sorghum: (a) to include a different mode of action herbicide to help prevent or manage resistant weed biotypes; (b) to improve control of weeds not fully controlled by Centric alone; or (c) to control weeds that are larger than the optimum size range in Table 1.

The following products may be tank mixed with Centric:

- | | |
|---------|-----------|
| AAtrex | Bicep® |
| Banvel | Marksman |
| Clarity | 2,4-D |
| Buctril | Guardsman |

PRECAUTIONS - For all applications of Centric to sorghum

Follow these precautions to reduce chances of crop injury and/or to avoid reduced weed control:

1. Centric should not be applied to sorghum that is under severe stress due to drought, cold weather, hail, wind damage, sand abrasion, flooding, water-logged soil, compacted soil, disease, insect damage, nutrient deficiency (especially low nitrogen or iron levels), or other causes. Also, Centric should not be applied if weeds are under severe stress due to drought or if weeds are taller than the optimum heights listed in Table 1.
2. Do not apply Centric to early-planted sorghum if cool, wet environmental conditions that stress sorghum are expected within 2 weeks after application. Cool, wet weather following Centric applications to sorghum may result in injury to the sorghum; this injury is normally temporary and yields are not affected.
3. Do not make a foliar or soil application of any organophosphate insecticide within 15 days before or 10 days after an application of Centric.
4. Application of Centric, to sorghum growing under stress caused by minor element nutrient deficiency (e.g., iron) or on highly calcareous soil (above pH 8.2), may result in crop injury. Applications of Centric to fields where iron chlorosis can occur in sorghum may result in enhanced iron chlorosis symptoms. Such enhanced iron chlorosis symptoms are generally of short duration and yields are not impacted; however, if such symptoms persist, they can be corrected by application of foliar iron fertilizer.
5. Centric can be applied to all grain sorghum hybrids, except those susceptible to iron chlorosis, which are being grown in areas where insufficient iron is available in the soil. Most inbred lines of sorghum have not been tested for sensitivity to Centric. Therefore, inbred lines must be thoroughly tested for sensitivity to Centric before treating large acreages.
6. Do not sprinkler irrigate within 4 hours after postemergence application of Centric. Rainfall or sprinkler irrigation occurring less than 4 hours after postemergence application may reduce weed control.
7. Do not apply Centric to sorghum that exhibits injury symptoms from a previous herbicide application or other causes.
8. Do not use Centric on sweet sorghum.
9. Observe all precautions and limitations on the label of each product used in tank mixtures with Centric.

Pigweed, Amaranth, and Waterhemp Control Program for Grain Sorghum: Since various pigweed related species, including redroot pigweed, Palmer amaranth, common

waterhemp, tall waterhemp, and others, are prolific seed producers, have long germination periods, have ALS-resistant biotypes, and have become problem weeds in certain areas, the following 3-step program for control of heavy infestations of these weeds is recommended: (1) Apply Bicep II®, Bicep Lite II MAGNUM®, Bicep Lite II®, Dual II®, or Dual II MAGNUM® preemergence at the recommended rate for that soil, over Concep®-treated sorghum seed. If weeds have emerged prior to the application of the preemergence herbicide, control those weeds with tillage or a burndown herbicide. (2) Apply a postemergence tank mixture of Centric + AAtrex (atrazine), or Banvel, or Marksman when the pigweed, amaranth, or waterhemp plants are 1-8 inches tall (not taller). Refer to Table 3 for additional information regarding timings, rates, and additives for these tank mixtures. (3) If needed, cultivate 1-3 weeks after the postemergence application. In addition to controlling pigweeds, waterhemp, and related species, this program is also effective in controlling most other weeds common in grain sorghum.

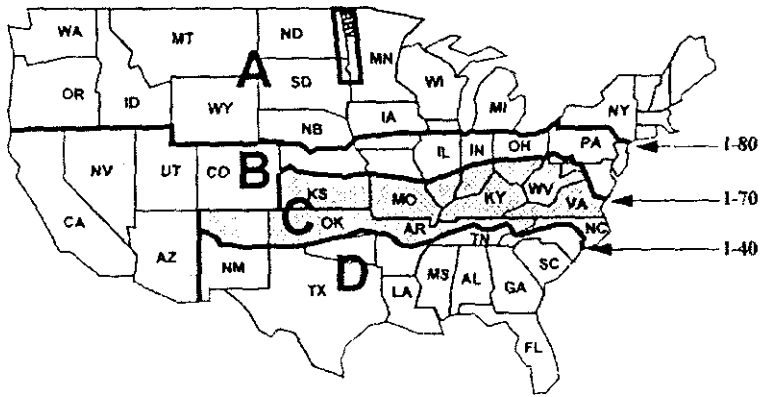
CROP FAILURE

If a crop treated with Centric is lost due to a natural catastrophe such as hail or frost; an IR or IMR field corn hybrid may be replanted immediately. Normal field corn or grain sorghum may be replanted, but not until one month or more after application. For control of weeds in a replanted crop, do not use Centric a second time.

ROTATIONAL CROPS FOLLOWING APPLICATIONS OF CENTRIC

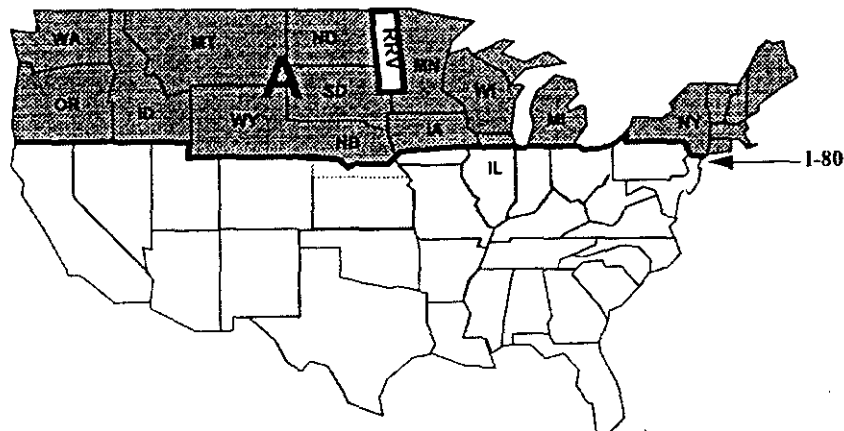
The following tables indicate minimum intervals and restrictions for planting rotational crops after application of Centric. These tables were developed based on average weather and normal growing conditions. If, after Centric application, periods of drought, flood, or a shortened growing season occur, Centric levels remaining in the soil at time of replanting may be higher than expected. For a given geographic area and rotational crop, planting before the minimum interval or exceeding the restrictions regarding maximum soil pH, or latest application date may result in injury to the rotational crop and/or illegal residues. For rotational crop restrictions when Centric is used in tank mixtures, refer to the rotational crop intervals in the following tables for Centric and to the respective product label of any mixing partner for additional restrictions, and use the longest interval.

If due to environmental conditions, uncertainty exists as to the safety of replanting a rotational crop, a field grown bioassay is the best indicator of the safety of planting a given crop. Wait to plant the rotational crop until optimum conditions exist for rapid plant establishment. Do not plant into a cold, wet, and/or compacted seedbed.



Regional boundaries. See following tables for specific rotation recommendations.

Region A (North of I-80, on soils with pH <7.8)

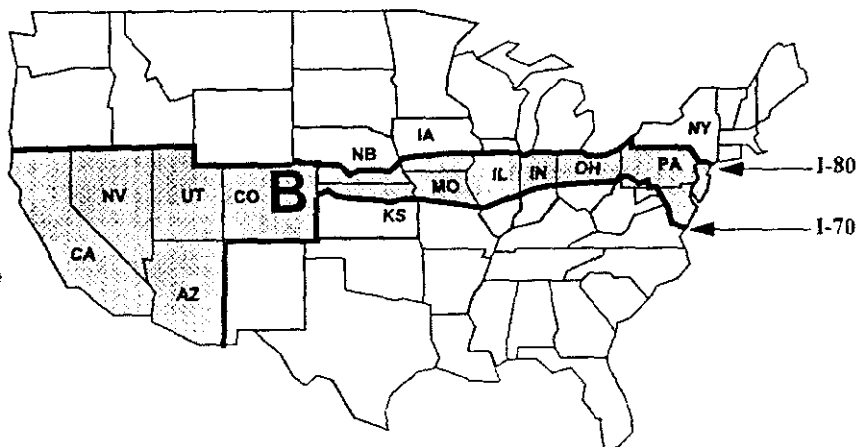


Rotational Crop	Minimum Plant Back Interval where Soil pH is Below 7.8	Restrictions
		Apply Before
IR or IMR Field Corn	None	
Normal Field Corn, Sorghums, Proso Millet	1 month	
Popcorn, Sweet Corn, Rice, Peas, Forage Grasses, Green Beans	10 months	June 10
Wheat, Barley, Rye, Oats, Triticale, Garbanzos, Tobacco, Cabbage, Canola, Flax, Clovers, Alfalfa, Potatoes, Sunflowers, Soybeans, Sugar Beets, Lentils, Leeks, Dry Beans and Onions, All other crops	22 months (34 months in the Red River Valley area of MN and ND)	July 1

These recropping guidelines are applicable only on soils with pH below 7.8. Do not replant any broadleaf crop if less than 10 inches of precipitation or irrigation has occurred since the application of Centric.

For situations not covered adequately in the above table, i.e., higher soil pH or later application date, conduct a soil bioassay to determine if Centric levels in the soil will allow successful establishment of the rotational crop. Take soil samples to a depth of 6 inches (preferably in a solid core) from several locations within the field as well as an untreated area. Plant the intended crop and allow to grow for 3 weeks. If, at the end of 3 weeks, no difference exists between the treated and untreated soil in root and shoot growth of the intended crop, it is safe to plant the intended crop with good growing conditions.

Region B (South of I-80, North of I-70 plus all of CO, UT, NV, and AZ on soils with pH <7.8)



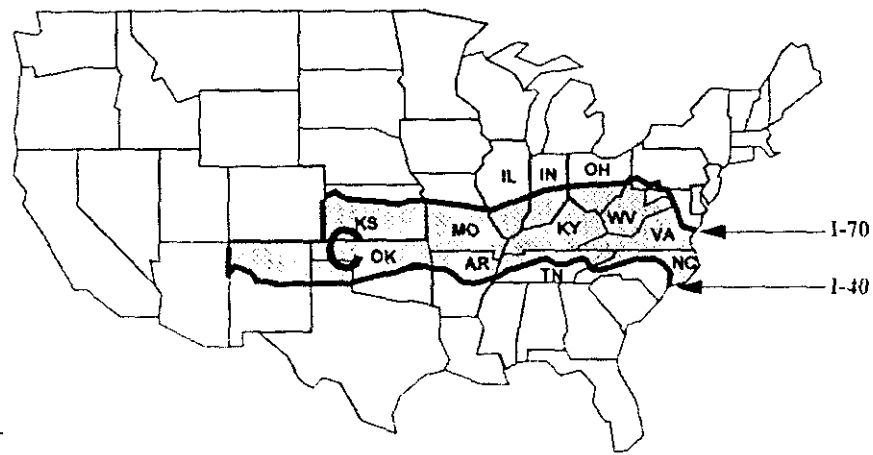
Rotational Crop*	Minimum Plant Back Interval where Soil pH is Below 7.8	Restrictions
		Apply Before
IR or IMR Field Corn	None	
Normal Field Corn, Sorghums, Proso Millet	1 month	
Popcorn, Sweet Corn, Rice, Forage Grasses, STS Soybeans*	10 months	June 10
Wheat, Barley, Rye, Oats, Triticale, Soybeans, Dry Beans, Green Beans, Tobacco, Peas	22 months	July 10
Cabbage, Canola, Flax, Clovers, Alfalfa, Potatoes, Sunflowers, Sugar Beets, Leeks, Onions, All Other Crops	34 months	July 10

*STS soybeans which have enhanced tolerance to certain sulfonylurea herbicides.

These recropping guidelines are applicable only on soils with pH below 7.8. Do not replant any broadleaf crop if less than 10 inches of precipitation or irrigation has occurred since the application of Centric.

For situations not covered adequately in the above table, i.e., higher soil pH or later application date, conduct a soil bioassay to determine if Centric levels in the soil will allow successful establishment of the rotational crop. Take soil samples to a depth of 6 inches (preferably in a solid core) from several locations within the field as well as an untreated area. Plant the intended crop and allow to grow for 3 weeks. If, at the end of 3 weeks, no difference exists between the treated and untreated soil in root and shoot growth of the intended crop, it is safe to plant the intended crop with good growing conditions.

Region C (Areas South of I-70 and North of I-40 with soil pH <7.8, excluding AZ, NV, and UT)



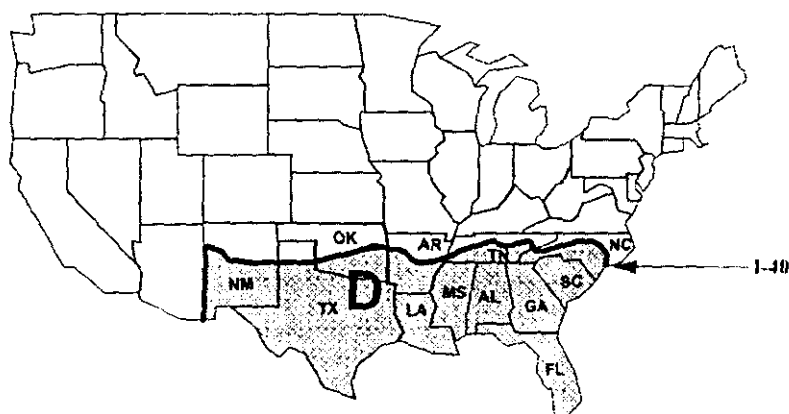
Rotational Crop	Minimum Plant Back Interval where Soil pH is Below 7.8	Restrictions
		Apply Before
IR or IMR Field Corn	None	
Normal Field Corn, Sorghums, Proso Millet	1 month	
Popcorn, Sweet Corn, Rice, Forage Grasses, STS Soybeans*, Soybeans	10 months	June 10
Wheat, Barley, Rye, Oats, Triticale, Peas, Clovers, Alfalfa, Potatoes, Garbanzos, Green Beans, Peanuts, Tobacco, Sunflowers, Sugar Beets, Leeks, Onions, All other crops	22 months	June 10

*STS soybeans which have enhanced tolerance to certain sulfonylurea herbicides.

These recropping guidelines are applicable only on soils with pH below 7.8. Do not replant any broadleaf crop if less than 10 inches of precipitation or irrigation has occurred since the application of Centric.

For situations not covered adequately in the above table, i.e., or later application date, conduct a soil bioassay to determine if Centric levels in the soil will allow successful establishment of the rotational crop. Take soil samples to a depth of 6 inches (preferably in a solid core) from several locations within the field as well as an untreated area. Plant the intended crop and allow to grow for 3 weeks. If, at the end of 3 weeks, no difference exists between the treated and untreated soil in root and shoot growth of the intended crop, it is safe to plant the intended crop with good growing conditions.

Region D (All Areas South of I-40 with soil pH <7.8, except AZ and CA)



Rotational Crop	Minimum Plant Back Interval where Soil pH is Below 7.8	Restrictions
		Make Application Before
IR or IMR Field Corn	None	
Normal Field Corn, Sorghums, Proso Millet	1 month	
Popcorn, Sweet Corn, Rice, Forage Grasses, STS Soybeans, Soybeans	10 months	June 10
Clovers, Alfalfa, Wheat, Barley, Rye, Oats, Triticale, Dry Beans, Garbanzos, Green Beans, Peanuts, Cotton, Tobacco, Cabbage, Canola, Tomatoes, Flax, Lentils	22 months	July 10
Potatoes, Sunflowers, Sugar Beets, Leeks, Onions, All other crops	34 months	July 10

*STS soybeans which have enhanced tolerance to certain sulfonylurea herbicides.

Exception to requirement for pH <7.8 - In MS, LA, AR, and southern and eastern TX, including South Texas, the Lower Rio Grande Valley, the Coastal Bend, and the Blacklands; cotton, rice, STS soybeans which have enhanced tolerance to certain sulfonylurea herbicides, normal soybeans, dry beans, and peanuts can be planted on all soils (at least 10 months after application) provided there are at least 10 inches of rainfall or irrigation during the 6 months after application of Centric.

These recropping guidelines are applicable only on soils with pH below 7.8. Do not replant any broadleaf crop if less than 10 inches of precipitation or irrigation has occurred since the application of Centric.

For situations not covered adequately in the above table, i.e., or later application date, conduct a soil bioassay to determine if Centric levels in the soil will allow successful establishment of the rotational crop. Take soil samples to a depth of 6 inches (preferably in a solid core) from several locations within the field as well as an untreated area. Plant the intended crop and allow to grow for 3 weeks. If, at the end of 3 weeks, no difference exists between the treated and untreated soil in root and shoot growth of the intended crop, it is safe to plant the intended crop with good growing conditions.

STORAGE AND DISPOSAL

Storage

Store in a cool, dry place. Do not store this product under wet conditions.

Pesticide Disposal

Do not contaminate water, food, or feed by storage, disposal, or cleaning of equipment. Open dumping is prohibited. Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

Container Disposal

Completely empty bag into application equipment. Dispose of empty bag in a sanitary landfill, or by incineration, or by open burning, if allowed by state and local authorities. If burned, keep out of smoke.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing.

Statement of Practical Treatment *

If in eyes: Flush eyes with plenty of water. Get medical attention if irritation persists.

If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

If on skin: Wash with plenty of soap and water. Get medical attention if irritation occurs and persists.

Note to Physician: If ingested, induce emesis or lavage stomach. Treat symptomatically.

Personal Protective Equipment

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Control Statements

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 toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

Atrazine can travel (seep or leach) through soil and can enter ground water which may be used as drinking water. Atrazine has been found in ground water. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable, i.e., well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

This product may not be mixed, loaded, or used within 50 ft. of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 ft. of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash-

water, and rain-water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container, or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 11% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above-specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading sites. States may have in effect additional requirements regarding well-head setbacks and operational area containment.

This product may not be mixed or loaded within 50 ft. of intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be applied aerially or by ground within 66 ft. of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 ft. around natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66-ft. buffer or setback from runoff entry points must be planted to crop, seeded with grass or other suitable crop.

Tile-Terraced Fields Containing Standpipes

To ensure protection of surface water from runoff through standpipes with tile-outlets in terraced fields, one of the following options may be used:

1. Do not apply this product within 66 ft. of standpipes in tile-outletted terraced fields.
2. Apply this product to the entire tile-outletted terraced field and immediately incorporate it to a depth of 2-3 inches in the entire tile-outletted terraced field.
3. Apply this product to the entire tile-outletted terraced field under a no-till practice only when a high crop residue management practice is practiced. High crop residue management practice is described as a crop management practice where little or no crop residue is removed from the field during and after crop harvest.

This product is toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash water.

Chemigation

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

Dual II MAGNUM® trademarks of Novartis

Banvel®, Clarity®, and Marksman® trademarks of BASF

Buctril®, Buctril + Atrazine® trademarks of Rhone-Poulenc

Clorox® trademark of The Clorox Company

©1999 Novartis

Novartis Crop Protection, Inc.
Greensboro, North Carolina 27419

NCP (Draft)

March 17, 1999

Container Label

RESTRICTED USE PESTICIDE
(GROUND AND SURFACE WATER CONCERNS)
FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS
OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE
USES COVERED BY THE APPLICATOR'S CERTIFICATION.

THIS PRODUCT IS A RESTRICTED-USE HERBICIDE DUE TO GROUND AND
SURFACE WATER CONCERNS. USERS MUST READ AND FOLLOW ALL
PRECAUTIONARY STATEMENTS AND INSTRUCTIONS FOR USE IN ORDER
TO MINIMIZE POTENTIAL FOR ATRAZINE TO REACH GROUND AND SURFACE
WATER

Centric™

HERBICIDE

For season-long weed control in sorghum

Active Ingredients:

Prosulfuron (CAS No. 94125-34-5)	1.78%
Atrazine (CAS No. 1912-24-9)	73.40%
Related compounds:	1.53%
<hr/>	
Other Ingredients:	23.29%
Total:	100.00%

Centric is a water-dispersible granule.

See directions for use in attached booklet.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

EPA Reg. No. 100-
EPA Est. 100-LA-1

NCP (DRAFT)

KEEP OUT OF REACH OF CHILDREN.

CAUTION

Precautionary Statements

Hazards to Humans and Domestic Animals

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing.

Statement of Practical Treatment

If in eyes: Flush eyes with plenty of water. Get medical attention if irritation persists.

If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

If on skin: Wash with plenty of soap and water. Get medical attention if irritation occurs and persists.

Note to Physician: If ingested, induce emesis or lavage stomach. Treat symptomatically.

Environmental Hazards

Atrazine can travel (seep or leach) through soil and can enter ground water which may be used as drinking water. Atrazine has been found in ground water. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable, i.e., well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

This product may not be mixed/loaded, or used within 50 ft. of all wells, including abandoned wells, drainage wells, and sink holes. (For exceptions to this restriction, see the **Environmental Hazards** section of the **Precautionary Statements** in attached booklet.

This product may not be mixed or loaded within 50 ft. of intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be applied aerially or by ground within 66 ft. of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 ft. around natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66-ft. buffer or setback from runoff entry points must be planted to crop, seeded with grass or other suitable crop.

Tile-Terraced Fields Containing Standpipes

To ensure protection of surface water from runoff through standpipes with tile-outlets in terraced fields, one of the following options may be used:

1. Do not apply this product within 66 ft. of standpipes in tile-outletted terraced fields.
2. Apply this product to the entire tile-outletted terraced field and immediately incorporate it to a depth of 2-3 inches in the entire tile-outletted terraced field.
3. Apply this product to the entire tile-outletted terraced field under a no-till practice only when a high crop residue management practice is practiced. High crop residue management practice is described as a crop management practice where little or no crop residue is removed from the field during and after crop harvest.

This product is toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash water.

Chemigation

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

Centric trademark of Novartis

©1999 Novartis

Novartis Crop Protection, Inc.
Greensboro, North Carolina 27419

NCP (DRAFT)

[LABELSC-W/CENTRIC-BKLT] - ccg - 7/14/99