

10163-198

11/27/2000

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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NOV 27 2000

Terre R. Farrell  
Registration Specialist  
GOWAN COMPANY  
P. O. Box 5569  
Yuma, AZ 85366

SUBJECT: Label Amendment - Interim Reregistration Eligibility Document  
Betasan 12.5 G, EPA Reg. No. 10163-198  
Your Letter Dated October 12, 2000

The above mentioned amendment submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended is acceptable provided you make the required changes listed below:

1. Under the "Precautionary Statements" remove "wear goggles or safety glasses when handling" and "wash thoroughly with soap and water after handling and before eating or smoking".
2. Under the "PPE"  
"Applicators using a push type spreader, and all loaders:" change  
  
"chemical resistant gloves" to chemical resistant gloves such as barrier laminate or viton ≥ 14 mil."  
  
"chemical resistant footwear" to "shoes plus socks"

CONCURRENCES

SYMBOL ▶	7505C							
SURNAME ▶	MINOR. E.							
DATE ▶	Nov 27, 2000							

"a NIOSH-approved dust mist filtering respirator with MSHA/NIOSH-approved number prefix TC-21C or a NIOSH-approved respirator with any N, R, P or HE filter" to "a NIOSH-approved respirator with any N, R, P or HE filter"

add "protective eyewear"

**"All other applicators & handlers must wear:"**

"chemical resistant gloves" to chemical resistant gloves such as barrier laminate or viton  $\geq$  14 mil."

"chemical resistant footwear" to "shoes plus socks"

"a NIOSH-approved dust mist filtering respirator with MSHA/NIOSH-approved number prefix TC-21C or a NIOSH-approved respirator with any N, R, P or HE filter" to "a NIOSH-approved respirator with any N, R, P or HE filter"

add "protective eyewear"

add "In addition tot he above. for hire applicators (golf course and non-golf course employees) must wear a NIOSH-approved dust mist filtering respirator with MSHA/NIOSH-approved number prefix TC-21C or a NIOSH-approved respirator with any N, R, P or HE filter.

- 3. It is recommended that the "Statement of Practical Treatment" be changed to "First Aid" and placed on the front panel directly under the header "Precautionary Statement" and revised as follows:

If swallowed:

- 1. 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 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 advice.

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 inhaled:

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor for further treatment advice.

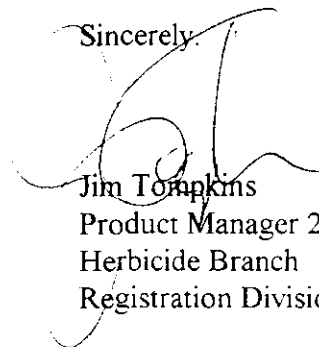
Have the product container or label with you when calling a poison control center or doctor or going for treatment.

3. It is recommended that the "Note to Physician" and any other "Notes" be placed directly below the "First Aid" section.
4. Add the "User Safety Recommendations" box immediately following the "PPE" requirements and add "Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet."
5. Remove the "Engineering Control Statement" this product is not subject to WPS.
6. Under the "Environmental Hazard" statement remove the second "Do not apply directly to water, or to areas where surface water is present or to intertidal areas below mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters".
7. It is recommended that the "General Use Precautions" subheading be changed to "General Use Precautions and Restrictions" and placed under the "Direction For Use" and all precautions and restrictions be placed in this section.
8. It is recommended that the "Product Information" heading be changed to "General Information" and placed as a subheading under the "Direction For Use" section.
9. It is recommended that the subheading "Application Schedule" be changed to "Application Instructions. Under this section remove "Deciduous trees, shrubs, and evergreens". Under the "General Use Precautions" you have restricted application to golf courses (greens, tees, and bentgrass fairways only and on residential lawns.
10. Under the "Applications Rates" tables specify whether the rates are in pounds of product.

11. Under the "Spreader Settings for Two Types of Equipment" confirm that all the equipment is either tractor-drawn or push type spreaders.

Submit one (1) copy of your final printed labeling before you release the product for shipment. The amended labeling supersede all previously accepted ones. A stamp copy of the labeling is enclosed for your records.

Sincerely,



Jim Tompkins  
Product Manager 25  
Herbicide Branch  
Registration Division (7505C)

Enclosure

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# Betasan<sup>®</sup> 12.5G

A selective herbicide with the preemergent applications intended for control of crabgrass and annual bluegrass in turfgrass, ornamental plantings, and groundcovers.

<b>ACTIVE INGREDIENT:</b>	<b>% By Weight</b>
Bensulide: S-(O,O-Diisopropyl phosphorodithioate) ester of N-(2-mercaptoethyl) benzenesulfonamide .....	12.5%
<b>OTHER INGREDIENTS</b> .....	<b>87.5%</b>
	<b>TOTAL 100.0%</b>

This product contains 12.5 pounds of bensulide per 100 pounds.

## KEEP OUT OF REACH OF CHILDREN WARNING

### STATEMENT OF PRACTICAL TREATMENT

If a known exposure occurs or is suspected, immediately start the procedures given below and simultaneously contact a Poison Control Center, a physician, or the nearest hospital.

**NOTE:** Be sure to advise the person contacted that the active ingredient in this compound is a cholinesterase inhibitor. Describe the type of exposure, the victim's symptoms, and follow the advice given.

**IF SWALLOWED:** Give several glasses of water and induce vomiting by placing a finger on the back of the victim's tongue. Give fluid until vomitus is clear. Do not induce vomiting or give anything by mouth to an unconscious person.

**IF ON SKIN:** Flush all affected areas with plenty of water for several minutes. Remove and clean contaminated clothing and shoes. Seek medical attention if irritation occurs.

**IF IN EYES:** Immediately flush eyes with large amounts of running water for at least 15 minutes. Hold eyelids apart to ensure rinsing of the entire surface of the eye and eyelids with water. Get medical attention immediately.

**IF INHALED:** Remove to fresh air. Seek medical attention if respiratory irritation occurs or if breathing becomes difficult.

**NOTE TO PHYSICIAN:** Should cholinesterase inhibition occur, atropine by injection is antidotal. 2-PAM (protopam chloride) is also antidotal when administered early and in conjunction with atropine.

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

Harmful if swallowed. Avoid breathing dust. Causes substantial but temporary eye injury. Do not get in eyes, on skin, or on clothing. Wear goggles or safety glasses when handling.

Wash thoroughly with soap and water after handling and before eating or smoking. Wash all contaminated clothing with soap and hot water before reuse.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

**Applicators using a push type spreader and all loaders must wear:**

- Coveralls over long-sleeved shirt and long pants
- Chemical resistant gloves
- Chemical resistant footwear plus socks
- A NIOSH-approved dust mist filtering respirator with MSHA/NIOSH approval number prefix TC-21C or a NIOSH-approved respirator with any N<sup>2</sup>, R, P, or HE filter

**All other applicators and handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical resistant gloves
- Shoes plus socks
- In addition to the above, for-hire applicators (non-golf-course employees) must wear a NIOSH-approved dust mist filtering respirator with MSHA/NIOSH approval number prefix TC-21C or a NIOSH-approved respirator with a N<sup>2</sup>, R, P, or HE filter (due to risk from repeated exposures) when applying this product to golf courses

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

When handlers use enclosed cabs 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.

NET CONTENTS \_\_\_\_\_ LBS.



ACCEPTED  
with COMMENTS  
In EPA Letter Dated

NOV 27 2000

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 10163-198

EPA Reg. No: 10163-198  
EPA Est. No:

Gowan Company  
P.O. Box 5569  
Yuma, AZ 85366-5569

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### ENVIRONMENTAL HAZARDS

This chemical is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Do not apply when weather conditions favor drift from the treated area.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

Do not apply directly to water, or to area where water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

This product may impair reproduction in birds if used during the breeding season.

### GENERAL USE PRECAUTIONS

**IMPORTANT: THIS PRODUCT WILL NOT WORK UNLESS IT IS WATERED IN FOR 10-15 MINUTES. FOR SAFETY REASONS, WATER THIS PRODUCT IN AS SOON AS POSSIBLE FOLLOWING APPLICATION FOR 10-15 MINUTES AND DO NOT ALLOW CHILDREN OR PETS ON TREATED AREAS UNTIL DRY FOLLOWING THE WATERING.**

**WATERING-IN MUST BE PERFORMED BY THE COMMERCIAL APPLICATOR OR THE COMMERCIAL APPLICATOR MUST PROVIDE THE ABOVE WATERING-IN INSTRUCTIONS TO THE RESIDENT IN WRITING USING BOLD-FACE TYPE AND/OR RED PRINT OR OTHER METHODS TO ENSURE THE WARNING IS PROMINENTLY DISPLAYED ON THE MATERIAL PROVIDED TO THE RESIDENT.**

- Do not apply this product in a way that will contact people or pets.
- Do not apply this product in a way that will contact workers or other persons.
- For use only on golf courses (greens, tees and bentgrass fairways only) and on residential lawns.
- Do not use on parks, recreational areas, or other public sites.
- Applications on bentgrass fairways are limited to the following states: OH, PA, NY, MI, CT, MA, IN, IL, NJ, WV, MN, WI, VT, NH, RI, DE, MD, VA. Applications on bentgrass fairways may only be made in the Fall and are limited to one application per year.
- Applications to greens and tees are limited to two per year.
- Read all directions before using this product
- BETASAN 12.5-G should be used only for EPA-registered sites and at recommended use rates.
- Do not allow children or pets on treated lawn until this product has been watered into the soil, and the grass is completely dry.
- BETASAN 12.5-G is recommended for use on mineral soils only.
- Do not apply peat moss to lawns, groundcovers, or established ornamentals before treating with BETASAN 12.5-G.

### PRODUCT INFORMATION

BETASAN 12.5-G is recommended for use on home lawns, parks, and golf courses, ~~on ornamental plants, and on groundcovers~~ for the control of crabgrass, annual bluegrass, and other annual weeds.

Application of this product must precede the emergence of weeds from the soil. Crabgrass will emerge from the soil from 4-6 weeks before it is visible above the lawn sod. If weeds are visible above the soil, it is too late to apply BETASAN 12.5-G.

Remove leaves, dead or tall grass, and other debris before applying this product to the turfgrass. ~~Any weeds present around ornamentals must be removed before applying BETASAN 12.5-G.~~

WEEDS CONTROLLED	
Smooth Crabgrass ( <i>Digitaria ischaemum</i> )	Goosegrass ( <i>Eleusine indica</i> )
Hairy Crabgrass ( <i>Digitaria sanguinalis</i> )	Annual bluegrass ( <i>Poa annua</i> )
Redroot pigweed ( <i>Amaranthus retroflexus</i> )	Shepherdspurse ( <i>Capsella bursa-pastoris</i> )
Barnyardgrass (Watergrass) ( <i>Echinochloa spp.</i> )	Deadnettle (Henbit) ( <i>Lamium spp.</i> )
Lambsquarters ( <i>Chenopodium album</i> )	

### DIRECTIONS FOR USE

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

Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended for aesthetic purposes, ~~ornamental gardens or parks, or on golf courses, or lawns and grounds.~~

### APPLICATION SCHEDULES

The most effective program for control of crabgrass, goosegrass, annual bluegrass and other annual weeds is designed for local conditions. Two or more applications per year may be necessary, using the recommended rates for a particular weed problem. For additional information regarding timing and rate of application, consult weed specialists of the State Agricultural Extension Service or the State Agricultural Experiment Station.

**Grass Lawns:** BETASAN 12.5-G should be applied to well established lawns only. This product can be used on the following established turfgrasses: Bahiagrass, Bentgrass spp., Bermudagrass spp., Perennial bluegrass, Centipedegrass, Fescue spp., Pensacola bahiagrass, Perennial ryegrass, Rough stalk bluegrass (*Poa trivialis*), St. Augustinegrass, Red top, and Zoysiagrass. Betasan has been used safely on many Bentgrass cultivars. Since all cultivars have not been evaluated the user is urged to test the product on new cultivars with caution and on a small scale basis.

**Dichondra Lawns:** BETASAN 12.5-G can be applied to dichondra lawns at the time of seeding or anytime thereafter.

**Established Ornamentals and Groundcovers:** BETASAN 12.5-G should be applied only to the following well established plants:  
**Herbaceous plants:** Alyssum, Aster, Bachelor's Button, Calendula, Candytuft, Coral Bell, Daisy, Marigold, Pansy, Primrose, Stock, Sweet Pea, and Wallflower.

**Groundcovers:** Ajuga, Campanula, Gazania, Hypericum, Ice Plant, Ivy, Pachysandra, Periwinkle, Sedum, and Wild Strawberry.

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Deciduous trees, shrubs, and evergreens: Abelia, Azalea, Azara, Boxwood, Daphne, Holly, Juniper, Monterey Cypress, Monterey Pine, Myrtle, Privet, Pyracantha, Sandankwa, Star Jasmine, Tobira, and Xylosma.

For the control of crabgrass, apply this product at the recommended rate anytime from fall (September or October) through early spring for spring and summer control. With a late winter or early spring application, the application must be made prior to the crabgrass emergence.

For the control of annual bluegrass and other annual weeds, apply BETASAN 12.5-G at the recommended rates before the weeds emerge from the soil.

When the germination of crabgrass, annual bluegrass, and other weeds extends into the late summer and early fall a second application of BETASAN 12.5-G at the recommended rate should be made 4-5 months after the initial application.

This product may only be applied by tractor-drawn spreader or by push type spreader. ~~Betasan 12.5G may be applied with a lawn spreader or other granular equipment that provides uniform distribution or coverage.~~ Uniform applications can be made by spreading one-half the required amount of product over the area to be treated. Then, apply the remainder of the product at right angles or perpendicular to the pattern of the first application.

**APPLICATION RATES**

Apply a maximum of 200 pounds BETASAN 12.5-G per acre per year in two or more applications depending upon the weed species and the degree of infestation. Or, the equivalent maximum rate is 4.6 pounds of BETASAN 12.5-G per 1000 sq. ft. per year.

If weed specialists are unavailable to provide specific local recommendations, follow these directions:

**Crabgrass only:** Apply uniformly 80 pounds of BETASAN 12.5-G per acre. Or, apply 1.8 pounds of BETASAN 12.5-G per 1000 sq. ft.

**Annual Bluegrass, Goosegrass, and Other Annual Weeds:** Apply uniformly 100 pounds of BETASAN 12.5-G per acre. Or, apply 2.3 pounds of BETASAN 12.5-G per 1000 sq. ft.

**APPLICATION RATES PER ACRE RECOMMENDED FOR BETASAN 12.5-G.**

Application Schedule	AMOUNTS OF PRODUCT	
	Crabgrass only	Annual bluegrass, barnyardgrass, fall panicum, foxtails, and other annual weeds
Single application	80	100
Sequential applications	80	100

**APPLICATION RATES PER 1000 SQ. FT. RECOMMENDED FOR BETASAN 12.5-G.**

Application Schedule	AMOUNTS OF PRODUCT	
	Crabgrass only	Annual bluegrass, barnyardgrass, fall panicum, foxtails, and other annual weeds.
Single application	1.8	2.3
Sequential applications	1.8	2.3

Sprinkle or irrigate the treated area with water for 10 - 15 minutes after application to wash the BETASAN 12.5-G into the soil.

**SPREADER SETTINGS FOR TWO TYPES OF EQUIPMENT**

Spreader Type	Rate per Acre	Rate per 1000 sq. ft.	Settings with 1 Trip per application	Settings with 2 Trips per application	Pattern Width
Cyclone	80	1.8	2.6	2.3	6 ½ ft.
	100	2.3	2.8	2.5	6 ½ ft.
Scott's	100	2.3	3.5	2.5	
Central #1615A	100	2.3	4	3	
Central #1665	100	2.3	5 ½	4 ½	

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### RESEEDING

Herbicides that provide effective control of annual grasses may affect new lawn grass seedlings which germinate after treatment. Proper fertilization and watering will encourage the existing turfgrass to fill in the thin or bare spots formerly occupied by crabgrass. The following procedures are suggested to minimize any stunting of turfgrass which may occur when reseeding into areas treated with BETASAN 12.5-G:

1. Do not reseed within 4 months after application.
2. Renovate the area to be seeded by raking thoroughly to scarify the soil surface. Where practical, mix peat into the soil to provide an optimum seedbed.
3. When turf diseases or physiological disorders require reseeding sooner than 4 months after the application of this product, apply powdered activated charcoal prior to reseeding to deactivate the bensulide.
4. Apply the activated charcoal at 7 pounds per 1000 sq. ft. in 14 gallons of water. Or the equivalent rate is 300 pounds of activated charcoal per acre in 600 gallons of water.
5. Following application, irrigate the turf with sufficient water to wash the charcoal into the soil.
6. Reseed no sooner than 7 days after applying the charcoal.

### STORAGE AND DISPOSAL

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

**STORAGE:** Store in a cool, dry place. Avoid contamination of food, feed, or domestic animal water supplies.

**PESTICIDE DISPOSAL:** 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 into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**FOR 24-HOUR EMERGENCY ASSISTANCE (SPILL, LEAK OR FIRE), CALL CHEMTREC® (800) 424-9300.**

For other product information, contact Gowan Company or see Material Safety Data Sheet.

### NOTICE ON CONDITIONS OF SALE

Our recommendations for use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice. The buyer must assume all responsibility, including injury or damage, resulting from its misuse as such, or in combination with other materials.

Betasan 12.5(RED)  
EPA Text Pending 10-13-00