

**PRODUCT INFORMATION**

BETASAN 4-E is recommended for use on home lawns, parks and golf courses, on ornamental plants and on ground covers for control of crabgrass, annual bluegrass and other annual weeds listed.

**WEEDS CONTROLLED**

- Annual Bluegrass (*Poa annua*)
- Barnyardgrass (Watergrass) (*Echinochloa* spp.)
- Deadnettle (Henbit) (*Lamium* spp.)
- Fall Panicum (*Panicum dichotomiflorum*)
- Foxtails (*Setaria* spp.)
- Goosegrass (*Elysiine indica*)
- Hairy Crabgrass (*Digitaria sanguinalis*)
- Lambsquarters (*Chenopodium album*)
- Redroot Pigweed (*Amaranthus retroflexus*)
- Shepherdspurse (*Capsella bursa-pastoris*)
- Smooth Crabgrass (*Digitaria ischaemum*)

(NOTE: BETASAN does not control established weeds.)

**OBSERVE THE FOLLOWING USE PRECAUTIONS**

**READ ALL LABEL DIRECTIONS BEFORE USING.**  
 BETASAN 4-E should be used only for recommended uses and at recommended rates. Apply when there is little or no wind to avoid drift.  
 BETASAN 4-E is recommended for use on mineral soils only. Do not apply peat moss to lawn, ground covers or established ornamentals before treating with BETASAN 4-E.  
 Do not allow children or pets on treated lawns until BETASAN 4-E has been watered into the soil and grass is completely dry.  
 Clean up spills on walks or patios by covering with dry soil or absorptive material. Bury sweepings and hose area.  
 Do not store near seeds or fertilizer. Keep container closed when not in use.  
**FISH CAUTIONS:** Toxic to fish. Do not contaminate any body of water by direct application cleaning of equipment or disposal of wastes and containers.

RINSE EQUIPMENT AND CONTAINERS AND DISPOSE OF WASTES BY BURYING IN NON-CROP LANDS AWAY FROM WATER SUPPLIES. DISPOSE OF CONTAINER BY CRUSHING IT AND BURYING IT WITH WASTES.

**DIRECTIONS FOR APPLICATION**

Application of BETASAN 4-E must precede emergence of weeds from the soil. Crabgrass will emerge from the soil from four to six weeks before it is visible above lawn sod. If weeds are visible above the soil, it is too late to apply BETASAN 4-E.

Remove leaves, dead tall grass, and the debris before applying BETASAN to turf areas. Any weeds present around ornamentals must be removed or worked into the soil before applying BETASAN 4-E.

**TIMING OF APPLICATION**

**GENERAL COMMENTS**

**GRASS LAWNS:** BETASAN 4-E should be applied only to well-established grass lawns. BETASAN 4-E can be used on the following established turf grasses:

- |                          |                    |               |
|--------------------------|--------------------|---------------|
| Bahia                    | Centipede          | Poa Trivialis |
| Bentgrass spp.           | Fescue spp.        | St. Augustine |
| Bermudagrass             | Pensacola          | Red Top       |
| Perennial Bluegrass spp. | Perennial Ryegrass | Zoysia        |

**DICHONDRA LAWNS:** BETASAN 4-E can be applied to dichondra lawns at the time of seeding or any time thereafter.

**ORNAMENTALS AND GROUND COVERS:** BETASAN 4-E should be applied only to the following ornamentals and ground covers.

- |                   |            |                  |                 |
|-------------------|------------|------------------|-----------------|
| Alyssum           | Daffodil   | Abelia           | Ajuga           |
| Aster             | Dahlia     | Azalea           | Campanula       |
| Bachelor's-Button | Freesia    | Azara            | Gazania         |
| Calendula         | Gladiolus  | Boxwood          | Hypericum       |
| Candy-Tuft        | Narcissus  | Daphne           | Ice Plant       |
| Coral Bell        | Ranunculus | Holly            | Ivy             |
| Daisy             | Tulip      | Juniper          | Pachysandra     |
| Marigold          |            | Monterey Cypress | Periwinkle      |
| Pansy             |            | Monterey Pine    | Sedum           |
| Primrose          |            | Myrtle           | Wild Strawberry |
| Stock             |            | Privet           |                 |
| Sweet Pea         |            | Pyracantha       |                 |
| Wall Flower       |            | Sandankwa        |                 |
| Zinnia            |            | Star Jasmine     |                 |
|                   |            | Tobira           |                 |
|                   |            | Xylosma          |                 |

ACCEPTED (Continued on right panel)

Nov. 26, 1971  
 UNDER THE FEDERAL INSECTICIDE, FUNGICIDE AND ROBERTICIDE ACT FOR ECONOMIC POISON REGISTRATION UNDER NO. 476-1817



# Betasan 4-E

**EMULSIFIABLE LIQUID  
 A SELECTIVE HERBICIDE FOR USE  
 IN TURF, ORNAMENTALS AND GROUND COVERS**

**ACTIVE INGREDIENT:**  
 S-(1,1-DIISOPROPYL PHOSPHORODITHIOATE) OF N-(2-MERCAPTOETHYL) BENZENESULFONAMIDE ..... 46.0%  
**INERT INGREDIENTS** ..... 54.0%  
 100.0%

Contains 4 Pounds Active Ingredient per Gallon  
 U. S. Pat. No. 3,205,253, 3,298,819  
**PROTECT FROM TEMPERATURES BELOW 42° F.**  
 Product crystallizes at lower temperatures. Warm or store at higher temperatures, and mix to redissolve crystals and assure uniformity before use.

**CAUTION**      **KEEP OUT OF REACH OF CHILDREN**  
 HARMFUL IF SWALLOWED. Avoid contact with the skin and eyes. Wash thoroughly after use. Avoid contamination of food and feed, drinking water and fish ponds.

Combustible: Do not use or store near heat or open flame.

EPA Reg. No. 476-1817-AA      **1 GAL. NET**  
 Made in U.S.A. by

**STAUFFER CHEMICAL COMPANY**  
 NEW YORK, N.Y. 10017

476-1817

11/26/71

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**Timing of Application — General Comments**

(Continued from left panel)

For control of CRABGRASS, apply BETASAN 4-E at the recommended rate (see "RATES OF APPLICATION") any time from fall—September or October—through early spring for spring and summer control. With a late winter or an early spring application, the application must be made prior to crabgrass emergence (see "DIRECTIONS FOR APPLICATION").

For control of ANNUAL BLUEGRASS AND OTHER ANNUAL WEEDS apply BETASAN 4-E at the recommended rate (see "RATES OF APPLICATION") before the weeds emerge from the soil.

In southern or western states where germination of crabgrass, annual bluegrass, and other annual weeds extends into the late summer and early fall, a second application of BETASAN 4-E at the recommended rates should be made 4 to 5 months after the initial application.

Consult weed specialists of the State Agricultural Extension Service or the State Agricultural Experiment Stations for additional information, as the timing and rate of application needed will vary with local conditions.

BETASAN 4-E should be applied with spray equipment that will provide uniform application such as a knapsack sprayer, hose proportioner, or pressure sprayer. Sprinkle with water for 10 to 15 minutes after application to wash the BETASAN 4-E off the grass and down into the soil where the weed seeds are located.

**RATES OF APPLICATION**

**CRABGRASS:** Apply 2½ gallons of BETASAN 4-E in 80 to 100 gallons of water uniformly on one acre (7.4 fl. oz. per 1,000 sq. feet).

**ANNUAL BLUEGRASS AND OTHER ANNUAL WEEDS:** Apply 3¼ gallons of BETASAN 4-E in 80 to 100 gallons of water uniformly on one acre (9.4 fl. oz. per 1,000 sq. feet).

**RESEEDING**

Any material that provides effective control of annual grasses may affect new lawn grass seedlings which germinate after treatment. Proper fertilization and watering will encourage the existing turf grass to fill in the thin or bare spots formerly occupied by crabgrass.

The following procedures are suggested in order to minimize any stunting of turf grasses which may occur when reseeding into BETASAN 4-E treated areas.

1. Do not reseed within 4 months after application. Renovate the area to be reseeded by raking thoroughly to scarify the soil surface. Where practical, mix peat in with the soil to provide an optimum seed bed.
2. When turf diseases or physiological disorders necessitate reseeding sooner than 4 months after BETASAN application, apply powdered activated charcoal prior to reseeding to deactivate the BETASAN.

Apply the activated charcoal at a rate of 7 pounds per 1,000 square feet in 14 gallons of water per 1,000 square feet (300 pounds per acre in 600 gallons of water per acre).

Following application, irrigate the turf with sufficient water to wash the charcoal into the soil.

Reseed no sooner than 7 days after applying the charcoal.

**NOTICE:** Stauffer Chemical Company makes no warranty, express or implied, including the warranties of merchantability and/or fitness for any particular purpose, concerning this material, except those which are contained on Stauffer's label.

ARC 710716-0

Made in U.S.A.  
Stauffer Chemical Co., New York, N. Y.