476 - 1817

03/06/1969

(STAUFFER SHIELD)

BETASAN 4E

A SELECTIVE HERBICIDE FOR PRE-EMERGENCE CONTROL OF CRABGRASS AND ANNUAL BLUEGRASS IN TURF, ORNAMENTALS AND GROUND COVERS

CONTAINS 4 POUNDS OF BETASAN PER GALLON

ACTIVE INGREDIENT:

)

S = (0, 0 - disopropyl phosphorodithioate) of $N = (2 - Mercaptoethyl)$ benzenesulfonamide	45.2%
INERT INGREDIENTS	54.8%

100.0%

1/4

U. S. PATENT No. 3,205,253

CAUTION

KEEP OUT OF REACH OF CHILDREN

HARMFUL IF SWALLOWED. AVOID PROLONGED OR REPEATED CONTACT WITH THE SKIN. AVOID CONTACT WITH THE EYES. AVOID CONTAMINATION OF FOOD AND FEED, DRINKING WATER, AND FISH PONDS,

DO NOT USE OR STORE NEAR HEAT OR OPEN FLAME

PROTECT FROM TEMPERATURES BELOW 42⁰F. PRODUCT CRYSTALIZES AT LOWER TEMPERATURES, WARM OR STORE AT HIGHER TEMPERATURES, AND MIX TO REDISOLVE CRYSTALS AND ASSURE UNIFORMITY BEFORE USE.

READ ALL DIRECTIONS BEFORE USING

MADE IN U.S.A. STAUFFER CHEMICAL COMPANY NEW YORK, NEW YORK

ACCEPTED	
MAR 6 1969	1
UNDER THE FEDE AND DE FUNCTION OF FUNCTION AND DE FOR ECONOMIC POLE AND DE FOR ECONOMIC POLE AND TO ATTACHED COMMENTS.	

BETASAN 4E

)

)

WEEDS CONTROLLED

2/4

SMOOTH CRABGRASS (<u>DIGITARIA ISCHAEMUM</u>) HAIRY CRABGRASS (<u>DIGITARIA SANGUINALIS</u>) REDROOT PIGWEED (<u>AMARANTHUS RETROELEXUS</u>) BARNYARDGRASS (WATERGRASS) (<u>ECHINOCHLCA</u> SPP.) LAMBSQUARTERS (<u>CHENOPODIUM ALBUM</u>) GOOSEGRASS (E<u>LEUSINE INDICA</u>) ANNUAL BLUEGRASS (<u>POA ANNUA</u>) SHEPHERDSPURSE (<u>CAPSELLA BURSA-PASTORIS</u>) DEADNETTLE (HENBIT) (<u>LAMIUM SPP.</u>)

GENERAL USE PRECAUTIONS

BETASAN SHOULD BE USED ONLY FOR RECOMMENDED USES AND AT RECOMMENDED RATES, APPLY WHEN THERE IS LITTLE OR NO WIND TO AVOID DRIFT, CLEAN UP SPILLS ON WALKS OR PATIOS BY COVERING WITH DRY SOIL OR ABSORPTIVE MATERIAL. BURY SWEEPINGS AND HOSE AREA. RINSE EQUIPMENT AND CON-TAINERS 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. DO NOT ALLOW CHILDREN OR PETS ON TREATED LAWNS UNTIL BETASAN HAS BEEN WATERED INTO THE SOIL AND GRASS IS COMPLETELY DRY, AVOID CONTAMINATION OF FOOD AND FEED. TOXIC TO FISH. DO NOT CON-TAMINATE ANY BODY OF WATER BY DIRECT APPLICATION, CLEANING OF EQUIP-MENT OR DISPOSAL OF WASTES AND CONTAINERS.

PRODUCT INFORMATION

BETASAN 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.

DIRECTIONS FOR APPLICATION

APPLICATION OF BETASAN 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. 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, BETASAN IS RECOMMENDED FOR USE ON MINERAL SOILS ONLY, DO NOT APPLY PEAT MOSS TO LAWN, GROUND COVERS OR ESTABLISHED ORNA-MENTALS BEFORE TREATING WITH BETASAN. BETASAN 4E

7

TIMING OF APPLICATION -- GENERAL COMMENTS

<u>GRASS LAWNS</u>: BETASAN SHOULD BE APPLIED ONLY TO THE FOLLOWING ESTABLISHED ORNAMENTALS AND GROUND COVERS.

BAHIACENTIPEDEPOA TRIVIALISBENTGRASS SPP.FESCUE SPP.SAINT AUGUSTINEBERMUDAGRASSPENSACOLARED TOPPERENNIAL BLUEGRASS SPP.PERENNIAL RYEGRASSZOYSIA

DICHONDRA LAWNS: BETASAN CAN BE APPLIED TO DICHONDRA LAWNS AT THE TIME OF SEEDING OR ANY TIME THEREAFTER.

ORNAMENTALS AND GROUND COVERS: BETASAN SHOULD BE APPLIED ONLY TO THE FOLLOWING ORNAMENTALS AND GROUND COVERS:

ALYSSUM ASTER BACHELOR'S-BUTTON CALENDULA CANDY-TUFT	CORAL BELL DAISY MARIGOLD PANSY PRIMROSE	STOCK SWEET PEA WALL FLOWER ZINNIA
DAFFODIL DAHLIA FREESIA	GLADIOLUS NARCISSUS	RANUNCULUS TULIP
ABELIA AZALEA AZARA BOXWOOD DAPHNE HOLLY	JUNIPER MONTEREY CYPRESS MONTEREY PINE MYRTLE PRIVET	PYRACANTHA SANDANKWA STAR JASMINE TOBIRA XYLOSMA
AJUGA CAMPANULA GAZANIA	HYPERICUM ICE PLANT IVY	PERIWINKLE SEDUM WILD STRAWBERRY

PACHYSANDRA

FOR CONTROL OF CRABGRASS, APPLY BETASAN AT THE RECOMMENDED RATE (SEE "RATES OF APPLICATION") ANY TIME FROM FALL -- SEPTEMBER CR 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 AT THE RECOMMENDED RATE (SEE "RATES OF APPLICATION") BEFORE THE WEEDS EMERGE FROM THE SOIL. CONSULT WEED SPECIALISTS OF THE STATE AGRICUL-TURAL EXTENSION SERVICE OR THE STATE AGRICULTURAL EXPERIMENT STATIONS FOR ADDITIONAL INFORMATION, AS THE TIMING AND RATE OF APPLICATION NEEDED WILL VARY WITH LOCAL CONDITIONS.

-17

BETASAN 4E

)

}

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 AT THE RECOMMENDED RATES SHOULD BE MADE FOUR TO FIVE MONTHS AFTER THE INITIAL APPLICA-TION.

BETASAN 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 OFF THE GRASS AND DOWN INTO THE SOIL WHERE THE WEED SEEDS ARE LOCATED.

RATES OF APPLICATION

CRABGRASS: APPLY 2-1/2 GALLONS OF BETASAN 4E 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 3-1/8 Gallons of betasan 4E in 80 to 100 Gallons of water uniformly on one acre (5.4 fl. oz. per 1,000 sq. feet).

RE-SEEDING

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 CRAB-GRASS.

THE FOLLOWING PROCEDURES ARE SUGGESTED IN ORDER TO MINIMIZE ANY STUNTING OF TURF GRASSES WHICH MAY OCCUR WHEN RE-SEEDING INTO BETASAN-TREATED AREAS:

- (1) DO NOT RE-SEED WITHIN FOUR MONTHS AFTER APPLICATION.
- (2) RENOVATE THE AREA TO BE RE-SEEDED BY RAKING THOROUGHLY AND MIX STERILIZED (WEED-FREE) ORGANIC MULCH (50-50 BY VOLUME) INTO THE TOP TWO INCHES OF SOIL.

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.

USDA REG. NO. 476-1817

ARC 690115

4/4