

ROHM AND HAAS COMPANY

INDEPENDENCE MALL WEST

PHILADELPHIA, PENNSYLVANIA 19105

EPA Reg. No. 707-145-AA

EPA Est. No. 707-PA-1



DIRECTIONS FOR USE
SOYBEAN
(NOT FOR USE IN CALIFORNIA)

ACCEPTED
with comments
JUL 27 1984
Use in accordance with the Federal Insecticide, Fungicide, and Plant Growth Regulator Act as amended for the pesticide registered under EPA Reg. No. 707-145

GENERAL INFORMATION

GOAL 2E is effective as a preemergence ~~herbicide~~ postemergence (postdirect) herbicide for the control of broadleaf weeds in soybeans. Applications can be made early preplant in conservation tillage soybeans, preemergence in no-till (double crop) and conventional soybeans, or postdirect in conventional till soybeans. Seedling weeds are controlled as they come in contact with the herbicide either during emergence or through a postdirect application. Follow specific use directions and restrictions for recommended use and timing of applications.

Soybeans are tolerant to preemergence applications of recommended dosages of GOAL 2E herbicide, however, under certain conditions, GOAL 2E herbicide can cause temporary injury. Heavy splashing rain shortly after crop emergence or cold, wet soil conditions during early growth stages can produce leaf cupping and crinkling. When injury occurs, it is generally limited to the first few leaves that develop shortly after crop plants emerge from the soil. Soybeans recover from this injury and yields are not adversely affected. Soybean leaves that are accidentally sprayed during a postdirect application will exhibit necrotic spotting and injury to the soybean plant. Therefore, care must be exercised to avoid spray contact with the soybean leaves.

WEEDS CONTROLLED PREEMERGENCE

GOAL 2E herbicide used alone, at recommended dosages, provides preemergence control of the following broadleaf weeds:

- | | |
|----------------------------|--------------------------|
| GROUNDCHERRY, CUTLEAF | Physalis angulata |
| JIMSONWEED | Datura stramonium |
| LAMBSQUARTERS, COMMON | Chenopodium album |
| NIGHTSHADE, AMERICAN BLACK | Solanum nodiflorum |
| NIGHTSHADE, BLACK | Solanum nigrum |
| PIGWEEED, REDROOT | Amaranthus retroflexus |
| POINSETTIA, WILD | Euphorbia heterophylla |
| SHEPHERDSPURSE | Capsella bursa-pastoris |
| SOWTHISTLE, COMMON | Sonchus oleraceus |
| SIDA, PRICKLY (TEAWEEED) | Sida spinosa |
| SMARTWEED, PENNSYLVANIA | Polygonum pennsylvanicum |
| VELVETLEAF | Abutilon theophrasti |

WEEDS CONTROLLED POST-EMERGENCE (POSTDIRECTED APPLICATION)

GOAL 2E herbicide, when applied as a postdirect application at recommended dosages to seedling weeds (not exceeding the 4 leaf stage), will provide postemergence control of the following broadleaf weeds:

COCKLEBUK, COMMON	Xanthium pensylvanicum
GROUNDCHERRY, CUTLEAF	Physalis angulata
GROUNDCHERRY, WIGHT	Physalis wrightii
JIMSONWEED	Datura stramonium
LAMBSQUARTERS, COMMON	Chenopodium album
MORNINGGLORY, ANNUAL	Ipomoea species
NIGHTSHADE, AMERICAN BLACK	Solanum nodiflorum
NIGHTSHADE, BLACK	Solanum nigrum
PIGWEEED, REDROOT	Amaranthus retroflexus
*POINSETTIA, WILD	Euphorbia heterophylla
PURSLANE, COMMON	Portulaca oleracea
SESBANIA, HEMP	Sesbania exaltata
SHEPHERDSPURSE	Capsella bursa-pastoris
SIDA, PRICKLY (TEAWEEED)	Sida spinosa
SMARIWEED, PENNSYLVANIA	Polygonum pensylvanicum
VELVETLEAF	Abutilon theophrasti

*Multiple applications may be required for acceptable control.

Two pints of TRITON[®] AG-98 or comparable 80% active nonionic surfactant cleared for application to growing crops, per each 100 gallons of spray solution are suggested in all tank mixtures containing GOAL 2E herbicide where postemergence weed control is desired.

DOSAGE AND TIMING

CONSERVATION TILLAGE SOYBEANS - EARLY PREPLANT

GOAL 2E herbicide is effective for preemergence and postemergence control of susceptible broadleaf weeds when surface applied at 1.5 to 3.0 pints (0.38 to 0.75 lb. active) per broadleaf acre to the stale seedbed prior to the planting of conservation tillage soybeans. It is suggested that applications be made approximately 14 days prior to planting. The higher rate of 2.0 to 3.0 pints (0.5 to 0.75 lb. active) will assist in early season annual grass control. However, GOAL 2E herbicide must not be a basic portion of the grass herbicide program. A planned herbicide program for early preplant, preemergence or postemergence grass control is recommended.

The use of ridge or slot planters or other planting equipment that results in minimal soil disturbance is recommended. Soil surfaces should not be disturbed as the herbicidal effectiveness of GOAL 2E may be decreased. Seedling weeds are controlled as they come in contact with the soil applied herbicide during emergence.

Handwritten notes:
1.5 to 3.0 pints
herbicide

NO-TILL (DOUBLE CROP) SOYBEANS - PREEMERGENCE

GOAL 2E herbicide is effective for preemergence and postemergence control of susceptible broadleaf weeds when applied at 1.5 to 2.0 pints (0.38 to 0.5 lb. active) per broadcast acre.

For postemergence control of certain grassy and broadleaf weeds a tank mix of either paraquat (Gramoxone^R or Ortho^R paraquat) or Roundup^R with GOAL 2E herbicide can be used.

For residual grass control in no-till soybeans, a tank mixture of either BroncoTM, Dual^R, Lasso^R, or Surflan^R with GOAL 2E herbicide or combinations of GOAL 2E herbicide plus paraquat or Roundup can be used. Follow specific use directions and restrictions for these combination tank mixes.

Application should be made within one day after planting. Later applications may result in severe crop injury and are not recommended.

CONVENTIONAL TILLED SOYBEANS - PREEMERGENCE

GOAL 2E herbicide is effective for preemergence control of susceptible broadleaf weeds when applied at 1.0 to 1.5 pints (0.25 to 0.38 lb. active) per broadcast acre. Application should be made within one day of planting. Later applications may result in severe crop injury and are not recommended. The higher rate (0.38 lb. active) will assist in early season annual grass control. However, GOAL 2E herbicide must not be a basic portion of the grass herbicide program. GOAL 2E herbicide may be applied alone as a preemergence application following a preplant incorporated grass herbicide treatment or as a tank mix in a preemergence application with Dual, Lasso or Surflan.

W. J. Alford

TANK MIXES WITH GOAL 2E HERBICIDE

IMPORTANT: Read and observe all label directions before using. When tank mixing, always read all manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive must apply.

DOSAGE

Refer to the following tables for labeled use rates

NO-TILL (DOUBLE CROP) SOYBEANS - PREEMERGENCE

RATE OF PRODUCT PER BROADCAST ACRE (PINTS PER ACRE)

SOIL TEXTURE	GOAL 2E	Dual 8E*	Lasso 4E*	Surflan A.S.**	paraquat	Ro
Coarse	1.5	1.5	4.0 to 5.0	1.5	1.0 to 2.0	2.
Medium	2.0	2.0	5.0 to 6.0	2.0	1.0 to 2.0	2.
Fine	2.0	2.0 to 2.5	5.0 to 6.0	3.0	1.0 to 2.0	2.
Muck or Peat	***	***	***	***	1.0 to 2.0	2.

CONVENTIONAL TILLED SOYBEANS - PREEMERGENCE

RATE OF PRODUCT PER BROADCAST ACRE (PINTS PER ACRE)

SOIL TEXTURE	GOAL 2E	Dual 8E*	Lasso 4E*	Surflan A.S.**
Coarse	1.0 to 1.5	1.25 to 1.5	3.0 to 4.0	1.0 to 1.5
Medium	1.0 to 1.5	1.5 to 2.0	4.0 to 6.0	1.5 to 2.0
Fine	1.0 to 1.5	2.0 to 2.5	4.0 to 6.0	2.0 to 2.5
Muck or Peat	***	***	***	***

*Use the higher rate of Bronco, Dual or Lasso on soils containing more than 3 percent organic matter

**When using Surflan 75Wf, multiply pints by 0.67 to obtain the amount of Surflan 75WP product required. Surflan on soils containing more than 5% organic matter.

*** Not labeled.

FOXTAIL, GIANT
FOXTAIL, YELLOW
JOHNSONGRASS, SEEDLING
PANICUM, FALL
RAGWEED, COMMON
SIGNALGRASS, BROADLEAF

Setaria faberi
Setaria lutescens
Sorghum halepense
Panicum dichotomiflorum
Ambrosia artemisiifolia
Brachiaria platyphylla

WEEDS CONTROLLED POSTEMERGENCE

When GOAL 2E herbicide is tank mixed with Bronco, paraquat or Roundup and applied postemergence, in addition to the weeds controlled postemergence by GOAL 2E alone, control of the following weeds is also obtained:

BLUEGRASS, ANNUAL
CRABGRASS, LARGE
FOXTAIL, GIANT
FOXTAIL, GREEN
FOXTAIL, YELLOW
LAMBSQUARTERS, COMMON
RAGWEED, COMMON
SANDBUR, FIELD

Echinochloa crus-galli
Digitaria sanguinalis
Setaria faberi
Setaria viridis
Setaria lutescens
Chenopodium album
Ambrosia artemisiifolia
Cenchrus incertus

TIMING AND METHOD OF APPLICATION (ALL APPLICATIONS)

APPLICATION: As a preemergence treatment, apply in 20 to 60 gallons of water per acre. If Bronco or Roundup are included in the tank mix, apply in 20 to 40 gallons of water per acre. To insure complete coverage, spray volume should be increased as the density of emerged weeds, crop residue or stubble increases. Use conventional spray equipment with flat fan or flood jet nozzles. Spray equipment should be calibrated carefully before each use.

MIXING DIRECTIONS: Fill the spray tank at least one-third full of clean water. With the pump and agitator running, add the recommended amounts of herbicide to be used. When tank mixing with Surflan, add the flowable or a slurry of the wettable powder, to the spray tank first. The emulsifiable concentrates (EC) formulation should be added next. No particular order need be followed when adding the EC formulations. Complete filling of the spray tank with water. When postemergence weed control is desired, add two pints of TRITON AG-98 or comparable 80% active nonionic surfactant cleared for application to growing crops, per each 100 gallons of spray solution. Maintain agitation until spraying is completed.

POSTDIRECT SPRAY

GOAL 2E HERBICIDE USED ALONE

DOSAGE

GOAL 2E herbicide is recommended as a postdirect application at 1.0 pints (0.25 lb. active) per acre*. When applied to seedling weeds not exceeding 4 true leaves that are young and actively growing, do not count cotyledon leaves.

*Dosages listed are for broadcast application. For banded application, the amount of GOAL 2E herbicide used per acre should be reduced according to the following formula:

$$\frac{\text{Band Width (in.)}}{\text{Row Width (in.)}} \times \text{Rate per Acre Broadcast} = \text{Amount Needed per Acre for Banded Application}$$

GOAL 2E HERBICIDE TANK MIX

For improved broadleaf weed control, a tank mixture of GOAL 2E herbicide plus Butoxone^R or Butyrac^R 200 is suggested. Use 1.0 pints of GOAL 2E herbicide (0.25 lb. active) with 1 pint of Butoxone (0.22 lb. active) or 0.7 to 0.9 pint of Butyrac 200 (0.175 to 0.22 lb. active) per broadcast acre. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.

Two pints of TRITON AG-98 or comparable 80% active nonionic surfactant, cleared for use on growing crops, per 100 gallons of spray solution are suggested in all tank mixtures containing GOAL 2E herbicide where postemergence weed control is desired.

TIMING

Soybean plant height must be a minimum 8 inches or greater. Use branch lifters or shields if excessive spray contact to the soybean plant cannot be avoided. Irrigation or rainfall should occur within two weeks of application to receive greatest benefit of preemergence activity from GOAL 2E herbicide on nightshade, groundcherry and wild poinsettia species.

METHOD OF APPLICATION

Accurate, uniform placement of GOAL 2E herbicide spray is essential for effective weed control and to minimize soybean injury. As a directed postemergence application, GOAL 2E herbicide should be applied at 20 to 25 psi using 20 to 40 gallons of spray on a broadcast acre basis. Spray should be directed towards the base of the soybean plant. Soybean foliage receiving accidental spray or drift may be injured. Weeds should be in the seedling stage, young and actively growing.

Fill the spray tank at least one-third full of clean water and add the recommended amount of GOAL 2E herbicide while the pump and agitator are running. If tank mix is desired, add recommended amount of Butoxone or Butyrac 200. Complete filling of the spray tank with water and then add 2 pints of TRITON AG-98, or comparable 80% active nonionic surfactant cleared for use on growing crops, per each 100 gallons of spray to assist in contact activity on dusty weeds. Maintain agitation until spraying is complete.

For best coverage, it is suggested to use 4 flat fan nozzles per row, 2 nozzles on each side of the row. Do not use cone nozzles. The two forward nozzles should point forward and downward while the rear nozzles should point to the rear and downward. Nozzles so adjusted should cover the weed foliage with minimum contact to the soybean plant.

SOYBEANS - USE RESTRICTIONS

- . Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.
- . Do not make more than two applications of GOAL 2E herbicide per growing season.
- . Do not apply more than 2.0 pints (0.5 lb. active) of GOAL 2E herbicide per acre during one growing season as a result of preemergence application in no-till (double crop) or conventional till soybeans, or post-directed in conventional till soybeans. If early preplant application is made, do not apply more than 3.0 pints (0.75 lb. active) of GOAL 2E herbicide per acre during one growing season.
- . Do not rotate with crops other than soybeans, cotton, spearmint, or peppermint for 10 months following a GOAL 2E herbicide application. In the event of crop failure, do not plow field under. Field may be replanted to soybeans without tillage.
- . Do not apply a postdirected application of GOAL 2E herbicide to soybeans after the initial appearance of blooms.
- . Do not contaminate irrigation water or water used for domestic purposes.
- . Do not use any plants treated with GOAL 2E herbicide for feed or forage.
- . Do not feed or graze animals on any areas treated with GOAL 2E herbicide.
- . GOAL 2E herbicide should be applied only by ground application equipment.
- . Do not apply when weather conditions favor drift. Avoid drift to all non-target areas. GOAL 2E herbicide is phytotoxic to plant foliage.

- . Thoroughly flush spray equipment (tank, pump, hoses and boom) with clean water before and after each use. Residual GOAL 2E herbicide remaining in spray equipment may damage other crops. To assist removal of GOAL herbicide residues in spray equipment, TRITON AG-98 or TRITON CS-7 may be added at the rate of 1 quart per 100 gallons of water during flushing. ✓
- . Use GOAL 2E herbicide only for recommended purposes and at recommended rates. ✓
- . Do not treat ditch banks or waterways with GOAL 2E herbicide. ✓

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