

RUHM AND HAAS COMPANYINDEPENDENCE MALL WEST
PHILADELPHIA, PENNSYLVANIA 19105EPA Reg. No. 707-174
EPA Est. No. 707-PA-1SUPPLEMENTAL LABELING FOR GOAL[®] 1.6E HERBICIDE

DIRECTIONS FOR USE

- DORMANT APPLICATION - CALIFORNIA ONLY
ALMOND, APRICOT, CHERRY, FIG, NECTARINE, PEACH, PEAR, PISTACHIO, PLUM,
PRUNE, WALNUT, AND GRAPE

GENERAL INFORMATION

GOAL 1.6E is effective as a preemergence and/or postemergence herbicide when used alone or in recommended combinations, for control of certain annual broadleaf weeds, in all almond, apricot, cherry, fig, nectarine, peach, pear, pistachio, plum, prune, walnut and grape plantings. The most effective postemergence weed control is achieved when GOAL 1.6E herbicide is applied to seedling weeds (less than 4 inches in height). Preemergence control is most effective when spray is applied to clean, weed-free established soil surfaces. Treated berms or soil surfaces should not be disked or disturbed in any manner as the herbicidal effectiveness of GOAL 1.6E may be decreased. Seedling weeds are controlled as they come in contact with the soil-applied herbicide during emergence.

For postemergence control of certain grassy and broadleaf weeds, a tank mixture of either paraquat (Gramoxone[®] or Ortho[®] paraquat) or Roundup[®] with GOAL 1.6E herbicide can be used.

For residual grass control in dormant almond, apricot, cherry, fig, nectarine, peach, pear, plum, prune, walnut and grape, a tank mixture of Devrinol[®], KERB, simazine or Surflan[®] with GOAL 1.6E herbicide or combinations of GOAL 1.6E herbicide plus paraquat or Roundup can be used.

GOAL 1.6E HERBICIDE USED ALONE

DOSAGE

GOAL 1.6E herbicide is recommended for postemergence control at 2.5 to 10.0 pints (0.5 to 2.0 lb. active) per broadcast seedling acre. The lower rate is recommended for the control of susceptible seedling weeds less than 4 inches in height. The higher rate (2.0 lb. active) should be used for weeds less than 12 inches in height. For preemergence control of susceptible weeds, use 10.0 pints (2.0 lb. active) per broadcast acre.

WEEDS CONTROLLED POSTEMERGENCE

CHEESEWEEED (MALVA)
FIDDLENECK, COAST
FILAREE, BROADLEAF
FILAREE, REDSTEM
GROUNSEL, COMMON
HENBIT
LETTUCE, MINERS
NETTLE, BURNING
PIGWEED, REDROOT
REDMAIDS
SHEPHERDSPURSE
SOWTHISTLE, ANNUAL

Malva parviflora
Amaranthus retroflexus
Erodium botrys
Erodium cicutarium
Senecio vulgaris
Lamium amplexicaule
Montia perfoliata
Urtica urens
Amaranthus retroflexus
Calandrinia caulescens
Capsella bursa-pastoris
Sonchus oleraceus

WEEDS CONTROLLED PREEMERGENCE

BURCLOVER	Medicago lupida
CHEE SEWEEED (MALVA)	Malva parviflora
FIDDLENECK, COAST	Amsinckia intermedia
FILAREE, BROADLEAF	Erodium botrys
FILAREE, REDSTEM	Erodium cicutarium
GROUNDSEL, COMMON	Senecio vulgaris
HENBIT	Lamium amplexicaule
KNOTWEED, PROSTRATE	Polygonum aviculare
LAMBSQUARTERS, COMMON	Chenopodium album
LETTUCE, PRICKLY	Lactuca serriola
PIGWEEED, REDROOT	Amaranthus retroflexus
PURSLANE, COMMON	Portulaca oleracea
REDMAIDS	Calandrinia caulescens
ROCKET, LONDON	Sisymbrium irio
SHEPHERDSPURSE	Capsella bursa-pastoris
SOWTHISTLE, ANNUAL	Sonchus oleraceus

<u>Weed Stage</u>	<u>GOAL 1.6E Herbicide Rate (Per Broadcast Acre)*</u>	<u>Weeds Controlled</u>
Early Postemergence (weeds up to 4 inches high)	2.5 pints (0.5 lb. active)	CHEE SEWEEED (MALVA) FIDDLENECK, COAST FILAREE, REDSTEM HENBIT REDMAIDS SHEPHERDSPURSE
Postemergence (weeds up to 8 inches high)	5 pints (1.0 lb. active)	CHEE SEWEEED (MALVA) FIDDLENECK, COAST FILAREE, REDSTEM HENBIT LETTUCE, MINERS NETTLE, BURNING REDMAIDS SHEPHERDSPURSE SOWTHISTLE, ANNUAL
Late Postemergence (weeds up to 12 inches high)	10 pints (2.0 lb. active)	CHEE SEWEEED (MALVA) FIDDLENECK, COAST FILAREE, BROADLEAF FILAREE, REDSTEM GROUNDSEL, COMMON HENBIT LETTUCE, MINERS NETTLE, BURNING PIGWEEED, REDROOT REDMAIDS SHEPHERDSPURSE SOWTHISTLE, ANNUAL

<u>Weed Stage</u>	<u>GOAL 1.6E Herbicide Rate (Per Broadcast Acre)*</u>	<u>Weeds Controlled</u>
Preemergence	10 pints (2.0 lb. active)	BURCLOVER CHEESEWEED (MALVA) FIDDLENECK, COAST FILAREE, BROADLEAF FILAREE, REDSTEM GROUNSEL, COMMON HENBIT KNOTWEED, PROSTRATE LAMBSQUARTERS, COMMON LETTUCE, PRICKLY PIGWEEED, REDROOT PURSLANE, COMMON REDMAIDS ROCKET, LONDON SHEPHERDSPURSE SOWTHISTLE, ANNUAL

*Dosages listed are for broadcast application. For banded application, the amount of GOAL 1.6E herbicide used per acre should be reduced according to the following formula.

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

TIMING AND METHOD OF APPLICATION

Treatments should be made October 1 through February 15. In Coachella Valley (California), do not apply to grapes after February 1.

As a preemergence treatment, apply in 50 to 200 gallons of water per acre. Use higher volumes to assure adequate coverage in high densities of emerged weeds or heavy trash. Best preemergence results are achieved when spray is applied to a relatively weed-free established berm or soil surface. GOAL 1.6E herbicide should be directed to the soil and the base of dormant trees or vines. Use a low-pressure sprayer equipped with a break-away boom and flat fan or off-center (OC) nozzles. Spray equipment should be calibrated carefully before each use. See USE RESTRICTIONS for GOAL 1.6E herbicide application on dormant tree or vine plantings.

SPRAY VOLUME:

<u>Weed Stage</u>	<u>Gallons of Water Per Acre</u>
Early Postemergence (weeds up to 4 inches high)	50
Postemergence (weeds up to 8 inches high)	100 to 200
Late Postemergence (weeds up to 12 inches high)	100 to 200
Preemergence	50 to 200

MIXING DIRECTIONS: Fill the spray tank at least one-third full of clean water and add the recommended amount of GOAL 1.6E herbicide while the pump and agitator are running. Complete filling of the spray tank with water and then add 1 quart of a nonionic surfactant such as TRITON[®] AG-98, or comparable 80% active nonionic surfactant cleared for application to growing crops, per each 100 gallons of spray. Maintain agitation until spraying is completed.

CULTURAL CONSIDERATIONS: In order to provide maximum effectiveness of preemergence activity of GOAL 1.6E herbicide, the berm or soil surface should be smooth and free of crop or weed trash (decaying leaves, clippings, dead weeds, etc.). Leaves and trash may be removed by blowing the area to be treated or by thoroughly mixing the trash into the soil through cultivation prior to herbicide application.

For best preemergence activity, at least one-quarter inch (1/4 inch) of water should be applied within 3 to 4 weeks after application if no rainfall occurs.

Cultural practices which result in redistribution or disturbance of the soil surface after treatment will decrease the herbicidal effectiveness of GOAL 1.6E. Cutting water furrows or cultivations that mix untreated soil into treated areas will also reduce the effectiveness of the treatment. The best results are from applications to established berms or soil surfaces which are left undisturbed during the time period for which weed control is desired.

USE RESTRICTIONS - GOAL 1.6E HERBICIDE

The following use restrictions should be observed when GOAL 1.6E herbicide is used alone or in any spray combination recommended on this label. Follow GENERAL USE RESTRICTIONS on the GOAL label.

- . Dormancy determines the suitability and safety of using GOAL 1.6E herbicide on tree fruit/grapes. Should bud swell occur prior to the dates listed, GOAL 1.6E herbicide must not be used.
- . DO NOT APPLY GOAL 1.6E HERBICIDE (EITHER ALONE OR IN ANY COMBINATION RECOMMENDED ON THIS LABEL) TO TREE OR VINE PLANTINGS BEFORE OCTOBER 1 OR AFTER FEBRUARY 15. DO NOT APPLY GOAL 1.6E HERBICIDE (EITHER ALONE OR IN ANY COMBINATION RECOMMENDED ON THIS LABEL) TO GRAPES IN THE COACHELLA VALLEY (CALIFORNIA) BEFORE OCTOBER 1 OR AFTER FEBRUARY 1.
- . Do not apply to grapes established less than 3 years.
- . Apply only to dormant fruit or nut trees or vines. Do not apply after buds start to swell or when foliage or fruit/nuts are present.

- Do not apply more than 10 pints (2.0 lb. active) per broadcast acre of GOAL 1.6E herbicide in one season.
- Do not apply to grapes which are not staked or trellised unless grapes are free-standing.
- GOAL 1.6E herbicide or any of the combinations recommended on this label should be applied to only healthy growing trees or vines.
- Direct spray toward the base of tree or vines. Avoid direct plant contact.

TANK MIXES WITH GOAL 1.6E HERBICIDE

For preemergence control of susceptible grassy weeds in certain dormant tree fruit, nut crops and grapes, a tank mix of either Devrinol, KERB, simazine, or Surflan can be applied.

For postemergence control of certain grassy and broadleaf weeds, a tank mix of either paraquat or Roundup with GOAL 1.6E herbicide or combinations of GOAL 1.6E herbicide plus Devrinol, KERB, simazine or Surflan can be used.

IMPORTANT: 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.

DOSAGE

Refer to the following tables for labeled use rates.

CROP	GOAL 1.6E	RATE OF PRODUCT PER ACRE					
		KERB 50-W	Devrinol 50-WP	simazine 80-W*	Surflan 75-W**	paraquat	Roundup
Almond	2.5 to 10 pts.	Not Labeled	8 lbs.	1 1/4 to 2 1/2 lb.***	2 2/3 to 5 1/3 lbs.	1 qt.	1 to 2 qts.
Apricot	2.5 to 10 pts.	Not Labeled	8 lbs.	Not labeled	2 2/3 to 5 1/3 lbs.	1 qt.	1 to 2 qts.
Cherry	2.5 to 10 pts.	2 to 8 lbs.	8 lbs.	2 to 5 lbs.	2 2/3 to 5 1/3 lbs.	1 qt.	1 to 2 qts.
Fig	2.5 to 10 pts.	Not Labeled	6 lbs.	Not labeled	2 2/3 to 5 1/3 lbs.	1 qt.	1 to 2 qts.
Nectarine	2.5 to 10 pts.	2 to 8 lbs.	8 lbs.	Not labeled	2 2/3 to 5 1/3 lbs.	1 qt.	1 to 2 qts.
Peach	2.5 to 10 pts.	2 to 8 lbs.	8 lbs.	1 1/4 to 2 1/2 lbs.***	2 2/3 to 5 1/3 lbs.	1 qt.	1 to 2 qts.
Pear	2.5 to 10 pts.	2 to 8 lbs.	8 lbs.	2 1/2 to 5 lbs.	2 2/3 to 5 1/3 lbs.	1 qt.	1 to 2 qts.
Pistachio	2.5 to 10 pts.	Not labeled	8 lbs.	Not labeled	2 2/3 to 5 1/3 lbs.	Not Labeled	1 to 2 qts.
Plum	2.5 to 10 pts.	2 to 8 lbs.	8 lbs.	2 to 5 lbs.	2 2/3 to 5 1/3 lbs.	1 qt.	1 to 2 qts.
Prune	2.5 to 10 pts.	2 to 8 lbs.	8 lbs.	Not labeled	2 2/3 to 5 1/3 lbs.	1 qt.	1 to 2 qts.
Walnut	2.5 to 10 pts.	Not labeled	8 lbs.	2 1/2 to 5 lbs.	2 2/3 to 5 1/3 lbs.	1 qt.	1 to 2 qts.
Grapes	2.5 to 10 pts.	2 to 8 lbs.	8 lbs.	2 1/2 to 6 lbs.	2 2/3 to 5 1/3 lbs.	1 qt.	1 to 2 qts.

* GOAL 1.6E herbicide can also be tank mixed with Princep^R 80-W, Princep 4L and Caliber^(R) 90. When tank mixing with these formulations, adjust the amount of product used to conform with labeled recommendations.

** GOAL 1.6E herbicide can also be tank mixed with Surflan A.S. Multiply the rate of Surflan 75W by 0.75 to obtain the number of quarts of Surflan A.S. required.

*** Per treated acre in a 2 to 4 ft. band on each side of the tree row.

Herbicide rates listed are for broadcast application unless otherwise noted. For banded application, the amount of herbicide used per acre should be reduced as outlined under "GOAL 1.6E Herbicide Used Alone".

For preemergence control of susceptible weeds, use 10 pints (2.0 lb. active) of GOAL 1.6E herbicide per broadcast acre.

WEEDS CONTROLLED PREEMERGENCE

When GOAL 1.6E herbicide is tank mixed with Devrinol 50-WP and applied preemergence, in addition to the weeds controlled preemergence by GOAL 1.6E alone, control of the following weeds is also obtained.

BARNYARDGRASS (WATERGRASS)	<i>Echinochloa crus-galli</i>
BLUEGRASS, ANNUAL	<i>Poa annua</i>
BROME, RIGID	<i>Bromus rigidus</i>
CHICKWEED, COMMON	<i>Stellaria media</i>
CRABGRASS, LARGE (HAIRY)	<i>Digitaria sanguinalis</i>
PINEAPPLEWEED	<i>Matricaria matricarioides</i>

When GOAL 1.6E herbicide is tank mixed with KERB, in addition to the weeds controlled preemergence by GOAL 1.6E alone, control of the following weeds is also obtained.

BLUEGRASS, ANNUAL	<i>Poa annua</i>
BLUEGRASS, KENTUCKY	<i>Poa pratensis</i>
CHICKWEED, COMMON	<i>Stellaria media</i>
ORCHARDGRASS	<i>Dactylis glomerata</i>
QUACKGRASS	<i>Agropyren repens</i>
RYEGRASS, PERENNIAL	<i>Lolium perene</i>

When GOAL 1.6E herbicide is tank mixed with Surflan and applied preemergence, in addition to the weeds controlled preemergence by GOAL 1.6E alone, control of the following weeds is also obtained.

BARNYARDGRASS (WATERGRASS)	<i>Echinochloa crus-galli</i>
BLUEGRASS, ANNUAL	<i>Poa annua</i>
CHICKWEED, COMMON	<i>Stellaria media</i>
CRABGRASS, LARGE (HAIRY)	<i>Digitaria sanguinalis</i>
CRABGRASS, SMOOTH	<i>Digitaria ischaemum</i>
CUPGRASS, SOUTHWESTERN	<i>Eriochloa gracilis</i>

When GOAL 1.6E herbicide is tank mixed with simazine and applied preemergence, in addition to the weeds controlled preemergence by GOAL 1.6E alone, control of the following weeds is also obtained.

BARNYARDGRASS (WATERGRASS)	<i>Echinochloa crus-galli</i>
BLUEGRASS, ANNUAL	<i>Poa annua</i>
CHICKWEED, COMMON	<i>Stellaria media</i>
CRABGRASS, LARGE (HAIRY)	<i>Digitaria sanguinalis</i>
CRABGRASS, SMOOTH	<i>Digitaria ischaemum</i>
HORSEWEED (MARESTAIL)	<i>Conyza canadensis</i>

WEEDS CONTROLLED POSTEMERGENCE

When GOAL 1.6E herbicide is tank mixed with paraquat or Roundup and applied postemergence, in addition to the weeds controlled postemergence, by GOAL 1.6E alone, control of the following weeds is also obtained.

BARNYARDGRASS (WATERGRASS)	Echinochloa crus-galli
BLUEGRASS, ANNUAL	Poa annua
BROME, RIPGUT	Bromus rigidus
CHICKWEED, COMMON	Stellaria media
HORSEWEED (MARESTAIL)	Conyza canadensis
ROCKET, LONDON	Sisymbrium irio

APPLICATION: As a preemergence treatment, apply in 50 to 200 gallons of water per acre depending upon density of emerged weeds. Best preemergence results are achieved when spray is applied to a relatively weed-free established berm or soil surface. Tank mixtures containing GOAL 1.6E herbicide should be directed to the soil and the base of trees or dormant grape vines. Use a low-pressure sprayer equipped with a break-away boom and flat fan or off-center (OC) 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 amount of Devrinol, KERB, simazine or Surflan to the spray tank. Then add the recommended amounts of GOAL 1.6E herbicide and paraquat or Roundup during the filling operation. Complete filling of the spray tank with water and then add 1 quart of a nonionic surfactant such as TRITON AG-98 or comparable 80% active nonionic surfactant cleared for application to growing crops, per each 100 gallons of spray. Maintain agitation until spraying is completed.

CULTURAL CONSIDERATIONS: In addition to details previously listed under "GOAL 1.6E Herbicide Used Alone", read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive cultural situation must apply.

SPECIFIC USE RESTRICTIONS - GOAL 1.6E Herbicide Tank Mixes

In addition to the following, also observe all use restrictions previously listed under "GOAL 1.6E Herbicide Used Alone" and at the end of this label.

- When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.

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Thomas D. Rogerson
Bohn and Hane Company
Independence Mall West
Philadelphia, PA 19105

1983

Dear Mr. Rogerson:

Subject: Amendments: Label Revisions: Additional Tank Mixes
Coal 2E Herbicide
EPA Registration No. 707-145
Coal 1.6E Herbicide
EPA Registration No. 707-174 ✓
Your Applications of October 13, 1983

The amendments referred to above, submitted in connection with registration under FIFRA are acceptable, provided that you:

1. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:
 - a. Delete the dosage rate and specify "Not labeled for Roundup on Cies" since according to our records this use is not registered.
2. Submit one (1) copy of your final printed labeling before you release the product for shipment.

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

Sincerely yours,

Richard E. Mountfort *RM*
Product Manager (23)
Herbicide-Plant Growth Regulator Branch
Registration Division (52-767)

Enclosure

11-5-Mountfort; DCF-25037; RM; 10/2/83; 11/1/83

SYMBOL	DATE	INITIALS	REMARKS	DATE	INITIALS	REMARKS	DATE	INITIALS	REMARKS

EPA Form 1720-1 (4-81)

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