

PM 23

59639-34

12/19/97

1 of 52

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DEC 19 1997

Mr. Brent Solomon  
 Valent U.S.A. Corporation  
 1401 Eye Street, N.W. Suite 220  
 Washington, D.C. 20005

Dear Mr. Solomon:

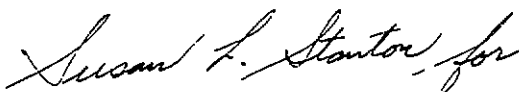
SUBJECT: Label Amendment Adding Tank Mixes, Adding Claim for White Mold  
 Suppression and Making Minor Format Changes  
 Cobra Herbicide  
 EPA Registration No: 59639-34  
 Your Submission Dated December 4, 1997

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable, provided you make the following changes:

1. On page 12 in Table 2S, insert a triple asterisk ("") after "Waterhemp" to refer users to the last footnote regarding special instructions when Palmer Amaranth or Waterhemp pressure is severe.
2. On page 44, in the second-to-last sentence of the paragraph under "PREEMERGENT USES", insert the product name "COBRA Herbicide" after the words "application of". The corrected sentence should read: "A Preemergent (to weeds) application of COBRA Herbicide may be sprayed ... has not yet occurred."

A stamped copy of the labeling is enclosed for your records. Please submit one copy of your final printed labeling before you release the product for shipment.

Sincerely yours,



Joanne I. Miller  
 Product Manager (23)  
 Herbicide Branch  
 Registration Division (7505C)

Enclosure

RD:STANTON:PM Team 23:Rm. 237:CM-2:305-5218:Disk #7:S534796.LET

CONCURRENCES

SYMBOL ▶	7505C							
SURNAME ▶	S. Stanton							
DATE ▶	Dec 19, 1997							

2452



# COBRA<sup>®</sup> Herbicide

Active Ingredient	By Wt.
*Lactofen .....	23.2%
Inert Ingredients .....	76.8%
*1-(carboethoxy) ethyl 5-[2-chloro-4-(tri-fluoromethyl) phenoxy]-2-nitrobenzoate	
Contains 2 lbs. active ingredient per gallon	

Do not apply this product through any type of irrigation system.

KEEP OUT OF REACH OF CHILDREN

**DANGER — PELIGRO**

SEE BELOW FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

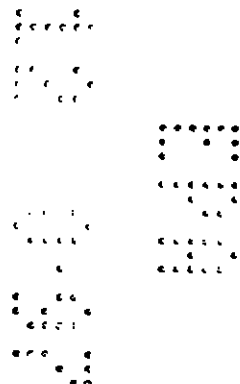
Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail).

NET WEIGHT 1 GALLON

ACCEPTED  
with COMMENTS  
In EPA Letter Dated

DEC 19 1997

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
59639-34



## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS & DOMESTIC ANIMALS

**DANGER:** Corrosive. Causes skin burns and irreversible eye damage. Harmful if swallowed, inhaled, or absorbed through skin. Do not get in eyes or on skin or clothing. Avoid breathing vapor or spray mist.

This product contains lactofen, which has been determined to cause tumors in laboratory animals (mouse, rat). Risks can be reduced by closely following use directions and precautions, and by wearing the protective clothing specified elsewhere on this label.

### STATEMENT OF PRACTICAL TREATMENT

- If in eyes:** Flush with plenty of water for at least 15 minutes. Get medical attention immediately.
- If swallowed:** DO NOT INDUCE VOMITING. Drink promptly a large quantity of milk, egg whites, gelatin solution, or if these are not available, large quantities of water. Avoid alcohol. Get medical attention immediately.
- If on skin:** Wash with plenty of soap and water. Get medical attention.
- If inhaled:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

Note to Physicians: Emergency Information — call 1-800-892-0099.

### 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 and other handlers must wear:** coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, such as Barrier Laminate or Viton  $\geq$  14 mils, chemical-resistant footwear plus socks, protective eyewear, chemical-resistant headgear for overhead exposure, and chemical-resistant apron when cleaning equipment, mixing, or loading.

**Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate.** Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### USER SAFETY RECOMMENDATIONS

Users should:

- \* Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- \* Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- \* Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of waste. Do not apply when weather conditions favor drift from target area.

**PHYSICAL OR CHEMICAL HAZARDS**

Do not use or store near heat or open flame.

**DIRECTIONS FOR USE**

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

**READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.**

**DISCLAIMER: CONDITIONS OF SALE,  
LIMITED WARRANTY  
AND LIMITATION OF LIABILITY**

**IMPORTANT:** Read the entire Label including this Disclaimer, Limited Warranty and Limitation of Liability before using this product. If the terms are not acceptable, return the unopened product within 15 days of purchase.

**RISKS OF USING THIS PRODUCT**

It is impossible to eliminate all risks associated with the use of this product. Such risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, moisture conditions, irrigation practices, presence of other materials, cultural practices or the manner of use or application, all of which are factors beyond the control of Valent. All such risks shall be assumed by the Buyer. Valent shall not be responsible for losses or damages resulting from use of this product in any manner not set forth on the label. User assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

**LIMITED WARRANTY**

Valent warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and subject to the Risks of Using This Product described above.

**DISCLAIMER OF ALL OTHER WARRANTIES:** VALENT MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

**LIMITATION OF LIABILITY**

In no event shall Valent or Seller be liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

**NO AMENDMENTS**

Valent and Seller offer this product, and Buyer and User accept it, subject to the foregoing Disclaimer, Conditions of Sale, Limited Warranty and Limitation of Liability, which may not be modified by any oral or written agreement.

**PROMPT NOTICE OF CLAIM**

Valent must have prompt notice as soon as Buyer or User has reason to believe they may have a claim (not to exceed twenty-one days from date of application) so that an immediate inspection of the affected property and growing crops can be made. Unless Buyer and Users shall promptly notify Valent of any claims, they shall be barred from obtaining any remedy.

**TANK MIXES**

**NOTICE:** Tank mixing of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor.

Read and follow the entire label of each product to be used in the tank mix with this product.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, such as Barrier Laminate or Viton  $\geq$  14 mils, chemical-resistant footwear plus socks, protective eyewear, and chemical-resistant headgear for overhead exposure.

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Emergency Telephone Number 1-800-892-0099.



## DIRECTIONS FOR USE IN SOYBEANS

### GENERAL INFORMATION

COBRA® is a selective, broad spectrum herbicide for preemergence and postemergence control of susceptible broadleaf weeds. COBRA is formulated as an emulsifiable concentrate containing 2 lbs. of active ingredient per gallon. In the upper North Central region of the midwest, postemergence applications of COBRA Herbicide to soybeans (pre-bloom) has resulted in suppression of the soybean disease white mold caused by *Sclerotinia sclerotiorum*.

COBRA works primarily through contact action. Good coverage of young, actively growing weeds is essential for maximum weed control. The use of a spray adjuvant is usually required. Refer to the label section on ADJUVANTS AND ADDITIVES for specific recommendations.

When COBRA is applied post emergence, a portion of the spray solution may contact the soil surface. If soil moisture conditions are favorable for **preemergence activity** following the application, suppressed germination of small-seeded broadleaf weeds, such as nightshade species, pigweed species, and prickly sida may be expected for a 2 to 3 week period. The presence of excessive crop or weed foliage at the time of application will reduce the amount of herbicide spray contacting the soil surface and will reduce the level of soil activity.

A **temporary crop response** should be expected following a postemergence application of COBRA. Soybean leaves which are open at the time of application will show some burn, bronzing and speckling. Trifoliate soybean leaves which have emerged but are unopened at the time of application may appear cupped at the tip and/or crinkled along the edges of the leaf. Soybeans quickly outgrow all initial herbicide effects. When COBRA is used as directed, under commercial conditions **soybean yields will not be adversely affected. Under conditions of normal weed growth COBRA is rainfast 30 minutes after application.**

### PRECAUTIONS

Apply COBRA preplant, preemergence, and/or postemergence, but do not apply later than 45 days before harvest or after growth stage R6 (full seed).

Do not exceed a total of 25 fl. oz. (0.4 lb. a.i.) per acre per season.

Do not graze animals on green forage or stubble. Do not feed treated soybean silage (ensiled soybeans) to cattle. Do not utilize hay or straw for animal feed or bedding.

### APPLICATION

#### CONVENTIONAL ROW APPLICATION TIMING

For best results, COBRA and COBRA Tank Mixes should be applied to small actively growing weeds that are not larger than indicated in Table 2S or Tank Mix Tables of this label. Normally this occurs 14 to 21 days after planting or after last field preparation, when soybeans are at the first to second trifoliate leaf stage.

Soybeans at or larger than the third trifoliate stage may interfere with the spray pattern and reduce coverage of the weed leaves. **Do not apply COBRA when the soybeans or the weeds are under stress.**

Applying COBRA under conditions that do not promote active weed growth will reduce herbicide effectiveness. These conditions include drought, excessive water, extremes in temperature, and low humidity. Weeds under stress tend to "harden off" and become less susceptible to herbicidal action.

**Do not cultivate prior to or during application. Do not generate excessive dust while spraying.** Excessively dusty conditions may interfere with the coverage of the weed leaf surface by the spray solution. A timely cultivation approximately one week after application will assist in weed control.

#### DRILLED/SOLID SEEDED APPLICATION TIMING

Under drilled/solid-seeded soybean cropping systems, a dense crop canopy develops more rapidly than conventional row spacings. The crop canopy may restrict penetration of the herbicide spray pattern and reduce coverage of the weed foliage. Applications should be made when soybeans are at the first trifoliate leaf stage usually 7 to 10 days after planting. Delaying application beyond the first trifoliate leaf stage may result in unsatisfactory weed control. For improved weed coverage and canopy penetration in drilled or solid seeded soybeans, the higher range of spray volume and pressure is required. See the BROADCAST GROUND APPLICATIONS section of this label for application information.

#### EARLY APPLICATION TIMING

For early control of Pigweeds, Eastern Black Nightshade, Common Ragweed, Giant Ragweed, Common Lambsquarter, Copperleaf, Common Purslane, Hairy Galinsoga, Cutleaf Groundcherry, and Jimsonweed, apply COBRA Herbicide when soybeans have emerged and are in the cotyledon to unifoliate stage, normally 5 to 7 days after planting. Weed growth may not be visible or may be in

the cotyledon stage of growth at early application.

### **BROADCAST GROUND APPLICATION**

COBRA and COBRA tank mixes can be applied by ground equipment using standard commercial sprayers equipped with flat fan or hollow cone nozzles. COBRA is a contact herbicide. Special attention should be given to preparing and operating the sprayer to assure proper coverage of the weed leaf surface.

Use COBRA on a broadcast basis in 20 to 30 gals. of water per acre and a spray pressure of 40 to 60 PSI measured at the boom. Apply COBRA using a flat fan or hollow cone nozzle designed to deliver the desired spray pressure and spray volume. Avoid use of flat fan nozzles larger than 8006 (or equivalent) because they do not break up spray patterns into small enough droplets to provide adequate weed coverage for foliar herbicides. Spray nozzles should be centered at a 20 inch spacing to provide adequate coverage. Ground speed should not exceed 10 mph to provide proper spray coverage. Boom height, ground speed, and pressure recommendations should not exceed those recommended by the spray nozzle manufacturer for the type and size of nozzle being used. Improper use of the selected spray nozzle will adversely affect the spray pattern, prevent proper coverage of weed leaf surface, and reduce weed control. Refer to the manufacturer's spray chart for nozzle selection and operating information.

**REFER TO THE AERIAL APPLICATION SECTION FOR SPECIFIC INSTRUCTIONS FOR AERIAL APPLICATION.**

**DO NOT USE THE FOLLOWING DELIVERY SYSTEMS TO APPLY COBRA HERBICIDE:**

- 1 — Flood Nozzles
- 2 — Control Droplet Applicators (CDA)
- 3 — Flat Fan Nozzles Larger than 8006
- 4 — Spray rigs which utilize wheel driven pumps

### **BAND APPLICATION**

Row banding equipment should be adjusted to provide maximum coverage of weeds in the row. Base the band use of COBRA and COBRA tank mixes on a broadcast use rate of 20 to 30 gallons of water per acre by reducing the spray gallons in proportion to the area actually treated. The spray pressure should be 40 to 60 PSI measured at the boom. A minimum of two nozzles per row is required to provide optimum coverage of the weed foliage.

**DO NOT** make band applications while cultivating or create excessive dust while spraying. Excessively dusty conditions will interfere with proper coverage of the weed leaf surface, thereby reducing contact activity.

### **LOW VOLUME GROUND APPLICATION**

Application of COBRA and COBRA tank mixes using a low volume application require a minimum of 10 gals. of spray solution per acre.

A minimum of 20 gals. of spray solution per acre is required in North Dakota, South Dakota and Minnesota.

Applications at less than 10 gals. per acre will provide inconsistent weed control. The spray pressure at the boom should be between 40 to 60 PSI. Flat fan nozzles are recommended at 20 inch spacing for proper spray coverage. To provide adequate coverage flat fan nozzles larger than 8006 (or equivalent) should not be used. Height of the spray boom should be adjusted so as not to exceed the manufacturer's recommendation for proper coverage by the spray nozzle being used. Maximum speed of operation should not exceed 10 mph as spray coverage of weed foliage may be adversely affected.

Crop oil concentrate is required at the rate of 2% v/v to achieve optimum control with low volume applications.

### **AERIAL APPLICATION**

To obtain satisfactory weed control with aerial applications of COBRA, and COBRA tank mixes, except 2,4-DB, uniform coverage must be obtained. Do not spray when drift is possible or when wind velocity is more than 5 mph. Avoid spraying COBRA within 200 ft. of dwellings, or adjacent sensitive crops such as ornamentals, cotton, tobacco, or sorghum. To obtain satisfactory application and minimize drift, the following directions must be observed:

**Volume and Pressure:** Use COBRA in 5 to 10 gals. water per acre and a maximum spray pressure of 40 PSI. Applications at less than 5 gals. per acre will provide inadequate control. The higher gallonage applications generally afford more consistent weed control.

**Nozzle and Nozzle Orientation:** Use nozzles which produce flat or hollow cone spray patterns. Use non-drip type nozzles such as diaphragm-type nozzles to avoid unwanted discharge of spray solution. The nozzles must be directed toward the rear of the aircraft, at an angle between 0 and 15 downward, do not place nozzles on the outer 25% of wings or rotors.

**CROP OIL CONCENTRATE:** With aerial applications the use of crop oil concentrate at the rate of 1% v/v in the spray solution is recommended.

**IMPORTANT:** In dry conditions, the use of less than 2% v/v of crop oil concentrate or use of an adjuvant other than crop oil concentrate will result in unsatisfactory weed control.

**SOUTHERN STATES:** In low-laying areas of Southern states which typically experience excessive soil moisture in the spring, the state recommendation for adjuvants may call for either a non-ionic surfactant or reduced rate of crop oil concentrate. Where this situation exists, use the adjuvant recommendations of the state extension service.

#### ADJUVANTS AND ADDITIVES

Control of weeds by COBRA Herbicide at or near the maximum growth stage indicated in Table 2S of this label is enhanced by the addition of an adjuvant to the spray mixture. Use of a crop oil concentrate containing at least 15% emulsifier or non-ionic surfactant containing at least 80% surfactant is recommended (see Table 1S). The addition of liquid nitrogen (28, 30, or 32%) or ammonium sulfate in combination with COC or surfactant may enhance weed control. Mixing and compatibility qualities should be verified by a jar test. The addition of a spray adjuvant may intensify the initial crop response.

**Crop Oil Concentrate:** Crop oil concentrate is the preferred adjuvant for COBRA for weed control over a wide spectrum of application conditions. Higher levels of crop response are also generally observed with the use of a crop oil concentrate; however soybeans quickly outgrow all initial herbicide effects. The rate of crop oil concentrate will depend on the environmental conditions preceding the application and the weed species and weed size at the time of application. If environmental conditions are good and weeds are growing vigorously, use of the low rate of crop oil concentrate is recommended. The higher rate is required when the weeds are under environmental stress such as low temperature, low humidity, or low soil moisture. Refer to Table 1S for the recommended rate of crop oil concentrate by state and environmental conditions.

**Surfactant:** When soil moisture is good and weeds are actively growing, the addition of a non-ionic surfactant will improve the wetting and contact activity of COBRA Herbicide. Refer to Table 1S for the recommended rate of non-ionic surfactant by state and environmental conditions.

Refer to Table 1S for the recommended rate of AMMONIUM SULFATE fertilizer and additives by environmental conditions.

**Table 1S.**

**RELATIVE HUMIDITY ADJUVANT RECOMMENDATIONS**  
**PERCENT RELATIVE HUMIDITY**

	100% > 80% (High)	80% > 60% (Medium)	60% > Less (Low)
<b>NON-IONIC SURFACTANT</b>	0.25% v/v	Not Recommended	Not Recommended
<b>CROP OIL CONCENTRATE/ ACRE*</b> (AL, DE, FL, GA, MD, NC, PA, SC, VA)	0.125 to 0.25% v/v	0.25% v/v	0.25% v/v
(ALL OTHER STATES)	0.25% v/v	0.5% v/v	0.5 to 1% v/v
<b>28, 30, 32% NITROGEN liquid fertilizer</b>		4% v/v + non-ionic surfactant 0.25% v/v	4% v/v + crop oil concentrate 0.5% v/v
<b>AMMONIUM SULFATE spray grade</b>		2-4 lbs. + non-ionic surfactant at 0.25% v/v	4 lbs. + crop oil concentrate at 0.5% v/v

v/v is volume surfactant or COC / volume of the tank solution.

**MIXING**

Add about 1/2 of the required amount of water to the spray tank and begin agitation. Add the required amount of COBRA Herbicide and mix thoroughly. Then add the correct amount of adjuvant and the remaining water. Maintain agitation during filling and spraying to ensure a uniform spray mixture.

**WEEDS CONTROLLED BY COBRA HERBICIDE**

Identify your weed species as early as possible and determine the stage of growth by counting the true leaves. Ignore the cotyledon (seed leaves) when you count. Use Table 2S of this label to determine the maximum weed leaf stage before which you must apply COBRA for effective weed control of the species desired.

**Table 2S.**

**WEEDS CONTROLLED BY COBRA HERBICIDE  
IN SOYBEANS  
Weed Growth Stages  
12.5 fl. oz. per acre**

Common Name	Maximum Leaf Stages
Balloonvine	4
Beggarticks	6
Bristly Starbur	4
Buffalobur	4
Burcucumber	4
Carpetweed	8 in. diameter
Common Cocklebur	6
Common Purslane	8 in. diameter
Copperleafs	
Hophornbeam	6
Virginia	4
Croton	
Tropic	4
Woolly	4
Devilscaw	4
Eclipta	6
Florida Beggarweed	2
Florida Pusley	6
Groundcherry	
Cutleaf	6
Lanceleaf	6
Hairy Galinsoga	4
Hemp Sesbania	6
Jimsonweed	4
Kochia	8
Lanceleaf Sage	4
Mexicanweed	4
Morningglories	
Cypressvine	4
Entireleaf*	2
Ivyleaf*	2
Palmleaf*	4
Pitted*	4
Purple Moonflower*	4
Smallflower*	4
Tall*	4
Nightshades	
Black	6
Eastern Black	6
Hairy	4
Pigweeds	
Palmer Amaranth***	6
Prostrate	6
Redroot	6

Smooth	6
Spiny Amaranth	6
Poorjoe	6
Prickly Sida(Teaweed)	4
Puncturevine	1.5 in. diameter
Ragweeds	
Common	8
Giant	6
Showy Croton	4
Smell Melon	6
Spurge	
Prostrate	1 in. diameter
Spotted	4
Toothed	4
Waterhemp	
Common	6
Tall	6
Velvetleaf**	4
Vernice Mallow	4
Wild Mustard	6
Wild Poinsettia	4
Wild Sunflower*	2
Witchweed	6-8 in. prior to bloom

\* Crop oil concentrate is required at the rate of 0.5% v/v for control.

\*\*Crop oil concentrate at 0.5% v/v or 28% N liquid fertilizer at 4% v/v plus non-ionic surfactant at 0.25% v/v of solution or AMMONIUM SULFATE (spray grade) at 2-4 lbs./acre plus non-ionic surfactant at 0.25% v/v of solution is required for control.

\*\*\*When Palmer Amaranth or Waterhemp pressure is severe, a preemergence program with activity on Amaranthus species is recommended to control the early flush. Follow with COBRA to control the escaped weeds.

**Table 3S.**

**WEEDS SUPPRESSED BY COBRA HERBICIDE**

Weed Growth Stages 12.5 fl. oz. per acre	
Common Name	Maximum Leaf Stages
Coffee Senna*	2
Pennsylvania Smartweed	4
Sicklepod*	2
Spurred Anoda	2

\*Suppression may be improved when COBRA is applied following a preemergence application of LASSO® or DUAL® at the recommended rates.

Suppression of growth, not acceptable, commercial control, may be expected when these weeds are treated with COBRA.

The addition of crop oil concentrate at 0.5% v/v is required for suppression of these weeds.

Cultivation 1 week to 10 days after treatment will usually aid in obtaining satisfactory suppression of these weeds.

**Table 4S.**

**PERENNIAL WEEDS SUPPRESSED  
BY COBRA HERBICIDE**

Weed Growth Stages 12.5 fl. oz. per acre	
Common Name	Maximum Leaf Stages
Canada Thistle	6
Milkweeds	
Climbing	6
Common	6
Morningglory	
Bigroot(Wild Sweet Potato)	6
Redvine	6

Swamp Smartweed  
Trumpet creeper

6  
6

The addition of crop oil concentrate at 0.5% v/v is required to burn back existing above-ground vegetation and may retard the growth of new foliage.

**Table 5S.**

**TALL WEEDS SUPPRESSED  
BY COBRA HERBICIDE**

**Weed Growth Stages**

**12.5 fl. oz. per acre**

<b>Common Name</b>	<b>Weed Height-Inches*</b>
Burcucumber	15-36
Jimsonweed	15-36
Ragweed	
Common	15-36
Giant	15-36
Velvetleaf	15-36

\*When COBRA Herbicide is applied at this height, complete control should not be expected.

The addition of crop oil concentrate at 0.5% v/v is required for suppression of these weeds.

**DO NOT APPLY LATER THAN 45 DAYS BEFORE HARVEST OR AFTER GROWTH STAGE R6 (FULL SEED).**

**Table 6S.**

**WHITE MOLD\* SUPPRESSION  
BY COBRA HERBICIDE  
SOYBEAN GROWTH STAGE  
6 TO 12.5 FL. OZ/A\*\***

<b>Common Name</b>	<b>Soybean Growth Stage</b>
White Mold (Sclerotinia stem rot)	Applications of COBRA Herbicide for white mold suppression in soybeans must be made at or near bloom.

\* The soybean disease white mold is caused by *Sclerotinia sclerotiorum*.

\*\* The addition of crop oil concentrate or methylated seed oil at the rate of 1 to 2 pts./A is required.

**NOTE:** It has been shown that the effects of COBRA on white mold is not a fungicidal response but one that involves Systemic Acquired Resistance (SAR).

## COBRA HERBICIDE PREEMERGENCE FOLLOWED BY REDUCED RATES OF COBRA HERBICIDE POSTEMERGENCE

### GENERAL INFORMATION

COBRA Herbicide may be utilized as a preemergence soil applied herbicide for control of annual broadleaf weeds in soybeans. Following a preemergence application of COBRA Herbicide, a postemergence application of COBRA Herbicide may be applied in combination with other broadleaf herbicides for the control of escaped weeds.

Best results will be obtained when soybeans are planted and preemergence applications of COBRA are made in warm, moist soils which promote rapid emergence of target weeds.

Do not apply COBRA during periods when soybeans and the weeds are under stress or when conditions do not favor active weed growth.

Do not apply more than 0.3 lb. a.i. preemergence per acre per season.

### TABLE 7S.

COBRA Herbicide Preemergence Control Followed by Postemergence Application to Control Escaped Weeds - Soybean - Rate and Time of Application.

#### PREEMERGENCE APPLICATION OF COBRA HERBICIDE

Product	Product Rate	Weeds Controlled	Adjuvant
COBRA	12.5 to 15 fl.oz./A	Black Nightshade Pigweed Smooth Redroot	None
COBRA	15 to 19 fl. oz./A	Copperleaf Jimson Weed Common Lambsquarter Common Ragweed Prickly Sida (Teaweed) Tall Waterhemp	

#### FOLLOWED BY POSTEMERGENCE APPLICATION OF COBRA HERBICIDE

Product	Product Rate	Weeds Controlled	Adjuvant
COBRA	12.5 fl. oz./A	Refer to Table 2S for Postemergence Control of Escaped Weeds.	Refer to Table 1S
COBRA	4 to 12.5 fl. oz./A	Refer to Tables 9S to 25S when tank mixing with other broadleaf herbicides.	See Tables 9S to 25S

#### Use Restrictions for Cobra Herbicide Applied Preemergence Followed by Cobra Herbicide Applied Postemergence:

1. Always read and follow all label directions when using any pesticide alone or sequentially. The most restrictive labeling applies when using a tank mix.
2. For preemergence control of grasses, tank mix COBRA with appropriate grass herbicide.
3. Do not apply COBRA less than 45 days before harvesting soybeans or after growth stage R6 (full seed).
4. Do not graze treated fields or harvest forage or hay.
5. Do not apply COBRA postemergence if rain is expected within 30 minutes of application or unsatisfactory weed control may result.
6. Do not apply more than 25 fl. oz./A of COBRA per season.
7. Do not apply to soils containing more than 3.5% organic matter.

<p align="center"><b>COBRA® HERBICIDE</b>  <b>REDUCED RATES TO CONTROL SMALL BROADLEAF WEEDS IN SOYBEANS</b></p>
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**GENERAL INFORMATION**

For best results, the COBRA Herbicide should be applied to actively growing weeds. Do not apply COBRA during periods when the soybeans and the weeds are under stress or when conditions do not favor active weed growth. Refer to the COBRA soybean label for application timing.

SELECT 2 EC Herbicide at 6-8 oz./A may be tank mixed with COBRA Herbicide to control annual and perennial grasses. Refer to SELECT 2 EC Herbicide label for grasses controlled.

**Table 8S.**

**COBRA Herbicide Tank Mix - Soybeans - Rate and Time of Application Table.**

PRODUCT	RATE / ACRE	Broadleaf Weeds Controlled	Leaf Stage
COBRA Herbicide	6 fl. oz.	Nightshade, Black	up to 3
		Ragweed, Common	up to 6
		Waterhemp	up to 4
	8 fl. oz.	Cocklebur, Common	up to 4
		Jimsonweed	up to 4
		Nightshade, Black	up to 4
		Pigweeds	
		Redroot	up to 6
		Smooth	up to 6
		Ragweeds	
		Common	up to 6
		Giant	up to 4
		Waterhemp	up to 6
	10 fl. oz.	Cocklebur, Common	up to 5
		Jimsonweed	up to 4
		Nightshade, Black	up to 5
		Pigweeds	
		Redroot	up to 6
		Smooth	up to 6
		Ragweeds	
		Common	up to 8
		Giant	up to 6
		Waterhemp	up to 6
Adjuvant: COBRA must be applied with 1 pt./A crop oil concentrate or methylated seed oil.			



## BROADLEAF HERBICIDE TANK MIXES WITH COBRA HERBICIDE

### TANK MIX WITH BASAGRAN® HERBICIDE FOR CONTROL OF BROADLEAF WEEDS IN SOYBEANS

#### GENERAL INFORMATION

For best results the COBRA plus BASAGRAN tank mix should be applied to actively growing weeds. Do not apply COBRA tank mixtures during periods when the soybeans and the weeds are under stress or when conditions do not favor active weed growth. Refer to the COBRA Soybean Label for application timing.

**Table 9S.**  
**COBRA Herbicide & BASAGRAN Herbicide Tank Mix - Soybeans - Rate and Time of Application Table.**

Product	Product Rate	Weeds Controlled/ Leaf Stage	Adjuvant		
COBRA	6 to 12.5 fl. oz./A	Refer to Table 2S For Weeds Con- trolled at 12.5 fl. oz./A	Refer to Table 1S		
_____ plus _____ BASAGRAN		COBRA RATE/A	10 oz.	8 oz.	6 oz.
			Maximum Leaf Stage		
BASAGRAN	1 pt./A	Black Nightshade	6	4	3
		Common Cocklebur	6	4	4
		Common Lambsquarter	4	4	4
		Pigweed			
		Smooth	6	6	C**
		Redroot	6	6	C**
		Ragweed			
		Common	8	6	6
		Giant	6	4	2
		Smartweed	4	4	4
		Tall Waterhemp	6	6	4
		Velvetleaf*	6	4	3
		Wild Sunflower	4	2	2
		Yellow Nutsedge	6 in.	6 in.	6 in.
Refer to BASAGRAN Label for other weeds claimed					
_____ or plus BASAGRAN		COBRA RATE/A	10 oz.	8 oz.	6 oz.
			Maximum Leaf Stage		
BASAGRAN	2 pt./A	Common Cocklebur	10	10	10
		Common Lambsquarter	8	8	8
		Pennsylvania Smartweed	10	10	10
		Pigweed			
		Smooth	6	6	C**
		Redroot	6	6	C**

Ragweed			
Common	8	6	6
Giant	6	4	2
Tall Waterhemp	6	6	4
Wild Sunflower	6	6	6

Refer to BASAGRAN Label for other weeds claimed

\*Add 4% v/v Nitrogen liquid fertilizer or 4 lb./A Ammonium Sulfate (spray grade) plus 0.25% v/v non-ionic surfactant for best control.

\*\*C is the cotyledon leaf stage.

#### MIXING INSTRUCTIONS

Maintain agitation throughout the spray application. Failure to agitate the spray volume may result in improper mixing of the herbicides and unsatisfactory weed control. Mixing and compatibility qualities should be verified by a jar test.

**COBRA Herbicide Plus BASAGRAN Herbicide Tank Mix:** Add 1/2 of the required water to the spray tank and begin agitation. Add the required amount of BASAGRAN and mix thoroughly. Then add the required amount of COBRA and continue mixing. Finally, add the required amount of crop oil concentrate, non-ionic surfactant and/or the Nitrogen fertilizer and the remaining water.

#### Use Restrictions for COBRA Herbicide Plus BASAGRAN Herbicide Tank Mix:

1. Always read and follow all label directions when using any pesticide alone or in tank mix combinations. **The most restrictive labeling applies when using a tank mix.**
2. Do not apply the COBRA plus BASAGRAN tank mix less than 60 days before harvesting soybeans.
3. Do not graze treated fields or harvest for forage hay.
4. Do not apply the COBRA plus BASAGRAN tank mix if rain is expected within 8 hours of application or unsatisfactory weed control may result.

**TANK MIX WITH CLASSIC® HERBICIDE  
FOR CONTROL OF BROADLEAF WEEDS IN SOYBEANS**

**GENERAL INFORMATION**

For best results, the COBRA plus CLASSIC tank mix should be applied to actively growing weeds. Do not apply the COBRA and CLASSIC tank mix during periods when the soybeans and the weeds are under stress or when conditions do not favor active weed growth. Refer to the COBRA soybean label for application timing.

**Table 10S.**

**COBRA Herbicide & CLASSIC Herbicide Tank Mix — Soybeans — Rate and Time of Application Table.**

Product	Product Rate	Weeds Controlled/ Leaf Stage	Adjuvant		
COBRA	6 to 12.5 fl. oz./A	Refer to Table 2S for weeds controlled at 12.5 fl. oz./A	Refer to Table 1S		
_____ plus CLASSIC _____		<b>COBRA RATE/A</b>	<b>10 oz.</b>	<b>8 oz.</b>	<b>6 oz.</b>
			<b>Maximum Leaf Stage</b>		
CLASSIC	0.38 oz./A	Black Nightshade	6	4	3
		Common Cocklebur	8	6	C**
		Florida Beggarweed	6	2	C**
		Florida Pusley		6	C**
		Pennsylvania Smartweed	4	2	C**
		Pigweed			
		Smooth	6	6	C**
		Redroot	6	6	C**
		Prickly Sida	4	2	C**
		Ragweed			
		Common	8	6	6
		Giant	6	4	C**
		Tall Waterhemp	6	6	4
		Velvetleaf*	4	C**	
		Wild Mustard	6	4	C**
		Wild Sunflower	6	4	C**
_____ or plus CLASSIC _____		<b>COBRA RATE/A</b>	<b>10 oz.</b>	<b>8 oz.</b>	<b>6 oz.</b>
			<b>Maximum Leaf Stage</b>		
CLASSIC	0.5 oz./A	Black Nightshade	6	4	3
		Copperleafs			
		Hophornbeam	6	4	C**
		Virginia	4	2	C**
		Prickly Sida	4	2	C**
		Ragweed			
		Common	8	6	4
		Giant	6	4	C**
		Sicklepod	3	3	C**

Smooth Pigweed	6	4	3
Tall Waterhemp	6	6	4
Velvetleaf*	5	C**	
Yellow Nutsedge	6		

**Refer to CLASSIC Label for other weeds claimed**

\* Add 4% v/v Nitrogen liquid fertilizer or 4 lb./A Ammonium Sulfate (spray grade) plus 0.25% v/v non-ionic surfactant for best control.

\*\*C is the cotyledon leaf stage.

**MIXING INSTRUCTIONS**

Maintain agitation throughout the spray application. Failure to agitate the spray volume may result in improper mixing of the herbicides and unsatisfactory weed control. Mixing and compatibility qualities should be verified by a jar test.

**COBRA Herbicide Plus CLASSIC Herbicide Tank Mix:** Add 1/2 of the required water to the spray tank and begin agitation. Add the required amount of CLASSIC and mix thoroughly. Then add the required amount of COBRA and continue mixing. Finally, add the required amount of crop oil concentrate, non-ionic surfactant and/or the Nitrogen fertilizer and the remaining water.

**Use Restrictions for COBRA Herbicide plus CLASSIC Herbicide Tank Mix:**

1. Always read and follow all label directions when using any pesticide alone or in tank mix combinations. **The most restrictive labeling applies when using a tank mix.**
2. Do not apply the COBRA plus CLASSIC tank mix less than 60 days before harvesting soybeans.
3. Do not graze animals on green forage or stubble. Do not utilize hay or straw for animal feed or bedding.
4. Do not apply the COBRA plus CLASSIC tank mix if rain is expected within 1 hour of application or unsatisfactory weed control may result.
5. Refer to the CLASSIC label for restrictions on soil pH, minimum recropping interval and rotational guidelines.

**TANK MIX WITH CLASSIC® PLUS PINNACLE® HERBICIDE  
FOR CONTROL OF BROADLEAF WEEDS IN SOYBEANS**

**GENERAL INFORMATION**

For best results, the COBRA plus CLASSIC plus PINNACLE tank mix should be applied to actively growing weeds.

Do not apply the COBRA and CLASSIC plus PINNACLE tank mix during periods when the soybeans and the weeds are under stress or when conditions do not favor active weed growth.

Refer to the COBRA soybean label for application timing.

**Table 11S.**

**COBRA Herbicide & CLASSIC Plus PINNACLE Herbicide Tank Mix - Soybeans - Rate and Time of Application Table.**

Product	Product Rate	Weeds Controlled/ Leaf Stage	Adjuvant		
COBRA	4 to 8 fl. oz./A		0.125% v/v non-ionic surfactant or		
			0.125% v/v non-ionic surfactant plus 4% v/v liquid Nitrogen		
			Do Not use crop or vegetable oil concentrate.		
		<b>COBRA RATE/A</b>	<b>8 oz.</b>	<b>6 oz.</b>	<b>4 oz.</b>
		plus CLASSIC plus PINNACLE	<b>Maximum Leaf Stage</b>		
CLASSIC plus PINNACLE	0.25 oz./A	Black Nightshade	4	2	C**
		Ragweed			
	0.25 oz./A	Common	6	4	C**
		Giant	2	C**	

Refer to CLASSIC plus PINNACLE labels for weeds claimed.

\*\*C is the cotyledon leaf stage.

**MIXING INSTRUCTIONS**

Maintain agitation throughout the spray application. Failure to agitate the spray volume may result in improper mixing of the herbicides and unsatisfactory weed control. Mixing and compatibility qualities should be verified by a jar test.

**COBRA Herbicide Plus CLASSIC Plus PINNACLE Herbicide Tank Mix:** Add 1/2 of the required water to the spray tank and begin agitation. Add the required amount of CLASSIC and PINNACLE and mix thoroughly. Then add the required amount of COBRA and continue mixing. Finally, add the required amount of crop oil concentrate, non-ionic surfactant and/or the Nitrogen fertilizer and the remaining water.

**Use Restrictions for COBRA Herbicide plus CLASSIC plus PINNACLE Herbicide Tank Mix:**

1. Always read and follow all label directions when using any pesticide alone or in tank mix combinations. **The most restrictive labeling applies when using a tank mix.**
2. Do not apply the COBRA plus CLASSIC plus PINNACLE tank mix less than 60 days before harvesting soybeans.
3. Do not graze animals on green forage or stubble. Do not utilize hay or straw for animal feed or bedding.
4. Do not apply the COBRA plus CLASSIC plus PINNACLE tank mix if rain is expected within 1 hour of application or unsatisfactory weed control may result.
5. Refer to the CLASSIC label for restrictions on soil pH, minimum recropping interval and rotational guidelines.

**TANK MIX WITH BASAGRAN® PLUS PINNACLE® HERBICIDE  
FOR CONTROL OF EMERGED WEEDS IN SOYBEANS**

**GENERAL INFORMATION**

For best results, the COBRA plus BASAGRAN plus PINNACLE tank mix should be applied to actively growing weeds. Do not apply COBRA tank mixtures during periods when the soybeans and the weeds are under stress or when conditions do not favor active weed growth.

To control annual grasses, add SELECT 2 EC Herbicide at 8 -10 fl. oz./acre to the tankmix. (Refer to the SELECT 2 EC label for grasses controlled).

**Table 12S.**

**Tank mix with BASAGRAN and PINNACLE for control of emerged weeds in soybeans.**

PRODUCT	Product Rate	Broadleaf Weeds Controlled	Leaf Size
COBRA Herbicide + BASAGRAN + PINNACLE	8 - 10 fl. oz./A + 1 pt/A + .125 oz./A	Cocklebur, Common Lambsquarters, Common Nightshade, Black Pigweeds Redroot Smooth Ragweeds Common Giant Smartweed (Pennsylvania) Velvetleaf Waterhemp, Tall  Refer to BASAGRAN and PINNACLE labels for additional weeds claimed.	4 to 6 leaf 1 to 4 inch 4 to 6 leaf  4 to 6 leaf 4 to 6 leaf  6 to 8 leaf 4 to 6 leaf 4 leaf  4 to 6 leaf 4 to 6 leaf
<b>Adjuvant:</b> The COBRA plus BASAGRAN plus PINNACLE tank mix must be applied with 1 pt./A crop oil concentrate or MSO. Liquid fertilizer (such as 28%N or 32% N) at 1-2 qts./A or 2.5 to 4.0 lbs./A of Ammonium Sulfate may be included, where desired, to increase broadleaf weed control.			

**Use Restrictions for COBRA Herbicide plus BASAGRAN Herbicide plus PINNACLE Herbicide Tank Mix:**

1. Always read and follow all label directions when using any pesticide alone or in tank mix combinations. **The most restrictive labeling applies when using a tank mix.**
2. Do not apply the COBRA plus BASAGRAN plus PINNACLE tank mix less than 60 days before harvesting soybeans.
3. Do not graze treated fields or harvest for forage hay.
4. Do not apply the COBRA plus BASAGRAN plus PINNACLE tank mix if rain is expected within 1 hour of application or unsatisfactory weed control may result.

<b>TANK MIX WITH 2,4-DB PRODUCTS FOR CONTROL OF BROADLEAF WEEDS IN SOYBEANS</b>
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**GENERAL INFORMATION**

Use only the amine formulations of 2,4-DB registered for use on soybeans. For best results, the COBRA plus 2,4-DB tank mix should be applied to actively growing weeds. Do not apply COBRA and 2,4-DB product tank mixtures during periods when the soybeans and the weeds are under stress or when conditions do not favor active weed growth. Refer to the COBRA soybean label for application timing. The use of a 2,4-DB tank mix may cause crop injury.

**Table 13S.**

**COBRA Herbicide & 2,4-DB Tank Mix - Soybeans - Rate and Time of Application Table.**

Product	Product Rate	Weeds Controlled/ Leaf Stage	Adjuvant
COBRA	12.5 fl. oz./A	Refer to Table 2S	0.25% v/v non-ionic surfactant.
_____ plus _____ 2,4-DB _____			Do Not Use crop oil concentrate or vegetable oil.
			<b>Maximum Leaf Stage</b>
2,4-DB	2 oz./A	Morningglories Sicklepod	6 2

**MIXING INSTRUCTIONS**

Maintain agitation throughout the spray application. Failure to agitate the spray volume may result in improper mixing of the herbicides and unsatisfactory weed control. Mixing and compatibility qualities should be verified by a jar test.

**COBRA Herbicide Plus 2,4-DB Herbicide Tank Mix:** Add 1/2 of the required water to the spray tank and begin agitation. Add the required amount of 2,4-DB and mix thoroughly. Then add the required amount of COBRA and continue mixing. Finally, add the required amount of non-ionic surfactant and the remaining water.

**Use Restrictions for COBRA Herbicide plus 2,4-DB Tank Mix:**

1. Always read and follow all label directions when using any pesticide alone or in tank mix combinations. **The most restrictive labeling applies when using a tank mix.**
2. Do not apply the COBRA plus 2,4-DB tank mix by air.
3. Do not apply the COBRA plus 2,4-DB tank mix less than 60 days before harvesting soybeans.
4. Do not graze animals on green forage or stubble. Do not utilize hay or straw for animal feed or bedding.
5. Do not apply the COBRA plus 2,4-DB tank mix if rain is expected within 2 hours of application or unsatisfactory weed control may result.
6. Do not allow 2,4-DB to come into contact with cotton, okra, grapes, tomatoes, fruit trees, vegetables, flowers, or other desirable crop or ornamental plants. Do not permit spray mist to drift onto susceptible plants since very small quantities of 2,4-DB can cause severe injury during growing or dormant periods.

**TANK MIX WITH PINNACLE® HERBICIDE  
FOR CONTROL OF BROADLEAF WEEDS IN SOYBEANS**

**GENERAL INFORMATION**

For best results, the COBRA plus PINNACLE tank mix should be applied to actively growing weeds. Do not apply COBRA tank mixtures during periods when the soybeans and the weeds are under stress or when conditions do not favor active weed growth. Refer to the COBRA soybean label for application timing.

**Table 14S.**

**COBRA Herbicide & PINNACLE Herbicide Tank Mix - Soybeans - Rate and Time of Application Table.**

Product	Product Rate	Weeds Controlled/ Leaf Stage	Adjuvant
COBRA	6 to 8 fl. oz./A		.125 % v/v non-ionic surfactant or .125% v/v non-ionic surfactant plus 4% v/v liquid nitrogen fertilizer 28% or 32%.
			Do Not Use crop oil concentrate or vegetable oil.
		COBRA RATE/A	8 oz. 6 oz.
	plus PINNACLE		
			Maximum Leaf Stage
PINNACLE	0.25 oz./A	Black Nightshade	4 2
		Common Cocklebur	6 4
		Copperleafs	
		Hophornbeam	4 C**
		Virginia	2 C**
		Prickly Sida	2 C**
		Ragweed	
		Common	6 4
		Giant	2 C**

Refer to PINNACLE Label for other weeds claimed.

\*\*C is the cotyledon leaf stage.

**MIXING INSTRUCTIONS**

Maintain agitation throughout the spray application. Failure to agitate the spray volume may result in improper mixing of the herbicides and unsatisfactory weed control. Mixing and compatibility qualities should be verified by a jar test. **COBRA Herbicide Plus PINNACLE Herbicide Tank Mix:** Add 1/2 of the required water to the spray tank and begin agitation. Add the required amount of PINNACLE and mix thoroughly. Then add the required amount of COBRA and continue mixing. Finally, add the required amount of non-ionic surfactant and the 28% N liquid fertilizer and the remaining water.

**Use Restrictions for the COBRA Herbicide plus PINNACLE Herbicide Tank Mix:**

1. Always read and follow all label directions when using any pesticide alone or in tank mix combinations. The most restrictive labeling applies when using a tank mix.
2. Do not apply the COBRA plus PINNACLE tank mix less than 60 days before harvesting soybeans.
3. Do not graze treated fields or harvest for forage hay.
4. Do not apply the COBRA plus PINNACLE tank mix if rain is expected within 1 hour of application or unsatisfactory weed control may result.



**TANK MIX WITH PURSUIT® HERBICIDE  
FOR CONTROL OF BROADLEAF WEEDS IN SOYBEANS**

**GENERAL INFORMATION**

For best results the COBRA plus PURSUIT tank mix should be applied to actively growing weeds. **Do not** apply COBRA tank mixtures during periods when the soybeans and the weeds are under stress or when conditions do not favor active weed growth. Refer to the COBRA soybean label for application timing.

**Table 15S.**

**COBRA Herbicide & PURSUIT Herbicide Tank Mix - Soybeans - Rate and Time of Application Table.**

Product	Product Rate	Weeds Controlled/ Leaf Stage	Adjuvant		
COBRA	6 to 12.5 fl oz./A	Refer to Table 2S for weeds controlled at 12.5 fl. oz./A	Refer to Table 1S*		
_____ plus _____ PURSUIT _____		COBRA RATE/A	10 oz.	8 oz.	6 oz.
			Maximum Leaf Stage		
PURSUIT	4 oz./A	Common			
		Lambsquarter	4	4	2
		Copperleafs			
		Hophornbeam	6	4	C**
		Virginia	4	2	C**
		Prickly Sida	4	2	C**
		Ragweed			
		Common	8	6	6
		Giant	6	4	4
		Tall Waterhemp	6	6	4

**Refer to PURSUIT Label for weeds claimed.**

\*Sun-IT II™ may be substituted for Crop Oil Concentrate, and liquid Nitrogen fertilizer may be used at 1 to 2% v/v.

\*\*C is the cotyledon leaf stage.

**Table 15.1S.****COBRA Herbicide & PURSUIT Herbicide Tank Mix - Soybeans - Rate and Time of Application Table**

Product	Product Rate	Weeds Controlled/ Leaf Stage	Adjuvant
COBRA	4 fl. oz./A	Common Ragweed 4 leaf	Refer to Table 1S*
<hr/>			
_____ plus _____ PURSUIT _____			
PURSUIT	4 oz./A	Refer to PURSUIT label for weeds claimed.	

\*Sun-IT II™ may be substituted for Crop Oil Concentrate, and liquid Nitrogen fertilizer may be used at 1 to 2% v/v.

**MIXING INSTRUCTIONS**

Maintain agitation throughout the spray application. Failure to agitate the spray volume may result in improper mixing of the herbicides and unsatisfactory weed control. Mixing and compatibility qualities should be verified by a jar test.

**COBRA Herbicide Plus PURSUIT Herbicide Tank Mix:** Add 1/2 of the required water to the spray tank and begin agitation. Add the required amount of PURSUIT and mix thoroughly. Then add the required amount of COBRA and continue mixing. Finally, add the required amount of surfactant or the 28% N liquid fertilizer or Ammonium Sulfate (spray grade) or crop oil concentrate or Sun-It and the remaining water.

**Use Restrictions for COBRA Herbicide Plus PURSUIT Herbicide Tank Mix:**

1. Always read and follow all label directions when using any pesticide alone or in tank mix combinations. **The most restrictive labeling applies when using a tank mix.**
2. Do not apply the COBRA plus PURSUIT tank mix less than 85 days before harvesting soybeans.
3. Do not graze treated fields or harvest for forage hay.
4. Do not apply the COBRA plus PURSUIT tank mix if rain is expected within 1 hour of application or unsatisfactory weed control may result.
5. Refer to the crop rotational restrictions stated on the PURSUIT label.

<b>TANK MIX WITH SCEPTER® HERBICIDE FOR CONTROL OF BROADLEAF WEEDS IN SOYBEANS</b>
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### GENERAL INFORMATION

For best results, the COBRA plus SCEPTER tank mix should be applied to actively growing weeds. Do not apply COBRA and SCEPTER tank mix during periods when the soybeans and the weeds are under stress or when conditions do not favor active weed growth. Refer to the COBRA soybean label for application timing.

**Table 16S.**

**COBRA Herbicide & SCEPTER Herbicide Tank Mix - Soybeans - Rate and Time of Application Table.**

Product	Product Rate	Weeds Controlled/ Leaf Stage	Adjuvant
COBRA	12.5 fl. oz./A	Refer to Table 2S	0.25% v/v non-ionic surfactant.  Do Not Use crop oil concentrate or vegetable oil.
_____ plus _____ SCEPTER _____			<b>Maximum Leaf Stage</b>
SCEPTER	4 oz./A	Cocklebur	12
or 70DG	1 oz./A	Pigweed	12

### MIXING INSTRUCTIONS

Maintain agitation throughout the spray application. Failure to agitate the spray volume may result in improper mixing of the herbicides and unsatisfactory weed control. Mixing and compatibility qualities should be verified by a jar test.

**COBRA Herbicide Plus SCEPTER Herbicide Tank Mix:** Add 1/2 of the required water to the spray tank and begin agitation. Add the required amount of SCEPTER and mix thoroughly. Then add the required amount of COBRA and continue mixing. Finally, add the required amount of non-ionic surfactant and the remaining water.

**Use Restrictions for COBRA Herbicide plus SCEPTER Herbicide Tank Mix:**

1. Always read and follow all label directions when using any pesticide alone or in tank mix combinations. The most restrictive labeling applies when using a tank mix.
2. Do not apply the COBRA plus SCEPTER tank mix less than 90 days before harvesting soybeans.
3. Do not apply the COBRA plus SCEPTER tank mix by air.
4. Do not graze animals on green forage or stubble. Do not utilize hay or straw for animal feed or bedding.
5. Do not apply the COBRA plus SCEPTER tank mix if rain is expected within 2 hours of application or unsatisfactory weed control may result.
6. Refer to the SCEPTER label for regional use and rotational crop restrictions.

**TANK MIX WITH RELIANCE™ STS® HERBICIDE  
FOR CONTROL OF BROADLEAF WEEDS IN STS SOYBEANS**

**GENERAL INFORMATION**

For best results, the COBRA plus RELIANCE STS tank mix should be applied to actively growing weeds.

Do not apply the COBRA and RELIANCE STS tank mix during periods when the soybeans and the weeds are under stress or when conditions do not favor active weed growth.

Refer to the COBRA soybean label for application timing.

To control annual grasses, add SELECT 2 EC Herbicide at 8-10 fl. oz./acre to the tank mix. (Refer to SELECT 2 EC Herbicide label for grasses controlled.)

**Table 17S.**

**COBRA Herbicide & RELIANCE STS Herbicide Tank Mix - Soybeans - Rate and Time of Application Table.**

Product	Product Rate	Weeds Controlled/ Leaf Stage	Adjuvant		
COBRA	4 to 8 fl. oz/A		0.5% v/v Crop Oil Concentrate/A		
COBRA RATE/A plus RELIANCE STS			8 oz.	6 oz.	4 oz.
			Maximum Leaf Stage		
RELIANCE STS	0.5 oz/A	Nightshade (Black or Eastern Black)	4	3	2
		Waterhemp (Tail or Common)	6	4	2

Refer to RELIANCE STS label for weeds claimed.

**MIXING INSTRUCTIONS**

Maintain agitation throughout the spray application. Failure to agitate the spray volume may result in improper mixing of the herbicides and unsatisfactory weed control. Mixing and compatibility qualities should be verified by a jar test.

**COBRA Herbicide Plus RELIANCE STS Herbicide Tank Mix:** Add 1/2 of the required water to the spray tank and begin agitation. Add the required amount of RELIANCE STS and mix thoroughly. Then add the required amount of COBRA and continue mixing. Finally, add the required amount of crop oil concentrate, non-ionic surfactant and/or the Nitrogen fertilizer and the remaining water.

**Use Restrictions for COBRA Herbicide plus RELIANCE STS Herbicide Tank Mix:**

1. Always read and follow all label directions when using any pesticide alone or in tank mix combinations. **The most restrictive labeling applies when using a tank mix.**
2. Do not apply the COBRA plus RELIANCE STS tank mix less than 60 days before harvesting soybeans.
3. Do not graze animals on green forage or stubble. Do not utilize hay or straw for animal feed or bedding.
4. Do not apply the COBRA plus RELIANCE STS tank mix if rain is expected within 1 hour of application or unsatisfactory weed control may result.
5. Refer to the RELIANCE STS label for restrictions on soil pH, minimum recropping interval and rotational guidelines.

**TANK MIX WITH SYNCHRONY® STS® HERBICIDE  
FOR CONTROL OF BROADLEAF WEEDS IN STS SOYBEANS**

**GENERAL INFORMATION**

For best results, the COBRA plus SYNCHRONY STS tank mix should be applied to actively growing weeds.

Do not apply the COBRA and SYNCHRONY STS tank mix during periods when the soybeans and the weeds are under stress or when conditions do not favor active weed growth.

Refer to the COBRA soybean label for application timing.

To control annual grasses, add SELECT 2 EC Herbicide at 8-10 fl. oz./acre to the tank mix. (Refer to SELECT 2 EC Herbicide label for grasses controlled.)

**Table 18S.**

**COBRA Herbicide & SYNCHRONY STS Herbicide Tank Mix - Soybeans - Rate and Time of Application Table.**

Product	Product Rate	Weeds Controlled/ Leaf Stage	Adjuvant		
COBRA	4 to 8 fl. oz/A		0.5% v/v Crop Oil Concentrate/A		
		COBRA RATE/A	8 oz.	6 oz.	4 oz.
plus SYNCHRONY STS			Maximum Leaf Stage		
SYNCHRONY STS	0.5 oz/A	Nightshade (Black or Eastern Black)	4	3	2
		Waterhemp (Tall or Common)	6	4	2

Refer to SYNCHRONY STS label for weeds claimed.

**MIXING INSTRUCTIONS**

Maintain agitation throughout the spray application. Failure to agitate the spray volume may result in improper mixing of the herbicides and unsatisfactory weed control. Mixing and compatibility qualities should be verified by a jar test.

**COBRA Herbicide Plus SYNCHRONY STS Herbicide Tank Mix:** Add 1/2 of the required water to the spray tank and begin agitation. Add the required amount of SYNCHRONY STS and mix thoroughly. Then add the required amount of COBRA and continue mixing. Finally, add the required amount of crop oil concentrate, non-ionic surfactant and/or the Nitrogen fertilizer and the remaining water.

**Use Restrictions for COBRA Herbicide plus SYNCHRONY STS Herbicide Tank Mix:**

1. Always read and follow all label directions when using any pesticide alone or in tank mix combinations. **The most restrictive labeling applies when using a tank mix.**
2. Do not apply the COBRA plus SYNCHRONY STS tank mix less than 60 days before harvesting soybeans.
3. Do not graze animals on green forage or stubble. Do not utilize hay or straw for animal feed or bedding.
4. Do not apply the COBRA plus SYNCHRONY STS tank mix if rain is expected within 1 hour of application or unsatisfactory weed control may result.
5. Refer to the SYNCHRONY STS label for restrictions on soil pH, minimum recropping interval and rotational guidelines.

<p align="center"><b>TANK MIX WITH ROUNDUP ULTRA FOR CONTROL OF BROADLEAF WEEDS IN ROUNDUP READY SOYBEANS</b></p>
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Tank mix with ROUNDUP Ultra on Roundup Ready soybeans for broadleaf weed control.

**Table 19S.**

**COBRA Herbicide & ROUNDUP Ultra Tank Mix\* - Soybeans - Rate and Time of Application Table.**

Product	Product Rate** Weed Size	Weeds Controlled	Maximum Leaf Stage
ROUNDUP Ultra	Refer to Roundup Ultra label for rates	Refer to Roundup Ultra label for weeds controlled and weed sizes.	
COBRA Herbicide	6-8 fl. oz.	Annual Morningglory Species	4 leaf
		Ragweeds	
		Common	6 leaf
		Giant	4 leaf
		Waterhemp	6 leaf
		(Refer to COBRA label for additional weeds controlled.)	

\*This tank mix may be antagonistic to some grasses when stress conditions exist.

\*\*Spray grade ammonium sulfate (AMS) at 2.5-4.0 lbs./A may be added to increase activity

## GRASS HERBICIDE TANK MIXES WITH COBRA HERBICIDE

**TANK MIX WITH SELECT® 2 EC HERBICIDE  
FOR CONTROL OF BROADLEAF AND GRASS WEEDS IN  
SOYBEANS**

### GENERAL INFORMATION

For best results the COBRA plus SELECT 2 EC Herbicide tank mix should be applied to actively growing weeds.

Do not apply COBRA tank mixtures during periods when the soybeans and the weeds are under stress or when conditions do not favor active weed growth. Refer to the COBRA soybean label for application timing.

### TANK MIX GEOGRAPHIC USE AREA

Refer to the SELECT 2 EC Herbicide label for defined application areas and rates. COBRA Herbicide does not have application area restrictions.

**Table 20S.**

**COBRA Herbicide & SELECT 2 EC Herbicide Tank Mix - Soybeans - Rate and Time of Application Table.**

Product	Product Rate	Weeds Controlled/ Weed Size	Adjuvant
COBRA	12.5 fl. oz./A	Refer to Table 2S	0.5 to 1% v/v Crop Oil Concentrate/A for ground applications  1 % v/v Crop Oil Concentrate for aerial applications
_____ plus _____ SELECT_2 EC Herbicide _____			

SELECT 2 EC Herbicide \*

Refer to the SELECT 2 EC Herbicide label for **ANNUAL** and **PERENNIAL** grasses controlled and use rate.

\* If regrowth of grasses occur, make a second application of SELECT 2 EC Herbicide timed to grass weed size noted on the SELECT 2 EC Herbicide label.

### SEQUENTIAL APPLICATION WITH COBRA HERBICIDE AND SELECT 2 EC Herbicide

#### Sequential Applications with COBRA Herbicide

Some reduction in grass control is possible when SELECT 2 EC Herbicide is sequentially applied immediately prior to or after an application of COBRA Herbicide.

- After an application of SELECT 2 EC Herbicide wait a minimum of 24 hours before applying COBRA Herbicide.
- In fields treated with COBRA Herbicide, do not apply SELECT 2 EC Herbicide until grass plants are again developing new leaves (generally 7 days after the COBRA Herbicide application).
- Refer to the SELECT 2 EC Herbicide label for application areas and rates.

### MIXING INSTRUCTIONS

Maintain agitation throughout the spray application. Failure to agitate the spray volume may result in improper mixing of the herbicides and unsatisfactory weed control. Mixing and compatibility qualities should be verified by a jar test.

**COBRA Herbicide Plus SELECT 2 EC Herbicide Tank Mix:** Add 1/2 of the required water to the spray tank and begin agitation. Add the required amount of SELECT 2 EC Herbicide and mix thoroughly. Then add the required amount of COBRA and continue mixing. Finally, add the required amount of crop oil concentrate and the remaining water.

#### Use Restrictions for COBRA Herbicide Plus SELECT 2 EC Herbicide Tank Mix:

1. Always read and follow all label directions when using any pesticide alone or in tank mix combinations. **The most restrictive labeling applies when using a tank mix.**
2. Do not apply the COBRA plus SELECT 2 EC Herbicide tank mix less than 60 days before harvesting soybeans.
3. Do not graze treated fields or harvest for forage hay.

4. Do not apply the COBRA plus SELECT 2 EC Herbicide tank mix if rain is expected within 1 hour of application or unsatisfactory weed control may result.
5. Do not apply COBRA plus SELECT 2 EC Herbicide to plants stressed due to insufficient moisture. Weeds under this condition frequently become less sensitive to herbicide activity.
6. Do not cultivate within 7 days before or 7 days after an application of SELECT 2 EC Herbicide as control may be unsatisfactory.
7. Do not apply COBRA plus SELECT 2 EC Herbicide when environmental conditions are such that drift to other crops and non-target areas is possible.



**TANK MIX WITH ASSURE®/ASSURE II HERBICIDE  
FOR CONTROL OF BROADLEAF AND GRASS WEEDS IN  
SOYBEANS**

**GENERAL INFORMATION**

For best results the COBRA plus ASSURE/ASSURE II tank mix should be applied to actively growing weeds. Do not apply COBRA tank mixtures during periods when the soybeans and the weeds are under stress or when conditions do not favor active weed growth. Refer to the COBRA soybean label for application timing.

**TANK MIX GEOGRAPHIC USE AREA**

Refer to the ASSURE/ASSURE II Herbicide label for defined application areas and rates. COBRA Herbicide does not have application area restrictions.

**Table 21S.**

**COBRA Herbicide & ASSURE/ASSURE II Tank Mix - Soybeans - Rate and Time of Application Table.**

Product	Product Rate	Weeds Controlled/ Leaf Stage	Adjuvant
COBRA	12.5 fl. oz./A	Refer to Table 2S	0.5% v/v Crop Oil Concentrate/A
<hr/>			
plus	ASSURE/ASSURE II		
ASSURE*	Refer to the ASSURE label for ANNUAL and PERENNIAL grasses controlled and use rate.		
ASSURE II**	Refer to the ASSURE II label for ANNUAL and PERENNIAL grasses controlled and use rate.		

\*The COBRA Herbicide and ASSURE Tank Mix may show some reduction in grass control over application of ASSURE alone. The label rate of ASSURE should be increased by 4 oz. product/A when grasses are at maximum size.

\*\*The COBRA Herbicide and ASSURE II Tank Mix may show some reduction in grass control over application of ASSURE II alone. The label rate of ASSURE II should be increased by 2 oz. product /A when grasses are at maximum size.

**SEQUENTIAL APPLICATION WITH  
COBRA HERBICIDE AND ASSURE/ASSURE II**

**Sequential Applications with COBRA Herbicide**

Some reduction in grass control is possible when ASSURE/ASSURE II is sequentially applied immediately prior to or after an application of COBRA Herbicide.

- After an application of ASSURE/ASSURE II wait a minimum of 24 hours before applying COBRA Herbicide.
- In fields treated with COBRA Herbicide, do not apply ASSURE/ASSURE II until grass plants are again developing new leaves (generally 7 days after the COBRA Herbicide application).
- Refer to the ASSURE/ASSURE II label for application areas and rates.

**MIXING INSTRUCTIONS**

Maintain agitation throughout the spray application. Failure to agitate the spray volume may result in improper mixing of the herbicides and unsatisfactory weed control. Mixing and compatibility qualities should be verified by a jar test.

**COBRA Plus ASSURE/ASSURE II Tank Mix:** Add 1/2 of the required water to the spray tank and begin agitation. Add the required amount of ASSURE/ASSURE II and mix thoroughly. Then add the required amount of COBRA and continue mixing. Finally, add the required amount of crop oil concentrate and the remaining water.

**Use Restrictions for COBRA Herbicide Plus ASSURE/ASSURE II Tank Mix:**

1. Always read and follow all label directions when using any pesticide alone or in tank mix combinations. **The most restrictive labeling applies when using a tank mix.**
2. Do not apply the COBRA plus ASSURE/ASSURE II tank mix less than 80 days before harvesting soybeans.
3. Do not graze treated fields or harvest for forage hay.
4. Do not apply the COBRA plus ASSURE/ASSURE II tank mix if rain is expected within 1 hour of application or unsatisfactory weed control may result.
5. Do not use vegetable (crop origin) oils as spray adjuvant or carrier.
6. Do not apply ASSURE/ASSURE II to plants stressed due to insufficient moisture. Grass weeds under this condition frequently become less sensitive to herbicide activity.
7. Do not cultivate within 7 days before or 7 days after an application of ASSURE/ASSURE II as control may be unsatisfactory.
8. Do not apply ASSURE/ASSURE II when environmental conditions are such that drift to other crops and non-target areas is possible. Grass crops such as corn, sorghum, wheat, rice, etc. are highly sensitive to ASSURE/ASSURE II.
9. Do not apply after pod set.

<p align="center"><b>TANK MIX WITH FUSILADE® DX HERBICIDE FOR CONTROL OF BROADLEAF AND GRASS WEEDS IN SOYBEANS</b></p>
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### GENERAL INFORMATION

For best results the COBRA plus FUSILADE DX Herbicide tank mix should be applied to actively growing weeds.

**Do not** apply COBRA tank mixtures during periods when the soybeans and the weeds are under stress or when conditions do not favor active weed growth. Refer to the COBRA soybean label for application timing.

### TANK MIX GEOGRAPHIC USE AREA

Refer to the FUSILADE DX Herbicide label for defined application areas and rates. COBRA Herbicide does not have application area restrictions.

### Table 22S.

**COBRA Herbicide & FUSILADE DX Herbicide Tank Mix - Soybeans - Rate and Time of Application Table.**

Product	Product Rate	Weeds Controlled/ Weed Size	Adjuvant
COBRA	12.5 fl. oz./A	Refer to Table 2S	0.5% v/v Crop Oil Concentrate/A
_____ plus _____	FUSILADE _____	Refer to the FUSILADE DX Herbicide label for ANNUAL and PERENNIAL grasses controlled and use rate.	
FUSILADE			

### SEQUENTIAL APPLICATION WITH COBRA HERBICIDE AND FUSILADE DX Herbicide

#### Sequential Applications with COBRA Herbicide

Some reduction in grass control is possible when FUSILADE DX Herbicide is sequentially applied immediately prior to or after an application of COBRA Herbicide.

- After an application of FUSILADE DX Herbicide wait a minimum of 24 hours before applying COBRA Herbicide.
- In fields treated with COBRA Herbicide, do not apply FUSILADE DX Herbicide until grass plants are again developing new leaves (generally 7 days after the COBRA Herbicide application).
- Refer to the FUSILADE label for application areas and rates.

### MIXING INSTRUCTIONS

Maintain agitation throughout the spray application. Failure to agitate the spray volume may result in improper mixing of the herbicides and unsatisfactory weed control. Mixing and compatibility qualities should be verified by a jar test.

**COBRA Herbicide Plus FUSILADE DX Herbicide Tank Mix:** Add 1/2 of the required water to the spray tank and begin agitation. Add the required amount of FUSILADE DX Herbicide and mix thoroughly. Then add the required amount of COBRA and continue mixing. Finally, add the required amount of crop oil concentrate and the remaining water.

#### Use Restrictions for COBRA Plus FUSILADE DX Herbicide Tank Mix:

1. Always read and follow all label directions when using any pesticide alone or in tank mix combinations. **The most restrictive labeling applies when using a tank mix.**
2. Do not apply the COBRA plus FUSILADE DX Herbicide tank mix less than 90 days before harvesting soybeans.
3. Do not graze treated fields or harvest for forage hay.
4. Do not apply the COBRA plus FUSILADE DX Herbicide tank mix if rain is expected within 1 hour of application or unsatisfactory weed control may result.
5. Make the last FUSILADE DX Herbicide application to soybeans before bloom.
6. Do not plant rotational grass crops such as corn, sorghum, and cereals within 60 days of last application of FUSILADE DX Herbicide.
7. Avoid drift to all other crops and nontarget areas. Grass crops are highly susceptible to FUSILADE DX Herbicide.

**TANK MIX WITH OPTION® HERBICIDE  
FOR CONTROL OF BROADLEAF AND GRASS WEEDS IN SOYBEANS**

**GENERAL INFORMATION**

For best results the COBRA plus OPTION tank mix should be applied to actively growing weeds. Do not apply COBRA tank mixtures during periods when the soybeans and the weeds are under stress or when conditions do not favor active weed growth. Refer to the COBRA soybean label for application timing.

**TANK MIX GEOGRAPHIC USE AREA**

Refer to the OPTION Herbicide label for defined application areas and rates. COBRA Herbicide does not have application area restrictions.

**Table 23S.**

**COBRA Herbicide & OPTION Herbicide Tank Mix - Soybeans - Rate and Time of Application Table.**

Product	Product Rate	Weeds Controlled/ Weed Size	Adjuvant
COBRA	12.5 fl. oz./A	Refer to Table 2S	0.5% v/v Crop Oil Concentrate/A
_____ plus _____ OPTION	OPTION	Refer to the OPTION label for ANNUAL and PERENNIAL grasses controlled and use rate.	

**SEQUENTIAL APPLICATION WITH  
COBRA HERBICIDE AND OPTION HERBICIDE**

**Sequential Applications with COBRA Herbicide**

Some reduction in grass control is possible when OPTION is sequentially applied immediately prior to or after an application of COBRA Herbicide.

- After an application of OPTION, wait a minimum of 24 hours before applying COBRA Herbicide.
- In fields treated with COBRA Herbicide, do not apply OPTION until grass plants are again developing new leaves (generally 7 days after the COBRA Herbicide application).
- Refer to the OPTION label for application areas and rates.

**MIXING INSTRUCTIONS**

Maintain agitation throughout the spray application. Failure to agitate the spray volume may result in improper mixing of the herbicides and unsatisfactory weed control. Mixing and compatibility qualities should be verified by a jar test.

**COBRA Plus OPTION Tank Mix:** Add 1/2 of the required water to the spray tank and begin agitation. Add the required amount of OPTION and mix thoroughly. Then add the required amount of COBRA and continue mixing. Finally, add the required amount of crop oil concentrate and the remaining water.

**Use Restrictions for COBRA Plus OPTION Tank Mix:**

1. Always read and follow all label directions when using any pesticide alone or in tank mix combinations. **The most restrictive labeling applies when using a tank mix.**
2. Do not apply the COBRA plus OPTION tank mix less than 90 days before harvesting soybeans.
3. Do not graze treated fields or harvest for forage hay.
4. Do not apply the COBRA plus OPTION tank mix if rain is expected within 4 hours of application or unsatisfactory weed control may result.

## COBRA HERBICIDE SEQUENTIAL AFTER SOIL APPLIED HERBICIDE

**PURSUIT PLUS® Herbicide Followed by  
Reduced Rates of COBRA Herbicide**

### GENERAL INFORMATION

Do not apply COBRA during periods when soybeans and the weeds are under stress or when conditions do not favor active weed growth. COBRA should be applied to small, actively growing weeds (normally 14 to 21 days after planting). A timely cultivation approximately one week to ten days after the application of COBRA will assist in weed control.

### IMPORTANT

Read and carefully observe all the precautionary statements, instructions, rotational restrictions and other information appearing on each product's package label.

**Table 24S.**

**PURSUIT PLUS Herbicide and COBRA Herbicide Sequential — Soybeans — Rate and Time of Application Table.**

Product	Product Rate	Weeds Controlled/ Weed Size	Adjuvant
PURSUIT PLUS		Refer to PURSUIT PLUS label for weeds claimed	None
_____postemergence_____			
COBRA	6 to 12.5 fl. oz./A	Refer to Table 2S for weeds controlled at 12.5 fl. oz./A	Refer to Table 1S
		COBRA RATE/A	10 oz. 8 oz. 6 oz.
			Maximum Leaf Stage
		Common Cocklebur	6 4 2
		Common Ragweed	8 6 6

### Use Restrictions for PURSUIT PLUS followed by COBRA Herbicide:

1. Always read and follow all label directions when using any pesticide alone or sequentially. The most restrictive labeling applies when using a tank mix.
2. Do not apply the COBRA less than 90 days before harvesting soybeans.
3. Do not graze treated fields or harvest for forage hay.
4. Do not apply the COBRA if rain is expected within 30 minutes of application or unsatisfactory weed control may result.

**PASSPORT® Herbicide Followed by  
Reduced Rates of COBRA Herbicide**

**GENERAL INFORMATION**

Following an application of PASSPORT, a postemergence application with COBRA may be applied for control of additional broadleaf weed species at lower rates than possible following other preemergence herbicides.

**Do not** apply COBRA during periods when soybeans and the weeds are under stress or when conditions do not favor active weed growth. COBRA should be applied to small, actively growing weeds (normally 14 to 21 days after planting). A timely cultivation approximately one week to ten days after the application of COBRA will assist in weed control.

**IMPORTANT**

Read and carefully observe all the precautionary statements, instructions, rotational restrictions and all other information appearing on each product's package label.

**Table 25S.**

**PASSPORT Herbicide and COBRA Herbicide Sequential — Soybeans — Rate and Time of Application Table.**

Product	Product Rate	Weeds Controlled/ Weed Size	Adjuvant
PASSPORT		Refer to PASSPORT label for weeds controlled	None
_____postemergence_____			
COBRA	6 to 12.5 fl. oz./A	Refer to Table 2S for weeds controlled at 12.5 fl. oz./A	Refer to Table 1S
Product	Product Rate	Weeds Controlled/ Weed Size	Adjuvant
		COBRA RATE/A	10 oz. 8 oz. 6 oz.
			Maximum Leaf Stage
Common Cocklebur		6	4 2
Common Ragweed		8	6 6

**Use Restrictions for PASSPORT Herbicide followed by COBRA Herbicide:**

1. Always read and follow all label directions when using any pesticide alone or sequentially. The **most restrictive labeling applies when using a tank mix.**
2. Do not apply the COBRA less than 85 days before harvesting soybeans.
3. Do not graze treated fields or harvest for forage hay.
4. Do not apply the COBRA if rain is expected within 30 minutes of application or unsatisfactory weed control may result.

# **COBRA HERBICIDE FOR POST DIRECTED APPLICATION IN COTTON**

## **GENERAL INFORMATION**

COBRA Herbicide is a broadspectrum contact herbicide for postemergence directed control of broadleaf weeds in cotton. The postemergence directed applications of COBRA or COBRA tank mixes should use equipment designed to minimize spray solution contacting the cotton plant. This equipment would include spray nozzles positioned a minimum of 3 inches above the soil surface and angled backward so that the spray solution discharges to the rear and underneath the row canopy, nozzles as described above with leaf lifters or shields and/or plastic preformed hooded sprayers positioned to run between the cotton rows, all of which are designed to help reduce spray contact with the cotton plant.

Apply COBRA postemergence as a directed spray application following a preplant incorporated or preemergence herbicide(s) for early season control of grasses and broadleaf weeds. Use COBRA Herbicide as a postemergence directed application when the cotton plant has reached a minimum height of 6 inches and a height difference of 3 to 5 inches has been established between the lower leaves of the cotton plant and the top of the broadleaf weeds.

COBRA Herbicide may also be applied as a layby application after cotton has reached a height of 12 inches or more. Layby applications of COBRA Herbicide will control broadleaf weeds that do not exceed leaf stage recommendations listed in Table 6C of this label. For enhanced control of large mid to late season problem broadleaf weeds, a tank mix of COBRA Herbicide with BLADDEX, KARMEX, or MSMA is required. Refer to the label section on TANK MIXES for specific recommendations. Use of a crop oil concentrate or a non-ionic surfactant is required. Refer to the label section on ADJUVANTS for specific recommendation.

Under conditions of normal weed growth, COBRA may be applied up to 30 minutes before rainfall without reducing weed control.

## **PRECAUTIONS**

COBRA Herbicide should not be applied later than 70 days before harvest. Do not graze animals on green forage or stubble. Do not utilize hay or straw for animal feed or bedding.

### **Groundwater Advisory**

This chemical (lactofen) has properties and characteristics associated with chemicals detected in groundwater. Acifluorfen, a degradate of this chemical, is known to leach through soil into groundwater under certain conditions as a result of labeled use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

## **COTTON TOLERANCE**

Apply COBRA Herbicide to cotton **ONLY** as a **DIRECTED SPRAY** application with nozzles set to deliver the spray mixture toward the base of the cotton plant, as specified in the "Timing" and "Application" sections of this label. Lower leaves which are contacted by the spray mixture will appear spotted or light brown to bronze in color. This response will have no effect on the growth or development of the cotton crop, and all growth following application will be normal.

It is essential to establish a height differential of 3 to 5 inches between the crop and the target weeds prior to application to ensure full coverage of the weed leaf surfaces while minimizing direct contact of the spray mixture with the upper leaves and terminal area of the cotton plant.

COBRA is a contact herbicide. It does not move throughout the cotton plant and it will not vaporize off the soil surface.

**DO NOT** apply COBRA Herbicide **OVER-THE-TOP** of cotton.

## **TIMING**

**Post-Directed:**  
**COTTON 6"**  
**or More**

For best results, COBRA Herbicide should be applied to small, actively growing weeds. Nozzles should be set to spray no higher than the bottom 2 to 3 inches of the cotton stalk (or the top of the bark formation) and still fully cover the target weeds. A properly timed directed spray application will provide control of labeled weeds not larger than indicated in Table 6C.

**Layby:**  
**COTTON 12"**  
**or More**

When weed heights are larger than those listed in Table 6C, a tank mix of COBRA plus BLADDEX, KARMEX, or MSMA is required. Nozzles should be set to spray no higher than the bottom 1/3 of the cotton stalk (up to the first fruiting node) and still fully cover the target weeds. Use of tank mix combinations will provide better control of larger late season troublesome weeds in cotton. See Table 7C for weed size recommendations for COBRA tank mix combinations. Refer to the label section on **TANK MIXES** for specific use directions.

Apply COBRA under conditions that promote active weed growth. **DO NOT** apply COBRA Herbicide when weeds are under stress. Weeds under stress tend to "harden off" and become less susceptible

to herbicide activity. **DO NOT** apply COBRA Herbicide under conditions of drought or when rainfall has been less than 1 inch in a consecutive 2-week period, when excessive water has saturated the field for 3 or more consecutive days or when high temperatures are in combination with low soil moisture or in combination with low humidity. Applying COBRA Herbicide under these conditions may result in unsatisfactory weed control.

Conditions such as those described above which precede or immediately follow a COBRA application may adversely affect the performance of the herbicide.

#### DIRECTED BAND APPLICATION

Directed row banding is required for use of COBRA Herbicide in cotton. Two nozzles per row, one on each side, are required for postemergence directed application. Tractor ground speed should not exceed 5 mph. The spray equipment used should accurately direct the spray pattern to the base of the cotton plant to minimize contact with the cotton plant and provide good coverage of the target weeds. Spray nozzles should be positioned a minimum of 3 inches above the soil surface and angled backward so that the spray solution discharges to the rear and under the row canopy. The use of leaf lifters or shields on application equipment is recommended to help reduce spray contact with the cotton plant. Row banding equipment should be adjusted to provide maximum coverage of weeds in the banding area.

#### SPRAYER CALIBRATION

**FIELD CALIBRATE YOUR SPRAYER:** Improper calibration will adversely affect the spray pattern and reduce weed control. Delivery rates shown in equipment catalogs may not accurately reflect your actual delivery rate. When calibrating, spray pressure should be measured at the spray nozzle to assure accurate delivery rates. Refer to manufacturer's chart for recommended spray volume, spray pressure, and ground speed for the nozzles and the directed spray system you are using.

**HERBICIDE RATES, ADJUVANT RATES AND SPRAY VOLUME RECOMMENDATIONS** are presented as **BROADCAST EQUIVALENTS**, and must be reduced in proportion to the area actually treated. Use the following formulas to calculate the correct rate and volume per planted (field) acre:

$$\frac{\text{Band Width (inches)}}{\text{Row Width (inches)}} \times \text{Broadcast Rate/Acre} = \text{Amount of Herbicide Needed per Field Acre}$$

$$\frac{\text{Band Width (inches)}}{\text{Row Width (inches)}} \times \text{Broadcast Volume/Acre} = \text{Amount of Water Needed per Field Acre}$$

#### CULTIVATION

When postemergence directing COBRA Herbicide at the same time as cultivation, the spray nozzles must be positioned in front of the cultivation equipment. Applying COBRA Herbicide at the time of cultivation under dry soil conditions will cause excessive dust which will prevent proper contact between COBRA Herbicide and the weed surface. This reduced contact will decrease weed control activity. In addition, applying COBRA Herbicide while cultivating at ground speeds greater than 5 mph will prevent good coverage of the weed surface by the spray solution and reduce weed control activity.

#### APPLICATION RATES

**COBRA APPLIED ALONE** - Apply COBRA Herbicide at a rate of 12.5 fl. oz. per acre on a broadcast basis. The sprayer must be equipped with flat fan or off-center fan nozzles designed to deliver 10 to 30 gals. of water per acre when operated at a spray pressure of 20 to 30 PSI measured at the nozzle. Pressures greater than 30 PSI may cause the spray mist to move upward into the cotton canopy resulting in severe crop injury.

Table 1C.

**APPLICATION RATES**  
Post-Directed: COTTON 6" or More  
OR Layby: COTTON 12" or More  
COBRA HERBICIDE

Application Timing	Broadcast Rate/Acre	Comments
Post-directed: COTTON 6" or more		Reduce broadcast rate in proportion to band area actually treated (See SPRAYER CALIBRATION).
OR Layby: COTTON 12" or more	12.5 fl. oz.	

#### ADJUVANTS

The use of recommended adjuvants has consistently enhanced weed control over a wide range of application conditions.

For Post-directed application of COBRA to cotton at least 6" tall, use either a non-ionic surfactant at



2 pts. per 100 gals. spray solution; **OR** crop oil concentrate at .5 to 1 pt. per acre (broadcast basis), if bark formation has begun.  
For Layby application of COBRA to cotton 12" tall (or more), use a crop oil concentrate at 1 to 2 pts. per acre (broadcast basis).

Table 2C.

## ADJUVANT RECOMMENDATIONS

Application Timing	Adjuvant	Broadcast Rate/Acre	Comments
Post-directed: COTTON 6" or more	Crop Oil Concentrate	.5 to 1 pt. (8 to 16 fl. oz.)	Reduce broadcast rate in proportion to band area actually treated (See SPRAYER CALIBRATION).
	<b>OR</b> Non-ionic Surfactant	2 pts. per 100 gals. spray solution	Use prior to bark formation to minimize stalk discoloration.
Layby: COTTON 12" or more	Crop Oil Concentrate	1 to 2 pts. (16 to 32 fl. oz.)	Reduce broadcast rate in proportion to band area actually treated (See SPRAYER CALIBRATION).

## TANK MIXES

**COBRA plus BLADEX®:** Apply a tank mix combination of COBRA Herbicide plus BLADEX 90DF, 80W or 4L at layby after cotton has attained a minimum height of 12 inches and before weeds are larger than listed in Table 7C. Apply COBRA Herbicide at a rate of 12.5 fl. oz. per acre plus BLADEX at a rate of 0.66 to 1.11 lbs. of 90DF, 0.75 to 1.25 lbs. of 80W or 0.7 to 1.0 qt. of 4L per acre on a broadcast basis. The sprayer must be equipped with flat fan or off-center fan nozzles designed to deliver 10 to 30 gals. of water per acre when operated at a spray pressure of 20 to 30 PSI measured at the nozzle. Pressures greater than 30 PSI may cause the spray mist to move upward into the cotton canopy resulting in crop injury. Use of a crop oil concentrate spray additive is required at the rate of 1 to 2 pts. per acre.

Table 3C.

COBRA + BLADEX (90DF, 80W or 4L) TANK MIX  
APPLICATION RATES

Application Timing	Product/Formulation	Broadcast Rate/Acre	Comments
Layby: COTTON 12" or more	COBRA 2E + BLADEX 90D	12.5 fl. oz. .66 to 1.11 lbs. (10.5 to 17.5 oz.)	Reduce broadcast rate in proportion to the band area actually treated (See SPRAYER CALIBRATION.).
	<b>OR</b> 80W	.75 to 1.25 lbs. (12 to 20 oz.)	
	<b>OR</b> 4L	.7 to 1 qt. (22 to 32 fl. oz.)	

**COBRA plus KARMEX®:** Apply a tank mix combination of COBRA Herbicide plus KARMEX 80W, at layby after cotton has attained a minimum height of 12 inches but before weeds are larger than listed in Table 7C. Apply COBRA Herbicide at a rate of 12.5 fl. oz. per acre plus KARMEX at a rate of 8.0 to 12.0 oz. per acre on a broadcast basis. The sprayer must be equipped with flat fan or off-center fan nozzles designed to deliver 10 to 30 gals. of water per acre when operated at a spray pressure of 20 to 30 PSI measured at the nozzle. Pressures greater than 30 PSI may cause the spray mist to move upward into the cotton canopy resulting in crop injury. Use of a crop oil concentrate spray additive is required at the rate of 1 to 2 pts. per acre.

Table 4C.

**COBRA + KARMEX 80W TANK MIX  
APPLICATION RATES**

Application Timing	Product/Formulation		Broadcast Rate/Acre	Comments
Layby: COTTON 12" or more	COBRA +	2E	12.5 fl. oz.	Reduce broadcast rate in proportion to the band area actually treated (See SPRAYER CALIBRATION).
	KARMEX	80W	.5 to .75 lbs. (8 to 12 oz.)	

**COBRA plus MSMA - (COTTON 6" or more):** Apply a tank mix combination of COBRA Herbicide plus MSMA after cotton has attained a minimum height of 6 inches but before cotton reaches the bloom stage. Apply to weeds no larger than listed in Table 6C. Apply COBRA Herbicide at a rate of 12.5 fl. oz. per acre plus MSMA at a rate of 4 pts. per acre of a 4 lbs./gal. or 2.4 pts. per acre of a 6.6 lbs./gal. MSMA on a broadcast basis. The sprayer must be equipped with flat fan or off-center fan nozzles designed to deliver 10 to 30 gals. of water per acre when operated at 20 to 30 PSI measured at the nozzle. Pressure greater than 30 PSI may cause the spray mist to move upward into the cotton canopy resulting in crop injury. While some formulations of MSMA contain added surfactant and provide enough wetting action to enhance COBRA activity, the use of either a non-ionic surfactant at 2 pts. per 100 gals. of spray solution; OR, a crop oil concentrate at .5 to 1 pt. per acre (broadcast basis) may further enhance control of larger weeds.

**COBRA plus MSMA - (COTTON 12" or more):** Apply a tank mix combination of COBRA Herbicide plus MSMA after cotton has attained a minimum height of 12 inches but before cotton reaches the bloom stage. Apply to weeds no larger than listed in Table 6C. Apply COBRA Herbicide at a rate of 12.5 fl. oz. per acre plus MSMA at a rate of 4 pts. per acre of a 4 lbs./gal. or 2.4 pts. per acre of a 6.6 lbs./gal. MSMA on a broadcast basis. The sprayer must be equipped with flat fan or off-center fan nozzles designed to deliver 10 to 30 gals. of water per acre when operated at 20 to 30 PSI measured at the nozzle. Pressures greater than 30 PSI may cause the spray mist to move upward into the cotton canopy resulting in crop injury. While some formulations of MSMA contain added surfactant and provide enough wetting action to enhance COBRA activity, the use of a crop oil concentrate at 1 to 2 pts. per acre (broadcast basis) may further enhance control of larger weeds.

SELECT 2 EC Herbicide at 6 to 8 fl. oz. per acre can be tank mixed with COBRA Herbicide and MSMA at both application timings to control annual and perennial grasses. Refer to SELECT 2 EC label for grasses and grass height to be controlled.

Table 5C.

**COBRA + MSMA TANK MIX  
Post-Directed: COTTON 6" or More  
OR Layby: COTTON 12" or More  
APPLICATION RATES**

Application Timing	Product/Formulation		Broadcast Rate/Acre	Comments
USE BEFORE BLOOM				
Post-Directed: COTTON 6" or more	COBRA +	2E	12.5 fl. oz.	Reduce broadcast rate in proportion to the band area actually treated (See SPRAYER CALIBRATION).
OR	MSMA	4 lbs./gal.	4 pts. (64 oz.)	
Layby: COTTON 12" or more	OR	6.6 lbs./gal.	2.4 pts. (38.4 oz.)	

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Table 6C.

WEEDS CONTROLLED BY COBRA and  
COBRA + MSMA TANK MIX  
Cotton 6" to 8" Tall - Directed Postemergence  
OR Cotton 12" (or more) — Layby  
COBRA RATE - 12.5 fl. oz./Acre

Common Name	Maximum Leaf Stage
Balloonvine	4
Beggarticks	6
Bristly Starbur	4
Buffalobur	4
Burcucumber	4
Carpetweed	8 in. diameter
Common Cocklebur	6
Common Purslane	8 in. diameter
Copperleaf	
Hophornbeam	4
Virginia	4
Croton	
Tropic	4
Woolly	4
Devilsclaw	4
Eclipta	6
Florida Beggarweed	2
Florida Pusley	6
Groundcherry	
Cutleaf	6
Lanceleaf	6
Hairy Galinsoga	4
Hemp Sesbania	6
Jimsonweed	4
Lanceleaf Sage	4
Mexicanweed	4
Morningglory	
Cypressvine	4
Entireleaf	2
Ivyleaf	2
Palmleaf	4
Pitted	4
Purple Moonflower	4
Smallflower	4
Tall	2
Nightshade	
Black	6
Eastern Black	6
Hairy	4
Pigweed	
Palmer Amaranth	6
Prostrate	6
Redroot	6
Smooth	6
Spiny Amaranth	6
Poorjoe	6
Prickly Sida (Teaweed)	4
Puncturevine	1.5 in. diameter
Ragweed	
Common	6
Giant	4
Showy Crotalaria	4
Smell Melon	6
Spurge	
Prostrate	1 in. diameter
Spotted	4
Tall Waterhemp	4
Velvetleaf	4
Venice Mallow	4
Wild Mustard	6
Wild Poinsettia	4
Wild Sunflower	2
Witchweed	6-8 in. prior bloom.

Table 7C.

COBRA + BLADEX TANK MIX/COBRA + KARMEX TANK MIX  
WEEDS CONTROLLED BY COBRA HERBICIDE TANK MIXES  
LAYBY - 12 INCHES OR MORE COTTON  
12.5 fl. oz.

Common Name	Maximum Growth Stage
Common Cocklebur	up to 8 inches
Eclipta	up to 8 inches
Pigweed	
Palmer Amaranth	up to 8 inches
Prostrate	up to 8 inches
Redroot	up to 8 inches
Smooth	up to 8 inches
Spiny Amaranth	up to 8 inches
Spurge	
Prostrate	4 in. diameter
Spotted	up to 6 inches
Tall Waterhemp	up to 6 inches

## DIRECTIONS FOR OUTDOOR USE IN CONIFER SEEDLINGS AND CONIFER NURSERIES

### GENERAL USE INFORMATION

COBRA Herbicide is a selective herbicide for outdoor use in conifer seedlings when used according to this label. COBRA Herbicide may be applied for preemergent and/or postemergent broadleaf weed control in conifer seedbeds, container - grown conifers, and seedling transplants. COBRA Herbicide may be used on the Tolerant Conifer Species listed below in Table A.

Occasionally slight needle burn will be observed on the youngest growth following application. New growth will be normal and the seedlings will continue vigorous growth under favorable environmental conditions.

Crop tolerance is greatest if applications are made following complete stand emergence. Some forking and stunting of seedling may result if COBRA Herbicide is applied to newly emerged seedlings. For maximum crop safety wait until the seedlings have initiated primary shoot growth before applying COBRA Herbicide.

### APPLICATION INSTRUCTIONS

Thoroughly mix COBRA with clean water and apply at 30 to 50 PSI in 20 to 40 gals. per acre. Flat fan or hollow cone nozzles are recommended. Applications made at less than 20 gals. per acre or less than 30 PSI will not provide complete coverage of the weeds and will result in incomplete weed control.

Care should be taken to insure your nursery and species are tolerant to COBRA Herbicide applications. In each nursery it is suggested that COBRA Herbicide be tested on each species in limited areas prior to an operational application.

## USE RESTRICTIONS

1. Do not apply COBRA Herbicide when conifers are under stress from diseases, animal or winter injury, planting shock or other stresses.
2. The total amount of COBRA Herbicide used per season must not exceed 26 fl. oz./A.
3. Do not apply COBRA Herbicide with spray adjuvants while shoot growth is young and has not hardened off.

TABLE A.

COBRA Herbicide Tolerant Conifer Seedling Species	
Douglas Fir	<i>Pseudotsuga menziesii</i>
Noble Fir	<i>Abies procera</i>
Pine Eastern White Loblolly Lodgepole Ponderosa Sand Shortleaf Slash Virginia	<i>Pinus strobus</i> <i>Pinus taeda</i> <i>Pinus contorta</i> <i>Pinus ponderosa</i> <i>Pinus clausa</i> <i>Pinus echinata</i> <i>Pinus pliotii</i> <i>Pinus virginiana</i>

## PREEMERGENT USES

Preemergent applications of COBRA Herbicide should be made to tilled, weed free, planted seedbeds or to weed-free container-grown seedlings after seeding but prior to conifer emergence. COBRA Herbicide may be incorporated with 0.25 to 0.5 inch water following application and before conifer seedling emergence. Do not mechanically incorporate COBRA Herbicide. After preemergent application of COBRA Herbicide to seedbeds, soil should not be disturbed because herbicidal effectiveness will be decreased. A Preemergent (to weeds) application of may be sprayed directly to conifers recently transplanted providing that bud break has not yet occurred. COBRA Herbicide may be used as a preemergent application to conifers, when used as directed in Table B.

TABLE B.

COBRA Herbicide Outdoor Conifer Seedlings -- Preemergent Application		
COBRA Herbicide rate	Adjuvant	Weeds (up to 4 inches)
8 to 16 fl. oz./A	No adjuvant required for preemergent application	Clover ( <i>Trifolium spp.</i> ) Common Chickweed Common Groundsel Common Purslane Common Ragweed Cottonwood ( <i>Populus spp.</i> ) Lambsquarter Mustard species Nightshade species Pearlwort Pigweed species Pineapple weed Sowthistle Spurge Prostrate Spotted Willow ( <i>Salix spp.</i> )

**POSTEMERGENT USES**

Postemergent applications of COBRA Herbicide should be made when weeds are actively growing and no larger than 4 inches in height. COBRA Herbicide works primarily through contact activity. Conifer seedlings will tolerate postemergent treatments when applications are made following complete stand emergence and when the primary shoot growth is complete and has hardened off. Some forking and stunting of seedling may result if COBRA Herbicide is applied to newly emerged seedlings. Conifer transplants will tolerate postemergent treatments when applications are made before bud break or after foliage has had an opportunity to harden off. Occasionally slight needle burn will be observed on the youngest conifer growth following application. New growth will not be adversely affected and conifers will continue vigorous growth under favorable environmental conditions. COBRA Herbicide may be used in postemergent applications to conifers, when used as directed in Table C below.

TABLE C.

COBRA Herbicide Outdoor Conifer Seedlings -- Postemergent Application		
COBRA rate	Adjuvant	Weeds**
6.5 to 16 fl. oz./A*	0.25 % V/V non-ionic surfactant  or 0.125 % V/V crop oil concentrate	Carpetweed Clover ( <i>Trifolium spp.</i> ) Common Chickweed Common Dayflower Common Groundsel Common Purslane Common Ragweed Cottonwood ( <i>Populus spp.</i> ) Dogfennel Eclipta Florida Beggerweed Florida Pusley Hairy Galinsoga Mayweed Morningglory species Mustard species Nightshade species Pearlwort Pigweed species Pineapple Weed Poorjoe Prickly Sida Showy Crotalaria Sowthistle Spurge Prostrate Spotted Tropic Croton Willow ( <i>Salix spp.</i> ) Witchweed Yellow Woodsorrel
* Four applications at weekly intervals of 6.5 fl. oz./A or two applications at two week intervals of 13 fl. oz./A are recommended. ** Weed control should be timed to control up to 4 inch weeds.		

## APPENDIX

The following are scientific names for the weeds listed on this label:

Common Name	Scientific Name
Balloonvine	Cardiospermum halicacabum
Beggarticks	Bidens frondosa
Bristly Starbur	Acanthospermum hispidum
Buffalobur	Solanum rostratum
Burcucumber	Sicyos angulatur
Canada Thistle	Cirsium arvense
Carpetweed	Mollugo verticillata
Clover	Trifolium spp.
Coffee Senna	Cassia occidentalis
Common Cocklebur	Xanthium strumarium
Common Lambsquarters	Chenopodium album
Common Purslane	Portulaca oleracea

Copperleafs	<i>Acalypha ostryifolia</i>
Hophornbeam	<i>Acalypha virginica</i>
Virginia	
Croton	
Tropic	<i>Croton glandulosus</i>
Woolly	<i>Croton capitatus</i>
Dayflower	<i>Commelina</i> spp.
Devilsclaw	<i>Proboscidea louisianica</i>
Dogfennel	<i>Eupatorium capillifolium</i>
Eclipta	<i>Eclipta prostrata</i>
Florida Beggarweed	<i>Desmodium tortuosum</i>
Florida Pusley	<i>Richardia scabra</i>
Galinsoga	<i>Galinsoga</i> spp.
Goosegrass	<i>Eleusine indica</i>
Groundcherry	
Cutleaf	<i>Physalis angulata</i>
Lanceleaf	<i>Physalis lanceifolia</i>
Hairy Galinsoga	<i>Galinsoga ciliata</i>
Hemp Sesbania	<i>Sesbania exaltata</i>
Jimsonweed	<i>Datura stramonium</i>
Kochia	<i>Kochia scoparia</i>
Lanceleaf Sage	<i>Salvia reflexa</i>
Mayweed	<i>Anthemis cotula</i>
Mexicanweed	<i>Caperonia castaniifolia</i>
Milkweeds	
Climbing	<i>Sarcostemma cynanchoides</i>
Common	<i>Asclepias syriaca</i>
Morningglories	
Bigroot(Wild Sweet Potato)	<i>Ipomoea pandurata</i>
Cypressvine	<i>Ipomoea quamoclit</i>
Entireleaf	<i>Ipomoea hederacea</i>
	var. <i>integriuscula</i>
Ivyleaf	<i>Ipomoea hederacea</i>
Palmleaf	<i>Ipomoea wrightii</i>
Pitted	<i>Ipomoea lacunosa</i>
Purple Moonflower	<i>Ipomoea turbinata</i>
Smallflower	<i>Jacquemontia tamnifolia</i>
Tall	<i>Ipomoea purpurea</i>
Nightshades	
Black	<i>Solanum nigrum</i>
Eastern Black	<i>Solanum ptycanthum</i>
Hairy	<i>Solanum sarrachoides</i>
Pigweeds	
Palmer Amaranth	<i>Amaranthus palmeri</i>
Prostrate	<i>Amaranthus blitoides</i>
Redroot	<i>Amaranthus retroflexus</i>
Smooth	<i>Amaranthus hybridus</i>
Spiny Amaranth	<i>Amaranthus spinosus</i>
Poorjoe	<i>Diodia teres</i>
Prickly Sida (Teaweed)	<i>Sida spinosa</i>
Puncturevine	<i>Tribulus terrestris</i>
Ragweeds	
Common	<i>Ambrosia artemisiifolia</i>
Giant	<i>Ambrosia trifida</i>
Redvine	<i>Brunnichia ovata</i>
Showy Crotalaria	<i>Crotalaria spectabilis</i>
Sicklepod	<i>Cassia obtusifolia</i>
Smartweed	
Pennsylvania	<i>Polygonum pennsylvanicum</i>
Swamp	<i>Polygonum coccineum</i>
Smell Melon	<i>Cucumis melo</i>



Spurge	<i>Euphorbia humistrata</i>
Prostrate	<i>Euphorbia maculata</i>
Spotted	<i>Euphorbia serrata</i>
Toothed	<i>Anoda cristata</i>
Spurred Anoda	<i>Helianthus spp.</i>
Sunflower	<i>Amaranthus tuberculatos</i>
Tall Waterhemp	<i>Campsis radicans</i>
Trumpet creeper	<i>Abutilon theophrasti</i>
Velvetleaf	<i>Hibiscus trionum</i>
Venice Mallow	<i>Sinapis arvensis</i>
Wild Mustard	<i>Avena fatua</i>
Wild Oats	<i>Euphorbia heterophylla</i>
Wild Poinsettia	<i>Helianthus annuus</i>
Wild Sunflower	<i>Muhlenbergia frondosa</i>
Wirestem Muhly	<i>Striga asiatica</i>
Witchweed	<i>Oxalis stricta</i>
Yellow Woodsorrel	

## STORAGE AND DISPOSAL

### PROHIBITIONS

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

### STORAGE

Store in cool, dry place.

Keep pesticide in original container.

Do not put concentrate or dilute into food or drink containers.

Not for use or storage in or around the home.

For help with any spill, leak, fire or exposure involving this material call day or night 1-800-892-0099.

### PESTICIDE DISPOSAL

This product is acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### CONTAINER DISPOSAL

Triple rinse (or equivalent). Do not reuse container. Offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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BASAGRAN® — Reg. TM of BASF AG.

BLADDEX® — Reg. TM of E.I. DuPont de Nemours & Co., Inc. for cyanazine herbicide.

CLASSIC® — Reg. TM of E.I. DuPont de Nemours & Co., Inc. for chlorimuron ethyl herbicide.

COBRA® — Reg. TM of Valent U.S.A. Corporation

DUAL® — Reg. TM of Ciba-Giegy Corp. for metolachlor herbicide.

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Manufactured for  
**Valent U.S.A. Corporation**  
Walnut Creek CA 94596-8025  
Form R07100D0.1970120 Made in U.S.A.  
EPA Reg. No. 59639-34  
EPA Est. No. 5905-GA-1

# THE VALENT RETURNABLE KEG

510/52

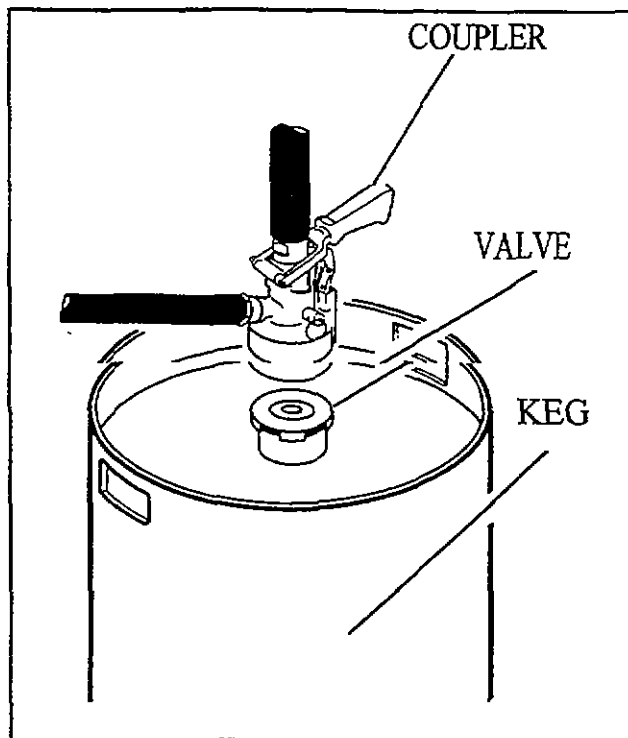
**Description:** This keg is a closed-system, refillable container designed for easy handling and convenient dispensing of product with no container disposal.

**Construction:** The keg is made of all stainless steel. Both the gaskets and seals are Viton and are compatible with the Valent product.

**Pump System:** With the versatility of the keg, either a mechanical pump or an air pressure system may be used to dispense the product.

**Coupler:** A specific dry-disconnect coupler is required for dispensing product from the keg. This coupler is available through local agricultural equipment suppliers.

**Container Capacity:** 15 gallons or 56.7 liters (by weight)



## ATTENTION!

This is a closed-system container. Do not try to remove the valve from the keg. The coupler required for removal of product is available from local agricultural equipment suppliers. The keg contains tamper evident seals that, if broken, will incur a fee for the user of the keg. Both the coupler and the valve are designed for one-way operation only. Never try to pump any type of material back into the keg.

## DIRECTIONS FOR USE

The proper coupler must be attached and engaged before removing any product from the keg. Either a mechanical pump or an air pressure system may be used and connected to the 1-inch NPT thread on the top of the coupler.

**IMPORTANT!** Attach a hose or pump to the coupler before engaging coupler. This will prevent the user from being splashed in the event that pressure build-up in the keg forces liquid up through the coupler.

### To attach and engage the coupler:

1. Pull top of black dust cover back to expose head of valve. The bottom ring of the black dust cover will still be attached to the neck of the valve. Save the dust cover for reuse when returning keg.
2. Before engaging the coupler, securely attach a hose or pump to the threaded connection.
3. Twist coupler onto valve on keg.
4. Secure and engage coupler by pulling handle straight out to unlock and then pushing handle down into lower position to open internal valve. Handle will automatically lock in place.
5. You are now ready to begin the pumping operation.

### To remove coupler from container:

1. Release coupler by pulling handle straight out to unlock and then lifting handle into upper position. Handle will automatically lock in place.
2. Lift coupler from keg. As coupler clears top of valve, pull coupler sideways and lift it off the valve.
3. Wipe valve off and replace dust cover.
4. Flush coupler with water.
5. Wipe coupler and store in a clean place.
6. Properly dispose of cleaning towels and rinsate.

## RETURNING KEGS

Clean the outside of the keg with water or soap before returning the keg to the distributor. Leave all Valent product labels and stickers securely attached. All Valent product labels, stickers and other information must remain on the keg in order to comply with both State and Federal regulations.

All Valent kegs are tracked using the individual keg serial number stamped in the top of the keg. Distributors are responsible for these kegs that have been assigned to them. Return this keg to the distributor from which it was purchased. Notify the distributor if the keg cannot be returned by the specific time.

# Supplemental Label



Valent U.S.A. Corporation  
1333 N. California Blvd., Ste. 600  
Walnut Creek, CA 94596-8025

## PREEMERGENCE APPLICATION OF COBRA® HERBICIDE IN SNAP BEANS IN OREGON AND TENNESSEE ONLY

EPA Reg. No.: 59639-34

### DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.  
Do not apply this product through any type of irrigation system.

### GENERAL INFORMATION

COBRA Herbicide may be utilized as a preemergence soil applied herbicide for control of the annual broadleaf weeds listed below in snap beans. Make a single preemergence application of COBRA Herbicide at the rates shown below depending on soil texture. Use the higher COBRA Herbicide rate on clay loam and finer soil texture and the lower rate on silt loams and coarser textured soils. Apply COBRA Herbicide after planting, but no later than 48 hours following planting. Make one (1) application per season.

### COBRA HERBICIDE PREEMERGENCE CONTROL FOR SNAP BEANS

#### PREEMERGENCE APPLICATION RATES FOR COBRA HERBICIDE IN SNAP BEANS

State	Product Rate	Weeds Controlled
Oregon	12 to 14 fl. oz./A (0.19 - 0.22 lb ai/A)	Hairy Nightshade ( <i>Solanum sarrachoides</i> ) Black Nightshade ( <i>Solanum nigrum</i> ) Redroot Pigweed ( <i>Amaranthus retroflexus</i> )
Tennessee	10 to 16 fl. oz./A (0.16 - 0.25 lb ai/A)	Hairy Nightshade ( <i>Solanum sarrachoides</i> ) Black Nightshade ( <i>Solanum nigrum</i> ) Redroot Pigweed ( <i>Amaranthus retroflexus</i> )

#### Use Restrictions for COBRA Herbicide Applied Preemergence to Snap Beans:

1. Always read and follow all label directions when using any pesticide alone or sequentially. **The most restrictive labeling applies when using a tank mix.**
2. Applications of COBRA Herbicide at ground cracking or later will result in injury (necrosis) to snap beans and may result in a yield reduction and should, therefore, be avoided. **Apply no later than 48 hours after planting.**
3. Do not apply COBRA Herbicide preemergent to snap beans planted in soils with high sand content, specifically sandy loams, loamy sands and gravely sandy loams.
4. Incorporate COBRA Herbicide with 1/4 to 1/2 inch of water following application before soil cracking occurs.
5. COBRA Herbicide should not be soil incorporated with mechanical incorporation equipment.
6. Do not harvest snap beans sooner than 55 days after application of COBRA Herbicide.
7. For preemergence control of grasses, tank mix COBRA Herbicide with appropriate grass herbicide.

#### Groundwater Advisory

This chemical (lactofen) has properties and characteristics associated with chemicals detected in groundwater. Acifluorfen, a degradate of this chemical, is known to leach through soil into groundwater under certain conditions as a result of labeled use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

**THIS LABELING MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF PESTICIDE APPLICATION. PLEASE REFER TO CONTAINER LABEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.**