



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number:

95055-13

Date of Issuance:

8/26/22

NOTICE OF PESTICIDE:

Registration
 Reregistration
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

Robustar 44% SC

Name and Address of Registrant (include ZIP Code):

Melinda Bowman
Principal Consultant for Yifan Biotechnology Group Co., Ltd.
c/o Compliance Services International
7501 Bridgeport Way West
Lakewood, WA 94899

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
2. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, "EPA Reg. No. 95055-13."

Signature of Approving Official:

Shaja B. Joyner, Product Manager 20
Fungicide-Herbicide Branch
Registration Division 7505P

Date:

8/26/22

EPA Form 8570-6

3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

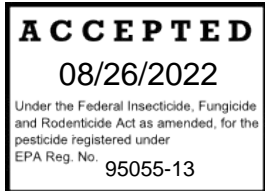
Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 02/23/2022

If you have any questions, please contact Ernest Kraka via email at kraka.ernest@epa.gov.

Enclosure



FLUMIOXAZIN GROUP 14 HERBICIDE

ROBUSTAR 44% SC

ACTIVE INGREDIENT:

Flumioxazin, (2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1H-isoindole-1,3(2H)-dione).....	44%
OTHER INGREDIENTS	56%
TOTAL	100%

Robustar 44% SC is a suspension concentrate containing 44% active ingredient.

KEEP OUT OF REACH OF CHILDREN CAUTION / PRECAUCIÓN

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.)

See [front][back][side][inside] panel for First Aid Instructions and [Leaflet][Booklet] for complete Precautionary Statements and Directions for Use.

FIRST AID	
IF IN EYES:	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none"> Immediately call a poison control center or doctor Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to by the poison control center or doctor. DO NOT give anything to an unconscious person.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
IF INHALED:	<ul style="list-style-type: none"> Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
In the event of a leak, fire or medical emergency involving a human or animal please call INFOTRAC at 1-800-535-5053 or Outside the USA and Canada at 1-352-323-3500, 24/7/365.	

EPA Reg. No. 95055-xxx
xxxxxxV001

EPA Est. No.:
NET CONTENTS:

[Batch Code will be placed on the container.]

Manufactured for:
Yifan Biotechnology Group Co., Ltd.
No. 555, Changan Road, Yaoxi subdistrict,
Longwan district, Wenzhou City, Zhejiang, China 325013

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION:

Causes moderate eye irritation. Harmful if swallowed and absorbed through skin. Avoid contact with eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves: nitrile rubber \geq 14 mils, polyvinyl chloride (PVC) \geq 14 mils, butyl rubber \geq 14 mils, viton \geq 14 mils, and/or barrier laminate
- Shoes plus socks

For aerial application to sugarcane, mixer/loaders must also wear:

- Coveralls
- Chemical-resistant apron and
- Chemical-resistant boots.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with Robustar 44% SC's concentrate. **DO NOT** reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling Robustar 44% SC. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Robustar 44% SC is toxic to non-target plants and aquatic invertebrates. **DO NOT** apply Robustar 44% SC directly to water, to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift or runoff may be hazardous to non-target plants and aquatic organisms in neighboring areas. **DO NOT** apply Robustar 44% SC where runoff is likely to occur. **DO NOT** apply Robustar 44% SC when weather conditions favor drift from treated areas. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

This pesticide is toxic to plants and must be used strictly in accordance with the drift and run-off precautions on this label in order to minimize off-site exposures.

Under some conditions Robustar 44% SC may have a potential to run-off to surface water or adjacent land. Where possible, use methods which reduce soil erosion, including no till, limited till and contour plowing; these methods also reduce pesticide run-off. Use of vegetation filter strips along rivers, creeks, streams, wetlands, or on the downhill side of fields where run-off could occur will minimize water run-off.

NON-TARGET ORGANISM ADVISORY

Robustar 44% SC is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

Important:

Read these entire DIRECTIONS FOR USE and Warranty and Disclaimer Statement before using **Robustar 44% SC**.

Note to EPA reviewer: if Robustar 44% SC is shipped in containers greater than 50 lb, the following environmental hazard statement will be added to the label:

[**DO NOT** discharge effluent containing Robustar 44% SC into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. **DO NOT** discharge effluent containing Robustar 44% SC to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.]

PHYSICAL OR CHEMICAL HAZARDS

DO NOT mix or allow to come into contact with oxidizing agent. Hazardous chemical reaction may occur.

DIRECTIONS FOR USE

It is a violation of Federal law to use Robustar 44% SC 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.

DO NOT apply Robustar 44% SC 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 Robustar 44% SC 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 instructions and exceptions pertaining to statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of Robustar 44% SC 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
- Chemical-resistant gloves including: nitrile rubber \geq 14 mils, polyvinyl chloride (PVC) \geq 14 mils, butyl rubber \geq 14 mils, viton \geq 14 mils, and/or barrier laminate
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of Robustar 44% SC that are NOT within the scope of the Worker Protection Standards for agricultural pesticides (40 CFR Part 170). The WPS applies when Robustar 44% SC is used to produce agricultural plants on farms, forest, nurseries or greenhouses.

Keep all unprotected persons out of operating areas, or vicinity where there may be drift.
DO NOT enter or allow others to enter treated areas until sprays have dried.

PRODUCT INFORMATION

- *Robustar 44% SC* provides residual control of susceptible weeds.
- *Robustar 44% SC* provides additional burndown activity when used as part of a burndown program.
- *Robustar 44% SC* can be applied as part of a fall burndown program for control of susceptible winter annuals.
- *Robustar 44% SC* can be applied with a hooded or shielded sprayer, as well as part of a layby application, in selected crops for postemergence weed control as well as residual control of susceptible weeds.
- *Robustar 44% SC* can be used on farms, orchards and vineyards for non-selective vegetation control to maintain bare ground non-crop areas that must be kept weed free.
- ***Robustar 44% SC*, when applied according to label use directions, will control the weeds claimed in crop specific use directions. This label makes no claims concerning control of other weed species. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.**

<i>Robustar 44% SC</i> Rate Summary	
FL OZ of <i>Robustar 44% SC</i>	Pounds of Flumioxazin A.I.
2	0.065
4	0.131
6	0.196
8	0.261
12	0.392
24	0.783

WEED RESISTANCE MANAGEMENT

Robustar 44% SC, which contains the active ingredient clethodim is a Group 14 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population may contain or develop plants naturally resistant to **Robustar 44% SC** and other Group 14 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies must be followed.

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different sites of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use important to delay the selection for resistance.

The continued effectiveness of Robustar 44% SC depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to Robustar 44% SC:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage. Control weeds early when they are relatively small (less than 4 inches).
- Apply full label rates of Robustar 44% SC at the specified time (correct weed size) to minimize weed escapes.
- Scout fields after application to detect weed escapes or shifts in control of weed species.
- Control weed escapes before they reproduce by seed or proliferate through vegetative propagation. Report any incidence of non-performance of Robustar 44% SC against a particular weed to your local retailer, or county extension agent.
- Contact your crop advisor or extension agent to find out if suspected resistant weeds to this MOA have been found in your region.
- For further information or to report lack of performance or suspected resistance, contact Yifan Bio-tech Group Co. at +86-677-86637855 86630101 or at www.yifanchem.com
- If resistant biotypes of target weeds have been reported, use the application rates of Robustar 44% SC specified for your local conditions. Tank-mix products so that there are multiple effective sites of actions for each target weed.
- If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Group 14 and/or use nonchemical methods to remove escapes as practical, with the goal of preventing further seed production.
- Suspected herbicide-resistant weeds may be identified by these indicators:
 - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds
 - A spreading patch of non-controlled plants of a particular weed species; and
 - Surviving plants mixed with controlled individuals of the same species.
- Additionally, follow as many of the following herbicide resistance management practices as is practical:
 - Use a broad-spectrum soil-applied herbicide with other sites of action as a foundation in a weed control program.
 - Utilize sequential applications of herbicides with alternative sites of action. Rotate the use of Robustar 44% SC with non-Group 14 herbicides.
 - Avoid making more than two applications of Group 14 herbicides within a single growing season unless mixed with an herbicide with a different site of action with an overlapping spectrum for the difficult to control weeds.
 - Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
 - Use good agronomic principles that enhance crop development and crop competitiveness. Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
 - Manage weeds in and around fields, during and after harvest to reduce weed seed production.

MANDATORY SPRAY DRIFT

Aerial Applications:

- **DO NOT** release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators must select nozzles and pressure that deliver medium to coarse droplets in accordance with American Society of Agricultural & Biological Engineers Standard 572 (ASABE §572).
- The boom length must not exceed 65% of the wingspan for airplane or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply Robustar 44% SC when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** Robustar 44% SC apply during temperature inversions.
- **DO NOT** Robustar 44% SC apply during low-level inversion conditions (including fog), when winds are gusty or under other conditions that favor drift. **DO NOT** spray when wind velocity is less than 2 mph or more than 10 mph.
- **DO NOT** apply Robustar 44% SC by air within 40 ft of non-target plants including non-target crops.
- **DO NOT** apply Robustar 44% SC by air within 100 ft of emerged cotton crops.
- **DO NOT** apply Robustar 44% SC by air within 40 ft of streams, wetlands, marshes, ponds, lakes and reservoirs.

Ground Boom Applications:

- Apply with the nozzle height specified by the manufacturer, but no more than 3 feet above the ground or crop canopy. For all other ground applications, the nozzle must be no more than 3 feet from the target vegetation.
- Applicators must select nozzles and pressure that deliver medium to coarse droplets in accordance with American Society of Agricultural & Biological Engineers Standard 572 (ASABE §572).
- **DO NOT** apply Robustar 44% SC when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply Robustar 44% SC during temperature inversions

Boomless Ground Applications:

- Applicators must select nozzle and pressure that deliver Medium or coarser droplets in accordance with American Society of Agricultural and Biological Engineers Standard 572 (ASABE S572).
- **DO NOT** apply Robustar 44% SC when wind speeds exceed 15 miles per hour at the application site.
- **DO NOT** apply Robustar 44% SC during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.

BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size – Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure specified for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size – Aircraft

- Adjust Nozzles - Follow nozzle manufacturers specifications for setting up nozzles. Generally, to reduce fine droplets, orient nozzles parallel with the airflow in flight.

BOOM HEIGHT – Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom must remain level with the crop and have minimal bounce.

RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift. When applying aurally to crops, **DO NOT** release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.** Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

BOOM-LESS GROUND APPLICATIONS

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

HANDHELD TECHNOLOGY APPLICATIONS

Take precautions to minimize spray drift.

ENVIRONMENTAL CONDITIONS AND BIOLOGICAL PERFORMANCE

Preemergence Application (Conventional Tillage)

Important: Crop injury may occur from applications made to poorly drained soils and/or applications made under cool, wet conditions. Risk of crop injury can be minimized by using on well drained soils, planting at least 1.5 inches deep, using high quality seed and completely covering seeds with soil prior to preemergence applications. Treated soil that is splashed onto newly emerged crops may result in temporary crop injury.

Moisture is necessary to activate *Robustar 44% SC* in soil for residual weed control. Dry weather following applications of *Robustar 44% SC* may reduce effectiveness. However, when adequate moisture is received after dry conditions, *Robustar 44% SC* will control susceptible germinating weeds. *Robustar 44% SC* may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a *Robustar 44% SC* application, weed control may be improved by irrigation with at least 1/4 inch of water. If emerged weeds are controlled by cultivation, residual weed control will be reduced.

Burndown Application

For best results, apply *Robustar 44% SC* as part of a burndown program to actively growing weeds. Applying *Robustar 44% SC* under conditions that **DO NOT** promote active weed growth will reduce herbicide effectiveness. **DO NOT** apply *Robustar 44% SC* when weeds are under stress due to drought, excessive water, extremes in temperature, disease or low humidity. Weeds under stress tend to become less susceptible to herbicidal action. *Robustar 44% SC* is most effective when applied under warm sunny conditions.

Reduced residual weed control may occur when burndown applications are made to fields where heavy crop and/or weed residue exist.

Postemergence Application

Only apply *Robustar 44% SC* to healthy crops labeled for postemergence use. **DO NOT** apply *Robustar 44% SC* to crops that have been weakened by disease, drought, flooding, excessive fertilization, soil salts, previously applied pesticides, nematodes, insects or winter injury.

Rainfastness

Robustar 44% SC is rainfast one hour after application. **DO NOT** make applications if rain is expected within one hour of application or postemergence efficacy may be reduced.

Soil Characteristics

Application of *Robustar 44% SC* to soils with high organic matter and/or high clay content may require higher dosages than soils with low organic matter and/or low clay content. Application to cloddy seedbeds can result in reduced weed control.

HERBICIDE RATE

Residual Weed Control (Including Preemergence Applications or Applications as Part of a Fall or Spring Burndown and Fallow Seedbed Program)

Based upon soil characteristics (organic matter content and texture), the most difficult to control weed species being targeted, and the crop being grown, select the proper *Robustar 44% SC* dosage from the rate range tables contained in this label.

CARRIER VOLUME AND SPRAY PRESSURE (Ground Equipment only. See Information for Aerial Equipment under “AERIAL APPLICATION”.)

Preemergence Application (Conventional Tillage)

To ensure uniform coverage, use 10 to 30 gal of spray solution per acre for conventional tillage applications. Nozzle selection must meet manufacturer's gallonage and pressure guidelines for preemergence herbicide application.

Burndown Application (Prior to Crop Emergence)

To ensure thorough coverage in burndown applications, use 15 to 60 gals spray solution per acre. Use 20 to 60 gals per acre if dense vegetation or heavy crop residue is present. Nozzle selection must meet manufacturer's gallonage and pressure guidelines for postemergence herbicide application. **DO NOT** use flood jet nozzles.

Postemergence Application (Emerged Crop)

Check use directions for specific crops in which *Robustar 44% SC* can be applied postemergence. To ensure thorough coverage in burndown applications, use a minimum of 15 gallons spray solution per acre. Use a minimum of 20 gallons per acre if dense vegetation or heavy crop residue is present. Nozzle selection must meet manufacturer's gallonage and pressure guidelines for postemergence herbicide application.

ADDITIVES

Burndown Application (Prior to Crop Emergence)

Postemergence control of weeds from *Robustar 44% SC* tank mixes will require the addition of an agronomically approved adjuvant to the spray mixture. When an adjuvant is to be used with *Robustar 44% SC*, Yifan directs the use of a Chemical Producers and Distributors Association certified adjuvant. Either a crop oil concentrate or methylated seed oil which contains at least 15% emulsifiers and 80% oil or a non-ionic surfactant at 0.25% v/v, may be used when applying *Robustar 44% SC* as part of a burndown program. Some tank mix partners, for example Roundup Power Max®, are formulated with sufficient adjuvants and **DO NOT** require the addition of a crop oil concentrate, methylated seed oil or non-ionic surfactant when tank mixed with *Robustar 44% SC*. The addition of a crop oil concentrate or methylated seed oil may increase the burndown activity on certain weeds including cutleaf evening primrose and Carolina geranium. Verify mixing compatibility qualities by a jar test.

A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lb/A or a 28 to 32% nitrogen solution at 1 to 2 qt/A) may be added to the spray mixture along with either a crop oil concentrate, methylated seed oil or non-ionic surfactant to enhance weed control. The addition of a nitrogen source does not replace the need for a crop oil concentrate, a methylated seed oil or a non-ionic surfactant.

JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND *ROBUSTAR 44% SC*

When using *Robustar 44% SC* and an adjuvant, including in stale seed bed, layby, hooded/shielded or reduced tillage situations, perform a jar test before mixing commercial quantities of *Robustar 44% SC*, when using *Robustar 44% SC* for the first time, when using new adjuvants or when a new water source is being used.

1. Add 1 pt of the water to a quart jar. Use water from the same source and temperature as which will be used in the spray tank mixing operation.
2. For every 3 fl oz of *Robustar 44% SC* per acre (equivalent to 0.98 lb ai/A) of planned application add 1 ml of *Robustar 44% SC* to the water in the jar in step 1. For example, for a planned application of 12 fl oz/A of *Robustar 44% SC* (equivalent to 0.39 lb ai/A) put 4 mls of *Robustar 44% SC* into the test jar of water. Gently mix the jar until product goes into suspension.
3. Add 60 ml (4 Tbsp or 2 fl oz) of the crop oil or methylated seed oil to the quart jar or 1 ml of non-ionic surfactant if it is being used in place of oil, gently mix.
4. If nitrogen is being used, add 16 ml (1 Tbsp or 0.5 fl oz) of the 28 to 32% nitrogen source to the quart jar. If ammonium sulfate is being used, add 19 g AMS to the quart jar in place of the 28 to 32% nitrogen.
5. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
6. An ideal tank mix combination will be uniform and free of suspended particles. Question the choice of adjuvant if any of the following conditions are observed:
 - a) Layer of oil or globules on the mixture's surface.
 - b) Flocculation: fine particles in suspension or as a layer on the bottom of the jar.
 - c) Clabbering: thickening texture (coagulated) like gelatin.

SPRAYER PREPARATION

Before applying *Robustar 44% SC*, start with clean, well maintained application equipment. The spray tank, as well as all hoses and booms, must be cleaned to ensure no residue from the previous spraying operation remains in the sprayer. Some pesticides, including but not limited to, the sulfonyleurea and phenoxy herbicides, (i.e., Classic[®] and 2,4-D respectively) are active at very small amounts and can cause crop injury when applied to susceptible crops. The spray equipment must be cleaned according to the manufacturer's directions for the last product used before the equipment is used to apply *Robustar 44% SC*. If two or more products were tank mixed prior to *Robustar 44% SC* application, follow the most restrictive cleanup procedure.

MIXING INSTRUCTIONS

1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water.
2. If a drift retardant is to be used, add 10 lb of spray grade ammonium sulfate per 100 gallon of spray solution.
3. While agitating, slowly add *Robustar 44% SC* to the spray tank. Agitation creates a rippling or rolling action on the water surface.
4. If tank mixing *Robustar 44% SC* with other labeled herbicides, add water soluble bags first, followed by dry formulations, flowables, emulsifiable concentrates and then solutions. Prepare no more spray mixture than is required for the immediate spray operation.
5. Add any required adjuvants.
6. Fill spray tank to desired level with water. **Continue agitation until all spray solution has been applied.**
7. Mix only the amount of spray solution that can be applied the day of mixing. Apply *Robustar 44% SC* within 6 hours of mixing.

SPRAYER CLEANUP

Spray equipment, including mixing vessels and nurse tanks, must be cleaned each day following *Robustar 44% SC* application. After *Robustar 44% SC* is applied, the following steps must be used to clean the spray equipment:

1. Completely drain the spray tank, rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.
2. Fill the spray tank with clean water and flush all hoses, booms, screens and nozzles.
3. Top off tank, add 1 gallon of 3% household ammonia (or equivalent) for every 100 gallons of water, circulate through sprayer for 5 minutes, and then flush all hoses, booms, screens and nozzles for a minimum of 15 minutes. If diaphragms are being used on the spray boom, loosen diaphragms before flushing the spray system, allowing cleaning solution to spray through the open diaphragm. If spray

lines have any end caps, they must be loosened before flushing the system, allowing cleaning solution to spray through the loosened caps. To enhance removal of *Robustar 44% SC* from the spray system, add a commercial tank cleaner product in place of ammonia and allow the cleaning solution to remain in the pressurized spray system (spray tank, hoses and boom) overnight before flushing the system for a minimum of 15 minutes.

4. Drain tank completely.
5. Add enough clean water to the spray tank to allow all hoses, booms, screens and nozzles to be flushed for 2 minutes.
6. Remove all nozzles and screens and rinse them in clean water.

Thoroughly clean spray equipment, including all tanks, hoses, booms, screens and nozzles, cleaned before it is used to apply postemergence pesticides. Equipment with *Robustar 44% SC* residue remaining in the system may result in crop injury to the subsequently treated crop.

APPLICATION EQUIPMENT

Ensure application equipment is clean and in good repair, nozzles are uniformly spaced on the boom and frequently checked for accuracy.

BROADCAST APPLICATION

Apply *Robustar 44% SC*, and *Robustar 44% SC* tank mixes, with ground equipment using standard commercial sprayers equipped with flat fan or flood nozzles (preemergence applications only) designed to deliver the desired spray pressure and spray volume.

BAND APPLICATION

When banding, use proportionately less water and *Robustar 44% SC* per acre. The rate of *Robustar 44% SC* required per acre, when applied as a banded application, can be calculated with the following formula:

Amount Needed per Acre for Banded Application	=	$\frac{\text{Band Width in Inches}}{\text{Row Width in Inches}}$	X	Rate per Broadcast Acre
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AERIAL APPLICATION

Spray drift away from the site of application may cause damage to non-target vegetation. To minimize drift, apply the largest droplet size consistent with uniform coverage and satisfactory weed control. To obtain satisfactory application and avoid drift, the following directions must be observed:

- **Carrier Volume and Spray Pressure:** When used as part of a burndown weed control program, apply *Robustar 44% SC* in 7 to 10 gallons of water per acre. Application at less than 7 gallons per acre may provide inadequate control. When used for preemergence weed control, apply *Robustar 44% SC* in 5 to 10 gallons of water per acre. The higher gallonage applications afford more consistent weed control. **DO NOT** exceed the nozzle manufacturer's specified pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Nozzle Selection and Orientation:** Formation of very small drops may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray pressure. Use nozzles that produce flat or hollow cone spray patterns. Use non-drip type nozzles, for example 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 the wings or rotors.
- **Adjuvants and Drift Control Additives:** Refer to tank mix partner's label for adjuvant selection. Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

CHEMIGATION

Follow all label directions for crops regarding rates, timing of application, special instructions and precautions.

Apply *Robustar 44% SC* only through center pivot systems. End guns must be turned off due to uneven application. Restriction: **DO NOT** apply *Robustar 44% SC* through any other type of irrigation system.

Crop injury, lack of efficacy or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

The system must be properly calibrated (with water only) to ensure that the amount of *Robustar 44% SC* applied corresponds to the specified rate.

Apply *Robustar 44% SC* in 1/2 to 3/4 inches of water during the first sprinkler set. Allow time for all lines to flush the herbicide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of remaining herbicide, a dye indicator may be injected into the lines to mark the end of the application period. Once chemigation has begun, the run must be completed to ensure no product is left in the system.

If you have any questions about calibration, contact your State Extension Service Specialist, equipment manufacturers or other experts.

Special Precautions for Chemigation

1. **DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
2. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments if the need arises.
3. The system must be free of leaks and clogged nozzles.
4. The pesticide must be supplied continuously for the duration of the aqueous application. An uneven application may cause injury to the crop or poor weed control.
5. Agitation must be maintained in the nurse tank.
6. The sprinkler chemigation system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
7. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.
8. The pesticide injection pipeline must contain a functional, normally closed, solenoid operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
9. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in the case where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
10. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
11. Systems must use a metering pump, for example a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with the pesticides and capable of being fitted with a system interlock.
12. **DO NOT** apply *Robustar 44% SC* when wind speed favors drift beyond the area intended for treatment.

Chemigation Systems Connected to Public Water Systems

1. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to the public water system must contain a functional, reduced pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, discharge the water from the public water system into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. All chemigation systems connected to the public water system must also follow restrictions listed in the preceding section titled “**Special Precautions for Chemigation**”.

APPLICATION WITH DRY BULK FERTILIZERS

Dry bulk fertilizer may be impregnated or coated with *Robustar 44% SC*. Application of dry bulk fertilizer with *Robustar 44% SC* provides weed control equal to, or slightly below, the same rate of *Robustar 44% SC* applied in liquid carriers, due to better coverage with application via spray equipment. Follow label directions for *Robustar 44% SC* regarding rates, special instructions, cautions and special precautions. Apply 400 to 700 lbs. of the fertilizer/herbicide mixture per acre to obtain adequate soil coverage. Apply the mixture to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential to prevent possible crop injury and to obtain uniform weed control.

DO NOT use ammonium nitrate and/or limestone as the sole source of fertilizer, as the *Robustar 44% SC* may not adhere to these materials.

Compliance with all Federal and State regulations relating to blending pesticide mixtures with dry bulk fertilizer, registrations, labeling and application are the responsibility of the individual and/or company offering the fertilizer and *Robustar 44% SC* mixture for sale.

Robustar 44% SC must be premixed with water to form a slurry prior to impregnation on dry bulk fertilizer. For best results, use a minimum of 1 pt of water for each 2 fl oz of *Robustar 44% SC* (equivalent to 0.065 lb ai). Use a minimum of 6 pts of the *Robustar 44% SC* slurry to impregnate 2000 lb of the fertilizer for uniform coverage of the fertilizer. Closed drum, belt, ribbon or other commonly used dry bulk blenders may be used.

The amount of *Robustar 44% SC* required can be calculated with the following formula:

$\frac{\text{fluid ounces of } \textit{Robustar 44\% SC} \text{ per ton of fertilizer}}{\text{fluid ounces of } \textit{Robustar 44\% SC} \text{ per acre}} = \text{fluid ounces of } \textit{Robustar 44\% SC} \text{ per acre} \times 2000 \div \text{pounds of fertilizer per acre}$

Thoroughly clean dry fertilizer blending equipment after *Robustar 44% SC* has been placed in the system to avoid injury to sensitive crops that may be treated with fertilizers blended after the equipment has been used for *Robustar 44% SC*. Rinse the sides of the blender and the herbicide tank with water. Then impregnate the rinsate onto a load of dry fertilizer intended for an approved crop. Use a maximum rate of 1 gallon of rinsate per ton of fertilizer. Follow with 1 to 2 loads of unimpregnated fertilizer in the blender before switching herbicides.

ROTATIONAL RESTRICTIONS

The following rotational crops may be planted after applying *Robustar 44% SC* at the listed rate. Planting earlier than the specified rotational interval may result in crop injury.

- **DO NOT plant any crop, except corn (field), cotton, peanut, soybean, sugarcane and sweet potato earlier than 30 days after applying *Robustar 44% SC*.**

Application Rates (lb ai/A)	Crops	Rotation Intervals
1 fl oz/A (0.033)	Cotton (no-till or strip-till only)	14 days ⁽¹⁾
1.5 to 2 fl oz/A (0.049 to 0.065)	Cotton (no-till or strip-till only)	21 days ⁽¹⁾
2 fl oz/A or less (0.065)	Peanut, Soybean, Sugarcane and Sweet Potato	immediately
	Field Corn (minimum and no-till)	7 days
	Cotton and Field Corn (conventional tillage), Rice, Sorghum, Sunflower, Tobacco and Wheat	30 days ⁽¹⁾
	Barley, Dry and Snap Beans, Flax, Peas, Rye, Safflower and Sweet Corn	3 months
	Alfalfa, Canola, Clover, Oats, Potato, Sugar Beet and all other crops not listed ⁽²⁾	4 months if soil is tilled prior to planting 8 months if no tillage is performed
	Lentil	6 months
Up to 3 fl oz/A (0.098)	Peanut, Soybean, Sugarcane and Sweet Potato	immediately
	Field Corn (minimum and no-till)	14 days
	Field Corn (conventional tillage) and Sorghum	30 days ⁽¹⁾
	Cotton, Rice, Sunflower, Tobacco and Wheat	2 months ⁽¹⁾
	Barley, Dry and Snap Beans, Flax, Pea, Rye, Safflower and Sweet Corn	4 months
	Alfalfa, Clover, Oats, Potato, Sugar Beet	5 months if soil is tilled prior to planting 10 months if no tillage is performed
	Canola and all other crops not listed ⁽²⁾	6 months if soil is tilled prior to planting 12 months if no tillage is performed
	Lentil	7 months
Up to 4 fl oz/A (0.13)	Sugarcane	Immediately
	Alfalfa, Canola, Potato, Sugar Beet and all other crops not listed ⁽²⁾	6 months if soil is tilled prior to planting 12 months if no tillage is performed
	Cotton, Field Corn, Peanut, Rice, Sorghum, Soybean, Sunflower, Tobacco and Wheat	4 months
	Transplanted on raised beds only: melon, pepper and tomato	2 months (if the top 4 inches of the beds have been removed)
6 to 12 fl oz/A (0.20 to 0.39)	Cotton, Field Corn, Peanut, Rice, Sorghum, Soybean, Sunflower, Tobacco and Wheat	9 months
	Alfalfa, Canola, Sugar Beet and all other crops not listed ⁽²⁾ Trees can be transplanted 2 months after an application of <i>Robustar 44% SC</i> ⁽³⁾	12 months if soil is tilled prior to planting 18 months if no tillage is performed

⁽¹⁾ At least one inch of rainfall/irrigation must occur between application and planting or crop injury may occur.

⁽²⁾ Successful soil bioassay must be performed prior to planting these crops.

⁽³⁾ Transplanted apple, apricot, avocado, bushberries (including blueberry), cherry, fig, grape, grapefruit, lemon, nectarine, olive, orange, peach, pear, plum (including dried plum), tangerine and tree nuts (including pistachio) can be planted 2 months after a *Robustar 44% SC* application of 2 to 12 fl oz/A (0.065 to 0.39 lb ai/A).

Table 1. Broadleaf Weeds Controlled by Residual Activity of Robustar 44% SC

BROADLEAF WEED SPECIES				
Section A				
Common Name	Scientific Name	Organic Matter	Soil Type	Application Rate (lb ai/A)
Carpetweed	<i>Mollugo verticillata</i>	Up to 5%	All Soil Types	2 fl oz/A (0.065)
Chickweeds				
Common	<i>Stellaria media</i>			
Mouseear	<i>Cerastium vulgatum</i>			
Dandelion	<i>Taraxacum officinale</i>			
Eclipta	<i>Eclipta prostrate</i>			
Eveningprimrose, Cutleaf	<i>Oenothera laciniata</i>			
Field Pennycress[*]	<i>Thlaspi arvense</i>			
Florida Pusley	<i>Richardia scabra</i>			
Henbit	<i>Lamium amplexicaule</i>			
Lambsquarters, Common	<i>Chenopodium album</i>			
Little Mallow	<i>Malva parviflora</i>			
Marestail/Horseweed	<i>Conyza canadensis</i>			
Mayweed/False Chamomile	<i>Matricaria maritime</i>			
Nightshades				
Black	<i>Solanum nigrum</i>			
Eastern Black	<i>Solanum ptycanthum</i>			
Hairy	<i>Solanum sarrachoides</i>			
Pigweeds				
Redroot	<i>Amaranthus retroflexus</i>			
Smooth	<i>Amaranthus hybridus</i>			
Spiny Amaranth	<i>Amaranthus spinosus</i>			
Tumble	<i>Amaranthus albus</i>			
Prickly Lettuce	<i>Lactuca serriola</i>			
Prickly Sida (Teaweed)	<i>Sida spinosa</i>			
Puncturevine	<i>Tribulus terrestris</i>			
Purslane, Common	<i>Portulaca oleracea</i>			
Radish, Wild	<i>Raphanus raphanistrum</i>			
Redmaids	<i>Calandrinia ciliata var menziessii</i>			
Shepherd's-purse	<i>Capsella bursa-pastoris</i>			
Smallflower Morningglory	<i>Jacquemontia tamnifolia</i>			
Sowthistle, Prickly[*]	<i>Sonchus asper</i>			
Spotted Spurge	<i>Euphorbia maculate</i>			
Venice Mallow	<i>Hibiscus trionum</i>			

[*Not for use in California]

(continued)

Table 1. Broadleaf Weeds Controlled by Residual Activity of Robustar 44% SC (continued)

Section B				
All weeds listed in Section A plus:				
Common Name	Scientific Name	Organic Matter	Soil Type	Application Rates⁽²⁾ (lb ai/A)
Coffee Senna	<i>Cassia occidentalis</i>	Up to 3%	All Soil Types	2 fl oz/A Cotton and Dry Bean (0.065) 2.5 fl oz/A Field Corn and Soybean (0.812) 3 fl oz/A Peanut and all other labeled crops (0.098)
Common Ragweed ⁽¹⁾	<i>Ambrosia artemisiifolia</i>			
False Chamomile[*]	<i>Tripleurospermum maritima</i>			
Florida Beggarweed	<i>Desmodium tortuosum</i>			
Golden Crownbeard	<i>Verbesina encelioides</i>			
Hairy Indigo	<i>Indigofera hirsute</i>	3 to 5%	Coarse and Medium Soils: (sandy loam, loamy sand, loamy, silt-loam, silt, sandy clay, sandy clay loam)	2 fl oz/A Cotton and Dry Bean (0.065) 2.5 fl oz/A Field Corn and Soybean (0.812) 3 fl oz/A Peanut and all other labeled crops (0.098)
Hemp Sesbania	<i>Sesbania exaltata</i>			
Jimsonweed	<i>Datura stramonium</i>			
Kochia	<i>Kochia scoparia</i>			
London Rocket[*]	<i>Sisymbrium irio</i>			
Morningglories ⁽³⁾				
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integrifolia</i>			
Ivyleaf	<i>Ipomoea hederacea</i>			
Red/Scarlet	<i>Ipomoea coccinea</i>			
Tall	<i>Ipomoea purpurea</i>			
Mustard, Wild	<i>Brassica kaber</i>			
Palmer Amaranth	<i>Amaranthus palmeri</i>			
Spurred Anoda	<i>Anoda cristata</i>			
Tropic Croton	<i>Croton glandulosus</i>			
Waterhemp ⁽¹⁾				
Common	<i>Amaranthus rudis</i>	Fine Soils: (silty clay, silty clay loam, clay, clay loam)	2 fl oz/A Cotton and Dry Bean (0.065) 3 fl oz/A Field Corn, Peanut, Soybean and all other labeled crops (0.098)	
Tall	<i>Amaranthus tuberculatus</i>			
Wild Poinsettia	<i>Euphorbia heterophylla</i>			
Yellow Rocket[*]	<i>Barbarea vulgaris</i>			

[*Not for use in California.]

⁽¹⁾A postemergence herbicide, including Cobra® Herbicide, Phoenix™ Herbicide glyphosate (Roundup Ready® soybeans only) may be needed following a preemergence application of Robustar 44% SC to adequately control common ragweed or waterhemp in soybean fields with heavy pressure.

⁽²⁾Robustar 44% SC will provide residual control of these weeds at 2 fl oz/A (0.065 lb ai/A) when applied under a cotton canopy.]

⁽³⁾Morning glory species are not adequately controlled on fine soils or soils with greater than 3% organic matter.

Table 2. Weeds Suppressed by Residual Activity of Robustar 44% SC Application Rates

Broadleaf Weed Species					
Common Name	Scientific Name	Organic Matter	Application Rates (lb ai/A)		
Bristly Starbur	<i>Acanthospermum hispidum</i>	Up to 5%	2 to 3 fl oz/A (0.065 to 0.098)		
Copperleaf, Hophornbeam	<i>Acalypha ostryifolia</i>				
Ragweed, Giant	<i>Ambrosia trifida</i>				
Russian Thistle	<i>Salsola iberica</i>				
Smartweeds					
Ladysthumb	<i>Polygonum persicaria</i>				
Pennsylvania	<i>Polygonum pennsylvanicum</i>				
Smellmelon[*]	<i>Cucumis melo</i>				
Velvetleaf	<i>Abutilon theophrasti</i>				
Wild Buckwheat	<i>Polygonum convolvulus</i>				
Wormwood, Biennial	<i>Artemisia biennis</i>				
Grass Weed Species					
Barnyardgrass	<i>Echinochloa crus-galli</i>			Up to 5%	1.5 to 3 fl oz/A (0.049 to 0.098)
Bluegrass, Annual	<i>Poa annua</i>				
Crabgrass, Large	<i>Digitaria sanguinalis</i>				
Foxtail, Giant	<i>Setaria faberi</i>				
Goosegrass	<i>Eleusine indica</i>				
Lovegrass, California	<i>Eragrostis diffusa</i>				
Panicums					
Fall	<i>Panicum dichotomiflorum</i>				
Texas	<i>Panicum texanum</i>				
Ryegrass, Italian[*]	<i>Lolium multiflorum</i>				
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>				
Cheat	<i>Bromus secalinus</i>				
Downy Brome[*]	<i>Bromus tectorum</i>				

[*Not for use in California]

**DIRECTIONS FOR USE IN FALL AND SPRING PREPLANT BURNDOWN AND FALLOW
SEEDBED PROGRAMS IN FIELD CORN, PEANUT AND SOYBEAN
(Preemergence to Crop)**

[For Use in Arizona, California and Hawaii Only]

PRECAUTIONS

- Observe all rotational intervals prior to planting as listed in the “ROTATIONAL RESTRICTIONS” table.

RESTRICTIONS

- **DO NOT** apply Robustar 44% SC to frozen or snow covered soil.
- **DO NOT** perform any tillage operation after application or residual weed control will be reduced.

FALL BURNDOWN AND FALLOW SEEDBED PROGRAMS

Robustar 44% SC at [2 to 4 fl oz/A (0.065 to 0.13 lb ai/A)] can be used in the fall to provide residual weed control in fields that will be planted the following spring with field corn, peanut or soybean (refer to Rotational Restrictions table for rates and rotational intervals prior to planting). Weeds controlled by residual activity are listed in Table 1 (sections A and B), Broadleaf Weeds Controlled by Residual Activity of *Robustar 44% SC*; Table 3, Weeds Controlled by Fall and Spring Preplant Burndown Programs; and Table 7, Weeds Controlled by Residual Activity of *Robustar 44% SC*. If weeds have emerged at the time of application, use *Robustar 44% SC* in combination with a labeled burndown herbicide. [Application must be made no earlier than October 15 in Region 2 or November 15 in Region 1 or when soil temperature falls below 50°F at a 2 inch depth to maintain residual weed control into the spring (April 1 in Region 1 and May 1 in Region 2) or up until planting, whichever comes first.] *Robustar 44% SC* can be used in a fall burndown or fallow seedbed program [outside of Regions 1 and 2], however the length of residual control may be variable.

Abnormally warm or wet winters will reduce the length of weed control observed in the spring.

[Fall Application Regions:

Region 1: Alabama, Arkansas, Georgia, Kentucky, Mississippi, Oklahoma, Tennessee and Virginia

Region 2: Delaware, Kansas, Illinois, Indiana, Iowa, Maryland, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Pennsylvania, South Dakota, West Virginia and Wisconsin]

Weeds controlled by postemergence or residual activity are listed in Table 3. Preplant burndown treatment tank mixes and rates are:

Herbicide	Product Rate
Program 1⁽¹⁾	
<i>Robustar 44% SC</i> Plus	2 to 3 fl oz/A (equivalent to 0.065 to 0.098 lb ai/A)
glyphosate Plus	0.5 to 1.0 lb ai/A (equivalent to 1 to 2 pt/A of Roundup Original [®])
2,4-D LVE (2,4-D for use on preplant soybeans only) Plus	0.5 to 1.0 lb ai/A (equivalent to 1 to 2 pt/A of 2,4-D 4 LVE)
NIS + AMS	0.5% v/v + 17 lb/100 gals of water

or

Program 2⁽¹⁾	
<i>Robustar 44% SC</i> Plus	2 to 3 fl oz/A (equivalent to 0.065 to 0.098 lb ai/A)
glyphosate Plus	0.5 to 1.0 lb ai/A (equivalent to 1 to 2 pt/A of Roundup Original)
COC ⁽²⁾ or NIS + AMS	1pt/A or 0.5% v/v + 17 lb/100 gals of water

or

Program 3⁽¹⁾	
<i>Robustar 44% SC</i> Plus	2 to 3 fl oz/A (equivalent to 0.065 to 0.098 lb ai/A)
2,4-D LVE (2,4-D for use on preplant soybeans only) Plus	0.5 to 1.0 lb ai/A (equivalent to 1 to 2 pt/A of 2,4-D 4 LVE)
COC	1 pt/A

⁽¹⁾Dicamba (Banvel[®]), at 0.188 lb ai/A (6 fl oz/A of Banvel 4) can be added to Programs 1, 2 & 3 to assist in the control emerged broadleaves. Refer to dicamba label for rotational restrictions.

⁽²⁾Crop oil concentrate has been found to increase glyphosate burndown of emerged cutleaf evening primrose and Carolina geranium.

Table 3. Weeds Controlled by Fall and Spring Preplant Burndown Programs

Weeds Controlled ⁽¹⁾		Postemergence			Residual
		Program 1	Program 2	Program 3	
Common Name	Scientific Name	Weeds 3 inches or less			
Chamomile, False	<i>Matricaria maritima</i>	Yes	Yes	No	Yes
Cheatgrass	<i>Bromus tectorum</i>	Yes	Yes	No	Yes
Chickweed, Common	<i>Stellaria media</i>	Yes	Yes	No	Yes
Chickweed, Mouseear	<i>Cerastium vulgatum</i>	Yes	Yes	No	Yes
Cockle, White	<i>Silene latifolia</i>	No	Yes	Yes	Yes
Dandelion	<i>Taraxacum officinale</i>	Yes	No	Yes ⁽²⁾	Yes
Deadnettle, Purple	<i>Lamium purpureum</i>	Yes	Yes	Yes	Yes
Groundsel, Cressleaf	<i>Senecio glabellus</i>	Yes	Yes	-	Yes
Henbit	<i>Lamium amplexicaule</i>	Yes	Yes	Yes	Yes
Kochia	<i>Kochia scoparia</i>	Yes	Yes	Yes	Yes
Marestail/Horseweed	<i>Conyza canadensis</i>	Yes	Yes ⁽³⁾	Yes	Yes
Mallow, Common	<i>Malva neglecta</i>	Yes	Yes	No	Yes
Prickly Lettuce	<i>Lactuca serriola</i>	Yes	Yes	Yes	Yes
Wormwood, Biennial	<i>Artemisia biennis</i>	Yes	Yes	Yes	Yes
		Weeds 12 inches or less			
Canola, Volunteer	<i>Brassica napus</i>	Yes	Yes	Yes	Yes
Carolina Geranium	<i>Geranium carolinianum</i>	Yes	Yes	Yes	-
Eveningprimrose, Cutleaf ⁽⁴⁾	<i>Oenothera laciniata</i>	Yes	Yes	Yes	Yes
Flixweed	<i>Descurainia sophia</i>	Yes	Yes	Yes	Yes
Mustard, Tansy	<i>Descurainia pinnata</i>	Yes	Yes	Yes	Yes
Mustard, Wild	<i>Brassica kaber</i>	Yes	Yes	Yes	Yes
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	Yes	Yes	Yes	Yes

⁽¹⁾Refer to glyphosate and/or 2,4-D labels for additional weeds controlled and rotational restrictions.

⁽²⁾Use 1 lb ai/A of 2,4-D LVE (equivalent to 2 pt/A of 2,4-D 4 LVE) for control of emerged dandelion.

⁽³⁾Program 2 will not control emerged glyphosate resistant marestail/horseweed.

⁽⁴⁾Use Program 1 to control cutleaf evening primrose that are nearing 12 inches in height or are past the rosette stage. Use Programs 2 or 3 to control cutleaf evening primrose that are 12 inches or less and in the rosette stage.

SPRING BURNDOWN PROGRAMS

Robustar 44% SC can be used in combination with labeled preplant burndown herbicides to assist in the postemergence burndown of emerged weeds and provide residual weed control prior to crop emergence. Weeds controlled by residual activity are listed in Table 1.

No-till planters that incorporate the soil during planting may result in decreased weed control in the row. Apply *Robustar 44% SC* after planting peanuts and soybeans when these types of planters are used (within 3 days after planting soybeans, within 2 days after planting peanuts and before the crop emerges). *Robustar 44% SC* cannot be applied after planting field corn.

Robustar 44% SC can be used at [1 to 3 fl oz/A (equivalent to 0.033 to 0.098 lb ai/A)] with labeled preplant burndown herbicides to enhance the speed of burndown and increase weed spectrum.

Robustar 44% SC can be used at [1 to 3 fl oz/A (equivalent to 0.033 to 0.098 lb ai/A)] [1 to 2 fl oz/A (equivalent to 0.033 to 0.065 lb ai/A)] in field corn, peanut and soybean burndown programs. See “DIRECTIONS FOR USE IN FIELD CORN”, “DIRECTIONS FOR USE IN PEANUT”, “DIRECTIONS FOR USE IN SOYBEAN” for more information.

**DIRECTIONS FOR USE IN FALL AND SPRING BURNDOWN
PROGRAMS IN COTTON AND SUGARCANE**
[For Use in Arizona, California and Hawaii Only]

PRECAUTIONS

- *Robustar 44% SC* can be used at [1 to 2 fl oz/A (equivalent to 0.033 to 0.065 lb ai/A)] with labeled burndown herbicides to enhance the speed of burndown and increase weed spectrum.
- A minimum of 30 days must pass, and 1 inch of rainfall/irrigation must occur, between *Robustar 44% SC* application and planting of conventionally tilled cotton.
- A minimum of 14 days must pass, and 1 inch of rainfall/irrigation must occur, between *Robustar 44% SC* application and planting of no-till or strip-till cotton when a *Robustar 44% SC* rate of 1 fl oz/A (equivalent to 0.033 lb ai/A) is used and 21 days when a *Robustar 44% SC* rate of 1.5 to 2 fl oz/A (equivalent to 0.049 to 0.065 lb ai/A) is used. The field must contain the stubble from the previous crop.
- *Robustar 44% SC* can be applied as part of a burndown application to sugarcane until cane emergence.
- Observe all rotational intervals prior to planting as listed in the “ROTATIONAL RESTRICTIONS” table.
- Refer to most restrictive label for minimum interval between application and planting.

RESTRICTIONS

- **DO NOT** apply *Robustar 44% SC* to frozen or snow covered soil.
- **DO NOT** perform any tillage operation after application or residual weed control will be reduced.

FALL BURNDOWN PROGRAMS

Robustar 44% SC at [2 to 4 fl oz/A (equivalent to 0.065 to 0.13 lb ai/A)] can be used in the fall to provide residual weed control in fields that will be planted the following spring with cotton or sugarcane (refer to Rotational Restrictions table for rates and rotational intervals prior to planting). Weeds controlled by residual activity are listed in Table 1 and Table 7. If weeds have emerged at the time of application, use *Robustar 44% SC* in combination with a labeled burndown herbicide. [Application must be made no earlier than October 15 in Region 2 or November 15 in Region 1 or when soil temperature falls below 50°F at a 2 inch depth to maintain residual weed control into the spring (April 1 in Region 1 and May 1 in Region 2) or up until planting, whichever comes first.] [*Robustar 44% SC* can be used in a fall burndown or fallow seedbed program outside of Regions 1 and 2.]

Abnormally warm or wet winters will reduce the length of weed control observed in the spring.

SPRING BURNDOWN PROGRAMS

Robustar 44% SC at [1 to 2 fl oz/A (equivalent to 0.033 to 0.065 lb ai/A)] can be used in combination with labeled preplant burndown herbicides to assist in the postemergence burndown of emerged weeds and provide residual weed control prior to crop emergence in fields that will be planted with cotton or sugarcane. Weeds controlled by residual activity are listed in Table 1.

No-till planters that incorporate the soil during planting may result in decreased weed control in the row.

**DIRECTIONS FOR USE IN FALL AND SPRING BURNDOWN PROGRAMS IN RICE,
SORGHUM, SUNFLOWER, TOBACCO AND WHEAT
(Preplant to Crop)**

[For Use in Arizona, California and Hawaii Only]

PRECAUTIONS

- *Robustar 44% SC* can be used at [1 to 2 fl oz/A (equivalent to 0.033 to 0.065 lb ai/A)] with labeled burndown herbicides to enhance the speed of burndown and increase weed spectrum. A minimum of 30 days must pass, and 1 inch of rainfall/irrigation must occur, between *Robustar 44% SC* application and planting of rice, sorghum, sugarcane, sunflowers, tobacco or wheat. Refer to most restrictive label for minimum interval between application and planting.

RESTRICTIONS

- **DO NOT** apply *Robustar 44% SC* to frozen or snow covered soil.
- **DO NOT** perform any tillage operation after application or residual weed control will be reduced.
- Observe all rotational intervals prior to planting as listed in the “ROTATIONAL RESTRICTIONS” table.

FALL BURNDOWN PROGRAMS

Robustar 44% SC can be used in combination with labeled burndown programs to control emerged weeds and provide residual weed control in fields that will be planted the following spring (refer to Rotational Restrictions table for rates and rotational intervals prior to planting). [Application must be made no earlier than October 15 in Region 2 or November 15 in region 1 or when soil temperature falls below 50°F. at a two inch depth to maintain residual weed control into the spring.]

Abnormally warm winters may reduce the length of weed control observed in the spring.

SPRING BURNDOWN PROGRAMS

Robustar 44% SC can be used in combination with labeled burndown programs to control emerged weeds and provide residual weed control prior to crop emergence. Weeds controlled by residual activity are listed in Table 1 Section A. Crops that will be planted following application must be in compliance with the rotational interval listed in the “Rotational Restriction” table above.

No-till planters that incorporate the soil during planting may result in decreased weed control in the row.

**DIRECTIONS FOR USE IN FALL BURNDOWN PROGRAMS IN FIELDS TO BE PLANTED TO
BARLEY, FIELD PEAS, FLAX, LENTIL, SAFFLOWER, SUNFLOWER AND SPRING WHEAT
(Preplant to Crop)**

[For Use in Arizona, California and Hawaii Only]

PRECAUTIONS

- *Robustar 44% SC* can be mixed with 2,4-D and/or glyphosate formulations labeled for burndown programs (preplant to crop) in accordance with the most restrictive label limitations and precautions.

RESTRICTIONS

- **DO NOT** apply *Robustar 44% SC* to frozen or snow covered soil.
- **DO NOT** perform any tillage operation after application or residual weed control will be reduced.
- **DO NOT** mix *Robustar 44% SC* with any product containing a label prohibition against such mixing.
- Observe all rotational intervals prior to planting as listed in the “ROTATIONAL RESTRICTIONS” table.

FALL BURNDOWN PROGRAMS

Robustar 44% SC can be used at [2 to 4 fl oz/A (equivalent to 0.065 to 0.13 lb ai/A)] with labeled burndown herbicides to enhance the speed of burndown, increase weed spectrum and provide residual weed control of the weeds listed in Table 3 until the following spring. Rotational intervals must be followed for crop to be planted in the spring following the fall *Robustar 44% SC* application. Refer to most restrictive label for minimum interval between application and planting.

DIRECTIONS FOR USE IN FALLOW LAND

[For Use in Arizona, California and Hawaii Only]

Robustar 44% SC may be used as a preemergence fallow treatment. Weeds controlled by residual activity are listed in Table 1.

Robustar 44% SC at [2 to 4 fl oz/A (equivalent to 0.065 to 0.13 lb ai/A)] can be used in the fall to provide residual weed control in fallow fields (refer to Rotational Restrictions table for rates and rotational intervals prior to planting). If weeds have emerged at the time of application, use *Robustar 44% SC* in combination with a labeled fallow herbicide. [Application must be made no earlier than October 15 in Region 2 or November 15 in Region 1 or when soil temperature falls below 50°F at a 2 inch depth to maintain residual weed control into the spring (April 1 in Region 1 and May 1 in Region 2).] Abnormally warm or wet winters will reduce the length of weed control observed in the spring.

Robustar 44% SC at [1 to 4 fl oz/A (equivalent to 0.033 to 0.13 lb ai/A)] can be used in spring in combination with labeled burndown herbicides to control emerged weeds and provide residual weed control.

DIRECTIONS FOR USE IN ESTABLISHED ALFALFA

PRECAUTIONS

- Only apply with an adjuvant or tank mix with products formulated as an emulsifiable concentrate “EC” when targeting control of emerged weeds (expect and accept crop burn and/or stunting if *Robustar 44% SC* is used with an adjuvant, a tank mix partner formulated as an emulsifiable concentrate (EC) or a tank mix partner formulated with an adjuvant.)
- Application with paraquat can be used to burndown winter annuals prior to winter dormant period.

RESTRICTIONS

- **DO NOT** apply more than 4 fl oz of *Robustar 44% SC* per acre (equivalent to 0.13 lb ai/A) per application.
- **DO NOT** apply more than 2 applications of *Robustar 44% SC* per acre per year at the 2 fl oz/A (0.13 lb ai/A) rate
- **DO NOT** apply more than 8 fl oz of *Robustar 44% SC* per acre (equivalent to 0.26 lb ai/A) per year.
- **DO NOT** make a sequential *Robustar 44% SC* application within 60 days of the first *Robustar 44% SC* application.
- **DO NOT** apply *Robustar 44% SC* to alfalfa with greater than 6 inches of growth. Application will result in burning of treated leaves and stems. **Understand and accept this risk before using *Robustar 44% SC* on alfalfa.**
- **DO NOT** apply *Robustar 44% SC* within 25 days of harvest or grazing.
- **DO NOT** use *Robustar 44% SC* on alfalfa grown for seed unless approved by a State authority to support a Special Local Need (SLN) under FIFRA section 24(c).
- **DO NOT** use *Robustar 44% SC* on intended mixed alfalfa-grass stands.

TIMING TO ALFALFA

Robustar 44% SC may be applied to established alfalfa with a maximum amount of growth of 6 inches or less for the preemergence control of the weeds listed in Table 7, Weeds Controlled by Residual Activity of *Robustar 44% SC*. Established alfalfa is defined as alfalfa planted in the fall or spring which has gone through a first cutting/mowing. Application to alfalfa with greater than 6 inches of growth may result in unacceptable crop injury.

For control of winter annual weeds: the best timing for preemergence control is in the fall immediately after the last cutting or sheepling-off has occurred.

For control of summer annual weeds: the best timing for preemergence control is in the spring prior to alfalfa growth and before 6 inches of growth.

TIMING TO WEEDS

Preemergence – Preemergence To Weeds

Apply *Robustar 44% SC* before alfalfa growth exceeds 6 inches in height for the preemergence control of weeds listed in Table 7, Weeds Controlled by Residual Activity of *Robustar 44% SC*. Make applications as soon as possible after cutting and removing alfalfa to minimize injury to alfalfa growth.

Postemergence Dodder Suppression

Apply *Robustar 44% SC* at 4 fl oz per acre (equivalent to 0.13 lb ai/A) with an adjuvant for postemergence suppression of dodder. Tank mixes with Pursuit® Herbicide or Raptor® Herbicide will increase control.

DIRECTIONS FOR USE IN ARTICHOKE

PRECAUTIONS

- Application to artichoke foliage may result in unacceptable crop injury.

RESTRICTIONS

- **DO NOT** apply more than 4 fl oz of *Robustar 44% SC* per acre (equivalent to 0.13 lb ai/A) per application on annual or perennial artichoke varieties after new planting.
- **DO NOT** apply more than 6 fl oz of *Robustar 44% SC* per acre (equivalent to 0.20 lb ai/A) per application on perennial artichoke varieties after cutback.
- **DO NOT** make more than 1 application of *Robustar 44% SC* per acre per year at the 6 fl oz/A (0.13 lb ai/A) rate.
- **DO NOT** apply more than 6 fl oz of *Robustar 44% SC* per acre (equivalent to 0.20 lb ai/A) per year.

TIMING TO ARTICHOKE

Annual Varieties: *Robustar 44% SC* may be applied to artichoke beds prior to transplanting.

Application of *Robustar 44% SC* must be made to the beds no later than 2 days prior to transplanting. Irrigation or rainfall after transplanting is necessary to activate the *Robustar 44% SC*.

DO NOT irrigate the *Robustar 44% SC* before transplanting. Heavy irrigation or rainfall may result in crop injury. The injury is usually transitory and the plants will quickly grow out of the crop damage.

Take care to minimize soil disturbance during transplanting, as preemergence weed control will decrease as soil disturbance increases.

Perennial Varieties: *Robustar 44% SC* may be applied to artichokes after planting of crown pieces or “cut back” of mature plants. Applications of *Robustar 44% SC* must be made within 2 days after planting or cut back and prior to artichoke emergence. Application after the artichokes have begun to crack, or are emerged, will result in crop injury. Apply before artichokes have begun to emerge (cracking).

TIMING TO WEEDS

Pre-plant (annual)/Preemergence (perennial) to Artichokes - Preemergence to Weeds

Apply *Robustar 44% SC* pre-plant to annual artichokes for preemergence control of the weeds. For perennial artichokes apply before cracking for preemergence control the weeds. Apply prior to weed emergence. A post-emergence herbicide may be necessary to control emerged weeds. *Robustar 44% SC* may be applied to annual or perennial artichokes as specified above for preemergence control of weeds listed in Table 7, Weeds Controlled by Residual Activity of *Robustar 44% SC*.

DIRECTIONS FOR USE IN ESTABLISHED ASPARAGUS

PRECAUTIONS

- Apply only to dormant asparagus no less than 14 days before spears emerge. Application to non-dormant asparagus may result in unacceptable crop injury.

RESTRICTIONS

- **DO NOT** apply more than 6 fl oz of Robustar 44% SC per acre (equivalent to 0.20 lb ai/A) per application.
- **DO NOT** make more than 1 application of *Robustar 44% SC* per acre per year at the 6 fl oz/A (0.13 lb ai/A) rate.
- **DO NOT** apply more than 6 fl oz of Robustar 44% SC per acre (equivalent to 0.20 lb ai/A) per year.
- **[DO NOT** work soil within 60 days prior to application in the spring. Soil can be worked after spear harvest in preparation for *Robustar 44% SC* application prior to fern emergence. Treated soil that is splashed onto the ferns may result in spotting.]

TIMING TO ASPARAGUS - Dormant

Robustar 44% SC may be applied to dormant asparagus for preemergence control of the weeds listed in Table 10, Weeds Controlled by Preemergence Application of *Robustar 44% SC*. Application to non-dormant asparagus will result in unacceptable crop injury. Apply a minimum of two weeks before spear emergence. Scoring may result if a minimum of 0.5 inch of either rainfall or irrigation has not occurred two weeks prior to emergence.

TIMING TO ASPARAGUS – Post Harvest

Apply *Robustar 44% SC* after the final harvest of the year, but prior to fern emergence, for preemergence control of the weeds listed in Table 10, Weeds Controlled by Preemergence Application of *Robustar 44% SC*. Application after fern emergence will result in unacceptable crop injury. Apply no less than two weeks prior to fern emergence and must be sprinkler or rainfall incorporated with 1/2 to 3/4 inches of water. Add a burndown tank mix partner for the control of emerged weeds labeled for asparagus in accordance with the most restrictive labeled limitations and precautions.

TIMING TO WEEDS

Burndown – Dormant Asparagus, Postemergence to Weeds

Robustar 44% SC may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds where asparagus is dormant. For control of emerged weeds, tank mix *Robustar 44% SC* with paraquat. Refer to paraquat label for rates and application parameters. To ensure thorough coverage, use a minimum of 15 gallons of spray solution per acre. *Robustar 44% SC* tank mixes applied to assist in the control of emerged weeds must be applied with a non-ionic surfactant at 0.25% v/v. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lb/A or 28 to 32% nitrogen solution at 1 to 2 qt/A) may be added to increase herbicidal activity.

Burndown – After Last Harvest of Season, Postemergence to Weeds

Use *Robustar 44% SC* for residual weed control and to assist in postemergence burndown for many annual and perennial weeds where asparagus harvest has been completed for the year. For control of emerged weeds, use a labeled tank mix partner with activity on the emerged weeds.

Preemergence – Dormant Asparagus or After Last Harvest of the Year, Preemergence to Weeds

Apply *Robustar 44% SC* for the preemergence control of weeds listed in Table 10, Weeds Controlled by Preemergence Application of *Robustar 44% SC*.

DIRECTIONS FOR USE ON BRASSICA HEAD AND STEM VEGETABLES CROP GROUP 5-16

Includes: Broccoli; Brussels Sprouts; Cabbage; Cabbage, Chinese, napa; Cauliflower; cultivars, varieties, and/or hybrids of these.

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ROW MIDDLES

PRECAUTIONS

- *Robustar 44% SC* can only be applied in row middles between raised plastic mulched beds that are at least **4 inches higher** than the treated row middle and the mulched bed must have **a minimum of a 24-inch bed width**.
- Spray must remain between raised beds and contact no more than the bottom 1 inch of the side of the raised bed.
- All applications must be made with shielded or hooded equipment.
- Injury can occur if soil particles treated with *Robustar 44% SC* contact the crop.
- A rainfall after application but prior to transplanting is required.

RESTRICTIONS

- **DO NOT** apply *Robustar 44% SC* after crops are transplanted.
- **DO NOT** apply more than 3 fl oz of *Robustar 44% SC* per acre (equivalent to 0.098 lb ai/A) per application.
- For Cabbage **DO NOT** apply more than 4 oz of *Robustar 44% SC* per acre (equivalent to 0.13 lb ai/A) per application.
- **DO NOT** make more than 2 applications of *Robustar 44% SC* per acre per year at the 3 fl oz/A (0.098 lb ai/A) rate
- For Cabbage **DO NOT** make more than 2 applications of *Robustar 44% SC* per acre per year at the 4 fl oz/A (0.13 lb ai/A) rate
- **DO NOT** apply more than 6 fl oz of *Robustar 44% SC* per acre (equivalent to 0.20 lb ai/A) per year.
- For Cabbage **DO NOT** apply more than 8 oz of *Robustar 44% SC* per acre (equivalent to 0.26 lb ai/A) per year.

RATE

Up to 4 fl oz per acre (equivalent to 0.13 lb ai/A per application).

TIMING TO CROP

Robustar 44% SC may be applied at 3 fl oz per acre (equivalent to 0.098 lb ai/A) (except cabbage may be applied at 4 oz/A, (equivalent to 0.13 lb ai/A) as a shielded or hooded application to row middles after plastic is laid up to transplanting. Transplanting or seeding can take place any time after spray has dried. Spray must be directed to the row middle and contact no more than approximately the bottom 1 inch of the side of the raised bed. If the top of the mulch beds (where plants are to be transplanted) is contacted, severe injury can occur due to foliage contact with treated plastic.

WEED CONTROL AND TANK MIXING

Robustar 44% SC provides preemergence residual control of the weeds listed in Table 7, Weeds Controlled by Residual Activity of *Robustar 44% SC*, as well as to assist in the postemergence control of emerged weeds. A registered preemergence grass herbicide may be added for control of additional grassy weeds. For control of emerged weeds, tank mix *Robustar 44% SC* with paraquat, Aim™, glyphosate, or other registered burndown herbicide. Refer to tank mix partner label for rates and application parameters.

DIRECTIONS FOR USE ON CACTUS (PRICKLY PEAR)

PRECAUTIONS

- Raise mower height during all mowing to reduce dust. Dust created by mowing can drift onto desirable vegetation resulting in injury.
- Follow the most restrictive label limitations and precautions of the tank mix product(s) being used.
- Avoid direct or indirect spray contact to foliage.

RESTRICTIONS

- **DO NOT** apply more than 12 fl oz of Robustar 44% SC per acre (equivalent to 0.39 lb ai/A) per application.
- **DO NOT** make more than 2 applications of *Robustar 44% SC* per acre per year at the 6 fl oz (0.20 lb ai) rate.
- **DO NOT** apply more than 12 fl oz of Robustar 44% SC per acre (equivalent to 0.39 lb ai/A) per year.
- Use a maximum *Robustar 44% SC* rate of 6 fl oz/A (equivalent to 0.20 lb ai/A) per application on any soil that has a sand plus gravel content over 80% if plants are less than 3 years of age. (Two applications of 6 fl oz/A [equivalent to 0.20 lb ai/A] in a 12 month period can still be made as long as there have been 60 days between applications).
- **DO NOT** apply Robustar 44% SC to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- **DO NOT** mow treated areas. Dust created by mowing may drift onto desirable vegetation resulting in injury.
- **DO NOT** apply Robustar 44% SC within 60 days prior to harvest.
- **DO NOT** apply Robustar 44% SC to plants established less than one year.

Apply *Robustar 44% SC* as a uniform broadcast application to the plantation floor or as a uniform band directed at the base of the cactus. The preferred application timing for *Robustar 44% SC* is in the fall to maximize the potential for rainfall to activate and set the herbicide. **DO NOT** apply over the top of crop or allow spray to come in contact with crop as a result of application or drift.

Preemergence Application

Apply 6 to 12 fl oz of *Robustar 44% SC* per broadcast acre (equivalent to 0.20 to 0.39 lb ai/A) as a preemergence application. *Robustar 44% SC* applications must be made prior to weed emergence for control of weeds listed in Table 10, Weeds Controlled by Preemergence Application of *Robustar 44% SC*. Make preemergence (to weed emergence) applications of *Robustar 44% SC* to a weed-free soil surface. Preemergence applications of *Robustar 44% SC* must be completed prior to weed emergence. Moisture is necessary to activate *Robustar 44% SC* on soil for residual weed control. Dry weather following application of *Robustar 44% SC* may reduce effectiveness. However, when adequate moisture is received after dry conditions, *Robustar 44% SC* will control susceptible germinating weeds.

[Postemergence Application

Apply 6 to 12 fl oz of *Robustar 44% SC* per broadcast acre (equivalent to 0.20 to 0.39 lb ai/A) plus an adjuvant (0.25% v/v non-ionic surfactant or 1 qt/A crop oil concentrate). The addition of an adjuvant enhances *Robustar 44% SC* activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of *Robustar 44% SC*.

Refer to Table 13, Weeds Controlled by Postemergence Activity of *Robustar 44% SC* for weeds controlled by the residual activity of *Robustar 44% SC*. Tank mix *Robustar 44% SC* with a labeled burndown herbicide for control of the emerged weeds.

Residual weed control will be reduced if vegetation prevents the *Robustar 44% SC* from reaching the soil surface. If vegetation is heavy, use a burndown herbicide with *Robustar 44% SC* and make a sequential *Robustar 44% SC* application prior to the emergence of new weeds.]

Carrier Volume and Spray Pressure

To ensure thorough coverage in burndown applications, use a minimum of 15 gallons of spray solution per acre. Use higher gallonage if dense vegetation or heavy crop residue is present.

Nozzle selection must meet manufacturer's gallonage and pressure guidelines.

Banded Application

Rates listed in Table 13, Weeds Controlled by Postemergence Activity of *Robustar 44% SC Tank Mixes*, refer to a broadcast application covering the entire acre. Refer to the Band Application table in Use Information Section to calculate amount needed per acre when making a banded application.

DIRECTIONS FOR USE IN CELERY

[For Use in] [California,] [Michigan and Wisconsin Only]

[PRECAUTIONS]

- [In the state of California, use as pre-transplant application only.]

RESTRICTIONS

- **DO NOT** apply more than 3 fl oz of Robustar 44% SC per acre (equivalent to 0.098 lb ai/A) during a pre-transplant application.
- **DO NOT** apply more than 3 fl oz of Robustar 44% SC per acre (equivalent to 0.098 lb ai/A) during a post-transplant application.
- **DO NOT** make more than 1 application of *Robustar 44% SC* per acre per year at the 3 fl oz/A (0.098 lb ai/A) rate.
- **DO NOT** apply more than 3 fl oz of Robustar 44% SC per acre (equivalent to 0.098 lb ai/A) during per year.
- **DO NOT** use Robustar 44% SC with an adjuvant
- Post-transplant applications must be made between 3 to 7 days following transplanting.
- **DO NOT** apply Robustar 44% SC as part of a tank mix.

TIMING TO CELERY

Apply *Robustar 44% SC* at 3 fl oz/A (equivalent to 0.098 lb ai/A) prior to transplanting, or between 3 and 7 days following transplanting, for preemergence control of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of *Robustar 44% SC*.

TIMING TO WEEDS

Use *Robustar 44% SC* prior to weed emergence for residual control.

Refer to Product Information section for tank mix guidance. *Robustar 44% SC*, when applied according to label use directions, will control the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of *Robustar 44% SC*.

DIRECTIONS FOR USE IN ESTABLISHED CLOVER AND CLOVER GROWN FOR SEED

For Use in Idaho, Oregon and Washington Only

PRECAUTIONS

- Applications to clover with 6 inches of growth will result in burning of treated leaves and stems. **Understand and accept this risk before using *Robustar 44% SC* on clover.**
- Only apply with an adjuvant or tank mix with products formulated as an emulsifiable concentrate "EC" when targeting control of emerged weeds (expect and accept crop may be burned and/or stunting when applying tank mixes of *Robustar 44% SC* with an adjuvant).
- Application with paraquat can be used to burndown winter annuals prior to winter dormant period.
- Application to mixed clover grass stands may result in unacceptable injury to the grass.
- Application to clover with greater than 6 inches of growth may result in unacceptable crop injury.

RESTRICTIONS

- **DO NOT** apply more than 4 fl oz of *Robustar 44% SC* per acre (equivalent to 0.13 lb ai/A) per application.
- **DO NOT** make more than 1 application of *Robustar 44% SC* per acre per year at the 4 fl oz/A (0.13 lb ai/A) rate.
- **DO NOT** apply more than 4 fl oz of *Robustar 44% SC* per acre (equivalent to 0.13 lb ai/A) per year.
- **DO NOT** apply *Robustar 44% SC* within 25 days of harvest or grazing.
-

TIMING TO CLOVER

Robustar 44% SC may be applied to established clover with a maximum amount of growth of 6 inches or less for the preemergence control of the weeds listed in Table 7, Weeds Controlled by Residual Activity of *Robustar 44% SC*. Established Clover is defined as clover planted in the fall or spring which has gone through a first cutting/mowing.

For control of winter annual weeds: the best timing for preemergence control is in the fall immediately after the last cutting or sheepling-off has occurred.

For control of summer annual weeds: the best timing for preemergence control is in the spring prior to clover growth and before 6 inches of growth.

TIMING TO WEEDS

Preemergence – Preemergence to Weeds

Apply *Robustar 44% SC* before clover growth exceeds 6 inches in height for the preemergence control of weeds listed in Table 7, Weeds Controlled by Residual Activity of *Robustar 44% SC*. Make applications as soon as possible after cutting and removing clover to minimize injury to clover growth.

Postemergence Dodder Suppression

Apply *Robustar 44% SC* at 4 fl oz per acre (equivalent to 0.13 lb ai/A) with an adjuvant for postemergence suppression of dodder. Tank mixes with Pursuit Herbicide or Raptor Herbicide will increase control.

DIRECTIONS FOR USE IN COTTON

[For Use in Arizona, California and Hawaii Only]

RESTRICTIONS

- **DO NOT** apply more than 2 fl oz of Robustar 44% SC per acre (equivalent to 0.065 lb ai/A) per application.
- **DO NOT** make more than 2 applications of *Robustar 44% SC* per acre per year at the 2 fl oz/A (0.065 lb ai/A) rate.
- **DO NOT** apply more than 4 fl oz of Robustar 44% SC per acre (equivalent to 0.13 lb ai/A) per year.
- **DO NOT** make a sequential *Robustar 44% SC* application within 30 days of the first *Robustar 44% SC* application.
- **DO NOT** apply Robustar 44% SC within 60 days of harvest.

ENVIRONMENTAL CONDITIONS AND BIOLOGICAL PERFORMANCE

Hooded, Shielded and Layby Application

For best results, apply *Robustar 44% SC* to actively growing weeds within the growth stages indicated in this label. Applying *Robustar 44% SC* under conditions that **DO NOT** promote active weed growth will reduce herbicide effectiveness. **DO NOT** apply *Robustar 44% SC* when the crop or weeds are under stress due to drought, excessive water, extremes in temperature, disease or low humidity. Weeds under stress tend to become less susceptible to herbicidal action. *Robustar 44% SC* is most effective when applied under sunny conditions at temperatures above 65°F.

Robustar 44% SC is rainfast one hour after application. **DO NOT** make applications if rain is expected within one hour of application or postemergence efficacy may be reduced.

HERBICIDE RATE

Hooded, Shielded and Layby Application

For postemergence weed control, apply *Robustar 44% SC* through a hooded or shielded sprayer or at layby, at 2 fl oz/A (equivalent to 0.065 lb ai/A), in combinations with MSMA or at 1 to 2 fl oz/A (equivalent to 0.33 to 0.65 lb ai/A) in combination with glyphosate, to assist in the control of weeds listed in Table 4. Residual weed control can also be obtained through hooded, shielded and layby application of *Robustar 44% SC*. Weeds that are controlled through residual activity of *Robustar 44% SC* are listed in Table 1. Weeds that are suppressed by residual activity of *Robustar 44% SC* are listed in Table 2.

Table 4. Emerged Broadleaf Weeds Controlled by Hooded, Shielded and Layby Application of ROBUSTAR 44% SC Tank Mixes With Glyphosate or MSMA in Cotton

Broadleaf Weed Species		Weed Height (inches) 2 fl oz/A (0.065 lb ai/A)
Common Name	Scientific Name	
Bindweed, Field ⁽¹⁾	<i>Convolvulus arvensis</i>	4
Carpetweed	<i>Mollugo verticillata</i>	4
Chickweed, Common	<i>Stellaria media</i>	4
Cocklebur, Common	<i>Xanthium strumarium</i>	4
Florida Beggarweed	<i>Desmodium tortuosum</i>	2
Hemp Sesbania	<i>Sesbania exaltata</i>	6
Jimsonweed	<i>Datura stramonium</i>	4
Lambsquarters, Common	<i>Chenopodium album</i>	4
Morningglories		
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriuscula</i>	4
Ivyleaf	<i>Ipomoea hederacea</i>	4
Pitted	<i>Ipomoea lacunose</i>	4
Red	<i>Ipomoea coccinea</i>	4
Tall	<i>Ipomoea purpurea</i>	2
Mustard, Wild	<i>Brassica kaber</i>	6
Nightshades		
Black	<i>Solanum nigrum</i>	4
Eastern Black	<i>Solanum ptycanthum</i>	4
Hairy	<i>Solanum sarrachoides</i>	4
Pigweeds		
Palmer Amaranth	<i>Amaranthus palmeri</i>	4
Redroot	<i>Amaranthus retroflexus</i>	4
Smooth	<i>Amaranthus hybridus</i>	4
Plaintain, Broadleaf	<i>Plantago major</i>	6
Prickly Sida (Teaweed)	<i>Sida spinosa</i>	4
Purslane, Common	<i>Portulaca oleracea</i>	2
Ragweeds		
Common	<i>Ambrosia artemisiifolia</i>	2
Giant	<i>Ambrosia trifida</i>	4
Rice Flatsedge	<i>Cyperus iria</i>	2
Sicklepod	<i>Senna obtusifolia</i>	4
Smartweeds		
Ladysthumb	<i>Polygonum persicaria</i>	4
Pale	<i>Polygonum lapathifolium</i>	4
Pennsylvania	<i>Polygonum pennsylvanicum</i>	4
Spotted Spurge	<i>Euphorbia maculata</i>	4
Velvetleaf	<i>Abutilon theophrasti</i>	4
Venice Mallow	<i>Hibiscus trionum</i>	2
Waterhemp		
Common	<i>Amaranthus rudis</i>	2
Tall	<i>Amaranthus tuberculatus</i>	2

⁽¹⁾ Robustar 44% SC tank mixes will control the above ground portion of field bindweed. Repeated applications will be needed to control regrowth.

CARRIER VOLUME AND SPRAY PRESSURE

Hooded, Shielded and Layby Application

To ensure thorough coverage in hooded, shielded and layby applications, use 15 to 30 gallons spray solution per treated acre. Use 20 to 30 gallons per treated acre under heavy weed pressure. Nozzle selection must meet manufacturer's gallonage and pressure guidance for application method being used. **DO NOT** use "FloodJet" nozzles, as they tend to increase the chance of crop injury.

ADDITIVES

Hooded, Shielded and Layby Application

Weed control from hooded, shielded or layby application of *Robustar 44% SC* in cotton requires the addition of an agronomically approved non-ionic surfactant to the spray mixture. Non-ionic surfactant must contain at least 80% active ingredient. Verify mixing compatibility qualities by a jar test. **The use of crop oil concentrates, methylated seed oils, organo-silicant surfactants or products containing these ingredients, may result in severe crop injury.**

APPLICATION EQUIPMENT

Apply *Robustar 44% SC* tank mixes, with ground equipment using standard commercial sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume. Application equipment must be clean and in good repair. Nozzles must meet manufacturer's guidelines for spray pattern and placement on spray boom and must be checked frequently for accuracy.

TIMING TO COTTON

Hooded and Shielded Application

Robustar 44% SC tank mixes may be applied with a hooded or shielded sprayer after cotton has reached a minimum of 6 inches in height. All nozzles must be under the hood or behind the shield to ensure no spray solution comes in contact with the cotton. **Care must be taken to ensure the spray solution or drift does not come in contact with the cotton or severe crop injury can occur.**

Layby Application

Layby application of *Robustar 44% SC* tank mixes may be made once cotton has reached a minimum of 16 inches in height. Cotton that is smaller than 16 inches in height may be injured by *Robustar 44% SC* applications. *Robustar 44% SC* application must be directed to the lower 2 inches of the cotton stem to avoid crop injury.

TIMING TO WEEDS

Robustar 44% SC tank mix applications must be made to weeds within the height range given in Table 4.

TANK MIXES

Robustar 44% SC must be tank mixed with one of the herbicides listed in Table 5 for postemergence control of the weeds listed in Table 4.

Table 5. Tank Mixes with *Robustar 44% SC* for Hooded, Shielded and/or Layby Use in Cotton

Tank Mix Partner	Target Weeds	Hooded and Shielded	Layby
glyphosate	Perennial Grasses and Broadleaves	X	X ⁽¹⁾
MSMA	Annual Grasses Yellow Nutsedge	X	X

⁽¹⁾For use only in cotton with the Roundup Ready gene.

DIRECTIONS FOR USE IN CUCURBIT VEGETABLES

Cucurbit Vegetables (Crop Group 9) including: chayote (fruit); Chinese Waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); *Momordica* spp. (includes balsam apple, balsam pear, bittermelon, Chinese cucumber); muskmelon (includes cantaloupe); pumpkin; squash, summer; squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon

FOR DISTRIBUTION AND USE ONLY WHERE THIRD PARTY INDEMNIFICATION IS IN EFFECT ROW MIDDLES

Many weather related factors, including high wind or heavy rains or cool conditions at or near crop transplanting, may result in crop injury in fields treated with *Robustar 44% SC*. On occasion this has resulted in a delay in maturity. Understand and accept these risks before using *Robustar 44% SC*.

Refer to Product Information section for tank mix guidance. *Robustar 44% SC*, when applied according to label use directions, will control the weeds listed in Table 7, Weeds Controlled by Residual Activity of *Robustar 44% SC*.

PRECAUTIONS

- Grow plants on raised plastic mulched beds that are higher than the treated row middle.
- Spray must be directed to the row middle, away from the crop bed and with minimal contact with plastic, including the sides of the bed. If top of mulch beds (where plants are to be transplanted) is contacted, severe injury can occur due to foliage contact with treated plastic. In this scenario, a rainfall event of 1/2 inch (natural or irrigation) must occur prior to transplanting to reduce *Robustar 44% SC* residues.
- Drift of treated soil particles onto plants may cause contact injury.
- Irrigate treated field after application and prior to transplanting with minimum of 1/4 inch of water if rainfall does not occur between application and transplanting.

RESTRICTIONS

- **DO NOT** apply more than 4 fl oz of *Robustar 44% SC* per acre (equivalent to 0.13 lb ai/A) per application.
- **DO NOT** make more than 2 applications of *Robustar 44% SC* per acre per year at the 4 fl oz/A (0.13 lb ai/A) rate.
- **DO NOT** apply more than 8 fl oz of *Robustar 44% SC* per acre (equivalent to 0.26 lb ai/A) per year.
- **DO NOT** use *Robustar 44% SC* with an adjuvant.
- All applications must be made with hooded or shielded equipment.

TIMING TO CUCURBIT VEGETABLES

Apply *Robustar 44% SC* at 4 fl oz per acre (equivalent to 0.13 lb ai/A) as a hooded or shielded application to row middles up to 14 days prior to transplanting or seeding for preemergence control of the weeds listed in Table 7, Weeds Controlled by Residual Activity of *Robustar 44% SC*, as well as to assist in the postemergence control of emerged weeds. A second application of *Robustar 44% SC* at 4 fl oz per acre (equivalent to 0.13 lb ai/A) may be applied up to 21 days after transplanting or emergence if needed. **DO NOT** apply *Robustar 44% SC* during or after bloom.

TIMING TO WEEDS

Robustar 44% SC may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds in row middles. A registered preemergence grass herbicide may be added for control of additional grassy weeds. For assisting in the control of emerged weeds, tank mix *Robustar 44% SC* with paraquat, Aim™ or other registered burndown herbicide. **DO NOT** tank mix with glyphosate after transplanting. Refer to tank mix partner's label for rates and use directions.

DIRECTIONS FOR USE IN DRY BEANS

Dried cultivars of bean (*Lupinus*); bean (*Phaseolus*) (includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean); bean (*Vigna*) (includes adzuki bean, blackeyed pea, catjang, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean); broad bean (dry); chickpea (garbanzo bean); guar; lablab bean and lentil

WEED SUPPRESSION IN DRY BEANS AND WEED CONTROL IN CHICKPEAS (GARBANZO BEANS) **[Arizona, California, Colorado, Hawaii, Idaho, Montana, Nebraska, Oregon and Washington only]**

RESTRICTIONS

- For Chickpeas, **DO NOT** apply more than 2 fl oz of Robustar 44% SC per acre (equivalent to 0.065 lb ai/A) per application. For all other Dry Beans, **DO NOT** apply more than 1.5 fl oz of Robustar 44% SC per acre (equivalent to 0.049 lb ai/A) per application.
- For Chickpeas **DO NOT** make more than 1 application of *Robustar 44% SC* per acre per year at the 2 fl oz/A (0.065 lb ai/A) rate. For all other Dry Beans, **DO NOT** make more than 1 application of *Robustar 44% SC* per acre per year at the 1.5 fl oz/A (0.049 lb ai/A) rate.
- For Chickpeas, **DO NOT** apply more than 2 fl oz of Robustar 44% SC per acre (equivalent to 0.065 lb ai/A) per year. For all other Dry Beans, **DO NOT** apply more than 1.5 fl oz of Robustar 44% SC per acre (equivalent to 0.049 lb ai/A) per year.

Many weather related factors, including high wind, splashing or heavy rains or cool conditions at or near crop emergence, may result in dry bean injury in fields treated with *Robustar 44% SC*. On occasion this has resulted in a delay in maturity. Understand and accept these risks before using *Robustar 44% SC*.

TIMING TO DRY BEANS AND CHICKPEAS

Robustar 44% SC may be applied to dry beans within 2 days after planting for the preemergence suppression of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of *Robustar 44% SC* or Table 8, Weeds Suppressed by Residual Activity of *Robustar 44% SC*. Tank mix *Robustar 44% SC* with other labeled herbicides for broad spectrum weed control.

TIMING TO WEEDS

Robustar 44% SC may be applied to dry beans prior to planting or preemergence (after planting). Preemergence application of *Robustar 44% SC* must be made within 2 days after planting and prior to dry bean emergence. To avoid severe crop injury, **DO NOT** apply *Robustar 44% SC* to dry beans after beans begin to crack or have emerged.

Preplant incorporation (PPI) applications may result in reduced weed control.

ADDITIONAL RESIDUAL GRASS CONTROL

Robustar 44% SC can be tank mixed with pendimethalin for additional grass control.

HARVEST AID [All States]

RESTRICTIONS

- **DO NOT** apply more than 3 fl oz of Robustar 44% SC per acre (equivalent to 0.098 lb ai/A) per application.
- **DO NOT** make more than 1 application of *Robustar 44% SC* per acre per year at the 3 fl oz/A (0.098 lb ai/A) rate.
- **DO NOT** apply more than 3 fl oz of Robustar 44% SC per acre (equivalent to 0.098 lb ai/A) per year.
- **DO NOT** harvest within 5 days of application of *Robustar 44% SC*.

Desiccation from *Robustar 44% SC* requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 2% v/v. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lb/A or a 28 to 32% nitrogen solution at 1 to 2 qt/A) may be added to the spray mixture along with either a crop oil concentrate or methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for a crop oil concentrate or a methylated seed oil. Tank mixing *Robustar 44% SC* with glyphosate or paraquat will increase control of emerged weeds and aid in harvest. Add a burndown tank mix partner for the control of emerged weeds labeled for dry bean in accordance with the most restrictive labeled limitations and precautions.

TIMING TO DRY BEANS AND CHICKPEAS

Apply when crop is mature and at least 80% of the pods are yellowing and mostly ripe with no more than 40% (bush type beans) or 30% (vine type beans) of the leaves still green in color. Dry beans can be harvested 5 days after application. To ensure thorough coverage use 15 to 30 gallons spray solution per acre. Nozzle selection must meet manufacturer's gallonage and pressure guidelines for postemergence application.

DIRECTIONS FOR USE IN FIELD CORN [For Use in Arizona, California and Hawaii Only]

PRECAUTIONS

- Corn can be planted 7 days after an application of 2 fl oz/A (equivalent to 0.065 lb ai/A) if a minimum of 25% of the soil surface is covered with the residue of the preceding crop and a minimum of 1/4 inch of rainfall has occurred between application and planting.

RESTRICTIONS

- Use only on no-till or minimum tillage fields where last year's crop residue has not been incorporated into the soil.
- Corn must be planted between 14 and 30 days after application unless the application is made as part of a Fall burndown program.
- **DO NOT** apply more than 3 fl oz of Robustar 44% SC per acre (equivalent to 0.098 lb ai/A) per application.
- **DO NOT** make more than 1 application of *Robustar 44% SC* per acre per year at the 3 fl oz/A (0.098 lb ai/A) rate.
- **DO NOT** apply more than 3 fl oz of Robustar 44% SC per acre (equivalent to 0.098 lb ai/A) per year.
- **DO NOT** irrigate between emergence and 2-leaf corn.
- **DO NOT** use Robustar 44% SC on popcorn, sweet corn or corn grown for seed.

TIMING TO FIELD CORN

- Apply *Robustar 44% SC*, at 2 to 3 fl oz/A (equivalent to 0.065 to 0.098 lb ai/A), between 7 and 30 days prior to planting field corn for the preemergence control of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of *Robustar 44% SC*.
- Apply *Robustar 44% SC* at 2 fl oz/A (equivalent to 0.065 lb ai/A) between 7 and 30 days prior to planting field corn if a minimum of 25% of the soil surface is covered with the residue of the preceding crop and a minimum of 1/4 inch of rainfall has occurred between application and planting.
- Apply *Robustar 44% SC* at 3 fl oz/A (equivalent to 0.098 lb ai/A) between 14 and 30 days prior to planting field corn.

Burndown Use Directions – For Preplant Applications in Field Corn

Robustar 44% SC, applied as part of a burndown program, may be used for residual weed control, as well as to assist in postemergence burndown of many weeds where field corn will be planted directly into the residue of the previous year. See Directions for Use in Fall and Spring Preplant Burndown and Fallow Seedbed Programs in Field Corn, Peanut and Soybean for rates and timing of applications. For control of emerged weeds, *Robustar 44% SC* must be applied with an appropriate burndown tank mix partner listed in Table 6. To ensure thorough coverage, use a minimum of 15 gallons of spray solution per acre. Refer to tank mix partner's label for application pressures and adjuvant systems.

INCREASING SPEED OF GLYPHOSATE BURNDOWN ACTIVITY

Robustar 44% SC, at 1 fl oz/A (equivalent to 0.033 lb ai/A), may be tank mixed with glyphosate (Roundup®) to increase the speed of burndown activity compared to glyphosate applied alone. Residual weed control will not be provided at rates lower than 2 fl oz/A (equivalent to 0.065 lb ai/A); however, suppression of the weeds in Table 2 may occur at *Robustar 44% SC* rates as low as 1 fl oz/A (equivalent to 0.033 lb ai/A). Applications of *Robustar 44% SC* at 1 fl oz/A (equivalent to 0.033 lb ai/A) must be made a minimum of 14 days prior to planting field corn.

TANK MIXES

Robustar 44% SC may be tank mixed with the herbicides listed in Table 6 for pre-plant burndown applications.

Refer to tank mix partner's label for adjuvants.

Table 6. Tank Mix Partners for Burndown and/or Residual Control of Weeds in Field Corn

TANK MIX PARTNERS¹	
2,4-D LVE	metribuzin
atrazine	paraquat
Basis®	Python®
dicamba	Resolve®
Express®	simazine
glyphosate	Weedmaster®
Hornet®	

¹Refer to tank mix product labels for specific application directions.

TANK MIX RESTRICTIONS

Tank mixes with flufenacet (Axiom or Domain), metolachlor or s-metolachlor (Dual Magnum or Dual II Magnum), dimethenamid or dimethenamid-p (Frontier or Outlook), or acetochlor (Surpass or Harness) may result in injury to field corn when application is followed by prolonged periods of cool wet weather.

DIRECTIONS FOR USE IN FIELD PEAS

WEED CONTROL

[For Use in Idaho, Montana, Oregon and Washington only.]

RESTRICTIONS

- **DO NOT** apply more than 2 fl oz of Robustar 44% SC per acre (equivalent to 0.065 lb ai/A) per application.
- **DO NOT** make more than 1 application of *Robustar 44% SC* per acre per year at the 2 fl oz/A (0.065 lb ai/A) rate.
- **DO NOT** apply more than 2 fl oz of Robustar 44% SC per acre (equivalent to 0.065 lb ai/A) per year.

Many weather related factors, including high wind, splashing or heavy rains or cool conditions at or near crop emergence, may result in peas injury in fields treated with *Robustar 44% SC*. On occasion this has resulted in a delay in maturity. Understand and accept these risks before using *Robustar 44% SC*.

TIMING TO FIELD PEAS

Robustar 44% SC may be applied to field peas within 2 days after planting for the preemergence control of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of *Robustar 44% SC* or Table 8, Weeds Suppressed by Residual Activity of *Robustar 44% SC*. Tank mix *Robustar 44% SC* with other labeled herbicides for broad spectrum weed control.

TIMING TO WEEDS

Robustar 44% SC may be applied to field peas prior to planting or preemergence (after planting). Preemergence application of *Robustar 44% SC* must be made within 2 days after planting and prior to field pea emergence. To avoid severe crop injury, **DO NOT** apply *Robustar 44% SC* to field peas after peas begin to crack or have emerged.

Preplant incorporation (PPI) applications may result in reduced weed control.

ADDITIONAL RESIDUAL GRASS CONTROL

Robustar 44% SC can be tank mixed with pendimethalin for additional grass control.

HARVEST AID

[All states]

RESTRICTIONS

- **DO NOT** apply more than 3 fl oz of Robustar 44% SC per acre (equivalent to 0.098 lb ai/A) per application.
- **DO NOT** make more than 1 application of *Robustar 44% SC* per acre per year at the 3 fl oz/A (0.098 lb ai/A) rate.
- **DO NOT** apply more than 3 fl oz of Robustar 44% SC per acre (equivalent to 0.098 lb ai/A) per year.
- **DO NOT** harvest within 5 days of application.

Desiccation from *Robustar 44% SC* requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 1 qt/A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lb/A or a 28 to 32% nitrogen solution at 1 to 2 qt/A) may be added to the spray mixture along with methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for methylated seed oil. Tank mixing *Robustar 44% SC* with glyphosate will increase control of emerged weeds and aid in harvest.

TIMING TO FIELD PEAS

Apply *Robustar 44% SC*, at 1.5 to 2 fl oz/A (equivalent to 0.049 to 0.065 lb ai/A), when crop is physiologically mature and a minimum of 80% of the pods are yellow to tan in color and 20% are yellow in color. If field peas are treated too early, a reduction in seed quality may occur. **DO NOT** spray *Robustar 44% SC* on any area of the field with a significant amount of plants with green color. Peas can be harvested 5 days after application.

To ensure thorough coverage, use 15 to 30 gallons of spray solution per acre and select nozzle type using manufacturer's gallonage and pressure guidelines for postemergence application.

DIRECTIONS FOR USE IN FLAX

HARVEST AID

RESTRICTIONS

- **DO NOT** apply more than 3 fl oz of Robustar 44% SC per acre (equivalent to 0.098 lb ai/A) per application.
- **DO NOT** make more than 2 applications of *Robustar 44% SC* per acre per year at the 1.5 fl oz (0.049 lb ai) rate.
- **DO NOT** apply more than 3 fl oz of Robustar 44% SC per acre (equivalent to 0.098 lb ai/A) per year.
- **DO NOT** harvest within 5 days of application of Robustar 44% SC.

Desiccation from *Robustar 44% SC* requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 1 qt/A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lb/A or a 28 to 32% nitrogen solution at 1 to 2 qt/A) may be added to the spray mixture along with methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for methylated seed oil.

TIMING TO FLAX

Apply *Robustar 44% SC*, at 1.5 to 2 fl oz/A (equivalent to 0.049 to 0.065 lb ai/A), when crop is physiologically mature and at least 75% of the bolls are brown in color. Flax can be harvested 5 days after application.

To ensure thorough coverage, use 15 to 30 gallons of spray solution per acre and select nozzle type using manufacturer's gallonage and pressure guidelines for postemergence application.

DIRECTIONS FOR USE IN FRUITING VEGETABLES

African eggplant; Bush Tomato; Bell Pepper; Cocona; Currant Tomato; Eggplant, Garden Huckleberry; Goji Berry; Groundcherry, Martynia; Naranjilla; Okra, Pea Eggplant; Pepino; Nonbell Pepper; Roselle; Scarlet Eggplant; Sunberry; Tomatillo; Tomato; Tree Tomato; cultivars, varieties and /or hybrids of these.

FOR DISTRIBUTION AND USE ONLY WHERE THIRD PARTY INDEMNIFICATION IS IN EFFECT ROW MIDDLES

Many weather related factors, including high wind or heavy rains or cool conditions at or near crop transplanting, may result in crop injury in fields treated with *Robustar 44% SC*. On occasion this has resulted in a delay in maturity. Understand and accept these risks before using *Robustar 44% SC*.

PRECAUTIONS

- Grow plants on raised or plastic mulched beds that are higher than the treated row middle.
- Spray must be directed to the row middle, away from the crop bed and with minimal contact with plastic, including the sides of the bed. If top of mulch beds (where plants are to be transplanted) is contacted, severe injury can occur due to foliage contact with treated plastic. In this scenario, a rainfall event of 1/2 inch (natural or irrigation) must occur prior to transplanting to reduce *Robustar 44% SC* residues.
- Drift of treated soil particles onto plants may cause contact injury.

RESTRICTIONS

- **DO NOT** apply more than 4 fl oz of *Robustar 44% SC* per acre (equivalent to 0.13 lb ai/A) per application.
- **DO NOT** make more than 2 applications of *Robustar 44% SC* per acre per year at the 4 fl oz (0.13 lb ai) rate.
- **DO NOT** apply more than 8 fl oz of *Robustar 44% SC* per acre (equivalent to 0.26 lb ai/A) per year.
- Irrigate treated field after application of *Robustar 44% SC* and prior to transplanting with minimum of 1/4 inch of water if rainfall does not occur between application and transplanting.
- All applications of *Robustar 44% SC* must be made with hooded or shielded equipment.

TIMING TO FRUITING VEGETABLES

Apply *Robustar 44% SC* at 4 fl oz per acre (equivalent to 0.13 lb ai/A) as a hooded or shielded application to row middles up to 14 days prior to transplanting or seeding for preemergence control of the weeds listed in Table 7, Weeds Controlled by Residual Activity of *Robustar 44% SC*, as well as to assist in the postemergence control of emerged weeds. A second application of *Robustar 44% SC* at 4 fl oz per acre (equivalent to 0.13 lb ai/A) may be applied up to 21 days after transplanting or emergence if needed. **DO NOT** apply *Robustar 44% SC* during or after bloom.

TIMING TO WEEDS

Robustar 44% SC may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds in row middles. A registered preemergence grass herbicide may be added for control of additional grassy weeds. For assisting in the control of emerged weeds, tank mix *Robustar 44% SC* with paraquat, Aim™ or other registered burndown herbicide. **DO NOT** tank mix with glyphosate after transplanting or crop emergence. Refer to tank mix partner's label for rates and application parameters.

DIRECTIONS FOR USE IN GARLIC

RESTRICTIONS

- **DO NOT** apply more than 6 fl oz of Robustar 44% SC per acre (equivalent to 0.20 lb ai/A) per application.
- **DO NOT** make more than 1 application of *Robustar 44% SC* per acre per year at the 6 fl oz (0.20 lb ai) rate.
- **DO NOT** apply more than 6 fl oz of Robustar 44% SC per acre (equivalent to 0.20 lb ai/A) per year.

TIMING TO GARLIC

Robustar 44% SC may be applied, at 6 fl oz/A (equivalent to 0.20 lb ai/A), to garlic prior to garlic emergence. Make application within 3 days after planting garlic.

TIMING TO WEEDS

Preemergence – Preemergence To Weeds

Apply *Robustar 44% SC* to weed free garlic for preemergence control of the weeds listed in Table 10, Weeds Controlled by Preemergence Application of *Robustar 44% SC*.

DIRECTIONS FOR USE IN HOPS [Not For Use in California and New York]

RESTRICTIONS

- **DO NOT** apply more than 6 fl oz of Robustar 44% SC per acre (equivalent to 0.20 lb ai/A) per application.
- **DO NOT** make more than 1 application of *Robustar 44% SC* per acre per year at the 6 fl oz (0.20 lb ai) rate.
- **DO NOT** apply more than 6 fl oz of Robustar 44% SC per acre (equivalent to 0.20 lb ai/A) per year.
- **DO NOT** allow spray to contact green stem (unless used for sucker control), foliage, flowers or cones or unacceptable injury may occur.
- **DO NOT** apply Robustar 44% SC within 30 days of harvest.
- **DO NOT** use Robustar 44% SC with an adjuvant.

Robustar 44% SC can be used in hops for preemergence weed control as well as sucker control.

TIMING TO HOPS FOR SUCKER CONTROL

Apply *Robustar 44% SC* at 6 fl oz/A (equivalent to 0.20 lb ai/A) as a directed application after hops have reached a minimum of 6feet in height for sucker control. Direct application to the lower 2 feet of the hops.

TIMING TO HOPS FOR PREEMERGENCE WEED CONTROL

Apply *Robustar 44% SC* at 6 fl oz/A (equivalent to 0.20 lb ai/A) as a 1 to 1.5 foot band to each side of the hop row, to dormant hops November thru February to ensure time for rain incorporation and activation. If weeds are emerged at the time of application, tank mix *Robustar 44% SC* with a labeled burndown herbicide including paraquat or glyphosate to assist with control of emerged weeds. **DO NOT** mow or rake over treated areas, as dust created by mowing may drift onto sensitive crops or vegetation resulting in injury.

TIMING TO WEEDS

Robustar 44% SC applications must be made prior to weed emergence for control of weeds listed in Table 10, Weeds Controlled by Preemergence Application of *Robustar 44% SC*.

Refer to Product Information section for tank mix guidance. *Robustar 44% SC*, when applied according to label use directions, will control the weeds listed in Table 10, Weeds Controlled by Preemergence Application of *Robustar 44% SC*.

DIRECTIONS FOR USE IN LENTILS

HARVEST AID **RESTRICTIONS**

- **DO NOT** apply more than 3 fl oz of Robustar 44% SC per acre (equivalent to 0.098 lb ai/A) per application.
- **DO NOT** make more than 1 application of *Robustar 44% SC* per acre per year at the 3 fl oz (0.098 lb ai) rate.
- **DO NOT** apply more than 3 fl oz of Robustar 44% SC per acre (equivalent to 0.098 lb ai/A) per year.
- **DO NOT** harvest within 5 days of application of Robustar 44% SC.

Desiccation from *Robustar 44% SC* requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 1 qt/A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lb/A or a 28 to 32% nitrogen solution at 1 to 2 qt/A) may be added to the spray mixture along with methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for methylated seed oil. Tank mixing *Robustar 44% SC* with glyphosate or paraquat will increase control of emerged weeds and aid in harvest.

TIMING TO LENTILS

Apply *Robustar 44% SC*, at 1.5 to 2 fl oz/A (equivalent to 0.049 to 0.065 lb ai/A), when crop is physiologically mature and a minimum of 80% of the pods are yellow to tan in color and 20% are yellow in color. If lentils are treated too early, a reduction in seed quality may occur. **DO NOT** spray *Robustar 44% SC* on any area of the field with a significant amount of plants with green color. Lentils can be harvested 5 days after application.

To ensure thorough coverage, use 15 to 30 gallons of spray solution per acre and select nozzle type using manufacturer's gallonage and pressure guidelines for postemergence application.

DIRECTIONS FOR USE IN MINT (Peppermint and Spearmint)

PRECAUTIONS

To avoid crop injury:

- Application to stands established longer than 3 years may result in crop injury.
- Applications to stands with weak, thin, or damaged roots or rhizomes may result in crop injury.
- Application to mint in Southern Union County (south of Ladd Canyon) or Baker County in Oregon may result in unacceptable crop injury.
- Use only on established meadow mint.
- Applications to mint that has been weakened by diseases, insects (example mint root borer), nematodes, drought, soil salts, high soil pH, previous pesticides, winter injury or double cutting, may result in severe injury. Apply only to healthy vigorous mint with undamaged rhizomes.

RESTRICTIONS

- **DO NOT** apply more than 4 fl oz of Robustar 44% SC per acre (equivalent to 0.13 lb ai/A) per application.
- **DO NOT** make more than 2 applications of *Robustar 44% SC* per acre per year at the 4 fl oz (0.013 lb ai) rate.
- **DO NOT** apply more than 8 fl oz of Robustar 44% SC per acre (equivalent to 0.26 lb ai/A) per year.
- **DO NOT** make a sequential *Robustar 44% SC* application within 60 days of the first *Robustar 44% SC* application.
- Apply Robustar 44% SC only to dormant mint. Application to non-dormant mint may result in unacceptable crop injury.
- **DO NOT** apply Robustar 44% SC within 80 days of harvest.

Many weather related factors, including high wind, splashing or heavy rains or cool conditions at or near mint emergence, may result in mint injury in fields treated with *Robustar 44% SC*. Understand and accept these risks before using *Robustar 44% SC*.

Use tank mixes with labeled rates of paraquat to control emerged weeds and increase crop safety.

TIMING TO MINT

As a spray, *Robustar 44% SC* may be applied only to established, dormant mint for preemergence control of the weeds listed in Table 7 as well as to assist in the postemergence control of emerged weeds. Application to non-dormant mint or to baby (row) mint (time from planting of mint roots through the first cutting), may result in unacceptable crop injury. As a bulk fertilizer application, *Robustar 44% SC* may be applied at least 80 days prior to harvest. Leaves must be dry at the time of applications or severe injury may occur.

TIMING TO WEEDS

Burndown – Dormant Mint, Postemergence To Weeds

Robustar 44% SC may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds where established mint is dormant. For control of emerged weeds, tank mix *Robustar 44% SC* with paraquat. Refer to paraquat label for rates and use directions. To ensure thorough coverage, use a minimum of 15 gallons of spray solution per acre. *Robustar 44% SC* tank mixes applied to assist in the control of emerged weeds must be applied with a non-ionic surfactant at 0.25% v/v. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lb/A or 28 to 32% nitrogen solution at 1 to 2 qt/A) may be added to increase herbicidal activity.

Preemergence – Dormant Mint, Preemergence To Weeds

Apply *Robustar 44% SC* to dormant mint for the preemergence control of weeds listed in Table 7. Fall applications of *Robustar 44% SC*, followed by a sequential application in the Spring, have resulted in better Summer annual weed control than a single Fall or single Spring application.

Fall application is most effective for Fall germinating weeds for example groundsel. Fields plowed or harrowed after a *Robustar 44% SC* application will result in less effective preemergence activity. In furrow irrigated fields, corrugating that is done after a *Robustar 44% SC* application will expose untreated soil and break the herbicide barrier resulting in poor weed control.

Table 7. Weeds Controlled by Residual Activity of Robustar 44% SC

Broadleaf Weed Species				
Common Name	Scientific Name	Organic Matter	Soil Type	Application Rate (lb ai/A)
?Bristly Starbur	<i>Acanthospermum hispidum</i>	Up to 5%	All Soil Types	4 fl oz/A (0.13)
Carpetweed	<i>Mollugo verticillata</i>			
Chickweeds				
Common	<i>Stellaria media</i>			
Mouseear	<i>Cerastium vulgatum</i>			
Coffee Senna	<i>Cassia occidentalis</i>			
Copperleaf, Hophornbeam	<i>Acalypha ostryifolia</i>			
Dandelion	<i>Taraxacum officinale</i>			
Dodder (suppression only)[*](1)	<i>Cuscuta</i> spp.			
Eclipta	<i>Eclipta prostrate</i>			
Evening Primrose, Cutleaf	<i>Oenothera laciniata</i>			
False Chamomile[*]	<i>Tripleurospermum maritima</i>			
Fiddleneck, Coast[*]	<i>Amsinckia menziesii</i>			
Field Pennycress[*]	<i>Thlaspi arvense</i>			
Fleabane, Hairy[*]	<i>Conyza bonariensis</i>			
Flixweed[*]	<i>Descurainia spophia</i>			
Florida Beggarweed	<i>Desmodium tortuosum</i>			
Florida Pusley	<i>Richardia scabra</i>			
Golden Crownbeard	<i>Verbesina encelioides</i>			
Groundsel, Common	<i>Senecio vulgaris</i>			
Hairy Indigo	<i>Indigofera hirsuta</i>			
Hemp Sesbania	<i>Sesbania exaltata</i>			
Henbit	<i>Lamium amplexicaule</i>			
Jimsonweed	<i>Datura stramonium</i>			
Kochia	<i>Kochia scoparia</i>			
Lambsquarters, Common	<i>Chenopodium album</i>			
Little Mallow	<i>Malva parviflora</i>			
London Rocket[*]	<i>Sisymbrium irio</i>			
Marestail/Horseweed	<i>Conyza canadensis</i>			
Mayweed/False Chamomile[*]	<i>Matricaria maritima</i>			

[*Not for use in California.]

(continued)

(1) *Robustar 44% SC* at 4 fl oz/A (equivalent to 0.13 lb ai/A) will provide postemergence dodder suppression when applied in combination with Pursuit Herbicide or Raptor Herbicide at labeled rates. Pursuit Herbicide and Raptor Herbicide require the use of NIS, which will result in burn and stunting of alfalfa. Understand and accept these risks before tank mixing with *Robustar 44% SC*.

Table 7. Weeds Controlled by Residual Activity of Robustar 44% SC (continued)

Broadleaf Weed Species				
Common Name	Scientific Name	Organic Matter	Soil Type	Application Rate (lb ai/A)
Morningglories		Up to 5%	All Soil Types	4 fl oz/A (0.13)
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriuscula</i>			
Ivyleaf	<i>Ipomoea hederacea</i>			
Red/Scarlet	<i>Ipomoea coccinea</i>			
Smallflower	<i>Jacquemontia tamnifolia</i>			
Tall	<i>Ipomoea purpurea</i>			
Mustard				
Tansy[*]	<i>Descurainia pinnata</i>			
Tumble[*]	<i>Sisymbrium altissimum</i>			
Wild	<i>Brassica kaber</i>			
Nettle, Burning[*]	<i>Urtica urens</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>			
Redroot	<i>Amaranthus retroflexus</i>			
Smooth	<i>Amaranthus hybridus</i>			
Spiny Amaranth	<i>Amaranthus spinosus</i>			
Tumble	<i>Amaranthus albus</i>			
Prickly Lettuce (China Lettuce)	<i>Lactuca serriola</i>			
Prickly Sida (Teaweed)	<i>Sida spinosa</i>			
Puncturevine	<i>Tribulus terrestris</i>			
Purslane				
Common	<i>Portulaca oleracea</i>			
Horse[*]	<i>Trianthema portulacastrum</i>			
Radish, Wild	<i>Raphanus raphanistrum</i>			
Ragweed, Common	<i>Ambrosia artemisiifolia</i>			
Redmaids	<i>Calandrinia ciliata</i> var. <i>menziesii</i>			
Russian Thistle	<i>Salsola iberica</i>			
Shepherd's-purse	<i>Capsella bursa-pastoris</i>			
Smartweeds				
Ladysthumb	<i>Polygonum persicaria</i>			
Pennsylvania	<i>Polygonum pennsylvanicum</i>			
Smellmelon[*]	<i>Cucumis melo</i>			
Sowthistle, Prickly[*]	<i>Sonchus asper</i>			
Spotted Spurge	<i>Euphorbia maculate</i>			
Spurred Anoda	<i>Anoda cristata</i>			
Tropic Croton	<i>Croton glandulosus</i>			
Velvetleaf	<i>Abutilon theophrasti</i>			
Venice Mallow	<i>Hibiscus trionum</i>			
Waterhemp				
Common	<i>Amaranthus rudis</i>			
Tall	<i>Amaranthus tuberculatus</i>			
White Cockle[*]	<i>Silene latifolia</i>			
Wild Poinsettia	<i>Euphorbia heterophylla</i>			
Wormwood, Biennial	<i>Artemisia biennis</i>			
Yellow Rocket[*]	<i>Barbarea vulgaris</i>			

[*Not for use in California.]

(continued)

Table 7. Weeds Controlled by Residual Activity of Robustar 44% SC (continued)

Grass Weed Species				
Common Name	Scientific Name	Organic Matter	Soil Type	Application Rate (lb ai/A)
		Up to 5%	All Soil Types	4 fl oz/A (0.13)
Barnyardgrass	<i>Echinochloa crus-galli</i>			
Bluegrass, Annual	<i>Poa annua</i>			
Crabgrass, Large	<i>Digitaria sanguinalis</i>			
Foxtail, Giant	<i>Setaria faberi</i>			
Goosegrass	<i>Eleusine indica</i>			
Lovegrass, California	<i>Eragrostis diffusa</i>			
Panicums				
Fall	<i>Panicum dichotomiflorum</i>			
Texas	<i>Panicum texanum</i>			
Ryegrass, Italian[*]	<i>Lolium multiflorum</i>			
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>			

[*Not for use in California.]

DIRECTIONS FOR USE IN ONION (DRY BULB)

[For Use in Michigan, New York, North Dakota and Wisconsin Only]

PRECAUTIONS

- Use of *Robustar 44% SC* may result in necrotic spotting of onion leaves that come in contact with the spray. Understand and accept this risk before using *Robustar 44% SC*.

RESTRICTIONS

- **DO NOT** apply more than 2 fl oz of *Robustar 44% SC* per acre (equivalent to 0.065 lb ai/A) per application.
- **DO NOT** make more than 6 applications of *Robustar 44% SC* per acre per year at the 0.5 fl oz (equivalent to 0.016 lb ai/A) rate.
- **DO NOT** apply more than 3 fl oz of *Robustar 44% SC* per acre (equivalent to 0.098 lb ai/A) per year.
- **DO NOT** make sequential application within 14 days of the first application.
- **DO NOT** apply more than 1 fl oz of *Robustar 44% SC* per year (equivalent to 0.033 lb ai/year) on soils that contain greater than 90% sand plus gravel.
- **DO NOT** apply *Robustar 44% SC* as part of a tank mix, other than Prowl® H₂O Herbicide, or unacceptable injury may result. **DO NOT** tank mix other formulations of pendimethalin with *Robustar 44% SC* for use in onions.
- **DO NOT** apply *Robustar 44% SC* with any type of adjuvant.
- **DO NOT** apply *Robustar 44% SC* within 45 days of harvest.

[Micro rate Application]

[Sequential applications of *Robustar 44% SC* may be applied to onions (dry bulb), between the 2-leaf and 6-leaf stage, at rates of 0.5 to 1 fl oz/A (equivalent to 0.016 to 0.033 lb ai/A), on a 7 day interval.]

TIMING TO ONIONS (dry bulb)

Apply *Robustar 44% SC* to transplanted onions (dry bulb) between the 2-leaf and 6-leaf stage and on direct seed onions (dry bulb) between the 3-leaf and 6-leaf stage.

TIMING TO WEEDS

Preemergence – Emerged Onions (dry bulb), Preemergence To Weeds

Apply *Robustar 44% SC* to weed free onions (dry bulb) for preemergence control of the weeds listed in Table 1, Section A, Broadleaf Weeds Controlled by Residual Activity to *Robustar 44% SC*.

DIRECTIONS FOR USE IN PEANUT

PRECAUTIONS

- Many weather related factors, including high wind, splashing or heavy rains or cool conditions at or near peanut emergence, may result in peanut injury in fields treated with *Robustar 44% SC*. On occasion this has resulted in a delay in maturity or even a slight decrease in yield.

RESTRICTIONS

- **DO NOT** apply more than 3 fl oz of Robustar 44% SC per acre (equivalent to 0.098 lb ai/A) per application.
- **DO NOT** apply more than 1 application of *Robustar 44% SC* per acre per year at the 3 fl oz (0.098 lb ai) rate.
- **DO NOT** apply more than 3 fl oz of Robustar 44% SC per acre (equivalent to 0.098 lb ai/A) per year.
- **DO NOT** irrigate when peanuts are cracking.
- **DO NOT** graze Robustar 44% SC treated fields or feed treated hay to livestock.

WIND MANAGEMENT

In areas where shallow cultivation is used between rows to reduce wind-borne sand damage to peanuts, weed control from *Robustar 44% SC* may be reduced.

TIMING TO PEANUTS

***Robustar 44% SC* may be applied to peanuts prior to planting or preemergence (after planting). Preemergence applications of *Robustar 44% SC* must be made within 2 days after planting and prior to peanut emergence. Application after the peanuts have begun to crack, or are emerged, will result in severe crop injury. Apply before peanuts have begun to crack. Select *Robustar 44% SC* rate from Table 1 according to anticipated weed spectrum.**

TIMING TO WEEDS

Burndown – Preemergence to Peanuts, Postemergence to Weeds

Robustar 44% SC, applied as part of a burndown program, may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds where peanuts will be planted directly into a stale seedbed, cover crop or in previous crop residues. Apply *Robustar 44% SC* before planting, during planting or after planting, but before the crop emerges. For control of emerged weeds, tank mix *Robustar 44% SC* with glyphosate. Refer to glyphosate label for rates and application pressure. To ensure thorough coverage, use a minimum of 15 gals of spray solution per acre. *Robustar 44% SC* tank mixes applied to assist in the control of emerged weeds must be applied with an adjuvant, including a non-ionic surfactant at 0.25% v/v or a crop oil concentrate or a methylated seed oil at 1 to 2 pt/A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lb/A or 28 to 32% nitrogen solution at 1 to 2 qt/A) may be added to increase herbicidal activity.

Preemergence (conventional tillage) applications of *Robustar 44% SC* must be applied prior to weed emergence.

ADDITIONAL RESIDUAL GRASS CONTROL: SEQUENTIAL

Robustar 44% SC may be applied sequentially following a preplant incorporated application of trifluralin (states of New Mexico, Oklahoma and Texas only), Sonalan[®], Dual[®] (metolachlor), pendimethalin or Frontier[®].

ADDITIONAL RESIDUAL GRASS CONTROL: TANK MIXED

Robustar 44% SC can be tank mixed with alachlor, metolachlor or Frontier for additional grass and broadleaf weed control. *Robustar 44% SC* can also be tank mixed with pendimethalin or Sonalan in states where they are labeled, provided overhead irrigation guidelines on the pendimethalin and/or Sonalan labels are followed.

DIRECTIONS FOR USE IN POTATO

[For Use in Arizona, California, Colorado, Delaware, Florida, Hawaii, Idaho, Maryland, Minnesota, Montana, Nebraska, Nevada, New Jersey, New Mexico, North Carolina, North Dakota, Oregon, South Carolina, South Dakota, Texas, Utah, Virginia, Washington, Washington DC and Wyoming only.]

PRECAUTIONS

- Many weather related factors, including high wind, splashing or heavy rains or cool conditions at or near potato emergence, may result in potato injury in fields treated with *Robustar 44% SC*. On occasion this has resulted in a delay in maturity. Understand and accept these risks before using *Robustar 44% SC*.

RESTRICTIONS

- **DO NOT** apply more than 1.5 fl oz of Robustar 44% SC per acre (equivalent to 0.049 lb ai/A) per application.
- **DO NOT** apply more than 1 application of *Robustar 44% SC* per acre per year at the 1.5 fl oz (0.049 lb ai) rate.
- **DO NOT** apply more than 1.5 fl oz of Robustar 44% SC per acre (equivalent to 0.049 lb ai/A) per year.
- **DO NOT** apply Robustar 44% SC to Rill (furrow) irrigated potatoes

TIMING TO POTATOES

Robustar 44% SC may be applied to potatoes after hilling for the preemergence suppression of the weeds listed in Table 8, Weeds Suppressed by Residual Activity of *Robustar 44% SC* at 1.5 fl oz/A (equivalent to 0.049 lb ai/A). Tank mix *Robustar 44% SC* with other labeled herbicides for broad spectrum weed control. A minimum of 2 inches of settled soil must cover the vegetative portion of the potato plant at the time of *Robustar 44% SC* application. Application to potatoes with less than 2 inches of soil covering the vegetative portion of the potato may result in crop injury. In areas with historically higher amounts of rainfall during the time of preemergence herbicide applications, including the Red River Valley, Minnesota and North Dakota, the requirement for 2 inches of settled soil is critical to avoid crop injury. Mechanical incorporation of *Robustar 44% SC* will result in decreased weed control. In areas with sprinkler irrigation, incorporate *Robustar 44% SC* with 1/4 to 3/4 inches of irrigation, after application and before **any** sprouts are within 2 inches of the settled soil surface if a rainfall event has not yet occurred.

TIMING TO WEEDS

Preemergence – Soil Covered Potatoes, Preemergence To Weeds

Apply *Robustar 44% SC* to soil covered potatoes for the preemergence suppression of the weeds listed in Table 8. Harrowing, cultivation or corrugating after *Robustar 44% SC* application will reduce weed control.

Table 8. Weeds Suppressed by Residual Activity of *Robustar 44% SC* at 1.5 fl oz/A

Common Name	Scientific Name	Organic Matter	Application Rate (lb ai/A)
Lambsquarters, Common	<i>Chenopodium album</i>	Up to 5%	1.5 fl oz/A (0.049)
Mustard, Wild	<i>Brassica kaber</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>		
Redroot	<i>Amaranthus retroflexus</i>		
Smooth	<i>Amaranthus hybridus</i>		
Spiny Amaranth	<i>Amaranthus spinosus</i>		
Tumble	<i>Amaranthus albus</i>		
Prickly Lettuce (China Lettuce)	<i>Lactuca serriola</i>		
Radish, Wild	<i>Raphanus raphanistrum</i>		

DIRECTIONS FOR USE IN SOYBEAN

PRECAUTIONS

- If *Robustar 44% SC* is tank mixed with flufenacet (Axiom[®], Domain[®]), metolachlor (Dual Magnum, Dualll Magnum, Boundary[®]) or dimethenamid (Frontier or Outlook[®]) and applied within 14 days of planting soybeans, plant under no-till or minimum tillage conditions on wheat stubble or field corn stubble.
- Irrigation when soybeans are cracking may result in severe injury.

RESTRICTIONS

- **DO NOT** apply more than 3 fl oz of *Robustar 44% SC* per acre (equivalent to 0.098 lb ai/A) per application.
- **DO NOT** apply more than 1 application of *Robustar 44% SC* per acre per year at the 3 fl oz (0.098 lb ai) rate.
- **DO NOT** apply more than 3 fl oz of *Robustar 44% SC* per acre (equivalent to 0.098 lb ai/A) per year.
- Graze *Robustar 44% SC* treated fields or feed treated hay to livestock no sooner than 21 days after application.

TIMING TO SOYBEANS

Robustar 44% SC may be applied to soybeans prior to planting or preemergence (after planting). Preemergence application of *Robustar 44% SC* must be made within 3 days after planting and prior to soybean emergence. Application after the soybeans have begun to crack, or are emerged, will result in severe crop injury. Apply before soybeans have begun to crack. Select *Robustar 44% SC* rate from Table 1 according to anticipated weed spectrum.

TIMING TO WEEDS

Burndown – Preemergence to Soybeans, Postemergence to Weeds

Robustar 44% SC, applied as part of a burndown program, may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds where soybeans will be planted directly into a stale seedbed, cover crop or in previous crop residues. For control of emerged weeds, choose the most appropriate tank mix partner from Table 9. Apply *Robustar 44% SC* with ground equipment before planting, during planting or within 3 days after planting, **but before the crop emerges**. To ensure thorough coverage, use a minimum of 15 gallons of spray solution per acre. Refer to tank mix partner's label for rates and application pressures. All *Robustar 44% SC* tank mixes applied to assist in the control of emerged weeds must be applied with crop oil concentrate or methylated seed oil at 1 to 2 pt/A or a non-ionic surfactant at 0.25% v/v.

INCREASING SPEED OF GLYPHOSATE BURNDOWN ACTIVITY

Robustar 44% SC, at rates as low as 1 fl oz/A (equivalent to 0.033 lb ai/A), may be tank mixed with glyphosate (Roundup) to increase the speed of burndown activity compared to glyphosate applied alone. Residual weed control will not be provided at rates lower than 2 fl oz/A (equivalent to 0.065 lb ai/A); however, suppression of the weeds in Table 2, may occur at *Robustar 44% SC* rates as low as 1 fl oz/A (equivalent to 0.033 lb ai/A).

TANK MIXES

Robustar 44% SC may be tank mixed with the herbicides listed in Table 9 for increased burndown activity, additional residual broadleaf and/or additional grass control. Refer to tank mix partner's label for adjuvant selection.

Table 9. Tank Mix Partners for Control of Emerged Weeds in Reduced Tillage Soybeans

Tank Mix Partner	Target Weeds ⁽¹⁾
2,4-D LVE	Marestail Giant Ragweed Dandelion
paraquat	Annual Grasses Henbit
glyphosate	General Burndown
Select Max [®]	Annual Grasses
Scepter [®] 70 DG	Cocklebur Common Sunflower
Weedmaster [®]	Marestail Giant Ragweed Dandelion

⁽¹⁾Refer to tank mix product labels for specific use directions for control of emerged weeds present.

ADDITIONAL RESIDUAL BROADLEAF CONTROL

Robustar 44% SC can be tank mixed with metribuzin, Firstrate[®], Lorox[®], Pursuit Plus[®], PYTHON[®], Squadron[®], Scepter or Steel[®] for additional broadleaf control.

ADDITIONAL RESIDUAL GRASS CONTROL

Robustar 44% SC can be tank mixed with pendimethalin or Command[®] for additional grass control. [In the states of (**Note to EPA Reviewer: specific states will be listed here**) *Robustar 44% SC* can be tank mixed with microencapsulated acetochlor (Warrant[®]) at 2 oz per acre.] [Tank mixes with flufenacet (Axiom or Domain), metolachlor (Dual products or Boundary) or dimethenamid (Frontier or Outlook) may result in severe injury to soybeans when application is followed by prolonged periods of cool wet weather.]

ROUNDUP READY PROGRAM

Robustar 44% SC may be applied as part of a burndown program or preemergence in conventional tillage programs, at 2 to 3 fl oz/A (equivalent to 0.065 to 0.098 lb ai/A) to reduce early season weed competition from water hemp, velvetleaf, nightshade and morning glories as well as other weeds listed in Tables 2 and 3 in Roundup Ready programs. A sequential post emergence application of glyphosate will be required to control weeds not controlled by *Robustar 44% SC*.

DIRECTIONS FOR USE IN STRAWBERRY

PRECAUTIONS

- *Robustar 44% SC*, at 3 fl oz per acre (equivalent to 0.098 lb ai/A), can be applied to the soil a minimum of 30 days prior to transplanting strawberries provided the strawberries will be transplanted through a plastic mulch.
- *Robustar 44% SC* at 3 fl oz per acre (equivalent to 0.098 lb ai/A) can be applied to dormant (established or newly planted) strawberries for the preemergence control of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of *Robustar 44% SC*.
- *Robustar 44% SC*, at 3 fl oz per acre (equivalent to 0.098 lb ai/A), can be applied in strawberry row middles with a shielded or hooded sprayer for the preemergence control of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of *Robustar 44% SC*.

RESTRICTIONS:

- **DO NOT** apply more than 3 fl oz of *Robustar 44% SC* per acre (equivalent to 0.098 lb ai/A) per application.
- **DO NOT** apply more than 1 application of *Robustar 44% SC* per acre per year at the 3 fl oz (0.098 lb ai) rate.
- **DO NOT** apply more than 3 fl oz of *Robustar 44% SC* per acre (equivalent to 0.098 lb ai/A) per year.

Application Method	Minimum Time From Application to Harvest (PHI)	Use Rate Per Acre Per Application fl oz (lb ai)	Use Rate Per Acre Per Year fl oz (lb ai)	Special Use Instructions
Pre-transplant	Not applicable	3 (0.098)	3 (0.098)	Apply a minimum of 30 days prior to transplanting and prior to plastic mulch being laid. Apply as part of a tank mix to control emerged weeds.
Preemergence to dormant strawberries	Not applicable	3 (0.098)	3 (0.098)	Crop oil concentrate, at 1% v/v, or non-ionic surfactant, at 0.25% v/v, may be added to help control emerged broadleaf weeds.
Hooded or shielded sprayer application to row middles	DO NOT Apply after fruit set	3 (0.098)	3 (0.098)	Apply only to row middles - DO NOT apply over strawberries. Apply prior to weed emergence. Crop spotting may occur if an adjuvant is added. DO NOT apply after fruit set or spotting of fruit may occur. DO NOT allow spray drift to come in contact with fruit or foliage

Table 10. Weeds Controlled by Preemergence Application of Robustar 44% SC

Broadleaf Weed Species				
Common Name	Scientific Name	Organic Matter	Soil Type	Application Rates
Bristly Starbur	<i>Acanthospermum hispidum</i>	Up to 10% ⁽¹⁾	All Soil Types ⁽²⁾	Asparagus, Caneberries, Garlic, Hops 6 fl oz/A (0.20 lb ai/A) Sugarcane 6 to 8 fl oz/A (0.20 to 0.26 lb ai/A) Bushberries, Cactus, Citrus Fruit, Grapes, Olive, Pome Fruit, Pomegranate, Stone Fruit, Tree Nuts and Non-Bearing Fruit Trees 6 to 12 fl oz/A ⁽²⁾ (0.20 to 0.39 lb ai/A) To Maintain Bare Ground on Non-Crop Areas of Farms, Orchards & Vineyards 6 to 12 fl oz/A. (0.20 to 0.39 lb ai/A)
Carpetweed	<i>Mollugo verticillata</i>			
Chickweeds				
Common	<i>Stellaria media</i>			
Mouseear	<i>Cerastium vulgatum</i>			
Coffee Senna	<i>Cassia occidentalis</i>			
Dandelion	<i>Taraxacum officinale</i>			
Eclipta	<i>Eclipta prostrata</i>			
Eveningprimrose, Cutleaf	<i>Oenothera laciniata</i>			
False Chamomile[*]	<i>Tripleurospermum maritima</i>			
Filaree				
Redstem	<i>Erodium cicutarium</i>			
Whitestem	<i>Erodium moschatum</i>			
Fiddleneck, Coast[*]	<i>Amsinckia menziesii</i>			
Fleabane, Hairy	<i>Conyza bonariensis</i>			
Field Pennycress[*]	<i>Thlaspi arvense</i>			
Florida Beggarweed	<i>Desmodium tortuosum</i>			
Florida Pusley	<i>Richardia scabra</i>			
Golden Crownbeard	<i>Verbesina encelioides</i>			
Groundsel, Common	<i>Senecio vulgaris</i>			
Hairy Indigo	<i>Indigofera hirsuta</i>			
Hemp Sesbania	<i>Sesbania exaltata</i>			
Henbit	<i>Lamium amplexicaule</i>			
Jimsonweed	<i>Datura stramonium</i>			
Kochia	<i>Kochia scoparia</i>			
Lambsquarters, Common	<i>Chenopodium album</i>			
Mallow				
Common (Cheeseweed)	<i>Malva neglecta</i>			
Little				
Horseweed/Marestail	<i>Conyza canadensis</i>			
Mayweed/False Chamomile[*]	<i>Matricaria maritima</i>			
Morningglories				
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriuscula</i>			
Ivyleaf				
Red/Scarlet	<i>Ipomoea coccinea</i>			
Smallflower	<i>Jacquemontia tamnifolia</i>			
Tall	<i>Ipomoea purpurea</i>			

[*Not for use in California.]

continued

⁽¹⁾Robustar 44% SC can be used on soils with greater than 10% organic matter; however, length of residual control may be shorter than on soils with lower organic matter content.

⁽²⁾Use a maximum Robustar 44% SC rate of 6 fl oz/A (equivalent to 0.20 lb ai/A) per application on any soil that has a sand plus gravel content over 80% if bushes, trees or vines are under 3 years of age.

Table 10. Weeds Controlled by Preemergence Application of Robustar 44% SC (continued)

Broadleaf Weed Species				
Common Name	Scientific Name	Organic Matter	Soil Type	Application Rates
Mustards		Up to 10% ⁽¹⁾	All Soil Types ⁽²⁾	Asparagus, Caneberries, Garlic, Hops 6 fl oz/A (0.20 lb ai/A)
London Rocket[*]	<i>Sisymbrium irio</i>			
Tansey[*]	<i>Desurainia pinnata</i>			
Tumble	<i>Sisymbrium altissimum</i>			
Wild	<i>Brassica kaber</i>			
Nettle, Burning[*]	<i>Urtica urens</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>			
Redroot	<i>Amaranthus retroflexus</i>			
Smooth	<i>Amaranthus hybridus</i>			
Spiny Amaranth	<i>Amaranthus spinosus</i>			
Tumble	<i>Amaranthus albus</i>			
Prickly Lettuce (China Lettuce)	<i>Lactuca serriola</i>			
Prickly Sida (Teaweed)	<i>Sida spinosa</i>			
Puncturevine	<i>Tribulus terrestris</i>			
Purslane				
Common	<i>Portulaca oleracea</i>			
Horse[*]	<i>Trianthema portulacastrum</i>			
Radish, Wild	<i>Raphanus raphanistrum</i>			
Ragweed, Common	<i>Ambrosia artemisiifolia</i>			
Redmaids	<i>Calandrinia ciliata</i> var <i>menziessi</i> .			
Redweed	<i>Melochia corchorifolia</i>			
Shepherd's-purse	<i>Capsella bursa-pastoris</i>			
Smellmelon[*]	<i>Cucumis melo</i>			
Sowthistle, Annual	<i>Sonchus oleraceus</i>			
Spotted Spurge	<i>Euphorbia maculata</i>			
Spurred Anoda	<i>Anoda cristata</i>			
Thistle, Russian	<i>Salsola iberica</i>			
Tropic Croton	<i>Croton glandulosus</i>			
Venice Mallow	<i>Hibiscus trionum</i>			
Waterhemp				
Common	<i>Amaranthus rudis</i>			
Tall	<i>Amaranthus tuberculatus</i>			
Wild Poinsettia	<i>Euphorbia heterophylla</i>			
White Cockle[*]	<i>Silene latifolia</i>			
Wormwood, Biennial	<i>Artemisia biennis</i>			
Yellow Rocket[*]	<i>Barbarea vulgaris</i>			
				Bushberries, Cactus, Citrus Fruit, Grapes, Olive, Pome Fruit, Pomegranate, Stone Fruit, Tree Nuts and Non-Bearing Fruit Trees 6 to 12 fl oz/A ⁽²⁾ (0.20 to 0.39 lb ai/A)
				To Maintain Bare Ground on Non-Crop Areas of Farms, Orchards & Vineyards 6 to 12 fl oz/A (0.20 to 0.39 lb ai/A)

[*Not for use in California.]

continued

⁽¹⁾Robustar 44% SC can be used on soils with greater than 10% organic matter; however, length of residual control may be shorter than on soils with lower organic matter content.

⁽²⁾Use a maximum Robustar 44% SC rate of 6 fl oz/A (equivalent to 0.20 lb ai/A) per application on any soil that has a sand plus gravel content over 80% if bushes, trees or vines are under 3 years of age.

Table 10. Weeds Controlled by Preemergence Application of Robustar 44% SC (continued)

Broadleaf Weed Species				
Common Name	Scientific Name	Organic Matter	Soil Type	Application Rates
GRASS WEED SPECIES		Up to 10% ⁽¹⁾	All Soil Types ⁽²⁾	Asparagus, Caneberries, Garlic, Hops 6 fl oz/A (0.20 lb ai/A) Sugarcane 6 to 8 fl oz/A (0.20 to 0.26 lb ai/A) Bushberries, Cactus, Citrus Fruit, Grapes, Olive, Pome Fruit, Pomegranate, Stone Fruit, Tree Nuts and Non-Bearing Fruit Trees 6 to 12 fl oz/A ⁽²⁾ (0.20 to 0.39 lb ai/A) To Maintain Bare Ground on Non-Crop Areas of Farms, Orchards & Vineyards 6 to 12 fl oz/A (0.20 to 0.39 lb ai/A)
Barnyardgrass	<i>Echinochloa crus-galli</i>			
Bluegrass, Annual	<i>Poa annua</i>			
Crabgrass				
Large	<i>Digitaria sanguinalis</i>			
Smooth	<i>Digitaria ischaemum</i>			
Foxtails				
Bristly	<i>Setaria verticillata</i>			
Giant	<i>Setaria faberi</i>			
Green	<i>Setaria viridis</i>			
Yellow	<i>Setaria glauca</i>			
Goosegrass	<i>Eleusine indica</i>			
Guineagrass	<i>Panicum maximum</i>			
Johnsongrass, Seedling	<i>Sorghum halepense</i>			
Lovegrass, California	<i>Eragrostis diffusa</i>			
Panicum				
Fall	<i>Panicum dichotomiflorum</i>			
Texas	<i>Panicum texaum</i>			
Ryegrass, Italian[*]	<i>Lolium multiflorum</i>			
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>			

[*Not for use in California.]

⁽¹⁾Robustar 44% SC can be used on soils with greater than 10%; however, length of residual control may be shorter than on soils with lower organic matter content.

⁽²⁾Use a maximum Robustar 44% SC rate of 6 fl oz/A (equivalent to 0.20 lb ai/A) per application on any soil that has a sand plus gravel content over 80% if bushes, trees or vines are under 3 years of age.

DIRECTIONS FOR USE IN SUGARCANE

RESTRICTIONS

- **DO NOT** apply more than 8 fl oz of Robustar 44% SC per acre (equivalent to 0.26 lb ai/A) per application.
- **DO NOT** make a sequential application within 14 days of the first application.
- **DO NOT** apply more than 4 applications of *Robustar 44% SC* per acre per year at the 3 fl oz (equivalent to 0.098 lb ai) rate.
- **DO NOT** apply more than 12 fl oz of Robustar 44% SC per acre (equivalent to 0.39 lb ai/A) per year.
- **DO NOT** apply Robustar 44% SC within 90 days of harvest.

TIMING TO SUGARCANE

Robustar 44% SC may be applied from 2 weeks prior to planting to before the sugarcane emerges, post directed or at layby. Select the proper *Robustar 44% SC* rate from Table 10 according to anticipated weed spectrum and soil organic matter content for preemergence applications. Select *Robustar 44% SC* rate from Table 11 according to emerged weed spectrum and weed heights for post-directed and layby applications.

TIMING TO WEEDS

Burndown – Preemergence to Sugarcane, Postemergence to Weeds

Robustar 44% SC may be used for preemergence control, and to assist in postemergence burndown, of many annual broadleaf weeds in sugarcane. For control of emerged weeds, choose the most appropriate tank mix partner from Table 12. Apply *Robustar 44% SC* **before the crop emerges**. To ensure thorough coverage, use a minimum of 15 gallons of spray solution per acre. All *Robustar 44% SC* tank mixes applied to assist in the control of emerged weeds must be applied with crop oil concentrate or methylated seed oil at 1 qt/A or a non-ionic surfactant at 0.25% v/v. Some tank mix products, for example Roundup Original Max (glyphosate), may be formulated with a suitable adjuvant and **DO NOT** require additional adjuvant.

Preemergence – Preemergence to Sugarcane, Preemergence to Weeds

Robustar 44% SC may be used for preemergence control of many annual broadleaf and grassy weeds in sugarcane. Select rate based on anticipated weed spectrum and soil organic matter content from Table 10. Apply *Robustar 44% SC* **before the crop emerges**.

Post-Directed – Postemergence to Sugarcane, Postemergence to Weeds

Make post-directed applications to upright sugarcane varieties after the sugarcane has exceeded 24 inches in height and has begun to joint. Post-directed applications to “PINEAPPLE” varieties or to upright varieties that are less than 24 inches in height and have not begun to joint, may result in unacceptable crop injury. To ensure thorough coverage, use a minimum of 15 gals of spray solution per acre. Post-directed applications of *Robustar 44% SC* must include a crop oil concentrate or methylated seed oil at 1 qt/A or a non-ionic surfactant at 0.25% v/v. Select the proper *Robustar 44% SC* rate based on weed spectrum and weed height from Table 11.

Layby – Postemergence to Sugarcane, Postemergence to Weeds

Layby applications can be made to upright and “PINEAPPLE” varieties after the sugarcane has exceeded 30 inches in height and the spray solution will not contact foliage above 6 inches from the base of the sugarcane. To ensure thorough coverage, use a minimum of 15 gallons of spray solution per acre. Layby applications of *Robustar 44% SC* must be applied with crop oil concentrate or methylated seed oil at 1 qt/A or a non-ionic surfactant at 0.25% v/v. Select the proper *Robustar 44% SC* rate based on weed spectrum and weed height from Table 11.

Table 11. Broadleaf Weeds Controlled by Post-Directed or Layby Application of Robustar 44% SC in Sugarcane

Broadleaf Weed Species		Weed Height (inches)	
Common Name	Scientific Name	3 fl oz/A (0.098 lb ai/A)	4 fl oz/A (0.13 lb ai/A)
Bindweed, Field ⁽¹⁾	<i>Convolvulus arvensis</i>	4	8
Carpetweed	<i>Mollugo verticillata</i>	4	4
Cocklebur, Common	<i>Xanthium strumarium</i>	4	4
Florida Beggarweed	<i>Desmodium tortuosum</i>	2	2
Hemp Sesbania	<i>Sesbania exaltata</i>	6	8
Jimsonweed	<i>Datura stramonium</i>	4	4
Lambsquarters, Common	<i>Chenopodium album</i>	4	4
Morningglories			
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriuscula</i>	-	4
Ivyleaf	<i>Ipomoea hederacea</i>	4	4
Pitted	<i>Ipomoea lacunosa</i>	4	6
Red	<i>Ipomoea coccinea</i>	-	4
Tall	<i>Ipomoea purpurea</i>	2	4
Mustard, Wild	<i>Brassica kaber</i>	6	6
Pigweeds			
Palmer Amaranth	<i>Amaranthus palmeri</i>	4	6
Redroot	<i>Amaranthus retroflexus</i>	4	6
Smooth	<i>Amaranthus hybridus</i>	4	6
Plaintain, Broadleaf	<i>Plantago major</i>	6	6
Prickly Sida	<i>Sida spinosa</i>	4	6
Purslanes			
Common	<i>Portulaca oleracea</i>	2	4
Rock	<i>Calandrinia</i> spp.	-	2
Ragweeds			
Common	<i>Ambrosia artemisiifolia</i>	2	2
Giant	<i>Ambrosia trifida</i>	4	4
Rice Flatsedge	<i>Cyperus iria</i>	2	4
Sicklepod	<i>Senna obtusifolia</i>	4	4
Smartweeds			
Ladysthumb	<i>Polygonum persicaria</i>	4	4
Pale	<i>Polygonum lapathifolium</i>	4	4
Pennsylvania	<i>Polygonum pennsylvanicum</i>	4	4
Spotted Spurge	<i>Euphorbia maculata</i>	4	4
Velvetleaf	<i>Abutilon theophrasti</i>	4	6
Venice Mallow	<i>Hibiscus trionum</i>	2	2
Waterhemp			
Common	<i>Amaranthus rudis</i>	2	2
Tall	<i>Amaranthus tuberculatus</i>	2	2

⁽¹⁾Robustar 44% SC tank mixes will only control the above ground portion of field bindweed. Repeated applications will be needed to control regrowth.

TANK MIXES

Robustar 44% SC may be tank mixed with the herbicides listed in Table 12 for additional weed control in burndown, preemergence, post-directed and layby applications. Refer to tank mix partner’s label for adjuvants.

Table 12. Tank Mixes with *Robustar 44% SC* for Post-Directed or Layby Use in Sugarcane

Tank Mix Partner ⁽¹⁾	Target Weeds	Burndown	Post-Directed ⁽²⁾	Layby
2,4-D amine	Annual and Perennial Broadleaf Weeds	X		
atrazine	Pigweeds Cocklebur	X	X	X
Asulox ^{□(3)}	Annual Grasses		X	X
Evik ^{□(4)}	Annual Grasses		X	X
glyphosate ⁽⁵⁾	Annual and Perennial Weeds	X		X
metribuzin ⁽⁶⁾	Broadleaf Panicum Goosegrass		X	X
Sempra [□]	Purple Nutsedge Yellow Nutsedge	X	X	X
Weedmaster	Annual and Perennial Broadleaf Weeds	X		

⁽¹⁾Refer to tank mix product labels for specific use directions for control of emerged weeds present not listed in Table 11.

⁽²⁾Make post-directed applications to upright sugarcane varieties after the sugarcane has exceeded 24 inches in height. Post-directed applications to “PINEAPPLE” varieties or to upright varieties that are less than 24 inches in height may result in unacceptable crop injury.

⁽³⁾Apply to sugarcane at least 24 inches tall.

⁽⁴⁾Apply before weeds are greater than 6 inches tall.

⁽⁵⁾Glyphosate applications must be made with a hooded sprayer. Sugarcane must be at least 3 feet tall. Contact with the sugarcane foliage by either the spray mixture or the treated weed foliage will result in sugarcane injury.

⁽⁶⁾Refer to metribuzin label for restrictions based on soil type.

ADDITIONAL PREEMERGENCE BROADLEAF CONTROL

Robustar 44% SC can be tank mixed with atrazine or diuron for additional preemergence broadleaf control.

ADDITIONAL PREEMERGENCE GRASS CONTROL

Robustar 44% SC can be tank mixed with Prowl (or other pendimethalin products) for additional preemergence grass control provided sugarcane has not emerged.

DIRECTIONS FOR USE IN SUNFLOWER AND SAFFLOWER

HARVEST AID

RESTRICTIONS

- **DO NOT** apply more than 3 fl oz of Robustar 44% SC per acre (equivalent to 0.098 lb ai/A) per application.
- **DO NOT** apply more than 1 application of *Robustar 44% SC* per acre per year at the 3 fl oz (0.098 lb ai) rate.
- **DO NOT** apply more than 3 fl oz of Robustar 44% SC per acre (equivalent to 0.098 lb ai/A) per year.
- **DO NOT** harvest within 5 days of application of Robustar 44% SC.

Desiccation from *Robustar 44% SC* requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 1 qt/A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lb/A or a 28 to 32% nitrogen solution at 1 to 2 qt/A) may be added to the spray mixture along with methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for methylated seed oil. Tank mixing *Robustar 44% SC* with glyphosate or paraquat will increase control of emerged weeds and aid in harvest for sunflowers. Tank mixing *Robustar 44% SC* with glyphosate will increase control of emerged weeds and aid in harvest for safflower.

TIMING TO SUNFLOWER AND SAFFLOWER

Apply *Robustar 44% SC*, at 1.5 to 2 fl oz/A (equivalent to 0.049 to 0.065 lb ai/A), when crop is mature (when seed is 35% moisture or less). For many varieties, this is when the backs of the heads are turning yellow and the bracts are turning brown. Sunflower and safflower can be harvested 5 days after application.

To ensure thorough coverage, use 15 to 30 gallons of spray solution per acre and select nozzle type using manufacturer's gallonage and pressure guidelines for postemergence application.

DIRECTIONS FOR USE IN SWEET POTATO

[For Use in Arizona, California and Hawaii Only]

RESTRICTIONS

- **DO NOT** apply more than 3 fl oz of Robustar 44% SC per acre (equivalent to 0.098 lb ai/A) per application.
- **DO NOT** apply more than 1 application of *Robustar 44% SC* per acre per year at the 3 fl oz (0.098 lb ai) rate.
- **DO NOT** apply more than 3 fl oz of Robustar 44% SC per acre (equivalent to 0.098 lb ai/A) per year.
- **DO NOT** apply Robustar 44% SC postemergence to sweet potatoes.
- **DO NOT** use greenhouse grown transplants.
- **DO NOT** use transplants harvested more than 2 days prior to transplanting.
- **DO NOT** use Robustar 44% SC on any sweet potato variety other than "BEAUREGARD", unless user has tested *Robustar 44% SC* on other variety and has found crop tolerance to be acceptable.
- **DO NOT** apply Robustar 44% SC as a part of any tank mix, except with labeled rates of Command, if tank mix is applied prior to transplanting.

TIMING TO SWEET POTATOES

Robustar 44% SC must be applied prior to transplanting sweet potatoes.

TIMING TO WEEDS

Preemergence To Weeds

Apply *Robustar 44% SC* to soil prior to transplanting sweet potato slips for the preemergence control of the weeds listed in Table 1.

DIRECTIONS FOR USE IN WHEAT

RESTRICTIONS

- **DO NOT** apply more than 2 fl oz of Robustar 44% SC per acre (equivalent to 0.065 lb ai/A) per application.
- **DO NOT** apply more than 1 application of *Robustar 44% SC* per acre per year at the 2 fl oz (0.065 lb ai) rate.
- **DO NOT** apply more than 2 fl oz of Robustar 44% SC per acre (equivalent to 0.065 lb ai/A) per year.

PRE-PLANT APPLICATIONS. PRE-EMERGENCE WEED CONTROL

[For Use in Delaware, Idaho, Kentucky, Maryland, Minnesota, Montana, North Carolina, North Dakota, New Jersey, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Virginia, Washington and Wisconsin Only]

RESTRICTIONS

- For pre-plant weed control, use Robustar 44% SC only on no-till or minimum tillage fields where the previous year's crop residue has not been incorporated into the soil.
- [Plant wheat no sooner than 7 days after *Robustar 44% SC* application in the states of DE, ID, KY, MD, MN, MT, NC, ND, NJ, OR, PA, SC, SD, TN, VA, WA or WI]
- [Plant wheat no sooner than 14 days after *Robustar 44% SC* application in the states of DE, ID, KY, MD, MN, MT, NC, ND, NJ, OR, PA, SC, SD, TN, VA, WA or WI]
- [**DO NOT** use Robustar 44% SC on Durum wheat.]
- **DO NOT** irrigate between emergence and spike.
- Wheat must be planted a minimum of 1" deep.
- **DO NOT** graze until wheat has reached 5 inches in height.

Burndown Use Directions

[All states]

Robustar 44% SC, applied as part of a burndown program, at 2 fl oz/A (equivalent to 0.065 lb ai/A), may be used for residual weed control, as well as to assist in postemergence burndown of many weeds where wheat will be planted directly into the residue of the previous crop. See Directions for Use in Fall Burndown Programs in Fields to be Planted to Barley, Field Pea, Flax, Lentil, Safflower, Sunflower and Spring Wheat for rates and timing of applications. For control of emerged weeds, *Robustar 44% SC* must be applied with an appropriate burndown tank mix partner. To ensure thorough coverage, use a minimum of 15 gallons of spray solution per acre. Refer to tank mix partner's label for application pressure and adjuvant systems.

POST-PLANT. PRE-EMERGENCE WEED CONTROL

[For Use in Delaware, Idaho, Kentucky, Maryland, Minnesota, Montana, North Carolina, North Dakota, New Jersey, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Virginia, Washington and Wisconsin Only]

RESTRICTIONS

- For post-plant, pre-emergence weed control, use Robustar 44% SC only on no-till or minimum tillage fields where the previous crop residue has not been incorporated into the soil.
- Apply *Robustar 44% SC* up to 2 days after planting.
- [**DO NOT** use Robustar 44% SC on Durum wheat.]
- **DO NOT** irrigate between emergence and spike.
- Wheat must be planted a minimum of 1" deep.
- **DO NOT** graze until wheat has reached 5 inches in height.

Use Directions

Robustar 44% SC, applied at 2 fl oz/A (equivalent to 0.065 lb ai/A), may be used for residual weed control, where wheat has been planted directly into the residue of the previous year. Application must be made no later than 2 days after planting.

HARVEST AID

[All states]

RESTRICTIONS

- **DO NOT** harvest within 10 days of application.

Use Directions

Robustar 44% SC, applied at 2 fl oz/A (equivalent to 0.065 lb ai/A) for desiccation requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 1 qt/A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lb/A or a 28 to 32% nitrogen solution at 1 to 2 qt/A) may be added to the spray mixture along with methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for methylated seed oil. Tank mixing *Robustar 44% SC* with glyphosate will increase control of emerged weeds and aid in harvest.

To ensure thorough coverage, use a minimum of 10 gallons spray solution per acre by ground application and a minimum of 5 gallons per acre by aerial application. Select nozzle based on manufacturer's gallonage and pressure guidelines for postemergence application.

TIMING TO WHEAT

Apply *Robustar 44% SC*, at 1.5 to 2 fl oz/A (equivalent to 0.049 to 0.065 lb ai/A), after wheat reaches the hard dough stage and grain has no more than 30% moisture. Wheat can be harvested 10 days after application. Yifan directs tank mixing with glyphosate to enhance desiccation.

DIRECTIONS FOR USE IN BUSHBERRIES, CANEBERRIES, CITRUS FRUIT, GRAPE, OLIVE, POME FRUIT, POMEGRANATE, STONE FRUIT, TREE NUTS AND NON-BEARING FRUIT TREES

Bushberries (Subgroup 13-07B): Aronia Berry; Blueberry, Highbush; Blueberry, Lowbush;

Buffalo Currant; Chilean Guava; Cranberry, Highbush; Currant, Black; Currant, Red; Elderberry, European Barberry, Gooseberry, Honeysuckle, edible; Huckleberry; Jostaberry; Juneberry (Saskatoon Berry); Lingonberry; Native Currant; Salal; Sea Buckthorn; cultivars, varieties, and/or hybrids of these.

Caneberries (Subgroup 13-07A): Blackberry, Loganberry, Black Raspberry, Red Raspberry, Wild Raspberry cultivars, varieties and/or hybrids of these.

Citrus Fruit (Crop Group 10-10): Australian Desert Lime; Australian Finger-lime; Australian Round Lime; Brown River Finger Lime; Calamondin; Citron; Citrus hybrids; Grapefruit; Japanese Summer Grapefruit; Kumquat; Lemon; Lime; Mediterranean Mandarin; Mount White Lime; New Guinea Wild Lime; Orange, Sour; Orange, Sweet; Pummelo; Russell River Lime; Satsuma Mandarin; Sweet Lime; Tachibana Orange; Tahiti Lime; Tangelo; Tangerine (mandarin); Tangor; Trifoliate Orange; Uniq Fruit; cultivars, varieties and/or hybrids of these.

Tree Nuts (Crop Group 14-12): African Nut-tree; Almond, Beechnut; Brazil Nut; Brazilian Pine; Bunya; Bur Oak; Butternut; Cajou Nut; Candlenut; Cashew; Chestnut; Chinquapin; Coconut; Coquito Nut; Dika Nut; Ginkgo; Guiana Chestnut; Hazelnut (Filbert); Heartnut; Hickory Nut; Japanese Horse-chestnut; Macadamia Nut; Mongongo Nut; Monkey-pot; Monkey Puzzle Nut; Okari Nut; Pachira Nut; Peach Palm Nut; Pecan; Pequi; Pili Nut; Pine Nut; Pistachio; Sapucaia Nut; Tropical Almond; Walnut, Black; Walnut, English; Yellowhorn, cultivars, varieties and/or hybrids of these.

Pome Fruit (Crop Group 11-10): Apple; Azarole; Crabapple; Loquat; Mayhaw; Medlar; Pear; Pear, Asian; Quince; Quince, Chinese; Quince, Japanese; Tejocote; cultivars, varieties and/or hybrids of these.

Stone Fruit (Crop Group 12-12): Apricot; Apricot, Japanese; Capulin; Cherry, Black; Cherry, Nanking; Cherry, Sweet; Cherry, Tart; Jujube, Chinese; Nectarine; Peach; Plum; Plum, American; Plum, Beach; Plum, Canada; Plum, Cherry; Plum, Chickasaw; Plum, Damson; Plum, Japanese; Plum, Klamath; Plum, Prune; Plumcot; Sloe and cultivars, varieties and/or hybrids of these.

PRECAUTIONS

- Use a maximum *Robustar 44% SC* rate of 6 fl oz/A (equivalent to 0.20 lb ai/A) per application on any soil that has a sand plus gravel content over 80% if bushes, trees or vines are less than 3 years of age. (Two applications of 6 fl oz/A [equivalent to 0.20 lb ai/A] in a 12 month period can still be made as long as there have been 60 days between applications).
- Raise mower height during all mowing to reduce dust. Dust created by mowing can drift onto desirable vegetation resulting in injury.
- Follow the most restrictive label limitations and precautions of the tank mix product(s) being used.
- Avoid direct or indirect spray contact to foliage and green bark or canes (non-barked trunk and non-barked vines with the exception of undesirable suckers).
- Irrigate after application with minimum of 1/4 inch of water to activate the herbicide and to reduce wind displacement of soil.

PRECAUTIONS FOR BUSHBERRIES

- If bushberries are established less than 2 years ensure that they are protected from spray contact by non-porous wrap, grow tubes or waxed containers.

PRECAUTIONS FOR GRAPES

- If grapes are established less than 2 years ensure that they are trellised at least 3 ft from the soil surface or are protected from spray contact by non-porous wrap, grow tubes or waxed containers.
- Apply only to grapes that are trellised, staked or are free standing.
- Avoid direct or indirect spray contact to foliage and green bark (non-barked vines, with the exception of undesirable suckers).
- Plant new plantings of “own-rooted varieties”, for example Concord, so that all roots are a minimum 8 inches below the soil surface to be treated. In some situations, this may require hilling soil around newly planted vines so that the settled depth of the hill will be 4 to 5 inches above the vineyard floor.

Juice, Raisin and Wine Grapes

- If applied during the period after bud break through final harvest, use shielded application equipment and applicator can ensure spray drift will not come in contact with crop fruit or foliage.

Table Grapes

- Apply *Robustar 44% SC* between final harvest up to bud break.

PRECAUTIONS FOR CITRUS FRUIT, OLIVE, POME FRUIT, POMEGRANATE, STONE FRUIT AND TREENUTS

- For pome fruit and stone fruit, *Robustar 44% SC* can only be applied as a uniform band directed at the base of the trunk prior to silver tip in apples and bud break in stone fruit.
- For pome fruit and stone fruit make applications only to berms
- For olive, pomegranate and tree nuts apply after bud break through final harvest using shielded application equipment if the applicator can ensure the spray drift will not come into contact with non-target vegetation, crop fruit and/or foliage. Shielded application equipment is not required if the following application parameters are followed:
 - Application pressure (at boom) < 30 PSI.
 - Application speed < 5 MPH.
 - Applicator can ensure the spray drift will not come into contact with non-target vegetation, crop fruit and/or foliage.
- If application is made to trees established less than one year, ensure they are protected from spray contact by non-porous wraps, grow tubes, paint or waxed containers.
 - For apples east of the Cascade Mountains in Washington, follow the restrictions above plus:
 - o Apply between final harvest and January 1.
 - o Apply only to apple blocks with an established (2 years or older) permanent cover crop that covers a minimum of 60% of the surface area in the block.
 - o Application must be incorporated with a minimum of one half inch of water within 48 hours after application.
 - o Apply only to orchard berms.

- o **California only:** See precautions and stone fruit in the counties of Merced, San Joaquin and Stanislaus section of this label. [For almonds and stone fruit in the counties of Merced, San Joaquin and Stanislaus, follow supplemental labeling provided by Yifan.

PRECAUTIONS ON ALMOND AND STONE FRUIT IN DEFINED AREAS OF MERCED, SAN JOAQUIN AND STANISLAUS COUNTIES OF CALIFORNIA

The use of *Robustar 44% SC* in soils common in parts of Merced, San Joaquin and Stanislaus counties in California is known to have resulted in injury to almonds under drought stress conditions. These soils are characterized by having been cut or filled, high sand content, low clay content and shallow profiles. Growers in the Defined Area must be aware and assume the risk of using *Robustar 44% SC* on almond or stone fruit crops. The Defined Area can be seen on the Map or by the description that follows:

- Intersection of Highway 4 and Escalon-Bellota Road at Farmington in San Joaquin County;
- Directly South on Escalon-Bellota to the Santa Fe Avenue and railroad tracks at Escalon
- Southeast on Santa Fe Avenue down to the Merced River;
- East following the Merced River to the Merced/Mariposa County line;
- Northwest following the Merced County line through the intersection of Merced and Stanislaus County line following the Stanislaus/Tuolumne County and Calaveras County line to Highway 4;
- West on Highway 4 back to the Farmington intersection of Escalon – Bellota Road.



PRECAUTIONS FOR NON-BEARING FRUIT TREES

Non-Bearing Avocado and Fig

- trees are established less than one year, protected from spray contact by non-porous wraps, grow tubes or waxed containers.
- If applied after flowering through leaf drop, use shielded application equipment and ensure that spray drift will not come in contact with the crop foliage.

USE DIRECTIONS

For bushberries, caneberries, citrus fruit, grape, olive, pomegranate, tree nuts, and non-bearing fruit trees, *Robustar 44% SC* as a uniform broadcast application to the orchard or vineyard floor or as a uniform band directed at the base of the bush, cane, trunk or vine. For stone fruit and pear, *Robustar 44% SC* can only be applied as a uniform band directed at the base of the trunk prior to “bud break”. For apple, *Robustar 44% SC* Herbicide can only be applied as a uniform band directed at the base of the trunk prior to “silver tip”. For other pome fruit check with Yifan personnel for application timing. The preferred application timing for *Robustar 44% SC* is in the fall to maximize the potential for rainfall to activate and set the herbicide. **DO NOT** apply *Robustar 44% SC* over the top of crop or allow spray to come in contact with crop as a result of application or drift.

Preemergence Application

Apply 6 to 12 fl oz [equivalent to 0.20 to 0.39 lb ai/A] (maximum 6 fl oz/A (equivalent to 0.20 lb ai/A) for caneberries) of *Robustar 44% SC* per broadcast acre as a preemergence application. Make preemergence (to weed emergence) applications of *Robustar 44% SC* to a weed-free soil surface. Preemergence applications of *Robustar 44% SC* must be completed prior to weed emergence. Moisture is necessary to activate *Robustar 44% SC* on soil for residual weed control. Dry weather following application of *Robustar 44% SC* may reduce effectiveness. However, when adequate moisture is received after dry conditions, *Robustar 44% SC* will control susceptible germinating weeds.

RESTRICTIONS

- **DO NOT** apply more than 12 fl oz of Robustar 44% SC per acre (equivalent to 0.39 lb ai/A) per application, except Caneberries **DO NOT** apply more than 6 fl oz *Robustar* 44% SC per acre (equivalent to 0.20 lb ai/A) per application.
- **DO NOT** apply more than 24 fl oz of Robustar 44% SC per acre (equivalent to 0.78 lb ai/A) per year, except Bushberries; for Bushberries **DO NOT** apply more than 12 fl oz of Robustar 44% SC per acre (equivalent to 0.39 lb ai/A) per year.
- **DO NOT** make a sequential application within 30 days of the first application, except tree nuts, **DO NOT** make a sequential application within 60 days of the first application.
- **DO NOT** apply Robustar 44% SC to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- **DO NOT** apply Robustar 44% SC within 300 yards of non-dormant pears.
- Raise mower height during all mowing to reduce dust. Dust created by mowing can drift onto desirable vegetation resulting in injury.
- **DO NOT** apply Robustar 44% SC to powdery soils or soils that are susceptible to wind displacement unless irrigation can be applied immediately after application.
- **DO NOT** mow treated areas between bud break and final harvest. Dust created by mowing may drift onto desirable vegetation resulting in injury.
- Follow the most restrictive label limitations and precautions of the tank mix product(s) being used.
- Avoid direct or indirect spray contact to foliage and green bark (non-barked trunk and non-barked vines with the exception of undesirable suckers).
- **DO NOT** apply Robustar 44% SC to tree nuts established less than one year, unless protected from spray contact by non-porous wraps, grow tubes, or waxed containers.
- For non-bearing fruit trees (avocado and fig), **DO NOT** harvest fruit from Robustar 44% SC treated trees within one year of application.
- Preharvest Interval (PHI)
 - Citrus Fruit: 3 days -Olive: 60 Days
 - Bushberries: 7 days -Pome Fruit 60 Days
 - Caneberries: 7 days -Pomegranate: 60 days
 - Grape: 60 days -Stone Fruit: 60 days
 - Tree Nuts: 60 days

Postemergence Application

Apply 6 to 12 fl oz/A [equivalent to 0.20 to 0.39 lb ai/A] (maximum 6 fl oz/A (equivalent to 0.20 lb ai/A) for caneberries) of *Robustar* 44% SC per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant or 1 qt/A crop oil concentrate). The addition of an adjuvant enhances *Robustar* 44% SC activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of *Robustar* 44% SC.

Refer to Table 10 for weeds controlled by the residual activity of *Robustar* 44% SC. *Robustar* 44% SC must be tank mixed with a labeled burndown herbicide for control of the emerged weeds listed in Table 13. Refer to tank mix partner's label for additional weed species and increased weed heights claimed. Refer to tank mix partner's label for additional restrictions, including minimum carrier volume and crops in which tank mix partner may be used. Burndown tank mix partners include glyphosate, paraquat, 2,4-D and Rely®. **DO NOT** use tank mixes with glyphosate or 2,4-D containing products during the period after bloom through final harvest to ensure crop safety from drift.

Residual weed control will be reduced if vegetation prevents the *Robustar* 44% SC from reaching the soil surface. If vegetation is heavy, use a burndown herbicide with *Robustar* 44% SC and make a sequential *Robustar* 44% SC application prior to the emergence of new weeds.

Carrier Volume and Spray Pressure

To ensure thorough coverage in burndown applications, use a minimum of 15 gallons of spray solution per acre. Use higher gallonage if dense vegetation or heavy crop residue is present.

Nozzle selection must meet manufacturer's gallonage and pressure guidelines.

Banded Application

Rates listed in Table 13, Weeds Controlled by Postemergence Activity of *Robustar 44% SC* Tank Mixes, refer to a broadcast application covering the entire acre. Refer to the Band Application table in Use Information section to calculate amount needed per acre when making a banded application.

Table 13. Weeds Controlled by Postemergence Activity of Robustar 44% SC Tank mixes

Broadleaf Weed Species			
Common Name	Scientific Name	Weed Height/Length (Inches)	Application Rates (lb ai/A)
Bindweed, Field ⁽¹⁾	<i>Convolvulus arvensis</i>	8	6 to 12 fl oz/A (0.20 to 0.39)
Carpetweed	<i>Mollugo verticillata</i>	4	
Chickweeds			
Common	<i>Stellaria media</i>	4	
Mouseear	<i>Cerastium vulgatum</i>	4	
Cocklebur, Common	<i>Xanthium strumarium</i>	4	
Eveningprimrose, Cutleaf ⁽²⁾	<i>Oenothera laciniata</i>	12	
Filaree			
Broadleaf	<i>Erodium botrys</i>	4	
Redstem	<i>Erodium cicutarium</i>	4	
Florida Beggarweed	<i>Desmodium tortuosum</i>	2	
Hemp Sesbania	<i>Sesbania exaltata</i>	8	
Jimsonweed	<i>Datura stramonium</i>	4	
Lambsquarters, Common	<i>Chenopodium album</i>	4	
Morningglories			
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriuscula</i>	4	
Ivyleaf	<i>Ipomoea hederacea</i>	4	
Pitted	<i>Ipomoea lacunosa</i>	6	
Red/Scarlet	<i>Ipomoea coccinea</i>	4	
Tall	<i>Ipomoea purpurea</i>	4	
Mustard, Wild	<i>Brassica kaber</i>	6	
Pigweeds			
Palmer Amaranth	<i>Amaranthus palmeri</i>	6	
Redroot	<i>Amaranthus retroflexus</i>	6	
Smooth	<i>Amaranthus hybridus</i>	6	
Plaintain, Broadleaf	<i>Plantago major</i>	6	
Prickly Sida (Teaweed)	<i>Sida spinosa</i>	6	
Purslanes			
Common	<i>Portulaca oleracea</i>	4	
Rock	<i>Calandrinia</i> spp.	2	
Ragweeds			
Common	<i>Ambrosia artemisiifolia</i>	2	
Giant	<i>Ambrosia trifida</i>	4	
Rice Flatsedge	<i>Cyperus iria</i>	4	
Sicklepod	<i>Senna obtusifolia</i>	4	
Smartweeds			
Ladythumb	<i>Polygonum persicaria</i>	4	
Pale	<i>Polygonum lapathifolium</i>	4	
Pennsylvania	<i>Polygonum pennsylvanicum</i>	4	
Spotted Spurge	<i>Euphorbia maculata</i>	4	
Velvetleaf	<i>Abutilon theophrasti</i>	4	
Venice Mallow	<i>Hibiscus trionum</i>	4	
Waterhemp			
Common	<i>Amaranthus rudis</i>	2	
Tall	<i>Amaranthus tuberculatus</i>	2	

⁽¹⁾ Robustar 44% SC will only provide control of the above ground portion of bindweed. Repeated applications will be needed to control regrowth.

⁽²⁾ For acceptable control, cutleaf evening primrose must be 12 inches or less and in the rosette stage. Add crop oil concentrate, at 1 pt/A, or non-ionic surfactant at 0.25% v/v, to glyphosate tank mixes for cutleaf evening primrose control, including glyphosate formulations that contain a built-in adjuvant system.

ADDITIONAL RESIDUAL WEED CONTROL

Robustar 44% SC may be tank mixed with oryzalin (Surflan®), simazine or diuron for additional residual weed control. Always read and follow label use directions for all products being used.

FALLOWBED USE ON TRANSPLANTED MELON, PEPPER AND TOMATO BEDS [For Use in Arizona, California and Hawaii only]

PRECAUTIONS

- Many weather related factors, including high wind or heavy rains or cool conditions at or near crop transplanting, may result in crop injury in fields treated with *Robustar 44% SC*. On occasion this has resulted in a delay in maturity. Understand and accept these risks before using *Robustar 44% SC* Herbicide.

RESTRICTIONS

- **DO NOT** apply more than 4 fl oz of *Robustar 44% SC* per acre (equivalent to 0.13 lb ai/A) per application.
- **DO NOT** make more than 2 applications of *Robustar 44% SC* per acre per year at the 4 fl oz (0.13 lb ai) rate.
- **DO NOT** apply more than 8 fl oz of *Robustar 44% SC* per acre (equivalent to 0.26 lb ai/A) per year.

Application Rate (lb ai/A)	Adjuvant	GPA	Transplanting Interval
4 fl oz/A (0.13)	Required by burndown tank mix partner	Ground – 20 to 40	2 Months

Application Method: Apply with a burndown herbicide labeled for the control of emerged weeds. *Robustar 44% SC*, when used alone, will not provide satisfactory control of emerged weeds.

Use for Preemergence Fallowbed Weed Control Prior To Transplanting

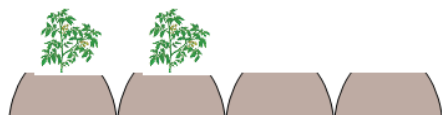
- Always read and follow all label directions when using any pesticide alone or in tank mix combinations.
- The top 4 inches of the bed, from a horizontal and vertical perspective, where the crop will be transplanted, must be removed prior to transplanting.
- Irrigate treated field after application and prior to transplanting with minimum of 1/4 inch of water if rainfall does not occur between application and transplanting.
- Use only healthy transplants. **DO NOT** use on direct seeded crops.
- [On flat beds (tomato only), the soil must be incorporated to a depth of at least 4 inches, twice, prior to transplanting. Failure to incorporate may result in stand reduction and/or crop injury.]
- This use pattern makes no claim for in-season weed control after the beds have been disturbed.



Beds are formed and *Robustar 44% SC* is applied with a burndown herbicide.



A minimum of 2 months after *Robustar 44% SC* application, the tops of the beds are removed and the soil from the tops of the beds is placed in the area between the beds.



Crops are transplanted into beds.

DIRECTIONS FOR USE TO MAINTAIN BARE GROUND ON NON-CROP AREAS OF FARMS, ORCHARDS AND VINEYARDS

RESTRICTIONS

- **DO NOT** apply Robustar 44% SC to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- **DO NOT** apply Robustar 44% SC to ditch banks.

Robustar 44% SC, when used as directed, can be used on farms, orchards and vineyards for non-selective vegetation control to maintain bare ground on non-crop areas that must be kept weed free. Follow all applicable directions as outlined above under "USE INFORMATION".

Robustar 44% SC offers residual and postemergence control of susceptible broadleaf and grass weeds as well as an additional mode of action to assist in the control of ALS (acetolactate synthase) resistant weeds. *Robustar 44% SC* can be tank mixed with the herbicides listed in Table 14 for increased residual or postemergence control. The length of residual control is dependent on the rate applied as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase. *Robustar 44% SC* rates of 6 to 12 fl oz/A (equivalent to 0.20 to 0.39 lb ai/A) are required to provide residual control of the weeds listed in Table 10.

PREEMERGENCE APPLICATION

Apply 6 to 12 fl oz (equivalent to 0.20 to 0.39 lb ai/A) of *Robustar 44% SC* per broadcast acre as a preemergence application. Make preemergence (to weed emergence) applications of *Robustar 44% SC* to a weed-free soil surface. Preemergence applications of *Robustar 44% SC* must be completed prior to weed emergence. Moisture is necessary to activate *Robustar 44% SC* on soil for residual weed control. Dry weather following application of *Robustar 44% SC* may reduce effectiveness. However, when adequate moisture is received after dry conditions, *Robustar 44% SC* will control susceptible germinating weeds.

POSTEMERGENCE APPLICATION

Apply 6 to 12 fl oz (equivalent to 0.20 to 0.39 lb ai/A) of *Robustar 44% SC* per broadcast acre plus an adjuvant (0.25%v/v non-ionic surfactant or 1 qt/A crop oil concentrate). The addition of an adjuvant enhances *Robustar 44% SC* activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of *Robustar 44% SC*. Emerged weeds are controlled postemergence with *Robustar 44% SC*, however, translocation of *Robustar 44% SC* within a weed is limited, and control is affected by spray coverage and by the addition of an adjuvant. The most effective postemergence weed control with *Robustar 44% SC* occurs when applied in combination with a surfactant to weeds less than 2 inches in height. Use a tank mix partner in combination with *Robustar 44% SC* for the postemergence control of weeds larger than 2 inches. Specified tank mix partners are listed in Table 14.

IMPORTANT: Completely read and follow the label of any potential tank mix partner with *Robustar 44% SC*. When using tank mixtures, use conditions must be in accordance with the most restrictive of the label limitations and precautions on either herbicide label.

Table 14. Tank Mix Combinations to Maintain Bare Ground on Non-Crop Areas

glyphosate	2,4-D	Rely	paraquat
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STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE:

Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If the container is leaking or material spilled for any reason or cause, carefully sweep material into a pile. Refer to PRECAUTIONARY STATEMENTS on label for hazards associated with the handling of this material. **DO NOT** walk through spilled material. Dispose of pesticide as directed below. In spill or leak incidents, keep unauthorized people away.

PESTICIDE DISPOSAL:

Wastes resulting from the use of Robustar 44% SC may be disposed of on site or at an approved waste disposal facility. 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 HANDLING:

Non-refillable container. Rigid, Non-refillable containers small enough to shake (i.e., with capacities equal to or less than 5 gallons). DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix-application equipment or a mix-tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix-tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix-tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once container is rinsed, offer for recycling if available, or puncture and dispose of in a sanitary landfill.

Non-refillable containers. Rigid Non-refillable containers that are too large to shake (i.e., with capacities greater than 5 gallons or 50 lbs). DO NOT reuse or refill this container. After emptying product from container, rinse and either recycle or dispose of the container as follows: Bottom Discharge IBC (e.g. Schuetz Caged IBC or Snyder Square Stackable).

Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. To pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix-tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal.

Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

Top Discharge IBC, Drums, Kegs (e.g. Snyder 120 Next Gen, Bonar B120, Drums, and Kegs). Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. To triple rinse the container before final disposal, empty the remaining contents from this container into application equipment or rinsate collection system. Fill the container at least 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times.

Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill.

[Batch Code will be placed on the container.]

Warranty and Disclaimer Statement

Read the entire DIRECTIONS FOR USE and Warranty and Disclaimer Statement before buying or using Robustar 44% SC. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The DIRECTIONS FOR USE of Robustar 44% SC must be followed carefully. It is impossible to eliminate all risks associated with the use of Robustar 44% SC including risks that may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors. Such risks are all beyond the control of Yifan Biotechnology Group Co., Ltd. ("YIFAN") and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. All such risks shall be assumed by the user or buyer and to the extent permitted by applicable law, the user or buyer agree to hold YIFAN harmless for any claims relating to such risks.

YIFAN warrants that Robustar 44% SC conforms to the chemical description on the label and is reasonably fit for the purposes stated in the DIRECTIONS FOR USE, subject to the inherent risks described above, when used in accordance with the DIRECTIONS FOR USE under normal conditions. To the extent permitted by applicable law, this warranty does not extend to the use of Robustar 44% SC contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of YIFAN, and the user or buyer assume the risk of any such use.

To the extent permitted by applicable law, YIFAN disclaims all other warranties, expressed or implied, including any warranty of merchantability or fitness for a particular purpose. To the extent permitted by applicable law, YIFAN, manufacturer, and seller disclaim and shall not be liable for any special, incidental, indirect, or consequential damages (including claims based on breach of warranty, contract, negligence, tort, strict liability or otherwise) resulting from the use, handling, application, storage, or disposal of Robustar 44% SC or for damages in the nature of penalties, and the user and buyer waive any right that they may have to such damages. No agent, representative or employee of YIFAN is authorized to make any warranty, guarantee or representation beyond those contained herein or to modify the warranties contained herein.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE TOTAL LIABILITY OF YIFAN, MANUFACTURER, AND SELLER, SHALL BE LIMITED TO THE PURCHASE PRICE PAID, OR AT YIFAN'S ELECTION, THE REPLACEMENT OF THE PRODUCT.

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