59639-99 6/16/2009 10f59 Jacket

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

JUN 16 2009

Regiane G Pereira
Valent U.S.A. Corporation
1600 Riviera Avenue, Suite 200
Walnut Creek, CA 94596

Dear Ms. Pereira:

Subject: Revised Labeling and Alfalfa Chemigation and Fall Burndown Programs
Supplemental Labels
Valor Herbicide
EPA Registration No. 59639-99
Chateau WDG Herbicide
EPA Registration No. 59639-119
Your Submissions Dated May 26, 2009 and June 5, 2009

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable provided that you:

1. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:

a. In the new weeds on the master label and fall supplemental label delete the crop name "canola". We suggest the term "volunteer canola".

b. On the master label and fall supplemental label delete "Apply Valor in combination with 2,4-D and/or glyphosate to control emerged weeds". This is not a restriction and is too vague. According to PR Notice 82-2, all Tank Mix directions must include statements similar to the following:

> This product can be mixed with _____(chemical name, including percentage of active ingredient and type of formulation, or specific product name, or both) for use on _____ (Crops/sites) in accordance with the more (most) restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

c. On the Alfalfa chemigation supplemental label change the term "these crops" to "this crop" since the supplemental label only lists this one crop.

2. Submit one (1) copy of your final printed labeling before you release the product for shipment.

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

If you have any questions concerning this letter please contact Mr. James Stone at 703-305-7391.

Sincerely yours,

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

Enclosure

Supplemental Label

VALENT

ACCEPTED
with COMMENTS
In EPA Letter Dated:
JUN 16 2009
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.
59639-99

VALOR® HERBICIDE

EPA Reg. No. 59639-99

VALOR® HERBICIDE: CHEMIGATION FOR USE ON ALFALFA

DIRECTIONS FOR USE

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

THIS LABELING MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF APPLICATION. READ THE LABEL AFFIXED TO THE CONTAINER FOR *VALOR* BEFORE APPLYING.
USE OF *VALOR* ACCORDING TO THIS LABELING IS SUBJECT TO THE USE PRECAUTIONS AND LIMITATIONS IMPOSED BY THE LABEL AFFIXED TO THE CONTAINER FOR VALOR.

CHEMIGATION

Valor may be applied through sprinkler irrigation systems in alfalfa. Follow all label recommendations for these crops regarding rates, timing of application, special instructions and precautions.

Apply this product only through center pivot systems. End guns must be turned off due to uneven application. Do not apply this product 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 *Valor* applied corresponds to the recommended rate.

Apply *Valor* 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, you should 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 should the need arise.
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, such as 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 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, the water from the public water system should be discharged 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**".

PLEASE CONTACT VALENT U.S.A. CORPORATION AT 800-6-VALENT (682-5368) TO DETERMINE IF THIS USE IS REGISTERED IN YOUR STATE.

Manufactured for
Valent U.S.A. Corporation
P.O. Box 8025
Walnut Creek, CA 94596-8025
www.valent.com

Made in U.S.A.

Supplemental Label

VALENT®

VALOR® HERBICIDE

EPA Reg. No. 59639-99

FALL BURNDOWN PROGRAMS IN FIELDS TO BE PLANTED TO BARLEY, FIELD PEA, FLAX, LENTIL, SAFFLOWER, SUNFLOWER AND SPRING WHEAT (Preemergence to Crop)

ACCEPTED with COMMENTS In EPA Letter Dated: JUN 16 2009 Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 59639-99

DIRECTIONS FOR USE

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

THIS LABELING MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF APPLICATION. READ THE LABEL AFFIXED TO THE CONTAINER FOR VALOR® HERBICIDE BEFORE APPLYING. USE OF *VALOR* ACCORDING TO THIS LABELING IS SUBJECT TO THE USE PRECAUTIONS AND LIMITATIONS IMPOSED BY THE LABEL AFFIXED TO THE CONTAINER FOR *VALOR*.

GENERAL RESTRICTIONS AND LIMITATIONS

- Do not apply to frozen or snow covered soil.
- Do not perform any tillage operation after application or residual weed control will be reduced.
- Apply *Valor* in combination with 2,4-D and/or glyphosate to control emerged weeds.

FALL BURNDOWN PROGRAMS

Valor can be used at 3 oz/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 1 until the following spring. Rotational intervals must be followed for crop to be planted in the spring following the fall *Valor* application. Refer to most restrictive label for minimum interval between application and planting.

Table 1. Weeds Controlled by Fall Preplant Burndown Programs

WEEDS CONTROLLED[1]		POSTEMERGENCE			RESIDUAL
COMMON NAME	SCIENTIFIC NAME	Program 1	Program 2	Program 3	
		Weeds 3 inches or less			
Chamomile, False	*Matricaria maritime*	Yes	Yes	No	Yes
Cheatgrass	*Bromus tectorum*	Yes	Yes	No	Yes
Chickweed, Common	Stellaria media	Yes	Yes	No	Yes
Chickweed, Mouseear	*Cerastium vulgatum*	Yes	Yes	No	Yes
Cockle, White	*Silene latifolie*	No	Yes	Yes	Yes
Dandelion	*Taraxacum officinale*	Yes	No	Yes[2]	Yes
Deadnettle, Purple	*Lamium purpureum*	Yes	Yes	Yes	Yes
Groundsel, Cressleaf	*Senecio glabellus*	Yes	Yes	-	Yes
Henbit	*Lamium amplexicaule*	Yes	Yes	Yes	Yes
Kochia	*Kochia scoparia*	Yes	Yes	Yes	Yes
Marestail/Horseweed	*Conyza canadensis*	Yes	Yes[3]	Yes	Yes
Mallow, Common	*Malva neglecta*	Yes	Yes	No	Yes
Prickley Lettuce	*Lactuca serriola*	Yes	Yes	Yes	Yes
Wormwood, Biennial	*Artemisia biennis*	Yes	Yes	Yes	Yes

continued

Table 1. Weeds Controlled by Fall Preplant Burndown Programs - continued

WEEDS CONTROLLED[1]		POSTEMERGENCE			RESIDUAL
COMMON NAME	SCIENTIFIC NAME	Program 1	Program 2	Program 3	
		Weeds 12 inches or less			
Canola	*Brassica napus*	Yes	Yes	Yes	Yes
Carolina Geranium	*Geranium carolinianum*	Yes	Yes	Yes	-
Eveningprimrose, Cutleaf[4]	*Oenothera laciniata*	Yes	Yes	Yes	Yes
Flixweed	*Descurainia sophia*	Yes	Yes	Yes	Yes
Mustard, Tansy	*Descurainia pinnata*	Yes	Yes	Yes	Yes
Mustard, Wild	*Brassica kaber*	Yes	Yes	Yes	Yes
Shepherd's-purse	*Capsella bursa-pastoris*	Yes	Yes	Yes	Yes

[1]Refer to glyphosate and/or 2,4-D labels for additional weeds controlled and rotational restrictions.
[2]1 lb ai/A of 2,4-D LVE (equivalent to 2 pt/A of 2,4-D 4 LVE) should be used for control of emerged dandelion.
[3]Program 2 will not control emerged glyphosate resistant marestail/horseweed.
[4]Program 1 should be used to control cutleaf eveningprimrose that are nearing 12 inches in height or are past the rosette stage. Programs 2 or 3 should be used to control cutleaf evening primrose that are 12 inches or less and in the rosette stage.

Weeds controlled by postemergence or residual activity are listed in Table 1. Preplant burndown treatment tank mixes and rates are:

Herbicide	Rate
Program 1[1]	
Valor **plus**	3 oz/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 lbs/100 gals of water

or

Program 2[1]	
Valor **plus**	3 oz/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 lbs/100 gals of water

or

Program 3[1]	
Valor **plus**	3 oz/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 eveningprimrose and Carolina geranium.

PLEASE CONTACT VALENT U.S.A. CORPORATION AT 800-6-VALENT (682-5368) TO DETERMINE IF THIS USE IS REGISTERED IN YOUR STATE.

Manufactured for
Valent U.S.A. Corporation
P.O. Box 8025
Walnut Creek, CA 94596-8025
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Made in U.S.A.

VALENT®

GROUP	14	HERBICIDE

ACCEPTED
with COMMENTS
In EPA Letter Dated:
JUN 16 2009
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.
59639-99

Note: ***Bold italicized text*** *is information for the reader and is not part of the label.*

[Bracketed information is optional text].

VALOR® Herbicide

FOR CONTROL AND/OR SUPPRESSION OF CERTAIN WEEDS IN ALFALFA, ASPARAGUS, BUSHBERRIES, COTTON, DRY BEANS, FIELD CORN, FRUITING VEGETABLES (INCLUDING OKRA), GARLIC, GRAPE, MELON, MINT, NUT TREES (INCLUDING PISTACHIO), ONION (DRY BULB), PEANUT, POME FRUIT, POTATO, SOYBEAN, STONE FRUIT, STRAWBERRY, SUGARCANE, SWEET POTATO, NON-BEARING FRUIT TREES, FALLOW LAND AND TO MAINTAIN BARE GROUND ON NON-CROP AREAS OF FARMS, ORCHARDS AND VINEYARDS.

Active Ingredient	By Wt.
Flumioxazin*	51%
Other Ingredients	49%
Total	100%

*2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2*H*-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1*H*-isoindole-1,3(2*H*)-dione

VALOR® Herbicide is a water dispersible granule containing 51% active ingredient.

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

NET WEIGHT___ POUNDS

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION

Harmful if inhaled or absorbed through the skin. Causes moderate eye irritation. Avoid breathing dust and spray mist. Avoid contact with skin, eyes or clothing.

FIRST AID

If inhaled:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
If on skin or clothing:	• 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 in eyes:	• 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:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact **1-800-892-0099** for emergency medical treatment information.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Some of the materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, shoes and socks. **For aerial application to sugarcane, mixer/loaders must also wear:** coveralls, chemical resistant apron and chemical resistant boots.

Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS:

This product is toxic to non-target plants and aquatic invertebrates. Do not apply 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 where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwaters.

This pesticide is toxic to plants and should 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 this product may have a potential to run-off to surface water or adjacent land. Where possible, use methods which reduce soil erosion, such as 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 and is recommended.

DIRECTIONS FOR USE

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

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

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

AGRICULTURAL USE REQUIREMENTS

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

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

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is: coveralls, chemical resistant gloves made of waterproof material, shoes plus socks.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standards for agricultural pesticides (40 CFR Part 170). The WPS applies when this product 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.

DISCLAIMER, RISKS OF USING THIS PRODUCT, LIMITED WARRANTY AND LIMITATION OF LIABILITY

IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

RISKS OF USING THIS PRODUCT

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND TO THE FULLEST EXTENT ALLOWED BY LAW, AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

LIMITED WARRANTY

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law AND AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

LIMITATION OF LIABILITY

To the fullest extent allowed by law, Valent or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. TO THE FULLEST EXTENT ALLOWED BY LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

PROMPT NOTICE OF CLAIM

To the extent consistent with applicable law allowing such requirements Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is latter, so that an immediate inspection of the affected property and growing crops can be made.

To the extent consistent with applicable law if Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy.

NO AMENDMENTS

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing **Disclaimer, Risks of Using This Product, Limited Warranty** and **Limitation of Liability,** which may not be modified by any oral or written agreement.

TANK MIXES

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

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

RESISTANCE MANAGEMENT RECOMMENDATIONS

VALOR is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to VALOR and other Group 14 herbicides. Weed species with acquired resistance to Group 14 herbicides may eventually dominate the weed population if Group 14 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by VALOR or other Group 14 herbicides.

To delay herbicide resistance consider:

- Avoiding the consecutive use of VALOR or other target site of action Group 14 herbicides that might have a similar target site of action, on the same weed species.
- Using tank mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action and are both effective at the tank mix or prepack rate on the weed(s) of concern.
- Basing herbicide use on a comprehensive Integrated Pest Management (IPM) program.
- Monitoring treated weed populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

For further information or to report suspected resistance, you may contact Valent U.S.A. Corporation at the following toll-free number: 800-682-5368.

TABLE OF CONTENTS

GENERAL INFORMATION

VALOR uses:

- VALOR provides residual control of susceptible weeds in alfalfa, asparagus, bushberries, cotton, dry bean, field corn, garlic, grape, melon (row middles), mint, nut trees (including pistachio), onion (dry bulb), non-bearing fruit trees, peanut, soybean, sugarcane and sweet potato.
- VALOR provides additional burndown activity when used as part of a burndown program in alfalfa, asparagus, cotton, dry bean, field corn, fruiting vegetables (including okra) row middles, grape, melon row middles, nut trees (including pistachio), non-bearing fruit tree, peanut, soybean and sugarcane.
- VALOR can be applied as part of a fall burndown program for control of susceptible winter annuals.
- VALOR can be applied with a hooded or shielded sprayer, as well as part of a layby application, in cotton and sugarcane for postemergence weed control as well as residual control of susceptible weeds.
- VALOR 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.
- **Read tank mix product label for rates and weeds controlled. Always read and follow label directions for all tank mix products before using. The most restrictive labeling of any tank mix product must be followed. VALOR, 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.**

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making decisions. Where states have more stringent regulations, they should be observed.

GENERAL RESTRICTIONS AND LIMITATIONS

- Do not apply this product when weather conditions favor spray drift from treated areas.
- Do not apply during low-level inversion conditions, including fog.
- Except for alfalfa, field corn and almond hulls, do not graze treated fields or feed treated forage or hay to livestock.
- When applying by air, observe drift management restrictions and precautions listed under **"AERIAL APPLICATION"**.
- Do not apply to frozen or snow covered soil.
- Mechanical incorporation into the soil will reduce residual weed control.
- Post directed and layby applications of VALOR should be applied only to healthy growing crops.
- Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- Do not apply within 300 yards of non-dormant pears.
- Do not apply to powdery soils or soils that are susceptible to wind displacement unless irrigation can be applied immediately after application.

Spray equipment used to apply VALOR should not be used to apply other materials to any crop foliage, unless the proper cleanout procedures are followed. See "SPRAYER CLEANUP" for more information.

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 VALOR in soil for residual weed control. Dry weather following applications of VALOR may reduce effectiveness. However, when adequate moisture is received after dry conditions, VALOR will control susceptible germinating weeds. VALOR 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 VALOR 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, VALOR should be applied as part of a burndown program to actively growing weeds. Applying VALOR under conditions that do not promote active weed growth will reduce herbicide effectiveness. Do not apply VALOR 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. VALOR 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

VALOR should only be applied to healthy crops labeled for postemergence use. Do not apply VALOR to crops that have been weakened by disease, drought, flooding, excessive fertilization, soil salts, previously applied pesticides, nematodes, insects or winter injury.

Rainfastness

VALOR is rainfast one hour after application. Applications should not be made if rain is expected within one hour of application or postemergence efficacy may be reduced.

Soil Characteristics
Application of VALOR 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 VALOR 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 gals. of spray solution per acre for conventional tillage applications. Nozzle selection should meet manufacturer's gallonage and pressure recommendations 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 should meet manufacturer's gallonage and pressure recommendations for postemergence herbicide application.

Postemergence Application (Emerged Crop) Check use directions for specific crops in which VALOR can be applied postemergence.
To ensure thorough coverage in burndown applications, use 15 to 30 gals. spray solution per acre. Use 20 to 30 gals. per acre if dense vegetation or heavy crop residue is present. Nozzle selection should meet manufacturer's gallonage and pressure recommendations for postemergence herbicide application.

ADDITIVES

Burndown Application (Prior to Crop Emergence)
Postemergence control of weeds from VALOR requires the addition of an agronomically approved adjuvant to the spray mixture. When an adjuvant is to be used with VALOR, Valent recommends 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 VALOR as part of a burndown program. Some tank mix partners, such as 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 VALOR. The addition of a crop oil concentrate or methylated seed oil may increase the burndown activity on certain weeds such as cutleaf eveningprimrose and Carolina geranium. Mixing compatibility qualities should be verified by a jar test.

A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs./A or a 28 to 32% nitrogen solution at 1 to 2 qts./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 VALOR
When using VALOR and an adjuvant, such as in stale seed bed, layby, hooded/shielded or reduced tillage situations, a jar test should be performed before mixing commercial quantities of VALOR, when using VALOR 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. The water should be from the same source and temperature as which will be used in the spray tank mixing operation.
2. Add 1 g of VALOR to the quart jar for every 3 oz. of VALOR per acre being applied (4 g if 12 oz./A is the desired VALOR rate), gently mix until product goes into suspension.

3. Add 60 ml (4 Tbsps. 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 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. If any of the following conditions are observed the choice of adjuvant should be questioned:
   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 VALOR, 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 sulfonylurea 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 VALOR. If two or more products were tank mixed prior to VALOR application, the most restrictive cleanup procedure should be followed.

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 lbs of spray grade ammonium sulfate per 100 gals. of spray solution.
3. To ensure a uniform spray mixture, pre-slurry the required amount of VALOR with water prior to addition to the spray tank. Use a minimum of 1 gal. of water per 10 oz. of VALOR.
4. While agitating, slowly add the pre-slurried VALOR to the spray tank. Agitation should create a rippling or rolling action on the water surface.
5. If tank mixing VALOR 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.
6. Add any required adjuvants.
7. Fill spray tank to desired level with water. **Agitation should continue until all spray solution has been applied.**
8. Mix only the amount of spray solution that can be applied the day of mixing. VALOR should be applied within 6 hours of mixing.

SPRAYER CLEANUP

Spray equipment, including mixing vessels and nurse tanks, must be cleaned each day following VALOR application. After VALOR 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 gal of 3% household ammonia (or equivalent) for every 100 gals 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 VALOR from the spray system, add a tank cleaner such as "Valent Tank Cleaner" from Valent U.S.A. Corporation, 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.

Spray equipment, including all tanks, hoses, booms, screens and nozzles, should be thoroughly cleaned before it is used to apply postemergence pesticides. Equipment with VALOR residue remaining in the system may result in crop injury to the subsequently treated crop.

APPLICATION EQUIPMENT
Application equipment should be clean and in good repair. Nozzles should be uniformly spaced on boom and frequently checked for accuracy.

BROADCAST APPLICATION
Apply VALOR, and VALOR 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 VALOR per acre. The rate of VALOR required per acre, when applied as a banded application, can be calculated with the following formula:

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

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:

- Do not 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 this product by air within 40 ft. of non-target plants including non-target crops.
- Do not apply this product by air within 100 ft. of emerged cotton crops.
- Do not apply this product by air within 40 ft. of streams, wetlands, marshes, ponds, lakes and reservoirs.

- **Carrier Volume and Spray Pressure:** When used as part of a burndown weed control program, apply VALOR in 7 to 10 gals. of water per acre. Application at less than 7 gals. per acre may provide inadequate control. When used for preemergence weed control, apply VALOR in 5 to 10 gals. of water per acre. The higher gallonage applications generally afford more consistent weed control. Do not exceed the nozzle manufacturer's recommended 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, such as diaphragm type nozzles, to avoid unwanted discharge of spray solution. The nozzles must be directed toward the rear of the aircraft, at an angle between 0 and 15° downward. Do not place nozzles on the outer 25% of the wings or rotors.

- **Adjuvants and Drift Control Additives:** Refer to tank mix partner's label for adjuvant recommendation. 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
VALOR may be applied through sprinkler irrigation systems in alfalfa, onions (dry bulb) and potatoes. Follow all label recommendations for these crops regarding rates, timing of application, special instructions and precautions.

Apply this product only through center pivot systems. End guns must be turned off due to uneven application. Do not apply this product 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 VALOR applied corresponds to the recommended rate.

Apply VALOR 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, you should 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 should the need arise.
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, such as 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 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, the water from the public water system should be discharged 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 (for use in mint and onion (dry bulb) only)
Dry bulk fertilizer may be impregnated or coated with VALOR. Application of dry bulk fertilizer with VALOR provides weed control equal to, or slightly below, the same rate of VALOR applied in liquid carriers. Follow label recommendations for VALOR 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.

Ammonium nitrate and/or limestone should not be used as the sole source of fertilizer, as the VALOR 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 VALOR mixture for sale.

VALOR 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 oz. of VALOR. A minimum of 6 pts. of the VALOR slurry should be used to impregnate 2000 lbs. 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 VALOR required can be calculated with the following formula:

ounces of VALOR per ton of fertilizer	=	ounces of VALOR per acre	X	2000	÷	pounds of fertilizer per acre

Thoroughly clean dry fertilizer blending equipment after VALOR 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 VALOR. 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 gal. 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 VALOR at the listed rate. Planting earlier than the recommended 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 VALOR.**

VALOR RATES	CROPS	ROTATION INTERVALS
1 oz./A	Cotton (no-till or strip-till only)	14 days[1]
1.5 to 2 oz./A	Cotton (no-till or strip-till only)	21 days[1]
2 oz./A or less	Peanut, Soybean, Sugarcane and Sweet Potato	immediately
	Field Corn (minimum and no-till)	14 days
	Cotton and Field Corn (conventional tillage), Rice, Sorghum, Sunflower, Tobacco and Wheat	30 days[1]
	Barley, Dry and Snap Beans, Flax, Lentils, Peas, Rye, Safflower and Sweet Corn	3 months
	Alfalfa, Canola, Clover, Oats, 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
Up to 3 oz./A	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, Lentil, Pea, Rye, Safflower and Sweet Corn	4 months
	Alfalfa, Clover, Oats, 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
Up to 4 oz./A	Sugarcane	Immediately
	Cotton, Field Corn, Peanut, Rice, Sorghum, Soybean, Sunflower, Tobacco and Wheat	4 months
	Alfalfa, Canola, 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
6 to 12 oz./A	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 VALOR[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, nut trees (including pistachio), olive, orange, peach, pear, plum (including dried plum), and tangerine can be planted 2 months after a VALOR application of 2 to 12 oz./A.

Table 1. Broadleaf Weeds Controlled by Residual Activity of VALOR

BROADLEAF WEED SPECIES				
SECTION A				
COMMON NAME	**SCIENTIFIC NAME**	**ORGANIC MATTER**	**SOIL TYPE**	**VALOR RATE**
Carpetweed	*Mollugo verticillata*	Up to 5%	All Soil Types	2 oz./A
Chickweeds				
Common	*Stellaria media*			
Mouseear	*Cerastium vulgatum*			
Dandelion	*Taraxacum officinale*			
Eclipta	*Eclipta prostrata*			
Eveningprimrose, Cutleaf	*Oenothera laciniata*			
Florida Pusley	*Richardia scabra*			
Henbit	*Lamium amplexicaule*			
Lambsquarters, Common	*Chenopodium album*			
Little Mallow	*Malva parviflora*			
Marestail/Horseweed	*Conyza canadensis*			
Nightshades				
Black	*Solanum nigrum*			
Eastern Black	*Solanum ptycanthum*			
Hairy	*Solanum sarrachoides*			
Pigweeds				
Redroot	*Amaranthus retroflexus*			
Smooth	*Amaranthus hybridus*			
Spiny Amaranth	*Amaranthus spinosus*			
Tumble	*Amaranthus albus*			
Prickly Sida (Teaweed)	*Sida spinosa*			
Punctureveine	*Tribulus terrestris*			
Purslane, Common	*Portulaca oleracea*			
Radish, Wild	*Raphanus raphanistrum*			
Redmaids	*Calandrinia ciliata* var *menziessii*			
Shepherd's-purse	*Capsella bursa-pastoris*			
Smallflower Morningglory	*Jacquemontia tamnifolia*			
Spotted Spurge	*Euphorbia maculata*			
Venice Mallow	*Hibiscus trionum*			

continued

Table 1. Broadleaf Weeds Controlled by Residual Activity of VALOR (continued)

SECTION B				
All weeds listed in Section A plus:				
COMMON NAME	**SCIENTIFIC NAME**	**ORGANIC MATTER**	**SOIL TYPE**	**VALOR RATE[2]**
Coffee Senna	*Cassia occidentalis*	Up to 3%	All Soil Types	2 oz./A Cotton 2.5 oz./A Soybean 3 oz./A Peanut and all other labeled crops
Common Ragweed[1]	*Ambrosia artemisiifolia*			
False Chamomile	*Tripleurospermum maritima*			
Florida Beggarweed	*Desmodium tortuosum*			
Golden Crownbeard	*Verbesina encelioides*			
Hairy Indigo	*Indigofera hirsuta*			
Hemp Sesbania	*Sesbania exaltata*	3 to 5%	Coarse and Medium Soils: (sandy loam, loamy sand, loamy, silt-loam, silt, sandy clay, sandy clay loam)	2 oz./A Cotton 2.5 oz./A Soybean 3 oz./A Peanut and all other labeled crops
Jimsonweed	*Datura stramonium*			
Kochia	*Kochia scoparia*			
Morningglories[3]				
Entireleaf	*Ipomoea hederacea* var. *integriuscula*			
Ivyleaf	*Ipomoea hederacea*			
Red/Scarlet	*Ipomoea coccinea*			
Tall	*Ipomoea purpurea*			
Mustard, Wild	*Brassica kaber*			
Palmer Amaranth	*Amaranthus palmeri*			
Spurred Anoda	*Anoda cristata*		Fine Soils: (silty clay, silty clay loam, clay, clay loam)	2 oz./A Cotton 3 oz./A Peanut, Soybean and all other labeled crops
Tropic Croton	*Croton glandulosus*			
Waterhemps[1]				
Common	*Amaranthus rudis*			
Tall	*Amaranthus tuberculatus*			
Wild Poinsettia	*Euphorbia heterophylla*			

[1]A postemergence herbicide, such as COBRA®, PHOENIX™ or glyphosate (ROUNDUP READY® soybeans only) may be needed following a preemergence application of VALOR to adequately control common ragweed or waterhemp in soybean fields with heavy pressure.

[2]Due to differences in crop canopy timing between peanuts and soybeans, 3 oz./A of VALOR should be used in peanuts, regardless of soil type and organic matter content, except in the states of North Carolina, Oklahoma and Virginia where a maximum of 2 oz./A can be applied in peanuts, unless supplemental labeling, provided by Valent U.S.A. Corporation is followed. VALOR will provide residual control of these weeds at 2 oz./A when applied under a cotton canopy.

[3]Morningglory species are not adequately controlled on fine soils or soils with greater than 3% organic matter.

Table 2. Weeds Suppressed by Residual Activity of VALOR

BROADLEAF WEED SPECIES		ORGANIC MATTER	OUNCES PER ACRE
COMMON NAME	SCIENTIFIC NAME		
Bristly Starbur	*Acanthospermum hispidum*	Up to 5%	2 to 3
Copperleaf, Hophornbeam	*Acalypha ostryifolia*		
Ragweed, Giant	*Ambrosia trifida*		
Russian Thistle	*Salsola iberica*		
Smartweeds			
Ladysthumb	*Polygonum persicaria*		
Pennsylvania	*Polygonum pensylvanicum*		
Smellmelon	*Cucumis melo*		
Velvetleaf	*Abutilon theophrasti*		
Wild Buckwheat	*Polygonum convolvulus*		
Wormwood, Biennial	*Artemisia biennis*		
GRASS WEED SPECIES			
Barnyardgrass	*Echinochloa crus-galli*		
Bluegrass, Annual	*Poa annua*		
Crabgrass, Large	*Digitaria sanguinalis*		
Foxtail, Giant	*Setaria faberi*		
Goosegrass	*Eleusine indica*		
Lovegrass, California	*Eragrostis diffusa*		
Panicums			
Fall	*Panicum dichotomiflorum*		
Texas	*Panicum texanum*		
Ryegrass, Italian	*Lolium multiflorum*		
Signalgrass, Broadleaf	*Brachiaria platyphylla*		
Cheat	*Bromus secalinus*	Up to 5%	1.5 to 3
Downy Brome	*Bromus tectorum*		

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

GENERAL RESTRICTIONS AND LIMITATIONS

- Do not apply 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

VALOR, at 2 to 4 oz./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. Weeds controlled by residual activity are listed in Table 1, Sections A and B. If weeds have emerged at the time of application, use VALOR 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. VALOR 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	**Rate**
Program 1[1]	
VALOR **Plus**	2 to 3 oz./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 lbs./100 gals. of water

or

Program 2[1]	
VALOR **Plus**	2 to 3 oz./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 lbs./100 gals. of water

or

Program 3[1]	
VALOR	2 to 3 oz./A
Plus	
2,4-D LVE (2,4-D for use on preplant soybeans only)	0.5 to 1.0 lb. ai/A (equivalent to 1 to 2 pt./A of 2,4-D 4 LVE)
Plus	
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 eveningprimrose and Carolina geranium.

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

WEEDS CONTROLLED[1]		POSTEMERGENCE			RESIDUAL
COMMON NAME	SCIENTIFIC NAME	Program 1	Program 2	Program 3	
		Weeds 3 inches or less			
Chamomile, False	*Matricaria maritime*	Yes	Yes	No	Yes
Cheatgrass	*Bromus tectorum*	Yes	Yes	No	Yes
Chickweed, Common	*Stellaria media*	Yes	Yes	No	Yes
Chickweed, Mouseear	*Cerastium vulgatum*	Yes	Yes	No	Yes
Cockle, White	*Silene latifolie*	No	Yes	Yes	Yes
Dandelion	*Taraxacum officinale*	Yes	No	Yes[2]	Yes
Deadnettle, Purple	*Lamium purpureum*	Yes	Yes	Yes	Yes
Groundsel, Cressleaf	*Senecio glabellus*	Yes	Yes	-	Yes
Henbit	*Lamium amplexicaule*	Yes	Yes	Yes	Yes
Kochia	*Kochia scoparia*	Yes	Yes	Yes	Yes
Marestail/Horseweed	*Conyza canadensis*	Yes	Yes[3]	Yes	Yes
Mallow, Common	*Malva Neglecta*	Yes	Yes	No	Yes
Prickly Lettuce	*Lactuca serriola*	Yes	Yes	Yes	Yes
Wormwood, Biennial	*Artemisia biennis*	Yes	Yes	Yes	Yes
		Weeds 12 inches or less			
Canola	*Brassica napus*	Yes	Yes	Yes	Yes
Carolina Geranium	*Geranium carolinianum*	Yes	Yes	Yes	-
Eveningprimrose, Cutleaf[4]	*Oenothera laciniata*	Yes	Yes	Yes	Yes
Flixweed	*Descurainia sophia*	Yes	Yes	Yes	Yes
Mustard, Tansy	*Descurainia pinnata*	Yes	Yes	Yes	Yes
Mustard, Wild	*Brassica kaber*	Yes	Yes	Yes	Yes
Shepherd's-purse	*Capsella bursa-pastoris*	Yes	Yes	Yes	Yes

[1]Refer to glyphosate and/or 2,4-D labels for additional weeds controlled and rotational restrictions.
[2]1 lb. ai/A of 2,4-D LVE (equivalent to 2 pt./A of 2,4-D 4 LVE) should be used for control of emerged dandelion.
[3] Program 2 will not control emerged glyphosate resistant marestail/horseweed.
[4] Program 1 should be used to control cutleaf eveningprimrose that are nearing 12 inches in height or are past the rosette stage.
Programs 2 or 3 should be used to control cutleaf evening primrose that are 12 inches or less and in the rosette stage.

SPRING BURNDOWN PROGRAMS

VALOR 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 VALOR 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). *Valor* cannot be applied after planting field corn.

VALOR can be used at 1 to 3 oz./A with labeled preplant burndown herbicides to enhance the speed of burndown and increase weed spectrum.

VALOR can be used at 1 to 3 oz/A [1 to 2 oz/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

GENERAL RESTRICTIONS AND LIMITATIONS

- Do not apply to frozen or snow covered soil.
- Do not perform any tillage operation after application or residual weed control will be reduced.
- VALOR can be used at 1 to 2 oz./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 VALOR application and planting of conventionally tilled cotton.
- A minimum of 14 days must pass, and 1 inch of rainfall/irrigation must occur, between VALOR application and planting of no-till or strip-till cotton when a VALOR rate of 1 oz./A is used and 21 days when a VALOR rate of 1.5 to 2 oz./A is used. The field must contain the stubble from the previous crop.
- VALOR 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.

FALL BURNDOWN PROGRAMS

VALOR, at 2 to 4 oz./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. Weeds controlled by residual activity are listed in Table 1 and Table 7. If weeds have emerged at the time of application, use VALOR 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. VALOR 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

VALOR, at 1 to 2 oz./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, SUNFLOWERS, TOBACCO AND WHEAT (Preemergence to Crop)

GENERAL RESTRICTIONS AND LIMITATIONS

- Do not apply to frozen or snow covered soil.
- Do not perform any tillage operation after application or residual weed control will be reduced.
- VALOR can be used at 1 to 2 oz./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 VALOR application and planting of rice, sorghum, sugarcane, sunflowers, tobacco or wheat. Refer to most restrictive label for minimum interval between application and planting.

FALL BURNDOWN PROGRAMS

VALOR 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. 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
VALOR 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 PEA, FLAX, LENTIL, SAFFLOWER, SUNFLOWER AND SPRING WHEAT (Preemergence to Crop)

GENERAL RESTRICTIONS AND LIMITATIONS
- Do not apply to frozen or snow covered soil.
- Do not perform any tillage operation after application or residual weed control will be reduced.
- Apply *Valor* in combination with 2,4-D and/or glyphosate to control emerged weeds.

FALL BURNDOWN PROGRAMS
VALOR can be used at 3 oz/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 VALOR application. Refer to most restrictive label for minimum interval between application and planting.

DIRECTIONS FOR USE IN FALLOW LAND

VALOR may be used as a preemergence fallow treatment. Weeds controlled by residual activity are listed in Table 1.

VALOR, at 2 to 4 oz./A, can be used in the fall to provide residual weed control in fallow fields. If weeds have emerged at the time of application, use VALOR 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.

VALOR, at 1 to 2 oz./A, can be used in spring in combination with labeled burndown herbicides to control emerged weeds and provide residual weed control. Weeds controlled by residual activity are listed in Table 1.

DIRECTIONS FOR USE IN ESTABLISHED ALFALFA

GENERAL RESTRICTIONS AND LIMITATIONS
- Do not apply more than 4 oz of VALOR per acre during a single application.
- Do not apply more than 8 oz of VALOR per acre during a single growing season.
- Do not make a sequential VALOR application within 60 days of the first VALOR application.
- Do not apply to alfalfa with greater than 6 inches of growth. Application will result in burning of treated leaves and stems. **Users should understand and accept this risk before using VALOR on alfalfa.**
- Do not apply within 25 days of harvest or grazing.
- Do not apply with any adjuvant or tank mix with any products formulated as an emusifiable concentrate "EC", unless making application following last cutting of the season. Application with paraquat can be used to burndown winter annuals prior to winter dormant period.
- Do not use on intended mixed alfalfa-grass stands.

TIMING TO ALFALFA
VALOR 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 VALOR. Application to alfalfa with greater than 6 inches of growth may result in unacceptable crop injury.

TIMING TO WEEDS
Preemergence – Preemergence To Weeds
Apply VALOR before alfalfa growth exceeds 6 inches in height for the preemergence control of weeds listed in Table 7, Weeds Controlled by Residual Activity of VALOR. Applications should be made as soon as possible after cutting and removing alfalfa to minimize injury to alfalfa growth.

DIRECTIONS FOR USE IN ESTABLISHED ASPARAGUS

GENERAL RESTRICTIONS AND LIMITATIONS
- Do not apply more than 6 oz. of VALOR per acre during a single application.
- Do not apply more than 6 oz. of VALOR per acre during a single growing season.
- Apply only to dormant asparagus no less than 14 days before spears emerge. Application to non-dormant asparagus may result in unacceptable crop injury.

TIMING TO ASPARAGUS
VALOR may be applied to dormant asparagus for preemergence control of the weeds listed in Table 10, Weeds Controlled by Preemergence Application of VALOR. Application to non-dormant asparagus will result in unacceptable crop injury. Applications should be made no less than two weeks prior to spear emergence and must be sprinkler or rainfall incorporated with 0.5 to 0.75 inches of water or some scoring may result.

TIMING TO WEEDS
Burndown – Dormant Asparagus, Postemergence to Weeds
VALOR 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 VALOR with paraquat. Refer to paraquat label for recommended rate and application parameters. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. VALOR 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 lbs./A or 28 to 32% nitrogen solution at 1 to 2 qts./A) may be added to increase herbicidal activity.

Preemergence – Dormant Asparagus, Preemergence to Weeds
Apply VALOR to dormant asparagus for the preemergence control of weeds listed in Table 10, Weeds Controlled by Preemergence Application of VALOR.

DIRECTIONS FOR USE IN COTTON

GENERAL RESTRICTIONS AND LIMITATIONS
- Do not apply more than 2 oz. of VALOR per acre during a single application.
- Do not apply more than 4 oz. of VALOR per acre during a single growing season.
- Do not make a sequential VALOR application within 30 days of the first VALOR application.
- Do not apply within 60 days of harvest.

ENVIRONMENTAL CONDITIONS AND BIOLOGICAL PERFORMANCE
Hooded, Shielded and Layby Application
For best results, VALOR should be applied to actively growing weeds within the growth stages indicated in this label. Applying VALOR under conditions that do not promote active weed growth will reduce herbicide effectiveness. Do not apply VALOR 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. VALOR is most effective when applied under sunny conditions at temperatures above 65°F.

VALOR is rainfast one hour after application. Applications should not be made if rain is expected within one hour of application or postemergence efficacy may be reduced. Rainfall within one hour of application will not adversely affect residual activity.

HERBICIDE RATE

Hooded, Shielded and Layby Application

For postemergence weed control, VALOR should be applied through a hooded or shielded sprayer or at layby, at 2 oz./A, in combinations with MSMA or at 1 to 2 oz./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 VALOR. Weeds that are controlled through residual activity of VALOR are listed in Table 1. Weeds that are suppressed by residual activity of VALOR are listed in Table 2.

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

BROADLEAF WEED SPECIES		WEED HEIGHT (inches) 2 oz./A
COMMON NAME	SCIENTIFIC NAME	
Bindweed, Field[1]	*Convolvulus arvensis*	4
Carpetweed	*Mollugo verticillata*	4
Chickweed, Common	*Stellaria media*	4
Cocklebur, Common	*Xanthium strumarium*	4
Florida Beggarweed	*Desmodium tortuosum*	2
Hemp Sesbania	*Sesbania exaltata*	6
Jimsonweed	*Datura stramonium*	4
Lambsquarters, Common	*Chenopodium album*	4
Morninglories		
Entireleaf	*Ipomoea hederacea var. integriuscula*	4
Ivyleaf	*Ipomoea hederacea*	4
Pitted	*Ipomoea lacunose*	4
Red	*Ipomoea coccinea*	4
Tall	*Ipomoea purpurea*	2
Mustard, Wild	*Brassica kaber*	6
Nightshades		
Black	Solanum nigrum	4
Eastern Black	Solanum ptycanthum	4
Hairy	Solanum sarrachoides	4
Pigweeds		
Palmer Amaranth	*Amaranthus palmeri*	4
Redroot	*Amaranthus retroflexus*	4
Smooth	*Amaranthus hybridus*	4
Plaintain, Broadleaf	*Plantago major*	6
Prickly Sida (Teaweed)	*Sida spinosa*	4
Purslane, Common	*Portulaca oleracea*	2
Ragweeds		
Common	*Ambrosia artemisiifolia*	2
Giant	*Ambrosia trifida*	4
Rice Flatsedge	*Cyperus iria*	2
Sicklepod	*Senna obtusifolia*	4

continued

[1] VALOR tank mixes will control the above ground portion of field bindweed. Repeated applications will be needed to control regrowth.

Table 4. Emerged Broadleaf Weeds Controlled by Hooded, Shielded and Layby Application of VALOR Tank Mixes With Glyphosate or MSMA in Cotton (continued)

BROADLEAF WEED SPECIES		WEED HEIGHT (inches) 2 oz/A
COMMON NAME	SCIENTIFIC NAME	
Smartweeds		
Ladysthumb	*Polygonum persicaria*	4
Pale	*Polygonum lapathifolium*	4
Pennsylvania	*Polygonum pensylvanicum*	4
Spotted Spurge	*Euphorbia maculata*	4
Velvetleaf	*Abutilon theophrasti*	4
Venice Mallow	*Hibiscus trionum*	2
Waterhemps		
Common	*Amaranthus rudis*	2
Tall	*Amaranthus tuberculatus*	2

CARRIER VOLUME AND SPRAY PRESSURE

Hooded, Shielded and Layby Application

To ensure thorough coverage in hooded, shielded and layby applications, use 15 to 30 gals. spray solution per treated acre. Use 20 to 30 gals. per treated acre under heavy weed pressure. Nozzle selection should meet manufacturer's gallonage and pressure recommendations for application method being used. Do not use "Flood Jet" 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 VALOR 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. Mixing compatibility qualities should be verified 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 and should not be used.**

APPLICATION EQUIPMENT

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

TIMING TO COTTON

Hooded and Shielded Application

VALOR 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 VALOR 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 VALOR applications. VALOR application must be directed to the lower 2 inches of the cotton stem to avoid crop injury.

TIMING TO WEEDS

VALOR tank mix applications must be made to weeds within the height range given in Table 4.

TANK MIXES
VALOR 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 VALOR 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 DRY BEANS

WEED SUPPRESSION [*Weed Suppression section not to be shown on production label*]
RESTRICTIONS AND LIMITATIONS
- Do not apply more than 1.5 oz. of VALOR per acre during a single application.
- Do not apply more than 1.5 oz. of VALOR per acre during a single growing season.

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 VALOR. On occasion this has resulted in a delay in maturity. User should assume these risks before using VALOR.

TIMING TO DRY BEAN
VALOR may be applied to dry beans within 2 days after planting for the preemergence suppression of the weeds listed in Table 8, Weeds Suppressed by Residual Activity of VALOR. VALOR should be tank mixed with other labeled herbicides for broad spectrum weed control.

TIMING TO WEEDS
VALOR may be applied to dry beans prior to planting or preemergence (after planting). Preemergence application of VALOR must be made within 2 days after planting and prior to dry bean emergence. Application after the dry beans have begun to crack, or are emerged, will result in severe crop injury. Application should not be made when dry beans have begun to crack.

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

ADDITIONAL RESIDUAL GRASS CONTROL
VALOR can be tank mixed with pendimethalin for additional grass control.

HARVEST AID
RESTRICTIONS AND LIMITATIONS
- Do not apply more than 3 oz. of VALOR per acre during a single application.
- Do not apply more than 3 oz. of VALOR per acre during a single growing season.
- Do not harvest within 5 days of application.

Desiccation from VALOR requires the addition of an agronomically approved adjuvant to the spray mixture. A methylated seed oil which contains at least 15% emulsifiers and 80% oil at 2% v/v should be used. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs/A or a 28 to 32% nitrogen solution at 1 to 2 qts/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 VALOR with glyphosate will increase control of emerged weeds and aid in harvest.

TIMING TO DRY BEANS
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 should meet manufacturer's gallonage and pressure recommendations for postemergence application.

DIRECTIONS FOR USE IN FIELD CORN

GENERAL RESTRICTIONS AND LIMITATIONS
- Use only on no-till or minimum tillage fields where last years 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 [2 oz] 3 oz of *Valor* per acre during a single growing season.
- Do not irrigate between emergence and 2-leaf corn.
- Do not use on popcorn, sweet corn or corn grown for seed.

TIMING TO FIELD CORN
Valor, at 2 or 3 oz/A, may only be applied between 14 and 30 days prior to planting field corn, unless the application is made as part of a Fall burndown program.

Burndown Use Directions – For Preplant Applications in Field Corn
Valor, 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, *Valor* 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 recommended application pressure and recommended adjuvant systems.

INCREASING SPEED OF GLYPHOSATE BURNDOWN ACTIVITY
Valor, at 1 oz/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 oz/A; however, suppression of the weeds in Table 2 may occur at *Valor* rates as low as 1 oz/A. Applications of *Valor* at 1 oz/A must be made a minimum of 14 days prior to planting field corn.

TANK MIXES
Valor may be tank mixed with the herbicides listed in Table 6 for pre-plant burndown applications. Refer to tank mix partner's label for adjuvant recommendations.

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

TANK MIX PARTNERS[1]	
2,4-D LVE	metribuzin
atrazine	paraquat
Basis®	Python®
dicamba	Resolve®
Express®	simazine
glyphosate	Weedmaster®
Hornet®	

[1]Refer to tank mix product labels for specific recommendations.

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), alachlor (Lasso), or acetochlor (Surpass or Harness) may result in injury to field corn when application is followed by prolonged periods of cool wet weather and should not be used with *Valor*, unless supplemental labeling, provided by Valent U.S.A. Corporation, is followed.

DIRECTIONS FOR USE IN FRUITING VEGETABLES (INCLUDING OKRA) ROW MIDDLES

Eggplant, Groundcherry (*Physalis* spp.), Okra, Pepino; Peppers (including Bell Pepper, Chili Pepper, Cooking Pepper, Pimento, Sweet Pepper), Tomatillo and Tomato

GENERAL RESTRICTIONS AND LIMITATIONS

- Do not apply more than 4 oz. of VALOR per acre during a single application.
- Do not apply more than 8 oz. of VALOR per acre during a single growing season.
- Plants should be grown 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 VALOR residues.
- 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.
- All applications must be made with hooded or shielded equipment.

TIMING TO FRUITING VEGETABLES
Apply VALOR at 4 oz per acre 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 1, Broadleaf Weeds Controlled by Residual Activity to VALOR, as well as to assist in the postemergence control of emerged weeds. A second application of VALOR at 4 oz per acre may be applied up to 21 days after transplanting or emergence if needed. Do not apply during or after bloom.

TIMING TO WEEDS
VALOR 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 VALOR 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 recommended rate and application parameters.

DIRECTIONS FOR USE IN GARLIC

GENERAL RESTRICTIONS AND LIMITATIONS

- Do not apply more than 6 oz. of VALOR per acre during a single application.
- Do not apply more than 6 oz. of VALOR per acre during a single growing season.

TIMING TO GARLIC
VALOR may be applied, at 6 oz./A, to garlic prior to garlic emergence. Application should be made within 3 days after planting garlic.

TIMING TO WEEDS
Preemergence – Preemergence To Weeds
Apply VALOR to weed free garlic for preemergence control of the weeds listed in Table 10, Weeds Controlled by Preemergence Application of VALOR.

DIRECTIONS FOR USE IN MELON ROW MIDDLES
Including Cantaloupe, Citron Melon, Muskmelon and Watermelon

GENERAL RESTRICTIONS AND LIMITATIONS

- Do not apply more than 4 oz. of VALOR per acre during a single application.
- Do not apply more than 8 oz. of VALOR per acre during a single growing season.
- Plants should be grown on raised or plastic mulched beds that are a higher than the treated row middle.
- Spray must be directed to the row middle, away from the crop bed and with minimal contact to 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 VALOR residues.
- Drift of treated sand or soil particles onto plants may cause contact injury.
- Irrigate treated field after application and prior to transplanting with a minimum of 1/4 inch of water if rainfall does not occur between application and transplanting.
- All applications must be made with hooded or shielded equipment.

TIMING TO MELONS

VALOR may be applied as a hooded or shielded application to row middles up to 21 days prior to harvest for preemergence control of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of VALOR, as well as to assist in the postemergence control of emerged weeds. Do not apply after blooming.

TIMING TO WEEDS

VALOR 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 VALOR 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 recommended rate and application parameters.

DIRECTIONS FOR USE IN MINT (Peppermint and Spearmint)

GENERAL RESTRICTIONS AND LIMITATIONS

- Do not apply more than 4 oz. of VALOR per acre during a single application.
- Do not apply more than 8 oz. of VALOR per acre during a single growing season.
- Do not make a sequential VALOR application within 60 days of the first VALOR application.
- Apply only to dormant mint. Application to non-dormant mint may result in unacceptable crop injury.
- Do not apply within 80 days of harvest.
- Do not apply to row or baby mint, use only on established meadow mint.
- Do not apply 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, as severe injury may occur. Apply only to healthy vigorous mint with undamaged rhizomes.
- Do not apply before November 25 or after March 1.
- Do not apply a Fall application if roots and rhizomes are weak, thin or damaged.
- Do not apply to stands established longer than 3 years.
- Do not apply VALOR on mint in Southern Union County (south of Ladd Canyon) or Baker County in Oregon.

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 VALOR. User should assume these risks before using VALOR.

Tank mixes with labeled rates of paraquat are recommended to control emerged weeds and increase crop safety.

TIMING TO MINT

As a spray, VALOR 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, VALOR 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

VALOR 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 VALOR with paraquat. Refer to paraquat label for recommended rate and application parameters. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. VALOR 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 lbs./A or 28 to 32% nitrogen solution at 1 to 2 qts./A) may be added to increase herbicidal activity.

Preemergence – Dormant Mint, Preemergence To Weeds

Apply VALOR to dormant mint for the preemergence control of weeds listed in Table 7. Fall applications of VALOR, 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 such as groundsel. Fields plowed or harrowed after a VALOR application will result in less effective preemergence activity. In furrow irrigated fields, corrugating that is done after a VALOR application will expose untreated soil and break the herbicide barrier resulting in poor weed control.

Table 7. Weeds Controlled by Residual Activity of VALOR

BROADLEAF WEED SPECIES				
COMMON NAME	**SCIENTIFIC NAME**	**ORGANIC MATTER**	**SOIL TYPE**	**VALOR RATE**
Bristly Starbur	*Acanthospermum hispidum*	Up to 5%	All Soil Types	4 oz./A
Carpetweed	*Mollugo verticillata*			
Chickweeds				
Common	*Stellaria media*			
Mouseear	*Cerastium vulgatum*			
Coffee Senna	*Cassia occidentalis*			
Copperleaf, Hophornbeam	*Acalypha ostryifolia*			
Dandelion	*Taraxacum officinale*			
Eclipta	*Eclipta prostrate*			
Evening Primrose, Cutleaf	*Oenothera laciniata*			
False Chamomile	*Tripleurospermum maritima*			
Flixweed	*Descurainia spophia*			
Florida Beggarweed	*Desmodium tortuosum*			
Florida Pusley	*Richardia scabra*			
Golden Crownbeard	*Verbesina encelioides*			
Groundsel, Common	*Senecio vulgaris*			
Hairy Indigo	*Indigofera hirsuta*			
Hemp Sesbania	*Sesbania exaltata*			
Henbit	*Lamium amplexicaule*			
Jimsonweed	*Datura stramonium*			
Kochia	*Kochia scoparia*			
Lambsquarters, Common	*Chenopodium album*			
Little Mallow	*Malva parviflora*			
Marestail/Horseweed	*Conyza canadensis*			

continued

Table 7. Weeds Controlled by Residual Activity of VALOR(continued)

BROADLEAF WEED SPECIES				
COMMON NAME	**SCIENTIFIC NAME**	**ORGANIC MATTER**	**SOIL TYPE**	**VALOR RATE**
Morninglories		Up to 5%	All Soil Types	4 oz./A
Entireleaf	*Ipomoea hederacea* var. *integriuscula*			
Ivyleaf	*Ipomoea hederacea*			
Red/Scarlet	*Ipomoea coccinea*			
Smallflower	*Jacquemontia tamnifolia*			
Tall	*Ipomoea purpurea*			
Mustard				
Tansy	*Descurainia pinnata*			
Tumble	*Sisymbrium altissimum*			
Wild	*Brassica kaber*			
Nightshades				
Black	*Solanum nigrum*			
Eastern Black	*Solanum ptycanthum*			
Hairy	*Solanum sarrachoides*			
Pigweeds				
Palmer Amaranth	*Amaranthus palmeri*			
Redroot	*Amaranthus retroflexus*			
Smooth	*Amaranthus hybridus*			
Spiny Amaranth	*Amaranthus spinosus*			
Tumble	*Amaranthus albus*			
Prickly Lettuce (China Lettuce)	*Lactuca serriola*			
Prickly Sida (Teaweed)	*Sida spinosa*			
Puncturevine	*Tribulus terrestris*			
Purslane				
Common	*Portulaca oleracea*			
Horse	*Trianthema portulacastrum*			
Radish, Wild	*Raphanus raphanistrum*			
Ragweed, Common	*Ambrosia artemisiifolia*			
Redmaids	*Calandrinia ciliata* var. *menziesii*			
Russian Thistle	*Salsola iberica*			
Shepherd's-purse	*Capsella bursa-pastoris*			
Smartweeds				
Ladysthumb	*Polygonum persicaria*			
Pennsylvania	*Polygonum pensylvanicum*			
Smellmelon	*Cucumis melo*			
Spotted Spurge	*Euphorbia maculata*			
Spurred Anoda	*Anoda cristata*			
Tropic Croton	*Croton glandulosus*			
Velvetleaf	*Abutilon theophrasti*			
Venice Mallow	*Hibiscus trionum*			
Waterhemps				
Common	*Amaranthus rudis*			
Tall	*Amaranthus tuberculatus*			
Wild Poinsettia	*Euphorbia heterophylla*			
Wormwood, Biennial	*Artemisia biennis*			

continued

Table 7. Weeds Controlled by Residual Activity of VALOR(continued)

BROADLEAF WEED SPECIES				
COMMON NAME	**SCIENTIFIC NAME**	**ORGANIC MATTER**	**SOIL TYPE**	**VALOR RATE**
GRASS WEED SPECIES		Up to 5%	All Soil Types	4 oz./A
Barnyardgrass	*Echinochloa crus-galli*			
Bluegrass, Annual	*Poa annua*			
Crabgrass, Large	*Digitaria sanguinalis*			
Foxtail, Giant	*Setaria faberi*			
Goosegrass	*Eleusine indica*			
Lovegrass, California	*Eragrostis diffusa*			
Panicums				
Fall	*Panicum dichotomiflorum*			
Texas	*Panicum texanum*			
Ryegrass, Italian	*Lolium multiflorum*			
Signalgrass, Broadleaf	*Brachiaria platyphylla*			

DIRECTIONS FOR USE IN ONION (DRY BULB)

[Not to be printed on production label]

GENERAL RESTRICTIONS AND LIMITATIONS

- Do not apply more than 2 oz. of VALOR per acre during a single application.
- Do not apply more than 3 oz. of VALOR per acre during a single growing season.
- Do not make sequential application within 14 days of the first application.
- Do not apply more than 1 oz. of VALOR per season on soils that contain greater than 90% sand plus gravel.
- Do not apply as part of a tank mix, other than with Prowl® H_2O, or unacceptable injury may result. Other formulations of pendimethalin should not be tank mixed with VALOR for use in onions.
- Do not apply with any type of adjuvant.
- Do not apply within 45 days of harvest.

Use of VALOR may result in necrotic spotting of onion leaves that come in contact with the spray. User should assume this potential crop response before using VALOR.

[Microrate Application
Sequential applications of VALOR may be applied to onions (dry bulb), between the 2-leaf and 6-leaf stage, at rates of 0.5 to 1 oz./A, on a 7 day interval.]

TIMING TO ONIONS (dry bulb)
VALOR may be applied 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 VALOR to weed free onions (dry bulb) for preemergence control of the weeds listed in Table 1, Section A.

DIRECTIONS FOR USE IN PEANUT

GENERAL RESTRICTIONS AND LIMITATIONS

- Do not apply more than 3 oz. of VALOR per acre during a single growing season.
- Do not apply more than 2 oz./A in the states of North Carolina, Oklahoma or Virginia where climatic conditions may result in unacceptable injury to peanuts, unless supplemental labeling, provided by Valent U.S.A. Corporation, is followed.
- Do not irrigate when peanuts are cracking.

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 VALOR. On occasion this has resulted in a delay in maturity or even a slight decrease in yield.

WIND MANAGEMENT

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

TIMING TO PEANUTS

VALOR may be applied to peanuts prior to planting or preemergence (after planting). Preemergence applications of VALOR 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. Application should not be made when peanuts have begun to crack. Select VALOR rate from Table 1 according to anticipated weed spectrum.

TIMING TO WEEDS

Burndown – Preemergence to Peanuts, Postemergence to Weeds

VALOR, 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 VALOR before planting, during planting or after planting, but before the crop emerges. For control of emerged weeds, tank mix VALOR with glyphosate. Refer to glyphosate label for recommended rate and application pressure. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. VALOR tank mixes applied to assist in the control of emerged weeds must be applied with an adjuvant, such as 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 lbs./A or 28 to 32% nitrogen solution at
1 to 2 qts./A) may be added to increase herbicidal activity.

Preemergence (conventional tillage) applications of VALOR must be applied prior to weed emergence.

ADDITIONAL RESIDUAL GRASS CONTROL: SEQUENTIAL

VALOR 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

VALOR can be tank mixed with alachlor, metolachlor or FRONTIER for additional grass and broadleaf weed control. VALOR 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

GENERAL RESTRICTIONS AND LIMITATIONS

- Do not apply more than 1.5 oz of VALOR per acre during a single application.
- Do not apply more than 1.5 oz of VALOR per acre during a single growing season.
- Do not apply to Rill (Furrow) irrigated potatoes

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 VALOR. On occasion this has resulted in a delay in maturity. User should assume these risks before using VALOR.

TIMING TO POTATOES

VALOR may be applied to potatoes after hilling for the preemergence suppression of the weeds listed in Table 8. VALOR should be tank mixed 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 VALOR 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, such as 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 VALOR will result in decreased weed control and should be avoided. In areas with sprinkler irrigation, VALOR should be incorporated with 0.5 to 0.75 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 VALOR to soil covered potatoes for the preemergence suppression of the weeds listed in Table 8. Harrowing, cultivation or corrigating after VALOR application will reduce weed control.

Table 8. Weeds Suppressed by Residual Activity of VALOR at 1.5 oz/A

COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	VALOR RATE
Lambsquarters, Common	*Chenopodium album*	Up to 5%	1.5 oz./A
Mustard, Wild	*Brassica kaber*		
Nightshades			
Black	*Solanum nigrum*		
Eastern Black	*Solanum ptycanthum*		
Hairy	*Solanum sarrachoides*		
Pigweeds			
Palmer Amaranth	*Amaranthus palmeri*		
Redroot	*Amaranthus retroflexus*		
Smooth	*Amaranthus hybridus*		
Spiny Amaranth	*Amaranthus spinosus*		
Tumble	*Amaranthus albus*		
Prickly Lettuce (China Lettuce)	*Lactuca serriola*		
Radish, Wild	*Raphanus raphanistrum*		

DIRECTIONS FOR USE IN SOYBEAN

GENERAL RESTRICTIONS AND LIMITATIONS

- Do not apply more than 3 oz. of VALOR per acre during a single growing season.
- Do not use VALOR in soybeans in the same field that flufenacet (AXIOM®, DOMAIN®), alachlor (MICRO-TECH®), metolachlor (DUAL products or BOUNDARY®) or dimethenamid (FRONTIER or OUTLOOK®) will be used, or soybean injury may occur, unless supplemental labeling, provided by Valent U.S.A. Corporation, is followed.
- Do not irrigate when soybeans are cracking.

TIMING TO SOYBEANS

VALOR may be applied to soybeans prior to planting or preemergence (after planting). Preemergence application of VALOR 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. Application should not be made when soybeans have begun to crack. Select VALOR rate from Table 1 according to anticipated weed spectrum.

TIMING TO WEEDS

Burndown – Preemergence to Soybeans, Postemergence to Weeds

VALOR, 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 VALOR 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 gals. of spray solution per acre. Refer to tank mix partner's label for recommended application pressure. All VALOR 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

VALOR, at rates as low as 1 oz./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 oz./A; however, suppression of the weeds in Table 2, may occur at VALOR rates as low as 1 oz./A.

TANK MIXES

VALOR 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 recommendations.

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 recommendations for control of emerged weeds present.

ADDITIONAL RESIDUAL BROADLEAF CONTROL
VALOR can be tank mixed with metribuzin, FIRSTRATE®, LOROX®, PURSUIT PLUS®, PYTHON®, SQUADRON®, SCEPTER or STEEL® for additional broadleaf control.

ADDITIONAL RESIDUAL GRASS CONTROL
VALOR can be tank mixed with pendimethalin or COMMAND® for additional grass control. Tank mixes with flufenacet (AXIOM or DOMAIN), metolachlor (DUAL products or BOUNDARY), dimethenamid (FRONTIER or OUTLOOK) or alachlor (MICRO-TECH or IntRRo®), may result in severe injury to soybeans when application is followed by prolonged periods of cool wet weather and should not be used with VALOR, unless supplemental labeling, provided by Valent U.S.A. Corporation, is followed.

ROUNDUP READY PROGRAM
VALOR may be applied as part of a burndown program or preemergence in conventional tillage programs, at 2 to 3 oz./A to reduce early season weed competition from waterhemp, velvetleaf, nightshade and morninglories 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 VALOR.

DIRECTIONS FOR USE IN STRAWBERRY

GENERAL RESTRICTIONS AND LIMITATIONS:

- Do not apply more than 3 oz. of VALOR per acre per application.
- Do not apply more than 3 oz. of VALOR per acre during a single growing season.
- VALOR, at 3 oz. per acre, 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.
- VALOR at 3 oz. per acre 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 VALOR.
- VALOR, at 3 oz. per acre, 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 VALOR.

Application Method	Minimum Time From Application to Harvest (PHI)	Use Rate Per Acre Per Application (oz)	Use Rate Per Acre Per Year (oz)	Special Use Instructions
Pre-transplant	Not applicable	3	3	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	3	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.

continued

DIRECTIONS FOR USE IN STRAWBERRY (continued)

Application Method	Minimum Time From Application to Harvest (PHI)	Use Rate Per Acre Per Application (oz)	Use Rate Per Acre Per Year (oz)	Special Use Instructions
Hooded or shielded sprayer application to row middles	Do not apply after fruit set	3	3	**Apply only to row middles - do not apply over strawberries.** Apply prior to weed emergence. Crop spotting may occur if an adjuvant is added. **Application after fruit set may result in spotting of fruit and should be avoided.** Do not allow spray drift to come in contact with fruit or foliage

Table 10. Weeds Controlled by Preemergence Application of VALOR

BROADLEAF WEED SPECIES				
COMMON NAME	**SCIENTIFIC NAME**	**ORGANIC MATTER**	**SOIL TYPE**	**VALOR RATE**
Bristly Starbur	*Acanthospermum hispidum*	Up to 10%[1]	All Soil Types[2]	Asparagus, Garlic 6 oz/A Sugarcane 6 to 8 oz./A Grapes, Nut Trees (Including Pistachio), Pome Fruit, Stone Fruit, and Non-Bearing Fruit Trees 6 to 12 oz/A[2] To Maintain Bare Ground on Non-Crop Areas of Farms, Orchards & Vineyards 6 to 12 oz/A.
Carpetweed	*Mollugo verticillata*			
Chickweeds				
Common	*Stellaria media*			
Mouseear	*Cerastium vulgatum*			
Coffee Senna	*Cassia occidentalis*			
Dandelion	*Taraxacum officinale*			
Eclipta	*Eclipta prostrata*			
Eveningprimrose, Cutleaf	*Oenothera laciniata*			
False Chamomile	*Tripleurospermum maritima*			
Filaree				
Redstem	*Erodium cicutarium*			
Whitestem	*Erodium moschatum*			
Fleabane	*Erigeron* spp.			
Flixweed	*Descurainia sophia*			
Florida Beggarweed	*Desmodium tortuosum*			
Florida Pusley	*Richardia scabra*			
Golden Crownbeard	*Verbesina encelioides*			
Groundsel, Common	*Senecio vulgaris*			
Hairy Indigo	*Indigofera hirsuta*			
Hemp Sesbania	*Sesbania exaltata*			
Henbit	*Lamium amplexicaule*			
Jimsonweed	*Datura stramonium*			
Kochia	*Kochia scoparia*			
Lambsquarters, Common	*Chenopodium album*			
Mallow				
Common (Cheeseweed)	*Malva neglecta*			
Little	*Malva parviflora*			
Horseweed/Marestail	*Conyza canadensis*			
Morningglories				
Entireleaf	*Ipomoea hederacea* var. *integriuscula*			
Ivyleaf	*Ipomoea hederacea*			
Red/Scarlet	*Ipomoea coccinea*			
Smallflower	*Jacquemontia tamnifolia*			
Tall	*Ipomoea purpurea*			

continued

[1]Valor 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]A maximum VALOR rate of 6 oz./A per application should be used 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 VALOR (continued)

BROADLEAF WEED SPECIES				
COMMON NAME	**SCIENTIFIC NAME**	**ORGANIC MATTER**	**SOIL TYPE**	**VALOR RATE**
Mustards		Up to 10%[1]	All Soil Types[2]	Asparagus, Garlic 6 oz/A Sugarcane 6 to 8 oz./A Grapes, Nut Trees (Including Pistachio), Pome Fruit, Stone Fruit, and Non-Bearing Fruit Trees 6 to 12 oz/A[2] To Maintain Bare Ground on Non-Crop Areas of Farms, Orchards & Vineyards 6 to 12 oz/A.
Tansey	*Desurainia pinnata*			
Tumble	*Sisymbrium altissimum*			
Wild	*Brassica kaber*			
Nightshades				
Black	*Solanum nigrum*			
Eastern Black	*Solanum ptycanthum*			
Hairy	*Solanum sarrachoides*			
Pigweeds				
Palmer Amaranth	*Amaranthus palmeri*			
Redroot	*Amaranthus retroflexus*			
Smooth	*Amaranthus hybridus*			
Spiny Amaranth	*Amaranthus spinosus*			
Tumble	*Amaranthus albus*			
Prickly Lettuce (China Lettuce)	*Lactuca serriola*			
Prickly Sida (Teaweed)	*Sida spinosa*			
Puncturevine	*Tribulus terrestris*			
Purslane				
Common	*Portulaca oleracea*			
Horse	*Trianthema portulacastrum*			
Radish, Wild	*Raphanus raphanistrum*			
Ragweed, Common	*Ambrosia artemisiifolia*			
Redmaids	*Calandrinia ciliata* var *menziessi.*			
Redweed	*Melochia corchorifolia*			
Shepherd's-purse	*Capsella bursa-pastoris*			
Smellmelon	*Cucumis melo*			
Sowthistle, Annual[3]	*Sonchus oleraceus*			
Spotted Spurge	*Euphorbia maculata*			
Spurred Anoda	*Anoda cristata*			
Thistle, Russian	*Salsola iberica*			
Tropic Croton	*Croton glandulosus*			
Venice Mallow	*Hibiscus trionum*			
Waterhemps				
Common	*Amaranthus rudis*			
Tall	*Amaranthus tuberculatus*			
Wild Poinsettia	*Euphorbia heterophylla*			
Wormwood, Biennial	*Artemisia biennis*			

continued

[1]Valor 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]A maximum VALOR rate of 6 oz./A per application should be used on any soil that has a sand plus gravel content over 80% if bushes, trees or vines are under 3 years of age.
[3]Except CA

Table 10. Weeds Controlled by Preemergence Application of VALOR (continued)

BROADLEAF WEED SPECIES				
COMMON NAME	**SCIENTIFIC NAME**	**ORGANIC MATTER**	**SOIL TYPE**	**VALOR RATE**
GRASS WEED SPECIES		Up to 10%[1]	All Soil Types[2]	Asparagus, Garlic 6 oz/A Sugarcane 6 to 8 oz./A Grapes, Nut Trees (including Pistachio), Pome Fruit, Stone Fruit and Non-Bearing Fruit Trees 6 to 12 oz/A[2] To Maintain Bare Ground on Non-Crop Areas of Farms, Orchards & Vineyards 6 to 12 oz/A
Barnyardgrass	*Echinochloa crus-galli*			
Bluegrass, Annual	*Poa annua*			
Crabgrass				
Large	*Digitaria sanquinalis*			
Smooth	*Digitaria ischaemum*			
Foxtails				
Bristly	*Setaria verticillata*			
Giant	*Setaria faberi*			
Green	*Setaria viridis*			
Yellow	*Setaria glauca*			
Goosegrass	*Eleusine indica*			
Guineagrass	*Panicum maximum*			
Johnsongrass, Seedling	*Sorghum halepense*			
Lovegrass, California	*Eragrostis diffusa*			
Panicum				
Fall	*Panicum dichotomiflorum*			
Texas	*Panicum texaum*			
Ryegrass, Italian	*Lolium multiflorum*			
Signalgrass, Broadleaf	*Brachiaria platyphylla*			

[1]Valor 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]A maximum VALOR rate of 6 oz./A per application should be used 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

GENERAL RESTRICTIONS AND LIMITATIONS

- Do not apply more than 8 oz. of VALOR per acre per application.
- Do not make a sequential application within 14 days of the first application.
- Do not apply more than 12 oz. of VALOR per acre during a single growing season.
- Do not apply within 90 days of harvest.

TIMING TO SUGARCANE

VALOR may be applied from 2 weeks prior to planting to before the sugarcane emerges, post directed or at layby. Select the proper VALOR rate from Table 10 according to anticipated weed spectrum and soil organic matter content for preemergence applications. Select VALOR 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

VALOR 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 VALOR **before the crop emerges**. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. All VALOR 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, such as ROUNDUP Original Max (glyphosate), may be formulated with a suitable adjuvant and do not require additional adjuvant.

Preemergence – Preemergence to Sugarcane, Preemergence to Weeds

VALOR 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 VALOR **before the crop emerges**.

Post-Directed – Postemergence to Sugarcane, Postemergence to Weeds

Post-directed applications should only be made to upright sugarcane varieties after the sugarcane has exceeded 24 inches in height and has begun to joint. Post-directed applications should not be made to "PINEAPPLE" varieties. Post-directed applications to "PINEAPPLE" varieties or to upright varieties that have not exceeded 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 VALOR 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 VALOR 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 gals. of spray solution per acre. Layby applications of VALOR 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 VALOR rate based on weed spectrum and weed height from Table 11.

Table 11. Broadleaf Weeds Controlled by Post-Directed or Layby Application of VALOR in Sugarcane

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

[1]VALOR, tank mixes will only control the above ground portion of field bindweed. Repeated applications will be needed to control regrowth.

TANK MIXES

VALOR 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 adjuvant recommendations.

Table 12. Tank Mixes with VALOR 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 recommendations for control of emerged weeds present not listed in Table 11.
[2] Post-directed applications should only be made to upright sugarcane varieties after the sugarcane has exceeded 24 inches in height. Post-directed applications should not be made to "PINEAPPLE" varieties. Post-directed applications to "PINEAPPLE" varieties or to upright varieties that have not exceeded 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 ft. 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

VALOR can be tank mixed with atrazine or diuron for additional preemergence broadleaf control.

ADDITIONAL PREEMERGENCE GRASS CONTROL

VALOR can be tank mixed with PROWL (or other pendimethalin products) for additional preemergence grass control provided sugarcane has not emerged.

DIRECTIONS FOR USE IN SWEET POTATO

GENERAL RESTRICTIONS AND LIMITATIONS

- Do not apply more than 3 oz. of VALOR per acre during a single growing season.
- Do not apply postemergence to sweet potatoes.
- Do not use greenhouse grown transplants.
- Do not use transplants harvested more that 2 days prior to transplanting.
- Do not use on any sweet potato variety other than "BEAUREGARD", unless user has tested VALOR on other variety and has found crop tolerance to be acceptable.
- Do not apply 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

VALOR must be applied prior to transplanting sweet potatoes.

TIMING TO WEEDS

Preemergence To Weeds

Apply VALOR to soil prior to transplanting sweet potato slips for the preemergence control of the weeds listed in Table 1.

DIRECTIONS FOR USE IN BUSHBERRIES, GRAPE, NUT TREES (INCLUDING PISTACHIO), POME FRUIT, STONE FRUIT AND NON-BEARING FRUIT TREES

GENERAL RESTRICTIONS AND LIMITATIONS

- Do not apply more than 12 oz of VALOR per acre during a single application.
- Do not apply more than 24 oz of VALOR per acre during a 12 month period, except Bushberries; for Bushberries do not apply more than 12 oz of VALOR per acre during a 12 month period.
- Do not make a sequential application within 30 days of the first application, except nut trees, do not make a sequential application within 60 days of the first application.
- A maximum VALOR rate of 6 oz/A per application should be used on any soil that has a sand plus gravel content over 80% if bushes, trees or vines are less than 3 years of age.
- Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- Do not apply within 300 yards of non-dormant pears.
- Do not apply 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).

For bushberries, grape, nut trees (including pistachio) and non-bearing fruit trees, VALOR should be applied as a uniform broadcast application to the orchard or vineyard floor or as a uniform band directed at the base of the bush, trunk or vine. For pome fruit and stone fruit, VALOR can only be applied as a uniform band directed at the base of the trunk prior to "pink bud" in apple and "bud break" in stone fruit and pear. The preferred application timing for VALOR 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 oz. (0.188 to 0.38 lb. ai/A) of VALOR per broadcast acre as a preemergence application. Preemergence (to weed emergence) applications of VALOR should be made to a weed-free soil surface. Preemergence applications of VALOR must be completed prior to weed emergence. Moisture is necessary to activate VALOR on soil for residual weed control. Dry weather following application of VALOR may reduce effectiveness. However, when adequate moisture is received after dry conditions, VALOR will control susceptible germinating weeds.

Postemergence Application

Refer to Table 10 for weeds controlled by the residual activity of VALOR. VALOR should 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®. Tank mixes with glyphosate or 2,4-D containing products are not recommended during the period after bloom through final harvest to ensure crop safety from drift.

Residual weed control will be reduced if vegetation prevents the VALOR from reaching the soil surface. If vegetation is heavy, it is recommended to use a burndown herbicide with VALOR and make a sequential VALOR 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 should meet manufacturer's gallonage and pressure recommendations.

Banded Application
Rates listed in Table 13 refer to a broadcast application covering the entire acre. When making a banded application, the rate must be reduced according to the following formula:

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

USE PRECAUTIONS FOR BUSHBERRIES
Bushberries: Aronia Berry, Black Currant, Blueberry (Highbush, Rabbit-eye and Lowbush), Buffalo Currant, Chilean Guava, Cranberry (Highbush), Elderberry, European Barberry, Gooseberry, Honeysuckle (edible), Huckleberry, Jostaberry, Juneberry, Lingonberry, Native Currant, Red Currant, Salal and Sea Buckthorn

- Do not use in the states of Idaho, Oregon or Washington except west of the Cascade Mountains in the following counties:
  Oregon: Benton, Clackamas, Clatsop, Columbia, Coos, Curry, Douglas, Jackson, Josephine, Lane, Lincoln, Linn, Marion, Multnomah, Polk, Tillamook, Yamhill and Washington
  Washington: Clallam, Cowlitz, Grays Harbor, King, Jefferson, Kitsap, Lewis, Pacific, Pierce, Skagit, Snohomish, Thurston, Wahkiakum and Whatcom
- Do not apply to Bushberries established less than 2 years unless they are protected from spray contact by non-porous wrap, grow tubes or waxed containers.
- Do not apply after bud break through final harvest.

USE PRECAUTIONS FOR GRAPES
- Do not apply within 60 days of harvest.
- Do not apply to grapes established less than 2 years unless 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.
- Do not apply to grapes that are not trellised or staked unless they are free standing.
- Avoid direct or indirect spray contact to foliage and green bark (non-barked vines, with the exception of undesirable suckers).
- New plantings of "own-rooted varieties", such as Concord, should be planted 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
- Do not apply during the period after bud break through final harvest, unless using shielded application equipment and applicator can ensure spray drift will not come in contact with crop fruit or foliage. Shielded applications during this time period should not be made with glyphosate or products containing glyphosate.

Table Grapes
- VALOR may be applied during the period following final harvest up to bud break.
- Do not apply after bud break.

USE PRECAUTIONS FOR NUT TREES (INCLUDING PISTACHIO), POME FRUIT AND STONE FRUIT

Nut Trees: Almond, Beechnut, Betelnut, Black Walnut, Brazil Nut, Butternut, Cashew, Chestnut, Chinquapin, Coconut, English Walnut, Filbert (Hazelnut), Ginkgo, Heartnut, Hickory Nut, Macadamia Nut, Oak, Pecan, Pili Nut, Pine Nut, Pistachio and Tropical Almond

Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear, Pear (oriental) and Quince

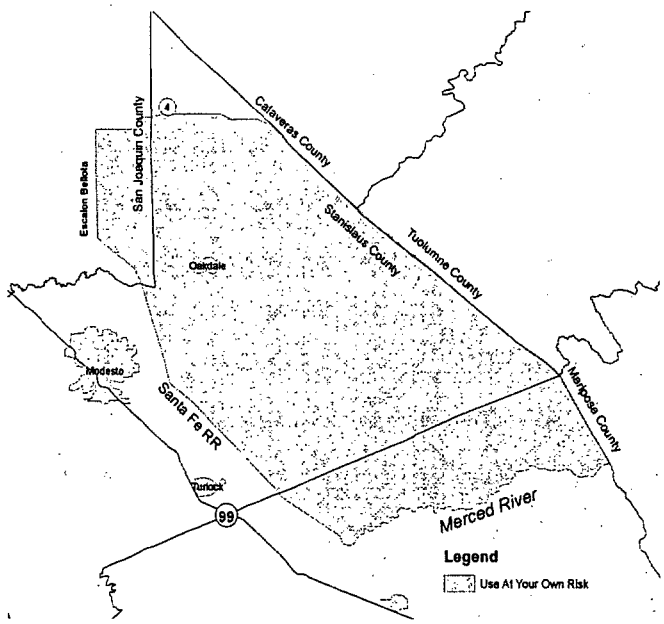
Stone Fruit: Apricot, Cherries (Sweet and Tart), Nectarine, Peach, Plum (Chickasaw, Damson, Japanese), Plumcot and Prune

- For stone fruit and pear, apply only between final harvest and bud break.
- For apple, apply only between final harvest and pink bud.
- For pome fruit and stone fruit do not apply to row middles (area between berms)
- For nut trees (including Pistachio) do not apply after bud break through final harvest unless using shielded application equipment and the applicator can ensure the spray drift will not come into contact with non-target vegetation, crop fruit and/or foliage.
- Do not apply within 60 days prior to harvest.
- Do not apply to trees established less than one year, unless protected from spray contact by non-porous wraps, grow tubes, paint or waxed containers.
- Do not use in the states of Idaho, Oregon or Washington except west of the Cascade Mountains in the following counties:
  Oregon: Benton, Clackamas, Clatsop, Columbia, Coos, Curry, Douglas, Jackson, Josephine, Lane, Lincoln, Linn, Marion, Multnomah, Polk, Tillamook, Yamhill and Washington
  Washington: Clallam, Cowlitz, Grays Harbor, King, Jefferson, Kitsap, Lewis, Pacific, Pierce, Skagit, Snohomish, Thurston, Wahkiakum and Whatcom

USE PRECAUTIONS FOR ALMOND AND STONE FRUIT IN A DEFINED AREA OF MERCED, SAN JOAQUIN AND STANISLAUS COUNTIES OF CALIFORNIA

The use of VALOR 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 VALOR 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.



USE PRECAUTIONS FOR NON-BEARING FRUIT TREES
Non-Bearing Avocado, Fig, Grapefruit, Lemon, Olive, Orange, Pomegranate and Tangerine

- Do not apply more than 12 oz of VALOR per acre during a single application.
- Do not apply more than 24 oz of VALOR per acre during a 12 month period.
- Do not harvest fruit from treated trees within one year of application.
- Do not apply to trees established less than one year, unless protected from spray contact by non-porous wraps, grow tubes or waxed containers.
- Do not apply during the period after flowering through leaf drop, unless using shielded application equipment and the applicator can ensure spray drift will not come in contact with the crop foliage.

Table 13. Weeds Controlled by Postemergence Activity of VALOR Tank mixes

BROADLEAF WEED SPECIES			
COMMON NAME	**SCIENTIFIC NAME**	**WEED HEIGHT/LENGTH (inches)**	**VALOR RATE**
Bindweed, Field[1]	*Convolvulus arvensis*	8	6 to 12 oz./A
Carpetweed	*Mollugo verticillata*	4	
Chickweeds			
Common	*Stellaria media*	4	
Mouseear	*Cerastium vulgatum*	4	
Cocklebur, Common	*Xanthium strumarium*	4	
Eveningprimrose, Cutleaf[2]	*Oenothera laciniata*	12	
Filaree			
Broadleaf	*Erodium botrys*	4	
Redstem	*Erodium cicutarium*	4	
Florida Beggarweed	*Desmodium tortuosum*	2	
Hemp Sesbania	*Sesbania exaltata*	8	
Jimsonweed	*Datura stramonium*	4	
Lambsquarters, Common	*Chenopodium album*	4	
Morningglories			
Entireleaf	*Ipomoea hederacea* var. *integriuscula*	4	
Ivyleaf	*Ipomoea hederacea*	4	
Pitted	*Ipomoea lacunosa*	6	
Red/Scarlet	*Ipomoea coccinea*	4	
Tall	*Ipomoea purpurea*	4	
Mustard, Wild	*Brassica kaber*	6	
Pigweeds			
Palmer Amaranth	*Amaranthus palmeri*	6	
Redroot	*Amaranthus retroflexus*	6	
Smooth	*Amaranthus hybridus*	6	
Plaintain, Broadleaf	*Plantago major*	6	
Prickly Sida (Teaweed)	*Sida spinosa*	6	
Purslanes			
Common	*Portulaca oleracea*	4	
Rock	*Calandrinia* spp.	2	

continued

[1] VALOR 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 should be 12 inches or less and in the rosette stage. Crop oil concentrate, at 1 pt./A, or non-ionic surfactant at 0.25% v/v, should be added to glyphosate tank mixes for cutleaf evening primrose control, including glyphosate formulations that contain a built-in adjuvant system.

Table 13. Weeds Controlled by Postemergence Activity of VALOR Tank mixes (continued)

BROADLEAF WEED SPECIES			
COMMON NAME	**SCIENTIFIC NAME**	**WEED HEIGHT/LENGTH (inches)**	**VALOR RATE**
Ragweeds			6 to 12 oz./A
Common	*Ambrosia artemisiifolia*	2	
Giant	*Ambrosia trifida*	4	
Rice Flatsedge	*Cyperus iria*	4	
Sicklepod	*Senna obtusifolia*	4	
Smartweeds			
Ladysthumb	*Polygonum persicaria*	4	
Pale	*Polygonum lapathifolium*	4	
Pennsylvania	*Polygonum pensylvanicum*	4	
Spotted Spurge	*Euphorbia maculata*	4	
Velvetleaf	*Abutilon theophrasti*	4	
Venice Mallow	*Hibiscus trionum*	4	
Waterhemps			
Common	*Amaranthus rudis*	2	
Tall	*Amaranthus tuberculatus*	2	

ADDITIONAL RESIDUAL WEED CONTROL

VALOR maybe 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.

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

GENERAL RESTRICTIONS AND LIMITATIONS

- Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- Do not apply to ditch banks.

VALOR, 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 "GENERAL INFORMATION".

VALOR 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. VALOR 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. VALOR rates of 6 to 12 oz./A are required to provide residual control of the weeds listed in Table 10.

PREEMERGENCE APPLICATION

Apply 6 to 12 oz. (0.188 to 0.38 lb. ai/A) of VALOR per broadcast acre as a preemergence application. Preemergence (to weed emergence) applications of VALOR should be made to a weed-free soil surface. Preemergence applications of VALOR must be completed prior to weed emergence. Moisture is necessary to activate VALOR on soil for residual weed control. Dry weather following application of VALOR may reduce effectiveness. However, when adequate moisture is received after dry conditions, VALOR will control susceptible germinating weeds.

POSTEMERGENCE APPLICATION
Apply 6 to 12 oz. (0.188 to 0.38 lb. ai/A) of VALOR 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 VALOR activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of VALOR. Emerged weeds are controlled postemergence with VALOR, however, translocation of VALOR 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 VALOR occurs when applied in combination with a surfactant to weeds less than 2 inches in height. A tank mix partner should be used in combination with VALOR for the postemergence control of weeds larger than 2 inches. Recommended tank mix partners are listed in Table 14.

IMPORTANT: Completely read and follow the label of any potential tank mix partner with VALOR. 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

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE
Keep pesticide in original container.
Store in a cool, dry, secure place.
Do not put formulation or dilute spray solution into food or drink containers.
Do not contaminate food or foodstuffs.
Do not store or transport near feed or food.
Not for use or storage in or around the home.
For help with any spill, leak, fire or exposure involving this material, call day or night **(800) 892-0099**.

PESTICIDE DISPOSAL
Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL
Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into 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.

Manufactured for:
Valent U.S.A. Corporation
P.O. Box 8025
Walnut Creek, CA 94596-8025
www.valent.com

Made in U.S.A.

EPA Reg. No. 59639-99
EPA Est.

059639-00099.20090526.VLR.AMEND

Supplemental Label

Valent U.S.A. Corporation
P.O. Box 8025
Walnut Creek, CA 94596-8025

VALOR® Herbicide

EPA Reg. No. 59639-99

PREEMERGENCE APPLICATION IN PEANUT
(NORTH CAROLINA, OKLAHOMA AND VIRGINIA ONLY)

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION

ENVIRONMENTAL HAZARDS:
This product is toxic to non-target plants and aquatic invertebrates. Do not apply 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 where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwaters.

This pesticide is toxic to plants and should 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 this product may have a potential to run-off to surface water or adjacent land. Where possible, use methods which reduce soil erosion, such as 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 and is recommended.

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

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

PREEMERGENCE APPLICATION IN PEANUTS IN THE STATES OF NORTH CAROLINA, OKLAHOMA, AND VIRGINIA
VALOR, at 3 oz. per acre, can be applied within 2 days of planting to control common ragweed, tropic croton and entireleaf, ivyleaf and tall/scarlet morningglories.

Cool temperatures near emergence (2 consecutive nighttime lows in the 50's F) in combination with heavy rainfall may result in severe crop injury. VALOR, at 3 oz./A, should only be used in these states when other alternatives are not available for adequate control of the weeds listed above and the user acknowledges the risks associated with this use rate under the adverse environmental conditions listed above.

THIS LABELING MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF APPLICATION. PLEASE REFER TO CONTAINER LABEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS. FOLLOW ALL APPLICATION DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE EPA REGISTERED LABEL.

PLEASE CONTACT VALENT U.S.A. CORPORATION AT 1-800-6-VALENT (682-5368) TO DETERMINE IF THIS USE IS REGISTERED IN YOUR STATE.

Manufactured for
Valent U.S.A. Corporation
P. O. Box 8025
Walnut Creek, CA 94596-8025
www.valent.com

Made in U.S.A.

Form 2004-VLR-0017