

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

AUG 3 0 2004

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

James Pensyl Valent U.S.A. Corporation 1600 Riviera Avenue PO Box 8025 Walnut Creek, CA 94596-8025

Dear Mr. Pensyl:

Subject:

Adding New Crops - Label Revisions

Valor WP Herbicide

EPA Registration No. 59639-98

Your Submission Dated August 16, 2004

The amendment referred to above, submitted in connection with registration under section 3(c)(7)(B) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), is acceptable provided that you:

- 1. Submit/cite all data required for registration/reregistration of your product under FIFRA section 3(c)(5) or 4(a) when the Agency requires all registrants of similar products to submit such data.
- 2. Make the following label changes listed below before you release the product for shipment:
  - a. Modify the heading to read "Directions for Use in Fall and Spring Burndown Programs in Cotton and Sugarcane". Delete "and Fallowland". The reference to Rotational Restrictions for Fallowland is inappropriate since Fallowland cannot be planted to crops for at least 12 months after treatment.
  - b. Modify the Fallowland heading to read "Directions For Use in Fallowland" in order to be identical to the other use headings.
  - c. For clarity in the Sugarcane Tables either indicate that the maximum rate is 8 ounces or indicated that the 12 ounce rate is per single growing season

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records. The amended labeling supersedes all previously accepted ones.

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

Sincerely yours,

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

Enclosure



GROUP 14 HERBICIDE

ACCEPTED with COMMENTS In EPA Letter Dated:

AUG 3 0 2004

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

59639-98

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

[Bracketed information is optional text].

# VALOR® WP Herbicide

FOR CONTROL OF CERTAIN WEEDS IN ALMOND, COTTON, GRAPE, PEANUT, PISTACHIO, SOYBEAN, SUGARCANE, NON-BEARING FRUIT & NUT TREES AND TO MAINTAIN BARE GROUND NON-CROP AREAS ON FARMS, ORCHARDS AND VINEYARDS.

Active Ingredient *Flumioxazin	By Wt. 51%
Other Ingredients	
Total	
*2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4, dione	5,6,7-tetrahydro-1 <i>H-</i> isoindole-1,3(2 <i>H</i> )-
VALOR® WP is a wettable powder containing 51% active ingredient.	

# **KEEP OUT OF REACH OF CHILDREN**

# CAUTION

SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMEN (S.

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# 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.

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 toilut.
- 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 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. EXCEPT 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

In no event shall Valent or Seller be liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The 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. 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

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.

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.

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

# RESISTANCE MANAGEMENT RECOMMENDATIONS

VALOR WP is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to VALOR WP 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 WP or other Group 14 herbicides.

To delay herbicide resistance consider:

- Avoiding the consecutive use of VALOR WP 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: 1-800-682-5368.

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## GENERAL INFORMATION

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

#### VALOR WP uses:

- VALOR WP provides residual control of susceptible weeds in almond, cotton, grapes, non-bearing fruit & nut trees, peanut, pistachio, soybean and sugarcane.
- VALOR WP provides additional burndown activity when used as part of a burndown program in almond, cotton, grapes, non-bearing fruit & nut trees, peanut, pistachio, soybean and sugarcane.
- VALOR WP can be applied as part of a fall burndown program for control of susceptible winter annuals.
- VALOR WP 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 WP 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.

# 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 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 more than 12 oz. of VALOR WP per acre during a single application.
- Do not apply more than 24 oz. of VALOR WP per acre during a single calendar year.
- Do not apply to frozen or snow covered soil.
- Do not apply or allow spray to come into contact with crop foliage.
- Do not incorporate into the soil after application. Mechanical incorporation into the soil will reduce residual weed control.
- Do not apply VALOR WP through any type of irrigation system.
- Post directed and layby applications of VALOR WP should be applied only to healthy growing crops.
- Spray equipment used to apply VALOR WP should not be used to apply other materials to any crop foliage, unless the proper cleanout procedure is followed.

#### **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 WP in soil for residual weed control. Dry weather following applications of VALOR WP may reduce effectiveness. However, when adequate moisture is received after dry conditions, VALOR WP will control susceptible germinating weeds. VALOR WP 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 WP 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 WP should be applied as part of a burndown program to actively growing weeds. Applying VALOR WP under conditions that do not promote active weed growth will reduce herbicide effectiveness. Do not apply VALOR WP 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 WP 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 WP should only be applied to healthy crops labeled for postemergence use. Do not apply VALOR WP to crops that have been weakened by disease, drought, flooding, excessive fertilization, soil salts, previously applied pesticides, nematodes, insects or winter injury.

#### Rainfastness

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

#### **Soil Characteristics**

Application of VALOR WP 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 Programs)

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 WP dosage from Table 1 when applying in peanuts or soybeans. Table 2 lists weeds that are suppressed by VALOR WP rates used in peanuts and soybeans.

**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. 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 50 gals. spray solution per acre. Use 20 to 50 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)

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 WP requires the addition of an agronomically approved adjuvant to the spray mixture. 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 WP as part of a burndown program. Some tank mix partners, such as Roundup UltraMAX<sup>TM</sup>, 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 WP. The addition of a crop oil concentrate or methylated seed oil may increase the burndown activity on certain weeds such as cutleaf evening primrose and Carolina geranium. Mixing compatibility qualities should be verified by a jar test.

A spray grade nitrogen source (either ammonium sulfate at 2.0 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 or a methylated seed oil.

# JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND VALOR WP

When using VALOR WP 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 WP, when using VALOR WP 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 WP to the quart jar for every 3 oz. of VALOR WPper acre being applied (4 g if 12 oz./A is the desired VALOR WP 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 WP, 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 WP. If two or more products were tank mixed prior to VALOR WP application, the most restrictive cleanup procedure should be followed.

# MIXING INSTRUCTIONS Water Soluble Packaging

This bag contains water soluble packets of VALOR WP. Do not handle the packets with wet gloves or allow the packets to become wet prior to mixing. If all packets are not used, close and reseal outer container to protect remaining packet(s). Do not add any liquid fertilizers, micronutrients or adjuvants to the spray solution until after the water soluble packets and their contents have completely dissolved. Water soluble packet(s) should completely dissolve in approximately five minutes. Dissolution rate may be slowed by cold water, lack of agitation, or water containing high concentrations of boron or sulfur. High concentration of boron or sulfur may result in spray screen or nozzle clogging due to the incomplete dissolution of the water soluble packet material.

- 1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water.
- While agitating, add the correct number of VALOR WP water-soluble packets and make sure that they have dissolved completely before proceeding. Agitation should create a rippling or rolling action on the water surface.
- 3. If tank mixing VALOR WP 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.
- 4. Add any required adjuvants.
- 5. Fill spray tank to desired level with water. **Agitation should continue until all spray solution** has been applied.
- 6. **Mix only the amount of spray** solution that can be applied the day of mixing. VALOR WP should be applied within 6 hours of mixing.
- 7. Refer to the charts below to determine the number of VALOR WP WSPs required to treat a given number of acres at a specific rate.

NUMBER OF ACRES ONE V	NUMBER OF ACRES ONE VALOR WP WSP WILL TREAT AT SPECIFIED VALOR WP RATE		
VALOR WP Rate (oz. pr./A)  Number of Acres Treated with One 10 oz. VALOR V			
1	10		
2	5		
3	3.3		

NUMBER OF VALOR WP WSPS REQUIRED TO TREAT SPECIFIED NUMBER OF ACRES		
VALOR WP Rate (oz. pr./A)	Number of Acres to be Treated	Number of 10 oz. VALOR WP WSPs Required
1	10	1
2	10	2
3	10	3
1	20	2
2	20	4
3	20	6
1	40	4
2	40	8
3	40	12

#### SPRAYER CLEANUP

Spray equipment must be cleaned each day following VALOR WP application. After VALOR WP 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. To enhance removal of VALOR WP from the spray system, add a tank cleaner such as "All Clear™" from Dupont, in place of ammonia and allow the cleaning solution to remain in the pressurized spray system (spray tank, hoses and boom) for 4 hours 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 WP 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 WP, and VALOR WP 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 WP per 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, 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 WP 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 WP in 5 to 10 gals. per acre of water. 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 which produce flat or hollow cone spray patterns. Use non-drip
  type nozzles, such as diaphragm-type nozzles, to avoid unwanted discharge of spray solution. The
  nozzles must be directed toward the rear of the aircraft, at an angle between 0 and 15° downward. Do not
  place nozzles on the outer 25% of 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.

#### **CROP FAILURE**

If the crop treated with VALOR WP is lost due to a catastrophe, such as hail or other forms of inclement weather, soybeans, sugarcane or peanuts can be replanted immediately, provided no more than 3 oz./A of VALOR WP has been used on the lost crop. Cotton, field corn, rice, sorghum, sunflowers, tobacco and wheat can be planted 30 days after a VALOR WP application, provided no more than 2 oz./A of VALOR WP had been used on the lost crop and a minimum of 1 inch of rainfall/irrigation has occurred between VALOR WP application and replanting. Crop injury may occur if these restrictions are not followed.

# **ROTATIONAL RESTRICTIONS**

The following rotational crops may be planted after applying VALOR WP at the listed rate. Planting earlier than the recommended rotational interval may result in crop injury.

Do not plant any crop, except cotton, peanut, soybean or sugarcane earlier than 30 days after applying VALOR WP.

<b>VALOR WP RATE</b>	CROPS	ROTATION INTERVALS
1 oz./A	Cotton (no-till or strip-till only)	14 days¹
1.5 to 2 oz./A	Cotton (no-till or strip-till only)	21 days <sup>1</sup>
2 oz./A or less	Peanut, Soybean and Sugarcane	Immediately
	Cotton (conventional till)Field Corn, Rice, Sorghum, Sunflower, Tobacco and Wheat	30 days
	Bariey, Dry and Snap Beans, Peas, Rye and Sweet Corn	4 Months
	Alfalfa, Canola, Clover, Oats, Sugar Beet and all other crops not listed. <sup>2</sup>	8 months if soil is tilled prior to planting 12 Months if no tillage is performed
Up to 3 oz./A	Peanut, Soybean and Sugarcane	Immediately
	Field Corn and Sorghum	1 month
	Cotton, Rice, Sunflower, Tobacco and Wheat	2 Months <sup>1</sup>
	Barley, Dry and Snap Beans, Peas, Rye and Sweet Corn	4 Months
	Alfalfa, Clover, Oats, Sugar Beet and all other crops not listed <sup>2</sup>	10 months if soil is tilled prior to planting 12 Months if no tillage is performed
	Canola and all other crops not listed. <sup>2</sup>	12 Months
Up to 4 oz./A	Cotton, Field Corn, Peanut, Rice, Sorghum, Scybean, Sugarcane, Sunflower, Tobacco and Wheat	4 Months
	Alfalfa, Canola, Sugar Beet and all other crops not listeri <sup>2</sup>	12 months
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 <sup>2,3</sup>	18 months

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

<sup>&</sup>lt;sup>3</sup> Successful soil bloassay must be performed prior to planting crops not listed.

<sup>3</sup> Transplanted almond, apple, apricot, avocado, cherry, fig, grape, grapefruit, hazelnut, lemon, nectarine, olive, orange, peach, pear, pecan, plum (including dried plum), pistachio, tangerine and walnut trees can be planted 2 months after a VALOR WP application of 2 to 12 oz./A.

Table 1. Broadleaf Weeds Controlled by Residual Activity of VALOR WP at 2 to 3 oz./A

SECTION A	SECTION A			
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	VALOR WP RATE
Carpetweed	Mollugo verticillata	Up to 5%	All Soil Types	2 oz./A
Chickweeds				
Common	Stellaria media			
Mouseear	Cerastium vulgatum		İ	
Dandelion	Taraxacum officinale			
Eclipta	Eclipta prostrata		i	
Eveningprimrose, Cutleaf	Oenothera laciniata			
Florida Pusley	Richardia scabra			
Henbit	Lamium amplexicaule			
Kochia	Kochia scoparia			
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		1	
Spiny Amaranth	Amaranthus spinosus		1 1	
Tumble	Amaranthus albus			
Prickly Sida (Teaweed)	Sida spinosa			
Puncturevine	Tribulus terrestris			
Purslane, Common	Portulaca oleracea			
Radish, Wild	Raphanus raphanistrum			
Redmaids	Calandrinia ciliata var menziessii		1 1	
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 WP at 2 to 3 oz./A (continued)

SECTION B				and the state of t
All weeds listed in Se	ction A plus:			
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	VALOR WP RATE
Coffee Senna	Cassia occidentalis	Up to 3%	All Soil	2 oz/A Cotton
Common Ragweed¹	Ambrosia artemisiifolia		Types	3 oz./A Peanut <sup>2</sup>
Florida Beggarweed	Desmodium tortuosum			2.5 oz./A Soybean
Golden Crownbeard	Verbesina encelioides		}	
Hairy Indigo	Indigofera hirsuta			
Hemp Sesbania	Sesbania exaltata	3 to 5%	Coarse	2 oz./A Cotton
Jimsonweed	Datura stramonium		and	3 oz./A Peanut <sup>2</sup>
Morningglories <sup>3</sup>			Medium	2.5 oz./A Soybean
Entireleaf	lpomoea hederacea var. integriuscula		Soils: (sandy	
lvyleaf	Ipomoea hederacea		loam,	
Red/Scarlet	Ipomoea coccinea		loamy	
Tall	Ipomoea purpurea		sand,	
Mustard, Wild	Brassica kaber	-	loamy, silt-loam,	
Palmer Amaranth	Amaranthus palmeri		cilt candy	
Spurred Anoda	Anoda cristata		Fine	2 oz./A Cotton
Tropic Croton	Croton glandulosus		Soils:	3 oz./A Peanut and
Waterhemps <sup>1</sup>			(silty clay,	Soybean
Common	Amaranthus rudis		silty clay	
Tall	Amaranthus tuberculatus		loam,	
Wild Poinsettia	Euphorbia heterophylla		clay, clay	<u>}</u>

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

<sup>&</sup>lt;sup>2</sup>Due to differences in crop canopy timing between peanuts and soybeans, 3 oz./A of VALOR WP should be used in peanuts, regardless of soil type and organic matter content, except in the states of Virginia, North Carolina and Oklahoma where a maximum of 2 oz./A can be applied in peanuts.

<sup>&</sup>lt;sup>3</sup>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 WP at 2 to 3 oz./A

BROADLEAF WEED SPECIES		ORGANIC	OUNCES
COMMON NAME	SCIENTIFIC NAME	MATTER	PER ACRE
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		
Velvetleaf	Abutilon theophrasti		
Wild Buckwheat	Polygonum convolvulus		
Wormwood, Biennia!	Artemisia biennis		
GRASS WEED SPECIES			
Barnyardgrass	Echinochloa crus-galli		
Bluegrass, Annual	Poa annus		
Crabgrass, Large	Digitaria sanguinalis		
Foxtail, Giant	Setaria faberi		
Goosegrass	Eleusine indica		
Lovegrass, California	Eragrostis diffusa		
Panicums			
Fall	Panicum dichotomiflorum		
Texas	Panicum texanum		
Signalgrass, Broadleaf	Brachiaria platyphylla		

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# DIRECTIONS FOR USE IN FALL AND SPRING PREPLANT BURNDOWN AND FALLOW SEEDBED PROGRAMS IN 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 WP, 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 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 WP 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 WP 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 <sup>1</sup>	
VALOR WP	2 to 3 oz./A
Plus	
Glyphosate	0.5 to 1 lb. ai/A (equivalent to 1 to 2 pt./A of Roundup Original®)
Plus	, , , , , , , , , , , , , , , , , , , ,
2,4-D LVE (2,4-D for use on preplant soybeans only) Plus	0.5 to 1 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

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Program 2	
VALOR WP	2 to 3 oz./A
Plus	
Glyphosate	0.5 to 1 lb. ai/A (equivalent to 1 to 2 pt./A of Roundup Original)
Plus	
COC <sup>2</sup>	1 pt./A
or	or
NIS + AMS	0.5% v/v + 17 lbs./100 gals. of water

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Program 3 <sup>1</sup>	
VALOR WP	2 to 3 oz./A
Plus	
2,4-D LVE (2,4-D for use on preplant soybeans only)	0.5 to 1 lb. ai/A (equivalent to 1 to 2 pt./A of 2,4-D 4 LVE)
Plus	
COC	1 pt./A

'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. Befer to dicamba label for rotational restrictions.

emerged broadleaves. Refer to dicamba label for rotational restrictions.

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

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

WEEDS CONTROLLED <sup>1</sup>		POS	STEMERGI	ENCE	
A A A A A A A A A A A A A A A A A A A	SCIENTIFIC NAME	Program 1	Program 2	Program 3	RESIDUAL
COMMON NAME		Weeds 3 inches or less			1
Chickweed					
Common	Stellaria media	Yes	Yes	No	Yes
Mouseear	Cerastium vulgatum	Yes	Yes	No	Yes
Dandelion	Taraxacum officinale	Yes	No	Yes <sup>2</sup>	Yes
Henbit	Lamium amplexicaule	Yes	Yes	Yes	Yes
Marestail/Horseweed	Conyza canadensis	Yes	Yes	Yes	Yes
Groundsel, Cressleaf	Senecio glabellus	Yes	Yes	-	Yes
Purple Deadnettle	Lamium purpureum	Yes	Yes	Yes	Yes
		Weeds	12 inches	or less	
Carolina Geranium	Geranium carolinianum	Yes	Yes	Yes	_
Eveningprimrose, Cutleaf <sup>3</sup>	Oenothera laciniata	Yes	Yes	Yes	Yes
Mustard, Wild	Brassica kaber	Yes	Yes	Yes	Yes
Sheperd's-purse	Capsella bursa-pastoris	Yes	Yes	Yes	Yes

<sup>&</sup>lt;sup>1</sup>Refer to glyphosate and/or 2,4-D labels for additional weeds controlled and rotational restrictions.

# Programs 2 or 3 should be used to control cutteaf eveningprimrose that are 12 inches or less and in the rosette stage.

#### **SPRING BURNDOWN PROGRAM**

VALOR WP can be used in combination with labeled preplant burndown herbicides to control 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 WP after planting 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 WP 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 WP can be used at 1 to 3 oz./A in soybean and peanut burndown programs. See "DIRECTIONS FOR USE IN SOYBEANS", "DIRECTIONS FOR USE IN PEANUTS" for more information.

<sup>&</sup>lt;sup>2</sup>1 lb. ai/A of 2,4-D LVE (equitvalent to 2 pts./A of 2,4-D 4 LVE) should be used for control of emerged dandelion.

<sup>&</sup>lt;sup>3</sup>Program 1 should be used to control cutleaf eveningprimrose that are nearing 12 inches in height or are past the rosette stage.

# DIRECTIONS FOR USE IN FALL AND SPRING BURNDOWN PROGRAMS IN COTTON, SUGARCANE, AND FALLOWLAND

# **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 WP 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 WP application and planting of conventionally tilled cotton.
- A minimum of 14 days must pass and 1 inch of rainfall/irrigation must occur, between VALOR WP
  application and planting of no-till or strip-till cotton when VALOR WP rate of 1 oz./A is used and 21 days
  when a VALOR WP rate of 1.5 to 2 oz./A is used. The field must contain the stubble from the previous
  crop.
- VALOR WP can be applied as part of a burndown application to sugarcane until cane emergence.
- Observe all rotational intervals as listed in the "ROTATIONAL RESTRICTIONS" table.
- Refer to most restrictive label for minimum interval between application and planting.

#### **FALL BURNDOWN PROGRAMS**

VALOR WP, 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. If weeds have emerged at the time of application, use VALOR WP 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.

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

## **SPRING BURNDOWN PROGRAMS**

VALOR WP, at 1 to 2 oz./A, can be used in combination with labeled burndown herbicides to control 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.

# **FALLOWLAND**

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

VALOR WP, 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 WP, 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 COTTON

#### **GENERAL RESTRICTIONS AND LIMITATIONS**

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

# **ENVIRONMENTAL CONDITIONS AND BIOLOGICAL PERFORMANCE**

# Hooded, Shielded and Layby Application

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

VALOR WP 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 WP 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 control the weeds listed in Table 4. Residual weed control can also be obtained through hooded, shielded and layby application of VALOR WP. Weeds that are controlled through residual activity of VALOR WP are listed in Table 1. Weeds that are suppressed by residual activity of VALOR WP are listed in Table 2.

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

BROADLEAF WEED SPEC	WEED HEIGHT (inches)	
COMMON NAME	SCIENTIFIC NAME	2 oz./A
Bindweed, Field <sup>1</sup>	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
Morningglories		
Entireleaf	Ipomoea hederacea var. integriuscula	4
lvyleaf	Ipomoea hederacea	4
Pitted	Ipomoea lacunose	4
Red	Ipomoea coccinea	4
Tail	Ipomoea purpurea	2
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	Sida spinosa	4
Purslanes, Common	Portulaca oleracea	2
Ragweeds		
Common	Ambrosia artemisiifolia	2
Giant	Ambrosia trifida	4
Rice Flatsedge	Cyperus iria	2
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	2
Waterhemps		
Common	Amaranthus rudis	2
Tall	Amaranthus tuberculatus	2
Wild Mustard	Brassica kaber	6

VALOR WP tank mixes will control the above ground portion of field bindweed only.

#### **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 WP 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 WP tank mixes, with ground equipment using standard commercial sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume. All nozzles must be under the hood or behind the shield to ensure no spray solution comes in contact with the cotton. 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 WP tank mixes may be applied with a hooded or shielded sprayer after cotton has reached a minimum of 6 inches in height. 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 WP tank mixes may be made once cotton has developed a minimum of 4 inches of bark and has reached a minimum of 18 inches in height. Cotton that is smaller than 18 inches in height and/or has less than 4 inches of bark may be injured by VALOR WP applications. VALOR WP application must be directed to the lower 2 inches of bark to avoid crop injury. Severe crop injury may result if application is made to green or unbarked stem.

# **TIMING TO WEEDS**

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

# **TANK MIXES**

VALOR WP 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 WP for Hooded, Shielded and/or Layby Use in Cotton

TANK MIX PARTNER	TARGET WEEDS	HOODED AND SHIELDED	LAYBY
Glyphosate	Perennial Grasses and Broadleaves	X	<b>X</b> <sup>1</sup>
MSMA	Annual Grasses Yellow Nutsedge	X	Х

<sup>&</sup>lt;sup>1</sup> For use only in cotton with the Roundup Ready gene.

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 WP, when applied according to label use directions, will control the weeds listed in Tables 1 and 4. This label makes no claims concerning control of other weed species.

### **DIRECTIONS FOR USE IN PEANUT**

#### **GENERAL RESTRICTIONS AND LIMITATIONS**

- Do not apply more than 3 oz. of VALOR WP per acre during a single growing season.
- Do not apply more than 2 oz./A in the states of Virginia, North Carolina or Oklahoma, where climatic conditions may result in unacceptable injury to peanut, 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 WP. 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 born sand damage to peanuts, weed control from VALOR WP may be reduced.

#### **TIMING TO PEANUTS**

VALOR WP may be applied to peanuts prior to planting or preemergence (after planting). Preemergence applications of VALOR WP 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 WP rate from Table 1 according to anticipated weed spectrum.

#### **TIMING TO WEEDS**

# Burndown - Preemergence to Peanuts, Postemergence to Weeds

VALOR WP, 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 WP before planting, during planting, or after planting, but before the crop emerges. For control of emerged weeds, tank mix VALOR WP 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 WP tank mixes applied to assist in the control of emerged weeds must be applied with an adjuvant, such as crop oil concentrate or methylated seed oil at 1 to 2 pt./A. A spray grade nitrogen source (either ammonium sulfate at 2.0 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 WP must be applied prior to weed emergence.

### **ADDITIONAL RESIDUAL GRASS CONTROL: SEQUENTIAL**

VALOR WP may be applied sequentially following a preplant incorporated application of trifluralin (states of Texas, Oklahoma and New Mexico only), SONALAN®, DUAL® (metolachlor), pendimethalin or FRONTIER®.

#### ADDITIONAL RESIDUAL GRASS CONTROL: TANK MIXED

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

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 WP, when applied according to label use directions, will control the weeds listed in Table1. This label makes no claims concerning control of other weed species.

# **DIRECTIONS FOR USE IN SOYBEAN**

#### **GENERAL RESTRICTIONS AND LIMITATIONS**

- Do not apply more than 3 oz. of VALOR WP per acre during a single growing season.
- Do not use VALOR WP in soybean in the same field 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 WP may be applied to soybean prior to planting or preemergence (after planting). Preemergence application of VALOR WP 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 WP rate from Table 1 according to anticipated weed spectrum.

#### **TIMING TO WEEDS**

## Burndown - Preemergence to Soybeans, Postemergence to Weeds

VALOR WP, 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 4. Apply VALOR WP 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 WP 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.

# **INCREASING SPEED OF GLYPHOSATE BURNDOWN ACTIVITY**

VALOR WP, at rates as low as 1.0 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 listed in Table 2 may occur at VALOR WP rates as low as 1 oz./A.

#### **TANK MIXES**

VALOR WP may be tank mixed with the herbicides listed in Table 6 for increased burndown activity, additional residual broadleaf and/or additional grass control. Refer to tank mix partner's label for adjuvant recommendations.

Table 6, Tank Mix Partners for Control of Emerged Weeds in Reduced Tillage Soybeans

TANK MIX PARTNER	TARGET WEEDS'		
GRAMOXONE® EXTRA	Annual Grasses Henbit		
Glyphosate	General Burndown		
SELECT® 2 EC	Annual Grasses		
SCEPTER® 70 DG	Cocklebur Common Sunflower		
2,4-D LVE	Marestail Giant Ragweed Dandelion		

Refer to tank mix product labels for specific recommendations for control of emerged weeds present.

# ADDITIONAL RESIDUAL BROADLEAF CONTROL

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

#### ADDITIONAL RESIDUAL GRASS CONTROL

VALOR WP 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), 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 WP, unless supplemental labeling, provided by Valent U.S.A. Corporation, is followed.

#### **ROUNDUP READY PROGRAM**

VALOR WP 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 morningglories 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 WP.

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 WP, when applied according to label use directions, will control the weeds listed in Table 1. This label makes no claims concerning control of other weed species.

### **DIRECTIONS FOR USE IN SUGARCANE**

#### GENERAL RESTRICTIONS AND LIMITATIONS

- Do not apply more than 8 oz. of VALOR WP per acre per application.
- Do not make a sequential application within 14 days of the first application, unless otherwise directed by supplemental labeling issued by Valent U.S.A. Corporation.
- Do not apply more than 12 oz. of VALOR WP per acre during a single growing season.
- Do not apply within 90 days of harvest.

# **TIMING TO SUGARCANE**

VALOR WP may be applied from 2 weeks prior to planting to before the sugarcane emerges, post directed or at layby. Select the proper VALOR WP rate from Table 7 according to anticipated weed spectrum and soil organic matter content for preemergence applications. Select VALOR WP rate from Table 8 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 WP 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 9. Apply VALOR WP **before the crop emerges**. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. All VALOR WP 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 Ultra (glyphosate), may be formulated with a suitable adjuvant and do not require additional adjuvant.

# Preemergence - Preemergence to Sugarcane, Preemergence to Weeds.

VALOR WP 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 7. Apply VALOR WP 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 WP 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 WP rate based on weed spectrum and weed height from Table 8.

#### 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 WP 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 WP rate based on weed spectrum and weed height from Table 8.

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 WP, when applied according to label use directions, will control the weeds listed in Tables 7 and 8. This label makes no claims concerning control of other weed species.

Table 7. Weeds Controlled by Preemergence Application of VALOR WP at 6 to 12 oz./A

COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	VALOR WP RATE
Bristly Starbur	Acanthospermum hispidum	Up to 10%	All Soil	6 to 12 oz./A
Carpetweed	Mollugo verticillata		Types <sup>2</sup>	
Chickweeds			**	
Common	Stellaria media			
Mouseear	Cerastium vulgatum			
Coffee Senna	Cassia occidentalis			
Dandelion	Taraxacum officinale			
Eclipta	Eclipta prostrata	7		
Eveningprimrose, Cutleaf	Oenothera laciniata			
Filaree		-		
Redstem	Erodium cicutarium	7		
Whitestem	Erodium moschatum			
Fleabane	Erigeron spp.	-		
Florida Beggarweed	Desmodium tortuosum			
Florida Pusley	Richardia scabra			
Golden Crownbeard	Verbesina encelioides	$\dashv$		
Hairy Indigo	Indigofera hirsute			
Hemp Sesbania	Sesbania exaltata	$\dashv$		
Henbit	Lamium amplexicaule	-		
Jimsonweed	Datura stramonium			
Kochia	Kochia scoparia	1		
Lambsquarters, Common	Chenopodium album	-		
Mallow				
Little Mallow	Malva parviflora			
Common (Cheeseweed)	Malva neglecta	-		
Horseweed/Marestail	Conyza Canadensis	1		
Morningglories				
Entireleaf	Ipomoea hederacea var.			
	integriuscula			
lvyleaf	Ipomoea hederacea	_		
Red/Scarlet	Ipomoea coccinea	*······		
Smallflower	Jacquemontia tamnifolia	-		
Tall	Ipomoea purpurea			
Mustards				
Tumble	Sisymbrium altissimum	-		
Wild	Brassica kaber	1		
Nightshades .		7		
Black	Solanum nigrum	1		
Eastern Black	Solanum ptycanthum	-		
Hairy	Solanum sarrachoides	$\dashv$		

<sup>&</sup>lt;sup>1</sup>VALOR WP 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.

2A maximum VALOR WP rate of 6 oz./A per application should be used on any soil that has a sand content over 80% if trees or vines

are under 3 years of age.

Table 7. Weeds Controlled by Preemergence Application of VALOR WP at 6 to 12 oz./A (continued)

COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	VALOR WP RATE
Pigweeds		Up to 10%	All Soil	6 to 12 oz./A
Palmer Amaranth	Amaranthus palmeri		Types	
Redroot	Amaranthus retroflexus			
Smooth	Amaranthus hybridus			
Spiny Amaranth	Amaranthus spinosus			
Tumble	Amaranthus albus			
Prickly Sida (Teaweed)	Sida spinosa	]		
Puncturevine	Tribulus terrestris			
Purslane, Common	Portulaca oleracea			
Radish, Wild	Raphanus raphanistrum			
Ragweed, Common	Ambrosia artemisiifolia		Ì	
Redmaids	Calandrinia ciliata var menziessi.			
Redweed	Melochia corchorifolia			
Shepherd's-purse	Capsella bursa-pastoris			
Spotted Spurge	Euphorbia maculata			
Spurred Anoda	Anoda cristata			
Tropic Croton	Croton glandulosus			
Venice Mallow	Hibiscus trionum			
Waterhemps				
Common	Amaranthus rudis			
Tall	Amaranthus tuberculatus			
Wild Poinsettia	Euphorbia heterophylla	7		

# **GRASS WEED SPECIES**

COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	VALOR WP RATE
Barnyardgrass	Echinochloa crus-galli	Up to 10%	All Soil	6 to 12 oz./A
Bluegrass, Annual	Poa annua		Types	
California Lovegrass	Eragrostis diffusa			
Crabgrass	•			
Large	Digitaria sanquinalis			
Smooth	Digitaria ischaemum			
Foxtails	40.			
Bristly	Setaria verticillata			
Giant	Setaria faberi			
Green	Setaria viridis			
Yellow	Setaria glauca			
Goosegrass	Eleusine indica			
Guineagrass	Panicum maximum			
Johnsongrass, Seedling	Sorghum halepense			
Signalgrass, Broadleaf	Brachiaria platyphylla			
Panicum				
Fall	Panicum dichotomiflorum			
Texas	Panicum texaum			

VALOR WP 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.

Table 8. Broadleaf Weeds Controlled by Post-Directed or Layby Application of VALOR WP in Sugarcane

BROADLEAF WEED SPECIES		WEED HEIGHT (inches)		
COMMON NAME	SCIENTIFIC NAME	3 oz./A	4 oz./A	
Bindweed, Field	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	
lvyleaf	Ipomoea hederacea	4	4	
Pitted	Ipomoea lacunosa	4	6	
Red	Ipomoea coccinea	-	4	
Tall	Ipomoea purpurea	2	4	
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			. 1	
Common	Amaranthus rudis	2	2	
Tall	Amaranthus tuberculatus	2	2	
Wild Mustard	Brassica kaber	6	6	

<sup>1</sup>VALOR WP, tank mixes will only control the above ground portion of field bindweed.

#### **TANK MIXES**

VALOR WP may be tank mixed with the herbicides listed in Table 9 for additional weed control in burndown, preemergence, post-directed and layby applications. Refer to tank mix partner's label for adjuvant recommendations.

Table 9. Tank Mixes with VALOR WP for Post-Directed or Layby Use in Sugarcane

TANK MIX PARTNER <sup>1</sup>	TARGET WEEDS	BURNDOWN	POST- DIRECTED <sup>2</sup>	LAYBY
ATRAZINE	Pigweeds Cocklebur	х	X	X
ASULOX®3	Annual Grasses		X	X
EVIK®4	Annual Grasses		X	X
GLYPHOSATE <sup>5</sup>	Annual and Perennial Weeds	Х		X
METRIBUZIN <sup>6</sup>	Broadleaf Panicum Goosegrass		X	X
SEMPRA®	Purple Nutsedge Yellow Nutsedge	Х	Х	Х

Refer to tank mix product labels for specific recommendations for control of emerged weeds present not listed in Table 8.

#### ADDITIONAL PREEMERGENCE BROADLEAF CONTROL

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

#### ADDITIONAL PREEMERGENCE GRASS CONTROL

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

<sup>&</sup>lt;sup>2</sup> 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.

<sup>&</sup>lt;sup>3</sup>Apply to sugarcane at least 24 inches tall.

<sup>&</sup>lt;sup>4</sup>Apply before weeds are greater than 6 inches tall.

<sup>&</sup>lt;sup>5</sup>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.

<sup>&</sup>lt;sup>6</sup>Refer to metribuzin label for restrictions based on soil type.

# DIRECTIONS FOR USE IN ALMOND, GRAPE, PIŞTACHIO AND NON-BEARING FRUIT AND NUT TREES

VALOR WP should be tank mixed with a labeled burndown herbicide for control of the emerged weeds listed in Table 10. 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®. Refer to Table 7 for weeds controlled by the residual activity of VALOR WP.

A maximum VALOR WP rate of 6 oz./A per application should be used on any soil that has a sand content over 80% if trees or vines are less than 3 years of age.

Table 10. Weeds Controlled by Postemergence Activity of VALOR WP Tank Mixes at 6 to 12 oz./A.

COMMON NAME	SCIENTIFIC NAME	WEED HEIGHT/LENGTH (inches)	VALOR WP RATE
Bindweed, Field	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 <sup>2</sup>	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	
lvyleaf	Ipomoea hederacea	4	
Pitted	Ipomoea lacunosa	6	
Red/Scarlet	Ipomoea coccinea	4	
Tall	Ipomoea purpurea	4	
Pigweeds	A SAME AND		
Palmer Amaranth	Amaranthus palmeri	6	
Redroot	Amaranthus retroflexus	6	
Smooth	Amaranthus hybridus	6	
Plaintain, Broadleaf	Plantago major	6	
Prickly Sida	Sida spinosa	6	
Purslanes			
Common	Portulaca oleracea	4	
Rock	Calandrinia spp.	2	
Ragweeds			
Common	Ambrosia artemisiifolia	2	
Giant	Ambrosia trifida	4	
Sicklepod	Senna obtusifolia	4	

continued

<sup>&</sup>lt;sup>1</sup>VALOR WP will only provide control of the above ground portion of bindweed. Repeated applications will be needed to control regrowth.

<sup>2</sup> For acceptable control, cutleaf eveningprimrose should be 12 inches or less and in the rosette stage. Crop oil concentrate, at 1 pt./A, should be added to glyphosate tank mixes for cutleaf eveningprimrose control, including glyphosate formulations that contain a built-in adjuvant system.

Table 10. Weeds Controlled by Postemergence Activity of VALOR WP Tank mixes at 6 to 12 oz./A. (continued)

BROADLEAF WEED SPECIES					
COMMON NAME	SCIENTIFIC NAME	WEED HEIGHT/LENGTH (inches)	VALOR WP RATE		
Smartweeds		6 to 12 oz./A			
Ladysthumb	Polygonum persicaria	4			
Pale	Polygonum lapathifolium	4			
Pennsylvania	Polygonum pensylvanicum	4			
Rice Flatsedge	Cyperus iria	4			
Spotted Spurge	Euphorbia maculata	4			
Velvetleaf	Abutilon theophrasti	4			
Venice Mallow	Hibiscus trionum	4			
Waterhemps	•				
Common	Amaranthus rudis	2			
Tall	Amaranthus tuberculatus	2			
Wild Mustard	Brassica kaber	6			

# ADDITIONAL RESIDUAL WEED CONTROL

VALOR WP 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.

## **ALMOND AND PISTACHIO**

#### **GENERAL RESTRICTIONS AND LIMITATIONS**

- Do not apply to almond or pistachio trees established less than one year, unless protected from spray contact by non-porous wraps, grow tubes or waxed containers.
- Do not apply after petal fall unless using hooded or shielded application equipment and applicator can
  ensure spray drift will not come in contact with crop fruit or foliage.
- Do not make sequential application within 30 days of the first application.
- Do not apply within 60 days of harvest.
- Follow the most restrictive label limitations and precautions of the tank mix product(s) being used.

VALOR WP and VALOR WP tank mixes should be applied as a uniform band to the orchard floor. Avoid direct or indirect spray contact to foliage and green bark (non-barked trunk).

# **GRAPE**

#### **GENERAL RESTRICTIONS AND LIMITATIONS**

- 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 after flowering unless using hooded or shielded application equipment and applicator can ensure spray drift will not come in contact with crop fruit or foliage.
- Do not apply to grapes that are not trellised or staked unless they are free standing.
- Do not make a sequential application within 30 days of the first application.
- Do not apply within 60 days of harvest.
- Follow the most restrictive label limitations and precautions of the tank mix product(s) being used.

VALOR WP and VALOR WP tank mixes should be applied as a uniform band to the vineyard floor. Avoid direct or indirect spray contact to foliage and green bark (non-barked vines, with the exception of undesirable suckers).

# NON-BEARING FRUIT AND NUT TREES

NON-BEARING APPLE, APRICOT, AVOCADO, CHERRY, FIG, GRAPEFRUIT, LEMON, HAZELNUT, NECTARINE, OLIVE, ORANGE, PEACH, PEAR, PECAN, PLUM (INCLUDING DRIED PLUM), TANGERINES AND WALNUT

# **GENERAL RESTRICTIONS AND LIMITATIONS**

- 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 make a sequential application within 30 days of the first application.
- Do not harvest fruit or nuts from treated trees within one year of application.
- Follow the most restrictive label limitations and precautions of the tank mix product(s) being used.

VALOR WP and VALOR WP tank mixes should be applied as a uniform band to the orchard floor. Avoid direct or indirect spray contact to foliage and green bark.

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

VALOR WP, when used as directed, 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. Follow all applicable directions as outlined above under General Information.

VALOR WP 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 WP can be tank mixed with the herbicides listed in Table 11 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 WP rates of 6 to 12 oz./A are required to provide residual control of the weeds listed in Table 7

# PREEMERGENCE APPLICATION

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

#### POSTEMERGENCE APPLICATION

Apply 6 to 12 oz. (0.188 to 0.38 lb. ai./A) of VALOR WP 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 WP activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of VALOR WP. Emerged weeds are controlled postemergence with VALOR WP, however, translocation of VALOR WP 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 WP 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 WP for the postemergence control of weeds larger than 2 inches. Recommended tank mix partners are listed in Table 11.

**IMPORTANT:** Completely read and follow the label of any potential tank mix partner with VALOR WP. 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 11. Tank Mix Combinations to Maintain Bare Ground Non-Crop Areas

Г	Glyphosate	2,4-D	RELY	Paraquat

### STORAGE AND DISPOSAL

#### **PROHIBITIONS**

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**

Do not reuseouter bag. Dispose of the outer bag in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke,

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ALL CLEAR™ TM of Dupont ASULOX® - Reg. TM of Aventis for asumlam herbicide AXIOM® - Reg. TM of Bayer Corporation

BANVEL® - Reg. TM of Bayer Corporation

BOUNDARY® - Reg. TM of Syngenta

CLASSIC® - Reg. TM of E. I. duPont de Nemours & Co., Inc. for chlorimuron herbicide

COBRA® - Reg. TM of Valent U.S.A. Corporation for lactofen herbicide

COMMAND® - Reg. TM of FMC Corporation for clomazone herbicide.

DOMAIN® - Reg. TM of Bayer Corporation

DUAL® - Reg. TM of Syngenta for metolachlor herbicide

EVIK® - Reg. TM of Syngenta for ametryn herbicide

FIRSTRATE® - Reg. TM of Dow AgroSciences LLC for cloransulam methyl herbicide FRONTIER® - Reg. TM of BASF Corporation for dimethenamid herbicide

GRAMOXONE EXTRA® - Reg. TM of Zeneca Ag Products for paraquat herbicide LOROX® - Reg. TM of E. I. DuPont de Nemours & Co., Inc. for linuron

MICRO-TECH® - Reg. TM of Monsanto Co. for alachlor herbicide OUTLOOK® - Reg. TM of BASF Corporation for dimethanamid herbicide

PHOENIX™ - Reg. TM of Valent U.S.A. Corporation for lactofen herbicide

PURSUIT PLUS® - Reg. TM of BASF Corporation

PYTHON® - Reg. TM of Dow AgroSciences LLC for flumetsulam herbicide

RELY® - Reg. TM of Aventis Group for glufosinate-ammonium herbicide

ROUNDUP® - Reg TM of Monsanto Co. for glyphosate herbicide

ROUNDUP READY® - Reg. TM of Monsanto Co.
ROUNDUP UltraMAX™, ROUNDUP Original™ - Reg. TM of Monsanto Co. for glyphosate herbicide

SCEPTER® - Reg. TM of BASF Corporation for imazaquin herbicide

SEMPRA® - Reg. TM of Monsanto Co. for halosulfuron herbicide

SELECT® - Reg. TM of Valent U.S.A. Corporation for clethodim herbicide

SONALAN® - Reg. TM of Dow AgroSciences LLC for ethalfluralin herbicide

SQUADRON® - Reg. TM of BASF Corporation

SURFLAN® - Reg. TM of Dow AgroSciences for oryzalin herbicide STEEL® - Reg. TM of BASF Corporation

VALOR® Reg. TM of Valent U.S.A. Corporation for flumioxazin herbicide

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. 59639-98 EPA Est.

# Supplemental Label



# VALOR® WP Herbicide

EPA Reg. No. 59639-98

# PREEMERGENCE APPLICATION IN PEANUTS (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 WP, 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 WP, 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.

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