

## **FOR BUSHBERRIES - PREEMERGENCE APPLICATION**

### General Information

### RESISTANCE MANAGEMENT RECOMMENDATIONS

Chateau Herbicide SW is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to Chateau Herbicide SW 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 Chateau Herbicide SW or other Group 14 herbicides.

To delay herbicide resistance consider:

- Avoiding the consecutive use of Chateau Herbicide SW 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.

### USE INFORMATION

Chateau Herbicide SW uses:

- Chateau Herbicide SW provides residual control of susceptible weeds.
- Chateau Herbicide SW provides additional burndown activity when used as part of a burndown program.
- Chateau Herbicide SW can be applied as part of a fall burndown program for control of susceptible winter annuals.
- Chateau Herbicide SW can be applied with a hooded or shielded sprayer, as well as part of a layby application, in selected crops for postemergence weed control as well as residual control of susceptible weeds.
- Chateau Herbicide SW 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. Chateau Herbicide SW, 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.

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

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

#### Rainfastness

Chateau Herbicide SW 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 Chateau Herbicide SW 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 Chateau Herbicide SW 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.

Do not use flood jet nozzles.

#### Postemergence Application (Emerged Crop)

Check use directions for specific crops in which Chateau Herbicide SW can be applied postemergence. To ensure thorough coverage in burndown applications, use a minimum of 15 gallons spray solution per acre. Use a minimum of 20 gallons per acre if dense vegetation or heavy crop residue is present. Nozzle selection should meet manufacturer’s gallonage and pressure recommendations for postemergence herbicide application.

### ADDITIVES

#### Burndown Application (Prior to Crop Emergence)

Postemergence control of weeds from Chateau Herbicide SW tank mixes will require the addition of an agronomically approved adjuvant to the spray mixture. When an adjuvant is to be used with Chateau Herbicide SW, 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 Chateau Herbicide SW 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 Chateau Herbicide SW. 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.

#### SPRAYER PREPARATION

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

#### 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 Chateau Herbicide SW, and Chateau Herbicide SW 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 Chateau Herbicide SW 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 (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 nontarget 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 Chateau Herbicide SW 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 Chateau Herbicide SW 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

Follow all label recommendations for 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 Chateau Herbicide SW applied corresponds to the recommended rate.

Apply Chateau Herbicide SW 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.
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

Dry bulk fertilizer may be impregnated or coated with Chateau Herbicide SW. Application of dry bulk fertilizer with Chateau Herbicide SW provides weed control equal to, or slightly below, the same rate of Chateau Herbicide SW applied in liquid carriers, due to better coverage with application via spray equipment.

Follow label recommendations for Chateau Herbicide SW 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 Chateau Herbicide SW 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 Chateau Herbicide SW mixture for sale.

Chateau Herbicide SW 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 Chateau Herbicide SW. A minimum of 6 pts of the Chateau Herbicide SW 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.

Thoroughly clean dry fertilizer blending equipment after Chateau Herbicide SW 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 Chateau Herbicide

SW. 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 rotational crops listed in the label may be planted after applying Chateau Herbicide SW 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 and sweet potato earlier than 30 days after applying Chateau Herbicide SW.

#### Limitations, Restrictions, and Exceptions

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

#### RESTRICTIONS AND LIMITATIONS

- Do not apply more than 12 oz of Chateau Herbicide SW per acre during a single application.
- Do not apply more than 24 oz of Chateau Herbicide SW per acre during a 12 month period, except bushberries; for bushberries do not apply more than 12 oz of Chateau Herbicide SW 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 Chateau Herbicide SW 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. (Two applications of 6 oz/A in a 12 month period can still be made as long as there have been 60 days between applications).
- 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.
- Raise mower height during all mowing to reduce dust. Dust created by mowing can drift onto desirable vegetation resulting in injury.
- 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), olive, pomegranate and non-bearing fruit trees, Chateau Herbicide SW 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, Chateau Herbicide SW can only be applied as a uniform band directed at the base of the trunk prior to “pink bud” in apples and “bud break” in stone fruit and pear. The preferred application timing for Chateau Herbicide SW 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 Chateau Herbicide SW per broadcast acre as a preemergence application. Preemergence (to weed emergence) applications of Chateau Herbicide SW should be made to a weed-free soil surface. Preemergence applications of Chateau Herbicide SW must be completed prior to weed emergence. Moisture is necessary to activate Chateau Herbicide SW on soil for residual weed control. Dry weather following application of Chateau Herbicide SW may reduce effectiveness. However, when adequate moisture is received after dry conditions, Chateau Herbicide SW will control susceptible germinating weeds.

#### USE PRECAUTIONS FOR BUSHBERRIES

Bushberries: Blueberry (Highbush)

- 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, Umatilla, Yamhill and Washington

Washington: Benton, Clallam, Clark, Cowlitz, Franklin, Grant, Grays Harbor, King, Jefferson, Kitsap, Lewis, Pacific, Pierce, Skagit, Snohomish, Thurston, Wahkiakum, Walla Walla 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 within 7 days of harvest.

Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

Pre-Harvest Interval

7 days

Rates

[field\\_rates 0](#)

[field\\_rates 1](#)

•

Restricted Entry Interval

12 hours

Timings

[Preemergence \(Crop\)](#)

[Preemergence \(Weed\)](#)