

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

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

APR -1 2008

Ms. Leslie Garcia Valent U.S.A. Corp. 1600 Riviera Ave., Suite 200 Walnut Creek, CA 94596-8025

Subject:

Velocity SG Herbicide

EPA Registration Number 59639-136 Label amendment dated July 3, 2007 Resubmission dated January 2, 2008

Dear Ms. Garcia:

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

- 1) Add an appropriate EPA Establishment Number to the label
- 2) Add appropriate Net Contents information to the label.
- 3) Add "/PPE" after "Remove clothing" in the second bullet of the USER SAFETY RECOMMENDATIONS section
- 4) On page 4, remove the two instances of the word "Recommended"
- 5) On page 8, revise the Application Rate in Table 1 to the following: "6 oz/A, (0.66 lb ai/A) (30 g ai/A)"
- 6) On page 9, revise the statement "It is recommended that Velocity SG not be applied during summer months...." to "Do not apply Velocity SG during summer months...."
- 7) On page 9, revise the statement "In turfgrass with > 10% annual bluegrass, overseeding is recommended in conjunction with" to "In turfgrass with > 10% annual bluegrass, complete overseeding in conjunction with....."
- 8) On page 10, remove the two occurrences of the word "Recommended." Also revise "a recommendation" to "instructions"
- 9) On page 14, remove ", especially when applied at above the maximum labeled rate" from the end of the first paragraph.
- 10) On page 14, revise "recommended" to "specified" in the statement "Velocity SG should be applied in the fall, winter, or early spring when temperatures are within the recommended range."
- 11) On page 14, remove "Recommended" from the subheading "Recommended Use Season", and also remove "RECOMMENDED" from the heading "RECOMMENDED CONTROL PROGRAMS"

Page 2 EPA Registration Number 59639-136

- 12) On page 14, remove "if applied at higher than labeled rate" from the section "Fall Program: Early Season Control of Annual Bluegrass"
- 13) On page 16, remove the statement "Do not contaminate water, food, or feed by storage, disposal or cleaning of equipment." Add the statement "Do not contaminate water, food, or feed by storage or disposal" to directly following the main heading STORAGE AND DISPOSAL, and before the subsection heading PESTICIDE STORAGE.

Submit one (1) copy of final printed labeling incorporating the above changes before you release the product for shipment. Amended labeling will supercede all previously accepted ones. A stamped copy of labeling is enclosed for your records. If you have any questions, please contact Hope Johnson at 703-305-5410.

Sincerely,

James A. Tempkins Product Manager 25

Herbicide Branch

Registration Division (7505P)



GROUP 2 HERBICIDE

Velocity® SG Herbicide

SELECTIVE POSTEMERGENCE HERBICIDE FOR CONTROL OF ANNUAL BLUEGRASS, ROUGH STALK BLUEGRASS AND CERTAIN BROADLEAF WEEDS ON GOLF COURSE TURFGRASS AND SOD FARMS

SUPPRESSION OF DOLLAR SPOT

Active Ingredient *Bispyribac-sodium. Other Ingredients Total		<u>82.4%</u>
*Sodium 2,6-bis[(4,6-dimethoxypyrimidin-2-yl)oxy]benzoate	ACCEPTED with COMMENTS in EPA Letter Dated	
Contains 0.011 lb active ingredient per oz of formulated product.	APR -1	2008
KEEP OUT OF REACH OF CHILDREN	Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.	
CAUTION		
SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STA	TEMENTS	, , , , , , , , , , , , , , , , , , ,
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NET CONTENTS	3111 3 3 3111	, , ,

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS CAUTION

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

FIRST AID

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.

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.

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 materials that are chemical-resistant to this product are listed below. If you want more options, follow instructions for category A on an EPA chemical resistant 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 butyl or nitrile), shoes plus 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 toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to non-target plants. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters or rinsate.

This product may contaminate water through drift of spray in wind. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 24 hours.

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.

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 Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, greenhouses or sodfarms.

Keep all unprotected persons out of operating areas, or vicinity where there may be drift. Do not enter treated areas without protective clothing until sprays have dried.

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 instructions and exceptions pertaining to the 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 any waterproof material (such as butyl or nitrile), shoes plus socks.

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, resistance or other unintended consequences, 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 TO THE FULLEST EXTENT ALLOWED BY LAW, 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. To the extent consistent wit applicable law AND AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

LIMITATION OF LIABILITY

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

PROMPT NOTICE OF CLAIM

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

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

NO AMENDMENTS

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

TANK MIXES

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

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

TABLE OF CONTENTS

GENERAL INFORMATION
Use Precautions
Application
Mixing and Spraying Equipment Preparation and Cleanup
Mixing Instructions
Resistance Management
To Delay Herbicide Resistance
Weeds Controlled by Velocity® SGTable 1
DIRECTIONS FOR USE IN CREEPING BENTGRASS, TALL FESCUE AND PERMANENTLY
ESTABLISHED PERENNIAL RYEGRASS
Crops and Use Site
Reseeding, Overseeding or Sprigging
Velocity SG Use in Creeping Bentgrass, Tall Fescue and Permanently Established Perennial Ryegrass Recommended Control Programs
Recommended Control Programs
Transitional Conversion to Creeping Bentgrass, Tall Fescue or Perennial Ryegrass
Restrictions and Limitations
Spray Drift
Dollar Spot Suppression by Velocity SG in Creeping Bentgrass
DIRECTIONS FOR USE IN BERMUDAGRASS OVERSEEDED WITH PERENNIAL RYEGRASS
Crop and Use Site
Velocity SG Use in Bermudagrass Overseeded with Perennial Ryegrass
Recommended Control Programs
Fall Program: Early Season Control of Annual Bluegrass
Winter/Spring Program: Late Season Control of Annual Bluegrass and Broadleaf Weeds
Winter/Spring Program: Late Season Seed Head Suppression of Annual Bluegrass
Restrictions and Limitations
Spray Drift
STORAGE AND DISPOSAL

GENERAL INFORMATION

Velocity SG is a postemergence herbicide that will selectively control annual bluegrass (Poa annua), roughstalk bluegrass (Poa trivialis) and numerous broadleaf weeds that are growing within certain species of established turfgrass. Velocity SG will also suppress seedhead production by annual bluegrass. Velocity SG displays activity against emerged weeds, but has almost no preemergent activity. Therefore, Velocity SG will not control weeds that germinate after application.

Velocity SG inhibits the enzyme acetolactate synthase (ALS), which plants require to produce three key amino acids. Annual bluegrass and other susceptible weeds usually stop growing within 3 to 7 days after treatment, and turn yellow or brown within 3 to 14 days after treatment. Plant death typically occurs by 21 to 28 days after treatment. More than one application of Velocity SG is usually required for maximum weed control.

Velocity SG is absorbed by plant foliage and roots. Plant uptake and performance of Velocity SG is influenced by environmental conditions, cultural practices and spray coverage. For best results, only apply Velocity SG when turf and weeds are actively growing. Application of Velocity SG to control weeds will also suppress infection of creeping bentgrass by dollar spot, Sclerotinia homeocarpa. Suppression of dollar spot will be greatest when a weed control program is initiated in the late spring or early summer before the appearance of significant dollar spot infection. When Velocity SG is applied at this time, dollar spot suppression is usually evident for several weeks after the last application of Velocity SG. Therefore, early season application of Velocity SG may delay the initiation of a dollar spot control program with fungicides, and reduce overall fungicide application on creeping bentgrass.

Velocity SG will also provide some curative control of dollar spot, but should not be used in place of labeled fungicides to control established infections of this disease.

USE PRECAUTIONS

Velocity SG is a very active herbicide, and users should exercise good judgment and caution until familiarity is gained with this product. Due to variability of turfgrass varieties, growth stages, environmental conditions, cultural practices and application techniques, users should test this product under user growing conditions in a small area, and evaluate treated turf for 28 days to determine if the herbicide can be used safely in a widespread application.

APPLICATION

Apply *Velocity* SG using standard, low pressure (20 to 50 psi) spray equipment in a sufficient volume of water to provide thorough spray coverage and a uniform spray pattern. To ensure thorough coverage, apply a minimum of 20 gals of spray solution per acre. Apply *Velocity* SG with ground equipment using standard commercial sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume. Avoid streaking, skips or excessive overlaps during application. Do not apply with flood jet nozzles, air induction nozzles or hand held sprayers, as equipment may not provide adequate or uniform coverage. Calibrate spray equipment before each use and check periodically during application. The addition of a spray indicator, such as dyes or foams, is recommended.

MIXING AND SPRAYING EQUIPMENT PREPARATION AND CLEANUP

Use well maintained and clean equipment to apply VELOCITY SG. Clean the spray tank, and all hoses and booms according to the manufacturer's directions for the last product used before applying *Velocity* SG. This will ensure that no residue from the previous application remains in the sprayer.

Trace amounts of *Velocity* SG in or on mixing or spraying equipment may have an adverse effect on subsequently sprayed plants. Therefore, it is important that the sprayer be properly cleaned after spraying *Velocity* SG. Thoroughly drain, clean and rinse all mixing and spraying equipment including tanks, booms, hoses, strainers, screens and nozzles immediately after use. Use the following procedure:

- 1. Remove all physical residues.
- 2. Thoroughly drain and rinse tanks, booms and hoses with clean water.
- 3. Fill the tank one half full with clean water and use a spraying or mixing tank cleaner that **does not** contain chlorine. Fill the remainder of the tank with clean water. Let agitate or recirculate according to the directions of the cleaner manufacturer. Thoroughly flush the boom and hoses before draining.
- 4. Rinse all hoses, tanks, nozzles, strainers and booms with clean water to remove the tank cleaner. Follow the directions provided by the tank cleaner manufacturer.
- 5. Fill the tank half full with clean water and add 1 gal of 3% active household ammonia for every 100 gals of water the tank will hold. Fill the remainder of the tank with clean water and allow the solution to agitate or recirculate for 15 minutes. Thoroughly flush the ammonia cleaning solution through the boom, hoses, nozzles, screens and strainers before draining the tank.
- Remove the strainers, nozzles and screens and clean separately in a solution of household ammonia and water.
- 7. Replace the strainers, nozzles and screens.
- 8. Repeat Step 5.
- 9. Thoroughly rinse the tank with clean water and flush the water through the boom, nozzles and hoses in order to remove all traces of ammonia.
- 10. Dispose of the rinsate on site or at an approved waste disposal facility.

IMPORTANT: Do not use chlorine bleach with ammonia, or toxic chlorine gas may be released. Remove all traces of liquid fertilizer containing any form of ammonia or ammonium before adding any chlorine source such as chlorine bleach.

MIXING INSTRUCTIONS

Velocity SG should completely dissolve in the spray tank within approximately five minutes. Dissolution rate may be slowed by cold water, lack of agitation or water containing high concentrations of boron or sulfur.

- 1. Fill clean spray tank 1/3 to 1/2 of desired level with clean water.
- 2. While agitating, add *Velocity* SG and ensure it has dissolved completely before proceeding. Agitation should create a rippling or rolling action on the water surface.
- 3. Fill spray tank to desired level with water. Agitation should continue until spray solution has been applied.
- 4. Mix only the amount of spray solution that can be applied the day of mixing.
- 5. Apply Velocity SG within 6 hours after mixing with water in spray tank.

RESISTANCE MANAGEMENT

Velocity SG Herbicide is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to Velocity SG and other Group 2 herbicides. Weed species with acquired resistance to Group 2 may eventually dominate the weed population if Group 2 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 Velocity SG or other Group 2 herbicides.

TO DELAY HERBICIDE RESISTANCE

- Avoiding the consecutive use of Velocity SG or other target site of action Group 2 herbicides that have 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 contact Valent U.S.A. Corporation at the following toll free number: 1-800-682-5368.

Table 1. WEEDS CONTROLLED BY VELOCITY SG

COMMON NAME	SCIENTIFIC NAME	WEED SIZE	APPLICATION RATE oz/A	
Bluegrass			6 to 9	
Annual	Poa annua	Up to seedhead	(0.066 to 0.1 lb ai/A)	
Roughstalk	Poa trivialis	Up to seedhead	(30 to 45 g ai/A)	
Chickweed		·	,	
Common	Stellaria media	Up to seedhead	-	
Sticky	Cerastium glomeratum	Up to seedhead		
Clover -		•		
Large Hop	Trifolium campestre	Up to seedhead		
White	Trifolium repens	Up to seedhead	• .	
Dandelion	Taraxacum officinale	Seedling stage		
Henbit	Lamium amplexicaule	Up to seedhead		
Lawn Burweed	Soliva pterosperma	Up to seedhead		
Parsley-Piert	Alchemilla arvensis	Up to seedhead		
Plantain		• •		
Broadleaf	Plantago major	Up to seedhead		
Buckhorn	Plantago lanceolata	Up to seedhead	1	
Swinecress	Coronopus didymus	Up to seedhead	1 4	
Yellow Nutsedge	Cyperus esculentus	Seedling stage		
Yellow Woodsorrel	Oxalis stricta	Seedling stage		

DIRECTIONS FOR USE IN CREEPING BENTGRASS, TALL FESCUE AND PERMANENTLY ESTABLISHED PERENNIAL RYEGRASS

CROPS AND USE SITE

- Creeping Bentgrass, Agrostis palustris
- Perennial Ryegrass, Lolium perenne
- Tall Fescue, Festuca arundinacea
- Golf course fairways and tees mowed at 3/8" to 3/4" in height; sod farms mowed at 1/2" to 2" in height.

Velocity SG may injure creeping bentgrass, tall fescue or perennial ryegrass that is not well established or that has been weakened by moisture stress, pests, diseases, chemicals, low fertility, thatch, mechanical injury or other stresses. Velocity SG may also cause unacceptable injury to creeping bentgrass and perennial ryegrass mowed at greens height.

Velocity SG may cause mild chlorosis when applied to creeping bentgrass, tall fescue or perennial ryegrass. The onset, intensity and persistence of symptoms are at least partially influenced by environmental conditions (i.e., temperature, cloud cover and rainfall) and cultural practices. Under cool and cloudy conditions, symptoms tend to appear more slowly than under warm sunny conditions. Symptoms may also be more persistent under cool cloudy conditions because turfgrass is growing less vigorously. Therefore, avoid application of Velocity SG in the spring before grass resumes active growth, or in the fall after growth slows.

Velocity SG can injure turf that is growing under high heat stress. Therefore, do not apply Velocity SG to turfgrass that is exhibiting symptoms of heat stress, or if significant heat stress (temperatures above 90°F) is expected during the week following application. It is recommended that Velocity SG not be applied during summer months in areas where creeping bentgrass, tall fescue or perennial ryegrass are typically exposed to prolonged periods of significant heat stress during this period.

In general, *Velocity* SG should only be applied during the time of year when the turf and target weeds are actively growing. The use season for *Velocity* SG will therefore vary according to location. *Velocity* SG will perform optimally (i.e. best weed control and least chlorosis to turf) under sunny conditions when daytime high temperatures are between 70°F and 80°F during and after application.

Velocity SG may cause significant injury to other turf species, especially certain cultivars of Kentucky bluegrass, *Poa pratensis. Velocity* SG should not be applied in heavy traffic and/or heavily shaded turf areas, which are more prone to herbicide injury.

NOTE: Annual or roughstalk bluegrass chlorosis can be mistaken for creeping bentgrass, tall fescue or perennial ryegrass chlorosis, especially in sites with a moderate to heavy infestation. Turf chlorosis is usually more apparent when small patches of turf within a fairway or tees are treated with *Velocity* SG, and less apparent when entire fairways or tees are treated. Therefore, if temporary turf chlorosis is a concern, avoid treating small patches of turf that are surrounded by nontreated areas of turf.

RESEEDING. OVERSEEDING OR SPRIGGING

In turfgrass with >10% annual bluegrass, overseeding is recommended in conjunction with *Velocity* SG applications to promote conversion to creeping bentgrass, tall fescue or perennial ryegrass, and to avoid stand thinning due to loss of annual and roughstalk bluegrass.

Velocity SG may be applied to sodded or sprigged creeping bentgrass, tall fescue and perennial ryegrass that is well established. Newly seeded turf must have a developed root system and uniform stand and have received at least two mowings before the first application of *Velocity* SG.

Following an application of *Velocity* SG, wait 10 days before reseeding or sprigging. When reseeding or sprigging, always use proper cultural practices such as soil cultivation, irrigation and fertilization to ensure rapid turf establishment. For best results, use mechanical or power seeding equipment (slit seeders) designed to give good seed-to-soil contact. Do not apply *Velocity* SG between 10 days before and 30 days after seedling emergence with creeping bentgrass, tall fescue or perennial ryegrass.

VELOCITY SG USE IN CREEPING BENTGRASS, TALL FESCUE AND PERMANENTLY ESTABLISHED PERENNIAL RYEGRASS

Velocity SG should only be applied during the time of year when creeping bentgrass, tall fescue, perennial ryegrass and target weeds are actively growing. The use season for *Velocity* SG will therefore vary according to location.

Recommended Use Season:

Northern States - May 15 to September 15, and higher elevations in Southern Temperate States. Southern Temperate States - April 15 to June 30

Contact your Valent representative or your local extension specialist for a recommendation specific to your area.

Recommended Control Programs

The control program for *Velocity* SG should be determined by considering the desired level and speed of control, and the severity of infestation by annual and/or roughstalk bluegrass. Maximum control will usually require more than one application.

• Transitional Conversion to Creeping Bentgrass, Tall Fescue or Perennial Ryegrass Early Summer: Apply Velocity SG twice on a 10 to 14 day interval at the rate of 2.0 oz/A (10 g ai/A). Begin application in late May to mid-June.

Fall: Apply *Velocity* SG twice on a 10 to 14 day interval at the rate of 2.0 oz/A (10 g ai/A). Begin application in late August to early September.

OR apply Velocity SG once at the rate of 6.0 oz/A (30 g ai/A) after September 1.

This program will remove young, newly germinated annual bluegrass and/or rough bluegrass. Growth of established annual bluegrass and/or rough bluegrass will be reduced and these plants will slowly weaken over time due to natural senescence and stress, but will not be replaced by newly germinated annual and/or rough bluegrass. When using this program, an obvious reduction in annual and/or rough bluegrass density may not be apparent until the following year. Over time, turf will slowly transition from a mixed stand of desirable turf and annual bluegrass/rough bluegrass, to a solid stand of creeping bentgrass, ryegrass or tall fescue. This program should be considered for turf with a heavy infestation of annual bluegrass and/or roughstalk bluegrass, and where complete removal of these weeds during the current use season could result in an unacceptable stand of desirable turfgrass.

• Slow Conversion to Creeping Bentgrass, Tall Fescue or Perennial Ryegrass
Apply Velocity SG on a 7 to 14 day interval at the rate of 2.0 oz/A (10 g ai/A). Begin application early in the recommended use season, and continue until the desired level of control is achieved during the current use season. This program should be considered for turf with a heavy infestation of annual bluegrass and/or roughstalk bluegrass, where complete removal of these weeds during a single season could result in an unacceptable stand of creeping bentgrass, tall fescue or perennial ryegrass.

• Rapid Conversion to Creeping Bentgrass, Tall Fescue or Perennial Ryegrass

Apply Velocity SG up to four times at the rate of 6.0 oz/A (30 g ai/A) on a 14 to 21 day interval. Use a 21 day interval if turf is exhibiting undesirable chlorosis at 14 days after application. Efficacy may be decreased if application interval exceeds 21 days. This program should be considered for turf with light infestations of annual bluegrass and/or roughstalk bluegrass, and where complete removal of these weeds during the current use season would not result in an unacceptable stand of turfgrass. In general, this program is best suited to turfgrass areas where there are no large patches of annual bluegrass and/or rough bluegrass, and where the level infestation of these weeds is less that 10 percent.

RESTRICTIONS AND LIMITATIONS

- Do not apply through any type of irrigation system.
- Do not apply to golf greens or roughs.
- Do not apply if rain is expected within 12 hrs after application.
- Do not mow or irrigate turfgrass within 12 hrs after application.
- Do not apply to moist or wet turfgrass (including dew).
- Do not mix with wetting agents, spreader stickers, surfactants or other adjuvants.
- Do not apply more than 6 oz of Velocity SG per acre per application.
- Do not apply more than a total of 12 oz of Velocity SG per acre in a 28 day period.
- Do not apply more than a total of 24 oz of Velocity SG per acre per use season.
- Do not apply with flood jet nozzles, air induction nozzles or hand sprayers.
- Do not apply when daily high air temperatures are below 60°F or above 90°F.
- Do not apply to turfgrass exhibiting symptoms of pythium blight or growing under stress due to drought, high or low temperatures, low fertility, heavy thatch, mechanical injury or other stresses.
- Do not apply Velocity SG between 10 days before and 30 days after seedling emergence ofcreeping bentgrass, tall fescue or perennial ryegrass.
- Velocity SG has not been evaluated for safety on all creeping bentgrass, tall fescue and perennial ryegrass cultivars.
- Velocity SG has not been evaluated under all microclimates or against all biotypes of annual bluegrass
 and roughstalk bluegrass. Therefore, performance may be less effective in some locations, and against
 some biotypes of these weed species.
- Velocity SG should not be applied in heavy traffic and/or heavily shaded turf areas.
- Velocity SG may dramatically reduce overall turfgrass cover due to its high activity against annual bluegrass and roughstalk bluegrass.

SPRAY DRIFT

- Do not spray if winds are gusty or if wind speeds are greater than 5 mph.
- Do not apply within 15 ft of native plant communities when sustained winds will carry *Velocity* SG towards these native plant communities.

Table 2. DOLLAR SPOT SUPPRESSION BY VELOCITY SG IN CREEPING BENTGRASS

	DISEASES	APPLICATION		
COMMON NAME	SCIENTIFIC NAME	RATE oz/A	SPECIAL INSTRUCTIONS	
Dollar Spot	Sclerotinia homeocarpa	2 to 6	When used for weed control, Velocity SG can substantially	
		(0.022 to 0.66 lb ai/A)	suppress the development and severity of dollar spot in	
		(10 to 30 g ai/A)	bentgrass fairways and tees. Suppression may be evident for several weeks after the final application. To maximize suppression of dollar spot, initiate weed control program in the late spring or early summer before or soon after the appearance of dollar spot symptoms in bentgrass.	

USE PRECAUTIONS:

- See "RESTRICTIONS AND LIMITATIONS".
- Velocity SG can suppress dollar spot when applied before or soon after appearance of symptoms, but may not provide adequate curative control of established infections of dollar spot.
- Do not use Velocity SG in place of labeled fungicides for curative control of dollar spot.
- Do not use Velocity SG to suppress dollar spot on golf greens.

DIRECTIONS FOR USE IN BERMUDAGRASS OVERSEEDED WITH PERENNIAL RYEGRASS

CROP AND USE SITE

- Hybrid or Common Bermudagrass turf, Cynodon dactylon, that is fall overseeded with perennial ryegrass,
 Lolium perenne.
- Golf course fairways and tees mowed at 3/8" to 3/4" in height; sod farms mowed at 1/2" to 3/4".

Velocity SG may injure perennial ryegrass that is not well established or that has been weakened by moisture stress, pests, diseases, chemicals, low fertility, thatch, mechanical injury or other stresses. Do not apply Velocity SG until at least 30 days after perennial ryegrass seedling emergence. Velocity SG may also cause unacceptable injury to perennial ryegrass mowed at greens or rough height.

Veloctiy SG may cause mild chlorosis and growth regulation when applied to perennial ryegrass. The onset, intensity and persistence of symptoms are at least partially influenced by use rate, environmental conditions (i.e., temperature, cloud cover and rainfall) and cultural practices. Under cool and cloudy conditions, symptoms tend to appear more slowly than under warm sunny conditions, but symptoms may also be more persistent under cool and cloudy conditions because turfgrass is growing less vigorously.

NOTE: Annual bluegrass chlorosis can be mistaken for ryegrass chlorosis, especially under higher infestation levels of annual bluegrass, and when *Velocity* SG application is not initiated until mid-late flower. Turf chlorosis is usually more apparent when small patches of turf within a fairway or tee are treated with *Velocity* SG, and less apparent when entire fairways or tees are treated. Therefore, if temporary turf chlorosis is a concern, avoid treating small patches of ryegrass that are surrounded by larger areas of nontreated turf.

Application of a complete foliar fertilizer 3 to 4 days after application of *Velocity* SG may decrease the amount of ryegrass chlorosis. Some forms of iron can antagonize the performance of *Velocity* SG. Tank mixing *Velocity* SG with surfactants or other adjuvants may increase ryegrass chlorosis to unacceptable levels, and should therefore be avoided.

Velocity SG should not thin ryegrass when applied in accordance with the label, but can cause thinning if applied at excessive rates, especially when applied within 30 days of ryegrass seedling emergence, or when ryegrass is under heat or moisture stress, and mowed at less than 1/2". Therefore, do not exceed labeled rates, do not apply to over seeded ryegrass within 30 days after seedling emergence, do not apply to ryegrass that is exhibiting symptoms of heat or moisture stress, and do not apply when air temperatures are greater than 85°F or are predicted to exceed 85°F in the three days after application.

To maximize performance, apply *Velocity* SG when temperatures are warm enough to promote active growth. Do not apply when air temperatures are below 55°F or are NOT predicted to exceed 55°F in any of the three days following application. In general, *Velocity* SG will perform optimally (i.e. best weed control and least chlorosis to ryegrass) under sunny conditions when daytime high temperatures are consistently between 70°F and 80°F during and after application.

Velocity SG may be less efficacious against annual bluegrass growing in thin stands of ryegrass. In thin ryegrass stands, annual bluegrass is exposed to less competition from ryegrass and therefore, more annual bluegrass will germinate, and the resulting plants will grow more vigorously and be more difficult to control than in denser stands of ryegrass. To maximize the efficacy of Velocity SG, broadcast ryegrass seed at a minimum of 300 lbs per acre, and employ cultural practices that encourage the rapid formation of a dense stand of ryegrass.

Velocity SG can be applied in locations where bermudagrass does not go completely dormant and retains some green color during the winter. Velocity SG will not delay spring green-up, if applied before bermudagrass begins active growth (i.e. obvious tillering) in the late winter and spring. Velocity SG may temporarily discolor and regulate the growth of bermudagrass if applied after bermudagrass begins active growth, especially when applied at above the maximum-labeled rate.

Annual bluegrass density and vigor are higher in non-overseeded bermudagrass than in bermudagrass overseeded with perennial ryegrass. As a result, *Velocity* SG may not be effective against annual bluegrass growing in non-overseeded bermudagrass, especially when applied during the late winter and spring. In addition, if *Velocity* SG is applied after non-overseeded bermudagrass has resumed actively growing, any resulting discoloration or growth regulation will be more evident than in an overseeded site, where it would be masked by ryegrass.

Velocity SG may cause significant injury to other desirable turf species, especially certain cultivars of Kentucky bluegrass, *Poa pratensis. Velocity* SG should not be applied in heavy traffic and/or heavily shaded turf areas, which are more prone to herbicide injury.

VELOCITY SG USE IN BERMUDAGRASS OVERSEEDED WITH PERENNIAL RYEGRASS

Velocity SG should be applied in the fall, winter or early spring when temperatures are within the recommended range. The use season will therefore vary according to location, ryegrass maturity and environmental conditions.

Recommended Use Season: November 1 to April 15

Use season will vary according to location, and will be dictated by ryegrass maturity, annual bluegrass development and temperature.

Contact your Valent representative or your local extension specialist for a recommendation specific to your area.

RECOMMENDED CONTROL PROGRAMS:

The control program for *Velocity* SG should be determined by considering the desired level of control, and the tolerance for ryegrass chlorosis. Effective control or seed head suppression will require at least two applications.

- Fall Program: Early Season Control of Annual Bluegrass
 - Apply *Velocity* SG two times on a 10 to 14 days interval at 2.0 oz/A (10 g ai/A) beginning 30 to 45 days after ryegrass emergence in the fall. This program will control newly emerged annual bluegrass before it begins flowering. This program may cause slight discoloration and growth regulation to ryegrass, but effects should be short lived when applied according to the label. This program may cause significant growth regulation to juvenile ryegrass if applied within 30 days after ryegrass seedling emergence, if applied at higher than labeled rate, or if applied where ryegrass seedlings are exposed to temperatures below 25°F within 14 days after application. Some regrowth of annual bluegrass may occur during the spring, and additional application of *Velocity* SG may be required at this time. This program should be considered where there is low tolerance for ryegrass chlorosis in the late winter and spring. Do not initiate this program until at least 30 days after ryegrass seedling emergence, or use in areas where daily low temperatures less than 25°F are likely within 14 days after application.
- Winter/Spring Program: Late Season Control of Annual Bluegrass and Broadleaf Weeds
 Apply Velocity SG two or three times on a 14 to 21 day interval at 6.0 oz/A (30 g ai/A) after annual
 bluegrass begins flowering. Use 21 day interval if perennial ryegrass is exhibiting undesirable chlorosis at
 14 days after application. Do not make more than two applications per year where mowing height is less
 than 1/2". Efficacy may be decreased if application interval exceeds 21 days. This program should be
 considered for heavier infestations of annual bluegrass, and where there is a higher tolerance for
 temporary ryegrass chlorosis. Do not initiate this program until at least 60 days after ryegrass seedling
 emergence, and only when temperatures are within the labeled range.
- Winter/Spring Program: Late Season Seed Head Suppression of Annual Bluegrass
 Apply Velocity SG three times on a 14 day interval at 3.0 oz/A (15 g ai/A) when annual bluegrass first

begins flowering. Efficacy may be decreased if application interval exceeds 14 days. This program will strongly suppress production of seed heads, and decrease the density of annual bluegrass in the following use season. This program will cause less chlorosis than the Late Season Control program, and should be considered where there is a low tolerance for ryegrass chlorosis. Do not initiate this program until at least 60 days after ryegrass seedling emergence, and only when temperatures are within the labeled range.

RESTRICTIONS AND LIMITATIONS

- Do not apply through any type of irrigation system.
- Do not apply to golf greens or roughs.
- Do not apply to ryegrass mowed at less than 3/8".
- Do not apply if rain is expected within 12 hrs after application.
- Do not mow or irrigate ryegrass within 12 hrs after application.
- Do not apply to moist or wet ryegrass (including dew).
- Do not mix with wetting agents, spreader stickers, surfactants or other adjuvants.
- Do not apply more than 6 oz of Velocity SG per acre per application.
- Do not apply more than a total of 12 oz of Velocity SG per acre in a 28 day period.
- Do not exceed four applications per acre per year.
- Do not apply with flood jet nozzles, air induction nozzles or hand sprayers.
- Do not apply when temperatures are below 55°F or above 85°F.
- Do not apply to ryegrass under stress due to drought, temperature, disease, low fertility, heavy thatch, mechanical injury or other stresses.
- Do not apply in spring after bermudagrass has begun actively tillering.
- Do not apply to overseeded perennial ryegrass until at least 30 days after seedling emergence.
- Velocity SG has not been evaluated for safety on all perennial ryegrass cultivars.
- Velocity SG has not been evaluated under all microclimates or against all biotypes of annual and roughstalk bluegrass. Therefore, performance may be less effective in some locations, and against some biotypes of these weed species. Velocity SG should not be applied in heavy traffic and/or heavily shaded turf areas.
- Turf growth regulators may affect the efficacy and safety of Velocity SG.

SPRAY DRIFT

- Do not spray if winds are gusty or if wind speeds are greater than 5 mph.
- Do not apply within 15 ft of native plant communities when sustained winds will carry *Velocity* SG towards these native plant communities.

STORAGE AND DISPOSAL

PESTICIDE STORAGE

Store in a cool dry place.

Keep pesticide in original container.

Keep container closed when not in use.

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

Not for use or storage in or around the home.

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

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

PESTICIDE DISPOSAL

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

CONTAINER DISPOSAL

Triple rinse (or equivalent). Then offer for rercycling or reconditioning, or puncture and dispose of in a sanitary landfill or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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

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