

67690-51

2/26/2010

10/18



U.S. ENVIRONMENTAL PROTECTION AGENCY

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

EPA Reg. Number:

67690-51

Date of Issuance:

FEB 26 2010

NOTICE OF PESTICIDE:

Registration
 Reregistration
(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

SP5100
Turf Growth Regulator

Name and Address of Registrant (include ZIP Code):

SePro Corporation
11550 N. Meridian Street, Suite 600
Carmel, IN 46032

Mailed to agent for Sepro Corporation:

James Messina, Regulatory Consultant
Exponent
1150 Connecticut Avenue, N.W.
Suite 1100
Washington, DC 20036

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

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

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A) provided that you:

1) Submit and/or cite all data required for registration of your product under FIFRA section 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.

2) You must submit two copies of a final printed label prior to releasing for shipping. Please incorporate the following changes:

Continued on Page 2

Signature of Approving Official:

Shaja B. Joyner
Shaja B. Joyner, Product Manager (20)
Fungicide Branch, Registration Division (7505P)

Date:

2/26/2010

- A. On page 1 (3 and 4) of the labeling,
- Change the EPA registration number to 67690-51.
- B. On page 2 of the labeling,
- Please ensure the “First Aid Box” is contained within one single box on the final printed labeling.
- C. On page 3 (and 6) of the labeling,
- “Environmental Hazards” section, revise the last sentence to read: Do not contaminate water when cleaning equipment or disposing of *equipment water or rinsate*.
- D. On page 4 of the labeling,
- Please remove company website. Should you wish to add/retain a reference to the company's website on your label, please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance. As an alternative, you may refer consumers to the company's phone number or e-mail address.
- E. On page 5 of the labeling,
- Within the "Personal Protective Equipment" box, *revise* the first sentence (above the bulleted statements) to read: “*Applicators and other handlers must wear.*” Add the title “User Safety Requirements” above Follow manufacturer’s instructions....., and *revise* the second sentence to read: If no instructions for washables *exist*, use detergent and hot water.”
 - Please ensure the “User Safety Recommendations” box is contained within one single box on the final printed labeling.
- F. On page 6 of the labeling,
- Under “Directions for Use,” revise the spray drift title to read: *Avoid Spray Drift*. Additionally, revise sentence one to read: *Applications should be made only when there is no hazard for spray drift*; and sentence three to read: *Do not spray when wind is blowing*, or specify a wind rate on the label.
 - Under “General Information” revise the benefits heading to read: Benefits of SP5100 Applications to Turf *may include*:
- G. On page 7 of the labeling,
- Within the “Notice to User” section, sentences one and three are contradictive to Agency labeling. The application rates should not exceed what is specified on the label; open end adjustments are not permissible. Additionally, rates are not recommendations and considered as mere guidelines. Either delete these sentences, or provide additional information to qualify these

statements. Lastly, this product should not be applied to any turf species for which the company has not generated efficacy data.

H. On page 7 (8, 9, 10, 12, and 13) of the labeling,

- Replace the word recommend and any of its' variations, with the phrases "specified rate", "application rate," etc. This also applies on page 8, under "Application Directions," last sentence, with the word "suggested" label rates.

I. On pages 8 (9, 11, and 12) of the labeling,

- For the subheading, "Multiple application program," the label must specify the maximum number of applications, and ensure that the maximum seasonal rate does not exceed 3.0 lbs/ai/A or 295.4 fl. oz/A.

J. On page 9 of the labeling,

- Table 1 must specify the application rate for both initial and repeat applications.

K. On page 10 of the labeling,

- Under "Tank Mix General Use Precautions," either delete the warranty statement in the Notice to Users Box, or revise the paragraph to proceed with this statement: ***To the extent consistent with applicable law.....***

- Revise the first subscript to read: "***Do not use on bentgrass putting greens***" for consistency and clarity of interpretation.

L. On page 13 of the labeling,

- Under the heading "Edging and Banding Application for Growth Regulation of Perennial Turfgrass Species," revise the last sentence to read: ***Repeat at 8 to 12 week intervals.*** The label must specify the maximum number of applications. This rate must not exceed the maximum seasonal rate as previously noted above (see I).

This product has been identified as a me-too registration of 67690-46 which is currently under review. Please note that upon completion, this label may be subject to additional changes and/or revisions in accordance to the Agency's findings.

3) Submit Storage Stability and Corrosion Characteristic Study Data for 3, 6, 9, and 12 months within one calendar year from the date of letter.

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 constitutes acceptance of these conditions. A stamped copy of the label stamped "Accepted with Comments" is enclosed for your records. If you have any questions, please contact Rosemary Kearns at 703-305-5611 or by email at kearns.rosemary@epa.gov.

40218

SP5100, 67690-XX

SP5100

Turf Growth Regulator

EPA Reg. No. 67690-XX

**ACCEPTED
with COMMENTS
In EPA Letter Dated:**

2/26/2010

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, the pesticide
registered under EPA Reg. No.
67690-51

Registration Notes: Application and draft label submitted to EPA on 07/02/2009

50918

SP5100, 67690-XX

[Base label for Nonrefillable, Rigid containers, 5 gal or less]



SP5100

Turf Growth Regulator

FOR GROWTH MANAGEMENT AND QUALITY IMPROVEMENT OF PERENNIAL COOL AND WARM SEASON TURFGRASSES ON GOLF COURSES.

Active Ingredient:

flurprimidol: α -(1-methylethyl)- α -[4-(trifluoromethoxy)phenyl]-5-pyrimidinemethanol 16.0%

Other Ingredients 84.0%

Total 100.0%

Contains 1.3 pounds active ingredient per one (1) U.S. gallon.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Keep Out of Reach of Children

WARNING / AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail).

FIRST AID	
If in eyes	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none"> 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 a poison control center or doctor. Do not give anything by mouth to an unconscious person.
If on skin or clothing	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 - 20 minutes. Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

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SP5100, 67690-XX

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In case of emergency endangering health or the environment involving this product, call **INFOTRAC** at **1-800-535-5053**.

ENVIRONMENTAL HAZARDS

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 when cleaning equipment or disposing of equipment washwaters.

Not for use on turf being grown for sale or other commercial use as sod, or for commercial seed production, or for research purposes.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original container only. In case of leak or spill, contain material and dispose as waste.

Pesticide Disposal: Wastes resulting from use of this product may be used on site according to use directions or disposed of at an approved waste disposal facility.

Nonrefillable Container Disposal (rigid, 5 gallons or less): Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat the procedure two more times. Then offer the container for recycling (if available) 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.

Refer to label booklet for additional precautionary information and directions for use.

Notice: Read the entire label before using. Use only according to label directions. **Before buying or using this product, read *Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies* inside label booklet.**

EPA Reg. No. 67690-XX
FPL010710

EPA Est. No. _____
SPC - _____

SePRO Corporation 11550 N. Meridian St., Ste. 600, Carmel, IN 46032 U.S.A.

Turf Growth Regulator

Net Contents _____

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SP5100, 67690-XX

[Front label for Nonrefillable, Rigid containers, 5 gal or less]



SP5100

Turf Growth Regulator

FOR GROWTH MANAGEMENT AND QUALITY IMPROVEMENT OF PERENNIAL COOL AND WARM SEASON TURFGRASSES ON GOLF COURSES.

Active Ingredient:

flurprimidol: α -(1-methylethyl)- α -[4-(trifluoromethoxy)phenyl]-5-pyrimidinemethanol 16.0%

Other Ingredients 84.0%

Total 100.0%

Contains 1.3 pounds active ingredient per one (1) U.S. gallon.

Keep Out of Reach of Children

WARNING / AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail).

Refer to inside of label booklet for additional precautionary information and directions for use, including storage and disposal.

Notice: Read the entire label before using. Use only according to label directions. **Before buying or using this product, read *Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies* inside label booklet.**

For additional information on our products, please visit www.sepro.com.

EPA Reg. No. 67690-XX
FPL010710

EPA Est. No. _____
SPC - _____

SePRO Corporation 11550 N. Meridian St., Ste. 600, Carmel, IN 46032 U.S.A.

Turf Growth Regulator

Net Contents _____

80918

[Label booklet text]

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Keep Out of Reach of Children

WARNING / AVISO

FIRST AID	
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none"> • 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 a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 – 20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In case of emergency endangering health or the environment involving this product, call INFOTRAC at 1-800-535-5053.</p>	

PERSONAL PROTECTIVE EQUIPMENT (PPE)

It is recommended that applicators and other handlers wear:

- Long-sleeved shirt and long pants;
- Shoes plus socks; and
- Protective eyewear.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

- Remove clothing/PPE 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

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 when cleaning equipment or disposing of equipment washwaters.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all directions for use carefully before applying this product. Use only according to label directions.

Not for use on turf being grown for sale or other commercial use as sod, or for commercial seed production, or for research purposes.

Avoiding Injurious Spray Drift

Applications should be made only when there is little or no hazard for spray drift. Very small quantities of spray, which may not be visible, may seriously injure susceptible plants. Do not spray when wind is blowing toward desirable susceptible crops or ornamental plants near enough to be injured. 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 these factors when making decisions.

GENERAL INFORMATION

SP5100 Turf Growth Regulator is a Type II Class B plant growth regulator (PGR) which reduces leaf blade length and stem internode elongation in turfgrasses resulting in a more compact growth form. Growth regulation results from suppression of gibberellic acid biosynthesis. Under normal growing conditions root growth and lateral expansion of turf are not affected. An appropriate fertility program for the desired turf species should be followed in conjunction with SP5100 applications to provide best turfgrass enhancement and reduce potential for discoloration. Broadcast treatments should be made on medium to high quality turfgrass areas of uniform species composition. Turf containing significant amounts of coarse textured species such as tall fescue, orchardgrass, timothy, dallisgrass, etc., may respond unevenly to SP5100 treatment.

Benefits of SP5100 Applications to Turfgrass

- Shoot growth suppression of warm and cool season turfgrasses resulting in decreased mowing frequency and turfgrass clippings.
- Increased turfgrass density, wear resistance, and improved color on warm and cool season turfgrass species resulting in improved turf quality.
- Suppressed growth of *Poa annua*, reducing populations and shifting competitive growth advantage towards perennial turfgrasses.
- Improved water use efficiency of warm and cool season turfgrass resulting in pre-drought stress conditioning.

NOTICE TO USER: The rates indicated may need to be adjusted to achieve the desired level of growth regulation. Turfgrass responses to SP5100 may vary within turfgrass species due to the large number of cultivars and varieties available. The rates recommended on this label are rate ranges and should be used only as guidelines. Neither the manufacturer nor seller has determined if SP5100 can be used safely or effectively on turfgrass species not mentioned on this label. For turfgrass species not listed on this label the user should apply SP5100 to a small test area to determine growth response and desired level of growth regulation prior to large scale applications.

General Use Precautions

- Do not apply to putting greens other than those where bentgrass is the desired turf species.
- Do not apply to bermudagrass putting greens, including those which are overseeded.
- Do not apply this product to sod farms, turfgrasses grown for seed, including plants or plant materials grown for sale or research purposes.
- Do not apply to shrubs, bedding plants, and/or food plants.
- Do not apply during prolonged periods of temperature (heat or cold) or moisture stress. Also avoid applications during periods of extreme disease and insect pressure.
- Applications of SP5100 to newly seeded turfgrasses should be delayed until turf is well established and actively growing.
- SP5100 should not be applied until 6 to 8 weeks after turfgrass sprigging or laying sod. Turfgrass should be well established and actively growing prior to application.
- Do not apply to saturated soils or when a significant moisture event is anticipated. SP5100 may accumulate in low lying areas and cause prolonged and excessive growth regulation in those areas.
- Do not apply to areas where *Poa annua* is the desired turfgrass species or areas that contain >80% *Poa annua*.
- Additional turfgrass growth regulation may occur when SP5100 is tank mixed or used in conjunction with demethylation inhibitor (DMI) or sterol inhibiting fungicides.
- Do not apply to turf used for livestock production.
- Do not apply more than 3.0 lbs A/A/year or 295.4 fl. oz./A/year of SP5100.
- **Chemigation:** Do not apply SP5100 through any type of irrigation system.

Application Timing

Spring applications should be made after resumption of active seasonal growth of turfgrass. The final application of the season should be timed at least 4 weeks before the onset of inactive grass growth or winter dormancy. Applications to overseeded turfgrasses in dormant bermudagrass stands should be completed 4 weeks prior to expected bermudagrass green-up.

Irrigation

SP5100 is primarily root absorbed. To maximize growth regulator activity, treated areas should receive 0.25 to 0.5 inch of rain or supplemental irrigation within 24 hours following application and prior to the first mowing after treatment.

Turf Color and Post-Treatment Turf Management

Turfgrass treated with SP5100 may appear darker green in color. This color change, which appears 1 to 2 weeks after treatment, may persist an additional 3 to 6 weeks. Treated areas should be managed to encourage the growth of a healthy vigorous turf.

***Poa annua* (Annual Bluegrass) Conversion to Perennial Turfgrasses**

Applications of SP5100 followed by management practices designed to encourage vigorous growth of perennial turfgrasses can reduce the *Poa annua* (annual bluegrass) competition in cool season turf and increase the cover of more desirable perennial species. *Poa annua* is more sensitive to SP5100 treatments and is therefore more strongly suppressed than perennial turfgrass species. Discoloration of some *Poa annua* biotypes can be expected from treatments that provide a desired level of growth regulator activity in perennial grass species. This effect becomes visible 7 to 10 days after treatment and lasts 3 to 6 weeks. The degree of discoloration will be proportional to the *Poa annua* composition of the turf. Application of SP5100 in conjunction with soluble nitrogen fertilizers will also minimize discoloration. Application timing, rate recommendations, and precautions for perennial grass conversion through selective reduction of *Poa annua* are provided in the *Poa annua* (Annual Bluegrass) Conversion to Perennial Turfgrasses section of this label.

APPLICATION DIRECTIONS

Add SP5100 to a spray tank half filled with clean water. Begin agitation allowing sufficient mixing time to ensure complete dispersion and mixing of SP5100. Finish filling the spray tank. Continue agitation throughout the spraying operation to ensure uniform application. SP5100 should be applied using a boom-type sprayer with bypass and/or mechanical agitation calibrated to deliver 40 to 200 gallons/acre of spray solution (1 to 4.6 gallons/1000 ft²). In-line strainers and nozzle screens should be 50 mesh or larger. The use of a coloring agent to mark areas already sprayed is suggested for uniform application without skips and overlaps. Performance may be improved with the addition to the spray mix of a readily available nitrogen (N) source at 0.125 to 0.5 lbs N/1000 ft² or iron (Fe) at suggested label rates.

SP5100 + Tank Mixtures

SP5100 can be tank mixed and is compatible with most commonly-used pesticides and foliar nutrient products. However, compatibility of SP5100 with tank mix partners should be tested before use.

NOTE: It is recommended that the compatibility of SP5100 in any tank-mix combination be tested before use. To determine the physical compatibility with other products, use a jar test as described below:

Using a quart jar, add the proportionate amounts of the products to 1 quart of water. Add wettable powders and water-dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure sequence for adding required ingredients to the spray tank.

Read and follow all label directions for each tank mix product.

SP5100 Rate Recommendations for Growth Reduction of Perennial Turfgrass Species – Multiple Application Program**➤ Cool Season Turfgrasses**

- Bentgrass (Golf Course Fairway Type Turf)

Multiple application program: Apply SP5100 to fairway height bentgrass at a rate of 24.6 to 49.2 fl. oz./acre in early spring following resumption of active growth. Repeat applications of 12.3 to 49.2 fl. oz./acre of SP5100 should be made at 2 to 6 week intervals until late summer or early fall.

12/2/18

- Bentgrass Putting Greens

Multiple application program: Apply SP5100 to bentgrass as part of an overall greens management program. An initial application of SP5100 should be made after bentgrass greens are growing vigorously and have been mowed 3 or 4 times. Apply SP5100 at a rate of 12.3 to 24.6 fl. oz./acre. Repeat applications of 6.1 to 24.6 fl. oz./acre should be made at 2 to 4 week intervals.

- Kentucky Bluegrass and Perennial Ryegrass

Multiple application program: Apply SP5100 to Kentucky bluegrass and perennial ryegrass at a rate of 36.9 to 49.2 fl. oz./acre in early spring following resumption of active growth. Repeat applications of 24.6 to 49.2 fl. oz./acre should be made at 2 to 6 week intervals until late summer or early fall.

➤ **Warm Season Grasses**

- Seashore Paspalum

Multiple application program: Apply SP5100 to Seashore paspalum at a rate of 12.3 to 49.2 fl. oz./acre when paspalum has completely recovered from winter dormancy and is growing vigorously. Repeat applications of 12.3 to 49.2 fl. oz./acre of SP5100 should be made at 3 to 6 week intervals until late summer or early fall.

- Tifway (419), TifSport, and GN-1 Bermudagrass

Multiple application program: Apply SP5100 to Tifway, TifSport, and GN-1 bermudagrass at a rate of 12.3 to 36.9 fl. oz./acre when bermudagrass has completely recovered from winter dormancy and is growing vigorously. Repeat applications of 12.3 to 36.9 fl. oz./acre of SP5100 should be made at 3 to 6 week intervals until late summer or early fall.

- Zoysiagrass

Multiple application program: Apply SP5100 at a rate of 12.3 to 36.9 fl. oz./acre for growth regulation of zoysiagrass when the grass has completely recovered from winter dormancy and is growing vigorously. Repeat applications of 12.3 to 36.9 fl. oz./acre of SP5100 should be made at 3 to 6 week intervals. NOTE: late summer or early fall applications of SP5100 are not recommended for growth regulation of zoysiagrass.

TABLE 1 Recommended Rate Ranges for Growth Regulation of Perennial Turfgrass Species Using a Multiple Application Program		
Turfgrass Species	Fl. Oz. SP5100/A	Treatment Interval
Cool Season Turfgrasses		
Bentgrass (golf course fairway)	12.3 to 49.2	2 to 6 weeks
Bentgrass putting greens	6.1 to 24.6	2 to 4 weeks
Kentucky Bluegrass/ Perennial Ryegrass	24.6 to 49.2	2 to 6 weeks
Warm Season Turfgrasses		
Seashore Paspalum	12.3 to 49.2	3 to 6 weeks
Tifway, TifSport, and GN-1 Bermudagrass	12.3 to 36.9	3 to 6 weeks
Zoysiagrass	12.3 to 36.9	3 to 6 weeks; not in late summer/fall

Application Information - SP5100 Tank Mixes With Primo® MAXX (Trinexapac-Ethyl)

Tank mixing SP5100 with Primo® MAXX can provide enhanced growth suppression and improved turfgrass quality of perennial turfgrass species, versus using either product alone. Plant physiological advantages of tank mixing these two PGRs include:

- 1. Different mode of action within the gibberellic acid (GA) biosynthesis pathway; and
- 2. Difference in plant site of uptake.

PGR absorption via the foliage (Type II Class A; Primo® MAXX) and roots (Type II Class B; SP5100) maximizes plant uptake of each material ensuring sufficient active ingredient is available for GA inhibition.

Blocking GA biosynthesis early and late in the pathway potentially regulates GA more efficiently than higher application rates of individual compounds. Turfgrass response from SP5100 tank mixes with Primo® MAXX at reduced rates may be greater than with normal use rates of either product applied alone. This combination of plant growth regulators and its use are protected by United States Patent No. 7,135,435. Additional patent rights pending.

Tank Mix General Use Precautions

- Do not apply to bermudagrass putting greens.
- If *Poa annua* is the desired turf species or >25% of turfgrass stand, do not use unless *Poa annua* discoloration or injury can be tolerated.
- Rainfall or irrigation should be delayed at least 1 hour after application or until product has dried on the leaf surface but should occur within 24 hours after application.
- Desirable growth regulation during early spring or late fall when turfgrass growth and vigor are reduced may be obtained with lower rates of both products.

NOTICE TO USERS: This label makes no warranties concerning the performance of Type II Class A PGRs, including Primo® MAXX. Read and follow all label directions including Directions for Use, Precautionary Statements, and Restrictions and Limitations for Primo® MAXX.

TABLE 2			
Recommended Rate Ranges for SP5100 Plus Type II Class A PGR Tank Mixes			
Turfgrass Species	Fl. Oz. SP5100/A	Primo® MAXX (Trinexapac-ethyl)	Treatment Interval
Cool Season Turfgrasses			
Bentgrass [†] (golf course fairway)	6.1 to 24.6	½ labeled use rate	2 to 6 weeks
Kentucky Bluegrass/ Perennial Ryegrass	12.3 to 24.6	½ labeled use rate	2 to 6 weeks
Warm Season Turfgrasses			
Seashore Paspalum	12.3 to 24.6	½ labeled use rate	3 to 6 weeks
Tifway, TifSport, and GN-1 Bermudagrass ^{††}	6.1 to 24.6	½ labeled use rate	3 to 6 weeks
Zoysiagrass	12.3 to 24.6	½ labeled use rate	3 to 6 weeks

[†] Not recommended for use on bentgrass putting greens.

^{††} Do not use on bermudagrass putting greens.

Poa Annua (Annual Bluegrass) Conversion to Perennial Turfgrasses

➤ **Multiple Application Program** - A multiple application perennial grass conversion program using SP5100 provides *Poa annua* suppression and cool season turf conversion. This program provides a gradual perennial grass conversion reducing *Poa annua* populations over one to several growing seasons. To maximize seedling establishment, do not apply SP5100 two (2) weeks prior to and/or 2 weeks after interseeding or overseeding of perennial turfgrasses.

- Bentgrass (Golf Course Fairway type turf)

Apply SP5100 to fairway height bentgrass at a rate of 24.6 to 49.2 fl. oz./acre in early spring following resumption of active growth of the grass. Repeat applications of 12.3 to 49.2 fl.oz./acre of SP5100 should be made at 2 to 6 week intervals until late summer or early fall. Normal management practices such as fertilization, aeration and interseeding/overseeding will encourage growth of bentgrass.

- Bentgrass Putting Greens

Because annual turfgrass species such as *Poa annua* are more strongly regulated by SP5100, careful use of SP5100 on putting greens with a high percentage of *Poa annua* can shift the competitive balance between bentgrass and *Poa annua* to favor bentgrass. Follow normal management practices such as fertilization, aeration and interseeding/overseeding that encourages growth of bentgrass. Use of SP5100 on bentgrass greens may increase putting speed without reducing the height of cut.

- Bentgrass Greens with less than 50% *Poa annua* (annual bluegrass): Apply SP5100 to bentgrass as part of an overall greens management program. An initial application of SP5100 should be made in the spring months after bentgrass greens are growing vigorously and have been mowed 3 or 4 times. Apply SP5100 at a rate of 12.3 to 24.6 fl. oz./acre. Repeat applications of 12.3 to 24.6 fl. oz./acre of SP5100 should be made at 2 to 4 week intervals through early fall.

- Bentgrass Greens with more than 50% *Poa annua* (annual bluegrass): Apply SP5100 to bentgrass greens at a rate of 12.3 fl. oz./acre in the spring months after bentgrass greens are growing vigorously and have been mowed 3 or 4 times. Repeat applications of 12.3 to 24.6 fl. oz./acre of SP5100 should be made at 2 to 4 week intervals through early fall.

- Kentucky Bluegrass, Perennial Ryegrass

Apply SP5100 to Kentucky bluegrass and perennial ryegrass at a rate of 36.9 to 49.2 fl. oz./acre in early spring following resumption of active growth of the grass. Repeat applications of 24.6 to 49.2 fl. oz./acre of SP5100 should be made at 3 to 6 week intervals until late summer or early fall. Normal management practices such as fertilization, aeration and interseeding/overseeding will encourage growth of bluegrass and/or ryegrass.

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TABLE 3
Recommended Rate Ranges for *Poa annua* (Annual Bluegrass) Conversion to Perennial Turfgrasses with SP5100 Using a Multiple Application Program

Turfgrass Species	% <i>Poa annua</i>	Initial Spring Application [†]	Repeat Applications [†]	
		Fl. Oz. SP5100/A	Fl. Oz. SP5100/A	Treatment Interval
Bentgrass (golf course fairway)	0 - 80%	24.6 to 49.2	12.3 to 49.2	2 to 6 weeks
Bentgrass Putting Greens	Less than 50%	12.3 to 24.6	12.3 to 24.6	2 to 4 weeks
	More than 50%	12.3	12.3 to 24.6	2 to 4 weeks
Kentucky Bluegrass/ Perennial Ryegrass Fairways	0 - 80%	36.9 to 49.2	24.6 to 49.2	3 to 6 weeks

[†] Apply in early spring following resumption of active growth of the grass. Fall applications should be discontinued 4 weeks before the onset of inactive grass growth or winter dormancy.

➤ **Alternative Spring/Fall Application Program** - The alternative spring/fall application program selectively suppresses *Poa annua* growth in perennial turfgrass species. Injury or discoloration of *Poa annua* is expected within 7 to 10 days of application. Cultural practices such as fertilization, aeration and interseeding/overseeding should be performed in conjunction with SP5100 applications to encourage growth of the perennial turfgrass species.

- **Bentgrass or Kentucky Bluegrass/Perennial Ryegrass fairways with less than 50% *Poa annua* (annual bluegrass):** An alternative spring/fall treatment program for management of *Poa annua* in fairways containing less than 50% *Poa annua* is to apply 73.8 fl. oz./acre of SP5100 following resumption of active bentgrass or Kentucky Bluegrass/Perennial Ryegrass growth in the spring. A second application of 49.2 fl. oz./acre of SP5100 should be made in the early fall. Interseed/overseed with Bentgrass or Kentucky Bluegrass/Perennial Ryegrass 3 to 4 weeks following early fall application.
- **Bentgrass or Kentucky Bluegrass/Perennial Ryegrass fairways with more than 50% *Poa annua* (annual bluegrass):** Apply SP5100 at a rate of 49.2 to 73.8 fl. oz. /acre in late summer or early fall. Interseed/overseed with bentgrass or Kentucky Bluegrass/Perennial Ryegrass 3 to 4 weeks following late summer or early fall application. Apply an additional 49.2 fl. oz./acre of SP5100 the following spring after resumption of active growth of bentgrass or Kentucky Bluegrass/Perennial Ryegrass.

TABLE 4
Recommended Rate Ranges for *Poa annua* (Annual Bluegrass) Conversion to Perennial Turfgrasses with SP5100 Using an Alternative Spring/Fall Application Program

Turfgrass Species	% <i>Poa annua</i>	Spring/Fall application [†] (Fl. Oz. SP5100/A)	Treatment Interval
Bentgrass or Kentucky Bluegrass/Perennial Ryegrass Fairways	Less than 50%	73.8 in spring; 49.2 in fall	3 to 4 weeks
	More than 50%	49.2 to 73.8 in late summer or early fall; 49.2 the following spring	3 to 4 weeks

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† Apply in early spring following resumption of active growth of the grass. Fall applications should be discontinued 4 weeks before the onset of inactive grass growth or winter dormancy.

Dollar Spot (*Sclerotinia Homeocarpa*) Suppression by SP5100 in Creeping Bentgrass

The active ingredient in SP5100 is from the pyrimidine class of chemistry which is structurally similar to pyrimidine fungicides that provide Dollar Spot control. Programmed applications of SP5100 for turf growth suppression or *Poa annua* conversion have also been shown to suppress Dollar Spot incidence in creeping bentgrass fairways, greens and tees. Research results have shown SP5100 applications at labeled rates and application intervals can significantly reduce Dollar Spot incidence and populations when compared to untreated control plots. SP5100 should not be used to replace labeled fungicides for the control of Dollar Spot; rather programmed use of SP5100 may result in longer or improved control of Dollar Spot in conjunction with conventional fungicides, or delays in the appearance of Dollar Spot disease, thus leading to the potential for an overall reduction in annual fungicide use.

Edging and Banding Applications for Growth Regulation of Perennial Turfgrass Species

SP5100 can be applied to turfgrass in edging and banding applications along the perimeter of lawns, landscape beds, sidewalks, curbs, parking lots, driveways, posts, mailboxes, building structures, gravestones, fences, or other similar areas. SP5100 should be applied in a 6 inch band width with a single nozzle sprayer. Repeat at 8 to 12 week intervals or as needed for turf growth regulation.

TABLE 5 SP5100 Edging/Banding Rate Recommendations for Growth Regulation of Perennial Turfgrass		
Turfgrass Species	Fl. Oz. SP5100/A	Fl. Oz. SP5100 per 1 Gallon of Water in Backpack Sprayers¹
Cool Season Turfgrasses		
Bentgrass	49.2 to 98.4	1.2 to 2.5
Kentucky Bluegrass	73.8 to 147.6	1.9 to 3.7
Perennial Ryegrass	73.8 to 147.6	1.9 to 3.7
Tall Fescue	73.8 to 147.6	1.9 to 3.7
Warm Season Turfgrasses		
328 Hybrid Bermudagrass	36.9 to 49.2	0.9 to 1.2
419 Hybrid Bermudagrass	49.2 to 98.4	1.2 to 2.5
Common Bermudagrass	73.8 to 147.6	1.9 to 3.7
Seashore Paspalum	49.2 to 98.4	1.2 to 2.5
St. Augustinegrass	49.2 to 98.4	1.2 to 2.5
Zoysiagrass	49.2 to 98.4	1.2 to 2.5

¹For backpack sprayers. Assuming a spray volume of 40 gallons per acre, one (1) gallon of spray solution will treat 2,180 linear feet with a six (6) inch band width.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original container only. In case of leak or spill, contain material and dispose as waste.

Pesticide Disposal: Wastes resulting from use of this product may be used on site according to use directions or disposed of at an approved waste disposal facility.

Nonrefillable Container Disposal (rigid, 5 gallons or less): Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat the procedure two more times. Then offer the container for recycling (if available) 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.

WARRANTY DISCLAIMER

SePRO Corporation warrants that the product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, SEPRO CORPORATION MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of SePRO Corporation as the seller. To the extent consistent with applicable law, all such risks shall be assumed by buyer.

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- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used.

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