



**Winterkill: Causes, Prevention, and Recovery**  
*and*  
**Cool-Season Turfgrass Nutrition, Fertilizers and Programming**  
*with*  
**Dr. Kevin W. Frank**

**March 22, 2009**  
**9:00 am – 4:00 pm**  
**TCU PLACE ~ Saskatoon's Arts & Convention Centre**  
35 - 22nd Street East  
Saskatoon, Saskatchewan S7K 0C8

[Click here to register online!](#)

**Overview:**

**I. Winterkill: Causes, Prevention, and Recovery**

Winterkill is a general term that is used to define turf loss during the winter. Winterkill can be caused by a combination of factors including crown hydration, desiccation, low temperature kill, ice sheets, and snow mold. Due to the unpredictability of environmental factors, and differences in other factors such as surface drainage, the occurrence of winterkill on golf courses is variable and can vary greatly between golf courses and even across the same golf course. This seminar will give an overview of the different causes of winterkill, discuss management approaches, and highlight recent research to facilitate recovery from winterkill damaged turfgrass.

**II. Cool-Season Turfgrass Nutrition, Fertilizers and Programming**

New fertilizers, new cultivars, new research, new turfgrass management philosophies and new regulations. There are numerous factors that are critical to understanding turfgrass nutritional needs. A broad range of topics related to turfgrass fertility will be covered and include: plant, soil, and fertilizer factors that influence turfgrass nutrition, turf response to nutrients, environmental fate of nutrients, fertilizer characteristics, and planning a fertilization program. Discussion will also include granular vs. foliar fertilization programs, the influence of pH on nutrient availability, and phosphate vs. phosphite fertilizers.

Dr. Kevin Frank is an associate professor and extension turfgrass specialist at Michigan State University. Kevin attended the University of Wyoming earning a B.S. in Agronomy. He went on to earn a Master's (1996) and Ph.D. (2000) in turfgrass physiology and management from the University of Nebraska.

Kevin's research interests include nutrient fate issues related to environmental quality and development of turfgrass fertilization programs.

**Approval Information:** This seminar is eligible for 7 CEC for both the CGSA Master Superintendent and Accredited Golf Superintendents programs. This is also approved for 0.70 GCSAA education credits.



SEM CODE: CSS 100809 Mar. 22. 2009

To register for **Winterkill: Causes, Prevention, and Recovery and Cool-Season Turfgrass Nutrition, Fertilizers and Programming** please complete this form and send to CGSA with payment or register online at [www.golfsupers.com](http://www.golfsupers.com).

CGSA  
 205-5520 Explorer Drive,  
 Mississauga, ON L4W 5L1  
 Tel: 1-800-387-1056 Fax: (905) 602-1958

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**Seminar Fees: (all seminar fees are subject to GST, GST/HST # R100765106)**

<b>Member:</b>	\$195	\$9.75	<b>\$204.75</b>
<b>2<sup>nd</sup> person:</b>	\$150	\$7.50	<b>\$157.50</b>
<b>Student:</b>	\$100	\$5.00	<b>\$105.00</b>
<b>Non-Member:</b>	\$295	\$14.75	<b>\$309.75</b>
<b>Non-Member Student:</b>	\$200	\$10.00	<b>\$210.00</b>

*Provincial Association members are charged the member rate.*

**Payment by:**       Cheque       Visa/MasterCard/American Express

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**The Fine Print:**

Payment must accompany registration. Registration Fees include reference materials, lunch & refreshment breaks. Cancellations received in writing 14 days prior to the date of the seminar will be refunded less a \$60.00 administration fee. **Refunds will not be issued after 14 days prior to the seminar.** (Documented emergencies will be considered for refund less the administration fee of \$60.00). CGSA reserves the right to cancel this seminar at its sole discretion – in such a case, its only obligation will be to refund any registration payments received for attendance at the seminar.