

TURFAX™

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734-475-4411
Fax: 734-475-8852
www.sleepingbearpress.com

EDITOR

Dr. James B Beard
International Sports Turf Institute Inc.
1812 Shadowood
College Station, TX 77840

CONTRIBUTING EDITORS

Dr. Peter H. Dernoeden
Department of Natural Resource
Sciences and Landscape
Architecture
University of Maryland
College Park, MD 20742

Dr. Daniel A. Potter
Department of Entomology
S-225 Agriculture Science Center, N
University of Kentucky
Lexington, KY 40546

Dr. Fred Yelverton
Department of Crop Science
Box 7620
North Carolina State University
Raleigh, NC 27695

ADVISORY COMMITTEE

Gary Grigg
Royal Poinciana Golf Club

Bruce Williams
Los Angeles Country Club

Dan Quast
Medinah Country Club

Don Tolson
Stock Farm


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Invasive Grub Species...

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<http://www.ohioline.ag.ohio-state.edu/hyg-fact/2000/2510.html> [Factsheet HYG-2510] for an illustration.)

EC grubs grow rapidly, so that severe damage to turf begins to appear by late summer and continues through the autumn. The large, third-instar grubs continue to feed into November, a full month later than JB grubs, before going deeper in the soil for overwintering. They return to the root zone in March as the ground thaws, sometimes also causing severe damage in spring. Where there is thick sod or heavy snow cover, the grubs may remain in the root zone, feeding even in the winter.

EC tends to be our toughest grub species to control. **Imidacloprid (Merit®) at the high labeled rate (0.4 lb of active ingredient per acre) generally works well if applied preventively during the window of early June to mid-July. Thiamethoxam (Meridian®) reportedly provides good preventive control, comparable to imidacloprid.** Halofenozide (Mach 2®) has not performed as well against the EC as against other grub species. Indeed, there is growing research evidence that EC is relatively insensitive to halofenozide's molt-inducing effects. **Trichlorfon can be used for early preventive control after egg hatch**, but large EC grubs are especially hard to control with insecticides once the damage appears. 

ASK DR. BEARD

Q *I have been told that the main time to apply potassium fertilizers is in the autumn. Is this correct?*

A The original research demonstrating the beneficial effects of using high potassium levels was conducted by this author in relation to the enhancement of autumn hardiness to low-temperature kill of cool-season turfgrasses. Subsequent research has demonstrated beneficial aspects of higher potassium levels in enhancing tolerance to a broad range of stresses, such as heat, drought, wear, and cold. Higher potassium levels also have a year-round effect in terms of improved rooting and reduced proneness to a broad range of diseases. **Thus, the strategy of higher potassium levels may apply year-round, especially whenever any of the various environmental stresses occurs in a given climatic region.** Specifically, the strategy is as follows: **Once the soil potassium level is demonstrated to be in the high range based on a chemical soil test, then apply potassium at 75 to 100% of the nitrogen rate being applied.** It should also be noted that excessively high potassium applications can result in a competitive inhibition of nutrient uptake that adversely affects certain plant levels, especially magnesium. 

Ask Dr. Beard: TURFAX, c/o Ann Arbor Press
P.O. Box 20
Chelsea, MI 48118
Email: skip@sleepingbearpress.com