

Dale Roe and other ISTMA members. The tentative schedule is: 1:30 p.m. — Registration; 2 p.m. — Pitching Area and Home Plate Maintenance; 2:30 p.m. — Infield Preparation and Dragging Tips; 3:30 p.m. — Removal and Prevention of Hazards in the Field; and 4 p.m. — Drying Wet Grounds.

For further information on this meeting or to register, contact Bill Antons, Boone Community School District, 500 7th St., Boone, IA 50036. Phone (515) 433-0750. For information on the Iowa Chapter contact Gary Peterson, (515) 791-0765.

Midwest Chapter: STMA — The Midwest Chapter will hold an afternoon Sports Turf Workshop at the baseball stadium of the Cane County Event Center, Geneva, IL on May 24. Attendees will close the session with fun and fellowship as they watch the Cane County Cougars, a White Sox farm club, take on a worthy competitor in an evening game. Contact workshop coordinator Scott Phippen at (708) 883-8600 for more details on this event. For more information on the chapter, contact the Chapter Hotline, (708) 439-4727.

STMA Florida Chapter #1 — Scheduling conflicts have changed the May meeting plans of the South Florida Chapter. Contact John Mascaro or Ed Birch for up-to-date information.

Additional meetings are in the planning stages. A July meeting in the City of Pompano will feature aerification as the prime topic. An August 3 meeting at Floyd Hall Stadium will focus on fertilization and irrigation. This event will be hosted by Kathy Conner. Further details will be announced soon.

For more information on the South Florida Chapter, contact John Mascaro, (305) 938-7477 or Ed Birch, (305) 938-0217.

The New England Chapter: STMA — The New England Chapter is planning a Field Day for August 10 at Holy Cross College, Worcester, MA. Further details will soon be announced.

For information on the chapter, contact Mary Owen, University of Massachusetts (508) 892-0382.

Chesapeake Chapter: STMA — Special Reminder — The Chesapeake Chapter Field Day will be held from 8:30 a.m. to 4 p.m. on April 14 at Camden Yards. Another event "in the works" is a September Regional Workshop that will be held in conjunction with the national STMA.

Board meetings are held the first Tuesday of each month from 4 p.m. to 6 p.m. Members are invited to attend. The May 3, June 7, and July 5 board meetings will be held at Camden Yards.

For information on the chapter, contact The Chapter Hotline, (301) 865-0667.

The Heartland Chapter: STMA — Plans continue to develop the Heartland Chapter's first Sports Turf Field Day, scheduled for July 13 at the Heritage Park Sports Complex, Olathe, KS. Further details will be announced soon.

The Heartland Chapter Board will meet the first Wednesday of each month from 4 p.m. to 5 p.m. at Heritage Park Sports Complex. All members are invited to attend.

For more information on the chapter, contact Mark Diller, sports turf manager, Johnson County Parks and Recreation, (913) 782-7625 or Jack Schwarz, J.S. Sports Turf, Liberty, MO, (816) 792-2808 or (800) 344-8873.

The Minnesota Sports Turf Managers Association — The newly-formed Minnesota Sports Turf Managers Association continues to make progress. Those interested in finding out more about the chapter are urged to contact acting President Tom Rudburg, University of St. Thomas, St. Paul, (612) 962-6545; acting Vice President Mike McDonald, Bierman Athletic Complex, University of Minnesota, Minneapolis, (612) 625-6097; or acting Secretary/Treasurer Brian Deyak, St. Cloud Sports Center, St. Cloud, (612) 255-7223.

Colorado Chapter: STMA — For more information on the chapter or its future activities, contact Joe Adams, Greeley Parks and Recreation, (303) 350-9340.

CHEMICAL LOG

CONTROLLING WHITE GRUBS

White grubs are a common perennial pest of turf in all regions of the country. They are especially destructive in the Northeast and Midwest.

The cream-colored, C-shaped grubs are the larvae of more than 100 species of beetle, among them the Japanese beetle (*Popillia japonica*), the northern masked chafer (*Cyclocephala borealis*) and the southern masked chafer (*C. immaculata*). Although of different species, all white grubs behave alike and can therefore be controlled in similar ways.

Larvae overwinter in the soil at depths of up to 16 inches. In the spring, they migrate upward to feed on turfgrass roots for several weeks before pupating. Adults emerge after pupation and lay eggs in the soil. In three weeks, a new generation of white grubs hatches, feeds on roots until the onset of cold weather, and migrates down into the soil.

Symptoms of white grub infestation include patches of yellow or brown grass that can be pulled easily from the ground. Large sections of infested turf can be rolled back like a carpet. White grubs sometimes attract insect-eating birds, skunks, moles and other animals that cause further damage to grass as they dig through turf looking for a meal. Grub damage is most severe in the fall, when larval feeding, heat, and water stress are at their peak. Turf rarely recovers from high white grub infestations.

Solutions

White grub beetles prefer to lay eggs in soil that is constantly moist. Allowing the upper layer of soil to dry out before irrigating may discourage adults from laying eggs. Also, beetles prefer to lay eggs in turf that has been closely mowed, so raising mower heights may discourage oviposition as well.

The biological control milky spore disease (*Bacillus popilliae*) has been shown to control Japanese beetle larvae; however, the effectiveness of the bacteria is largely dependent upon soil temperature. It is less effective in the North where soil temperatures rarely exceed 70 degrees F. In areas where soil temperatures are low, Sevin® can control white grub populations effectively. The best time to apply the product is in late summer or early fall when young grubs are actively feeding on turf roots. In dry conditions, irrigate turf a couple of days before applying carbaryl to bring grubs closer to the soil surface.

Editor's Note: This concludes the three-part "Chemical Log" series on controlling insects. Technical Credit: Rhone-Poulenc, manufacturer of Sevin and Chipco products.