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The March mini seminar was a great success. We had about 150 of your fellow members there for the construction presentations. I would like to thank all of the speakers who took the time to prepare a presentation for us. Also included in the seminar was a presentation by Sandy Queen, CGCS from the GCSAA, about the proposed PDI issue. About 75 people listened to the speech and about 50 participated in the discussion afterwards. Mr. Queen felt that the final form of this controversial proposal will be different from how it looks today. I certainly hope so or, for one, will not support it.

* * * *

In my last letter to you I mentioned the proposed legislation to ban the use of Phosphorous in the Metro Area. After two days of lobbying and then two days of testimony before the Senate and House agricultural committees, I was able to get the bill laid over to next session. What this means is that the issue is not dead but only postponed until next session. We have been directed by the committees to work with the Department of Ag to try to come up with a bill that we will be able to get behind. In my mind that means that we will be trying to get golf courses removed from the legislation. If you have any other thoughts, please feel free to contact me and we can discuss the issue. I need to take this opportunity to thank the MGA for all of their help with this issue. They were kind enough to have their lobbyist lead me around the legislature and put me in contact with the people we needed to see. This help was invaluable to our efforts. Thanks!!

* * * *

The arrangements committee is having trouble finding sites for the monthly meetings as well as the golf events. If you are willing to have your course host an event, please call Tom Meier and let him know that you want to host an event. Days of the week are now flexible so please see if you can help out the association. We don’t ask you to do it more than once every ten years or so.

* * * *

Please plan on attending the April meeting in River Falls. Dr. Powell will be giving us a presentation and I am sure that Dan Swenson will have the course in great shape. Hope to see you there.

- E. Paul Eckholm, CGCS
MGCSA President
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What's With All the Biostimulants?

By RICK GABLER
Superior Tech Products

There seems to be a lot of new products in the turfgrass industry that are labeled “Biostimulant” and claim to have biostimulant properties. Why are so many companies jumping into this category with new products? Are manufacturers adding Biostimulant ingredients to their product lines because they see added benefits or because of the successful history of other Biostimulant products? Do the formulations even include any of the turfgrass hormones, which are the major properties of Biostimulant?

To answer these questions, let’s review some of the University-proven facts of natural turfgrass hormones. I will also explain how the manipulation of plant hormones is used in other turfgrass products.

What is a plant hormone? It is an organic compound, synthesized in one part of the plant, and translocated to another part where, with interaction with other hormones, causes physiological responses. (2)

There are five known natural plant hormones. Three are considered to be associated with growth, Gibberellins, Auxins & Cytokinins. Other two of these are associated with dormancy and death, Ethylene and Abscisic Acid. I will discuss only those hormones associated with growth.

Cytokinins can be considered the main hormone behind the first Biostimulant products. Researchers have found that seaweed that grew upwards of one foot per day were rich in Cytokinins. They concluded that if they could transfer this hormone to other plant life, growth would be much healthier and consistent. This is why, to this day, some products list seaweed or seaweed extracts as a component of their product. It is very difficult to extract the hormones and the only hormone stable enough to be extracted from the seaweed is Cytokinins. Ground up seaweed is a good source of organic matter; however, sometimes salt comes with it. A popular product of this type, that was used for seed bed preparation in a sand based green, was tested for salt and came back with a salt content upwards of 8000 PPM.

Mother Nature insured that plants usually have adequate amounts of hormones under ideal conditions.

(Continued on Page 28)
Funding for 15 new university research projects totaling $1 million have been approved by the Green Section of the United States Golf Association.

Most of the funding is aimed at multi-year studies, with seven of the studies targeting turfgrass development and management, two projects looking at golf course construction practices, and six projects investigating pesticide and nutrient use.

The USGA already has 72 studies in progress and has committed more than $18 million in research grants since 1983.

For a complete list of research studies funded by the USGA Green Section, visit the USGA webpage at www.usga.org.

The Green Section was founded in 1920 and remains involved in every phase of golf course maintenance and management. These activities include funding research to develop improved strains of turfgrass that require less water and are more tolerant of stress, and the promotion of environmentally sensitive construction and maintenance practices.

New Research Projects for 2000

**Integrated Turfgrass Management.**

- Biological Control of White Grubs on Golf Courses by Native Parasitic Wasps, University of Kentucky, Daniel Potter, 2 years, $21,475.
- Identification and Metabolic Diversity of Rhizobacteria from Bent & Bermuda Greens Clemson, University Horace Skipper, 2 years, $17,400.
- Establishment & Management of Seeded Bermudagrass in the Transition Zone, University of Arkansas, Michael Richardson, 3 years, $14,333.
- Relationship of Environment, Management, and Physiology to Bermudagrass Decline, Texas A&M Univ., Richard White, 3 years, $24,995.
- Integrating Biologically Based Strategies for Turfgrass Pest Management (Phase II), University of Georgia, S. Kristine Braman, 3 years, $12,557.

**Turfgrass Germplasm Enhancement.**

- Development of Gray Leaf Spot Resistant Perennial Ryegrass Through Breeding and Biotechnological Approaches, University of Kentucky, Mark Farman, 3 years, $25,000.
- Identification of Creeping Bentgrass (Agrostis palustris Huds.) Cultivars Using Simple Sequence Repeats (SSRs), Rutgers Univ., William Meyer, 2 years, $24,940.

**Course Construction Practices.**

- Effect of Rootzone Material and Depth on Moisture Retention in USGA Greens Michigan State Univ., Bernard Leinauer, 3 years, $25,000.
- Determining the Bulk Mechanical Behavior of Sand for Rootzone Mixtures, Penn State University, Charles Mancino, 2 years, $7,691.

**Pesticide and Nutrient Fate Modeling.**

- Best Management of Post-application Irrigation To Reduce Exposure to Volatile & Foliar Pesticide Residues, University of Massachusetts, John Clark, 3 years, $24,955.
- From Small Plots to Course Watersheds: Calibration of Computer Model Scenarios for Pesticide & Nutrient Runoff & Leaching in Turfgrass Environments, University of Georgia, Kevin L. Armbrust, 3 years, $25,000.
- Controlling Nutrient Runoff from Fairways Using Vegetative Filter Strips, Oklahoma State Univ., Greg Bell, 3 years, $25,000.
- Surface & Subsurface Water Quality Data Collection and Model Development for a Watershed Scale Turfgrass System, USDA - ARS, Kevin King, 3 years, $24,933.
- Further Evaluation and Modeling of Pesticide Partitioning Data From the UCR Putting Green Lysimeters, University of Calif./Riverside, Laosheng Wu, 2 years, $12,467.
- Phosphorus Fertilization of USGA-type Greens: Placement, Rates, and Leaching, Auburn University, Beth Guertal, 3 years, $25,162.

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Meet Our USGA Agronomists for the North-Central Region

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Bob is responsible for Turf Advisory Service visits in six states of the North Central Region of the USGA Green Section (Michigan, Wisconsin, Minnesota, North Dakota, South Dakota, and Montana). Other duties include writing articles for various publications and making numerous educational presentations at university turf conferences, USGA regional meetings, state/local golf association seminars, and golf course superintendent meetings. His goal since joining the Green Section six years ago is to help provide golfers the best playing conditions possible within the budgetary limitations of a particular golf facility.

A Masters degree in turfgrass entomology from The Ohio State University explains his interest in helping golf course superintendents make an accurate diagnosis of turf related problems and, whenever possible, to reduce pesticide use through Integrated Pest Management. His Master’s thesis research investigated the impact of insecticides on beneficial arthropods in a Kentucky bluegrass home lawn ecosystem.

Bob lives in Elm Grove, Wisconsin. His hobbies are fishing, particularly fly fishing, and magic.

Robert A. Brame
Director
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Phone (606) 356-3272, Fax (606) 356-1847

Bob is Director of the USGA Green Section's North Central Region. He serves courses in OH, IN, KY, MT, MN, SD, ND WI and MI, conducting Turf Advisory Service visits in the states of KY, IN and OH. In addition to hundreds of TAS visits made since joining the staff, Bob has written many articles and spoken throughout the region and country to various golf related groups. Prior to his present position, Bob was an Agronomist in the Mid-Atlantic Region serving PA, MD, VA, WV, OH, KY and DE.

Before joining the USGA Green Section Staff in early 1990, Bob was a golf course superintendent for eighteen years. Bob has worked as a course superintendent in Mexico, Chicago, Lafayette and Indianapolis. The decade before joining the Green Section Staff, Bob was the course superintendent at Broadmoor CC in Indianapolis. In the late 80's, Broadmoor hosted a Senior Tour event which initiated Bob’s appreciation for championship conditioning. Bob has been a member of the Golf Course Superintendents Association of America (GCSAA) since 1973 and the American Society of Agronomy (ASA) since 1990.

Bob is a 1972 graduate of Purdue University with a Bachelor of Science degree in Agronomy. Before Purdue, Bob attended Vincennes University where he met his wife Rhonda. Bob and Rhonda (who also works in the North Central Region Office), live in Covington, Kentucky. The Brame’s have two grown children. Scott lives in Indianapolis, Indiana, and J. Nicole lives in Lexington, Kentucky.

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