

new jersey turfgrass association



clippings

Green
& World



SPRING 2004 | VOL. 54



Spring...

the green industry's call to arms!

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Spring 2004 Vol. 54

CLIPPINGS/GREEN WORLD is
published 4 times a year.

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President's Message

By Marie Pompei, NJTA President



Marie Pompei
NJTA President

"A pessimist sees the difficulty in every opportunity; an optimist sees the opportunity in every difficulty."

– Sir Winston Churchill

Can you identify with this quote? As you read this message my second term will have been half over and there is so much more to accomplish. As they say there is strength in numbers and **welcome to all of you who have become new members and thanks to those who have recruited new members in the last year.** I know you will gain much

from your membership with the New Jersey Turfgrass Association; we have a lot to accomplish together to ensure the continued health of the turfgrass industry in our Garden State.

There are many challenging opportunities on the horizon for our association. Interested in getting more involved with NJTA? In December several NJTA Board positions will open, and Chris Carson, Nominating Committee Chairman is presently accepting nominations for these positions. **We are looking for industry representatives that have the time, volunteer spirit, and know-how for contributing their ideas for fostering a close working relationship between Rutgers and the turfgrass industry.** Interested candidates should contact Chris Carson @ 908-232-3621.

Dr. Dick Caton, our Executive Director will be hanging up his hat this December, after devoted service to NJTA for the last thirteen years. **Dick's efforts have been paramount during the last decade in helping to bring Rutgers Turfgrass Research to the forefront not only locally, but also worldwide.** He has been the force behind many of NJTA's successful efforts including developing "Clippings" into the fine publication that it presently is. A search committee for a new director has been assembled and NJTA will keep you informed of any new developments.

Have you gotten your invitation to the Rutgers Turfgrass Research Golf Classic? If not, contact the NJTA office for one. You don't want to miss out on being part of the New Jersey Turfgrass Foundations' premier fundraiser for support of the Rutgers Turfgrass Research Program. The Golf Classic committee has been working hard in preparation to bring you a great day of golf at **Blue Heron Pines Golf Club on May 10.** Sponsorship opportunities are also still available. Hope to see you there!

So, are you the optimist or the pessimist?

Best regards to all,
Marie Pompei



Turfgrass Producers International Wraps Up Successful Midwinter Meeting & Preps For Pennsylvania Summer Convention

More than 500 turf producers from 11 countries participated in the Turfgrass Producers International (TPI) Midwinter Conference in Santa Barbara, CA February 17-21. TPI offered attendees a diverse educational program, exhibits and tours.

The three-day educational program included a seminar focusing on the hiring and retaining of seasonal workers with special emphasis given to Hispanic culture. Speakers addressed future technologies for athletic fields, goals of the Evergreen Foundation and the importance of obtaining quality seed. TPI's popular "Show and Tell" returned providing insight into what makes member farms successful along with a talk discussing the best management practices for turf diseases. The education seminar concluded with motivational speaker, John Robinson, University of Las Vegas football coach. ■



Plan Now To Attend The Rutgers Turfgrass Research Field Days

"The Best In The World"

Wednesday, July 28, 2004
Lawn and Landscape Section
 Adelphia Research Farm, Freehold, NJ

Registration begins at 8:00 a.m.

Thursday, July 29, 2004
Golf & Fine Turf Section
 Hort Farm II, Ryders Lane, New Brunswick, NJ

Registration begins at 8:30 a.m.

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The logo for Toro, consisting of the word 'TORO' in white capital letters on a red rectangular background.

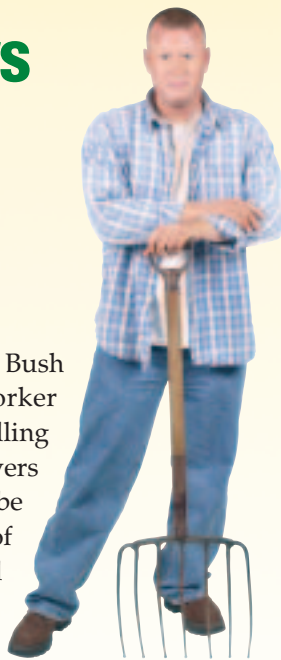


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Some Good News On The Labor Front: AgJobs Bill Update

As you may have heard, President Bush unveiled his new temporary worker program on January 7th to match willing foreign workers with U.S. employers when no American workers can be found to fill the jobs in all sectors of the economy. His proposal would also provide an avenue for illegal workers currently working in the U.S. workforce without encouraging further illegal behavior.



For those workers currently working in the U.S. with questionable legal status, the program would allow for their "temporary worker status". This status would require the workers to come forward, pay a one-time registration fee, abide by the immigration rules and return home after their period of work expires. There is also a provision for renewal of their temporary status and potential permanent citizenship. In the future, only those workers outside of the U.S. would be eligible under this program.

As is quite evident, President Bush's proposal is consistent with the principles of the AgJobs bill, developed over the last eight years by the Agriculture industry and ANLA. The President's proposal is broad and has strong similarities with the bi-partisan AgJobs bill. It provides for a manageable guest worker program, allows a means for undocumented workers to obtain legal status, have the protection of law, and get the benefits of the Social Security and tax payments they make.

NJNLA will be working closely with ANLA and New Jersey's Congressional Delegation on a bipartisan basis to enact a meaningful H2A reform package this year. NOW is the time for ALL of us to let your Congressman know how you feel. With both of New Jersey's Senators and Congressmen Smith and Garrett already signed on as co-sponsors, we need to write, e-mail or call the rest of the delegation NOW. Don't let this opportunity pass you by, visit the NJNLA website @ gardennj.net or the ANLA website @ anla.org for a sample letter and information to contact your elected officials today. If you have any questions or need additional information, please contact Carl Nordstrom at 609-291-7070. ■

Allied Association Activity



The New Jersey Landscape Contractors Association had an outstanding one day Trade Show and Education Program in Secaucus on Wednesday, February 25, 2004.

Pictured below are some of the "dignitaries" from NJLCA, who put it together "year after year"! ■



Left to right: Mark Graser, Tony DeFeo, Jim Stewart, Skip Powers and Glenn Bergemann.



NJTA Executive Director, Dr. Richard Caton is shown with the NJTA show booth cooperating with NJLCA to promote membership in both organizations.

NJTA has been closely monitoring DEP activity related to pesticide issues in NJ and surrounding states. The winter 2004 issue of Clippings/Greenworld contained an article entitled "Dealing With A Political Hot Issue - Pesticides". Here is yet another "ALERT" from the Professional Lawn Care Association of America...



Action Alert: Don't Limit Your Right To Use Pesticides

PLCAA members and other lawn care professionals are at risk of losing many valuable pesticide products or the ability to use them due to lawsuits filed by a handful of environmental groups against the Environmental Protection Agency (EPA) on behalf of the Endangered Species Act (ESA). These environmentalists have filed a spate of nuisance lawsuits attempting to prevent EPA from registering or re-registering pesticides, resulting in court-created buffers where no pesticides can be applied. These suits allege that by failing to consult with other federal agencies before registering a pesticide, the EPA has not complied fully with the law.

The environmentalists' lawsuits are not substantive but rather procedural:

- No actual damage to endangered species has been demonstrated;
- These pesticides undergo extensive testing to ensure their safety; and
- These pesticides offer extraordinary benefits to society including controlling vermin, increasing agricultural productivity (thus holding down the cost of produce for consumers), reducing the need to convert wild lands into farmland, and preventing the growth of harmful fungi and bacteria on crops.

These lawsuits constitute a nuisance and distraction for EPA officials who must expend immense effort and expense on defending the agency in court – resources that could be better-spent reviewing new products and prosecuting polluters.

Fortunately, the EPA, The U.S. Fish and Wildlife Service and the National Marine Fisheries Services have developed "counterpart regulations" establishing the appropriate regulatory process to fully comply with ESA. *These regulations have been released for public comment through March 30.*

PLCAA urges you to support the regulation by sending a supportive comment to the federal docket. Please visit <http://www.congressweb.com/entry.cfm?orgcode=RISE-RAC&hotissue=1> and submit the required information (name, address, etc.). The following letter will automatically be sent.

*Assistant Director for Endangered Species
U.S. Fish and Wildlife Service
4401 N. Fairfax Drive
Room 420
Arlington, VA 22203*

RE: *Docket No. 1018-A195*
SUBJECT: *Endangered Species Act Counterpart Rule
for EPA Pesticide Actions*

My area of concern: Speciality Pest Management

As a citizen concerned about pest management products (pesticides), I support the Counterpart Regulation, which establishes a formal, comprehensive multi-agency review process to protect endangered species while minimizing impacts to users of professional and consumer pesticides for both specialty and agricultural uses. These regulations ensure EPA's efficient and timely registration and re-registration of safe and effective pesticides that I need to maintain a high quality operation and remain economically viable and/or choose the best products available to protect my home and family from pests. Pests are a serious problem for professional and consumer uses, and I must have all available tools to manage them.

The Counterpart Regulation also details a process that will eliminate unnecessary and costly duplication of effort between the agencies, allowing EPA to make certain determinations based on its own scientific expertise, which I support. Also, EPA's process will allow for participation by stakeholders – it is critical that EPA have input from affected end-users as it implements its plan.

Without a reasonable, science-based process at the federal level, my ability to use the best pest control tools available will be jeopardized, leaving me vulnerable to unreasonable regulation. I urge the federal government to move forward with implementation of the counterpart regulations.

Sincerely,

Send A Letter! Don't miss out on the opportunity to have your say. Encourage each of your employees and family members to sign on and send their letter, too! Our goal is to have 100,000 favorable comments sent!

For more information or if you have questions, contact Tom Delaney at 1-866-831-1109. ■

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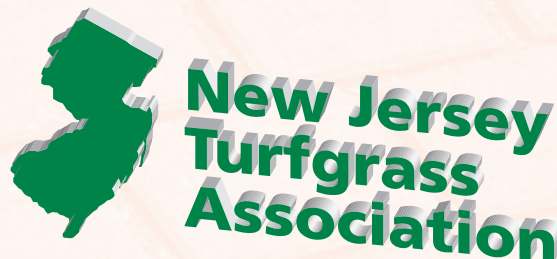
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APPLICATION



- The Buy-A-Brick project is an opportunity for you to leave a lasting imprint of your support for the Ralph Geiger Turfgrass Education Center by purchasing a paving brick engraved with your name or the name of your club or organization. Your engraved brick(s) will be used to pave the patio area outside the Geiger Building and support the construction.
- For a limited time, a personalized brick can be yours for the donation amount of \$100 per brick. Each brick may include a maximum of three lines of (13) characters (including spaces). To order your brick(s), complete the form below and mail it with your check (made payable to: "New Jersey Turfgrass Foundation") to: NJTA, P.O. Box 340, Milltown, NJ 08850-0340

Each brick ordered may include a maximum of three (3) lines of engraving. Each line may include thirteen (13) characters (including spaces). Please complete the box below with exactly the lettering or message you desire on your brick(s). You may photocopy this form to place additional brick orders. Thank you for your support!

(Please print clearly)

Thank You! Your contribution is tax deductible.
All proceeds benefit the Turfgrass Education Center.

Please mail "Buy-A-Brick" order form
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(Please print clearly)

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Affiliation _____

Address _____

City _____

State _____ Zip _____

Business Phone _____

Fax _____

Total Amount Enclosed \$100 (per brick) _____

- My check is enclosed
 (payable to "New Jersey Turfgrass Foundation")
- I wish to be invoiced.
- I wish to pay by credit card.
 (Please contact the NJTA at 732-821-7134)

Keep this list ready to share with “the doubters”!

Turfgrass Environmental Benefits

By Dr. James B. Beard, Professor Emeritus Texas A&M University

Reprinted From TPI Turf News, March /April 2004

This section is devoted to providing turf producers and turfgrass maintenance professionals with useful science-based information to pass along to their customers and, particularly, the general public.

Turfgrasses have numerous important functional purposes, as well as being attractive. These important dimensions that contribute to our quality of life are too often overlooked.

Function Benefits

- Soil erosion control – the best and most cost-effective means for protecting a vital resource
- Dust stabilization – the best and most cost-effective approach
- Reduces run-off of precipitation (flood control) – due to a dense canopy biomass
- Increases ground water recharge by water entrapment in dense canopy
- Active entrapment and biodegradation of organic chemicals – via a large, diverse microbial population
- Atmospheric pollution control both particulate and chemical – by canopy entrapment
- Carbon sequestration (soil organic carbon accumulation) in grass-based soils – from extensive root decomposition
- Reduces noxious and nuisance pests – mosquitoes, chiggers, rodents and snakes – Lyme disease, West Nile virus, etc.
- Enhances property security – by open visual site lines
- Lowers fire hazard spread – via green fire-breaks in urban areas
- Safety in vehicle operation/equipment longevity – roadside and air fields
- Urban heat dissipation – via evapotranspiration
- Noise abatement – a 40 percent reduction in 70-ft. of roadside turf
- Lower water use rate than trees – due to lower leaf area per unit land area

Recreation & Aesthetic Benefits

- Enhances physical health of participants – including cardio-vascular functions
- Serves as a safety cushion against impact injury – best in cost-effectiveness

- Provides a low-cost surface for outdoor sport and leisure activities
- Even home lawn care offers physical exercise – specially for senior citizens
- Improves mental health – especially in urban areas
- Contributes to social harmony among people
- Contributes positively to attitudinal work productivity
- Has therapeutic value to individuals recovering from serious illness



Summary

Properly maintained lawn and recreational turfs:

- 1) Contribute a diverse array of benefits that make turfgrasses one of the best friends of the urban environmentalists
- 2) Greatly enhance our quality of life, especially in densely populated urban areas.

This article summarizes a detailed research review paper published in the *Journal of Environmental Quality*, by J.B. Beard and R.I. Green.



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SOME NUMBERS WORTHY OF OUR ATTENTION!

The Sports Field Managers Association of New Jersey is a rapidly growing organization. This study illustrates the vast investment in this industry.

TURF MANAGERS LEAD AN \$11 BILLION INDUSTRY

By Rich King, Special Projects Coordinator; Trusty & Associates - STMA's Management Company

Where do you start to review a Sports Turf Managers Association membership survey with 97 questions measuring member satisfaction, demographics, participation, job parameters, labor distribution and budget information? First, you say "thanks" to those who participated. Your responses are the foundation of the first comprehensive study of the sports turf management industry. With your help, we have a representative sampling of STMA membership that can be used to project industry-wide economic numbers.

Survey Methodology

STMA conducted the survey in February 2001. A total of 1,841 surveys were mailed to active STMA members, who were requested to complete and return them by March 19. By the deadline, 393 completed surveys were received, a 21.3% response rate. No membership category, ie, professional, college/university, other schools, parks & recreation, commercial, student, international or educational, is over- or under-sampled. Since our analysis draws conclusions for the entire membership, balanced sampling is required.

Member Satisfaction

Overall satisfaction with STMA services is quite high at 92.3% favorable, compared to just 0.8% unfavorable and 6.9% neutral, which shows that STMA is effectively assisting turf managers to accomplish excellence. Without a doubt, teamwork of the STMA Board of Directors, Committees, Chapters, Member, and Headquarters is the reason for high satisfaction. It indicates that "STMA matters" to current members and, based on their endorsement, potential members will find value in STMA in practical, tangible ways.

We received high marks and low marks in the categories of Compendium of Articles (87% favorable rating), Membership Roster (85.9%), *Sportsturf Magazine* (85%), and the Bi-monthly Newsletter (75%). Each of these four "hands-on" resources received a 4% or less unfavorable ratings. Neutral ratings for this group ranged between 10.7% and 12.2%, except for the Bi-monthly Newsletter, which received a 21.4% neutral rating. Several respondents wrote in that they were unaware of or had not used some of the services.

The "try it, you'll like it" items, i.e., STMA services that members generally like after trying them, included:

members who have used the Job Hotline (32.1% favorable, 5.2% unfavorable) or the STMA Website (41.7% favorable, 9.6% unfavorable) are favorably impressed. Still, several members have not used these services and rated them neutral.

The STMA Website, despite being favorably rated, is an arena where there is room for improvement. It is a communication tool within the membership and to the general public. Many of our members know that the website underwent a major overhaul. To see the new and improved website, visit www.sportsturfmanager.com.

The Annual Conference is another example of "try it, you'll like it. 69.6% rated the conference favorable, compared to 2.0% unfavorable and 28.5% neutral. However, when looking at the rating of members who have actually attended a conference, the rating jumps to 89.1% favorable versus 1.3% negative and 9.7% neutral. By the way, two out of three STMA members have attended at least one Annual Conference.

Another noteworthy point about the Annual Conference is location, location, location! Based on the survey results, location attracts first time attendees, but conference programming and location keeps them coming back. Nearly three out of four members that have yet to attend the conference indicated that location is important to their decision to attend. Common thinking would indicate that "you must have dough to go" to the conference, but all income levels were equally represented at the conference.

It is apparent that individuals who are involved in Chapter activities are more likely to participate in the Annual Conference. For example, eight of 10 members who have served on an STMA Chapter committee and seven of 10 who have participated in a Chapter educational seminar or workshop have attended the Annual Conference. The conference is STMA's signature event and serves as a gathering spot for the sports turf management industry. Maintaining



continued ►

it and exploring ways to improve it are vital to the industry. Chapter involvement, conference programming, and location influence members to attend.

Education

STMA is a strong proponent of on-going education for its members. One assumption of STMA's leadership is that our members are equally interested in expanding their turf management knowledge and skills. This assumption was strongly reinforced by survey respondents. When asked "Have you attended any other turf-related educational seminars or workshop?", 94.1% answered affirmately versus 5.9% negatively.

A future venue for turf management education could be the Internet, 83.2% members indicated that they would use it for educational courses. The 24/7 access Internet provides flexibility that fits even the busiest schedules.

Certified Sports Field Manager Program

Nearly three out of four members voiced interest in the program. Of those who answered that the designation would

add value to their current position, 96.9% are interested in becoming a CSFM. Also notable is that 40% of those who believe a CSFM certification would not add value are *still* interested in the program. These findings reflect a desire for excellence and professionalism.

STMA Initiatives

Survey respondents were asked to rate the importance of several STMA initiatives. Based on the respondents' priorities, STMA should focus on education programs and making the public and employers aware of the importance of the sports turf managers.

Who Are We?

Experience: STMA turf managers are very experienced. The average number of years for all respondents was 13.62 years. In fact, one third of all members have more than 17 years of experience and two of three have been in the sports turf industry more than 7 years.

Salary Range: Salary ranges are consistent across facility types, i.e., parks & rec, other schools, college/university

continued on page 12



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\$11 Billion Industry - continued from page 11

and professional. The average salary range for all managers is \$40,000 to \$45,000. One exception may be Professional Facility Types that tend to be more heavily represented in the upper and lower ranges and more lightly represented in the middle ranges.

Education: Education levels by facility type, i.e., parks & rec, other schools, college/university and professional, varied according to facility type. Education levels in "other schools" are lower than other facility types, where only 36% have a BS degree or higher, while 48% have some college or less. Comparatively, more than 50% of respondents in each of the other facility types, have a BS degree or greater and 30% or less have some college or less.

National & Chapter Membership: Membership in the National STMA or in a Chapter is steady across facility type. More respondents, 91.5%, belong to the national association than belong to a chapter, 69.6%. This discrepancy could exist because Chapters are not active in some areas of the country. Chapter membership trails national membership among survey respondents on a regional basis as well.

The survey data is representative of STMA membership and is useful to project the state of the industry, with respect to financial and employment impact. *Sportsturf* reported in a 1994 article an estimated \$1.5 billion financial impact, not including salaries. The projections update that estimate and included employment projections as well as more detailed financial data.

Methodology

Turf managers at Professional, College/University, Other Schools, and Parks & Rec facilities responded to a series of questions about their facilities' budgets, number of acres and fields under management, and labor hours. Their responses were multiplied by a project number of sports turf management facilities across the United States to provide estimates for the entire sports turf industry.

Financial Impact

Ever guess what impact the sports turf industry delivers to the U.S. economy? \$2 billion? \$5 billion? **Try more than \$11 billion annually!** The survey collected budget data from turf managers for personnel, materials, equipment, and all other expenses. *continued* ►

Annual Budget Numbers Projected For US Sports Turf Managers (\$1,000's)

Facility Type	N	Personnel	Material	Equipment	Other	Total
Professional	296	\$ 54,945	\$ 36,838	\$ 14,846	\$ 22,824	\$ 129,454
College/Uni.	2,418	\$ 467,808	\$ 146,313	\$ 76,242	\$ 62,053	\$ 752,416
Other Schools	19,500	\$2,679,924	\$1,175,265	\$ 595,550	\$ 764,186	\$ 5,214,924
Parks & Rec	6,500	\$2,174,315	\$1,107,548	\$ 651,118	\$ 980,096	\$ 4,913,077
All Facilities	28,714	\$5,376,992	\$2,465,964	\$1,337,756	\$1,829,159	\$11,009,871

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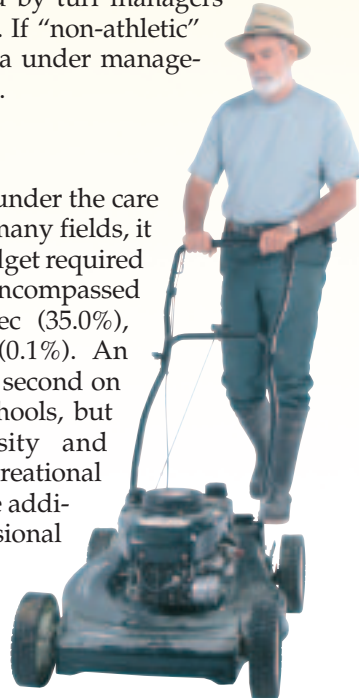
The Other Schools facility type represents the largest impact at \$5.2 billion, followed closely by Parks & Rec at \$4.9 billion.

Managed Acres

Another measure of growth is the projected number of acres under professional sports turf management. An estimated 6,825,758 acres or 10,663 square miles are currently under management in the U.S. This is equivalent to 8.7 times the size of Rhode Island. One fact that jumps out is the "Non-Athletic" acreage - 4,422,807, maintained by turf managers serving Other School and Parks & Rec facilities. If "non-athletic" areas were removed from the equation, the area under management is still three times the size of Rhode Island.

Managed Fields

Also staggering is that nearly 500,000 fields are under the care of professional sports turf managers. With that many fields, it is easy to understand the \$11+ billion annual budget required to maintain top quality. Other Schools facilities encompassed 61.9% of all fields, followed by Parks & Rec (35.0%), College/University (3.0%) and Professional (0.1%). An interesting trend is that soccer fields are first or second on the "to do" list for Parks & Rec and Other Schools, but were lower priorities for College/University and Professional facility types. Is soccer merely a recreational sport or is it a sport in transition that will require additional fields at College/University and Professional facilities? It's a trend to track.



Employment Projections

The STMA survey doesn't predict how many turf managers it takes to screw in a light bulb, but it does help project how many full-time employees are required to maintain America's sports fields. One survey question asked for the "average labor hours per week required to maintain your facility." From the sum of those responses, we were able to project 122,188 employees, at various experience levels, are necessary to "get the job done." New math? Not really. The "Average Weekly Hours" is the sum of weekly hours at each facility within a facility type (e.g. for Professional facility types this was 255 hours). To project the "Total Numbers of Hours," take the "Average Weekly Hours" (255) multiplied by "N" (296), or 75,480. This number is the total hours for 1 week for each Facility Type nationwide.

To annualize that, multiply 75,480 by 50 weeks or 3,774,000, the total number of hours at all Professional Facility Types nationwide. Assuming there are 2,000 hours per annual full-time employee, we divide "Annualized Hours" by 2,000 to arrive at the "Required Number of Employees" (1,887) for U.S. Professional Types.

Projection Summary

28,714 facilities maintain more than 775,124 fields, spend more than \$11 billion annually, and employ 167,737 individuals to nurture 10,663 square miles of area. While these are projected numbers, they are the most accurate estimate of the industry's financial and employment data to date. STMA is in a position to redefine the industry. It's not just about watering and mowing grass! The economics revealed in our survey serve notice that the industry is doing well and will continue to do well as America continues to be a sporting nation. ■



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Cultural Management Solutions For Shade Problems On Turf

*James A. Murphy, Associate Extension Specialist in Turfgrass Management,
Department of Plant Biology and Pathology, New Jersey Agricultural Experiment Station,
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Management solutions for turf problems can involve a number of practices that can typically be grouped into four broad categories including (i) the use of adapted turfgrass species and varieties, (ii) maintenance of soil quality (health), (iii) practice of sound mowing principles, and (iv) judicious use of irrigation. Other approaches can also be adopted in a management plan; however, the effectiveness or cost of these approaches often provides diminishing returns and can limit adoption for many businesses.

Shade Problem

Many cool season turfs perform well with intermittent (partial) shade; however, turf performance can suffer once full exposure to sunlight becomes less than 4 to 5 hours per day. An understanding of the turfgrass species and varieties being grown as well as the specific cultural management techniques being used are necessary to improve turf growth and shoot density in shaded environments.

Species Adaptation to Shade

Fines fescues are the preferred cool season turfgrass species for sites that have intensely shaded environments and not excessively damp. The fine fescues are a group of turfgrass species that include hard fescue, Chewings fescue, and strong creeping red fescue. Many varieties of each species are available. 'Berkshire', 'Minotaur', and 'Chariot' are three of the best performing hard fescue varieties. 'Shadow II', 'Ambassador', and 'Longfellow II' are three varieties of Chewings fescue that typically perform well. 'Cindy Lou' and 'Jasper II' are two of the best performing varieties of strong creeping red fescue.

Tall fescue is a species known for its heat and drought tolerance, but it is often overlooked for its tolerance to

moderate shade. Three of the better varieties of tall fescue include 'Plantation', 'Millennium', and 'Rembrandt'. Kentucky bluegrass is difficult to establish especially in the shade, therefore, sodding will be the most effective method to establish bluegrass in moderate shade. Varieties reputed to tolerate to modest shade include 'Able I', 'America', 'Bristol', 'Eclipse', 'Glade', 'Ram I', '1757', 'Touchdown', and 'Warren's A-34'.

Perennial ryegrass is not adapted to shaded environments. Although perennial ryegrass will emerge rapidly from seed, it will not persist under moderate to intense shading during the summer. Therefore, use of perennial ryegrass in shaded environments will require annual autumn overseeding to maintain some turf cover from the autumn to early spring period.

Establishment in Shade

Late summer or early autumn is the best time to establish or overseed a site. This will provide the new plants with the longest period of direct sunlight (time between leaf fall and initiation of new leaves in the spring). Immediate removal of fallen tree leaves is especially important for good seedling or sod establishment in these locations. Irrigation will be needed during dry autumn weather to ensure that establishment of the new plants occurs before trees initiate new leaves in the spring.

Mowing Principles

The mowing height should be no less than 2 to 2 ½ inches, otherwise the turfgrass plants will not have enough leaf area for photosynthesis (carbohydrate production). Take

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precautions (train personnel) to minimize damage of shaded turf from traffic. For example avoid mowing at high speeds and using aggressive turns that can tear leaves and uproot plants. Recognize that turf growing in a shaded environment will be more susceptible to wear injury because of the greater succulence of tissue in reduce light. Once the turf is damaged, it will be slow to recover from traffic injury because of the low photosynthetic capacity in the shade.

Irrigation Management

Irrigation, if practiced, should apply water deep into the soil and only when needed to avoid keeping the turf canopy from being persistently damp. Irrigation should wet the upper 6 inches of the soil profile. Applying water only when needed will reduce the environmental conditions needed by foliar disease pathogens.

Match the rate of irrigation to the infiltration rate of the soil. This will improve efficiency of irrigation and minimize the time that water is present on leaves. Recognize that light frequent irrigation under trees is more likely than infrequent irrigation to stimulate surface root activity of the trees, and thereby increase root competition with turfgrass plants.

Fertilization

Late summer and early autumn are the most effective scheduling of fertilization because it provides plant

nutrition during the longest period of direct sunlight (leaf fall to initiation of new tree leaves in spring). Avoid excessive nitrogen fertilization, particularly in the spring, because excessive nitrogen will increase carbohydrate depletion as well as plant succulence in the shade. Use deep-root feeding of trees rather than surface fertilization. Surface fertilization of trees is likely to provide too much nitrogen for the turf and it may not be properly timed for the turf. Surface root fertilization of trees is especially undesirable for low nitrogen fertility grasses like fine fescues because it results in over-fertilization of the fine fescue turf.

Modification of the Shaded Environment

The shaded environment can be modified in many situations making it more suitable for turf growth. Pruning of lower limbs, especially for isolated trees, will improve light exposure on the turf under the tree canopy. For large groups of trees, selective removal of limbs in the canopy of trees will allow more diffuse sunlight to reach the turf below. Removal of dense shrub barriers may be useful in some cases. This will allow better circulation of air and drying of leaf surfaces of plants in the understory of trees. Drier leaves may reduce severity of foliar diseases on understory plants. Pruning of shallow tree roots may be needed in cases where elimination of tree root competition will allow shallower rooted plants to grow more vigorously without added inputs. ■

***It's that time of year! Here are some helpful hints
for crabgrass control from Brad Park, Rutgers University***

Crabgrass Control Strategies For Sports Fields

By Brad Park, Rutgers University, park@aesop.rutgers.edu

Reprinted From Sports Field Managers Association Update, March/April 2004, Vol. 4, No.2

***“Crabgrass can grow on bowling balls in airless rooms,
and there is no known way to kill it that does not
involve nuclear weapons” – Dave Barry, Miami Herald***

With spring soon to arrive, it is an important time to begin thinking about options for controlling crabgrass. If a significant soil seed bank exists and there are voids in the turfgrass stand which minimize competitive benefits of the turf, as a summer annual, crabgrass will germinate profusely in the spring, mature throughout the summer months, and die in early fall at the first killing frost leaving dead “skeletons” throughout the landscape.

Crabgrass seed will typically begin germinating after April 10 in South Jersey and by April 20 in Central and North Jersey. Crabgrass will continue to germinate through mid-July.

Integrated Pest Management (IPM)

Recall that IPM attempts to reduce the risk that pest control strategies may have on the environment and people by incorporating all suitable techniques to maintain pests within acceptable limits. Although it is a common misconception, IPM *does not* entail the elimination of pesticide use.

continued ➤

Simply mowing at a cutting height suitable for the specific turfgrass species or mowing at a frequency such that scalping is avoided can constitute IPM. Improper mowing techniques leading to scalped turf will thin-out turfgrass areas, lead to voids in the stand, and subsequently provide opportunities for crabgrass to encroach. IPM also entails proper fertilization. Under-fertilizing turfgrass will often result in a weak stand, poor turf density, and an environment in which crabgrass can readily invade. Yearly nitrogen requirements per 1000 ft² for cool season turfgrasses used on New Jersey sports fields are: Kentucky bluegrass, 2-5 lbs; perennial ryegrass, 3-5 lbs; tall fescue, 2-4 lbs. High-use sports fields often necessitate the high-end of these nitrogen fertilization guidelines in order to encourage turfgrass recovery from traffic.

Preemergence Herbicides: Are They An Option?

For sports field managers whose cultural program includes spring overseeding of his or her fields, applying most preemergence herbicide products at the time seeding will not only deter crabgrass emergency, it will also inhibit establishment of cool season turf. Products such as pendimethalin (Pendulum or Pre-M), benefin + trifluralin (Team), prodiamine (Barricade), oxadiazon (Ronstar), and dithiopyr (Dimension) are not viable options for preemergence crabgrass control if overseeding is a part of the manager's spring program. Depending on the product and the application rate, the residual of these products is such that the seeding of desired cool season turfgrasses may not begin for 2 to 6 months following the application of the herbicide. Additionally, these products may not be used in newly seeded turf as young turfgrass seedlings are highly susceptible to the phytotoxic effects of these herbicides.

Siduron

Siduron (Tupersan) is a herbicide that is labeled for preemergence crabgrass control in newly seeded Kentucky bluegrass, tall fescue, and perennial ryegrass. Tupersan is formulated as a wettable powder and should be applied in the spring to coincide with maximum crabgrass germination. The label calls for either a single application of product at 4.0-12.0 lbs/acre or sequential applications at 6.0-12.0 lbs/acre followed by a 4.0-6.0 lbs/acre application 4 weeks later.

Postemergence Herbicides

In order to use the chemical tools available to selectively treat crabgrass postemergence, the sports field manager must be able to accurately identify crabgrass at various seedling stages. Large crabgrass seedlings are characterized by upright growth and leaves that are rolled in the bud, lack auricles, and have a jagged membranous ligule. Large crabgrass leaf blades and sheaths are covered with stiff hairs. Smooth crabgrass is similar to large crabgrass, however it has fewer hairs on its leaf blades and sheaths.

Quinclorac & Fenoxaprop

Quinclorac (Drive) and fenoxaprop (Acclaim Extra) are labeled for the selective postemergence control of crabgrass in perennial ryegrass, Kentucky bluegrass, and tall fescue. Quinclorac is effective in controlling young, un-tillered crabgrass seedlings and may be applied up to 0.75 lbs/acre (1.0 lb drive/acre). To increase the efficacy of weed control, the label recommends applying quinclorac with an oil-based adjuvant such crop oil concentrate or methylated seed oil.

Quinclorac may be applied up to 7 days prior to the seeding of tall fescue, Kentucky bluegrass, and perennial ryegrass, at the time of seeding for perennial ryegrass and tall fescue, 7 and 14 days after the emergence of tall fescue, and 1 month after the emergence of Kentucky bluegrass, perennial ryegrass and tall fescue. The label notes that adjuvants should not be added to quinclorac applications to newly seeded turf prior to 28 days after seedling emergence.

Fenoxaprop may be applied at rates ranging from 0.016-0.17 lbs/A (3.5-39.0 fl. oz Acclaim/A) depending on the stage of crabgrass growth and established turfgrass species. For example, 4-5 tiller crabgrass may be treated with fenoxaprop at 0.17 lbs/A (39.0 fl oz Acclaim Extra/Acre) in perennial ryegrass and tall fescue whereas no more than 0.12 lbs of fenoxaprop (28.0 fl oz Acclaim Extra/Acre) may be applied to 3-4 tiller crabgrass in Kentucky bluegrass turf.

Following applications of fenoxaprop, tall fescue and perennial ryegrass may be seeded immediately. Following germination of tall fescue and perennial ryegrass, fenoxaprop should not be applied until seedlings have matured for 1 month. Of the cool season turfgrasses used on sports fields in New Jersey, Kentucky bluegrass is the most susceptible to phytotoxic effects associated with fenoxaprop. For example, when utilizing fenoxaprop rates greater than 0.04 lbs/A (9.0 fl oz Acclaim Extra/A), Kentucky bluegrass seedlings must be at least 3 growing months old before fenoxaprop can be applied. Additionally, 21 waiting days should be allowed following the application of fenoxaprop prior to seeding Kentucky bluegrass.

Due to the complexity of Drive and Acclaim Extra labeling with respect to crabgrass growth stage susceptibility, individual turfgrass species herbicide tolerances, and turfgrass seeding timings, pesticide labels *must* be thoroughly read and understood prior to the application of these materials.

Literature Cited

Hart, S. 2000. Crabgrass and goosegrass control in cool season turfgrass. Rutgers Coop. Ext., NJ Ag. Exp. Stn., E244. ■

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ARBORICULTURE
Contact: John Perry, 732-833-0500</p> <p><i>Arboriculture I –
Basic Tree Climbing Course
Jackson, NJ</i></p> | August 11 | <p>NJLCA GOLF CLASSIC
Contact: 201-703-3600</p> <p><i>Farmstead Country Club
Lafayette, NJ</i></p> |
| May 10 | <p>RUTGERS TURFGRASS RESEARCH
GOLF CLASSIC
Contact: Dick Caton, 856-853-5973</p> <p><i>Blue Heron Pines Golf Club
Cologne, NJ</i></p> | October 29 - 31 | <p>NJ SHADE TREE FOUNDATION
Contact: Bill Porter, 732-246-3120</p> <p><i>79th Annual Meeting
Cherry Hill, NJ</i></p> |
| July 26 - 27 | <p>PLCAA – PROFESSIONAL LAWN
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www.plcaa.org</p> <p><i>Legislative Day On The Hill
Washington, DC</i></p> | November 3 - 5 | <p>GOLF COURSE
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Contact: 1-866-GCSANJ1</p> <p><i>First Annual Three Day Seminar &
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Crystal Springs Golf Resort
Sussex County; Hamburg, New Jersey</i></p> |
| July 28
July 29 | <p>RUTGERS TURFGRASS
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732-932-9400</p> <p><i>Lawn & Landscape Section – Adelphia
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Contact: 1-888-303-3685
www.gieonline.com</p> <p><i>Charlotte Convention Center
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| July 27 - 30 | <p>TURFGRASS PRODUCERS
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