

# The Dell Diamond Maintenance Program

## Fertilization (Granular)

- ▶ 0-0-21 Monthly applications
- ▶ 6-2-0 (organic) November and January applications
- ▶ 13-0-46 Various applications April-September
- ▶ 21-0-0 (Ammonium Sulfate) Various applications April-September
- ▶ 24-6-12 Two applications for cool season grass

## Fertilization (Spray)

- ▶ 6-0-0 with 9 % iron Monthly applications
- ▶ 20-20-20 Various applications March-September; foliar spoon feeding
- ▶ 13-0-46 Various applications March-September; foliar spoon feeding
- ▶ Humic acid Bi-monthly applications

## Fungicide

- ▶ Preventative applications of targeted materials March, April and May
- ▶ Curative only as required following best IPM methods

## Insecticide

- ▶ Fire Ant Control, applications as required follow-

ing best IPM methods

- ▶ Grub and Cut Worm control, applications as required following best IPM methods

## Wetting Agent

- ▶ Applications monthly, May-September

## Mowing

- ▶ Reel triplex, walk-behind triplex used when time allows
- ▶ Height of cut varies from 3/4-inch in late fall to early spring to 1/2-inch during the bermudagrass growing season

## Verticut

- ▶ As necessary to tighten bermudagrass turf by cutting runners and controlling grain
- ▶ To prepare seedbed for perennial ryegrass
- ▶ To help transition out perennial ryegrass

## Aerification

- ▶ Solid tines during active play periods
- ▶ Hollow tines during slower periods when suffi-

cient recovery time available

- ▶ Pivoting, shattering aeration to relieve compaction after extreme events

## Topdressing

- ▶ Sand applications at various rates throughout the year

**Infield Drags pulled behind infield groomer unless otherwise noted**

## Nail drags

- ▶ Self-constructed 6 x 4-ft.
- ▶ Self-constructed 2 x 3-ft., used for cutouts and edges

## Screen drags

- ▶ 4 x 6-ft. drag with level board attached; used for infield
- ▶ 2 x 6-ft. drag (5) pulled by hand; used for fifth inning drag during play

## Miscellaneous

- ▶ Spinning edger; used weekly to edge
- ▶ Curved shaft weed trimmer; used to clean up what spinning edger leaves

# FOLLOW THE AIRFIELD™ AIRSHIP TO THE LEADERS IN SPORTS TURF TECHNOLOGY



The Airfield™ Sports Turf System is the first natural turf system to offer a drainage technology that doesn't rely on the French drain, developed in the times of the Roman Empire. Airfield™ suspends the entire playing surface over a one inch layer of air. Once the water has moved through the root-zone it drains away easily in the open air void.

Airfield™ produces substantially higher drainage rates and reduces irrigation requirements when compared to conventional methods – with savings as high as 20 percent of the total cost of construction. Financing available.

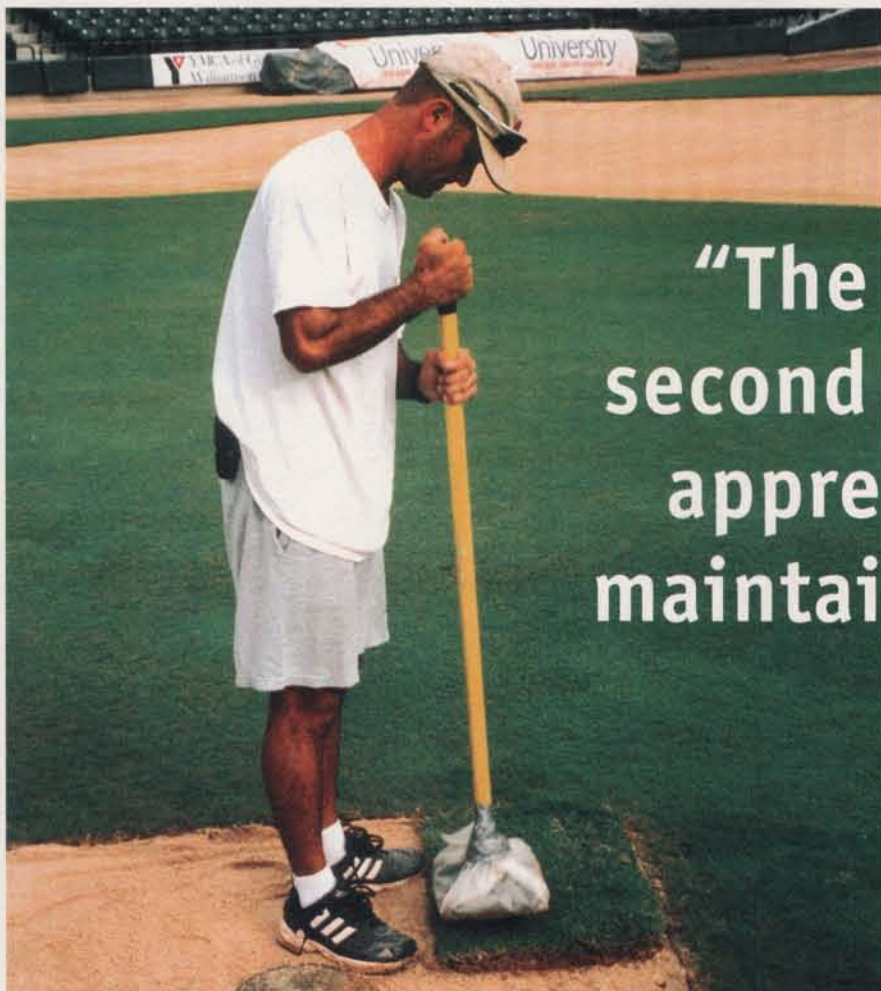
## GEOTURF

GEOTURF, LLC

888-287-9657

[www.geoturfairfield.com](http://www.geoturfairfield.com)

Circle 104 on Inquiry Card



**"The playing surface is second to none and we truly appreciate the way it is maintained and cared for."**

share tips and ideas and we love to incorporate them to improve our program. If I don't know something, I want to make sure I have the phone number of the guy that does have the answer. For example, working for Tom Burns of the Texas Rangers gave me some great background on sand-based fields. Dr. Jim McAfee is a super source of advice. Leo Goertz and Craig Potts of Texas A & M brought their student

interns and their equipment to tackle the field painting for the All-Star game."

In 2001, the overseeding strategy was the first order of business. Transist, an intermediate perennial ryegrass, was selected primarily for its record of early exit once the heat hits. The crew overseeded in February, rather than the more traditional October, anticipating that 4 months less maturity would ease the transition out. They used a light rate of 7 lbs. per thousand sq. ft. The rye was up and doing well for college play in March. April and May were the target months for the transition out.

Klein says, "After the first regular season Express home stand, we started the process. As temperatures reached 80 degrees, we began vertical mowing every 2 weeks, setting the units at ground level to steadily eliminate rye and stimulate some early bermudagrass growth. We lowered the mowing height of cut from March's 3/4-in. to 1/2-in. by mid-April to provide maximum exposure to warmth for the Bermuda. Our winter fertilizations of potassium had provided well for the Bermuda. We began applying Ammonium Sulfate at the rate of 1-1/2-lbs. per thousand sq. ft. in late April and mid-May to push a surge of ryegrass growth. With the lower height of cut we hoped to cut off part of the rising crown on the rye, thus eliminating more of the competition. The last week of May, we aerated with a pivoting, shattering aerator. We also topdressed with 40 tons of sand, using the very heavy rate to fill the 3/4-in. aerification holes and modify the soil profile. Entering June, the field was at about 90 percent bermudagrass."

With heavier early season play in 2002, Klein opted for early November overseeding in 2001, but anticipates a similar transition out process.

To ease turf stress in the summer months, the crew mows in two directions one day, in one direction the next. Klein notes there's also a point to determine the turf won't snap back, so stop fighting and replace it.

Trade-offs are needed when hosting so many games. The high school teams take no infield and hit in the indoor batting cages. The college teams take their infield, but hit in the indoor batting cages. When the high school and college teams warm up in the outfield, they are moved a bit further out, to avoid hitting the same spots used by the pros. The compromises allow more games with a little less concentrated on-field activity.

**Kudos to Klein and crew**

"The Houston Astros congratulate Dennis Klein and his staff, not only for this award, but also for the tremendous playing surface he has available for our players on a daily basis at The Dell Diamond," said Astros assistant general manager Tim Purpura. "The playing surface is second to none and we truly appreciate the way it is maintained and cared for."

"We put a tremendous amount of pressure on Dennis Klein with the numerous events we have," said Express general manager Jay Miller. "It's not uncommon to see Dennis on the field at 6:00 am on a Sunday, even when the team is out of town. That's why the field looks the way it does."

Klein earned the Texas League's Groundskeeper of the Year Award in 2000, The Dell Diamond's inaugural season.

**ST**

**Athletic Field Construction and Renovation**



Tiftway Sports specializes in athletic field construction and renovation. Over 12 years of experience in sports turf. Call for your free field evaluation 800-841-6645.



**Tiftway Sports, Inc.**  
P.O. Box 9  
Ashburn, GA 31714  
229-567-2380  
Fax 229-386-1207

Circle 117 on Inquiry Card

# Balanced Chain Methylene Urea is a top fertilizer performer

(the key is in the balance)



## proper feeding

BCMU<sup>®</sup> helps plant tissues come as close as possible to utilizing and storing the optimum level of nitrogen, maintaining adequate growth and proper root and shoot development which produces turf that is much better able to resist environmental stresses.

## no surge growth

The longer chains in BCMU<sup>®</sup> slow down the growth enough to avoid unwanted surges, reducing clippings and the need to mow more often than desired. This reduced maintenance requirement translates into labor and equipment savings for the turf manager.

## color that lasts

BCMU<sup>®</sup> provides quick greenup with enough longevity to carry the rich, deep green color up to 18 weeks, much longer than lower-end methylene ureas and coated technologies. Visual quality will remain when other fertilizers begin to fade.

## safe & reliable

The precise and steady release of BCMU<sup>®</sup> gives turf managers consistent results with any application rate or interval while building a solid nitrogen base. Its low salt index with almost non-existent burn potential make it the safe choice as well.

When you consider all the important features and benefits of a nitrogen source, no other competitor compares to BCMU<sup>®</sup>. Its unique balance of short, intermediate and long methylene urea chains creates a product that is the best of all worlds and an outstanding value.

Combine that with the efficiency of Meth-Ex<sup>®</sup> technology and you have a nitrogen source that stands alone. BCMU with Meth-Ex technology has a high nitrogen activity index, which means that more nutrients are available when the plant requires them while "banking" some for later use.

BCMU<sup>™</sup> is found only in UHS Signature Brand Fertilizers and have been tested and used with outstanding results for years. Find out why the best fertilization program should be an easy balancing act for the smart turf manager.



For more information, contact your local UHS representative  
[www.uhsonline.com](http://www.uhsonline.com)



® BCMU is a registered trademark of United Horticultural Supply

**Circle 105 on Inquiry Card**

® Meth-Ex is a registered trademark of Lebanon Seaboard Corporation

# Turf managers lead an \$11 billion industry

BY RICH KING

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. In Figure 1, the blue line reflects the percentage of the total mailed surveys by Facility Type and the pink line marks the percent returned. That the two lines track together is clear indication that no membership category is over- or under-sampled. Since this analysis draws conclusions for the entire membership, balanced sampling is required. Based on Figure 1, we are confident that the conclusions are valid.

## Member satisfaction

The Satisfaction Chart, Figure 2, is based on responses regarding the level of satisfaction with several of STMA’s key membership services. The response options in the survey were “very satisfied,” “satisfied,” “neutral,” “dissatisfied,” and “very dissatisfied.”

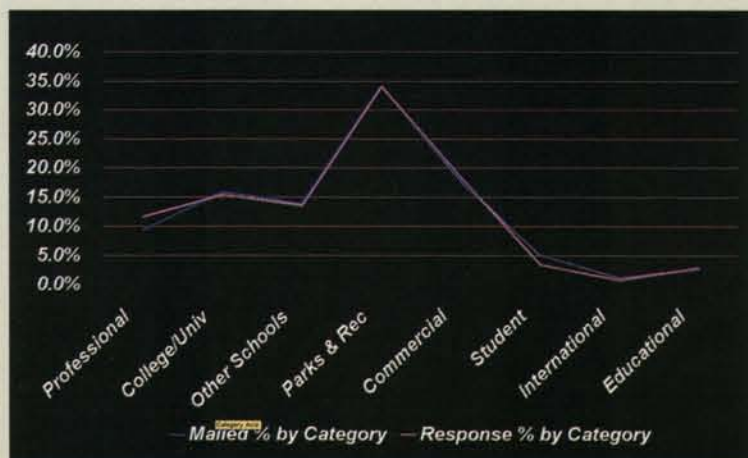


Figure 1 (Survey Breakdown by Category)

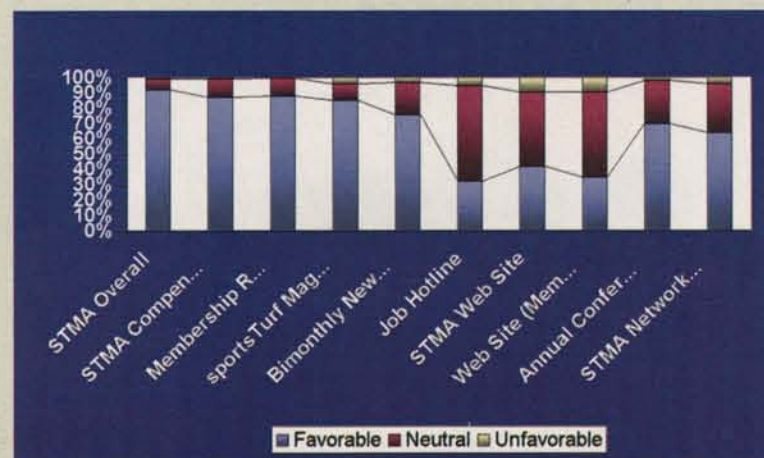


Figure 2 (STMA Satisfaction Chart)

For the ease of presentation, the “very satisfied” and “satisfied” ratings are combined into a favorable category and “very dissatisfied” and “dissatisfied” are combined into an unfavorable category. The chart measures the degree to which STMA members are “happy with the product.”

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, Members, 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.

The next four categories, from left to right, on the Satisfaction Chart received high marks and few low marks. Leading the way is the 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 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 remaining categories fall into the “Try it, you’ll like” group. These are STMA services that members generally like after trying them. For example, 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 area where there is room for improvement. It is a communication tool within the membership and to the general public. Many of you may know that the website underwent a major overhaul in October 2001. To see the new and improved website, visit [www.sportsturfmanager.com](http://www.sportsturfmanager.com).

The Annual Conference is another example of “try it, you’ll like it.” Figure 2 shows that 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 deci-



## FINALLY, A WAY TO ANNIHILATE WEEDS WITHOUT SPRAYING.

### ANNOUNCING GRANULAR CONFRONT FOR SPOT TREATMENTS. AND CONFRONT WITH TEAM.



GOLF



SPORTSTURF

Confront is a remarkable granular postemergent broadleaf herbicide — remarkable because it actually works. Better yet, it works in either wet or dry conditions. Available on fertilizer or as a granular weed control. We’ve even formulated it with Team. So it’s like getting a tank mix in a bag. A one step broadleaf and Crabgrass control. Proscape offers the only granular Confront on the market, which makes it the perfect protection for keeping turf weed-free and beautiful. And we think that’s pretty big news. For more information, contact your Lebanon distributor or call 1-800-233-0628. Or visit our website at [www.lebturf.com](http://www.lebturf.com).



To receive a FREE copy of our Broadleaf Weed Control Booklet, simply go to [www.lebturf.com/offers](http://www.lebturf.com/offers) and fill out the online request form. Coupon Code: ST0299



**Lebanon**  
TURF PRODUCTS

Our reputation is growing yours.™

Circle 106 on Inquiry Card

**Conference Attendance by Income Level**

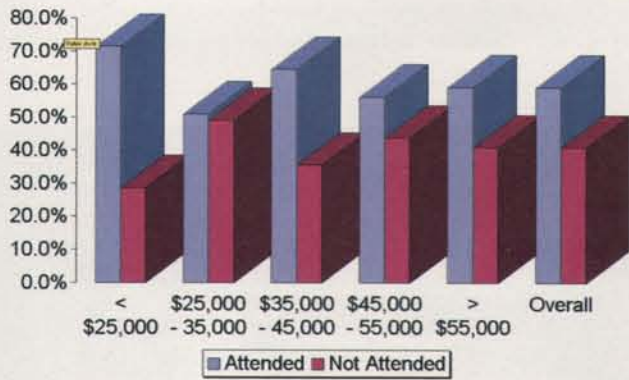


Figure 3 (Conference Attendance by Income Level)

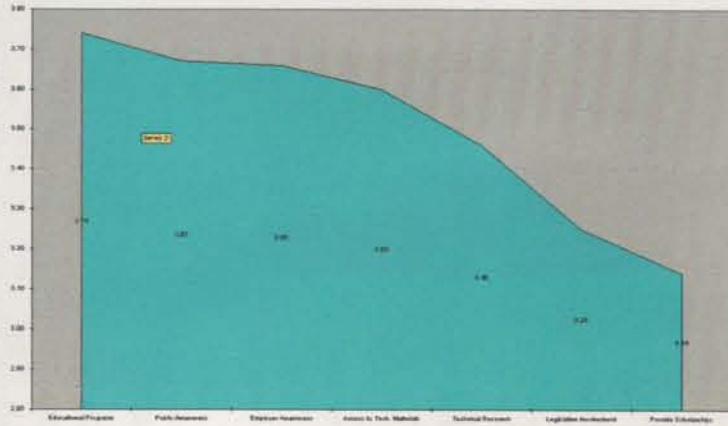


Figure 4 (Where should STMA focus Resources?)

Years of Exp.	Parks & Rec	College/Univ	Other School	Professional
1-3 years	10.6%	7.5%	0.0%	12.8%
4-6 years	20.4%	20.8%	16.3%	20.5%
7-11 years	11.5%	22.6%	20.4%	20.6%
12-16 years	23.0%	15.1%	24.5%	12.8%
17+ years	34.5%	34.0%	38.8%	33.3%

Figure 5

	Parks & Rec	Other Schools	College /Univ.	Professional
< \$25,000	3.6%	9.3%	3.8%	13.9%
\$25 - 35,000	18.8%	30.2%	20.8%	16.7%
\$35 - 45,000	30.4%	23.3%	41.5%	22.2%
\$45 - 55,000	25.9%	25.6%	22.6%	16.7%
\$55 - 65,000	14.3%	11.6%	9.4%	8.3%
\$65 - 75,000	3.6%	0.0%	0.0%	16.7%
\$75 - 85,000	3.6%	0.0%	0.0%	0.0%
> \$85,000	0.0%	0.0%	1.9%	5.6%

Figure 5

Education Levels	Parks & Rec	Other Schools	College /Univ.	Professional	Total
H.S. or GED	5.5%	10.0%	5.3%	4.5%	6.1%
Some College	21.1%	38.0%	19.3%	29.6%	25.1%
Assoc. Degree	18.0%	16.0%	21.1%	13.6%	17.6%
BS Degree	44.5%	30.0%	45.6%	50.0%	43.0%
Master's	10.9%	6.0%	8.7%	2.3%	8.2%
Doctorate	0.0%	0.0%	0.0%	0.0%	0.0%

Figure 6

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/University	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 Facility Types	28,714	\$5,376,992	\$2,465,964	\$1,337,756	\$1,829,159	\$11,009,871

Figure 9

Projected Number of Acres by Facility Type for US Sports Turf Managers

Facility Type	**N	Softball	Baseball	Football	Soccer	Other	Multi-Use	Non-Ath	Type Total
Professional	296	24	1,316	1,102	99	1,710	469	740	5,459
College/University	2,418	4,745	6,342	12,501	9,490	6,250	11,862	154,022	205,211
Other Schools	19,500	104,000	153,214	143,929	128,607	151,821	1,016,786	3,017,857	4,716,214
Parks & Rec.	6,500	114,813	102,813	35,750	163,500	99,563	133,250	1,250,188	1,899,875
All Facility Types	28,714	223,581	263,684	193,281	301,695	259,344	1,162,366	4,422,807	6,826,758

Figure 10

Projected Number of Fields by Facility Type for US Sports Turf Managers

Facility Type	N	Softball	Baseball	Football	Soccer	Other	Multi-Use	Non-Ath	Type Total
Professional	296	16	343	358	70	203	55	8	1,052
College/University	2,418	2,591	2,245	5,268	4,059	2,677	3,282	3,023	23,144
Other Schools	19,500	79,990	72,827	75,612	79,990	33,827	109,837	27,459	479,541
Parks & Rec.	6,500	74,256	48,412	13,312	65,312	42,016	17,264	10,816	271,388
All Facility Types	28,714	156,852	123,827	94,550	149,431	78,722	130,437	41,305	775,124

Figure 11

Projected Required Number of Employees by Facility Type For US Sports Turf Managers

Facility Type	**N	Total Number of Hours	Average Weekly Hours	Annualized Hours	Required Number of Employees
Professional	296	75,480	255	3,774,000	1,887
College/University	3,300	997,700	302	36,552,100	18,276
Other Schools	7,700	1,362,900	177	172,575,000	86,288
Parks & Rec.	6,500	2,451,444	377	122,572,177	61,286
All Facility Types	17,796	4,887,524	1,111	335,473,277	167,737

Figure 12



sion to attend. Common thinking would indicate that "you must have dough to go" to the conference. Our findings show that all income levels are equally represented at the conference. See Figure 3.

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 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 affirmatively 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.

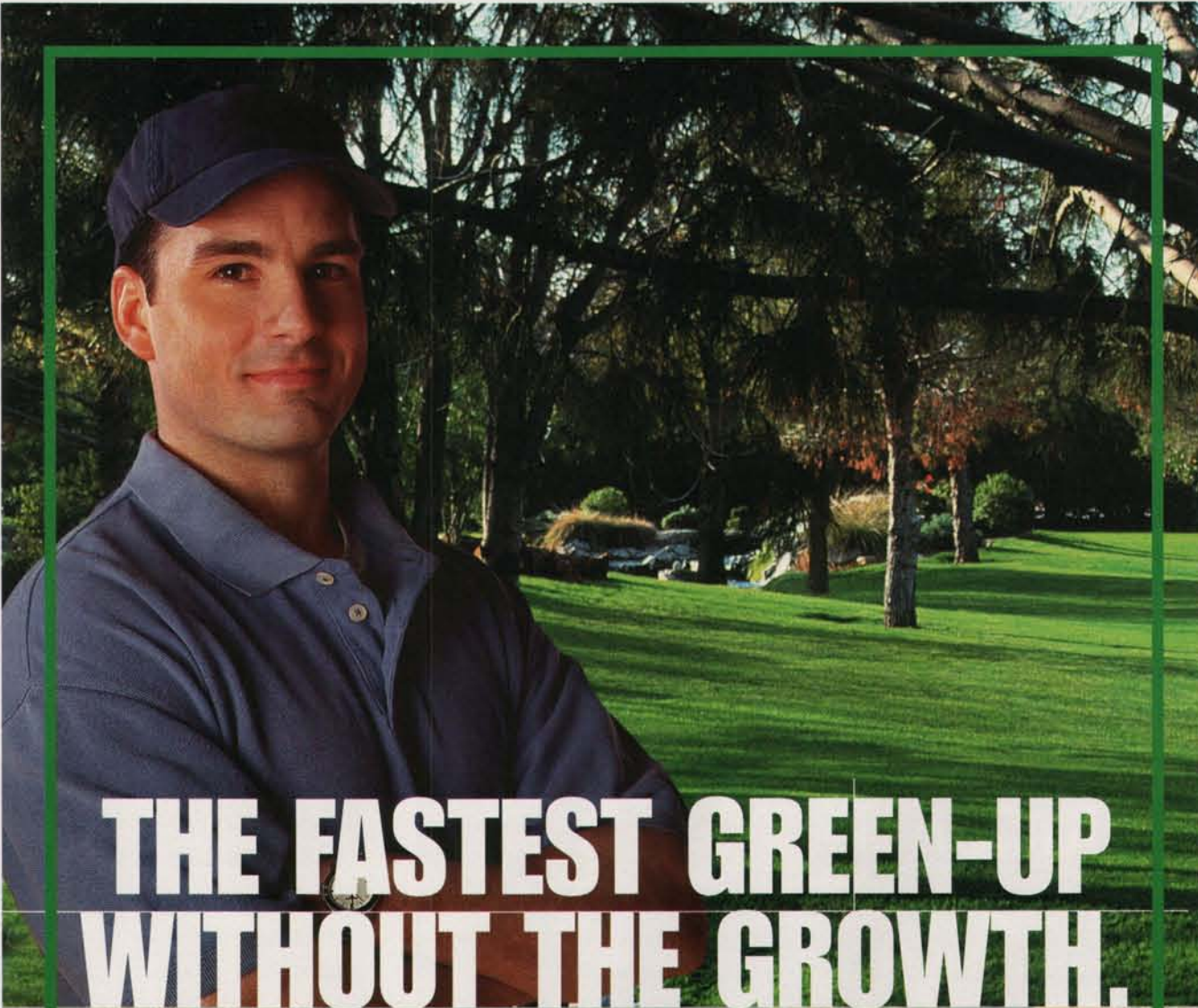
### STMA initiatives

Survey respondents were asked to rate the importance of several STMA initiatives. The range of answers included "very important," "somewhat important," "little importance," and "not needed." Four points were assigned to items rated very important, three for somewhat important, two for little importance, and one for not needed. Figure 4 shows the aver-

age score for each initiative. Based on the respondents' priorities, STMA should focus on educational programs and making the public and employers aware of the importance of the sports turf manager.


### Who are we?

**Experience.** STMA turf managers are very experienced. The average number of




# THE FASTEST GREEN-UP WITHOUT THE GROWTH.


**EXCEPT FOR YOUR REPUTATION, THAT IS.**



Your turf is your reputation and when it looks good, you look good. Now with PERK® from Lebanon Turf Products, you can keep your turf looking its best all the time. PERK delivers instant green without stimulating unwanted growth. Here's how it works: PERK releases a burst of iron which turns the treated turf green almost before your eyes. Then, the controlled-release iron humates and fulvates kick in to maintain the turf's green luster. Give PERK a try and you'll see it's the perfect product to keep your turf and reputation at their best. For more information, contact your Lebanon Distributor or call 1-800-233-0628. Or visit our website at [www.lebturf.com](http://www.lebturf.com).



To receive a FREE copy of an article on Humic Substances, simply go to [www.lebturf.com/offers](http://www.lebturf.com/offers) and fill out the online request form. Coupon Code: ST2232



**Lebanon**  
TURF PRODUCTS  
Our reputation is growing yours.™

Circle 107 on Inquiry Card



**Education.** Figure 6 exhibits the breakdown of education levels by Facility Type. Education levels in "Other Schools" are lower than other Facility Types, where only 36% have a BS Degree of 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 and 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. Figure 7 shows how 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 include 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 projected number of sports turf management facilities across the United

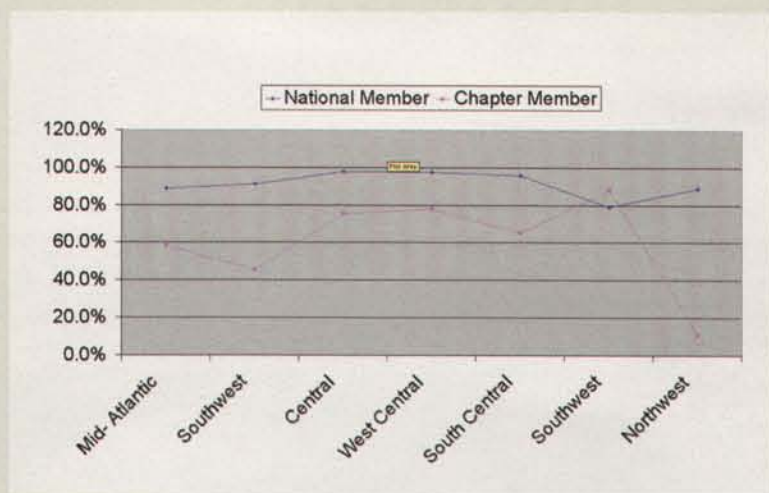


Figure 7 (Membership by Region)

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. This experience trend is evident for all Facility Types, as shown by Figure 5.

**Salary ranges.** Salary ranges are consistent across Facility Types. 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 (see Figure 5).

## Your total maintenance solution

### Highlander SPORT® mini utility truck



The Broyhill **Highlander SPORT®** gives you fast, comfortable performance plus ultimate versatility. Mid- and rear-hydraulic lifts accept ballfield finisher, spiker/roller, sprayers, vacs, line markers and more. Operators enjoy the ergonomic design, easy-reach wraparound cargo box, and 16-hp, 3-wheel zero-turn drive.

**Fastliner line-marking system** (shown on the Highlander SPORT®) is ideal for ballfields and parking lots. Non-clog system paints evenly at up to 15 mph.

**Fastliner paint concentrate** creates rain-resistant, brilliant white lines even on poor surfaces. Paint stays suspended up to 14 days in the Fastliner system.

For product details or dealer information:  
**1-800-228-1003**  
**www.broyhill.com**



Making you look good.

Circle 108 on Inquiry Card

## Issues to be addressed

**BASED ON THE SURVEY RESPONSES** STMA will be addressing the following issues:

**Website development**, including expanding the content, improving navigation, providing educational content and/or links to content providers, defining and implementing processes to keep content current, and increase Web traffic.

**Job Hotline.** Include on Website and upgrade telephone recording to voice message.

**Chapter development**, including expanding educational offerings at Chapter level, encouraging all members to get involved, and establishing new Chapters to reach every state.

**Public Relations.** Educating the public using "STMA—Who Are We?" data and initiating a media campaign to extol the benefits of professional sport turf management.

**Career development**, including striving to increase the pay ranges for sports turf managers and working to improve existing education.

Several of these recommendations have been identified in the STMA Strategic Plan. In many cases, efforts, as identified, are under way to improve the services STMA provides its members.