

THE VOICE OF THE GREEN INDUSTRY

# LANDSCAPE

*management*

OCTOBER 1997 • \$4

THE VOICE OF THE GREEN INDUSTRY  
**LANDSCAPE**  
*management*

# 35<sup>th</sup>

## Anniversary Issue!

PAGES OF PROGRESS:  
the green industry makes history!

# CRABGRASS

## TAKE CONTROL WITH PENDIMETHALIN.

CRABGRASS CONTROL			
PRODUCT	Rate (lb ai/A)	% Control	
		97 DAT	129 DAT
PENDIMETHALIN 60WDG	3.0	97	97
PENDIMETHALIN 60WDG	1.5+1.5	98	98
BARRICADE 65WG*	0.75	100	100
DIMENSION 1EC*	0.5	99	99
TEAM .87 FG*	1.5+1.5	88	82

Ohio State University 1996

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CRABGRASS CONTROL			
PRODUCT	Rate (lb ai/A)	% Control	
		84 DAT	154 DAT
PENDIMETHALIN 60WDG	3.0	100	93
PENDIMETHALIN 60WDG	1.5+1.5	100	99
BARRICADE 65WG*	0.75	100	95
DIMENSION 1EC*	0.5	100	86
RONSTAR 2G*	2+2	97	24

Virginia Polytechnic Institute & State University 1996

# PENDIMETHALIN



# CRABGRASS?

contact with the germinating weed seed, it disrupts the seed's biochemical processes, which makes the weed seed stop growing—and start dying—before emerging.

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CRABGRASS CONTROL		
PRODUCT	Rate	% Control 120 DAT
PENDIMETHALIN 60WDG	1.5	97
BARRICADE 65WG*	.48	92
DIMENSION 1EC*	.38	95
RONSTAR 2G*	3	92

*Penn State University 1996*

alone, or in combination with fertilizer products. Or you can use the sprayable formulations, available as a 3.3 EC, 60 WDG and 60WP.

No wonder professional turf managers have made Pendimethalin the #1 preemergent herbicide.

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# PENDIMETHALIN.

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INSIDE

35<sup>th</sup>  
ANNIVERSARY

ON THE COVER: OUR 420 BACK ISSUES ARE REPRESENTED IN ONE BIG STACK, AS WE GIVE YOU A HISTORY OF THE GREEN INDUSTRY, IN THIS OUR 35TH YEAR. COVER PHOTO BY JERRY MANN.

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THE VOICE OF THE GREEN INDUSTRY

# LANDSCAPE management

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*DR. ELIOT C. ROBERTS*

## [TIMELINE]

1962  
1972  
1974  
1977  
1981  
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**I**t is an honor to present this 35th Anniversary Issue to our many loyal and satisfied readers.

For the past 35 years, Green Industry professionals have walked a path of progress, and along the way have reached many milestones of achievement and growth.

As we began to review that history, we found that the people in the forefront of those developments were determined, well-focused in their efforts, and fully aware of the potential for the industry to grow.

It's very likely what they felt during the initial days of the automobile or fast-food industries.

Opportunity, discovery, new ideas; a vast wilderness just waiting to be charted and peopled.

The changes were gradual, both in the way the industry did its thing and the way this magazine presented news and feature stories. Agricultural techniques and products were modified and applied to the growing specialty market. Science picked up speed as the years went by, and

galloped into the 80s with growth regulators and vastly improved control products to replace some of the much-besieged old standby products.

Associations such as ALCA and PLCAA were formed to serve the educational/professional needs of service providers, and as a bonus perk, manufacturers were directed to a target audience for products. Publishing advancements gave WEEDS TREES & TURF, spin-off pub Lawn Care Industry and Landscape Management more verve and splash. (Finally, turfgrass photos in living color!)

We're thankful for the chance to have been

there for our readers and advertisers the whole way. From the first

days of WEEDS, TREES & TURF, our mission has been to give you a combination of useful information, current news and technical articles that will help you run your business, golf course operation or athletic field crew better, safer, more efficient and more profitably.

We thank the following people who helped us fill this issue: Dr. Arden Baltensperger, Seeds West; Dr. Joseph Beditz, NGF; John B. Calsin, Jr.; The John Deere Co.; Doug Fender, TPI; Paul Fullmer, ASGCA; John Gillan, PGMS; James E. Guyette; Mike Heitman, Kubota Tractor Corporation; Dr. Michael Hurdzan; Allen James, RISE; Dr. Bill Knoop; Dr. Kent Kurtz, Cal Poly Pomona; Don Maske, AgrEvo Environmental Health; Eugene Mayer, O.M. Scotts; Paul McGinnis, GCSAA; Dr. Harry Niemczyk, OSU; Dr. Eliot Roberts; Tony Saiia, Jacobsen; Joe Santangelo, Bunton; Jim Snow, USGA; Dick Tegtmeyer, Encore; Ruth Thaler-Carter; Steve and Suz Trusty, STMA; Polly Wade, Davey Tree Expert Co.; Dr. Coleman Ward, Auburn University; Karen Weber, PLCAA; Bruce Wilson, ECI.

I thank our publisher, John Payne; managing editor Ron Hall; and graphics designer Lisa Bodnar, for their support and award-winning contributions to this issue, and this editorial year.

Thanks to all in the Green Industry who have given us the people, events and products, the problems and solutions to report about for these 35 years. To our past editors—James Nelson (who also started the magazine); Charles Webb; Arthur Edwards; Gene Inglesby; James Sample; Donald Miller; Gail Hogan; Bruce Shank; and Jerry Roche—and their respective editorial staffs, a very big 'thank you' for the obvious editorial integrity upheld during their tenures. **LM**

## LANDSCAPE MANAGEMENT

**LM: name change reflects overall appeal.**

## History worth repeating



*Terry McIver*

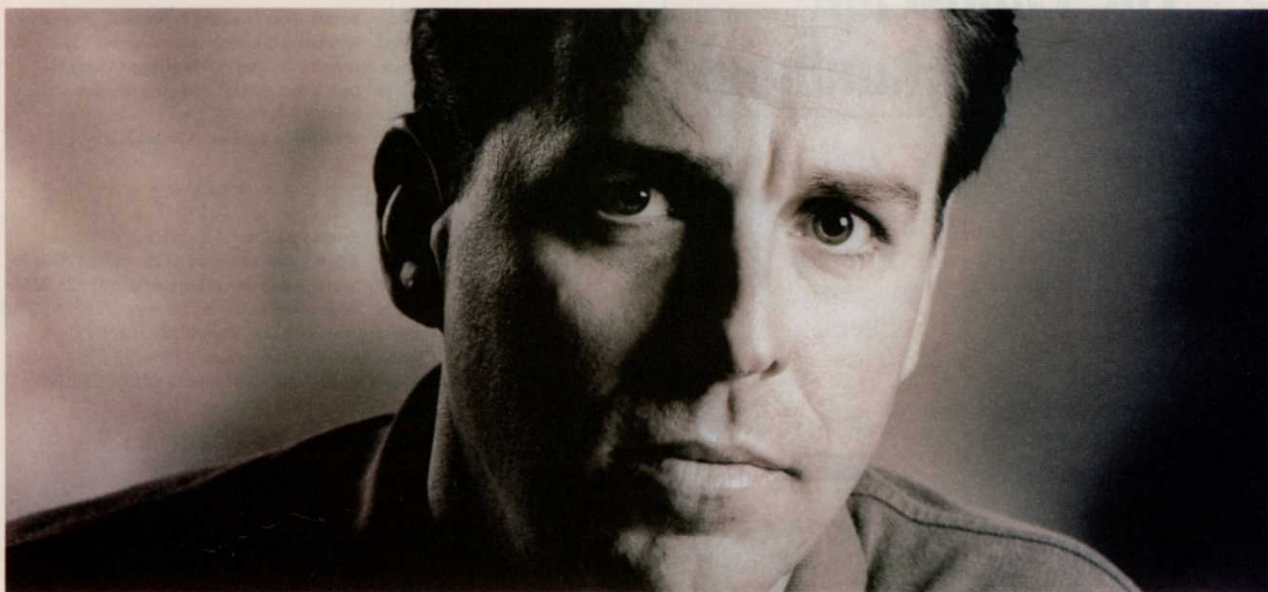
**TERRY MCIVER**  
Editor-in-Chief

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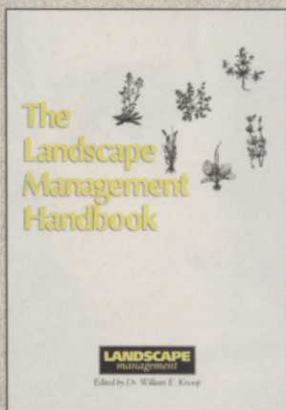


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### EDITORIAL STAFF

Terence McIver **Editor-in-Chief** (216) 891-2709  
E-mail: [tmciver@advanstar.com](mailto:tmciver@advanstar.com)  
Ron Hall **Managing Editor** (216) 891-2636  
E-mail: [rhall@advanstar.com](mailto:rhall@advanstar.com)  
Dr. Bill Knoop **Technical Editor** (903) 860-2410  
E-mail: [knoop@mt-vernon.com](mailto:knoop@mt-vernon.com)  
Vernon Henry **Group Editor** (216) 826-2829  
Lisa Lehman **Art Director** (216) 891-2785  
Lisa Bodnar **Graphic Designer** (216) 891-3101

### READER ADVISORY PANEL

Jerry Coldiron **Boone Links / Lassing Pointe G.C.** Florence, Ky.  
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### BUSINESS STAFF

John D. Payne **Group Publisher** (216) 891-2786  
Leslie Montgomery **Administrative Coordinator** (216) 826-2856  
Linda O'Hara **Senior Production Manager** (218) 723-9281  
Karen Laszlo **Controller/Marketing Director** (216) 891-2705  
Debi Harmer **Production Director** (218) 723-9325  
Karen Edgerton **Circulation Manager** (218) 723-9280  
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### ADVERTISING OFFICES

**Headquarters** 7500 Old Oak Blvd.  
Cleveland, OH 44130-3369  
(216) 243-8100 Fax: (216) 891-2675  
John D. Payne **Group Publisher** (216) 891-2786  
E-mail: [jpayne@advanstar.com](mailto:jpayne@advanstar.com)  
Patrick Toal **Regional Manager**  
(904) 280-4205 Fax: (904) 280-2122  
E-mail: [ptoal@advanstar.com](mailto:ptoal@advanstar.com)  
Tom Galligan **National Sales Manager**  
3901 52nd Ave.  
Kenosha, WI 53144-1830  
(414) 653-9523 Fax: (414) 653-9524  
E-mail: [tgalligan@advanstar.com](mailto:tgalligan@advanstar.com)  
John Kiesewetter **Western Sales Manager**  
859 Willamette St.  
Eugene, OR 97401  
(541) 461-0022 Fax: (541) 461-0044  
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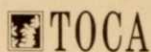
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## Will pesticides harm horses' tummies?

*Our company maintains a 60-acre equestrian complex. The manager of the complex insists that all landscape chemicals are harmful to a horse's digestive system, and therefore none can be used. We have to trim miles of fence mechanically. Gravel drives are ill-defined due to weed and grass encroachment. Can you suggest any "horse safe" herbicides, insecticides and fertilizers?*

—SOUTH CAROLINA

To manage the weeds, consider the following options. Based on the reports and literature in the scientific community, I disagree with your complex manager's statement that "all landscape chemicals are harmful to a horse's digestive system."

There are a number of products that can be used in pasture areas. The following information is my opinion. Please refer to the specific product labels and Material Safety Data Sheets before using.

One herbicide you may want to use is Scythe. This can be used around fence rows or gravel drives. Scythe is a fatty acid chemistry herbicide. It is a soap-based, non-selective herbicide. Scythe is quick acting, and the treated vegetation will discolor within a couple of hours. Do not walk on treated areas. If Scythe gets on your shoes, it will affect the areas in which you walk. Make sure to provide good coverage of the target vegetation to be managed. The

drawback with this product is that it will manage only those plants or plant parts it comes in contact with. Also, some weeds may resprout after a few days.

Repeat applications may be needed.

For a traditional herbicide program, consider using non-selective herbicide products such as Roundup or Finale. These postemergent herbicides can help manage whatever weeds are present at the time of treatment. Repeat applications may be needed to help manage some of the weeds. After treatments are made, be careful not to track the product to other areas.

For selective management of broadleaf weeds in pasture areas, your best option is to use a postemergent herbicide called Remedy. DowElanco representatives indicated that this product is registered in South Carolina for treating weeds in pasture areas. Its active ingredient is Trichlopyr. The same active ingredient is in other herbicides, such as Garlon and Confront, which you may be familiar with.

Regarding your "horse safe" products, know this: most pesticides are put through more than 100 tests to determine possible risks to plants and animals. These products must also be evaluated further by university scientists and other private practitioners. Generally, it may take seven to more than 10 years to register and approve use of a pesticide. For further details, contact the manufacturing companies.

## Okay to inject different product three years later?

*We injected some elm trees with Arbotect three years ago. Can we now inject with Alamo for Dutch elm disease management? If we find the sites of original injections, can we inject now at the same locations?*

—MINNESOTA

I do not anticipate you will have any problem in switching the treatment products. After three years, the presence of Arbotect would be insignificant.

Arbotect fungicide has been the standard treatment for Dutch elm disease by many arborists in the past. In recent years, Alamo is being used for Dutch elm disease management.

If you are not familiar with the Arbotect or Alamo fungicide products and their injection practices, consult your Novartis Company representatives to obtain additional information. Review the product labels, Material Safety Data Sheets and, particularly, the injection methodology to obtain good results.

It is a good idea to inject the Alamo into a new spot on the tree. Make sure injections were made on the rootflare. Where possible, avoid injecting in the valley or recessed areas of the rootflare. **LM**



**BALAKRISHNA RAO**

Manager of Research and  
Technical Development  
for the Davey Tree  
Expert Co.  
Kent, Ohio

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Please allow two to three months for an answer to appear in the magazine.





# Via mail, e-mail, fax, etc.

LANDSCAPE MANAGEMENT is great!  
Keep up the good work!

Roy G. Zehren  
President  
Natural Athletic Turf, Inc.,  
Mequon, Wisc.

Congratulations on your 35th anniversary as a vital publication serving the needs of professional grounds managers.

The well-researched and clearly written articles you provide on all facets of landscape management are valued by your appreciative readers.

Thank you for delivering good information and for making it entertaining to read and easy to understand.

Your period of publication parallels John Deere's history in the lawn and grounds care industry. John Deere entered the business in 1962 with the introduction of a sprayer, then followed up in 1963 with a line of lawn tractors.

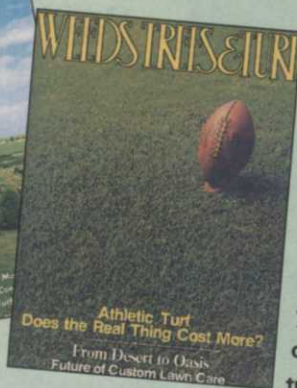
Your many friends at John Deere respect the work of the LANDSCAPE MANAGEMENT staff and hold your publication in high esteem.

We look forward to a long relationship as we work together to address the needs of grounds management professionals, providing timely and accurate information that meets their needs.

Mark C. Rostvold  
Senior vice president  
John Deere Worldwide  
Commercial & Consumer Equipment  
Division

My congratulations to LANDSCAPE MANAGEMENT on its 35th anniversary as a publication serving the needs of turf and landscape professionals! I know the magazine started in 1962 as *WEEDS TREES & TURF*, and I can remember reading it in the 1970s, during my early days in the business.

*WEEDS, TREES & TURF* covered everything! It was one of few publications that provided valuable information for golf course superintendents, landscape management experts and



production nursery specialists. The magazine even covered the lawn care market, which was in its infancy, and offered a good blend of technical information, feature articles and industry news.

The market has changed dramatically through the years, but *WEEDS, TREES & TURF* always kept ahead of the changes. It even changed its name to LANDSCAPE MANAGEMENT to better reflect the magazine coverage.

Our company has gone through changes of its own, starting as Boots Hercules, acquiring products from Upjohn to become NOR-AM, and eventually consolidating with Hoechst to emerge as AgrEvo Environmental Health.

Through all the changes, we have always considered your publication a good place to advertise and get the company's message out to our market.

Congratulations

on a job well done through the years!

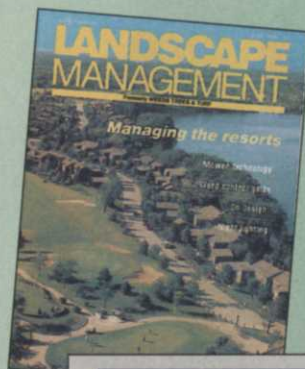
George Raymond  
Marketing Manager,  
AgrEvo Environmental Health

Wow! Thirty-five years! That's worth celebrating. Each of you deserves to be proud of the excellent job your publication has done over the years to help keep turf care professionals

aware of the latest trends in the industry.

Your publication has been a pleasure to work with and the entire Jacobsen Textron team wishes you another 35 and then some!

John Mielke  
Manager, Communications  
& Promotions  
Jacobsen Division of Textron, Inc.



## LETTERS OF CONGRATULATIONS FOR LM'S 35 YEARS!

It's clear that America has been a far lovelier place for the past 35 years, thanks to the insight and guidance of LANDSCAPE MANAGEMENT.

On behalf of Kubota Tractor Corporation, a warm congratulations! Your magazine remains at the top of an industry because it responds to the needs of its readers, and more.

Best wishes for 35 more years of publishing excellence.

Mike Heitman  
Director of Marketing  
Kubota Tractor Corporation



## THE PROOF OF A GOLFER

by Edgar Guest

The proof of the pudding is the eating they say,  
But the proof of a golfer is not  
The number of strokes he takes in a day,  
Or the skill he puts into a shot.  
There is more to the game than the score which you make,  
Here's a truth which all golfers endorse:  
You don't prove your worth by the shots which you make;  
But the care which you take of the course.

A golfer is more than a ball-driving brute.  
He is more than a mug-hunting czar.  
To be known as a golfer, you don't have to shoot  
The course of your home club in par.  
But you do have to love every blade of the grass,  
Every inch of the fairway and greens.  
If you don't take care of the course as you pass;  
You're not what "a good golfer" means.

Just watch a good golfer some day when you're out,  
And note what he does as he plays.  
He never goes on leaving divots about,  
'Til the grass is put back, there he stays.  
Observe him in traps as he stands for his shot,  
Then note when the ball has been played,  
He never unthinkingly turns from the spot,  
'Til he's covered the footprints he made.

You may brag of your scores and may boast of your skill,  
You may think as a golfer you're good;  
But if footprints you make, in traps you don't fill,  
You don't love the game as you should.  
For your attitude unto the sport you enjoy,  
Isn't proven by brilliance or force;  
The proof of a golfer - now get this my boy,  
Is the care that you take of the course.







*In the words of your  
Scotts Tech Rep. . .*

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Your Scotts Tech Rep enjoys golf as much as anyone, but he looks at the game through different eyes than many golfers. That's not surprising... because developing and maintaining beautiful greens, tees and fairways is an important part of his life.

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## Too much N bad for shaded turf

**COLUMBUS, OHIO**—Researchers at The Ohio State University are confirming what savvy turf managers discovered on their own: applying too much nitrogen to turfgrass growing in shade can weaken or kill the turfgrass instead of making it more vigorous.



**Dave Shetlar at OSU field day: Mach 2 from Rohmid and Conserve SC from DowElanco are two new products to watch.**

Dr. T. Karl Danneberger and Gregory E. Bell spoke about their turfgrass shade studies—involving plots of Kentucky bluegrass/perennial ryegrass and also Penncross bentgrass—at the Ohio Turfgrass Field Day in August. Danneberger walked turf managers through heavily shaded test plots seeded in a mixture of Kentucky bluegrass and perennial ryegrass. Some of the plots had received no additional nitrogen while others had been fertilized at 1 pound and others at 2 pounds of N/1000 sq. ft. per month. At the highest N rate the turf was dead; the plots that received no additional nitrogen looked best.

Danneberger advised the turf managers to fertilize shaded Kentucky bluegrass/perennial ryegrass turf like they would fine fescue—no more than two pounds of nitrogen per year, applied late in fall and/or early spring. “If you’re going to up something in your nutrient program, up potassium,” said Danneberger.

Gregory Bell, a doctorate candidate at Ohio State, reviewed what he had found regarding creeping bentgrass growing in the shade. Specifically, he determined that Penncross bentgrass test plots receiving morning sun were slightly greener and more vigorous than those that received equal amounts of afternoon sun.

“The duration of the

shade is the most important factor, although morning shade appears to be more detrimental on the turfgrass than afternoon shade,” said Bell.

Also, Bell said that while the test plots were allowed to grow in full sun (they weren’t covered until several weeks before the Field Day), those that hadn’t been fertilized declined fast. But, when the bentgrass was covered with a shade-producing canopy in mid summer it was the bentgrass that did not receive any additional nitrogen that did best.

He said that while a turfgrass manager might be tempted to increase the nitrogen to boost the vigor of turfgrass growing in shade, “that may not be the thing to do.”

## DowElanco to change name

**INDIANAPOLIS**—Dow AgroSciences will be the new name for DowElanco. The name change will be effective January 1, 1998. The name change follows a June announcement by The Dow Chemical Company that it would acquire Eli Lilly and Company’s 40 percent interest in the joint venture. The two companies had joined their plant science businesses to form DowElanco in 1989.

“This is an industry that is rapidly reinventing itself,” said John Hagaman, DowElanco president and CEO. “Our new name, Dow AgroSciences reflects a broad sense of our mission that has been inherent in our strategic planning for a number of years.”

DowElanco has set a goal of commercializing one significant new product in a major global market each year. One example in the green industry is Conserve SC turf and ornamental insect control.



**Bell: Be careful of amount of nitrogen you apply to Penncross greens in the shade.**



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*Mark H. Bunte  
Golf Course Superintendent  
Lake Wildwood Country Club  
Penn Valley, CA*

"... helpful and informative. I believe this is a very valuable publication, especially as we all work to protect the environment."

*Dr. Terrance P. Riordan  
Turfgrass Plant Breeder  
University of Nebraska*

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*Barry Carter  
Golf Course Superintendent  
Oak Hills Country Club  
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## MALCP wins classification fight

**BOSTON, MA**—The Massachusetts Association of Lawn Care Professionals (MALCP) earned a new Worker's Compensation classification--"Fertilizer or Pesticide Application".

The classification culminates three years of discussions between MALCP and the Worker's Compensation Board over classification of the lawn care professional in the landscaper's classification, paying higher rates than most of the country. In addition employers may split their payroll if their employees are engaged in both lawn care and landscaping activities.

In September the MALCP Board was presented with a proposal from a national insurance carrier to establish a MALCP insurance group. This group plan will include umbrella coverage on various policies.

## Simplot buys Jacklin Seed

The J.R. Simplot Company has reached an agreement to purchase Jacklin Seed Co. of Post Falls, Id.

Jacklin distributes around the world. It was founded in 1936 by Arden Jacklin. The company also had Medalist America, through which it marketed proprietary turfseed blends.

Simplot's president, Steve Beebe, says the buy is a "strategic fit" for Simplot. Doyle Jacklin will be president of Simplot-Jacklin. No changes are anticipated for present management and employees.

Simplot has grown turfgrass seed for Jacklin for the past two years on its farms in Idaho and Washington, and has a joint marketing agreement in China.

Jacklin reports annual revenues of \$40 million. Simplot is also privately held with annual sales of \$2.8 billion and more than 12,000 employees around the world. Its primary businesses are food processing, agriculture and ag fertilizer production.

## Northwestern goes 'natural'

**EVANSTON, IL**—The ESPN Thursday night game on Oct. 16 was a coming out party for the new field at Northwestern University's Dyche Stadium. The national television audience focused on the

Wildcats, but some of us took special notice of the custom-designed field.

S.W. Franks, Cleveland, installed the field in July after lowering it 5½ feet to improve the sight lines of lower seats.

Franks put in the drainage, irrigation and prepared the field's 10 inches of 90/10 sand/peat rootzone mix. Fibers known as "turf grids" were uniformly mixed

## Yard work a stress reliever

A survey by Pennington Seed, Inc. finds 42 percent of people with gardens say they use yardwork to relieve stress. While 53 percent

said they still consider yard work to be a "chore," 32 percent said yard work provides the escape they say they need from fast-paced life. Five hundred were surveyed.

## Dingo/Toro now partners

The Toro Co. will build Dingo Digging Systems landscape products under the Toro brand name in

North and South America. This sets up the Toro SiteWork Systems line. The Dingo name will remain on the flagship product under the Toro SiteWork Systems label.

## New challenge to blower ban

A complaint was filed Oct. 2 against the City of Los Angeles by companies and associations to challenge the city ban on gas-powered leaf blowers within 500 feet of city homes.

## One in five get tree care

Nearly 20 percent (20 million) of all U.S. households bought tree care services in 1996, says the Gallup Organization. In the past five years, U.S. households have spent an average of \$1.48 billion/year for tree care, says the International Society of Arboriculture.

throughout the rootzone mix. Their purpose is to resist wear and to make the playing surface more stable. The field was grassed by big-roll (48") Kentucky bluegrass sod from a farm about two hours away.

The Wildcats had played on synthetic turfgrass since 1972 and continue the movement back to "real" turfgrass. The trend is particularly evident in the Big 10 where, for several years, Purdue University held out—almost alone—against synthetic turf. (Penn State was not a Big 10 member at the time.) Indiana, Wisconsin and Illinois are reportedly considering a return to turfgrass as well.

**Randy Stoneberg gives Chicago-area STMA members tour of Northwestern's football field.**





# where were

# you

# in

# 1962?

...Or '67 or '74 or '86. Here's how some of our readers got their green industry start, and what they've been up to since those early days.

Thanks to all who responded to our request for an update, and best wishes for further accomplishment in this great, green industry!

—The editors

For the past twenty years I have been involved in tree work, but for the past fifteen years I have considered myself an arborist and not just a tree trimmer. Since I was a kid dragging brush, cutting limbs with a bow saw and stacking brush on a trailer I have seen many improvements to the profession. Some of the improvements have made the work easier, safer, and more fun!

The profession is now at a point where many consumers see us as "crafts people," and not just "trades people." Some things quickly come to mind as improvements to the profession:

Dr. Alex Shigo; *Modern Arboriculture*; ISA Certification; synthetic ropes; technical rigging techniques; blending international climbing techniques into our systems; disk-style brush chippers; light weight, high power chain saws; the Internet; personal computers.

Tom  
Tri-Cut hand saws

The past 20 years have seen many changes, most of which have been great for golf.

Probably the biggest change has been the increase in non-professional input from the golf community (more commonly known as golf course politics). Today's superintendent experiences more stress from this than from any of the agronomic problems we face. This is not all bad. Today's superintendent is far more businesslike and has better communication skills than was the norm 20 or 30 years ago.

Thanks for asking for the input.

Rodger Pevehouse, golf course superintendent (17 years), Fianna Hills CC, Fort Smith, AK

In 1958 I graduated from SSA; UMass in 1959. Was always active in arboriculture, and have been self-employed on Cape Cod since 1972 with Peter B. Childs & Son, Arborists.

Significant change has come about in areas of education. There are an incredible number of publications such as *LANDSCAPE MANAGEMENT*. The technical information and professional direction in the industry is great, and there are also many more professional women in the field.

In 1962 I also married the wonderful gal I had met because of arboriculture. I went to work at the end of 1962 for the Town of Greenwich, which began my 10-year career as a municipal arborist.

Peter B. Childs  
West Barnstable, MA

I entered the green industry in 1984. We operate a lawn application company (fertilizing, weed control, etc.)

Significant changes I've seen include: better control products, such as Acclaim and Pre-M; better sprayers and spreaders; and regulatory restrictions which are oppressive.

Steven Schwartz  
S&R Lawn Care  
Pomona, NY

In 1969 I was in grade school, but working at a small executive golf course picking up range balls and whatever other 'gofer' job I could weasel my way into. The superintendent at the time—Pat Green—had just graduated with a turf degree from Eastern Kentucky University. He's now general manager at Triple Crown CC.



Dr. Dwight Barkley was and still is my turf professor, and both he and Pat Green had a dramatic effect on my future. I'm now in the golf industry 25-plus years, and the certified golf course superintendent of 45 holes in Kentucky.

I owe so much to fellow superintendents Louis Miller, Louisville CC; Mark Wilson, Valhalla; Jay Charnes, at Harmony Landing CC; and Roy Hourigan, now retired. These guys all guided and encouraged me, along with Green, Dr. Barkley and others I had the opportunity to work with.

The most amazing changes have been the technology and scientific advances in such a short time. The educational level of industry personnel is incredible! We have six turf grads on staff. The next boom—already under way—is the info highway, specifically the ability to share and disseminate information at the click of a mouse. Anyone not jumping on board is missing the boat!

*Jerry Coldiron, CGCS  
Boone Links/Lassing Pointe  
Florence, Ky.*

Congratulations on 35 years! I was recruited into the landscape industry in 1985 and it's been a great experience. Twelve years later I still look forward to going to work, which I attribute to the quality of the organization I work for. In my short time in the green industry, I've had the opportunity to meet and work with landscape professionals throughout the United States.

What I've found is that if you're willing to give back to the landscape industry the landscape industry is also willing to give.

We've exchanged forms, résumés, job descriptions, surveys, we've toured competitors' buildings, reviewed processes and computer programs and shared home phone numbers and become friends.

I'd like to congratulate the landscape professionals who have raised our industry above the perception of 'a truck and a rake.' It's a great industry and there are thousands of teachers, trainers, managers, supervisors, editors, vendors and suppliers who should also be congratulated.

*Kent Miller  
Vice President  
The Groundskeeper  
CA; AZ; NM; NV*

In 1966 I was in landscape contracting full-time after starting in 1960 part-time prior to college and Navy. I now own a landscape contracting/management, nursery and garden center. There have been great changes in equipment, and far more government regulations.

*John Lamm  
John Lamm of Jackson, Inc.  
Jackson, Wisc.*



After 20 years as a certified golf course superintendent, I was able to turn my back on a profession that fulfilled all my dreams and goals, and change careers at mid-life and set my sights on another rewarding, but more secure profession.

As in recent months, I have noticed other supers leave the business, yet find work that is still related to the business and I wanted or felt that was the path for me. The all too many disappointments of interviewing as a CGCS, only to lose a job to a far less qualified or "cheaper" superintendent, unethical superintendents, the stress, damaged family life and the all too frequent and familiar situation of having members and public that seem to be more knowledgeable in your field than I was.

I now work for the City of OKC as the Horticulture/Park Maintenance Supervisor for the Parks and Grounds system. I have a great boss, am very energetic in my new profession, yet for the first time in my life, I leave my job at the office and come home with a smile. If anyone says that you can't be re-born through a job change, I'm a prime example that you can!

*Walter W. Bird, CGCS, CPSI*

In 1977, my father hired me as a lawn care technician for Crowley Lawn Service, Cleveland. I am currently a landscape design consultant for The Pattie Group, Inc., Novelty, Ohio. I

think the most significant changes in the green industry have been anti-pesticide extremism and companies following moderation principles through public relations, education and responsibility.

*Charlene Crowley, The Pattie Group, Inc., Novelty, Ohio, shown with daughter Hannah.*



In 1962 I was in my ninth year with my own landscape construction firm. In 1974 I formed Natural Athletic Turf, Inc. This company is very active today, constructing or renovating between 20-30 athletic fields per year. I work on golf courses the balance of the year as a green and tee specialist. The most significant changes I've seen and done are in athletic field construction using the sand-based systems and washed sod.

I'm sure that in a few years, growing turfgrass in domed stadiums will be commonplace.

LANDSCAPE MANAGEMENT is great! Keep up the good work!

*Roy G. Zehren,  
President, Natural Athletic Turf, Inc.,  
Mequon, WI*





# 35<sup>th</sup>

ANNIVERSARY

*Product research and the quest for better, more efficient tools and control products never ends, as these company histories will show.*

**W**elcome to "Looking Back." It's our 35th Anniversary retrospective of green industry product developments that have made the work you do far more safer, productive and efficient.

Anyone who's been in the industry since 1962 or thereabouts could tell you how much products have changed, and how many have come and gone down the pike to ultimate acclaim, or total oblivion.

Today's mowers, aerators, dethatchers, and all kinds of other turf cutting machines are so much better than they used to be thanks to lightweight metals, improved engine and fuel science, and safety mecha-

# LOOKING BACK

nisms. And let's not forget product design. (Nothing wrong with wanting it to look good, too!)

Chemical science has also taken a series of small and giant steps, as agricultural management principles were applied and adapted to turf and ornamental care.

We thank the companies who were able to provide us with these brief glances back to the green industry of the 60s, and forward to what may be yet to come. Thanks to AgrEvo; Bunton; John Deere; Encore; Jacobsen; Kubota and O.M. Scotts for their help with this section.

And certainly, LANDSCAPE MANAGEMENT wants to thank these companies, and many more, for their advertising support through the years. We wish them all continued success in their respective green industry businesses.

-The editors

[TIMELINE]





# Chemical turf market evolves from ag to golf

*Golf course superintendents use products that had their origins in agricultural or industrial markets.*

By DON MASKE,  
AgrEvo Environmental Co.

**W**hen I first started working on golf courses as a high school student in the late 1950s, many of the chemical products used on golf course turf were the same products used in the agricultural and industrial markets. Companies were selling mostly mercury and lead-based products like Calo-Clor and lead arsenic, and the most widely used insecticide was chlordane.

At that time, agricultural chemical company representatives spent some limited time in what was called the "golf course market". There was no lawn care market segment. Most of the golf course superintendents were not college trained, though some where. In the late 1950s and early 1960s, turf programs were established at the various universities—Penn State, Michigan State and the University of Massachusetts to name a few.

I received my turf degree from Penn State in 1965, worked as an assistant at the Philadelphia Country Club, and then went into the service.

#### **From links to sales**

Upon discharge, I became golf course superintendent at Cold Spring Country Club on

Long Island and then was hired in 1969 as a Midwest sales representative for TUCO, Division of the Upjohn Company. They produced one of the first products marketed specifically for turf usage—Acti-dione, an antibiotic fungicide (now off the market).

TUCO also was one of the first companies to have sales reps who made end-user calls in the golf course market.

But the golf course business wouldn't support a separate sales force, so I also sold products for the tobacco and fruit and vegetable markets, covering several states from my Chicago base. DuPont, with Bob Miller, and Mallinckrodt, with Stan Fredericksen, were two major chemical firms active in the golf course market at that time.

Eventually, the turf markets grew and major manufacturers formed their own turf product groups, to concentrate on the golf course market, lawn care industry and roadside vegetation management.

#### **2,4-D was all we had**

In the early years, weed control was limited to 2,4-D or dicamba for dandelions on golf course fairways. Superintendents used little or no preemergence crabgrass material. I can remember digging out crabgrass plants by hand from fairways at Olympia Fields in Chicago, where I worked during college.

In 1964, there was a huge Pythium outbreak in the Chicago area.

The only thing to use at that time was hydrated lime in an attempt to dry out the surface moisture. Because so many superintendent jobs were at stake, the Chicago District Golf Association held an

educational meeting to make club members aware of the seriousness of the problem. We didn't have Banol fungicide or any of the other modern products that now control Pythium.

#### **Acti-dione for spots**

One of the first affordable disease programs on fairways



**Maske:**  
golf course aesthetics today far ahead of early '60s.



was the Acti-dione program that came out in the late 1960s. Back then, dollar spot and leaf spot were considered the most damaging disease problems, and Acti-dione controlled both. But brown patch could not be controlled economically and there was nothing that could be used for Pythium. The early products were mostly contact materials that would last only seven days. Now, we're using long-lasting materials, so we make fewer applications and the amount of total product used is much less.

Back when I first got into the business, most of the formulations were wettable powders and emulsifiable concentrates. Products came in paper bags or steel drums. Now formulations and packaging tend to be more user-friendly, in the form of dry flowables or water-dispersible granulars. Companies sell products in water-soluble packages or closed systems, limiting worker exposure. Use rates of newer products are much lower than they were in the 1960s and 1970s. For instance, for vegetation management we see herbicides used in tank mixes at rates as low as half an ounce per acre.

#### Lightweight equipment

One of the biggest changes I've seen in the golf course industry has been the shift from heavy, tractor-driven or pulled mowing equipment to the use of lightweight mowing equipment on fairways. Weakened turf often resulted from mechanical damage caused by this heavy equipment, allowing invasion from the ever-opportunistic *Poa annua*. In the last decade or so there has been a tremendous shift from predominantly *Poa annua* or *Poa/bentgrass* fairways to mostly bentgrass fairways on northern courses. I feel this is due largely to improved management programs which include lightweight equipment, clipping collection, better irrigation practices, and broader-spectrum chemical spray programs.

#### Pick up the clippings

In my early days if someone had told me they were going to collect clippings on 30-40 acres of fairways, I would have thought that ridiculous. But now superintendents do this routinely. This accomplishes several things: removes some *Poa* seed, reduces heat buildup from clippings, which tends to stress turf, and eliminates a possible source of disease buildup. In addition, superintendents have reduced nitrogen usage, so that clipping production is minimized, and the grass is not as succulent.

Golf course appearance was much different then. Watch the *Golf Channel's* highlights of past tournaments and notice the mowing patterns, grooming and other conditions. With the popularity of Arnold Palmer, the public began watching golf on television, and the country club members began demanding better conditions.

#### Courses look better

Recently I saw footage from the 1964 U.S. Open at the Congressional Country Club in Bethesda, MD. The course was groomed much differently from when the Open was played there again this year. New equipment and methods allow shorter mowing heights, contouring and striping. Aesthetically, there's no comparison.

Mergers, acquisitions and consolidations have reduced the number of players in the turf product marketplace. Since I began working for TUCO, the company has merged and reorganized several times—changing into NOR-AM Chemical Company and now to AgrEvo Environmental Health. Today the registration process is more difficult, and it's more costly to bring a product to market. More money is required to defend registrations, diverting funds from new product research.

—Don Maske began with the TUCO division of The Upjohn Company in 1969. He now covers the Midwest for AgrEvo Environmental Health, Wilmington, DE.

## 1962:

"Weeds & Turf" debuts as the first magazine to cover the professional turf care industry. ALCA forms to serve the professional landscape contractor. Dan Dorfman's Lawn-A-Mat lawn care company on Long Island is one year old and starts offering franchises.

Millard C.

Dailey's

Liqui-Green

lawn care

program gains

increasing

homeowner

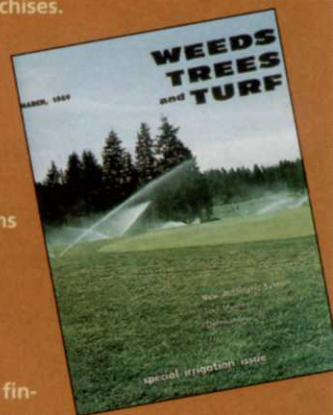
acceptance.

James Beard fin-

ishes first year of

15-year teaching stint at Michigan

State University.



## 1964:

John Deere's 110 model tractor

introduced nationwide after successful pilot project to dealers east of the Mississippi.





# FERTILIZERS GROW: heavy grades to polymers

*Turfgrass nutrition has gone from agricultural products to sulfur-coated ureas to polymer coats.*

by EUGENE  
MAYER/The Scotts  
Company



Fertilizer is widely used by people growing any type of plant material, including turfgrasses and orna-

mentals. Like other items we frequently come in contact with, it's often taken for granted. Fertilizer users recognize the various types such as soluble, ag grade, organic, blended, homogeneous, and slow release. Slow- or controlled-released types indicate technologies such as methylene urea, ureaform, IBDU, SCU, and, recently, polymer-coated.

#### **Few products to use in 1960**

Do we remember (possibly a few do) or do we understand that there was a time when the fertilizers that we take for granted today were not available for us to manage plant growth and health? Time marches quite rapidly, but as recently as 35 years go many of the fertilizer technologies we routinely use were only just becoming commercialized or were not even on the drawing boards. In the early 1960s and before, the most readily available forms were agricultural-grade heavyweight fertilizers that were of poor physical quality and, with the slightest

misapplication, prone to burn and even kill the plant. The only safe and slow-release fertilizers were the natural organics such as manures, animal by-products, and grain meals.

These generally were difficult to handle, had a strong, unpleasant odor, were not easily accessible, and did not deliver good value for the consumer.

As other technologies have been invented or improved over the past few years, so have fertilizer technologies. Ureaform and methylene ureas were first manufactured for commercial use in the late 1950s and early 1960s. This itself brought on a revolution in fertilizer technology for the homeowner as well as the professional. It provided for lightweight fertilizer plus controlled or slow release, which would provide spoon speeding and predictable response rate to the plant.

#### **Methylene urea arrives**

One of the most memorable experiences of my younger years was working in Scotts' fertilizer plant when the first bag of homogeneous, lightweight, high-analysis methylene urea turfgrass fertilizer was produced on a commercial scale. There was only one prod-

uct, and this served the homeowner as well as the professional. Today there are many choices based on plant needs, both for the homeowner and the professional user.

#### **Easier as tech improves**

Other slow-release fertilizer types were soon to follow. IBDU was released in the mid 1960s, as was the first polymer-coated fertilizer, Osmocote. The sulfur-coated ureas started to surface on a commercial scale in the late 1970s and early 1980s. The polymer-coated fertilizers were at a standstill until the early 1990s, when new polymer coatings were developed that were more acceptable for turfgrass growth. These are now widely used in the turfgrass and ornamental industry.

What is in store for the 21st Century? New and better technology, I am sure, for research on plant nutrition and improved fertilizer efficiency continues at a feverish pace by industry, government agencies and universities. This builds on what has transpired over history and the last 35 years.

—Eugene Mayer is manager, training & technical support, The Scotts Company.



*How tiny Beatrice, Neb., became a big player in the commercial turf mower marketplace.*

By W. H. "DICK" TEGTMEIER

**A**fter high school I didn't have the financial ability to go to college and, therefore, at the age of 17 ventured into the construction field for four years. At the time I moved to and settled in Beatrice, Nebraska, in 1960, where I was able to find a position in the Engineering Department at Dempster Industry.

In 1966 I was employed with F.D. Kees and continued working there for 17 years. In 1976 I drew up their first entry into the commercial mower market on a contract basis. They have now merged with Yazoo Mfg. Co.

Due to personal reasons and opportunities I co-

# 'Mower city' U.S.A.

founded Exmark Manufacturing in 1982. I again developed a line of commercial equipment. Exmark grew to approximately \$50 million sales in 1997 and sold to Toro in 1997.

In 1988 I saw an open door or I felt an opportunity to start another company in the commercial mowing market and started Encore Manufacturing Company. Next spring we will celebrate our 10th anniversary. So now we at Encore are the only privately held lawnmower company in Beatrice, NE.

The positive impact to the Beatrice, NE, community (a community with approximately 13,000 residents) is significant as approximately \$70 million dollars worth of mowers have been shipped collectively from the three companies.

The first eight years of Encore our average growth was 22 percent annually. However, we showed a 49 percent growth this past fiscal that ended June 30, 1997.

—Dick Tegtmeier is founder and president of Encore Manufacturing, Inc.

## 1965:

The Lawn Institute, directed by Dr. Robert Schery, is 10 years old.

## 1966:

O.J. Noer, respected golf course consultant, and one of the developers of Milorganite fertilizer, dies at 76. ("If the greens turn yellow and the chairman is sore, what is the remedy? Ask O.J. Noer.") Michigan State offers 18-month course in Turf Management. ALCA moves headquarters from Berkeley, CA, to Washington D.C.

## 1967:

California boasts 665 golf courses, up from 234 just a decade earlier. American Sod Producers Association forms. Anthony Giordano and Robert Magda begin franchising Lawn Doctor, founded several years earlier in Wickatunck, NJ. About 2,200 people attend 37th annual GCSSA Turfgrass Conference and Show in Kansas City, MO.



*Mowers get lighter, faster and more efficient as the years go by. Next step: plug in to efficient electrics.*

**F**or Jacobsen's and Bunton's take on equipment technology over the years, we have excerpts from interviews with Tony Saiia, vice president of customer service and technical support for the Jacobsen Division of Textron, Golf Course Equipment; and Joe Santangelo, Bunton's senior regional service manager. Jacobsen purchased Bunton in September of 1996.

turf damage."

**Q.** *How were fairways mowed 30 years ago?*

**Saiia:** "When I joined Jacobsen in 1971, the predominant method for cutting fairways was with gang mowers, pull-type mowers, and ground-driven mowers like the Jacobsen F-10 turf tractor. Everything was mechanical. There were no hydraulically driven lightweight fairway mowers like there are today. All greens were mowed by hand with



**Tony Saiia: looks forward to electric drive technology.**

**Q.** *Has cutting height and quality always been important?*

**Saiia:** "If you look at turf practices 30 years ago, a quar-

# Mowers: lighter, more productive, better cuts

**Q.** *Tony, what has happened in the golf course equipment industry over the past 30 years?*

**Saiia:** "The entire industry has been evolving to meet changing demands in turf equipment and developments in turf practices. Key drivers in this have been the push toward higher productivity and the need to improve the life and reliability of the equipment.

"There have also been changes to make the equipment fit better with turf. Mowers have become lighter to prevent turf damage. Environmental concerns have also grown to affect the turf equipment market—including emissions from engines, noise pollution, the potential for equipment leaks, and anything that could cause

walk-behinds. Then Jacobsen introduced the first riding triplex greens mower, the Greens King, in 1969. We also later introduced the first diesel-powered Greens King. That wasn't as easy as it sounds because everyone was concerned with the amount of weight on the greens.

"Diesels were notorious for being very heavy. We could solve the weight problem on the gas-powered Greens King with large tires and lightweight components. With the diesel models, we had to pioneer the use of new lightweight, compact diesel engines."

ter-inch was a typical cutting height, even on greens. And maybe three-quarters of an inch on fairways. The demand for lower cutting heights on greens and fairways came from the golfer. If you want faster green speeds and a more manicured look on fairways, you need to cut lower.

"Mowing equipment had to meet that demand. And turf maintenance practices had to change, along with the development of aeration and vertical mowing equipment.

"The Jacobsen Turf Groomer is an example of an innovation that helps deliver





faster green speeds while providing relief for shorter and shorter cutting heights. The idea for the Turf Groomer came from the industry--from a superintendent who saw the need. We partnered with him to bring the product to market in 1987."

**Q.** How have walk-behind mowers changed in 30 years?

**Sailia:** "Now they have the capability to cut lower, to utilize attachments like brushes and the Turf Groomer, and they're quieter. Years ago, golf courses tended to be out in the middle of nowhere. Now they're part of housing communities. Mowers had better be quiet because they're running at 6 a.m. near someone's bedroom."

"This suggests the next logical step--the electric power triplex mower. It's one reason we developed and introduced the Greens King Electric this year. It answers the needs for a greens mower that's quiet, productive, and delivers a fine quality cut."

"Productivity will continue to be the driver, as well as the need for a better quality of cut."

**Q.** Joe, how has commercial landscaping equipment changed in the 12 years you've been with Bunton?

**Santangelo:** "Back then we were proud to sell a 52-inch walk-behind with an 11-hp engine. It did an excellent job and no one complained about it. Now, 11-hp isn't enough for a 36-inch mower. The industry is in a horsepower race now."

"There have also been changes in what we ask our mowers to do now. Ground speed, quality of cut, and mulching capability are much more important to the landscaper. All of these require a machine that has more horsepower."

"Productivity and quality depend on operator comfort. Bunton has gotten better at designing and building equipment."

Componentry is one factor. We went to overhead-valve engines, which are much more efficient in terms of ecology. They also put out more power per pound of engine. The torque curves are better, different types of hydraulic drive units are now available, and bearings are getting better."

**Q.** How have commercial riding mowers developed?

**Santangelo:** "Riding mowers have definitely gone through transitions. Fourteen years ago there were maybe three zero-turn riders in the industry and a number of out-front, rear-steered mowers. And there were still some tractor types."

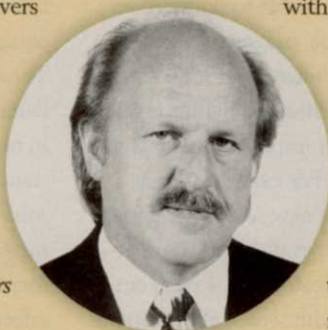
"The zero-turn riders have taken a pretty dominant position in the rider market today, along with large-area walk-behinds. And now we're stepping forward with 31-hp and 72-inch decks."

**Q.** What changes have you seen in the commercial landscape customer?

**Santangelo:** "Today, I see much larger landscape companies instead of two guys with a pickup truck and a trailer. I also see more consolidation of companies into larger and larger ones. These are professional organizations. They have corporate office buildings, fleets

of trucks, computers and cell phones. They're sophisticated and they're looking at profit margins and equipment costs."

"These companies demand more of manufacturers, which is why we keep working to develop better, more efficient products."



Santangelo: industry in a race for horsepower.

# 68:

Benzimidazole fungicides developed. Includes benomyl and thiofanate-methyl, first curative, systemic fungicides, can be used at lower rates. First Ohio Turfgrass Foundation Conference.

# 1969:

Widespread winterkill of Bermudagrass in Midwest. ChemLawn sales hit \$218,000. Musser International Turfgrass



Foundation is formed, by a group that includes Drs. Al Wilson; Joe Duich; Warren Bidwell; Fred Grau and Eb Steinegger. Joe Vargas named head of Turfgrass Disease Research at Michigan State. Joe Duich writes his doctorate on Merion Kentucky Bluegrass.

Jacobsen "Greens King" triplex greens mower is brought to the golf industry.





# 35<sup>th</sup>

ANNIVERSARY

# Growing green

*The John Deere Co. reports on advancements that have made mowers easier and safer to operate.*



Many companies seek to meet or exceed ANSI safety standards in mower design features.

quickly and easily to switch over from one job to another efficiently.

#### **Safety initiatives**

Another area of primary concern to manufacturers of commercial grounds care equipment is safety. The American National Safety Institute sets safety standards for equipment manufacturers. These are not federal mandates, but many companies try to meet or even exceed the standards they set. For instance, John Deere includes a safety message in every advertisement, gives operational and safety videos in English and Spanish, uses bilingual decals on equipment, and equips machines with safety shielding. A variety of operator's presence controls are also present.

Manufacturers are challenged to design and build equipment that can be operated safely, at peak performance over its lifetime and is constantly improved to meet the ever-changing demands of the commercial customer.

**O**ver the past 35 years the green industry has grown exponentially. Many changes have occurred with this growth, including the way commercial equipment is both built and used. Productivity, durability and versatility are major points that manufacturers consider when designing new machines.

Commercial mowing professionals are constantly seeking ways to mow larger areas in less time to save money. Manufacturers are doing their part to design machines that are higher in quality, more durable and have very little downtime. Enhanced customer support, which includes better trained technicians and parts services, are also increasingly important to commercial operators.

Generally, commercial equipment is being designed to be more powerful while being fuel-efficient and running quieter. It's also being designed to perform a multitude of jobs in a variety of conditions. Manufacturers are working their hardest to ensure that there's a machine on the market that can meet the challenge,

whether it's higher, thicker turf or moist conditions.

#### **Capacity increase**

To be able to do more in less time, mowers are now being designed with wider cutting widths and tighter turning radii for improved maneuverability. For example, John Deere's new wide-area front mower, available in summer 1998, features 11 feet of cutting width which allows operators to groom large open areas in half the time of traditional 72-inch mowers, saving both time and labor costs.

The variety of available attachments has also increased the commercial landscapers' productivity. Most tractors can accommodate attachments such as snow blowers, brooms, blades and tillers as well as side-discharge and/or mulching mower decks. Most of the attachments can be connected



**F**or companies like Kubota Tractor Corporation that distribute "tools of the trade", the green industry has become an important growth segment.

KTC entered the U.S. market 25 years ago, at a time when major tractor manufacturers were in a horsepower race. KTC saw niche opportunities with the small farmer and rancher whose needs required a compact, durable and maneuverable tractor. At that time, under 40-hp tractors accounted for just 10 percent

## Compact tractors filled a 'smaller' need



National Future Farmers of America (FFA) officers recently visited Kubota Tractor Corporation headquarters in Torrance, Calif. From left, Mike Heitman, Kubota director of marketing; Rachel Fehring, FFA western regional vice president; Robin Killian, Kubota senior vice president of sales and marketing; and Charlie Jones, FFA southern regional vice president. Kubota Tractor Corporation is a co-sponsor of the National FFA Nursery/Landscape Career Development Event and the Specialty Crop Production Proficiency Program.

of the tractor market. Today, because of the increased use of smaller models within the entire green industry, these compact tractors enjoy sales equaling almost 40 percent of the market.

The discovery of Kubota's trademark orange tractors wasn't by accident, however. Technological breakthroughs, features not available on any other tractors in the world, made people in the green industry take notice of this relative newcomer.

### CARB certification

Kubota was the first manufacturer to receive CARB certification on its under 25-hp diesel and gasoline engines.

Kubota's 2- and 4-wheel drive F60 Series front-mount mowers (60" or 72") were developed specifically for the commercial turf maintenance market. Features include state-of-the-art Auto-Assist 4WD with Dual-Acting Overrunning Clutch System for exceptional maneuverability and a single-pedal operated hydrostatic transmission for easy directional changes.

Tomorrow's tractors for the green industry will be even more user-friendly, more efficient machines designed to handle bigger jobs with fewer people, all resulting in reduced overall costs by offering more production.

## 1970:

National Golf Foundation puts cost of building a new, 18-hole golf course at between \$200,000 and \$2 million. U.S. Plant Variety Protection Act. New England tree care firms battle ban on open burning of wood.

## 1972:

Federal Fungicide, Insecticide, Rodenticide Act (FIFRA) becomes law; it is hoped FIFRA will preempt duplicate local laws. Liqui-Green lawn care begins offering franchises.

## 1974:

The USGA revises its "Specifications for a Method of Putting Green Construction," originally published in 1960. More revisions appear in 1989



and 1990. First New Jersey Turfgrass Expo replaces annual January conference. ALCA has 400 members, PGMS reports 600, and GCSAA about 3,800 members. Robert Felix named executive director of National Arborist Association.



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-John Crowson  
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-Gerald Sprague  
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LM



# 35<sup>th</sup>

ANNIVERSARY

# Research milestones

*Better turfgrass varieties.  
Land grant universities.  
Stewardship. Many people  
and their ideas have helped  
the green industry grow.*

**T**he most significant milestone in the green industry over the past 35 years was the removal of chlorinated hydrocarbon compounds, such as chlordane, as a means of controlling insect and weed pests in turfgrasses.

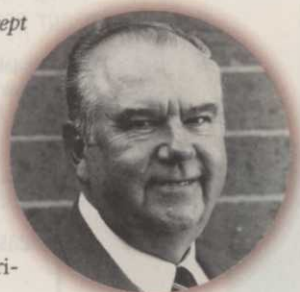
These persistent compounds had a long-term, negative impact on beneficial organisms, which, in turn, exacerbated thatch buildup and development of insects resistant to this class of compounds. Despite their efficacy, the environment is far better for them having been removed.

A second milestone would be the introduction of the *concept* of IPM, which among other things, created a conservative attitude toward the use of pesticides among turfgrass managers and created opportunities for the exploration and development of natural agents to suppress damage from a broad range of turfgrass pests. There is no question that the principles of IPM are sound, however, the concept must remain flexible to allow for integrating new methods and materials as they are developed.

#### **New compounds**

Finally, the recent EPA labeling of compounds such as imidacloprid (Merit) and halofenozide (Mach 2), which have a significantly reduced impact on the environment, and at the same time, have an extended residual activity. Compounds such as these should reduce the frequency with which insecticides need to be applied to control damage from insect pests of turfgrasses.

—Dr. Harry Niemczyk, Emeritus Professor, OARDC/The Ohio State University, Dept. of Entomology, 1997.



**Niemczyk: a better environment.**

## Better turfgrass management

All Across America today, we enjoy the benefits of superior turfgrass management. Home lawns are more attractive, sports fields and golf courses are more playable and roadsides have less erosion.

It hasn't always been this way, and we

have many people to thank for the advancements made in turfgrass culture. But the group most responsible are turf scientists at our land grant universities. No two turf scientists would agree as to which findings have contributed the most to this ad-



# ones

vancement, but I believe the following list includes the most significant contributions.

**1) USGA specifications** for putting green construction. These greens are the best playing surfaces in sports. Transfer of the technology to sports field construction has virtually eliminated muddy football games.

**2) Effective and affordable herbicides.** Billions of dollars have been spent to find the right compounds to selectively reduce undesirable weeds without harming the turf.

**3) Professional lawn care.** These companies have the equipment and the know-how to safely fertilize, control weeds and insects and provide other lawn services homeowners need.

**4) Slow-release,** non-burning nitrogen fertilizers. Especially isobutyldiene diurea and thin layer polymer and sulfur-coated urea. These slow-release products reduce "chemical burn" and reduce the potential for nitrogen loss through leaching and runoff during heavy rain.

**5) Better turfgrass cultivars.** In the south, Tifton hybrid bermudagrasses revolutionized the golf industry and sports field business. For homelawns in the deep south, Floratam St. Augustinegrass, a chinchbug and virus-resistant cultivar was significant. In cooler regions, turf-type tall fescue cultivars provide homeowners with superior lawns. New perennial ryegrass cultivars for lawns and sports fields in the north and overseeding dormant bermudagrass golf courses and sports

fields in the south offer new options. Heat and drought tolerant seeded cultivars of creeping bentgrass are providing superior putting surfaces on golf greens.

**6) Better equipment,** especially hydraulically-driven reels on mowers provide better uniformity in turf.

**7) Water conservation.** Improved technology in sprinkler heads, controllers and variable speed pumping systems.

**8) Deep tine,** deep drill and water injection aerifiers. These enable turf managers to improve the rootzone of golf greens, athletic fields and other heavily-trafficked turf areas.

**9) Systemic fungicides.** These help turf managers prevent pythium and give them better control of many other serious diseases of turfgrass.

**10) Integrated pest management (IPM).** Through better methods of insect identification, mapping and more timely application of low volume, more efficacious insecticides, turf managers can obtain safer and more effective pest control.

**11) Information.** Through professional publications, conference, seminars, field days, trade shows and Extension turf specialists, our turf managers are the best-informed turf managers in the world.

—Dr. Coleman Ward, professor emeritus,  
former turfgrass extension specialist,  
Auburn University.

## [TIMELINE]

# 77:

Senate subcommittee staff report sharply criticizes EPA's efforts to regulate pesticides. Survey says about 5 percent of the 8 million U. S. homes get lawn care. *Lawn Care Industry* begins publication in July.

# 1979:

O.M. Scott's *Lawn Care* publication turns 50.

Kubota introduces first compact excavator to

U.S. market. PLCAA forms to serve

lawn care operators.



# 1980:

PGMS begins its Certified Grounds

Manager peer review program.

ChemLawn sales hit \$100 million.



## [TIMELINE]

# 1984:

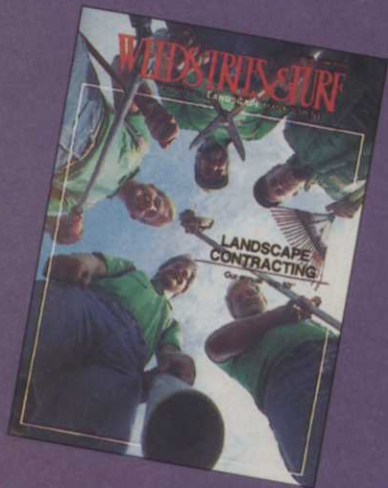


A former lawn care company employee who balanced a murder

defense on chemical intoxication was found guilty in a Massachusetts court. John Deere builds its millionth lawn and garden tractor—an 18 hp, Model 318—on May 1.

# 1987:

*Weeds Trees & Turf* turns 25, becomes LANDSCAPE MANAGEMENT to reflect larger industry leadership role. EcoLab acquires ChemLawn for \$370 million.



**LANDSCAPE  
MANAGEMENT**

## Noer's work paved the way

From his beginnings as a graduating soil scientist from the Department of Soil Science, University of Wisconsin, Madison, O.J. Noer went on to become the state soil chemist in 1914, and is credited with helping to establish the first soil testing laboratory in the country.

### A consultant before there were consultants

As head of the Milwaukee Sewerage commission Turf Service Bureau from 1926-1960, Noer visited and inspected perhaps 80 percent of the golf courses in North America to advise superintendents on turf maintenance problems.

Noer made many contributions to the diagnosis of turf problems, and wrote and spoke about turf at conferences almost continuously through the period.

*The ABC of Turf Culture*, his 1928 classic, represents one of the earliest integrated works on the subject.

A friend and advisor to all, O.J. Noer was a man "whose educational backgrounds, broad experience and intimate contact with the everyday problems of those concerned with growing turf qualify him as an outstanding authority in his field.

Noer's name was entered into the Wisconsin State Golf Association's Hall of Fame at the 1985 Wisconsin Golf Turf Symposium. Before and after his death on July 12, 1966, O.J. Noer has been considered a true pioneer in the turfgrass industry.

The O.J. Noer Research Foundation, Inc., was initiated in 1959 by associates and friends of O.J. (Oyvind Juul) Noer, to "honor North America's most widely known, respected and beloved turfgrass agronomist."

Objectives of the foundation are:

- ▶ promote scientific research in turfgrass and related fields
- ▶ train graduate students for conducting said research by offering financial assistance
- ▶ publish research findings for industry
- ▶ receive donations and endorsements

to achieve aforesaid purposes in perpetuity.

For information about the O.J. Noer Research Foundation, Inc., contact the foundation at P.O. Box 1494, Milwaukee, WI 53201-1494.

You can also search the Michigan State University Turfgrass Information Center at: [www.lib.msu.edu/tgif/noer.htm](http://www.lib.msu.edu/tgif/noer.htm)

## Seeded bermuda an '80s highlight

Improved seed propagated varieties of bermudagrass have been developed during the last decade, as a result of financial support and encouragement from several experiment stations and the USGA.

### New varieties

The renewed interest in seeded bermudagrass got much of its spark from the release of Guymon in 1982., and NuMex SAHARA in 1987. These were the first two improved turf-type seed propagated varieties to receive commercial acceptance.

Guyman, although somewhat coarse-textured, is a very cold tolerant variety. NuMex SAHARA is not cold tolerant, but it has improved turf quality with somewhat greater density, shorter stature and darker green summer color than common bermuda.

Three more recent releases—Sultan (FMC-6); Mirage and Jackpot—have performed well in the NTEP trials. They have increased density, finer texture or overall turf quality.

These are exciting and challenging times in the bermudagrass industry. Stay in touch. maybe seeded bermudagrass has a future, back from its beginning 75 years ago.

—Dr. Arden Baltensperger, director of turfgrass research for Seeds West, Inc., and emeritus professor of agronomy at New Mexico State University.





Summer Patch on 7, 8 and 9.



Crabgrass on 6.

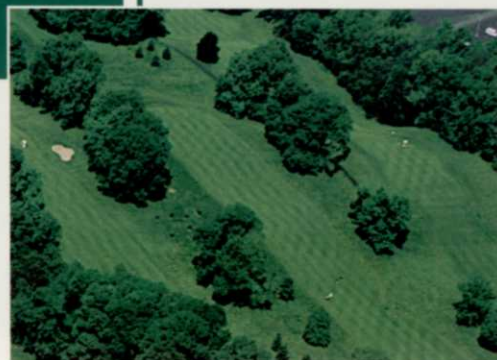


You've got Poa on 3.

**You may be  
managing  
your course  
one problem  
at a time.**



Fire Ants on 8.



Turf Stress on the back 9.



Pythium on 13, 16, 17 and 18.



And a Board Member on the first tee.



At Novartis, we're committed to continually bring you innovative products. And now we'd like to introduce an entire series of products — the Novartis Total Turf Program.

Finally, all the tools you need to manage your course from tee to green and all season long can be found in one total program.

**Primo.<sup>®</sup> The ultimate foundation for turf.**

The Novartis Total Turf Program begins with Primo for Pre-Stress Conditioning. That's because extensive testing has proven that treating with Primo is the best way to prepare a golf course and strengthen turf in advance to cope with extreme conditions such as drought, heat and disease, that make up a typical season.

**Barricade.<sup>®</sup> Crabgrass control for the entire season, North and South.**

Simply put, Barricade is the longest-lasting and best-performing preemergence herbicide for the control of Crabgrass, Goosegrass and Poa Annua. That's because Barricade has low solubility and volatility, meaning it stays where you put it in the weed germination zone.

Plus, it won't stain your golf course.

**Finally, a disease management program that lasts all season long.**

In a revolutionary water-based microemulsion formulation, new Subdue<sup>®</sup> MAXX<sup>®</sup> systemically and effectively combats Pythium and Yellow Tuft. Plus, Banner<sup>®</sup> MAXX<sup>®</sup>, using the same formulation technology, controls Dollar Spot, Summer Patch and Anthracnose, as well as 15 other turf diseases.

For additional protection against diseases, the

Novartis Total Turf Program also includes Sentinel<sup>®</sup> for the longest-lasting protection against 14 major turf diseases including Brown Patch and Dollar Spot on fairways.

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the entire course.**

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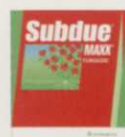
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We support the goals of the Golf Course Superintendents Association of America, and are proud of our charter membership in the Platinum Tee Club, the highest level of corporate support of the GCSAA Foundation.

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GCSAA sees future in education

PAGE 10G ▶

ASGCA goes global

PAGE 11G ▶

Hurdzan on design: 'er' endings

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Golf's gotta get going

GOLF

**I**n 1962 the USGA Green Section employed seven agronomists who made about 800 visits to golf courses.

Today, the service has 16 agronomists located in 12 regional offices. Collectively, they make consultations to more than 1700 golf courses each year. Each visit is followed by a written report to the club or course, detailing the agronomist's findings and recommendations.

The Construction Education Program, to educate and provide information to golf course architects, builders and developers, superintendents and others about course construction issues, helps to ensure the best long-term results from course construction and renovation dollars.

The Green Section's *Specifications for a Method of Putting Green Construction* was barely two years old in 1962, and was far from the accepted norm for green construction at the time. Nevertheless, 35 years of experience have shown that, when built

and maintained properly, USGA greens have provided excellent results over a period of many years for golf courses in most regions of the United States and the world. Revisions were published in 1974 and 1989, and since 1990 several steps have improved the recommendations.

The USGA supports the largest, private, non-commercial turfgrass program in the world. In 1982 the USGA made a commitment to increase significantly its support of research to address issues that threatened to limit the growth and enjoyment of the game. Today, the USGA provides more than \$1.3 million annually in support of turfgrass and environmental research.

In 1991 the USGA began a 3-year, \$3.2 million study of golf courses and the environment. Among its objectives were to investigate what

happens to pesticides and fertilizers applied to golf course turf; develop alternative (non-chemical) methods of controlling various diseases, insects and weeds; and determine the impacts and benefits of golf courses on people, wildlife and the environment.

A 3-year, \$1.5 million environmental study was started in 1995. The new studies stress:

- ▶ developing Best Management Practices (BMPs) to help golf course personnel minimize their impact on the environment,
- ▶ alternative pest control methods,
- ▶ pesticide fate studies where the initial work indicated a need, and,
- ▶ building a database to lead to the development of a good computer model that can accurately predict what happens to pesticides and fertilizers when applied to golf courses.

From 1983 to 1997 the USGA funded more than 100 turfgrass and environmental research projects at 37 different universities and institutions, at a cost to the USGA of nearly \$16 million. A success story of the 1990s is the Audubon Cooperative Sanctuary Program for golf courses. Sponsored by the USGA and administered by Audubon International, the program promotes environmentally sound land management and the conservation of natural resources on golf courses.

*James T. Snow is national director of the USGA Green Section, Far Hills, NJ.*

## USGA programs keep up with the times



**JAMES T. SNOW**  
USGA Green Section



# GCSAA's mission: to educate

*The true measure of GCSAA's success is in the expertise, dedication and vision of its members.*

By PAUL MCGINNIS, President,  
GCSAA

**F**rom its humble beginnings in a meeting of 60 golf course superintendents on September 13, 1926, at the Sylvania Country Club in Toledo, Ohio, the Golf Course Superintendents Association of America (GCSAA) has become a major player in the game of golf.

GCSAA's mission in those early, formative years was to inform and educate its membership and to strive for the betterment of the superintendent profession. Those basic tenets remain today, but much has changed in the 70-plus years of the Association's existence.

GCSAA celebrated its 36th year in 1962 as

membership hit the 2,000 mark, the conference and show drew 1,750 and circulation of *Golf Course Management* topped 10,000. Those numbers have grown appreciably in the last 35 years as membership has eclipsed 18,000, 1997 conference and show attendance was 22,227 and GCM circulation is approaching 40,000.

But the true measure of GCSAA's success is in the expertise, dedication and vision of its members. As golfer expectations for better playing conditions have risen, so too has the performance level of the profession. Mowing heights of today's fairways are the length that were found on putting greens in the

1960s. Television has also served to fuel the growth of the game, but has put demands on superintendents to provide similar conditions, despite having a fraction of the resources available to high-profile courses.

Approximately 75 percent of GCSAA members have two or four-year degrees or have attended graduate school.

Approximately 24 percent of GCSAA members who meet eligibility requirements, have advanced certification, while 49 percent have set certification as a goal.

One-half of GCSAA members control budgets in excess of half a million dollars.

Based in Lawrence, KS, GCSAA's mission is to serve to its members by advancing their profession and enriching the quality of golf and its environment. This mission is being accomplished through numerous member services and projects aimed at providing the resources to ensure successful course management operations.

Among the services and programs offered by GCSAA are:

Sponsorship of educational seminars in areas such as turfgrass, business management, water usage and chemical applications, among others.

Organizing an annual conference and show featuring the latest equipment, services and practices in golf course management, and educational opportunities.

—GCSAA President Paul S. McGinnis, CGCS, is superintendent at Moon Valley, C.C., Phoenix.



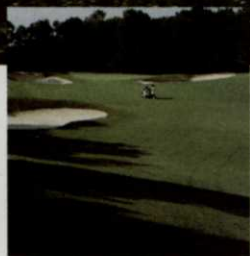
**McGinnis: Members the difference as turf care advances.**



GCSAA Board of Directors and dignitaries participate in dedication ceremonies of GCSAA Headquarters, Sept. 6, 1991. GCSAA will celebrate its 75th anniversary in 2001.



# Your Golf Course Could Be Trying To Tell You Something.



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By attacking *Poa annua* (and 12 other weeds) with both preemergence and postemergence control, PROGRASS lets you design a control program that fits your particular situation best:

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## Thinking of putting off weed control until spring?

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Barricade is the pre-emergent herbicide that you apply in the fall to control crabgrass all through the following growing season. That's because Barricade has low solubility and volatility, meaning it stays where you put it.

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# Golf course design: longer, wider, steeper

*More players. Better golfers. Longer, wider courses.*

*Golf course design is drawn well beyond the wind-driven links look of ancient Scotland.*

By DR. MICHAEL J. HURDZAN

**G**olf courses may have evolved more in the past 30-plus years than they did during the previous three centuries. The changes have been in response to new technology, agronomics, player patterns, golf equipment, golf carts, environmental awareness, life styles and politics. In fact, it is way beyond the scope of this article to fully discuss the consequences of each issue, but a review of the most significant ones is enlightening.

In a nutshell, golf courses have gotten longer, wider, steeper, greener, more crowded, and increasingly environmentally important.

Golf courses have gotten longer because the design and construction of golf equipment supposedly allows golfers to hit the ball farther. Many observers, including myself do not really believe that, but since perception is more important than reality, a modern golf course must stretch to more than 7,000 yards or it is considered short. This is especially true when tour pros are involved in course design. In fact, the three things golfers want to know about a new course are:

- ▶ the designer;
- ▶ how long it plays;
- ▶ the slope rating.

Thirty-five years ago, during the first golf growth boom, none of those were very

important; no one cared. They were just happy to be playing any golf course.

Just as marketing hype has led to longer golf courses, some clear reasoning has made them shorter for various groups of golfers through the adoption of multiple tees. In early 1960, the norm was one or two sets of tees with two sets of markers, one for men and one for women. Today, there are at least five sets of tees set at various distances and angles on a hole to accommodate, respectively: pros; single digit players; average golfers; senior and lady golfers; and the novice and super senior. Although 7,000 yards from the back, the course will play as short as 5,000 yards from the novice tees to correspondingly longer tees at 5,700; 6,200 and 6,700 yards.

Lawyers and lawsuits have caused the trend to wider golf courses. In the early 1960s, we were not afraid to put 18 holes and a practice range on 120 acres. To protect golfers, owners and adjacent land users from nuisance golf balls, designers have been forced to make golf courses wider, to try to spread out play and provide better safety buffers. Today, about 160 acres is considered minimum acreage for a full-size



**Hurdzan: cultural practices more meticulous.**

course.

Modern earth moving and turfgrass mowing equipment have allowed designers to make golf course features steeper. The vertical face look of dramatic modern architecture was beyond imagination 35 years ago. My colleague and

friend, Pete Dye, broke the mold first at TPC Jacksonville and buried the pieces at PGA West. Today, there are no limits to how high, deep or steep we can make golf course features. How to maintain them may be resolved in the next 35 years.

## **The turf is greener**

Turf science and technology have made incredible strides that allow today's golf course superintendents to keep golf courses greener than ever could be imagined when I was young. Cultural practices on fairways are more meticulous than greens of the early 60s. New turfgrass varieties are more drought tolerant, disease and insect resistant, and are cared for with encapsulated fertilizers, improved pesticides and application equipment, and modern irrigation systems.

—*Golf course architect Hurdzan is an authority on golf course environmental issues. He and partner Dana Fry run Hurdzan/Fry Golf Course Design, Columbus, Ohio.*



# QUELANT™-Ca

## Calcium & Amino Acids

# CALCIUM DEFICIENCY CORRECTOR

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Quelant™-Ca is normally applied as a foliar spray and may also be applied through fertigation. Either way, it is tank-mix compatible with herbicides, soluble fertilizers, insecticides, fungicides and plant growth regulators. It will even help improve the efficiency of most of these treatments by increasing their absorption and translocation within the plant.

Best of all, Quelant™-Ca is economical to use and it protects the environment.

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# Golf's

*There is a widespread perception that the game of golf in the United States is continuing to grow as it did in the 1980s. It is not.*

# gotta get going...

At The Country Club, Pepper Pike, Ohio, members' children are given golf lessons, as a way to spark their interest.

By JOSEPH F. BEDITZ, President/CEO, National Golf Foundation

**A**lthough the game of golf continues to flourish, it has, in fact, been standing still for the past six years with regard to two important measures of growth:

1) the number of golfers and 2) course visits.

On the other hand, new facilities are being developed at a record rate and golfers are spending more than ever each year for equipment and playing fees.

#### **Golf facility supply**

In the U.S., over the past five years, growth in golf facility supply has significantly outstripped demand for golf as measured by course visits, or "rounds of golf." However, in the five-year period prior to that, the reverse was true.

The number of golf courses in the U.S. stands at 15,703, an increase of 2,350 courses over the past 10 years. While this sounds like a lot, it actually represents only a 1.6 percent compound annual growth rate in supply. Nonetheless, this is a large number of golf courses and conservatively represents an investment of about \$10 billion over the 10-year period.

And the outlook for this segment remains bright. There are 850 new courses under construction, and another 800 new courses far enough along in the planning process to be considered "likely to go forward."

#### **Golfer demand**

Over the past 10 years the number of golfers and course visits have both increased. The number of golfers has increased from about 20 million to 25 million, and the number of course visits from about 400 million to 500 million. All of this growth occurred between 1985 and 1990. Since 1990 the number of both golfers and rounds played have remained essentially level.

#### **Prospects for growth**

The single most important trend affecting golf's future is not related to the game itself, but rather with America's changing demographics. Our population is aging at an unprecedented rate.

Research shows that golfers play more and spend more as they age. All things being equal, we expect golf demand to increase steadily as a direct result of the aging of the baby boomers.

To ensure golf's future, we must see to it that the full spectrum of cost alternatives remains available so that golf can justify its claim that it's not a game for the privileged few, but rather a game for all.

—Excerpted from remarks by Mr. Beditz at the 1997 International Golf Conference, St. Andrews, Scotland. Used by permission.



# The 'Weeder' brought industry builders back to life



*Ron Hall*  
**RON HALL**  
 Managing Editor

**“W**e have talked to some operators who, far from expanding, are contracting the size and scope of their businesses, and others who seem on the verge of giving up.

“Their reasons are usually the same regardless of their field: stiff competition and a shortage of trained labor. The squeeze is on and most informed prognosticators say it will get worse before it gets better.”

The above comments aren't mine.

They belong to the late James Nelson. He wrote them in 1966 during his stint as editor of WEEDS, TREES & TURF which, of course, eventually became LANDSCAPE MANAGEMENT.

Nelson's editorial comments still ring true to many of us. Competition has hardly decreased in the intervening 31 years. The shortage of trained labor may, in fact, be worse today than it was then.

In 1970 Gene Ingelsbe was WT&T's editor. In an editorial he predicted more attacks on chemicals and increased legislation surrounding their use. In the 27 years since then, nobody in the lawn/landscape industry has suggested otherwise, although criticism aimed at pesticide-users has quieted the past several years.

I came across these observations while skipping through about 100 back issues of WEEDS, TREES & TURF. I was a bit surprised to learn how many of yesterday's challenges remain with us today. Who can say if they'll be with us 35 years from today.

The back issues of WT&T (some of us affectionately referred to the magazine as “The Weeder”) made fascinating reading partly because of my involvement with it and its successor LM—13 years, with a break in the middle of that stretch.

[LANDSCAPE/GROUNDS]

**PAGE 2 L** ▶  
 Quality: the client makes the call

**PAGE 12 L** ▶  
 We reported on birth of lawn care

**PAGE 15 L** ▶  
 PGMS knows its mission

**PAGE 16 L** ▶  
 PLCAA met a growing need

**PAGE 19 L** ▶  
 ALCA changed with industry

**PAGE 22 L** ▶  
 STMA still gaining yardage

As I began reading the back issues of WT&T, I spent more and more time lingering over the photographs of the people that helped build today's lawn/landscape industry. It brought yesterday's industry leaders back to life. Their ideas. Their plans. Their dreams.

Some I have met and I know. Many, many others I had never met. Each offered something to the industry. Amazingly, most contributed for no personal gain whatsoever. They shared their experiences and knowledge on the pages of WT&T to friends and competitors alike.

Thirty five years from now, when LANDSCAPE MANAGEMENT (in whatever name or form it takes then) celebrates 70 years in the green industry, some of you may still be in the industry. Most of you likely won't. Hopefully somebody will take the time to remember you and your contributions.



# Quality: the client makes the call

*Landscape service and quality have improved greatly over the past 35 years, but the customer still knows what he wants.*

By JOHN B. CALSIN, JR.



**E**ducated guesses are often wrong, especially when they're made about an industry that changes as rapidly as the landscape business. The Associated Landscape Contractors of America (ALCA) admits as much, which is why its "Crystal Ball Report" of 1989 ran a section called "Hits and Misses," with notable misses such as the mistaken prediction that mobile homes would proliferate; landscaping would help provide a natural energy source; and "Environment Contractor" would be a new industry specialty.

As LANDSCAPE MANAGEMENT—through the eyes of a few of the industry's most visible leaders—takes a look at quality and service improvements over the past 35 years, and somewhere into the future, a line from ALCA's 1992 *Crystal Ball Report XII*, seems appropriate:

*"We tend to believe that we know quality. We believe that if I provide quality as I understand it, then*

*Clients were expected to accept technical quality as presented by the contractor. Today, they just want to like what they see.*

*my client will be pleased. Unfortunately, we rarely ask our clients if they are pleased or what we could do to please them more."*

Depending upon whom one talks with, this view is either generally accepted in some form, or it is not accepted. Both those who do and do not hold this view are successful.

So what has happened with quality and service through the years? And, will anything new be happening as we move into the new millennium?

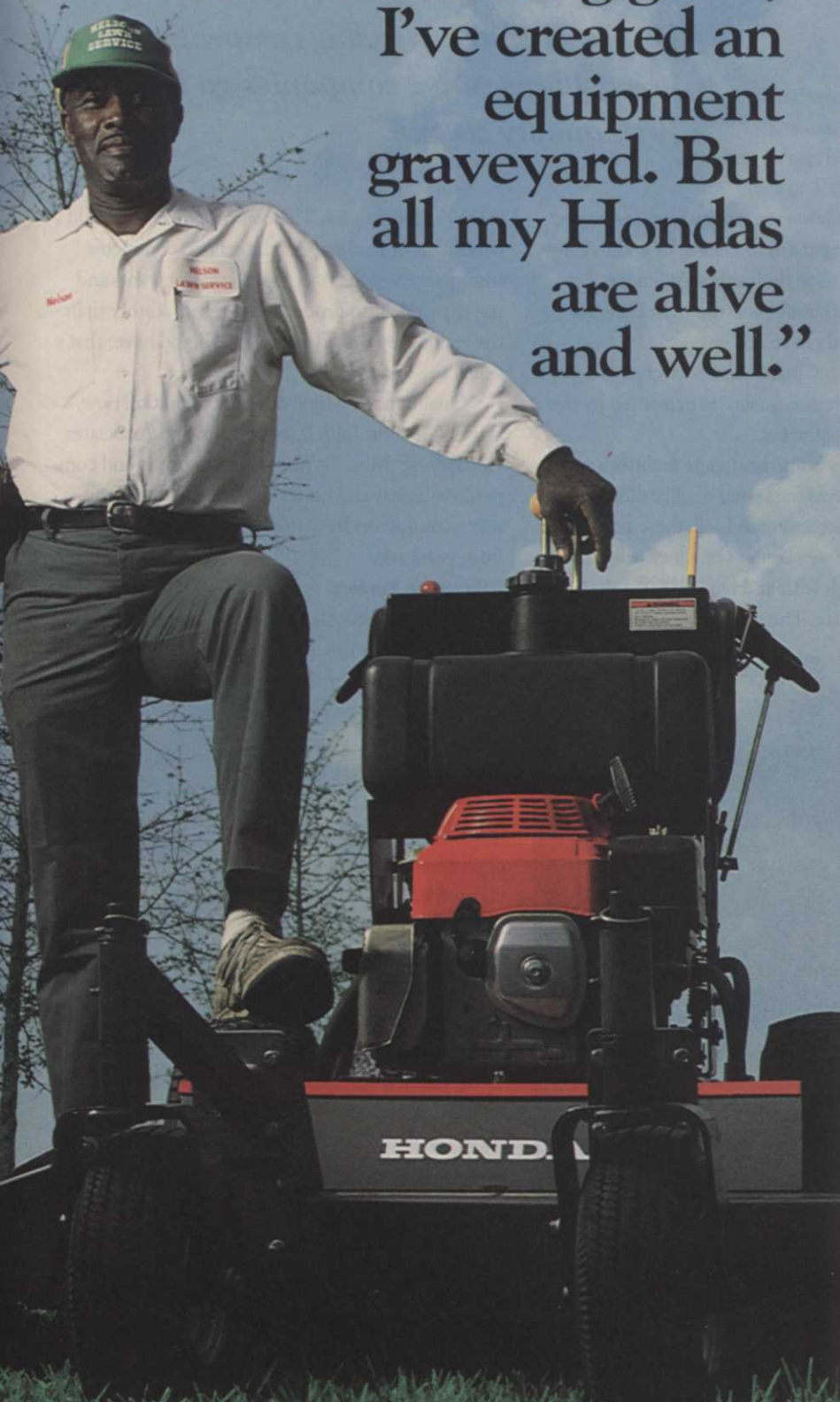
Tom Lied, former past president of ALCA and the chairman of the Crystal Ball Committee, begins with a look back from about 30 years ago.

#### **Technical standards**

"In the early part of landscape contracting as I know it," recalls Lied, "technical soundness had to



“After 40 years  
of cutting grass,  
I’ve created an  
equipment  
graveyard. But  
all my Hondas  
are alive  
and well.”



Don Nelson  
Nelson's Lawn Service  
Ocala, Florida

When you make your living by cutting grass, dependable equipment is your lifeblood. Nobody knows that better than Don Nelson.

He started mowing lawns when he was eight years old and is still going strong. That's more than he can say for all the mowers he's used—and worn out—during that time. Except when it comes to Honda.

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## *Due in part to increasing competition and acquisitions, some companies go for cost first, quality second.*

do with the concept that we as landscape contractors knew and understood quality and were telling our



**Lied:** Portray what your client seeks.

clients what quality was, and expecting them to believe us and to allow us to do for them what we thought was the right thing for them to do."

Clients were expected to accept technical quality as presented by the contractor.

Some landscape architectural firms measured quality differently.

According to Lied, these firms took the time to interview clients. They took what the clients had to work with and worked out a design to suit the client's taste. The process included negotiat-

is they're looking for. The contractor, design/build contractor or landscape architect and contractor must perceive what it is that the client wants and use their talent to produce that result. Rather than the result they think [the client] should have; that's called the 'requirement'."

"Quality has a whole different definition now," agrees Drew St. John II, of St. John and Associates, Hattiesburg, Miss. "With real estate prices and competition higher and better than ever, I think landscape contractors have had to make great strides from years ago."

### **Follow the leaders**

St. John believes landscapers are following the quality lead of major, national service organizations.

"In the last 10 years we have identified ourselves, finally, as being a quality and service delivery organization. I think other companies like Federal Express and UPS...have helped let some of their quality and customer service trickle down to industries like ours."

"Quality, when we started, was pretty low," says Mike Rorie of Groundmaster, Inc., Cincinnati, Ohio. He helped co-found a small, residential maintenance business in 1980. By early 1982, they recognized the need for a large, suburban, commercial groundskeeping company. At that point, the company shifted gears.

"There were very few quality standards in the industry. The standards were minimal," remembers Rorie.

Twenty years ago, a factory business paid an employee to do the work. The image of a well-manicured property was not something widely shared or understood by the average business.

"If you go back 20-some years, landscape maintenance was 'a lawnmower guy.' You almost wouldn't tell anybody you were in the business," recalls Gary



**St. John:** Greater strides required.



**Quality of plant material and customer interaction are major success factors on the design/build side.**

ing or letting a bid to accomplish the work. Then, the contractor did what the architect prescribed and did it in a technically sound manner.

"Quality as it is defined now is quite a different animal, and not easy for many people to accept," says Lied. "The issue now is that quality cannot be determined by the contractor or the purveyor.

Quality can only be measured by the client or the recipient. The client has to be able to portray what it



# People are talking about ALCA!

## Don Jarratt

"It's the best educational opportunity that exists in this industry. At every ALCA event, I go one-on-one with other business leaders. I'm exposed to firms that are doing things the way we hope to be doing them in the future. And I take back new methods and techniques that can improve our company."

*Don Jarratt, Ruppert Landscape Co., Ashton, Maryland  
ALCA member, 12 years*



## Connie Balint

"There's a good sharing of information. Through ALCA I've met some great friends from all across the country who truly love this industry. The really professional companies are here. Seeing others who achieve a higher level of success helps me strive harder to become better."

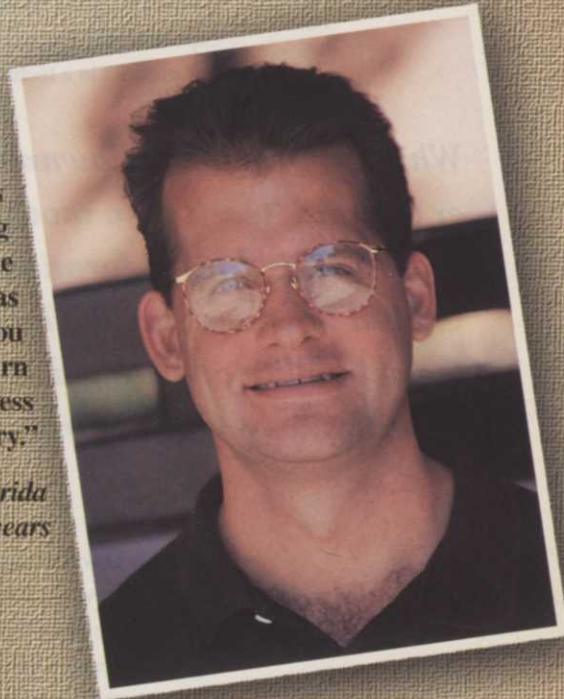
*Connie Balint, Buckingham Greenery, Inc., Buckingham, Virginia  
ALCA member, 10 years*



## Craig Klingensmith

"The camaraderie between different companies is fantastic. The great thing about ALCA is it's nationwide so you can share a lot of ideas with other companies that you aren't competing against directly. We can learn from other companies and we can share what we've done. The process elevates the whole industry."

*Craig Klingensmith, Smallwood Design Group, Naples, Florida  
ALCA member, 10 years*



## Get involved! Join ALCA today!

If you are an exterior, interior or landscape maintenance contractor, or simply want to see the landscape industry grow, call (800) 395-ALCA, or (703) 736-9666. FAX: (703) 736-9668 Or write: ALCA, 150 Elden Street, Suite 270, Herndon, VA 20170



ASSOCIATED LANDSCAPE CONTRACTORS OF AMERICA





**Thornton: Sees a skyrocketing service business.**

Thornton, president of Thornton Gardens, Inc., Maineville, Ohio. His firm is a design/build, maintenance firm that does both maintenance and contracting.

"Now, a lot of people are proud to say they are in the landscape maintenance business," says Thornton. "It's grown to be a profession on its own and there are lots of people making money doing it."

But Thornton believes quality has not changed as a standard. "Most of the industry today is probably still based upon their own definition of quality or the vendor/industry definition of quality."

**Technical expertise**

There are two sides to the question of service improvements, as Lied sees it.

"Are we meeting the needs of our clients, and are we providing the service in a way that meets their expectations? The other side of it is, are we servicing our product in a technically sound manner? And I

would say that we are getting better in all of those precepts. But fewer firms are doing this."

Thornton thinks the sky's the limit for service improvements. He believes that most of the money spent in maintenance is spent on cutting grass, and "I

think things will change dramatically in the next decade. You won't have to mow once a week. That will either be done through chemicals (plant growth regulators) or new varieties of [dwarf] turfgrasses."

Rorie sees the primary difference in service between competing companies is that some are able to provide the full range of services a customer needs, rather than sharing with two to five other vendors.

Today, a company is required to do virtually all of the routing landscape maintenance services, anything relative to maintaining the site.

"That has really raised the high bar on who can compete," he said. "'Total Quality' came and went. People in all industries adapted to parts of the process and have since abandoned that process. You don't hear anything about TQM anymore. That is dead."

Rorie believes the groundskeeping business—and service industries in general—will remain labor intensive.

"The reality is you are going to have to have a worker who is low paid, provide a relatively high level of service in order to compete and grow...I would tell you you're going to have to do it faster, better, cheaper, like everything else."

"To me, quality was more defined by the service provider, namely the landscape contractor," says Steven Glover, CEO of L&L Landscape Services, Sunnyvale, Calif.

"I think we had the opinion and mindset that we knew what was best, and we knew what was right, and we'd go out and perform fast service to our level expectations. What we gave them, that's quality."

**Local view not far off**

Debbie Cole, owner of Greater Texas Landscape, Austin, points out that her view of quality is a local perspective, based on what has happened in Austin.

"Over the past 15-18 years, the landscape industry has really been born here. It's not all that old."

Cole says that prior to 1981, there were fewer than three landscape companies that did commercial work. In the residential segment, people either did it themselves, or had a nursery plant a tree. There were also fewer than five landscape architects in Austin, and the unskilled laborers were directed by the architect.

Shortly thereafter, says Cole, In 1982, Austin and Central Texas went through a boom. A city landscape ordinance required commercial landscaping on sites. And, many companies began to relocate to Austin. Cole believes it was not good work, but



**Glover: Service as defined by the customer.**

*Why can't we take a lawnmower out and 'teach it' to mow grass? They do it in farming. Global Position Satellite has the capability of getting down to inches." — Gary Thornton*



bad work, that got people to realize the need for quality. "Then, as bad work started to happen, people began to differentiate, they realized what bad work was, and the discussion of quality began." Cole says quality standards are "definitely customer driven now," and include responsiveness and timeliness on the maintenance side, and timeliness, quality of plant material and customer interaction on the design/build side.

Every market, says Cole, has its own perception of quality, and even clients within each market have differing perceptions.

"In Austin, they do not consciously say 'TQM'. They're doing it, but not thinking it, discussing it. It's sort of, if you want to stay in business, that's what you have to do."

Cole doesn't see any great changes in quality standards in the future, "because the clients set the parameters for quality, and that will happen for the next 10, 20 years."

"A company should find out what the customer wants and then, to the best of our ability, provide that for them," adds Glover.

"I don't think any of us are following a 'Total Quality' system by the book. I think we are creating our own systems. I think we are focused on committed to providing service and quality as it is defined by the customer."

#### Smarter customers

But landscaping will change, thinks Cole.

"Resources are becoming more limited, whether

it's money or water. Our clients are becoming much more educated about horticulture."

Cole says that as customers become more astute about horticulture, they are becoming more interested in managing their property correctly.

"People are willing to do what's right, as long as they understand it. I think there will be more of that."

Cole predicts the industry will have quieter equipment, equipment that is used less, and more use of growth regulators and low-maintenance grasses, or none at all.

#### Full...fuller...fullest service

"We don't just delve into landscaping," explains Ron Kujawa, president of Kujawa Enterprises, Inc., Kudahy, Wisc. "We will delve into anything which the customer thinks we can help them with: snowplowing; curb repair after a hard winter of snowplowing; filling cracked asphalt, sealing, striping asphalt...it could be just about anything customers ask his company to do that falls under the heading of outside maintenance."

About 20 years ago, Kujawa says, quality was something you could anticipate.

"There are often many contractors working for a client. The one that suggests and the one that anticipates client needs is in a better position than the



**Kujawa: Some clients see only dollars jobs cost.**

It's meeting the client's requirements and exceeding their expectations."

This takes the judgement of quality off of the contractor and puts it squarely in the hands of the client. It's a transition that is happening in the industry, but not yet totally.

"I think [Total Quality] is practiced by a quarter of the industry," suggests Lied. "I think it is recognized as a goal by another third to half of the industry; and ignored, unknown or consciously declined by the remaining quarter."

"There are a group of contractors that consider their clients the enemy."

JC

## Expectations

"They're pure emotions," says Tom Lied of client expectations. They deal with:

- ▶ how is this process delivered to me?
- ▶ are my time lines met?
- ▶ is it fun to review the designs with you?
- ▶ is it fun to have the project unroll and have your employees at my place of business?
- ▶ is it an enjoyable experience, in which I can participate as much or as little as I choose?

Requirement and expectation round out the concept of the Total Quality philosophy. "The combination of those two things is what Total Quality is.



*"You don't build a long term relationship by trying to put something over on people."*

—Ron Kujawa

Kujawa links the service industry to the intangibles of quality.

"What's unfortunate in the service industry, is that all you sell are promises, you don't sell anything else. You promise to do this, you promise to do that."

Often, since dollars are the only common denominator, Kujawa says it is hard for a customer to judge true quality.

"Unless he's had the experience of working with people, the person who's buying it cannot measure the contractor's responsiveness, flexibility, punctuality," Kujawa said.

"All those intangible things are very difficult to measure. They only see one thing...dollars."

**Long term relationships**

Kujawa says the longer he successfully serves a customer and develops a relationship, the more the customer has confidence in him.

"They know we're going to look out for them. They don't have to continually look out for the bottom dollar."

He also sees quality from the standpoint of how it functions within the company.

"We have employees who have worked here since the '70s," says Kujawa. "I've got a number of 25-year people here."

—Writer John B. Calsin has contributed many articles to LM. He is based in West Chester, Pa.

one who waits to be asked." "The customer doesn't have to be right," says Kujawa, "the customer has to be satisfied. That's all."

**Service for 'boomers'**

There is one thing we need to understand about the Boomer Phenomenon. Boomers are splitting into two groups: the "rich boomers" and the "poor boomers." The rich boomers were born between 1950 and 1960. They got into their houses when you could afford them and into careers when jobs were plentiful. The rich boomers inflated the prices of goods and got a head start on their careers, leaving the poor boomers—born between 1960 and 1970—in their wake.

The rich boomers have built their houses and are in them. They are not going to be out building things but they will have the most money to spend of any age group in the country. What will they spend their money on? Service. They will not want to mow their lawns, trim their shrubs or pull their weeds. They will not want to plant a few trees and shrubs to upgrade their landscape.

One of the fastest growing segments of this business is, and will be, maintenance. All across the country I have heard and seen the same things: contractors talking about how maintenance has paid the bills, how it is the only part of their business that is growing. Companies who never even considered maintenance three years ago are now scrambling to get into it.

Maintenance billing in this nation will exceed billing for new construction someday.

From "The Complete Business Manual for Landscape Irrigation and Maintenance Contractors," by Charles Vander Kooi, a Green Industry contractor and business consultant based in Littleton, Colo. He has been in the Green Industry for more than 30 years, and has done more than \$100 million in landscape projects. To receive a copy of the book, contact Vander Kooi & Assoc., Inc., at 303/697-

6467.

*Maintenance billing in the U.S. will someday exceed billing for new construction.*



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A million dollar per year "entrepreneur of the year" says that most of his peers' and competitors' marketing is anemic, me-too-istic, dull, full of costly waste, and ineffective. Arrogant? Egotistical? Marty Grunder says: "React to me any way you like—but one thing is for sure, if you are in the landscaping business or maintenance business, whether you are small or large, my marketing methods can easily double or triple your business in just one year, provide better customers, help you target and get exactly the kind of business you want, increase profitability and stability, and absolutely mystify and trump your competitors."

Big talk? Yes, it is, but this Grunder wisecracker has been showing off—and blowing sceptics away—his entire life. As a freckle-faced, red headed Dennis-the-Menace type kid, he started his business with nothing more than a "push" lawn mower and chutzpah. That little business went to 75 regular customers almost overnight. As a full-time student at the University of Dayton, while his buddies drove to school in old "beater" cars and flipped burgers for pocket money, Marty arrived in his Grunder Landscaping Company truck and, at age 21, did over \$300,000.00 in business. Last year he was named Young Entrepreneur of the Year by the Small Business Administration's Midwest Region, in the 1 to 25 employees category. Currently, Marty oversees a staff of 30, 18 trucks, a backhoe, an assortment of other equipment, and a diversified business doing everything from basic residential lawn maintenance to complicated commercial landscaping projects—and, this year, breaking \$1.5 million in annual sales. He's also investing in land, lecturing from time to time, and working with other landscapers as their "marketing coach."

Million Dollar Marketing Secrets Revealed In A Free Report—If You Qualify!

Grunder DOES have "secrets" for building these types of businesses, too. Here are just a few examples:

1. How to **spark referrals**... how to turn "small accounts" into big business.
2. How to **increase Val-Pak Coupon, direct-mail and Yellow Pages advertising results by 10% to 30%**...make your advertising much more productive and be able to accurately measure its value.

3. The 5 biggest mistakes 95% of the people in this business make when advertising and how to avoid them.
4. **How to stop the "price shopper" in his tracks. How to get good business without being the lowest bidder or offering cheapest price.**



Here's the smart-aleck kid standing next to his first truck. Who'd have guessed he'd quickly create the biggest and best company in southern Ohio, confound established, entrenched competitors, and exceed \$1.5 million in annual sales? Betcha he has a marketing secret or two in his pocket that you'd love to steal, if you could!

5. How to avoid the **fatal mistake** of confusing 'marketing' with 'selling'.
6. **Forget wasteful "name recognition" or "getting your name out there"**—learn to "target," create and deliver a "market-matched" message, and **attract exactly the type and size of clients you really want.**
7. Why your "service" should never be the #1 focus of your marketing.
8. Powerful but simple letters and things to say to existent customers to **cause demand for a variety of additional, highly profitable services.**
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10. How to get people working for you and with you to really contribute like a championship team!
11. How to use "**automated, autopilot marketing**" to bring in new business without you or anyone else even talking with prospects on the phone!
12. Even "poor boy" **dirt cheap marketing** strategies, like what to write on a simple postcard to bring in a flood of new customers.

13. The "**4-Page**" marketing tool used 6 to 10x a year that is guaranteed to increase your business by at least 30% year after year...**automatically!**
14. How to position yourself as a "famous expert" in your area, get a ton of free advertising and "**fr**y" the competition.

And there's a whole lot more. At the urging of a big-time, nationally respected direct marketing consultant and professional speaker who discovered and was "blown away" by everything Marty was doing, Marty prepared an easy-to-read but very complete, provocative Special Report—"How To Re-Invent Your Lawn-Garden/Landscaping Business With Million Dollar Marketing Secrets"—and you may be able to obtain a copy at absolutely no cost whatsoever.

Who Should Get Marty Grunder's Special Report?

Marty asks that you call for his free Report ONLY if: (1) you own your own business or are the President, CEO, manager or marketing manager for the business; (2) you make the decisions about advertising, marketing, and customer service investments; (3) you are currently unhappy with some aspect(s) of your business; (4) you recognize that in today's competitive environment, just "doing a great job" isn't enough to sustain a business; and (5) you are willing to make progressive innovative changes in your business if convinced, even reasonably assured that doing so will dramatically improve sales, profits, customer satisfaction, referrals, growth, and community prominence. (Please do NOT waste your time or Marty's money getting this Special Report if you are close-minded, change resistance, fully satisfied with your income, or just a curiosity-seeker without sincere interest in changing your business for the better.)

How To Get Your Free Report:

Simply write "Report" on your business card or a sheet of your letterhead and FAX it to 937-847-8067 or, for even more information and to get your Report, call 1-800-399-7135, listen to a brief free recorded message, then leave your name, company name, and address as instructed. You can FAX or call anytime, 24 hours a day, 7 days a week. If you prefer having your report sent confidentially to your home address, just let us know. Incidentally, requesting your free Report does not obligate you in any way; no salesperson will call to follow-up, nothing of the sort. However, this is a limited free offer, so please take care of it right now, while it's fresh in your mind.

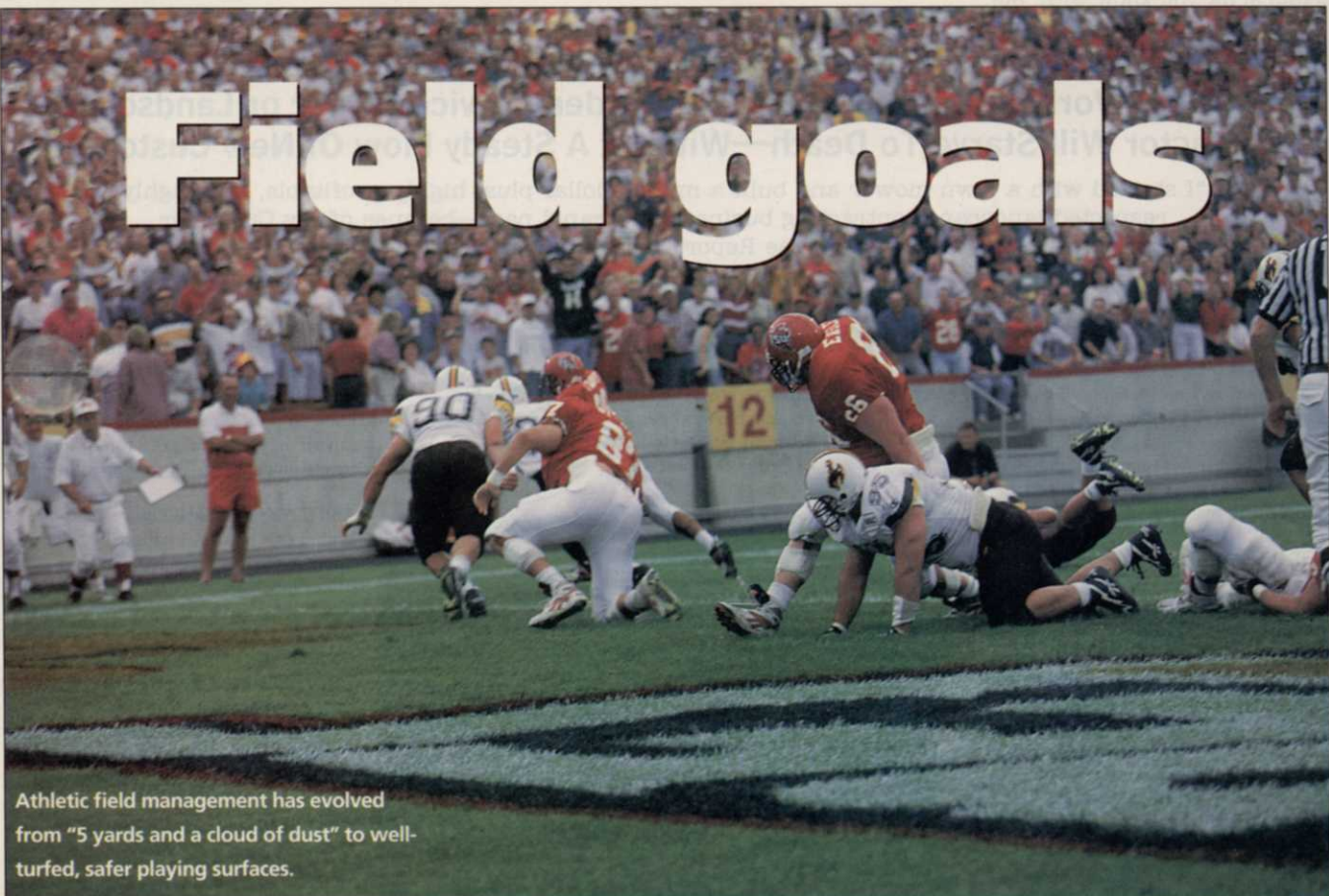
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# Field goals



Athletic field management has evolved from "5 yards and a cloud of dust" to well-turfed, safer playing surfaces.

PHOTO COURTESY MIKE ANDRESEN, IOWA STATE UNIVERSITY

*Great strides have been made in sports turf, but we are still in our infancy. We look forward to more change in methods of construction, renovation and management of sports turf.*

By Dr. KENT W. KURTZ,  
CAL POLY POMONA

**T**he turfgrass industry was a sleeping giant prior to and shortly after WW II as there was no grass seed, fertilizer, herbicides or equipment available, and fields were "dirt" and mud, with a smattering of grasses and weeds.

The "Renaissance", or awakening, occurred just after the war, with the introduction of 2,4-D, urea formaldehyde and natural organic fertilizers. Most of the advancements in the sports turf industry are the direct result of the golf course industry which funded research and product development.

Great strides have been made in sports turf, but we are still in our infancy, and look ahead to more change in the methods of the construction, renovation and management of sports turf. Changes such as better fund-

ing, elimination of the low-budget, low-bid contractor, more pride in the quality and safety of the field as well as a movement for additional education and stronger recognition for those directly responsible for caring for and maintaining athletic fields.

► Many significant contributions have been made in the past few years in the research and development of new and improved warm-season and cool-season grasses, that are adapted to the heavy use of and rigors of sports turf.

These new grasses have burst upon the scene and are continually arriving from plant breeders.

► Mowers have been adapted to cut wider swaths of turf with better quality of cut.

► Improvements in reel, rotary and flail mowers have been possible with the advent



**Kurtz: Quality fields, winning attitudes, successful programs.**



of the hydraulic motor-driven cutting blades, which no longer require ground speed to improve the cut.

► Advances in aerifiers equipped with hollow or solid tines and machines that reach deeper into the soil and pull cores are a great improvement.

► Topdressers that apply measurable quantities of material onto the turf surface and ones that can handle less than a cubic yard of material to several yards are now available.

#### **No need for phony turf**

Synthetic turf came along in the 1960s because we lacked the necessary technology in soils and playing surfaces. These artificial surfaces are now being replaced by sophisticated, sand-based soil profiles that use clean, uniform sands, soil warming technology and moisture sensors.

Prescription Athletic Turf—The PAT System—was developed at Purdue University and the first field to use the system was built by the late William Daniel in 1974. The system is still being installed, with the patent now held by The Motz Group of Cincinnati, Ohio.

#### **Next plateau: turf under glass**

We are about to reach another plateau with the development of grasses and environmental systems for growing turf in domed stadiums. Improvements in soil amendments to stabilize sand fields using mesh elements, various types of fibers and improvements in water infiltration, drainage and surface resiliency with soil additives, such as crumb rubber and other products have been quite successful. New materials for topdressing turf to protect the grass plant's crown and growing parts under heavy use, like finely ground crumb rubber, have shown success in the 1990s.

Other advancements include:

► more diversified fertilizers, weed, disease and insect control products.

► new, improved drainage equipment from Europe and Canada. We must recognize the drainage factor, and better utilize physical soil analysis as a means to develop a good base for sports fields.

Further, we must use this information to design the best facility within budget constraints and develop sound and functional specifications for the construction and/or renovation. Poor design, old specifications and resistance to change continue to

*We must recognize the drainage factor, and make better use of physical soil analysis as a way to develop a good base for sports fields.*

contribute to failed projects within our industry.

#### **Share information**

We must continue to learn, try new products and equipment, gain more pride in the workplace, work together as a team and network with other professionals. Probably the greatest advancement in the sports turf industry has been the establishment and successful participation by sports turf managers in their own national association, the Sports Turf Managers Association, founded in 1981. State chapters are being formed throughout the country.

Membership and participation in STMA is critical for self-improvement through education, fellowship, networking and the goal of making fields safer and more aesthetically pleasing. A quality athletic field results in a winning attitude and successful program for sports teams and sports turf managers.

—*Dr. Kent Kurtz is a sports turf advisor and professor of turfgrass science at California State Polytechnic University at Pomona, Calif.; a founding member of the STMA; and a past member of the LANDSCAPE MANAGEMENT editorial advisory board.*

## **'Back to grass' begins**

Artificial turf is hurting athletes, say an overwhelming number of college athletic directors. The athletic directors, from schools in the National Collegiate Athletic Association (NCAA), cited increased injuries to knees, ankles and elbows as the main reason they preferred natural fields.

Fifty-three percent see a trend back to natural fields.

Comments from respondents characterized artificial surfaces as "too hard, abrasive, and no give."

Besides knee, ankle and elbow injuries, burns and contusions also topped the list.

Several coaches favored synthetic turf. A service academy official said, "The main problem is footwear, not the turf."

*LANDSCAPE MANAGEMENT, February, 1988*





# We were there at birth of lawn care

*WT&T and LCI first to recognize the 'new' lawn application industry.*

BY JIM GUYETTE and RON HALL

Professional lawn applicators proved that they could apply fertilizer products more efficiently than most homeowners—and with better results.

**T**he chemical lawn care industry emerged and grew since publication of the first issue of *LANDSCAPE MANAGEMENT* (then called *WEEDS AND TURF*) in 1962.

There were some lawn care companies then, most in the Northeast and a few in the Midwest and in Florida, but no recognizable industry.

Most homeowners fertilized their own lawns, about once or twice a year.

Only a few entrepreneurial individuals worked to develop products and systems to treat many lawns in a day. They thought that if they could substantially improve those lawns, that they could build a profitable business. Even so, few could foresee the demand for professional lawn care. Once

homeowners learned that they could hire "professionals" to improve their lawns, at an affordable price, they embraced the service.

Within a decade, the few applicator companies grew into many.

The 10 to 15 years following *WT&T*'s first issue saw the birth of many of the companies that later became so familiar—Lawn Doctor, ChemLawn, Davey, The Weed Man, and Barefoot Lawn among others. Some opted for company-owned branches. Others offered franchises.

Meanwhile, many other smaller, local application companies began shortly thereafter, in the mid to late 1970s. Those that haven't been bought by larger companies remain some

of today's strongest local and regional companies, and they're still family-operated.

"It was a very heady time. It was really exciting," recalls Bob Earley, former editor and publisher of *LAWN CARE INDUSTRY* (LCI) and *LANDSCAPE MANAGEMENT* magazines. (LCI published its first issue in July 1977 and continued until 1991.)

"The industry was full of entrepreneurs and guys with farming backgrounds," says Earley, who lives near Chicago and remains in publishing.

"The guys were all 28 to 32 years old and they were ready to branch out. They said, 'hey, I can do that.'" And, they did.

#### **Duke an inspiration**

Many of these young entrepreneurs were inspired by the success of the charismatic



Richard Duke who, in the early 1960s started experimenting with systems to deliver homeowner lawn service. In the winter of 1968 Richard and his father Paul closed their garden center in Troy, Ohio, and started a chemical lawn service. By the end of the season they'd attracted 400 customers.

They called their company ChemLawn and it became, within a decade, the most recognizable name in lawn care. But, it wasn't the first successful lawn care company—not by a longshot.

#### Early innovators

Millard C. Dailey offered contract spraying of liquid fertilizer onto home lawns in the early 1950s. His business, known as Liqui-Green, took off

after he consulted with an engineer to build a truck with agitator tank, pump and 300 feet of ¾-inch hose.

In 1961 Daniel Dorfman founded Lawn-A-Mat on Long Island. He developed a multi-purpose Lawn-A-Mat machine to make the service affordable for homeowners. Towed by a small tractor, it aerated and rolled a lawn as it dispensed several dry materials. You could even use it to make spot treatments of liquid material.

Even so, Dorfman said that he still had to market his service.

"It is no longer enough to pass out a few leaflets in a neighborhood which is often all that is necessary to obtain customers for mowing, clean-ups and hedge and shrub trim-

ming," he wrote in WT&T. "A many-pronged advertising and promotional program must be undertaken, and this costs money too."

#### Floridians active too

Meanwhile in Florida, Ron Collins, was working with his uncle Bruce in Fort Lauderdale, delivering liquid pest control to homeowners' lawns. The uncle came up with the idea of delivering the service in clean trucks with technicians in white uniforms and red hats, recalled Ron Collins in an interview with LCI in the mid 1980s. Ron founded R.W. Collins Inc. in Satellite Beach on Feb. 20, 1962.

The services were sold as "power spraying," and the first spray guns, designed for use in

orange groves, delivered 60 gallons a minute under 800 pounds of pressure. When Collins deemed that the old iron 1,000-gallon red tanks were too heavy, he had a fiberglass tank made.

Other early lawn care companies sprang from fuel oil delivery companies in the Northwest seeking ways to generate income from their trucks in the growing season. Or from tree companies that already had tanks and spray equipment, and were familiar with professional application.

But it was ChemLawn that popularized lawn care nationwide. CL opened markets at an amazing pace. In 1970 CL had expanded to Louisville, Indianapolis, Cincinnati and

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Toledo, and passed the \$1 million mark. Just over a decade later, there were ChemLawn locations nationwide as it recorded sales of \$180 million.

Tragically, founder "Dick" Duke never saw how successful CL eventually became. He died suddenly of a heart attack at the age of 48 on August 23, 1977. He left behind a valuable legacy—dozens of highly trained, highly motivated and still relatively young lawn experts. Many remain active in the industry.

### Media hysterics

The lawn care industry's growth hasn't been without problems. The most persistent has been the assertion by some critics that lawn care chemicals pose risks either

more responsive to customers through such practices as posting and pre-notification.

### Positive thinking

In January of 1987, Jerry Faulring, founder of Hydro Lawn Inc., wrote to LCI telling his colleagues to ease off with the "hyper emotionalism." Posting laws were actually a plus for the industry, he pointed out. Generally the public accepted the idea without fuss. Any way, it's free advertising. "Tens of thousands of flags got planted," wrote Faulring. "And guess what? The birds are still singing and the pets and children are okay."

The mid 1980s were a watershed in another way. The number of million dollar lawn care companies (those with annual revenues exceeding \$1 million) leveled off, and began to shrink due to buy-outs and consolidations. The trend has continued with TruGreen/ChemLawn, now industry's powerhouse.

"Their production can outnumber anyone else's," says Neal DeAngelo, president of Lawn Specialties in Hazelton, PA.

"Don Karnes and those guys did a real nice job of consolidating," Erbaugh points out, marveling at TruGreen's rise in the industry.

As a division of ServiceMaster, TruGreen acquired long-time competitors ChemLawn and Barefoot Grass, and gobbled up dozens of regional and local companies too in the 1990s. Not bad for a company with humble beginnings as a small application company in cen-



Lawn Doctor co-founder Tony Giordano, right, presents a 10-year Service Award to Service Manager George MacDonald.



Erbaugh: lawn care industry became an easy target.

to humans or their pets, and/or the environment.

"In July of 1986 Dan Rather of CBS brought us into the environmental battle," recalls James Brooks, former executive vice president of PLCAA.

"A few politicians realized that there was hay to be made by attacking lawn care," adds J. Martin Erbaugh, who got his start working at the Davey Tree, then built up his own large regional company, Lawnmark.

While incidents arising from chemical misuse by LCOs have been rare, public concern helped push the industry to be

tral Michigan in the early 1970s.

Karnes, who started out as an applicator with TG in western Michigan about 20 years ago, is now group president for lawn care and pest control at TruGreen/ChemLawn/Terminex.

### Burning up the phone lines

Karnes says there several reasons why TruGreen succeeds, not the least of which is its success in selling over the telephone. "Telemarketing has had a huge impact on our industry," he says.

As TG/CL grows, the

**Karnes:**  
TruGreen knew how to sell over the phone.



industry itself grows. Karnes credits better training for technicians and more efficient equipment. Regulations have also helped move the industry "in the right direction," he says.

Russ Frith, president of Lawn Doctor, Inc., the largest lawn care franchise operation in the U.S., believes consumers have a greater understanding of lawn care today, and that he has faith in the industry.

"The marketplace is expanding. There are more housing starts now." Also he points out that 15 years ago, about 45 percent of American households had dual incomes. Now the figure approaches 85 percent. And what American adult doesn't want more leisure time, he asks?



# PGMS knows its mission

*Professional Grounds Management Society seeks to unite and serve Green Industry professionals and others through education and environmental awareness.*

by JOHN GILLAN, PGMS

**A**lthough the Professional Grounds Management Society is now in its 86th year, what has happened since 1962—the year of the Society's 50 anniversary—has been the most progressive period in its history.

PGMS began as the National Association of Gardeners in suburban New York and New Jersey in 1905. Those original members were then known as "estate gardeners".

In 1911, it was realized that it just made sense to include all institutional grounds managers in the mix. Since then, the broadening of the Society has continued—although under two influences:

- ▶ the unique core of the Society would be the institutional grounds professional generalist, and
- ▶ the organization would remain a professional society for the individual.

#### Reasons to join

Since 1962, what has happened is that more turf specialists, horticulturists, irrigation specialists, independent contractors and even some arborists have seen fit to join the ranks, especially if their daily work involves them in work for institutions.

The types of institutions include colleges and universities, municipalities, park and recreation facilities, office parks, apartment complexes, hotels/motels, cemeteries, theme parks and other areas needing professional landscape care. The colleges and universities are the largest single membership category.

Some of the changes within the PGMS since 1962 include:

- ▶ changing the Society's fiscal year.
- ▶ changing the working relationship with the

Society's local branches to bring the groups into greater commonality.

- ▶ adding a significant marketing capability to Society headquarters.
- ▶ originating the Certified Grounds Manager peer review program (1980), the first such program of its type in the service portion of the Green Industry.
- ▶ offering the Certified Groundskeeper program in 1996.

The greatest changes, however, have been those relating to things outside the organization:

- ▶ one of the earliest scholarship programs in the industry.
- ▶ more active participation in allied industry events and associations, and partnering with ALCA



PGMS President Tom Smith, center, cuts the ribbon at a GIE show with PLCAA's Executive vice president Ann McClure and ALCA member Ron Kujawa.

and PLCAA in the Green Industry Expo.

PGMS will continue to help the individual manager develop techniques and management skills to assure an outstanding grounds management program for his/her organization, agency, department, firm or employers, and upgrade the level of professionalism.

—John Gillan is executive director of The Professional Grounds Management Society, based in Hunt Valley, Md.

CERTIFICATION

**PGMS**  
A voluntary, peer review  
program for  
grounds professionals



An early PLCAA board meets, circa 1980.



# PLCAA met a growing need

*PLCAA was formed by a band of eager industry professionals to meet the needs of a growing number of lawn care operators.*

**O**n June 14, 1979 a small gathering of lawn care businessmen met at the Cincinnati-South Holiday Inn, and decided to form an association, and agreed on "Professional Lawn Care Association" as a working name for the group. They raised nearly \$15,000, appointed pro-tem officers and hired a management company to put it all together.

**First show in 1980**

The first PLCAA convention and trade show was held November 12-14, 1980, at the Commonwealth Convention Center in Louisville, Ky. Attendance was about 700 lawn care businessmen, which told the board members that their decision to emphasize business management topics at the show had been a good one.

From 1979 to 1989, PLCAA jumped out front with education programs, an annual conference and show, and legislative activities. PLCAA quickly established itself as the "voice of the lawn care industry."



The Association stabilized its finances and created a surplus budget under Ann McClure's management as executive vice president. Membership grew from 978 companies in 1990 to 1,200 by 1997 when she left PLCAA to join another association.

**Green Industry Expo**

The Green Industry Expo, a first-time venture based on the cooperation of PLCAA, Professional Grounds Management Society and Associated Landscape Contractors of America. In its 1990 debut, GIE attendance topped 2,000, attracted more than 250 exhibitors and sold 54,200 square feet of exhibit space. 3,000 attended in

From its inception in 1990, PLCAA has managed the trade show and in 1994 hired Eleanor Ellison as its trade show manager.

**Government affairs**

In the early 1990s the lawn care industry was the focus of intense media and congressional scrutiny. The future of the industry was at stake as Congress investigated the use, regulation and potential health risks of lawn chemicals, and the advertising and safety claims made by the lawn care industry. Government affairs director Tom Delaney and Ann McClure testified in two Senate Subcommittee lawn



**Delaney: monitors legislation for fairness.**

care hearings in 1990 and 1991.

The Association stressed the environmental importance of a well-maintained turf and the necessary role played by lawn care professionals.

Delaney continues to monitor national, state and local laws, regulations and ordinances. Through PLCAA, he's always available to advise members battling unfair pesticide and business regulations in their communities.

PLCAA continues to grow and educate the industry about professional practices, issues management and environmental stewardship, as well as inform the public, media, government agencies and political leaders about the benefits of turf.

"As we approach the millennium," says Delaney, "PLCAA will play a vital role in continuing to educate a maturing industry about new products and technologies, and the importance of environmentally sound lawn and landscape practices. Industry professionals are ambassadors. They must be active members practicing grassroots politics and using the information PLCAA provides to inform their customers and communities about the benefits of turf and professional practices."

—From "PLCAA: Yesterday, Today & Tomorrow," additional history by Karen Weber, PLCAA director of communications.



# RISE: the D.C. connection

by ALLEN JAMES, RISE

**T**he specialty pesticide supplier industry needs an effective association to address its needs and concerns, and to serve as its representative and voice at the national, state and local level.

To fill that need, RISE (Responsible Industry for a Sound Environment) was established seven years ago in Washington, DC by a small group of company representatives.

RISE membership now totals more than 125 active and associate members and continues to grow. Members represent not only manufacturers and formulators, but distributors and other industry leaders involved with pest control products used in turf, ornamental, aquatic and terrestrial vegetation management and other non-food/fiber applications. Companies and associations with related interests form the group's associate membership.

#### **Positive influence on opinion**

The association was created to provide a strong, unified industry voice; to be a positive influence on public opinion; to promote use of industry products as valuable pest management tools that enhance the quality of life and the environment; to promote the safe and responsible use of all industry products; and to protect the specialty industry from unwarranted regulation.

Over the past several months RISE has:

- ▶ Helped organize and participate in EPA's advisory group on improved consumer labeling of specialty pesticides;
- ▶ Worked with EPA on implementation of the Food Quality Protection Act and other regulatory concerns;
- ▶ Advised on drafting and helped distribute the EPA initiative on Integrated Pest Management for public school superintendents;
- ▶ Developed an awards-winning CD-ROM on specialty pesticides and its industry which was distributed widely to key news media, garden writers

and environmental journalists;

- ▶ Responded to numerous editorials, articles and news media contacts on issues concerning industry, pesticide uses, and consumer concerns;
- ▶ Established the *Formulators Work Group* to address issues important to this industry segment;
- ▶ Conducted regional seminars for specialty products industry members and end users, addressing concerns about idiopathic environmental intolerance (multiple chemical sensitivity—MCS.);
- ▶ Worked with allies to address a number of state and local legislative and regulatory issues related to specialty pesticides and their use;



**James: control products are useful tools.**

- ▶ Worked with Golf Course Superintendents Association of America, and the Professional Lawn Care Association of America to establish an Ambassador speakers program in a number of states.

Along with PLCAA and TruGreen/ChemLawn, and in cooperation with the National Association of County Agricultural Agents, established an annual study tour and workshop on pest management for

urban agents; and continued sponsorship of NACAA's awards program promoting responsible urban pesticide use.

#### **A major challenge**

All of us within the green industry have a challenge: Sustain and improve upon the benefits to home and community markets with the products and services that enhance quality of life, protection of health and preservation of environment. RISE, and its members, is committed to being an active partner in meeting that challenge.

—Allen James is executive director of *Responsible Industry for a Sound Environment*.



# TPI optimistic

In the early 1960s, landscape contractors, golf course superintendents and other grounds professionals had few grass establishment options. If they wanted to seed or sprig, the number of improved varieties was limited. If they wanted sod, high labor demand was the only certainty, as producers were widely scattered and product quality varied.

A cycle that builds on success is very strong within today's turfgrass production industry, with an expanding number of options being a key element.

#### Variety in turf

Standard rolls and slabs of consistently high-quality sod are widely available, in an ever-expanding array of mixtures and blends. Big rolls, washed sod, thin-cut, thick-cut, custom-grown and unique harvesting, delivery and installation options all create and support a greater and greater use of turfgrass sod. Golf courses, sports fields and erosion control projects are all turning to sod because of its instant and certain result, with a known cost for quality. The use of sod on residential sites continues to increase for the same reasons. Concerns and increased awareness of potential environmental impacts are also contributing to the increased use as well because it does not require the large amounts of water,

fertilizer or pesticides associated with seeding.

Turfgrass Producers International (formed in 1967 as the American Sod Producers Association) is more the catalyst than the cause of these improvements. By offering a forum where producers and manufacturers can exchange ideas and information on a regular basis at meetings or through committees and publications, TPI members are better able to anticipate or react to new needs and requirements.

#### Today's ideas, tomorrow's reality

Yesterday's methods quickly become historical curiosities because the competitive nature of the turfgrass sod production industry requires that the producer must not only compete with fellow growers, but every other type of grass establishment as well. What's more, they have to do it on a cost and labor competitive basis, knowing that given sufficient time, their professional customers could grow high quality grass on their own and not require sod.

With nearly 1,000 members in 36 countries, TPI has become the preeminent source for information about the turfgrass sod industry, but its volunteer leaders and professional staff are already discussing how to further improve the industry.

One of the key components to this continued improvement will be a concerted and organized effort to better understand the needs of their customers, especially the professional segment. Asking questions, listening carefully to the answers and developing new solutions will be an on-going effort for TPI and all of its members. TPI and its members should individually and collectively be wise enough to recognize these new opportunities and brave enough to advance exciting new solutions.

—Fender is executive director of TPI, a position he has held since 1983.



Fender: industry improvements help make sod installation easier.

*Sod. A little word that offers big advantages for turf managers. This association thinks positively in an age of environmental unrest.*

By DOUG FENDER, Turfgrass Producers International

Fourteen past presidents of ASPA/TPI entertain during the group's 25th anniversary celebration in Chicago in 1992.







ALCA's first meeting. From left: Ken Jenner; Ed Stafford; first president Julian Graham; Warren Purdy; Walter Diestch; Tom Lied; Tom Rich; Ernest Berthe; Don Sawyer; Ken Schmidt; Ed Reinecke; Jim Omura; Grant Tigwell; Bob Hoffman; John Lindsay; Don Groth; F.J. MacDonald; Harris Grand.

# ALCA

## changed with industry

By RUTH E. THALER-CARTER

**W**hat began 35 years ago as a small group of concerned business owners is now a leading trade association for the landscape industry.

The Associated Landscape Contractors of America (ALCA) serves exterior and interior landscape contractors, with a wide range of programs, services and vision.

By expanding services and smoothly adapting to the changing nature of its industry, ALCA has evolved from a small group of dedicated founders to a network of professional-level services and activities.

As recalled by Tom Lied, CCLP, chief executive officer of Lied's Landscape Design and Development, Sussex, Wisc.; ALCA president in 1968-1969, and the last active contractor who was a charter member, ALCA began through the efforts of magazine publisher Jim Garland of the California Landscape Contractors Association.

### California model moves across nation

"Jim felt that the state association was working well and had developed a dynamic value in California, but that there was a need for a national association representing landscape contractors," Lied recalls. "He felt

we could use the California model as impetus but that we needed a national voice."

Garland used his magazine to announce plans for an exploratory meeting in Chicago, inviting both landscape contractors and their suppliers to attend. That led to a decision to form a national entity, along with "the usual mix of short-sighted and long-term goals," says Lied. "One person wanted a vehicle for group purchasing and discounts on training publications. Another wanted leverage and limits on competition and regulating prices. Another wanted the national group to be politically active. Others wanted social and business visibility to improve the industry's image. Some wanted a focus on increasing profits through education. There was a strong interest in growing together and sharing ideas, being educational, which has survived through the years."



**Bailey: Define our role as professionals.**

The charter members agreed to form an association, drafted a constitution and by-laws, and elected Julian Graham as the first president. "He was the most interesting, funny, pleasing individual - a real role model," says Lied.

The group set a date for its first conference in New Orleans. It was "Dutch treat," and everyone paid their own expenses.

"One reason that ALCA originally formed as a national organization was to fill a need for members of the industry to be both better business people and better landscape contractors," said Rodney L. Bailey, CCLP, president of Evergreen Services Corp., Bellevue, Wash., and ALCA president in 1985, as well as a member and/or chair of every major ALCA committee since joining the association in 1974.

### We are professionals!

"ALCA was the first national group that recognized that we deserved to exist as professionals. The founding role was in education and that has been its guiding role ever since." In its early years, ALCA developed programs to reflect all aspects of running a landscape contracting company. A December 1977 issue of its newsletter reflects this commitment to educating members, with coverage of a two-day Maintenance Symposium (now the four-day Landscape and Grounds Maintenance Conference) and announcements of an annual meeting, Intiorscape Symposium (now the Interior Plantscape Conference), Management Seminar, Capitol Hill update and new members.

"ALCA's principal contribution to individual members and the industry has been to provide a forum for interacting and exchanging ideas and philosophies that are aimed at making us all better contractors,



which makes the industry better all around," Bailey says. "We feel free to share information because competition is not an issue. Any changes over time, such as how the association is organized, have been in response to changes in the industry and often have driven the industry. The most healthy change I've seen over the years is in focusing more on what we do rather than our geographic identities."

"The hallmark of ALCA has been benchmarking, networking, sharing ideas and education," Lied says. "The focus on education evolved through programming that serves the special interests of various segments of the industry." Among ALCA's earliest and most ingrained values has been its commitment not only to professional education, but to "acquainting young people with established contractors and improving the industry's image by building confidence among members," says Lied. "In the early days, every time you called yourself a 'landscaper' instead of a 'landscape contractor,' it cost you a buck! ALCA was the catalyst for converting the mentality of landscape contractors from 'this is a fun business' to 'landscape contracting is a good venue for earning a living' - from being a tradesperson to being a professional business person."

#### **Business basics first**

ALCA formed "when people were less concerned about building and expanding their markets and more concerned about how to do the work of running a business, because the market was so great at that time," says Lied. "Now that we're in the second and third generation of business owners, we've gotten more professional and more astute. ALCA and its various teaching institutions have led to better-quality members when other industries have been declining."

#### **Shows with other groups**

A hallmark of ALCA's growth and



**Lied: Better quality members fill ranks.**

success over the years has been its productive partnerships with other organizations in the industry. For example, joining forces with the Professional Lawn Care Association of America (PLCAA) and Professional Grounds Maintenance Society (PGMS) led to the annual Green Industry Expo trade show, now part of the

ALCA Landscape and Grounds Maintenance Conference every fall. The ALCA Interior Plantscape Division Conference will be held with the Tropical Plant Industry Exhibition (TPIE), starting in January 1998. ALCA demonstrates the benefits of plants in the workplace and promotes using professional landscape contractors to colleagues in many fields by participating in World Workplace every year.

ALCA's growth over time has been steady. The association today has approximately 1,500 member firms and a staff of 13, with an operating budget of \$2 million a year. Current services include:

- ▶ two premiere industry conferences and trade shows, for the interior landscape industry and exterior and maintenance specialists;
- ▶ a wide range of specialized programs for company leaders, sales staffs and other industry members, including: the annual Executive Forum for company leaders, Masters in Management for the Landscape Industry Seminars and more;
- ▶ a full-scale certification program;
- ▶ extensive training and publication services;
- ▶ collaborative links with other associations in research, environmental issues, horticulture, arboriculture, nursery services and others, including a Capitol Hill presence;

▶ a wide-ranging public relations program to promote the value of landscape contracting services to the public and help members enhance their own grassroots PR activities;

- ▶ several awards programs, recognizing excellence in the profession;
- ▶ a strong Safety Program that promotes safe workplace practices in individual companies and throughout the industry;
- ▶ member benefits, including access to tailored business insurance, long-distance discounts and other business programs;
- ▶ high-technology access through electronic mail and an Internet website.

#### **Long-range plans**

One important ongoing aspect of ALCA has been its commitment to long-range planning and incorporating Total Quality Principles into the management philosophy of both the association and its member companies. Lied has championed that process for the past 25 years as chair of ALCA's Crystal Ball Committee.

The first Crystal Ball Report to come out of that vital process gave a clear portrait of

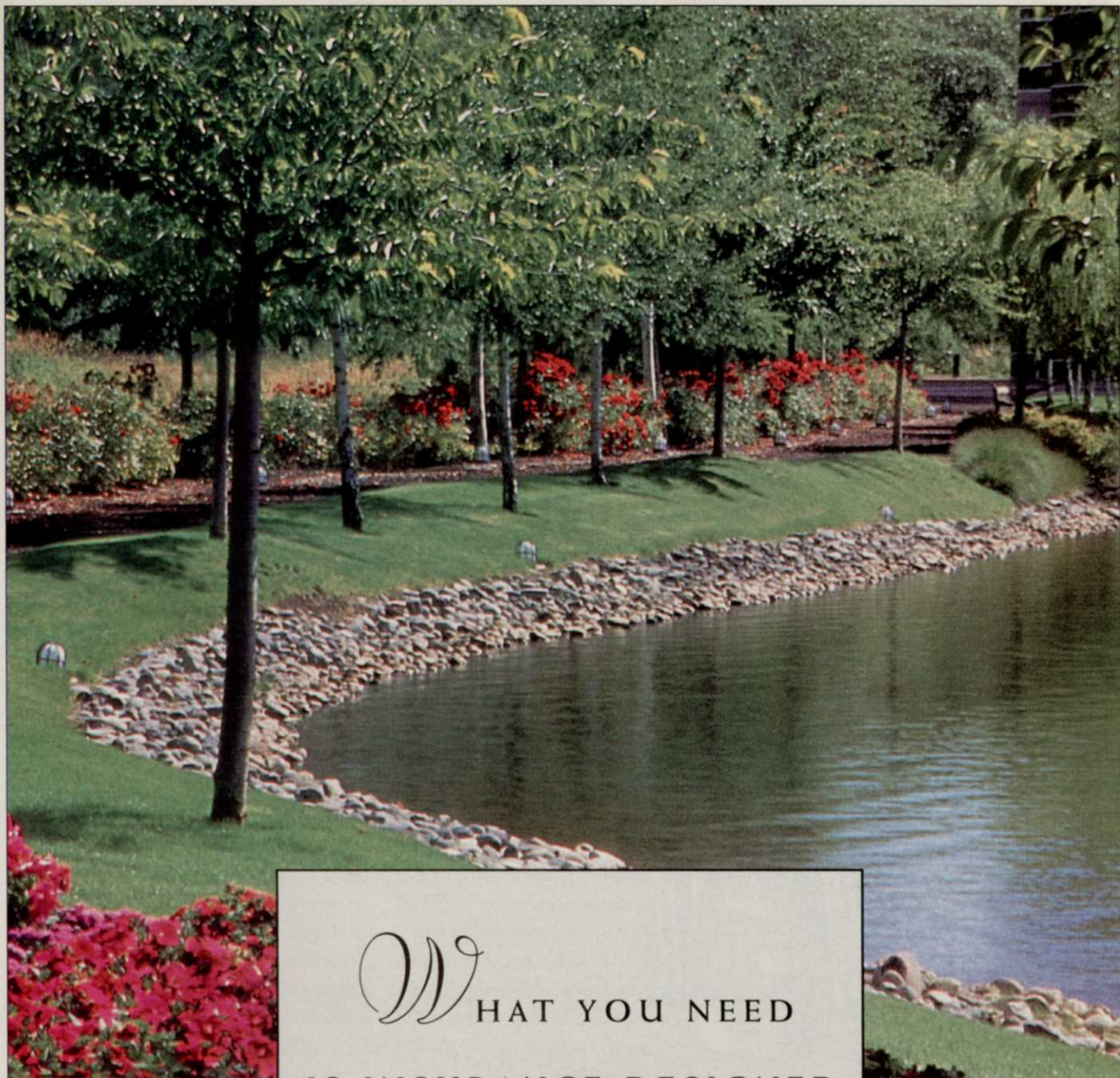
the industry, noting that:

"The (landscape contracting) industry needs to understand itself and to be able to clearly describe its function to interested parties ... The landscape contractor is a service contractor ... Landscape contracting began as an agricultural-oriented industry with its roots stemming from the nursery industry ... The work of the landscape contractor is more diversified and more complicated ... [becoming] more closely aligned with the general contracting industry."

—Ruth E. Thaler-Carter is a freelance writer and editor who has produced the ALCA newsletter for several years. She is based in Maryland.

*The work of the landscape contractor is more diversified, more complicated, more closely aligned with the general contracting industry.*





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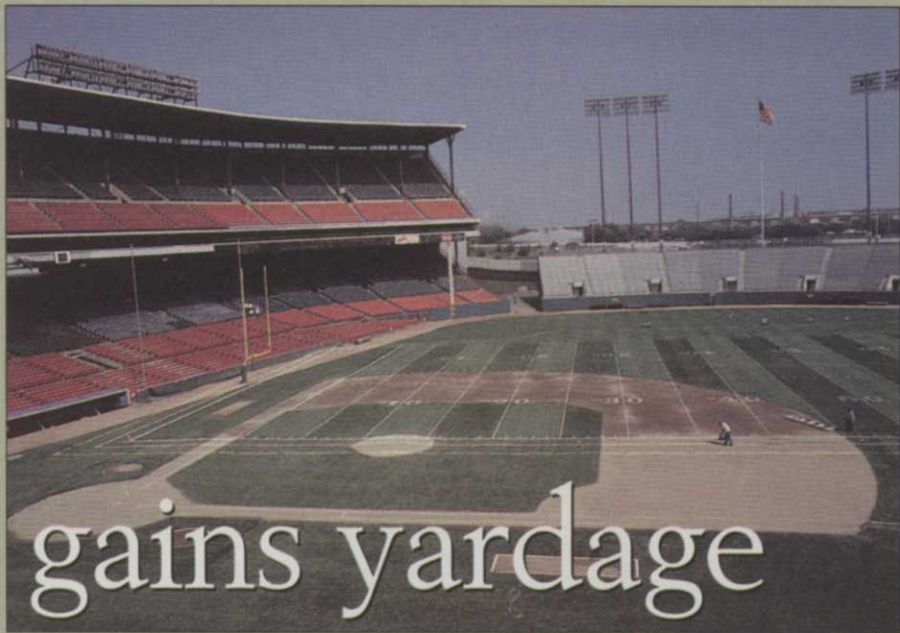
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*The Sports Turf Managers Association was formed because industry leaders believed sports turf could be improved through the sharing of knowledge and ideas.*

# STMA gains yardage



COURTESY DAVID MELLOR, MILWAUKEE BREWERS

**T**he mission statement of STMA is: To be the leader in the sports turf industry, to enhance, promote and improve professionalism through excellence in communication, training, research, education and services.

STMA members work to combine the science of growing grass and the art of maintaining both natural and artificial sports turf to produce safe and aesthetically pleasing playing surfaces. STMA represents all segments of the sports turf industry with those involved in management of school, municipal, university, and professional sports facilities among its membership. Members also include educators and researchers, commercial affiliates, landscape contractors and full-time students.

**Info for members**

STMA holds an annual conference and exhibition in January each year. STMA also provides members with a monthly magazine, a bi-monthly newsletter, a membership roster and resource guide, and an annual compendium of articles written by and for sports turf managers. Sharing information is a strong part of STMA.

Headquarters now serves as a conduit to speed the process of connecting members with each other and to supply information to potential members, facilities in need of assistance, industry-related companies and associations, and the media.

**Recognizes best work**

To further encourage professionalism at all levels, STMA has an independent "Field of the Year" program for football, soccer and softball fields and joins with Beam Clay and *sportsTURF* magazine in a "Diamond of the Year" program for baseball.



**Harry Gill, a co-founder.**

STMA made several strategic moves in 1996, establishing: a committee for Category I members (those managing professional sports facilities) headed by Steve Wightman; a Historical Committee headed by Dr. Kent Kurtz and Mark Hodnick; a Past Presidents-Long Range Planning Committee headed by Greg Petry; and a Certification Committee headed by Dr. Henry Indyk. STMA's Certification Program introduction is scheduled for January, 1998.

Sports turf management has made great

**The transition: one of the challenges STMA members face, and can perform better through education programs.**

strides since 1981 in gaining recognition of the role the field plays in sports from facility owners, athletic directors, field user groups, athletes and the public. Sports turf managers have become increasingly educated and ever more skilled in making the most of available resources. Industry and researchers have introduced new products and techniques to enhance field care. Dedication and commitment, what George Toma calls the "and then some" factor, continue to play a major role.

Still, the education process has just begun both internally, within the green industry, and externally, as sports turf managers face shrinking resources on one hand and increased sports participation and demands for field use on the other.



**Co-founder Toma: Super Bowl field manager.**

Mike Schiller, STMA President, says, "We're young; we're growing; we're improving and we are making a difference. STMA will continue in promoting better and safer sports turf areas so that every athlete, at every level of play, will have the opportunity to play the game to the best of their abilities."



# Know the issues

*Our industry, which has been historically weak in planning, is being challenged to become more strategically focused in order to be agents of change.*

By BRUCE K. WILSON, President, Environmental Care, Inc.

**T**o lead you must know where you're going. In this industry, like most others, competition is very keen. To stay ahead of the competition many companies develop complex plans which guide their futures.

Unfortunately, many of the key action steps are aimed at closing gaps that exist between where you think your company should be and where it really is. While this type of planning is often successful in determining goals, it is not visionary leadership planning that results in "strategic leap-frogging."

I believe that positioning your company for 21st century success is a three-step visioning process:

- 1) Define today's reality of the industry and where you are in relationship to it.
- 2) Define what trends and issues are evolving that will impact the future of this industry and again define where you are in relationship to them.
- 3) Predict those issues which may be less obvious—that haven't started to evolve—that will define the future.

Here are some of the changes taking place that I believe will impact our futures.

There is an ongoing concern for the environment. Environmental responsibility is changing the way landscape contractors do business. Customers and employees are both beginning to understand that reality. First, our customers are concerned that they do their part to be responsible citizens: to save our dwindling natural resources and create more environmentally

responsible landscapes. They are also concerned that the landscapes be maintained in environmentally responsible ways. So what I'm seeing are an increase in legitimate concerns about water consumption requirements vis a vis water efficient landscapes, waste disposal issues, grasscycling, management of green resources and

byproducts, and noise and pollution issues surrounding equipment. Much of this has been driven by government regulation in the past, but what I see happening is a more proactive movement ahead of regulation. This, it seems, is evolving as a good business issue. And one that will continue to shape the way we think about our work.

## **Safety, ergonomics**

On the employee side today's employee is much more educated and aware of 'healthy planet' environmental issues and expects their company to walk the talk. This has resulted in a movement by companies to be at the leading edge of change. There are new concerns for the employees' personal working environment. Production rates, reliability, cost and safety had previously driven equipment decisions, but now manufacturers are designing ergonomic features that affect the users' personal comfort and physical health.

## **Technology and communications**

Another evolving issue for our industry is evident in the growing use of technology between our customers and ourselves as contractors. It is clear that our customers will require compatible communication technology. Some customers now request e-mail correspondence and electronic



**Water quality will be a leading issue in the years ahead, especially as needs increase and supply evaporates.**

transactions such as direct deposit of payments. Technology has fundamentally altered the way we do business today.

Today's college graduates are often more knowledgeable about technology than the companies that hire them; they will be the generation that forces our industry to integrate computer technology into every element of the landscape business. The big challenge for the industry is converting the older employees to a technology-based business environment. It is one of our biggest training issues.



*Vision, intuition and luck are all important to success. Vision to see, intuition to sense what is important, and being lucky enough to be right.*

Another obvious trend that will have a profound affect on this business is "national accounts" — regional and national buyers of services doing business with regional and national providers of services. This will result in larger landscape companies controlling a significantly larger share of the landscape market. This will also force organizations to grow and expand faster than they might otherwise want to, or be capable of. Financing this growth will become an industry problem.

The big picture here is that our industry, which has been historically weak in planning, is being challenged to become more strategically focused in order to be agents of change. Industry experience by itself was once an important criteria to being successful. But industry experience will prove to be of very little value in dealing with the high-speed culture changes that are evolving today. In this technology and information age, those individuals limited by experience alone, may never be able to close the critical technology gap.

If you are at all like me, it's easy to become consumed with "future issues" that

are derived from the more obvious indicators. This to me is the "Step 2" part of visioning. There are many more obvious things that will affect our businesses that I did not mention, but for most of us we prioritize around the most important things. Think back for a minute and try to imagine how if you had been able to forecast these changes and issues before they became obvious, what a position of leadership you could be in today. Instead of just closing the gap with your planning, you would be competitively way ahead.

#### **Vision in leadership**

It is only when I reflect on the past that I realize how important a role vision plays in understanding leadership. Vision, intuition and luck are all important to success. Vision to see, intuition to sense what is important, and being lucky enough to be right. Many times we are successful because we do something that turns out to be right but for a different reason than we envisioned.

What do you fear most in business? My biggest fear is that we will not be able to an-

ticipate change and shift gears fast enough. Change is happening at such a high speed today that "Step 3" visioning becomes the most important step. It also is the one that is easier to do if you think in general terms. And, if you vision regularly, you can continually apply new information which can either confirm or deny your thinking.

In a general way I think companies not in our industry circle today will become major players and competitors tomorrow. They may even come from outside this country. The outsourcing movement will go too far and insourcing will surface with a new face. The industry will find a way to automate more of the tasks that are done by labor, possibly with robotics. And don't underestimate the effect of genetically engineering the maintainable, sustainable landscape.

The challenge, of course, is taking action to assure success in a new business environment. Environmental Care is passionate about being in a position of industry leadership. Alignment at all levels around that basic value drives our employees to be thinking and visioning all the time. We are constantly challenging ourselves and each other to think about positioning for success. That could be even harder because you have to be right. And lucky.

*—The author is president of Environmental Care, Inc., Calabasas, Calif. A graduate in ornamental horticulture from Cornell University, Wilson joined ECI in 1971 and was named vice president and branch manager in 1977. He has served as president of ECI for 17 years.*



Below the surface of the finished landscape lie a series of issues that share company time; from safety, to regulations, to waste disposal to water-efficient design challenges.





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## [TIMELINE]

# 1981:

National Park Service suspends use of herbicide 2,4-D in its 325 parks and recreation areas. Purdue's Dr.

Bill Daniel (shown) leads athletic

turf professionals through organizational meeting of Sports Turf Managers Association.

Wisconsin Turfgrass Association forms.



Oscar T. Jacobsen dies, co-founder of Jacobsen Manufacturing Co. in Racine, WI, in 1920. Also credited with developing the first power greens mower in 1924.

# 1983:

Turf-Seed, Inc. and Pure Seed Testing, Inc. host their first "Field Day" in Oregon's Willamette Valley, home of turfgrass seed production. Event sets a precedent for other seed companies to emulate.

# 1988:

Diazinon banned from use on golf courses and sod farms. Golf course management industry worth an estimated \$3.54 billion.

# More variety in tree care

*Tree care is evolving into a multi-faceted industry with increased opportunities in both the commercial and residential markets.*

**A**s times change, businesses change. The tree care business is no exception. From the 1960s when brush chippers were a luxury to the 1990s where an emphasis on technical know-how has leveled the playing field, tree care has evolved into a multi-faceted industry.

### Gradual growth

In the 1960s, residential tree care was a relatively easy sell for the upscale market. Most companies could maintain a solid base of regular customers and benefited greatly from high retention rates. Regular pruning, spraying, fertilizing and removal provided enough work for the burgeoning market. And the growing popularity of moving large trees to a landscape for immediate effect—as opposed to planting saplings—kept crews occupied during the off season.

Growth was gradual. Over the years, demographic changes have increased residential tree care opportunities. By adding services like landscape development and lawn care, many tree care companies have taken advantage of the growing number of families with two working parents, more disposable income and a desire for a better looking landscape.

**In the '60s, dry tree food was the product of choice.**

### Commercial market expands

This desire for a more appealing landscape also has af-

fected the commercial market. In the 1960s, tree care companies mostly limited commercial work to basic services. Over time, as commercial properties recognized the importance of a well-maintained





*By adding services, like landscape development and lawn care, tree care companies have taken advantage of the growing number of families with two working parents.*

landscape for attracting business and high quality employees, many tree care companies have widened their service offerings to earn a position in this lucrative market.

By adding mowing, floral and shrub maintenance, snow plowing and other services, tree care companies have more to offer a market that is consolidating.

Technology has gradually improved to make tree care more efficient. Power saws, once weighing 100 pounds and requiring two workers, have lightened to 15 pounds. Reduced noise levels make them safer, and increased reliability adds practicality.

Brush chippers have become a necessity. Cranes make large tree moving and tree removal much more efficient.

#### **New fertilizer technology**

In the 1960s, crew members fertilized trees with dry tree food. They drilled holes in the ground and poured in the material. Progressive advancements in research and development have improved fertilization techniques and today, subsurface liquid injection is a common practice for tree fertilization. Improved materials make plants much less susceptible to leaching, providing longer lasting benefits.

While only a select few tree care companies offered a structured technical training program in the 1960s, time has evened the platform. Technical know-how and work quality have steadily improved across the board since the '60s to the point where competition once hardly a factor, has increased dramatically.

#### **Safety always vital**

Safe work practices, always an important part of the business, have evolved from a common sense approach to a sophisticated format. Departments dedicated to safety, instructional videos, weekly meetings and improved gear have helped improve employee well-being. The industry remains dedicated to an accident-free

workplace, both for employee well-being as well as cost-of-claims control.

As the industry moves forward, training and development and increased investment are key elements for growth.

Customers desire and respect high quality service and reliability. Companies with knowledgeable employees and superior customer relations can differentiate themselves from competitors.

—The Davey Tree Expert Company

## **Davey: service for the century**

Jack Joy recently retired as chairman of the board of The Davey Tree Expert Company. Joy began his career in the tree care industry in 1946 as a field employee for the company.

In a 1969 interview with *Weeds, Trees & Turf*, Joy, then vp in charge of sales, noted that "practically, every man working in the field has gone through our school, or else works directly under a man who has."

He described "a Davey man" as being a consulting arborist first and salesman second. This focus on technical expertise has served the company well.

The Davey Tree Expert Company, Kent, Ohio, (incorporated by John Davey in 1909) approaches 2000 committed to providing the most scientifically based, safest and practical tree care services possible. For the past several decades Davey has also provided extensive lawn/landscape services (along with commercial and residential tree services) in selected markets nationwide.

## 1990:

April is first national "Lawn Care Month." *Lawn Care Industry* magazine survey finds industry serves 10 million. PLCAA "Grasscycling" campaign picks up on Dr. Bill Knoop's 10-year old "Don't Bag It" program for recycling lawn waste. ServiceMaster joins with Waste Management, Inc. Ann McClure named PLCAA executive director. Turfgrass expert Dr. Fred Grau dies in December at age 88. ServiceMaster buys Waste Management's TruGreen.



## 1991:

PLCAA representatives appear before a Senate panel investigating pesticide notification regulations. Allen James named executive director of RISE, a new organization. U.S. Supreme Court rules that local governments can enact pesticide laws in case *Mortior vs. Town of Casey, WI*.

## 1992:

ServiceMaster acquires ChemLawn and merges it with TruGreen.



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ANNIVERSARY

# Industry grows through sense and science

## TURFGRASS BENEFITS A CONSTANT OVER THE YEARS

- ▶ *Roadside turf areas provide a stabilized zone for emergency stopping for vehicles that lose control or are in trouble. —Beard 1973*
- ▶ *Working with plants has helped people hospitalized for severe depression, so this type of activity can be of use in combatting everyday blues. —McDonald 1976*
- ▶ *Grasses, as well as other ornamentals, reduce undesirable noise levels by 20-30 percent. —Robey 1977*
- ▶ *Grasses trap much of estimated 12 million tons of dust and dirt released annually into the atmosphere. —Daniel and Freeborg 1979*
- ▶ *Plants absorb gaseous pollutants [toxic emissions] from vehicles, such as carbon dioxide, into their leaves and assimilate them so they help clean the air. —Turgeon 1985*
- ▶ *On a block of eight average houses, front lawns have the cooling effect of about 70 tons of air conditioning. The average home-size central air unit has a three- to four-ton capacity. —Baker 1987*
- ▶ *High quality turf will buffer loss of nutrients in runoff water or in the leachate. —Roberts 1987*
- ▶ *Thick lawns are found to limit pesticide runoff. —Watschke et al 1988*

*Improved plant and turfgrass varieties and a better understanding of the Green Industry's duty to society have led to industry growth.*

by DR. ELIOT C. ROBERTS

**T**here have been many major advances in the green industry since WEEDS, TREES & TURF magazine began publishing in 1962.

And what fantastic change it has been!

My start was at the University of Massachusetts in 1954. In the years that followed, I have seen six key breakthroughs that have been responsible, in a major way, for the advancement of the Green Industry we know today.

### **Maturation within the industry**

Growing pains can often be uncomfortable. Some of these pains have involved moving on from individual trade secrets to the increasing availability of information of a technical, business and scientific nature to practitioners. Trade journals, such as LANDSCAPE MANAGEMENT and trade associations, like The Lawn Institute, and professional organizations such as the Golf Course Superintendents Association have extended commercial and university-generated scientific and business knowledge to the landscape industry across the board.

Among the most exciting achievements has been the sound concepts for safe use of pesticides on ornamental plants.

### **Continued stewardship**

This must continue on into the next century, with emphasis on responsible use of all chemicals. Responsible Industry for a Sound Environment (RISE), along with The Lawn Institute, have through the years provided leadership for this type of public education. A misinformed public is easily intimidated by a wide range of environmental activists.

A second example might include the "Don't Bag It" program developed in Texas by Dr. Bill Knoop. This concept swept the country because of the sound nature of returning grass clippings to the soil, and the need for the Green Industry to be more concerned about dwindling space in sanitary landfills. This concern is a good indication of maturity.

### **Ornamental plant improvement**

We lived in a different world immediately following World War II. Turfgrass improvement continues to this day as new cultivars join those released by Drs. Jess DeFrance and Dick Skogley of Rhode Island, Professor Bert Musser and Dr. Joe Duich of Pennsylvania State University, Dr. Reed Funk of Rutgers, Dr. Glen Burton of Georgia, and others.

Foliage plants, flowers and woody plant material have also been improved in ways that made possible their better use in the enhancement of the environment.

This advancement must continue into the 21st Century for the Green Industry to meet future challenges.

### **Soil biology**

As a soil chemist by training, the biochemistry of soil systems has been of spe-



'Blades of Grass' was Eliot and Bev Roberts' whimsical look at benefits of turfgrass, published by The Lawn Institute.



cial interest to me from the start. The root zone, although out of sight, is of basic or fundamental importance to the growth of all plants. The closer plants are crowded together in the landscape, the more this system is placed under stress. Interrelationships between macro- and microorganisms influence plant health and persistence. Soil organic matter as the raw material for humus formation has an important function in the rootzone. And the whole field of growth regulation as influenced by small amounts of bioactivators within the tissue is related to the mineral and organic nutrition of the plant. These advances have opened up prospects for improved ornamental plant cultural practices.

### Plant ecology

We hear more and more about the importance of the relationship between plant and animal ecology and the environment. A clear understanding of the principles is required. In the latter instance, "it's the dose that makes the poison." In the former instance, it's the nature of competition between grasses and other herbaceous plants with trees, shrubs and weeds. Many politically correct concepts are based on bad science and false teaching. The underlying basis for ecology—that is, competition—is sound. Advances in the understanding of this have been and will continue to be essential in the further maturing of the Green Industry.

### Stress physiology

We've all experienced the relative ease of production and culture of ornamental

plants under ideal conditions. But, more often than not, these give way to too much heat or too much cold, or too wet or too dry, or unreasonable use requirements in the landscape. Professor Lawrence Dickinson, who founded the first school for turf managers back in 1927, lectured on limits of tolerance. That is, limits before stress would cause the plant to be intolerant of existing conditions, and perhaps, even perish. Research has provided data on how much or how little the physiology of the plant can adjust to bring about continued vigorous growth. Dr. James Beard has become an authority and spokesman in this area.

These areas of specialization have provided what I feel were key building blocks needed for the green industry to grow during my 10 years with The Lawn Institute.

These in no way, however, have diminished the importance of product development, testing and competitive evaluation. New concepts in landscape maintenance tools and equipment, in irrigation design and water conservation, pest control and plant fertilization have been of great benefit to Green Industry practitioners during the past 35 years. It's difficult to picture the progress we've made to this point without the help of such pioneers as O.J. Noer, Fred Grau, Tom Mascaro, Jim Watson, Bob Moore and many more.

—Dr. Eliot Roberts served as executive director of The Lawn Institute. He and his wife Beverly run Rosehall Associates, a Green Industry consulting service, from their farm in Sparta, Tenn.

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## 1994:

World Cup soccer games played on real grass inside the Pontiac (MI) Silverdome.

## 1996:

TruGreen/ChemLawn buys Barefoot Grass.

## 97:

Jacobsen Green King Electric greens mower debuts. New bents from Tee-2-Green tolerant of lowest cuts.

Tom Mascaro (shown), inventor of turf aerator, dies at 81. Ciba, Sandoz form Novartis. B.J. Johnson, Univ. of Georgia, retires.

First fungicide to control all four major classes of fungi marketed by Zeneca as Heritage.





# Events

## OCTOBER

### 15-18: Interstate Professional Applicators Association Convention,

Resort at the Mountain, Welches, OR; (503) 363-7205.

**15-18: American Society of Consulting Arborists Conference,** Walt Disney World's Coronado Resort, Orlando, FL; (301) 947-0483.

**19-24: Second International Congress of Vector Ecology,** Holiday Inn International Drive Resort, Orlando, FL; (714) 971-2421.

### 21: Addressing Idiopathic

**Environmental Intolerances: A Concerned Approach,** Radisson Hotel, Santa Fe, NM; (sponsored by RISE and NPCA), call RISE at (202) 872-3860.

**22-25: Southern Crop Protection Assc. Convention,** Hyatt Regency on the Riverwalk, San Antonio, TX; (912) 995-2125.

**22-23: Western Nursery & Garden Expo,** Sands Expo Center, Las Vegas; (800) 517-0391.

**23-24: Western Ornamental Horticulture Research Conference,** Harrahs, Las Vegas; Calif. Assoc. of Nurserymen (800) 748-6214.

**24-26: NJ Shade Tree Federation Meeting/Expo,** Sheraton Atlantic City West Hotel, Pleasantville, NJ; (908) 246-3210.

**27: Deer Management Conference,** University of Maryland Inn and Conference Center, College Park, MD; U. of MD Cooperative Extension, (301) 405-0057 or (301) 405-4569.

## NOVEMBER

**2-5: National Institute on Park and Grounds Management Conference,** Houston, TX; National Institute on Park and Grounds Management, (414) 733-2301.

**4-6: Penn State Golf Turf Conference,** Nittany Lion Inn, State College, PA; Peter Landschoot, Agronomy

Dept., (814) 863-1017 or PTC, (814) 863-3475.

**6-8: Tree Care Industry Expo '97,** Greater Columbus Convention Center, Ohio; The National Arborist Assoc., (800) 733-2622.

**8: "The Right Plant in the Right Place" Seminar,** Cotton Tree Inn, Mt. Vernon, VA; Wash. Assoc. of Landscape Professionals, (800) 833-2186.

**14: Oregon Landscape Contractors' Assoc. Field Day** Canby, OR; (800) 505-8105.

**15-18: Green Industry Expo** ALCA, PLCAA, PGMS Annual Conferences, Charlotte Convention Center; ALCA (800) 395-2522, PLCAA (800) 458-3466 and PGMS (410) 584-9754.

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tween hot, sunbaked streets, and cool, shaded neighborhoods where bird songs fill the air.

By planting trees, you can increase the value of your property up to 15% or more.

The trees you plant will remove carbon dioxide from the air, produce oxygen, and give wildlife a home. And trees help conserve energy. They can lower your heating bills 10-20%, and cut cooling costs 15-35%.



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Find out how trees can make a world of difference for you, and your neighborhood. For your free brochure write: Trees For America, The National Arbor Day Foundation, Nebraska City, NE 68410.



**The National  
Arbor Day Foundation**



**LESCO, Inc.**, acquired Tri Delta Fertilizer, Inc., Stockton, CA. Tri Delta has been in business since 1980, and makes and sells granular and liquid fertilizer and combination products to the turf and ag markets. The acquisition gives LESCO a presence on the West Coast. Tri Delta will also allow LESCO to serve its Pacific Rim customers more efficiently.

Turf managers can help support turfgrass research when they use natural organic **Milorganite** fertilizer this fall, announced Larry Lennert, manager of research and product development at Milorganite. For each ton purchased and delivered between Aug. 1 and Nov. 30, 1997, Milorganite

will donate \$10 to the turf manager's favorite research organization. This is the third year that Milorganite sponsored the Turfgrass Research Donation Program.

**Toro** will market its Hardie brand irrigation products under the brand name **Irritrol Systems**. "The Irritrol brand maintains an emphasis on contractor-installed systems for residential and commercial landscapes previously associated with the Hardie brand," says Rick Parod, vice president of Toro Irrigation.

**Rod Tyler**, author of "Winning the Organics Game: The Compost Marketer's Handbook", offers a 1 1/2-day work-

shop explaining the production, testing and selling of quality compost. Tyler covers compost uses and guidelines in various markets, including landscape, nurseries, retail, sports turf and agriculture. The workshop was created by the American Society for Horticultural Science (ASHS), with the USDA, University of Hawaii and the Composting Council. Contact Lisa Preston at 703/836-4606 (ext. 309) or via e-mail at ashspres@ashs.org. Contact Rod Tyler at 330/239-0129 or e-mail at rodndon@GTE.net.

**The Toro Company** named Stephen P. Wolfe to become vice president finance, treasurer and chief financial offi-

cer. Wolfe, 48, replaced Gerald T. Knight, now senior vice president and chief financial officer of Fingerhut Companies, Inc. Wolfe came to Toro as part of the buy of Wheel Horse Products, Inc., in 1986, where he was vice president of finance and treasurer.

**SUNY-Cobleskill** and the **John Deere** Worldwide Commercial & Consumer Equipment Division have developed a new degree program to prepare students to become lawn and grounds care technicians. The curriculum is adapted from the college's *Turf and Grounds Care Equipment* sequence to include unique courses that will prepare graduates to work as a John Deere retailer. The two-year study includes required classes such as "Basic Hydraulics" and "Advanced Small Engine Diagnostics" and electives in areas such as turfgrass management and equipment retailing.

**Irrigation Consulting & Engineering, Inc.**, based in Pepperell, MA, with offices in Cleveland, Ohio, acquired Fox River Irrigation Consultants, Inc., Elgin, IL. Company President Brian Vinchesi said the acquisition gives his firm a presence in the Chicago golf course/commercial markets.

**Plant Health Care, Inc.**, announced that Biopak and Biopak FE brand biostimulant products for turf and horticulture markets will only be available from Plant Health Care, Inc., (800-421-9051). **LM**

## Info center

VIDEOS AND LITERATURE FOR THE GREEN INDUSTRY

**LIGHTNING RISK EVALUATION GUIDE FOR GOLF COURSES...**This guide includes evaluating lightning risk and vulnerability to golf shelters, rest area structures, trees critical to course topography or fairway design, secondary lighting surge protection for underground sprinkling systems, computers and sensitive electronic equipment. Also warning systems to encourage golfers and personnel to exit the course as a thunderstorm is developing. Contact Independent Protection Company, Goshen, IN, 219/533-4116; e-mail ipc@netbahn.net.

**LANDSCAPE BUSINESS FORMS...**Forms for all areas of the landscape business—advertising and marketing, estimates and proposals, contracts and warranties, project management, accounting and billing, operations management, job descriptions. Nursery and Landscape Association, 202/789-2900.

**DRAINAGE HANDBOOK...**Hancor, Inc., manufacturer of corrugated polyethylene drainage pipe, offers its Drainage Handbook on CD-ROM at no charge. It is compatible with all Windows 95 and NT-based systems as well as Macintosh computers. It contains information on how to specify and install drainage pipe for stormwater, highway or other construction applications. All information can be copied and saved on user's hard drives. Call 800/848-3546 (ext. 258); fax 419/424-8302.

**VIDEO ON NATURAL/ORGANIC FERTILIZER...**Nature Safe Natural & Organic Fertilizers says golf course superintendents will learn from this video. It includes experiences of other superintendents. For a free copy, call 800/252-4727.



## Next day shipping for Millcreek turf aerators

Millcreek Manufacturing Co. announces a "Quick-Ship" program for turf aerators which guarantees next day shipping of any Millcreek core aerator when phone orders are received by 1 p.m. on any business day. Buyers pay no freight charges if Millcreek fails to meet the dead-



line. Millcreek also provides a free "Aeration for Profit" Kit, containing basic "how-to" booklet offering knowledge on aeration benefits plus marketing tips, a professionally prepared newspaper ad slick, and a reproducible sales flyer which landscapers can customize for their own promotional purposes.

To learn more about the "Quick-Ship" program, profit kit or any of the company's 13 turf aerator models (sizes from 42" to 105" wide), contact Millcreek at (800) 879-6507, or

Circle No. 250

## Bayleton in new, convenient packaging

Bayleton Fungicide is available in a new formulation that offers the same broad-spectrum disease control in new, convenient packaging. Bayleton 50 Turf and Ornamental Fungicide offers the convenience of mini-drum packaging with 88, 5.5 ounce PVA pouches per drum.

The new formulation provides the same consistent performance as Bayleton 25 at reduced application rates. Bayleton 50 controls, as well as prevents, many turf fungal diseases including dollar spot, brown patch, summer patch and other diseases on turf, flowers, foliage plants, shrubs and shade trees. Its systemic action offers lasting residual control of up to 30 days or more.

Circle No. 251

## Plows designed for medium/heavy-duty trucks

Henderson Manufacturing Company's new line of SNOWfoe snow plows includes reversible, one-way, patrol wing and mid-mount wing

plows for medium and heavy-duty trucks.

"An exhaustive study was conducted to determine the shortcomings of other makes and the needs of customers before pencil was put to paper," said Marty Ward, director of sales and marketing for Henderson.

"We've been

marketing spreaders and pre-wetting equipment for some time now and we are comfortable that we have addressed the needs of the market with some unique solutions."

For more information about the SNOWfoe plows contact Henderson Manufacturing at their Manchester, Iowa, headquarters at 319/927-2828, or

Circle No. 252

## Landscape lighting comparison charts

California Landscape Lighting has updated its much requested landscape lighting fixture comparison charts. The charts are free to landscape lighting trade professionals.

There are four separate comparison charts, which make non-biased specification comparisons on fixtures by several different manufacturers. They are titled: "Deck, Gazebo & Patio Lighting", "Step & Niche Lighting", "Mercury Vapor", and "Well Lights".

The information supplied includes everything needed to know to make a fixture selection, such as fixture size and dimension, construction material, finishes, lamp requirements, mount type, and more.

To get your free copies, call California Landscape Lighting Customer Service at 800/457-0710, or

Circle No. 253





**LANDSCAPE**  
*management*

**October 1997**

This card is void after December 15, 1997

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I would like to receive (continue receiving) **LANDSCAPE MANAGEMENT** free each month:  Yes  no

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**1. My primary business at this location is: (check ONE only)**

- 01  250 **GOLF COURSES**
- CONTRACTORS/SERVICE COMPANIES**
- 02  255 Landscape Contractors (installation and maintenance)  
 03  260 Lawn Care Service Companies  
 04  265 Custom Chemical Applicators (ground and air)  
 05  270 Tree Service Companies/Arborists
- 06  275 Landscape Architects  
 07  280 Land Reclamation and Erosion Control  
 08  285 Irrigation Contractors  
 Other (please specify) \_\_\_\_\_
- INSTITUTIONAL FACILITIES**
- 09  290 Sports Complexes  
 10  295 Parks  
 11  300 Right-of-Way Maintenance for Highways, Railroads or Utilities  
 12  305 Schools, Colleges, Universities  
 13  310 Industrial or Office Parks/Plants  
 14  315 Shopping Centers, Plazas or Malls  
 15  320 Private/Public Estates or Museums
- 16  325 Condos/Apartments/Housing Developments/Hotels/Resorts  
 17  330 Cemeteries/Memorial Gardens  
 18  335 Hospitals/Health Care Institutions  
 19  340 Military Installations or Prisons  
 20  345 Airports  
 21  350 Multiple Government Municipal Facilities  
 Other (please specify) \_\_\_\_\_
- SUPPLIERS & CONSULTANTS**
- 22  355 Extension Agents/Consultants for Horticulture  
 23  360 Sod Growers/Turf Seed Growers/Nurseries  
 24  365 Dealers/Distributors/Formulators/Brokers
- 25  370 Manufacturers  
 26  Other (please specify) \_\_\_\_\_

**2. Which of the following best describes your title? (check ONE only)**

- 27  10 **Executive/Administrator**- President, Owner, Partner, Director, General Manager, Chairman of the Board, Purchasing Agent, Director of Physical Plant
- 28  20 **Manager/Superintendent**- Arborist, Architect, Landscape/Grounds Manager, Superintendent, Foreman, Supervisor
- 29  30 **Government Official**- Government Commissioner, Agent, Other Government Official
- 30  40 **Specialist**- Forester, Consultant, Agronomist, Pilot, Instructor, Researcher, Horticulturist, Certified Specialist
- 31  Other Titled and Non-Titled personnel (please specify) \_\_\_\_\_

**3. SERVICES PERFORMED (Check ALL that apply)**

- 31  A Mowing  
 32  B Turf Insect Control  
 33  C Tree Care  
 34  D Turf Aeration  
 35  E Irrigation Services
- 36  F Turf Fertilization  
 37  G Turf Disease Control  
 38  H Ornamental Care  
 39  I Landscape/Golf Design  
 40  J Turf Weed Control
- 41  K Paving, Deck & Patio Installation  
 42  L Pond/Lake Care  
 43  M Landscape Installation  
 44  N Snow Removal  
 45  O Other (please specify) \_\_\_\_\_

**4a. Do you specify, purchase or influence the selection of landscape products?**  Yes  No

**4b. If yes, check which products you buy or specify: (check ALL that apply)**

- 46  1 Aerators  
 47  2 Blowers  
 48  3 Chain Saws  
 49  4 Chipper-Shredders  
 50  5 De-icers  
 51  6 Fertilizers  
 52  7 Fungicides  
 53  8 Herbicides  
 54  9 Insecticides  
 55  10 Line Trimmers
- 56  11 Mowers (reel/rotary)  
 57  12 Snow Removal Equipment  
 58  13 Sprayers  
 59  14 Spreaders  
 60  15 Sweepers  
 61  16 Tractors  
 62  17 Truck Trailers/Attachments  
 63  18 Trucks  
 64  19 Turfseed  
 65  20 Utility Vehicles

**5. Do you have a modem?**  Yes  No

**6. Do you subscribe to an on-line service?**  Yes  No

**7. Is CD-ROM available in your workplace?**  Yes  No

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108	126	144	162	180	198	216	234	252	270	288	306
109	127	145	163	181	199	217	235	253	271	289	307
110	128	146	164	182	200	218	236	254	272	290	308
111	129	147	165	183	201	219	237	255	273	291	309
112	130	148	166	184	202	220	238	256	274	292	310
113	131	149	167	185	203	221	239	257	275	293	311
114	132	150	168	186	204	222	240	258	276	294	312
115	133	151	169	187	205	223	241	259	277	295	313
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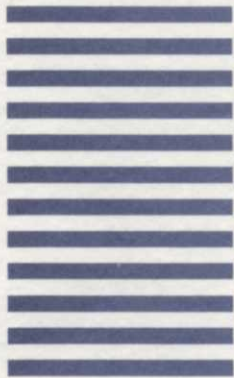
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**October 1997**

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 61  16 Tractors  
 62  17 Truck Trailers/Attachments  
 63  18 Trucks  
 64  19 Turfseed  
 65  20 Utility Vehicles

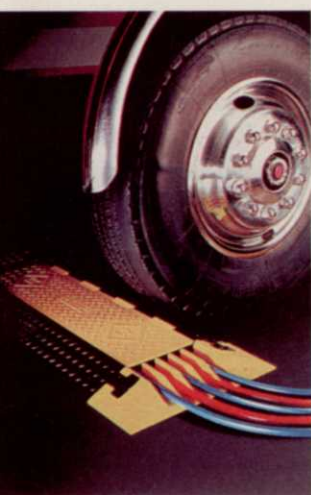
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118	136	154	172	190	208	226	244	262	280	298	316





## Protect cable and hoses with new protectors

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## A brush to complete topdressing tasks

The GreensGroomer topdressing and grass grooming brush is one of the simplest tools that a golf course superintendent has available to use. The unique brush layout of the brush moves the topdressing three times as it's being moved forward its own length. The result is that topdressing materials become almost invisible when the job is completed.

The stiffness of the brushes used on the groomer is balanced with the total weight of the system resulting in the power to move topdressings without any harm to the golf green. And with its quick raising/lowering, pneumatic tire transport system, a few simple turns of a winch handle results in it being ready to go to the next green for more work.

The unit is constructed of high-quality components. The finish is high luster baked enamel available in either red or green. Wheel axle assemblies are quickly removable for tire repair and the plated axle is rust resistant. Grafoil wheel bearings are equipped with grease fittings for long wear and resistance to sand environment.

To learn more about the unit contact GreensGroomer at 317/298-8852 and tell them you read about it in LANDSCAPE MANAGEMENT, OF

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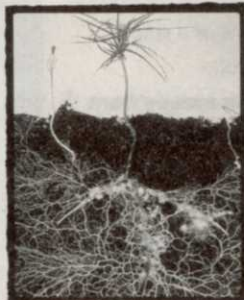
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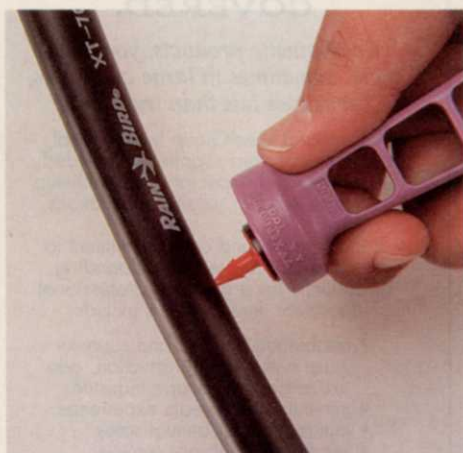
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Circle 121



## >PRODUCT REVIEW



### This tool is handy for Rain Bird emitters

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Circle No. 256

### Gravelly front-mount mower easy to operate

Gravely's Promaster 360 commercial front-mount mower is available with a 22.3-hp Yanmar liquid-cooled diesel engine and a choice of 50" or 60" side-discharge or 60" rear-discharge mulching mower. Each mower is offset to allow for ease in trimming. The variable speed hydrostatic transmission provides speeds up to 8.8 mph and allows for smooth operation when changing from forward to reverse. Operation is by means of a single foot control.

Features include front and rear tie downs, a transmission brake to secure the unit for safe transport and power steering for ease of operation and less operator fatigue.

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### Mobile washing made easy

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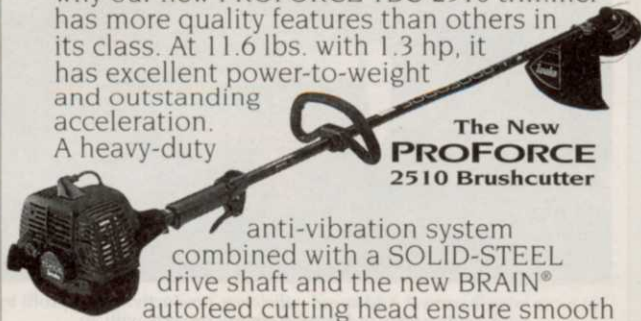
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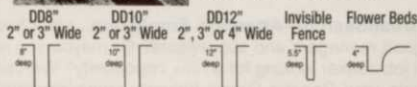
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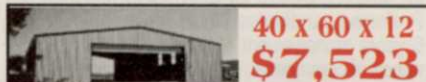
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# Grab Bag

## A last look back

The year was 1966. The occasion, the founding of the Musser International Turfgrass Foundation. The Foundation is named for Professor H. Burton Musser, a turfgrass pioneer at Penn State University for 40 years. Founders include, clockwise from top right: Joe Duich; Fred Grau; Warren Bidwell; Al Wilson and Eb Steinegger. All were major contributors to the green industry, and Duich remains active with Tee-2-Green/Turf Seed, Inc. The non-profit foundation continues as a leading promoter of green industry research and development. "The foundation that bears Musser's name is dedicated to promoting the same kind of pioneering individual," says foundation President Frank Dobie, Sharon CC, Sharon Center, Ohio.



## Timeline: 'interest' in bentgrass fairways

"There has been increasing interest in creeping bentgrass as fairway turf. The increased interest has been mainly caused by a greater use of fairway irrigation; improvement in equipment; a trend toward lower cutting heights for fairways and development of varieties bred especially for golf courses, such as Emerald and Penncross...Bentgrasses can make excellent fairways."

—DR. JOHNNY R. THOMAS, RESEARCH DIRECTOR, NORTH AMERICAN PLANT BREEDERS; WEEDS, TREES & TURF, JANUARY, 1974

Grab Bag features brief observations and prognostications throughout the green industry. If you have an unusual photo or comment you'd like to share with us, please send it in...

*"We're in the midst of a national chemical scare!"*

—DR. ALLEN FELSOT, PROFESSOR OF ENVIRONMENTAL ENTOMOLOGY, UNIV. OF ILL., 1986.

## Turf managers are 'resourceful' folks

Professional turf managers will be more important as the turf industry faces higher energy costs and a lower supply of water—and they can command higher salaries, said Dr. James Beard at the Nebraska Turfgrass Conference and Show.

—WEEDS, TREES & TURF, MARCH, 1981



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