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PRESIDENT'S MESSAGE

SALUTE THE GIRLS

A tough season like "83" makes some of us want to cry in our beer. Most of us are married and have families to raise. I have the feeling that most of us have not given our loved ones all the attention they need and deserve. I am sure that our wives have worried right along with us as we struggle through another golf season. I love my wife and children more than anything in the world; but was taken back the other day when Jeff, (our 12 year old), asked me why I wasn't going back to work that particular evening. I explained to him that the recent rains and cool front had taken care of the extra work for me. He said, "Great, can we go out and play a little catch tonight?" That really hit home for a couple of days. I really started to think about certain things after that little request. Is my job really that important? Guess I am going to have to spend a little more time with my family. I really can't make it up to them - the time is gone. Even Dr. Roscoe Randall gave me the dickens this summer for spending too much time on the golf course. He said, "the kids may not remember all the events you attend with them, but Peter, they will remember all the ones you skipped."

I am lucky to have married a farmers daughter that knows what the growing season is all about. She really complains very little about my work schedule. DeeAnn is a golfer too, and knows what it takes to keep those artificial surfaces as nice as they are. She is glad to accompany me on the golf course in the evening just to see the course. The kids love it too. I am lucky to have that time with them.

I sincerely hope other Golf Course Superintendents around the area have had the understanding, the sharing and the cooperation from their families. I hope we all find some way to thank them, salute them and take them with us when possible. Thanks a million, girls. I'll bet you are glad this season is almost over too!

Pete Leuzinger

"1983 REPRIEVE"

Now that Summer's over,
And We've weathered It's hot spree.
Like a Herd headed for Clover,
Or as after the Storm, the Calm Sea.
Oktoberfest is here once more,
Offering appeasement and relaxation,
For It has sent Summer off,
On a Fall Vacation.

Kenneth R. Zanzig

**MIDWEST ASSOCIATION OF GOLF COURSE SUPER-
INTENDENTS — NOMINEES FOR OFFICERS AND
DIRECTORS 1983-84**

OFFICERS

PRESIDENT	Roger Stewart, Jr., CGCS Riverside Golf Club
1ST VICE PRESIDENT	Joe Williamson, CGCS Briar Ridge C.C.
2ND VICE PRESIDENT	Oscar Miles, CGCS Butler National Dave Behrman Deer Creek G.C.

DIRECTORS (3 to be elected for 2 year terms)

Mike Hart, CGCS
Bonvivant G.C.
Brad Johnsen
Ravinia Green C.C.
Jim Evans, CGCS
Turnberry C.C.
Tom Robinson
Highland Park C.C.
Sean Daley
Ridge C.C.
Phil Taylor
Sugar Creek G.C.

The Nominating Committee presents the above slate of candidates, however, nominations will be requested and accepted from the floor.

John Berarducci, Chairman

PROFILE OF CANDIDATES

PRESIDENT — Roger Stewart, Jr.

Roger is a certified Superintendent with a B.S. in Agronomy from the University of Nebraska. Roger and his wife Susan have two children. He has been Superintendent of Riverside Golf Club for 5 years.

1ST VICE PRESIDENT — Joe Williamson

Joe is a certified Superintendent with a B. S. in Agronomy from Purdue. He is married with one daughter. Joe has been Superintendent at Briar Ridge for 5 years, on the Midwest Board for 3 years. He is presently 2nd Vice-President and Golf Chairman.

2ND VICE PRESIDENT — David Behrman

Dave has been a Midwest Board member for 2 years running. A 1978 Penn State Turf student. Dave is married to Miss MAGCS "Chris"! Dave has been Superintendent at Deer Creek for the past 6 years.

2ND VICE PRESIDENT — Oscar Miles

Oscar is a Penn State Turf graduate. Past President of I.T.F. and Indiana Golf Superintendents. Oscar is certified and has served on the Midwest Board for 3 years. He is married and has been around for a long, long time!

DIRECTOR — Mike Hart

Mike is a certified Superintendent who attended Indiana State. He is married to his lovely wife, Jan, who no one has ever seen! The father of two boys. Mike has been on the Midwest Board for 1 year, serving as Arrangements Chairman.

DIRECTOR — Tom Robinson

Tom is single, a graduate of Southern Illinois University. Tom has been Superintendent at Highland Park Country Club for 3 years. And, no one has seen Tom, either!

DIRECTOR — Jim Evans

Jim has been at Turnberry for 5 years, is married with 2 boys. Jim graduated from Joliet Jr. College with an Associate degree in Hort. He received a B.S. in agronomy from Southern Illinois and a Masters in agronomy from Southern Illinois. It was said that Dick Trevathan once studied under Jim!

DIRECTOR — Sean Daley

Sean is a graduate of the Penn St. Turf Program. He is past Superintendent at the Atwood Lake Lodge Resort. He has been Superintendent at Ridge for 2 years. Sean is a past assistant at Olympia Fields, but who isn't!

DIRECTOR — Phil Taylor

Phil is a 1978 graduate in agronomy from Purdue University. Married with 1 child. He and his wife are very active in church affairs. Phil is an apprentice with the Illinois PGA Section and has been Superintendent at Sugar Creek since 1979. Phil is 5'10", 150 pounds, brown hair and brown eyes.

DIRECTOR — Brad Johnsen

Brad is a 1973 graduate of Western Illinois. He is married with 2 children. Brad has been Superintendent at Ridgemoor, Lake Barrington Shores, Beverly and last, but not least Ravinia Green.

John Berarducci

**FOUNDATION HONORS BILL LYONS
WITH 'OUTSTANDING SERVICE AWARD'**

NORTH PALM BEACH, FLA. — William (Old Bill) Lyons, innovator, entrepreneur, agronomist and long-time Ohio golf course operator, is the first selection to receive the National Golf Foundation's Outstanding Service Award, inaugurated this year.

Lyons, a unanimous choice of the selection board, will be honored at the Foundation's 10th annual Golf Course Management Workshop at Las Vegas Nov. 2. Joe Much, NGF acting executive director announced.

The award is "reserved for those who have provided continuous and exceptional service to golf, the people who play the game and the environment in which it is played," Much said. Other recipients of the 1983 Outstanding Service Award will be announced later.

Lyons, 77, is the owner-operator of the well-known Lyons Den, a daily fee golf course in Canal Fulton, Ohio, which began as a nine-hole facility in 1961. Ten years later, Lyons added a second nine holes and has been a pioneer in various operational procedures while maintaining one of his area's most immaculately groomed golf courses.

Lyons first entered golf as a manager of a miniature course in Fostoria, Ohio in the 1920s. His many contributions to golf have included extensive turfgrass research projects, which continue today at his Lyons Den. He has been a prolific contributor to various turf publications, participant in scores of seminars and workshops, and one of public golf's most beloved and respected spokesmen throughout his career. Lyons was inducted into the American Society of Agronomy some 40 years ago and remains today the only person without a college degree so recognized.

Despite poor health, Lyons still spends many hours daily at his Lyons Den.

Dear Fred,

After visiting a number of golf course in the Chicagoland area, I thought I would drop you a note on some of the problems we have seen. Superintendents might like to know that everyone was in the same boat when it came to losing grass this summer.

Let's get together and start a pool to determine the day of the first snow fall in Chicago! The winner will get a free bag of Penncross to help replace some of the turf that was lost this season. Seriously, the summer of 1983 will probably go down in history as one of the most difficult for golf course turfgrass management in history. In our travels throughout the region we have seen wide spread loss of turfgrass caused by everything from simple **Poa annua** wilt (we always knew that **Poa annua** does not tolerate heat stress very well), to the entire array of fungal diseases (stimulated by high night time temperatures and high humidities) too, to problems with insects (have you ever seen so many Cutworms!). Some golf courses had some of the problems but most of them had all of them. Speaking of diseases, both Penn State and Michigan State have recently identified what those round patches on fairways and on some greens really is. It turns out to be a species of Ophiopolus Patch ... something only rarely seen in this part of the country. Field trials are underway now to determine the best control but, probably due to the weather, we now have a new disease to contend with.

If there was one positive aspect to this one type of weather it is that any weaknesses that exist on the golf course quickly are seen. For example, if a golf course Superintendent's fungicide or insecticide spray program needed to be strengthened this year certainly showed the need for more pesticide usage. The dry weather made the golf course Superintendent rely upon his irrigation system more than in recent years and any weaknesses in it quickly came to light. Sprinkler heads not turning ... poor coverage ... problems generally with the sprinkler heads, etc. all came to light. The vast majority of the irrigation systems in this part of the country simply never were designed to totally replace natural rainfall so, when it became hot and dry and the irrigation systems were turned on ... and then it stayed on, any deficiencies quickly showed up.

Therefore, the summer of 1983 is a good learning experience. All of us certainly know how to diagnose disease and insect problems better, we appreciate the value of a good irrigation system and we more fully understand and appreciate the strengths and weaknesses (especially of **Poa annua**) of the turfgrasses we are attempting to maintain on our golf courses.

Just thought I would drop you a line on some of the things we saw in our travels throughout the region this summer. It certainly will make for great discussion during the conference season starting this fall.

Best regards and reserve December 1st, for me!

Stanley J. Zontek
North-Central Director, USGA

DECEMBER 12-15, 1983

Pennsylvania Turfgrass Conference & Trade Show, Hershey Lodge & Convention Center, West Chocolate Avenue & University Drive, Hershey, PA. Contact: Christine E. King, Executive Secretary-Treasurer, Pennsylvania Turfgrass Council, 412 Blanchard Street, Bellefonte, PA 16823. (814) 355-8010.

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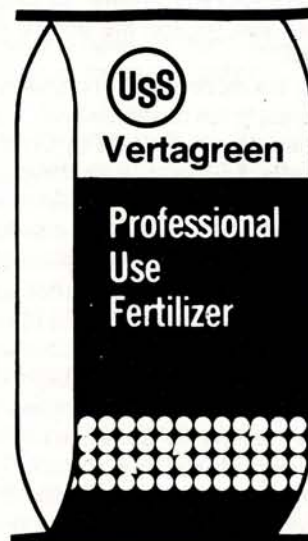
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GOLF SHOE STUDY II

The Swilcan Bridge (of St. Andrews fame) is over 800 years old. For centuries it has withstood the trodding of townspeople and traders alike from harbor to town. Well before and after Columbus sailed for America, it has endured the crossings of St. Andrews' golfers. And, if your mind follows a logical bent, the Bridge must be one of golf's greatest contradictions, mysteries and miracles! How has this graceful granite arch held its ground against the onslaught of man, shoe and club all these years? It is a miracle!

One of the reasons for its endurance, at least for the first 750 years, may be that the Bridge never had to contend with the conventional spiked golf shoe! Allan Robertson, the world's first professional (1858) or even Old Tom Morris probably did not tread Swilcan in them. In fact, the earliest evidence so far of golf shoes with protrudences from the sole comes from an 1893 photograph of players in New Zealand's First Interprovincial Contest between Otago Golf Club, Dunedin, and a Christchurch team. Hobnail shoes are plainly seen on two of the golfers.

In this country, at the turn of the century, red rubber sole shoes were in vogue. In his book, "The Walter Hagen Story", The Haig recalls his attire for the 1913 U. S. Open, including his wearing "red rubber sole shoes" at The Country Club. The following year he wore the same general getup except for the shoes. "I slid all over the course at Brookline in wet weather (in 1913)", he said and bought a pair of hobnail shoes for the 1914 Open. He won!

We know the Englishmen Harold H. Hilton won the U. S. Amateur Championship in 1911 in sneakers and that Gerome D. Travers also appears to be wearing sneakers in his 1907 victory. But there is no doubt, the hobnail shoe was coming into its own. Bob Jones wore them at Merion in the 1916 Open and Jess W. Sweetser (1922 Amateur Champion) remembers "golf shoes with spikes" as standard foot gear by 1919. The trend was on and the boding not good for the growers of grass.

In the modern era, the spiked golf shoe has long been of interest to the Green Section. The first scientific studies were undertaken in 1958-59 by Dr. M. H. Ferguson to determine the effect on wear and putting qualities of different shoes on putting green turf. The conventional metal spike shoe, the 'ripple sole' shoe and a modified golf shoe spike (with recessed or flattened spike shoulder) were tested.*

The conventional golf shoe spike not only caused severe damage to the grass plant, but the rounded shoulder of the spike also caused significant soil compaction and delayed grass recovery for weeks beyond that of the other shoes. The ripple sole shoe soon dropped from the golfer's favor (and was banned by some clubs) because of the distortion it caused to the putting surface. The modified golf shoe spike, a by-product of the experiment, proved to be an important innovation. It was less damaging to soils and turf and is still manufactured today for golfers requiring spike shoes but still concerned with preserving putting green quality.

Course superintendents and green chairmen were also concerned. Charles Cogan, Green Chairman at Irvine Coast Country Club, California, undertook his own study of spike shoe damage to greens in 1960:

"The average golf shoe has 12 spikes; i.e. 24 spikes per golfer. I have found golfers take an average of 26 full steps (52 paces) per green. Therefore, each golfer leaves (26 x 24) 624 spike marks on each green. On 18 greens, he leaves 11,232 spike marks. If there are 200 rounds of golf played a day, there are 2,246,400

spike marks left behind. If this goes on for 30 days, you have 67,392,000 spike marks per month. And now, you wonder why you can't sink a putt?"

Both players and grass grower has a right to be concerned over golf shoes and what they are doing to the playing quality of our turf. But there is another, albeit less visible, factor that also deserves attention. There is increasing concern over the added costs in labor, aerifying, topdressing, mowing, weed control, cup changes, etc. brought about by spiked shoes. Some conservative estimates suggest a minimum of \$10 million a year; and that is in course conditioning alone. What of the additional costs in replacing pro shop and locker room carpeting, asphalt and concrete paths, door sills, wooden steps, benches, electric cart flooring and dashboards, tee markers, etc.? Does the spike cost golf \$15 million or \$20 million a year? Whatever it is, there is no doubt of its destructiveness.

But who among us is crusader enough with courage to ask and optimism to expect today's golfer to readily give up wearing shoes with spikes? The golfer has been conditioned. He believes he needs the spike shoe and, no doubt, some golfers probably do. The power behind the 'big drive' in golf (250 or more yards), it is said, comes from the legs. Powerful legs need a secure grip. But not everyone who plays this game for the fun of it drives 250 or more yards! Not every golfer has that kind of leg power. Furthermore, not every round of golf is played under wet, slippery conditions. Fortunately there are increasing numbers of golfers today, including many club professionals, who enjoy the game and play it very well in shoes without spike or stud. Indeed, most golfers could easily play and enjoy the game, especially on dry days, in spikeless shoes. Hooray for them, for they shall lead the way to better putting turf at a lower cost.

The New Shoes

In 1982, a dramatic change in the design of golf shoes took place. New, multi-stud sole shoes were introduced into the United States. The studs are made of either rubber or a composition material. Advertising claims of "better traction" and "no damage to greens" were widely circulated. In one case, it was proclaimed the new shoes were "USGA approved"; a statement with no basis in fact.

As more and more of the "new shoes" came on the market, reports from golf course superintendents began to grow and that the new shoes were, contrary to the advertising claims, significantly damaging greens and adversely affecting putting surfaces, especially wet ones! Claims and counterclaims multiplied. The time was right for Green Section Golf Shoe Study II.

The New Study

Early in 1983, an experimental plan was developed at the University of California, Riverside, to evaluate the effect of four different type golf shoes on turfgrass quality and injury to putting green turf. The experiment and lessons from earlier shoe studies were incorporated in this plan. The new study got underway in May, 1983.

At Industry Hills, California, General Manager Bill Bryant offered the use of one of the Penncross bentgrass nursery greens for the experiment. The turf was nearly a year old and had developed approximately a 1/2-inch depth of thatch. It was mowed daily at 3/16-inch. The nursery green itself was built three years earlier to USGA Green Section Specifications. It received no other traffic than that imposed by the experiment plus normal maintenance procedures. Four types of shoes were used in the study:

- 1) The conventional metal spike golf shoe.
- 2) One of the popular, new multi-stud sole golf shoes.
- 3) A new "spikeless" golf shoe with very small suction-type cleats.
- 4) Another one of the new multi-stud sole shoes but with a different sole design than Number 2.

The overall experiment was designed for Three Phases:

Phase I was to evaluate the shoes under normal weather conditions. This phase would require six weeks of testing.

Phase II would immediately follow Phase I and be a subjective test of the putting qualities of each plot. Two golf professionals and one amateur golfer would, in a prescribed manner, individually putt and rate the plots.

Phase III was to evaluate, under extremely wet conditions, the four shoes as to wear injury effect over a period of three weeks.

PHASE I

After a brief preliminary investigation, the study commenced on May 2 and continued through June 13, 1983. Each plot measured 4' x 14' and was separated from adjacent plots by a 2' path. There were five randomized plots (one for each shoe type plus one check plot) in each replication and four replications used in this experiment.

Four men, wearing a different type golf shoe each day (in a predetermined order), walked and putted the plots designated for that particular shoe. They followed a prescribed walking and putting traffic pattern. Each completed pattern was considered to be one "treatment" and each plot received four treatments daily. The men, wearing a different shoe type each day (in the predetermined order), carried out the treatments for four days, took the fifth day off, and so continued throughout the six-week span. Ratings were taken every two weeks using a scale of 1 equaling no visible damage to 10 equaling bare ground.

The Walkway Ratings

Turf damage to the walkway areas was rated on May 26 and June 13. Since there was no visible damage to the walkways on May 10, no ratings were made.

On May 26, 24 days after beginning the experiment, Shoe #1 showed the most damage to the walkway area. Shoes #2 and #4 showed slight damage. Shoe #3 and the check plot had no visible damage.

On June 13, the turf damage on walkways was more severe. Again, damage from Shoe #1 was clearly more severe than the other shoes, followed by #2. Number 4 and #3 shoes were about alike in damage. All shoes gave statistically greater damage than the untreated check plot.

The Putting Area Ratings

Apparent damage to the putting plots increased throughout the duration of the study. Shoes #1, #2 and #4, in that order, gave the most damage. Shoe #3 caused some wear but considerably less than the other shoes. On the final day of these ratings, all shoe plots showed significantly more damage than the check plot.

The Penncross creeping bentgrass had poorer color, decreased density and a scruffy, ragged appearance showing mechanical damage. These plots also had a noticeable surface depression and overall unevenness.

PHASE II

Immediately at the conclusion of Phase I, the subjective determination of the putting qualities of each plot was made. Paul McGuire (PGA), Julie Lynd (LPGA) and Ross O'Fee (Amateur Golfer) cooperated in this experiment. They followed a putting pattern. Ratings were made from 1 (excellent putting qualities) to 10 (totally unsatisfactory putting qualities).



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Putting ratings were made on the walkways as well as the putting areas of each plot. The only noticeable shoe influence however, was observed on the concentrated 'putting areas'.

These results show that, when putting across plots where Shoe #1 was worn, a decided poorer quality putting rating was given by the golfer. On the plots of the other shoes, there was no noted statistical difference between them under the conditions of this experiment; i.e., normal weather.

PHASE III

This study was to evaluate the effects of the four shoes on putting green turf under very wet conditions. Earlier reports indicated that the multi-stud shoes caused considerable damage to wet putting surfaces. In some cases they have actually been banned from use on some golf courses in this country.

In Phase III, the individual plots measured 2' x 10' and consisted of straight walkways over which 25 round trips were completed each day for three weeks. There were no putting areas in this test. All plots were replicated four times and again, the four men changed to a different type of shoe (in a predetermined order) each day and walked only those plots designated for that particular shoe.

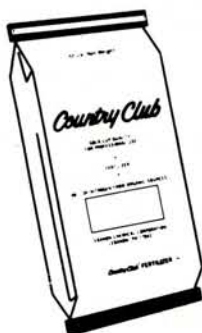
Every day, just before walking began, the test area was heavily and thoroughly hand watered. The surface area was saturated until water was standing on it. It was allowed to drain and then the plot was again irrigated to saturation and standing water. Immediately following the second drainage, walking began. At the end of three weeks, the plots were rated on the same scale as before: i.e., 1 equals no damage and 10 equals bare ground.

The ratings showed that damage from Shoe #1 > Shoe #2 > Shoe #4 > Shoe #3 with all showing more damage than the untreated check plots.

Discussion and Conclusion

From an overall view, the results obtained on turf damage continued - page 12

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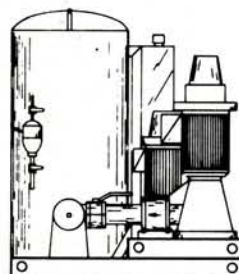
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PYTHIUM AND SAND TOPDRESSING

(Increasing evidence for Pythium induced root dysfunction of creeping bentgrass grown in high sand content mixes.)

The presentation made by me at the 1981 M.G.C.S.A. annual conference implicated Pythium in a root dysfunction of creeping bentgrass grown on reconstructed high sand content greens. The disease in question killed grass very rapidly and in a manner typical of Pythium "Cottony Blight". Examination of diseased plants, however, failed to yield Pythium or any other pathogen from above-ground portions of the plant. Pythium was found throughout the root system of diseased plants. It is believed that when a green on an old golf course is renovated to sand, Pythium may infest the sand from the collar and apron soil of the old green. The sand probably offers little microbiological competition for the Pythium and increased levels of irrigation and fertilization of sand greens may further promote the Pythium. There also is some evidence that more root mechanical damage may occur in sand than in soil; this could contribute to Pythium infection. This problem has not been observed in the roots of plants grown in traditional soil mixes.

To date, we have isolated four species of Pythium from the roots of creeping bentgrass associated with rapid death of infected plants. We are currently in the process of identifying the isolates to the species level and testing them for pathogenicity. It has been possible to infect roots in greenhouse studies and in some cases reduce the rate of growth of infected plants. Our present observations suggest that the Pythiums in question may infect the roots and co-exist with the plants with minimal damage under mild growing conditions. It may necessitate some form of environmental or cultural stress before death occurs. There are two outstanding problems for the superintendent relative to this disease. These are diagnosis and control. The rapid death of infected plants appears to be due to a foliar pathogen. However, examination of dying leaves usually fails to yield any pathogens and often times even saprophytic organisms are not present. When the root systems are examined they usually appear normal in size and color. Because of this it is assumed that root pathogens are not present. These normal appearing roots can, however, be severely infected by Pythium. The Pythiums associated with this problem do not cause a rot and the degree of discoloration may not be detectable with the naked eye. We have found that when we properly incubate what appears to be a healthy root from these diseased plants, Pythium will grow from the root within six hours. We are suspicious that these Pythiums damage plants by interfering with water relations, not by rotting.

Control of this problem in the field remains elusive. Intense aerification followed by application of Pythium specified fungicides into the aerifier holes may slow the disease. There is some indication that wetting agents used in conjunction with the fungicides may be beneficial. It also appears that following renovation of a green the first time the disease strikes it most severely; each subsequent year it becomes less severe.

Our primary research objectives for the next 2-3 years will be as follows: 1) Continue to collect and identify Pythium species associated with roots. 2) Determine pathogenicity of the Pythium species and the conditions necessary for injury or death to occur. 3) Determine the nature of the pathogenicity; i.e. in that the roots are not rotted, how are the plants ultimately killed. 4) Examine approaches to control.

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When you shop around for turf equipment, you're out to get your money's worth.

Most dealers can give you a fair shake for your dollar.

We can, too. But what makes us different is that we also do a whole lot more.

One way is by offering you a complete line of turf care equipment so you have an option of good choices. The index in our catalog lists 68 product categories, and 56 different brand names. That's selection.

Behind the scenes we help you keep your equipment in tiptop shape. We have a fully stocked parts department.

And equipment repair and maintenance is handled by factory trained experts who know that you want your equipment back fast and in top running order.

There's even more. Maybe you're not in a position to buy now, even though you need new equipment now. We can probably work out a lease plan. Or something else.

Maybe you're not exactly sure about what products you need to do the job you want to get done. That's where our more than 30 years of experience comes in handy. We'll give you expert advice. And that's free.

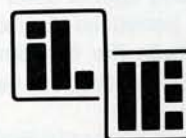
If you prefer to do your own maintenance and repair work, we can even give you some pretty good advice about how to do it. And that's free, too.

Yes, we can give you a fair shake for your dollar. And you'll go away happy.

But we go out of our way to do a whole lot more. Just to keep you happy.

Because we don't want you to go away at all.

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