

Translating the Wear Factor to Miles

Clint Smallridge, CGCS - Royal Poinciana Golf Club, Naples, Florida

Replacement of golf course equipment can be one of the most difficult expenditures to justify and be understood by club Board and Committee members. Because they work mainly within business and financial environments, club members find it difficult to measure equipment wear in traditional, technical terms, or hours of use.

By converting wear indicating factors to a concept that everyone understands – "mileage" – the Golf Course Superintendent can readily close this communications gap. Equipment wear is best defined in terms of miles.

Modern day drivers understand that when a car has been driven 100,000 miles, it is about worn out and needs to be replaced – that the cost of continued repair can no longer be justified. Keeping this in mind, we can see the parallels in the following illustrations.

Most American cars are driven on the highway at speeds approximating 60 miles per hour – using high gear. Corresponding engine r.p.m. runs about 2,100. In this example, if you were to drive for three hours, you would travel 180 miles.

Using this concept, we can convert *hours* on a mower, or any other piece of equipment, to miles traveled. Although golf course equipment customarily operates at only 5 to 6 mph, and sometimes less, engine r.p.m. is maintained at the 2,100 level and higher on one and two cylinder engines. The slow forward speeds are realized by using a lower gear ratio.

Continuing our illustration and focusing on the use of a triplex mowers: we know they cut greens for about three hours, seven days a week for 365 days a year in the south (210 days up north). This means the "wear factor" on the triplex mower is equivalent to 180 miles of travel a day, 1,260 miles a week and 65,520 miles a year in the south (104 miles daily, 727 miles weekly and 37,800 miles yearly in the north).

Equipment engineers confirm this theory of converting running hours to mileage. Furthermore, these same engineers tell us that stop-and-go driving and turning increases the wear factor significantly. With this in mind, consider the back-and-forth and turning patterns of golf course equipment use every day.

Another point worth considering is that a car traveling at 60 mph is cooled by the wind generated by the motion of the car at this velocity. Golf course equipment does not enjoy this wear-saving benefit when traveling at 5 to 6 mph. In addition, radiators often get clogged with grass clippings and other debris found on the golf course – resulting in higher engine temperatures and an accelerated wear factor.

Also, golf equipment runs regularly through and over ground fertilized with corrosive chemicals – creating more wear and tear.

We can expect equipment manufacturers to provide "hours used to equivalent miles traveled" conversion charts in the near future. Superintendents working with their personal computers will be able to design their own "hours to miles" conversion tables for each piece of equipment within their clubs – pending availablility from outside sources. Computer software packages being developed for the industry might anticipate this need.

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Kennedy Wins Chapter Title

A first-born daughter, Katherine Mary, in February and the Met GCSA Golf Championship in October. It has been a good year for the very personable and well liked Les Kennedy – Golf Course Superintendent at the *Oak Lane Country Club*, Woodbridge, CT.

Opening round of the 1985 Met GCSA Championship was played at the *Tamarack CC* back on July 11th. Les was leader "in the clubhouse" after the first round with a score of 77 – followed closely by Scott Niven's 79; Jim Fulwider and Ed Walsh at 80; and Chuck Fatum and Mark Millett at 81. Contestants in the Championship Flight played at scratch handicap.

The Championship's second round ran into scheduling problems as conflicts and inclement weather forced postponement of play at *Ridgeway* and *Fairview*. Gratefully, the final round was played at *Winged Foot* on October 21st as part of the very successful Green Chairmen's Tournament.

Once again, Les Kennedy led all contestants for the day's play – shooting an 88 on the famed Winged Foot's West Course for a 165 stroke total. Another second round 88 by Runner-Up Scott Niven was not sufficient to close the two-stroke gap Kennedy earned with first round play – giving Niven a final 167 score. Mark Millet finished third in the Championship Flight with a two-round score of 168.

Flight Winners

Class A Flight (11-18 Handicaps) was won by Tim O'Neill of *Darien* with a combined net score of 144 – followed by Larry Pakkala at 150, Joe Alonzi at 153, Tony Grasso at 155 and Steve Finamore at 156. (continued on page 5)



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President's Message

A Good Year

It is hard to believe that one year has passed since my election to the Presidency of the Met GCSA. It has been an exciting and rewarding year for me. I've had frequent opportunities to meet many new people in the world of golf and golf course management. I am thankful to the membership of the Met GCSA for the opportunity to represent them, and I look forward to 1986.

I firmly believe that the Met GCSA also has had a successful and fruitful year. Our Committee Chairman and their Committee members have worked hard to improve the process by which we operate. The organizational presence that was sought when the Association started its reorganization in 1984 is now a reality. I wholeheartedly thank all my Board members and their Committee people for their efforts.

1985 was a year of firsts for the Met GCSA. Our Education Committee not only continued to provide the membership with solid monthly programs, but it also implemented the first of what we hope to be an on-going educational process: Career Counseling Seminars - and a continuing search for the best method of delivering Education to our members. These seminars were designed to take education one step further, enabling all of us to complement our formal education in areas not yet addressed by the university system.

Special congratulations to Ted Horton, who in 1985 was appointed to the Westchester County Drought Emergency Taskforce as the representative of the GREEN industry. Ted's hard work not only enabled our membership to keep up with the changing water restrictions imposed by this year's drought, but also pointed out to those who hold office in this area that today's Golf Course Superintendent is a concerned water manager, not a water waster. This appointment marked the first time a member of our industry has held such a post.

The Met GCSA Social & Welfare/Spouse Committee was formed, and is presently looking to 1986 to implement sound 1985 planning.

Improvements to our newsletter, Tee To Green, have been well received by both the membership and golfing community. In addition, all our members now are guaranteed golf handicaps. And, we initiated an exciting new annual award the John Reid Award. We are proud to have Guido Cribari as our first recipient.

As always, whenever we undertake the process of change, there will be some areas that have to be fine-tuned. I thank the Met membership for bearing with us during this reorganizational process and for their many suggestions. The key to our success so far has been the utilization of the collective experience available throughout the Met GCSA membership.

Finally, it is my pleasure to announce that the Met GCSA Board has voted to place the name of Stephen G. Cadenelli, CGCS in nomination for the office of Director of the Golf Course Superintendents Association of America. This nomination has been approved by the Nominating Committee of GCSAA. We wish Steve well and promise our support in the upcoming election in San Francisco.

> Peter R. Rappoccio President

"Don't wait for your ship to come in, swim out to it."

Fall Applications Lead to Spring Controls

Dave Sylvester Nor-Am Chemical Company

How many Golf Course Superintendents continue to treat for diseases in October and November? How many have to deal with Spring diseases?

As we know, summer is the toughest time of the year for cool season grasses. It also is the season when turfgrass is subjected to the greatest insult by man. If people would play golf during April-May and September-October, grass plants would be only too glad to accommodate. They'd stay healthy, green and dense. Unfortunately, man plays his games in this region primarily during June, July and August. Therein lies the dilemma for the Golf Course Superintendent.

The unfortunate grass plant that exists on a golf course during the summer is subjected to a variety of adverse conditions: hot soil that leads to high crown and root temperatures; frequent mowing at low cutting heights; infrequent light feeding with fertilizers; trampling by feet and golf car wheels; and diseases/insects that attack leaves and roots. Through most of the summer nature is whispering: "Go dormant and survive." The Golf Course Superintendent is shouting and pleading: "Stay green, grow." Turfgrasses respond somewhat like a sleep deprived person trying to stay awake. Somehow both Superintendent and turf do survive.

We are all versed on how to maintain turf during the Summer and most research is directed toward the Summer season. However, I want to discuss what happens as we pass through the Fall and Winter, a time when some of us might tend to relax after a long, busy season.

At this point, let's refresh our memories about what the grass plant is doing during the TRANSITION PERIOD. The "Transition Period" is that time of year from mid-September to when the soil freezes in early Winter. We're going to look briefly at what is happening environmentally, then what the plant is doing physiologically. Next, what several turf diseases are doing. Lastly, we'll look at a fungicide program that will help vou keep the grass from getting sick and make it better able to withstand next season's onslaught.

The Transition Period Environment

Turfgrass growth and development are controlled by the environment in which it lives. The sun provides the signals that control what the plant does biochemically. Day length, intensity and wave length are types of light signals. Turfgrasses are very sensitive to day length, as flowering is controlled by day length stimuli. Poa Annua produces flowers under short day conditions in both Spring and Fall. Flower initiation by most grasses requires a cold period in addition to short day conditions, and they flower in Spring only. During the transition period, days are definitely shorter, and Poa Annua flowers.

Other, not so obvious, events are also taking place, triggered by changes in light. The leaf blades get shorter, wider, and thicker because of longer light wave lengths and cooler temperatures. Light intensity is reduced, which in turn reduces the amount of photocomposers and resulting carbohydrate production.

Temperatures of both air and soil become lower during the transition period. The interval between maximum and minimum temperatures is narrower. The rate of chemical reaction generally doubles for each 10 degree C rise from 5 degrees to 25 degrees Centigrade. They decline at the same rate as temperatures drop. This affects the plant in two ways: first-respiration is a chemical reaction, so it slows, thus the plant burns less carbohydrates; and second - photosynthesis is a light reaction and is not affected to the same degree as respiration under cooler conditions. The plant continues to make carbohydrates and since respiration is slowed, more is made than is used. The carbohydrate level increases and the surplus is stored in the roots.

Also during the Fall, water is used more efficiently. Transpiration losses are less due to cooler temperatures and reduced respiration, while at the same time, dew lasts longer on the leaves and rainfall is generally more frequent.

(continued on next page)

thinking:

	Coming Events		
Novem	ber	ON POSITIVE THINKING	
6-8	NY State Turfgrass Conference	Syracuse, NY	Kansas City Chiefs Coach,
21	Met GCSA Annual Meeting	Westchester CC	John Mackovic, on the importance of positive thinki "If you do not think you can win or be successful,
Decem	ber		the odds are that you will not have much of
2-5	New Jersey Turfgrass Exposition	Atlantic City	a chance."
7	Met GCSA Christmas Party	Fenway GC	5



Fall Applications/Spring Controls (continued from page 3)

The Turf Plant in Transition

The Golf Course Superintendent's job is to provide an ideal surface upon which the game of golf is played. During the golf season, the turf manager is concerned with a daily, slight increase in grass leaf length.

The Superintendent's primary focus during the transition period should be with growing roots and increasing the number of tillers. The better root and crown system of the plant, the better it will perform during the next golf season.

Fortunately, turfgrasses have a tremendous capacity to regenerate. Research shows that a tiller on a turf plant lives, at most, one year. A tiller that develops a seed head almost always dies following seeding. A tiller that is formed in the Spring will live until Winter stress. Thus, the turf is constantly renewing itself if given adequate water, nutrition, and disease control.

During the Summer, the turf plant makes leaves. During the changing environment of the transition period, it switches from making leaves to making tillers and storing carbohydrates.

Development of tillers is dependent on day length, temperature, light intensity, nutrients and is modified by clipping height and frequency. Tiller production is greatly increased by providing an adequate supply of nitrogen, phosphorous and potassium.

Root growth occurs only when surplus carbohydrates are available. Root growth ceases when a plant is flowering and setting seeds, as all carbohydrates are directed to the seeding process. Most root growth occurs during the Autumn transition period. Nutrients, especially nitrogen, are necessary for root growth. As soils cool much slower than air temperatures, roots continue growing when top growth has ceased. The more root growth in Autumn, the greater tillering that can occur in early Spring. Therefore, the cultural and disease control program utilized during the transition period must maximize root and tiller growth.

Fertilization and irrigation are necessary. Maximum leaf area should be maintained so that maximum photosynthesis can occur. Roots can't grow in compacted airless soils or in low ph thatch. Turf riddled with disease will have reduced photosynthetic leaf area.

Maintenance of disease control through the transition period as well as in the Summer is essential for two reasons: first – photosynthetic leaf area must be maintained to produce a carbohydrate surplus for root development; and second – late season disease control following a good summer program will reduce the formation of overwintering sclerotia for diseases such as dollarspot, brown patch and spores for leafspot and pythium.

Disease outbreaks in established turf are not from freshly introduced organisms, but by pathogens waiting in the soil and debris (thatch) for the right environmental conditions to occur.

Disease control in the Fall has been shown by University research workers to reduce Spring infections. The ideal program is to provide a fungicide barrier from early Spring to freeze up time in the Fall. Most fungicide programs ignore the low level, invisible disease of early Spring and late Summer and Fall. Yet disease at those times of year provide the "seed" for summer epidemics. The severity of disease under ideal conditions is directly related to the amount of inoculum, or seed, available at the onset of the disease outbreak.

The disease control program developed with Acti-dione products and Banol pythium fungicide establishes a barrier that continually suppresses the production and germination of fungal inoculum. Recent approvals of Acti-dione tank mixes with Bayleton or Daconil complement and improves disease control with significant cost savings.

A Golf Course Superindent can establish a barrier of protection at economical prices. He can be assured with this program that the grass on the greens, tees and fairways will be going into the Winter with adequately stored carbohydrates and in a disease free environment.

"In golf and in life, it's the follow through that makes the difference."

Kennedy (continued from page 1)

Class A Flight (19 & Over Handicaps) went to *Winged Foot's* own Bob Alonzi with a two-round net score of 141. Second place honors were captured by Fred Scheyhing at 151.

Class B Flight proved to be a run-a-way with *Quaker Ridge's* Charlie Siemers winning with a net score of 142 – followed by John Carlone at 154.

Class C Flight honors were shared by John Apple of *Westchester Ford* and Gary Mullane of *Hawthorne Tree* with net scores of 161.

Green Chairmen's Day

The Superintendent – Green Chairmen Tournament and Meeting played at *Winged Foot* on October 21 attracted a field of 122 players and a dinner crowd of over 140 people. Tournament winners were *Westchester's* Ted Horton and Peter Bisconti on the Gross side with a Better Ball score of 75. Low Net Winners were John Musto and Bob Busby of *Back O'Beyond* with a score of 67.

The Winged Foot Speaker's Program featured a rookie-veteran Green Committee Chairman's tandem of Jay Mottola from the MGA and Tuxedo; and Dick Livingston of Quaker Ridge – regaling members and guests with their observation and constructive advice on the subject of the role of the Green Committee Chairman. The program was well received.

Regional Tournament

The final golf competition to report on for the year is the 5th Annual GCSA Team Championships – played on September 19th at *Stanwich*. Seven six-man teams joined the host Met GCSA to comprise the overall eight team field – with the low four gross scores counting toward each team's official score.

The Met GCSA won the Team Championship with a total score of 334 – with the remaining teams finishing in this order: Philadelphia – 343, Central Pennsylvania – 351, Long Island – 351, Connecticut – 352, New Jersey – 353, Hudson Valley – 371 and Northeaster USA – 391. The Met GCSA team was made up of Chuck Fatum, Jim Fulwider, Les Kennedy, Mike Medonis, Scott Niven and John Carlone. Congratulations Team!

John Carlone of *Stanwich* won low individual gross honors with a score of 81 and was presented with a newly dedicated trophy for the event in this category by the MGA's Gene Westmoreland.

Slope Handicaps Coming In 1986

If you are a 10 handicap at one of the Metropolitan area's longest, most difficult golf courses and you have so much success playing a fellow 10 handicapper from a short, relatively easy course that you send a limousine to pick him up – your days of glory are numbered. *Slope* is going to put you on equal ground with your former pigeon.

The MGA, CSGA and NJSGA Course rating Committees have re-rated over 230 courses in the area according to the new USGA Obstacle Rating System. As the name implies, obstacle rating takes a closer, more objective look at how obstacles influence a player's scoring ability. Formerly, ratings were based almost solely on distance and could be off by several to many strokes a course.

The end-product of all this re-evaluating is something called *Slope* – which in reality is a system that tells us the difference between how an expert plays a course and how a bogie player plays the same course.

All players will be assigned a new "slope Handicap" in 1986, which rates a player's ability independent of any golf course. When playing a course, players will be asked to read a chart to see how many strokes are added or subtracted from his "slope handicap" for play on that course – whether it be his home or a visited course. Keep all bets under a dollar until you learn the new system.

Survey Defines Average Courses

A recently completed NGF-GCSAA survey, based on respones from over 2,300 golf facilities, has defined the "average" American private, daily fee and municipal golf courses as follows:

	Priv.	DF	Mun.
Age (Yrs.)	41	19	24
Overall Size (Acres)	134	127	137
Fairway Size (Acres)	2.4	2.9	2.9
Tee Size (Sq. Ft.)	2121	1923	2591
Green Size (Sq. Ft.)	5567	5523	5810

Municipal and private courses appear to have more similar dimensions than daily fee and private courses because most municipal courses were formerly privately owned.

Annual operating budget ratios for daily fee, municipal and private courses fell into a 4:6:7 pattern.



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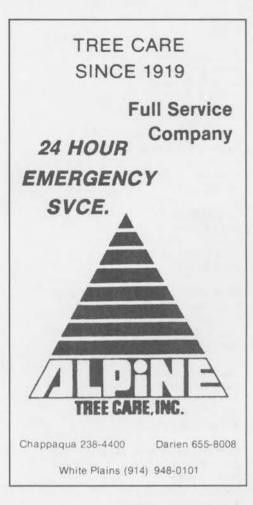
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Suggested Courses – Readings

Today's very competitive and opportunity filled world suggests that both adults and students consider taking what are fast becoming fundamental courses for any curriculum or continuing education program.

These courses are: "Statistics" – with computers everywhere, quantitative analysis is valuable even for liberal arts thinking people; "Public Speaking" – talking in front of a group is one of man's common fears. Work on making it an asset; and "Business Writing" – the ability to communicate well in writing will enhance one's rate of upward movement in any professional environment. If you have read this far – we owe you a beer.

Similarly, three books that are recommended as required reading for those chasing success are: "What They Don't Teach You At Harvard Business School" – by John Naisbitt; "In Search of Excellence" – by Thomas J. Peters and Robert H. Waterman, Jr.; and "Iacocca" – by Lee Iacocca and William Novak.

Your *Winter Program* should include reading, writing, computer and education projects.

Industry and Local News

The Metropolitan Golf Association presented a very attractive continuing trophy to be awarded to the individual Low Gross Scorer in the annual eight-team GCAS Championships. John Carlone, the Assistant at *Stanwich*, was the first recipient of this trophy this year. Thank you MGA.

The National Golf Foundation, acting as golf's spokesman, is vigorously supporting efforts in Washington to extend Daylight Savings Time. NGF research indicates that the extra hour of daylight would provide the potential for 19 million more rounds of golf each year. Based on this premise, the industry could expect to see \$34.8 million more golf balls sold and \$11.2 more golf clubs sold. Overall, golf could anticipate a 4.3% increase in play which could produce up to \$380 million in increased revenues throughout the industry.

A Japanese company is building a golf course in China for 2,985,000,000 yen. These numbers make American budgets look good.

The PGA of America reported a second straight fiscal year of record-setting net revenues and earmarked them for new programs to help PGA members and their clubs. Fiscal 1985 showed net revenues were up 73.1% over 1984, while total revenues were up 12%.

The first national consumer magazine edited specifically for America's private golf club industry will be published in January, 1986. The new magazine entitled, *The Golf Club*, will be distributed by golf professionals at selected clubs and at a subscription cost of \$36/year. An initial national circulation base of 120,000 is anticipated.

The recently completed NGF-GCSAA Golf Course Maintenance Report indicates that 50% of all private 18-hole regulation length golf courses spend at least \$207,006 per year on maintenance operating costs. The survey also shows that 25% spend at least \$291,573. The joint report concedes that high-profile, prestigious golf clubs are the exception and not the rule – with annual operating budgets well into the \$300,000-plus range.

The Club Managers Association of America has presented a check for \$17,000 to Lee Iacoca, Chairman of the Statue of Liberty Reconstruction Project.

The NGF advises that there are presently 13,225 golf courses open in the USA, with another 430 under construction and 633 in the planning stage. More and more work for the Golf Course Superintendent.

With everyone looking for a solid Winter project to commit to, how about several Met GCSA members doing the research on separate pieces of equipment that would allow for "hour to miles" conversion tables to be prepared for 1986? (See story on first page of this Newsletter for background information.)

Too few color slides were received to initiate the Met GCSA Phote Contest this year. Two questions should be asked: do members have cameras? Do they use them? The combination of new computer graphics software and camera use will allow the Golf Course Superintendent to communicate in new dynamic ways within the next year or two. The contest will be recycled next year – possibly with sponsor backing.

Less we think turnover is special to the golf industry, the Wall Street Journal recently reported that some 24% of chief executives at Fortune 500 companies were replaced between 1983 and 1985.

Participants in the Stanford Research Institute in California recently noted what they perceive to be the four characteristics of successful people: a high level of intensity, a desire to accept responsibility, creativity and a sense of humor.

Met GCSA Vice President Pat Lucas working hard as a committee member to help stage the Prayer Breakfast at the 1986 San Francisco GCSAA Conference.

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