



Hear Them Again For The First Time

By Lori Ward Bocher

It was his need for a little extra money that, quite by accident, launched him in the turf business. But it was Charlie Wilson's quest for scientific knowledge that guaranteed he'd be a player in the turf arena for the rest of his life.

Known to many, Charles G. Wilson was head agronomist and director of marketing for the Milorganite Division of the Milwaukee Metropolitan Sewerage District from 1960 to 1979. He spearheaded the O.J. Noer Research Foundation. He received the WGCSA Distinguished Service Award as well as awards from many other state associations and the USGA Green Section. He is credited with making "turfgrass" one word and with coining the term, "wet wilt."

And it was Charlie who originated the Wisconsin Golf Turf Symposium. But he no longer attends. "I felt that when I retired I should get out of it rather than be a hanger on. Nobody wants to listen to the same old stories all the time. You're new," he tells me. "You have to listen!"

And I gladly share some of his stories with you. Hear them again for the first time.

The son of a food buyer for the Atlantic and Pacific Food Co., Charlie moved around a bit during his childhood. He was born in 1920 in Port Jervis, N.Y.—in the Catskill Mountains about 87 miles northwest of New York City. He also lived in Scranton, Philadelphia and Washington, D.C.

While in Washington, World War II broke out and Charlie enlisted in the Navy. He served 37 months in the Pacific during the war, and he served under a pretty famous skipper—Jack Kennedy—while still in the states.

"When the war ended, I decided to go to college and get a degree in agriculture of some sort," he recalls. "Even though I was a city boy, I was interested in agriculture. It just seemed to be a good choice."

Charlie enrolled at the University of Maryland where a few turn of events



Charlie Wilson with his first lunker, 1972, at the Mascaro home in Miami, Florida.

helped shape his entire future. "At the end of my first semester I figured I needed something to supplement my GI Bill," he explains. On the way home from playing golf one day, he noticed some nice homes in a Washington neighborhood, and he wondered if they might need someone to do yard work.

"So I pulled over, knocked on the first door, and I thought the woman was going to kidnap me!" he remembers. "They had gone all those war years without any help. She said, 'Let me call my friends, too.' So I got into the lawn business.

"And then I figured I'd better learn something about grass if I was going to be cutting lawns," Charlie adds. That led him to the USDA Plant Industry Station in nearby Beltsville, Md., where the USGA Green Section had its office.

Charlie found plenty of reading material on turfgrass culture, but he wasn't allowed to take any of it out of the building. So he made many trips to the station and spent hours poring over material. "I started reading some of the old USGA Green Section Jour-

nals. And they were fascinating!" he recalls.

His enthusiasm didn't go unnoticed. When Dr. Fred Grau, director of the Green Section, returned from a trip, he took interest in the young college student and offered Charlie a summer job at 87 cents an hour. "By then I had hired a couple of other college kids to help me out with my lawn care business, and I was paying them \$1 an hour," he remembers. "But I took the job because it sounded interesting."

The summer job led to a part-time job during the school year, and he worked there until he graduated with a B.S. in agronomy in 1950. "Then they offered me a job as an extension agronomist working full-time," he says. "I was happy to take that. I had gotten married in 1949, just shortly before I graduated."

After working in Maryland for a year, he was sent to California to conduct a survey to see if there was any interest in having a visiting turf service for USGA member clubs. When USGA decided to initiate the service, Charlie was chosen to open the office in Davis, Calif. "So I pioneered the USGA Green Section turfgrass advisory service," he points out. "I was the first director." From California, he covered all states east to Colorado.

After three years in this position, O.J. Noer tapped Charlie to be his understudy at the Milorganite Division of the Milwaukee Metropolitan Sewerage District. Charlie moved to Wisconsin in the summer of 1955.

"O.J. Noer was just a remarkable gentleman in more ways than one," Charlie recalls. "He was undoubtedly the world's foremost turfgrass agronomist. Just the honor of being able to work with him made me inclined to make the job switch."

Charlie worked with Noer for five years before Noer retired in 1960 and Charlie assumed his position as head agronomist and director of marketing. He spent much of his time traveling around the country to meet with Milorganite distributors, attend turfgrass conferences, give talks on turfgrass culture and care, and visit golf courses.

"I visited golf courses in every contiguous state of the union, most of the provinces of Canada, as well as many spots in Mexico and the Caribbean

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GENTURY RAIN AID

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Islands," Charlie points out. "It was quite a broad education."

What about his career gives him the most pride? "I'm proud that I was able to help the grass to grow," is his simple answer.

He's also proud of the O.J. Noer Research Foundation that he spearheaded. "Shortly before O.J.'s retirement, several Milorganite distributors got together at one of the national meetings and said, 'We've got to do something nice for O.J. Noer,'" Charlie explains. "So they came up with the idea of getting a fund together to send O.J. and Judy, his wife, on a trip around the world with a special stop in Norway.

"When O.J. got wind of that, he was mad," Charlie continues. "He said, 'Under no circumstances are Milorganite distributors going to do any such thing. It should be the other way around—I should be sending them on a nice vacation.' Amazing man."

Time for Plan B, which was formulated when Charlie and the Pittsburgh distributor got together one day. "We came up with the idea of forming a turfgrass research foundation. So that's how it all started," Charlie explains, adding that the O.J. Noer Research Foundation has been near and dear to his heart ever since. He served as its research director for many years and also was on the board of directors.

"The Foundation's first research project was conducted at the University of Wisconsin under Dr. Jim Love," Charlie recalls. "It's one of the greatest research projects ever done on turfgrass. It determined what mineral nutrient deficiencies look like on turfgrasses. No one had ever done that before.

"And we were able to help many experiment stations get started with what we call pump priming grants," he continues. "There was very little support for turf research at that time. Everything was agriculture. Turf was out in left field somewhere."

Charlie also is proud of his efforts to help educate golf course superintendents, especially through the Wisconsin Golf Turf Symposium. It all started accidentally at a national conference in the 1960's when Milorganite was entertaining some Milwaukee-area superintendents. They had to wait for their tables, so they went to the adjoining bar. Not only Milwaukee superintendents, but superintendents from all over the U.S. were served drinks on the Milorganite tab. It mushroomed into quite a large bill. "On the way home I said to my boss, 'Ray, this is

crazy. Instead of doing something like this, why don't we do something that might be helpful in educating people on growing grass,'" he recalls. So Charlie, Jim Latham and Bob Welch came up with the idea of having a symposium with a one-subject format.

It began as a symposium for Milwaukee-area superintendents. But it was so popular that others wanted to attend. So Milorganite teamed up with the WGCSA and opened the program up to any interested persons. "We were always amazed at the far distances some people came in order to attend," Charlie points out. "We had one superintendent from Winnipeg, Canada who for two or three years running came down here by bus."

Increased education for superintendents is just one of the changes Charlie observed throughout his career. "In fact, I began my career at a time when the educational aspects of superintending were really starting to come into being," he explains. "Superintendents were called green keepers back then, and they were mainly farm oriented people."

While working for USGA on the west coast, he experienced a visit to one golf course where the green committee chairman asked that all reports be sent to him. When Charlie told him that the greenkeeper really should see them first, the chairman informed him that the greenkeeper could neither read nor write. "That was an exception, of course. But you see how much things have changed," Charlie adds.

"Turfgrass research was starting to spread out at that time, too," Charlie says of his early years on the job. Penn State, the University of Rhode Island and Rutgers University were the only colleges with substantial turf programs at the time. "I was in Los Angeles when the first country club out there fertilized fairways, if you can believe that in this day and age.

"Another big change in the turf world is the tremendous development of equipment to take care of the grass," he continues. "That really has been something. Industry has done a fantastic job of developing equipment and chemicals, too. Aside from the new turfgrasses, most developments in the turf industry have come from industry, not the university experiment stations."

This leads Charlie to a few of the negative aspects he sees in the turf industry. "I think the experiment stations have been forced into devoting too much time to proving or disproving proprietary products that come on the

market," he says. He also doesn't like the idea of universities relying on companies for research grants—and thereby dictating what type of research is done. "That may be progress to some, but not to Charles G. Wilson," he emphasizes.

And he is leery about the increased dependence on the use of chemicals in turf management. "You sometimes think, after you've been around for a while, that the grass they're growing today is so artificially managed that it could be called artificial grass," he says. "Fortunately, we're seeing integrated pest management come on the scene with greater strength."

He would like to see more check plots on golf courses. "In the old days, when all we had was the conventional drop-type spreader, you could always tell when something worked or failed because there would be a miss. We always had our check plot," he recalls. "When I retired, I found that very few golf courses seemed to be willing to leave some check areas every time they sprayed so they could see exactly what they accomplished with the last spray. I would like to see more experimentation done on the individual golf course."

Charlie has tremendous respect for golf course superintendents. "It's a tough job. It really is," he believes. "I



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tell people that I was a grass talker because it was easier than being a grass grower."

When he retired in 1979, Charlie didn't stop working. He spent much of his time developing a product he had invented a few years earlier. It's called Aquashade, a blend of colorants that discourages aquatic weed growth, especially algae. Charlie came up with the idea while visiting a Milorganite distributor in Florida who had two small lakes on his property; one looked beautiful while the other wasn't nearly as colorful.

Turns out the distributor had been on a Miami golf course on which a movie was being filmed. The movie director didn't like the color of the pond, so he added blue dye to make it look prettier. Charlie's friend had used that same dye in one of his lakes, but not the other.

"Then it hit me," Charlie recalls. "He didn't have any aquatic weeds where he had used the colorant. Being a turf-grass agronomist, I figured something was happening there." He did some research and found that the colorant makes the weeds think the water is deeper than it really is; therefore, the weeds don't grow.

So Charlie developed a patented product and started the Aquashade business. His brother, and later his sister-in-law, ran the business for several years. "We recently sold that business," he says. "We're in the process of wrapping that up. Then I'll be completely free to do what I want to do."

Since retiring, Charlie also has engaged himself in some more typical retirement activities, like traveling and fishing. "We've traveled a lot in different areas," he says. "We were in Hawaii for the first time last year. So now we only have one more state to hit, and that's Alaska. We may do that next year.

"The more you travel, the more you realize there's nothing wrong with Wisconsin," he continues. "Being retired, when it snows you just sit inside and look out the window. The winters are no longer bad once you don't have to mush through them all the time."

Charlie and his wife, Marion, chose to retire in Wisconsin. "We've enjoyed Wisconsin very much," he says. "We have three wonderful children, two in California and one in Pewaukee. They're all doing swell. Wisconsin has been very good to the Wilsons, and I'm very proud of that."

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Charlie has had some health problems—arthritis, a hiatus hernia that's finally been cured after 35 years, and skin cancer. But he isn't complaining too much. "As a parting shot, I'd like to tell the superintendents to, goodness gracious sakes, wear their hats," he advises. "The wider the brim, the better. And use sunblock. That's better than turfgrass advice this day and age."

In April, Charlie and Marion moved to a retirement village in Milwaukee.

"We moved to Freedom Village so I won't have to cut the grass anymore. Just talk about it," he says.

The village has an indoor pool, "But not a putting green anywhere around," Charlie points out.

"You'd better do something about that," I tease. "When the other residents find out what you've done all your life, they'll want you to put one in." "I'll hire Wayne Otto," Charlie concludes. 🌿



Environmental Influence on Pesticide Performance

By Dr. Frank S. Rossi
Department of Horticulture
University of Wisconsin-Madison

Perspective

Efficient turfgrass management integrates cultural practices, management inputs (fertilizer, water, pesticides), and environmental awareness. Improper management decisions or adverse environmental conditions can compromise turfgrass health and reduce aesthetic quality. From a practical standpoint, weak plants are more likely to be infected, injured and less competitive to pest infestations. Turfgrass pest management requires much more than deciding on the best chemical to manage the pest. It requires a full appreciation of your quality expectations prior to determining management options. Could you get by with the current injury level or must you avoid losing any grass? Enormous advances in environmentally responsible pest management over the past decade have been a result of improved technology, including the advent of more selective, less persistent pesticides. However, the first step in pest management remains prevention through proper maintenance of turfgrass health. If managers are to use pesticides to their full advantage and without compromising environmental quality, they must understand the factors that affect their performance.

Application Specifics

A pesticide begins to interact with the environment at the moment of its application. It moves, is transported, acts, and is ultimately degraded in the environment. Interaction occurs in the atmosphere, the soil and the soil-atmosphere interface with plants and soil microorganisms. Perhaps the most critical phase involves those interactions from the moment the pesticide arrives at the plant or soil surface until it reaches its site of action. Sprayer calibration is an extremely important step in any pesticide application. Yet, it is the step most often estimated, forgotten, or totally ignored. A study conducted at the University of Nebraska reported that of the 53 public and private golf courses surveyed, 83% misapplied pesticides. This was shown to cost approximately \$25.00 per acre of turf and does not include cost of injury to the turf from over-application or non-efficacy. As a pesticide is discharged from a nozzle there is potential for drift. Drift is influenced by spray pressure, surface tension of the spray droplet, nozzle orifice diameter, amount of wind, and boom height.

Pesticide Fate

Chemicals can change physical state from a liquid or solid to a gas, via a process called volatilization. Volatilization can occur after release of the pesticide from the sprayer, as it travels through the air, or after it has hit the plant or soil surface. Volatilization increases as air temperature increases, thereby increasing plant or soil surface tem-

perature. Vapor drift occurs when wind moves vapors off the intended target area and causes injury to adjacent plant material. This is of particular concern with broadleaf herbicides formulated as esters, such as 2,4-D. If we consider preemergence herbicides or fungicides used for root pathogens to be soil-applied products, there are several processes that may occur upon contacting the soil. The chemical can be degraded by light (photo decomposition), microorganisms, or by chemical degradation. Each of these ultimately will alter the efficacy of the pesticide. Additionally, the pesticide might be adsorbed. Adsorption is the binding of pesticides on soil particle surfaces, specifically to clay particles and organic matter, especially thatch. These surfaces, through their cation exchange ability or physical attraction, can concentrate pesticides and remove them from the soluble state. The pesticide has to be in soluble state to be taken up by plants. Adsorption is one of the most important mechanisms for the reduction of the concentration of pesticides in the soil and can play an important role in leaching. Leaching of pesticides is movement of chemicals due to the action of water. It is usually considered movement down in the soil profile into or through a zone of action. The leachability of a pesticide is directly related to its

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water solubility, the amount of water moving in the soil profile, and its adsorption.

Environmental Effects on the Plant

Foliarly-applied postemergence herbicides or contact fungicides are subject to similar environmental conditions which can influence performance such as volatilization, adsorption to the cuticular surface, and photo-decomposition. Still, the nature of the target, i.e. the plant, creates several different challenges from the environment. Plant morphology, or shape, orientation, and nature of leaf surfaces are influential. A large broadleaf parallel to the soil surface is much more effective at capturing spray particles than an upright narrow leaf blade. This fact is complicated further under moisture-stress conditions where many leaf blades roll inward to conserve moisture. Additionally, hairy leaf surfaces could prevent intimate contact of pesticide droplets and leaf surfaces and allow for volatilization or possibly reduced absorption.

Moisture Stress and Herbicide Performance

Finally, some of my research at Cornell University demonstrated the impact of moisture stress on the performance of fenoxaprop (Acclaim) for postemergence crab-

grass control. We found that there is a combination of factors which are influenced by moisture stress which leads to reduced efficacy, with the paramount influence being the affect of moisture stress on growth. Subsequently, we investigated irrigation scheduling to determine an optimum timing to alleviate the moisture stress and possibly enhance fenoxaprop performance. The results of the irrigation study indicated that excellent crabgrass control was achieved when we irrigated the moisture-stressed plants the day of the herbicide application and up to 48 hrs. after application. Additionally, another study indicated that when irrigation is not available, the tank mix combination of fenoxaprop and pendimethalin was able to control moisture-stressed crabgrass. This tank mix was found to be synergistic and able to provide consistent postemergence crabgrass control under variable environmental conditions. I will discuss this research more completely in future articles.

Summary

Before you make a pesticide application think about plant health, your pest management options, pesticide application parameters, the fate of pesticides and the influence the environment has on each of these issues. A healthy appreciation of the interactivity of these processes will result in more effective and efficient pest management decisions without compromising environmental quality. ♣

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What's In A Name?

By Dr. Bob Gray

Editor's Note: I was able to get permission from both the author of this piece and the editor of the journal in which it appeared with one phone call. Ilona Gray is the veteran editor of the award-winning publication of the Golf Course Superintendents Association of New Jersey, *THE GREENERSIDE*. Her husband, Bob Gray, wrote "What's In A Name?"

Both Ilona and Bob are graduates of Rutgers University's Cook College. Bob also earned a PhD in Agronomy from the University of Illinois and is employed by American Cyanamid.

In addition to her responsibilities as editor of *THE GREENER-SIDE*, Ilona is also director of New Jersey's Alliance for Environmental Concern, a position similar to that held by Russ Weisensel here in Wisconsin.

On a personal note, Cheryl and I were able to share a perfectly delightful evening with Ilona and Bob at a downtown Manhattan restaurant in February. We were there to celebrate our 25th wedding anniversary, an event the Grays will enjoy this fall. Thanks to them both.

Poa pratensis L. is the Latin name for Kentucky bluegrass. It's not from Kentucky, and it is really not "blue". Not blue like the flag blue, but maybe to some a little blue in the green. The "L" at the end of the name means that it was named by none other than Linnaeus, the founding father of modern taxonomy. Taxonomy is the science that classifies plant species, species into genera, genera into families, etc. But what's in a name?

Poa is the name of a genus or group of species. It literally means "grass" in Greek. Perhaps because *Poa* is so common a grass or so representative of all grasses it was given that honor. "*Pratensis*" refers to the slender creeping rhizomes that make Kentucky bluegrass such a popular choice in lawns, golf courses and pastures. But that's a digression. Back to *Poa*.

There are over 200 species in the genus *Poa* and about 65 of them are native to the United States. *Poa pratensis*, however, is thought to have originated from Europe. Maybe we should call it English Bluegrass? But I don't think so. What do they call it over there?

Regardless, we got it right when we refer to English and Italian ryegrass. The English ryegrass is *Lolium perenne* L. and the Italian ryegrass is *Lolium multiflorum* Lam. Lam refers to another famous early scholar of plant taxonomy, Jean Baptiste Pierre Antoine de Monet, Chevalier Lamarck, or Lam for short. *Lolium* is an old Latin name for darnel, which is not some high tech polyester fabric but rather an old French word for weeds.

Now not all turf type grasses, of course, come from Europe. *Zoysia japonica* you may suspect comes from Japan. It could have come just as easily from the Philippines or Korea. When species travel, they don't carry passports. The origin of the word *Zoysia*, however, is clear. The genus was named after Karl von Zois. But I don't know who he was or why he was so honored.

Another important turf type grass is *Agrostis stoloniferous* or creeping bentgrass. The word "*Agrostis*" is also from the Greek. It refers to "agros" or the field. Modern words like agriculture, agronomy, agrarian and agrostology (the science of grasses) have agros as their origin.

The word grass itself is likely derived from the ancient Aryan (India) word ghra. It's not a big leap to more modern words like grain, green, grow and to the Latin word for grass, "gramen".

So what's in a name? If it's a name like Lamarck, it could be dozens of letters! But for the name of a few key grass species, the origin of names is fun and part of the learning process.

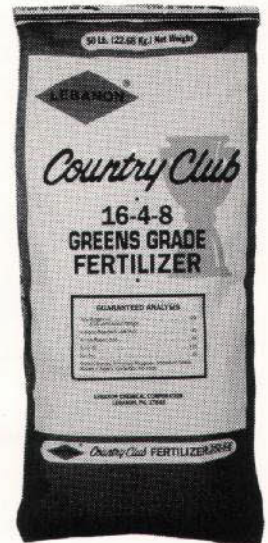
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Women In Golf

By Maggie Giesenhagen, Manager
Women's Regional Affairs, Western Region
United States Golf Association



Editor's Note: Last spring I drove to Davenport, Iowa to attend the USGA Green Section Regional Meeting. All of the previous such conferences I have attended were time well spent. The meeting in Iowa proved the same.

One of the speakers on the program was Maggie Giesenhagen. She is the Western Region Manager of the USGA Women's Regional Affairs. Her lecture was excellent and offered wisdom for any golf course superintendent. I left feeling glad she had travelled so far to speak. At lunch I approached her to see if she would allow me to share her speech and its advice with all readers of *THE GRASS ROOTS*. She graciously agreed, and here it is. If you read it carefully and think about what she is saying, you will be better prepared to meet some of the reasonable needs of this very significant group of golfers on our Wisconsin golf courses.

I would like to share with you some of the issues in women's golf that might be of interest to this audience. We realize we participate in a male-dominated sport. It is part of the culture and the traditions of the game. However, we are becoming involved more and more with our club's golf committees, green committees, boards of directors and I can even name a few clubs which have had a woman president. I guess the men are coming to understand we are doers, we are organized, we will see a task to completion. The USGA and all golfers are fortunate to have the expertise, services and dedication of Judy Bell and Carol Semple Thompson—both accomplished amateur players and well-known administrators of the game—on our Executive Committee, which is THE ruling body of the USGA.

There are increasing numbers of women as golf course superintendents, club managers, and golf professionals. Change is even apparent in the PGA of America as a one-year pilot program has been initiated for women PGA professionals, allowing them to play for the same purse in some local events from shorter tees which measure 82 percent of the yardage played by their male peers.

Equal access to tee times and facilities at the club level is a hot topic among the women. Several states have recently enacted legislation requiring it. Others are beginning to see the light. Recent newspapers and golf magazines have documented lawsuits that are pending. Generally, we women have an uphill battle on this issue.

Women number approximately one-third of all golfers. However, the beginners coming into the game are predominantly women. We take twice the golf lessons the men take; we spend more money in golf shops. But sadly, it is estimated that three of four women beginners are dropping out of golf. Why? Because of a bad experience? Because we are intimidated? Because we do not appreciate the manner in which we were treated?

I agree with Carol Mann, LPGA Hall of Famer and past president of the LPGA and the Women's Sport Council, who addresses this issue and challenges the golf professional to cater more to women—from the sales people in the golf

shop to the lesson tee. She points out most women have not been trained to retain instruction and lack the same seriousness men have when taking up the game. They get easily overloaded with the technical aspects. Consequently, they try too hard. Carol says to the pro, "impress the need for lessons and practice and proper playing partners for them. Extol the joys of a round of golf. They are away from the kids, meeting new people. The landscape is beautiful; there is wildlife to be seen. There are social aspects to the game, and it is relaxing." Don't be condescending; research your women's market by listening to them.

Alice Dye, member of the American Society of Golf Course Architects and Pete Dye's wife, suggests most course design and setup is discouraging for women entering golf. On this subject I would like to elaborate more.

Who is the female golfer? The BEST amateur women players with SCRATCH HANDICAPS—let's say those who make it to match play in our US Women's Amateur Championship—carry their drives an average of about 190 yards. Add some roll and they will end up at about 210 yards off the tee. In two shots, they will be about 400 yards. However, the AVERAGE woman golfer has about a 30 HANDICAP. She can carry the ball with her driver about 120 yards and will get some roll to end up at 130 yards total off the tee. In two shots, we will be at about 250 yards, and three full shots will be at about 370 yards.

Now remember, this is the AVERAGE woman player I am describing. She plays almost every hole in double bogies. There are as many women players with handicaps OVER 30 as there are UNDER 30. The USGA has a handicap index limit for women at 40.4. Numerous women's associations, however, calculate women's indexes up in the 50s or 60s in order that their less skilled members might be competitive. Any index OVER 40.4 can ONLY be used for INTRA-CLUB PLAY. These players hit the ball 80 to 100 yards tops with almost any club in their bag. These are the triple and quadruple bogey players. Certainly one thing you

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can say about the skill level of women's golf is that it is extremely diversified. LENGTH is the single most difficult factor that most women have to contend with on the golf course.

Consider having a choice of two or three sets of tees for the women at your courses. Men have used two or three tees for years; women's skill levels are much more diverse than men's. Those clubs that use two sets of forward tees have found the shorter tees can be shared with the juniors, and the longer second tee is sometimes shared by the senior men.

The key is to offer the women a CHOICE—to be able to play the length of course they enjoy. Suggested lengths of courses are 5900-6200+ yards for the close-to scratch players. This is often the normal white tee yardage most men play and is about the length we set up the courses for our US Women's Open and Women's Amateur. The 20-30 handicap players enjoy a course set up at 5300-5700 yards. The 40 and above player should play at about 4900-5200 yards. Corresponding women's course ratings should be requested from your state golf association for any set of tees on your course that ANY woman might play, not just members at the course. This way, all scores can be correctly posted and the women's handicaps will be correct. Understand that from the same set of tees, women's course and slope ratings will differ from men's course and slope ratings.

Please consider the higher handicap women as you maintain, design or redesign golf holes. SPEED OF PLAY is a great concern for all of us, but especially for these players. Their shots normally have a low trajectory and they get a lot of bounce and roll. Consider having ROUGH eliminated in FRONT OF GREENS so they can bounce the ball on. If they have to carry their ball ON the green, they will normally roll over. A carry of 75 yards OVER ROUGH in FRONT of a TEE is very penalizing for the average woman, especially if it is high rough and stops the ball. Severe obstacles, like water, that require a carry of more than 75 to 80 yards with no bailout area often penalize some ladies to the extent they cannot even finish the hole. If a severe obstacle is positioned to be carried on the DRIVE, a solution is for a SHORT TEE to be designed on the GREEN side of the obstacle. However, if the severe obstacle is in front of the GREEN, the less skilled women need some sort of a short carry, mowed bailout area to the side to allow them to complete the hole.

Don't misunderstand. Women do not want to play a course that is boring and devoid of obstacles. Everyone enjoys the challenge of "letting it all out and going for it." But the high handicap player should be able to finish every hole, even if she has to play AROUND the severe obstacles she cannot possibly carry over.

The USGA has set guidelines for women's par:

Up to 210 yards.....	Par 3
211 yards to 400 yards.....	Par 4
401 yards to 590 yards.....	Par 5
Over 591 yards.....	Par 6

Of course, you can deviate from these guidelines due to the design of a hole or elevation changes, but women's pars should be assigned to reflect the skill level of the SCRATCH woman player, not the skill levels of your LOCAL MEMBERSHIP. In other words, a 370 yard hole should NOT be a par 5 for women just because NO WOMAN MEMBER AT THE CLUB can hit the green in two shots.

Please consistently set up your courses as they were MEASURED and rated by the state or regional golf associa-

tion. These assigned ratings are the basis from which handicaps are calculated from scores shot on your courses. Holes are measured from the MIDDLE of each teeing ground to the MIDDLE of the green. Not every set of tee markers from which the women play have to be set one yard behind the FRONT TEE CUT all the time. And please understand the easiest hole location on ladies day is not three paces from the FRONT EDGE of the green! I'm exaggerating, but I hope you get my point. Every deviation of 18 yards from the official total course yardage measurement for women can affect their course rating by .1.

Another word about the teeing grounds: when I ask a women's association what can the USGA do for their players, the most common response is to please inform the golf course architects and the golf course superintendents that many women's teeing grounds are not level and are not fairly positioned. I would suggest golf course superintendents play a round of golf from your forward tees, using a five-iron, to not only check out the teeing ground, but the angle of the shot and the landing areas the women have. I think you would find it enlightening in many instances.

Women have not traditionally communicated well with golf course superintendents, club pros and club managers. We are probably quick to criticize the course maintenance practices. We are positive you purposely pour on the water the night before or during our ladies days! We can count on you to aerate right before our member-guest tournaments and schedule course construction to be done the day of our invitationals. We are upset when a huge banquet is scheduled that interferes with our after-play luncheons. We women have to make more of an effort to communicate, to coordinate, to grasp a better understanding of your golf course maintenance problems, priorities and schedules. Communication is the key. It is a team effort.

Lastly, one of the greatest concerns for women golfers is the general lack of interest and participation in girls junior golf. The numbers of girls as compared to the boys participation numbers are not even close. Many women's club and state organizations do not let girls compete or participate with their ladies until the age of 18. The USGA is concerned about this trend and has produced a short upbeat video promoting girls junior golf. You would enjoy viewing it.

The bottom line, from my point of view as a manager of Women's Regional Affairs, is better communication and understanding so that we can promote and enhance the game of golf for all of us. ♣

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