



THE VALUE OF BELONGING

By Roger Bell



Membership has its privileges as American Express tells us—and the same is true for W.G.C.S.A. About a hundred members exercised their privileges by attending our recent educational session and annual spring meeting in Fond du lac. As our membership increases, it becomes more cost effective to put on such educational programs. Thanks to Mike Semler, Educational Chairman, for arranging our recent session and to speakers Wayne Otto, Jerry Kershasky, Dr.

Wayne Kussow, and Marc Davidson for holding our attention so well.

The business saw some noteworthy motions pass. For example:

- First class mailing costs for the *Grass Roots* will be paid out of general revenues and future profits from the *Grass Roots* will be directed to the O.J. Noer Center for Turfgrass Research.
- With our \$500 donation, we will continue to support G.C.S.A.A. Scholarship and Research. The major thrust of our research donations will be directed toward the O.J. Noer Center for Turfgrass Research. Our Noer Center pledge for the next three years totals \$20,000. An additional \$3,000 will be donated to the O.J. Noer Foundation which will in turn donate that money to the O.J. Noer Center for Turfgrass Research. It was especially gratifying to see the motions supporting our research contributions pass unanimously—our membership is serious in its commitment to research. (Remember to make your PERSONAL pledge to the O.J. Noer Center and to encourage your club to do likewise.)

- Class E members' dues will be frozen for this year and their dues structure will be re-evaluated for a possible By-laws change next year. Our E members are important—they come through for the Association with door prizes, hospitality rooms, advertisements and much more—things that we couldn't have without them. We should all give them serious consideration when making purchases for our courses and treat them as "Exceptional" members, not "Excluded" members.
- The By-Laws were changed to designate the three most recent past presidents as the nominating committee, the most recent past president serving as chairman.

I hope that you were able to attend the spring annual meeting (and that you will be able to attend all of the other planned outings for this year). The Directors and Officers provide the leadership for the WGCSA but the ultimate decisions for what the WGCSA becomes and what the WGCSA does lie with the membership at large. Thanks for your opinions and your decisions. Membership does have its responsibilities, too.

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The **GRASSROOTS** is a bi-monthly publication of the Wisconsin Golf Course Superintendents Association. Editor and Publisher — Monroe S. Miller, Editorial Staff and Business Affairs — Rodney Johnson — Sheboygan Country Club, and Michael Semler — Cherokee Country Club. Printed in Madison, Wisconsin by Kramer Printing. No part or parts of the **GRASSROOTS** may be reprinted without expressed written permission of the Editor.



SHAMELESSLY UNPROFESSIONAL

By Monroe S. Miller

CLUB MANAGEMENT

THE NATIONAL MAGAZINE OF CLUBBOOM

408 Olive Street
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FAX: 1-314-421-1070

February 17, 1988

Dear GCSAA Conference & Show Exhibitor,

Are you getting all of the business you can out of private golf and country clubs?

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The advertising deadline for the April Convention Issue of CLUB MANAGEMENT is March 18. Use it to complete the sale of your products and services for their golf courses.

Cordially,
David A. Baetz, Sales Manager

As I read the above letter, smoke came out my ears, my face turned beet red and my heart rate quickened to over 100 beats a minute. I cannot recall a more blatant, ignorant or selfish round ever fired from one profession in the golf world to another. If this represents the standard of ethical conduct of the Club Managers Association of America, then "profession" is a word I have misused.

I suppose we ought not to be surprised — greed seems to be in the saddle of the land these days. Television evangelists, Wall Street inside traders, professional athletes, et. al. seem to say, "What's in it for me?" Although disgusting, maybe the naked selfish greed this letter from the CMAA displays is becoming a norm.

If the fact that this correspondence was written in the first place doesn't surprise me, then its contents surely do. It is filled with half-truths and lies. It presumably (because I have only one copy) was written to exhibitors at the GCSAA Conference and Show in Houston. Does this sales manager for the CMAA magazine believe he'll be able to parley his letter into oceans of money? Does he think our exhibitors are so stupid that they'll believe the contents of his letter? And does he really believe that the club managers "shepherd all major purchases through

boards of directors"? That is adle minded dreaming: it's a simple untruth told in an effort to enhance an underhanded attempt to sell advertising on something other than the magazine's merits.

Someone ought to tell Mr. Baetz that Golf Course Superintendents are not greens superintendents or grounds keepers. We don't refer to CMAA members as "bar keeps" or "chief spoons", and we don't expect to have his ignorant terminology directed toward us.

Lots of questions crop up in a piece like this. Is Baetz acting on his own or did he write this letter with approval of the CMAA Board? Did he think that no Golf Course Superintendent would see this? And if some of us did cast our eyes on it, did he believe we either wouldn't care or would give quiet and tacit approval? Regardless of Baetz's belief in the line about moving all purchases through a club, does the CMAA Board relegate us, in their minds, to some menial and subordinated role?

Most of us know the answers to these questions. Frankly, I take this letter for what it is: a shamelessly unprofessional correspondence written by an uninformed ad salesman who was inspired by greed while forsaking even a shred of ethics. It demonstrates quite clearly a numskullery attitude of

"anything goes". The question that must be answered is "did the CMAA leadership know this letter was being sent?"

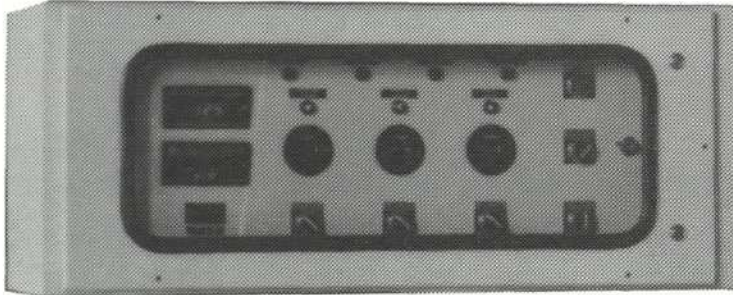
I really believed, maybe naively, that there was a renewed and heightened sense of cooperation among the GCSAA, PGA and CMAA. Once we got squared away with the PGA and their video of a pro holding a soil sampling tube ("what's this for — coring apples?") problem, this sense of oneness in the golfing community was truly pleasant. I thought there was realization of common goals in golf, a recognition of one another's needs and a concomitant mutual respect. Writing a letter to exhibitors at a GCSAA Show, even if it had been a factual letter (it obviously wasn't), was dumb and puerile. Why an organization like the CMAA, with so many things in common with the GCSAA, would choose to denigrate us is beyond my comprehension. It raises questions about their sincerity and credibility. Further, it does nothing positive for their image, even if it does generate some substantial ad revenue. It was a petty and counter-productive letter.

So, what to do? It is incumbent on the officers and directors of the GCSAA to demand an explanation from their counterparts in the CMAA. Was this man acting without supervision? Will he be disciplined? Will public apologies to the membership of the GCSAA be forthcoming? Someone needs to remind the CMAA of the importance of the golden rule, even if they cringe at the thought of following that creed.

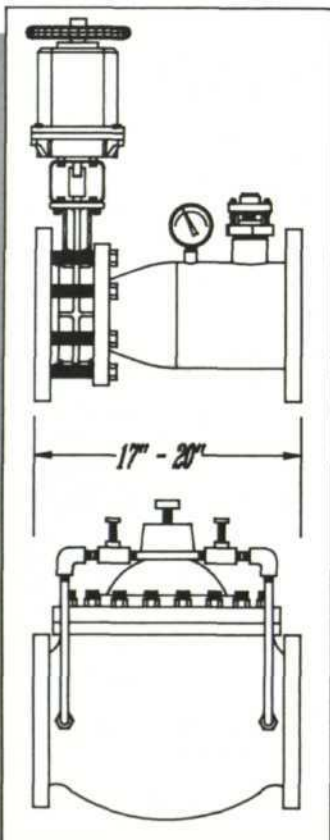
Am I making a mountain out of a menu? I don't believe it. This letter may indicate real backroom attitudes that aren't paraded at the head table during our annual GCSAA banquet; it deserves more than a feather bombing by our GCSAA leadership.

The air needs to be cleared of this rank odor of arrogance.

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Assaulted

By Monroe S. Miller

Assaulted — a strong word that brings to mind the kind of personal violence all of us hope we are never subjected to at any time in our lives. Maybe it's too strong a word for a chronic problem those of us responsible for the well being of a golf course confront too often — vandalism. Yet this word is how I feel many times, usually in the morning, when I discover that our golf course has once again been the nighttime playground of destructive people. And assault is exactly what my golf course has suffered so many, many times in the 16 years I've been here, and probably the years before that.

Vandalism is a word I hate for all of Superintendents do. We have all had the sickening feeling in our stomachs as we check the property upon arrival in the early hours of the day. It is a funny thing, but so frequently, as I cross the railroad tracks from the shop to the golf course, I somehow know something is wrong or something has happened even before I actually lay my eyes on any damage. Call it clairvoyance or some sixth sense, but it is an eerie feeling. Nearly always my deep down gut reaction is confirmed. That sickening feeling turns to extreme anger, rage and frustration as I scout these 100 acres and assess just how much damage will have to be repaired before we get on with the real work of the day. The wasted time spent fixing that damage, the replacement of stolen items and the fact that playing surfaces will require time to heal all lead to a hatred of the mentality that causes some in our society to derive joy from such perverse and destructive activities.

I should be hardened to all of the misery vandalism can bring. I've seen it all my life. Farms and farmers suffer from vandalism almost as much as do golf courses and Golf Course Superintendents. On our farm we always allowed "city folks" to pick blackberries, to harvest butternuts, hickory nuts and walnuts, even if they didn't ask. We didn't bother those peo-

ple searching for morrel mushrooms in the early spring, nor did we post our land to keep out small game and deer hunters. By and large people respected what was ours and appreciated my dad's trust. But then there were those in the small minority who had to spoil it for everyone else. These were the hunters who parked their locked cars in front of field and pasture gates that we needed to use. There were those who ignored hunting seasons and those who chose to pick certain wildflowers in spite of the fact it was illegal. Cut fence lines, on occasional dead cow that had been killed because she moved (cattle really don't look like deer), and holes shot in signs and buildings by "armed vandals", not real hunters. For farm property on relatively deserted roads there was always an open season on dumping — sofas, refrigerators and beer cans. And it has gotten worse for them as it has for us. Farmers are increasingly plagued with a swelling stream of trespassers, pilferers and vandals. The popularity of 4-wheel drive vehicles and the even more invincible ATV's (all terrain vehicles) and a need by the owners of them for a place to drive has led to acres and acres of destroyed crops and damaged property. They are as fed up with it as we are. In rural areas, it is the honest hunters and innocent harvesters of wild crops that suffer. Many farmers, if not most, now post their land to "no hunting" and "no trespassing". Unfortunately, that has not solved the problem.

I'm convinced we have suffered every conceivable kind of vandalism on our golf course, and some that you could not imagine. Yet every year it gets worse and the "Wreckreationers" get more creative and more bold. We go through about 100 flags and poles every year. Two years ago, in mid-afternoon on a Sunday, some fool drove right on the golf course and across the 15th green! We caught him, obviously, because it was a licensed 4-wheel drive vehicle and there were four players on the green when he did

it. And when Tom Parent was my assistant, shortly after dark one evening a couple of years ago, he caught five high school age kids dressed in camouflage clothes and ski masks all set to create havoc on our golf course. I've always enjoyed having the opportunity to work on a golf course in the middle of the city, but the price paid in terms of vandalism is very high.

More and more I resent what these young hoodlums have done to my attitude. I'm now suspicious of everybody out there without a golf club, and even some that are carrying one. A couple out for a romantic walk isn't welcome. Friendly joggers are usually asked to leave, sometimes not very politely. In fact, a number of years ago I chewed out a young man for running on our golf course in the early morning.

It wasn't until one of my employees asked me if I knew who it was that I had just given the boot that I realized I'd been leaning on Eric Heiden. The following winter he won about seven Gold Medals for the U.S. Olympic Team. Eric's family lives only a few houses from our Club and not two weeks after I'd given him the chase I let loose, unknowingly, on his sister Beth, another Olympic medal winner.

Sometimes I sound too much like the veteran of the U.S. Army Military Police Corps that I am — "Hang 'em with a short rope", says me more often than I should. Vandals have brought out the very base, worst instincts in my being. I preach to employees to "never get into a fight if you catch a vandal," yet all too often I'm convinced that the answer or solution to vandalism is that very street justice I'm verbally against. The fact of the matter is that if you catch one of these kids and try to inflict your own brand of punishment, you only exacerbate the problem and will probably be the one in jail instead of the ruffian.

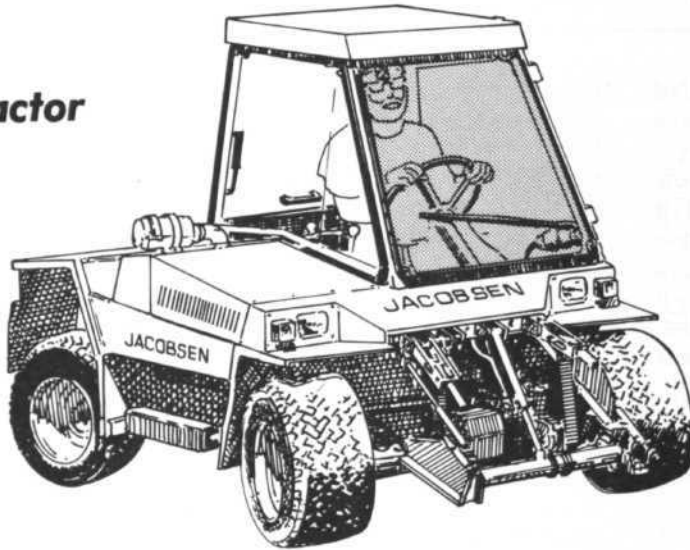
There is no argument that the problem of property damage is getting worse. At our Club it had to have peaked when our new shop was burgled twice in 1986. The first break-in was through a heavily barred window. The

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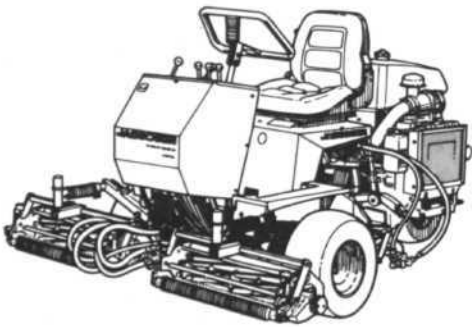
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second time the thieves and vandals came through skylights in our 20 foot high roof! Fortunately, they were apprehended, but only after the damage had been done. And get this: the robbery crew consisted of a 14-year-old riding leader and two 12-year-old henchmen! Indeed, the feeling this kind of violation creates is best described by "assault".

The nagging question, always, is "why"? Why do some find joy in destroying what others own and treasure? Part of the answer may lie in kids with too much time on their hands and nothing productive to do with that time. I place a lot of the blame at the feet of parents; parents who should know where their children are at 3:00 a.m.; parents who seem unable or unwilling to hold their offspring accountable. Maybe increased vandalism is merely among the many manifestations of our permissive society, the result of permissive parents, overworked law enforcement officers and overly lenient judges. Many times the police who have answered our calls have told me that apprehended vandals are out of jail long before they have even started the required paperwork and reports. Maybe the slow demise of the family unit in our country deserves part of the blame — kids living in broken homes or homes with a new dad or mom who really doesn't care.

And if the question of "why" looms large, then the question of "what to do" looms even larger for Golf Course Superintendents. We have tried many options at our Club. We have been easy and understanding and not pressed charges against minors — that doesn't work. We have been tough — insisting on a trip through the juvenile justice system. That doesn't help much, either. We have demanded and received restitution — that offers some sense of satisfaction and pays part of the cost of the damage. We caught two groups cutting down large evergreens for Christmas trees a couple of years ago and were reimbursed nearly \$3,000. That didn't hurt the criminals one bit — wealthy parents paid the tab and one kid drove away from the clubhouse in his Mercedes. And we lost more evergreens the next Christmas, despite front page coverage in the newspapers about the previous groups. It happened again in 1986; "Christmas" trees cost the thieves \$2,400 along with some action by the District Attorney.

We have gone the "rent-a-cop" route. Forget this option. Unless you are on the property to supervise them, you will get no results. Most are losers who couldn't find horse manure in a stable, let alone a 15-year-old vandal

in the middle of the night. Two years' subscription to this service net not a single apprehension.

The cold hard reality of the matter is that there are no easy answers or pat solutions. I guess we are doomed to suffer continued assault until things change in our society and its institutions. Call me a Pollyanna if you want, but usually I think it is better to let the flow of the river of events find its own channel, rather than forcing it along the way we think it should go. "Roll with the punches", I say. However, when it comes to vandalism, I think like William Henley wrote in "Invictus":

*In the fell clutch of circumstance,
I have not winced nor cried aloud;
Under the bludgeonings of chance
My head is bloody, but unbowed.*

We cannot reduce vandalism with a cowboy mentality of frontier justice, as much as I (and others) are tempted. It seems we are best off to press our frustration through channels of justice with determination and consistency. But we must not give in nor give up.

As with so many other things in this business of ours, vandalism seems to go with the territory. Small wonder the kindly and friendly Golf Course Superintendent does not always wave to every friendly soul on his golf course. His suspicion is too great. He has been assaulted too many times.

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TPC CLUBS — THEY'RE HEADED OUR WAY!

By Tom Vlach



If you hear Pat Summeral talking about forty thousand fans filling a stadium for a sporting event, don't jump to the conclusion that it is a football or baseball game they are watching. There is a new concept in golf course architecture called "stadium golf." Stadium golf refers to the building of artificial mounds and rows of railroad ties into hills around a golf course to act as bleachers or stands. This enables fans to enjoy watching all players at a couple of different holes instead of walking miles in a day only to see some of the play between hundreds of people's heads. By restricting people traffic, major golf tournaments can be held at courses that otherwise couldn't withstand the stresses often associated with tournaments featuring the world's top golfers.

This concept in design was first introduced at Sawgrass, Florida. Course designer, Pete Dye, transformed four hundred acres of swampland into forty acres of tees, greens, and fairways. The controversy surrounding this golf course is the difficulty level created by Dye with his unforgiving use of pot bunkers, railroad ties, and telephone poles. Golf courses so designed comprise a network of what are now known as Tournament Players Clubs (TPCs). The TPC idea was introduced by the current PGA Commissioner, Deane Beamen.

What is a Tournament Players Club (TPC)? How does it differ from an average country club? Most people will agree that almost everything differs! A Tournament Players Club is required by the PGA Tour to be a home to a PGA Tour event or a Senior PGA Tour event. PGA Tour players are allowed to practice at any one of the fifteen TPCs that are now in operation. Club members have the added excitement of knowing that they can be practicing with the likes of such golf professionals as Jack Nicklaus and Greg Norman. The PGA Tour selects sites that offer

maximum exposure and profitability with minimal investment. These clubs have turned out to be quite profitable; they raised more than twenty million dollars in revenue for the tour in 1985.

Most of the Tournament Players Clubs are private, except for the TPC at Scottsdale, which is totally public. Fees and costs for memberships range from as little as seventy-nine dollars for an associate membership at the TPC at Sawgrass to as much as one hundred thousand dollars for a "Master" membership at the TPC at PGA West in LaQuinta, California.

Today's fifteen Tournament Players Clubs have been designed by ten different architects with the help of player consultants from the P.G.A. Tour. Many tour players feel that the TPC courses look and play alike. A major concern that the tour players have expressed is that the new TPC courses will eventually replace some of the prestigious courses such as Pebble Beach and Butler National. It is not the goal of the PGA Tour to replace the finest courses, but only to improve on courses that cannot handle the added exposure and huge attendance figures. On the whole, tour players agree that the new TPC courses are drastic improvements over the courses that they have replaced.

To exemplify the high quality of playing conditions at Tournament Players Clubs, one must examine the planning and ingenuity that went into building these courses. Good examples of this planning and preparation can be seen in the Tournament Players Club at Eagle Trace in Coral Springs, Florida. Eagle Trace was designed by golf course architect, Arthur Hills, in 1980. The highly organic south Florida land had to be covered with ten inches of sand to help establish a good base for the turf growth. The added sand helped to offset the drainage problems created by spectator mounds. Yet, sand alone was not enough to solve

this drainage problem. Eagle Trace is equipped with one hundred and twenty catch-basins and four miles of sub-surface drainpipe to combat drainage problems that are created by heavy south Florida rains. The highly advanced drainage system allows the course to be played just minutes after a soaking rain. To enhance the aesthetic aspects of the course, Hills imported three thousand trees representing twenty-three species. He has made extensive use of ground foliage and wild flowers as well.

Through the hard work of Deane Beamen and a commitment by the PGA, the Tour Players Clubs are bringing more enjoyment to the sport for the fans. Fans are now given the opportunity to watch professional golf from all different viewing points instead of walking miles just to catch glimpses of their favorite players.

Some of you may be asking yourselves, of what concern are these courses to me? As the PGA Tour grows, so does the expansion of the Tournament Players Clubs. Currently, the fifteen Tournament Players Clubs in the United States are concentrated in the South. Recently, the tour expanded to Connecticut, Colorado, Maryland and Tennessee. As you can see, as the tour grows, so does the expansion of Tournament Players Clubs northward. Don't be surprised if you see Tournament Players Clubs popping up in the Midwest within the next five years.

Editor's Note: "Greetings from the campus of the University of Wisconsin-Madison. My name is Tom Vlach and I am currently living in Janesville. I am a freshman majoring in Soil Science and specializing in Turf and Grounds Management. I am actively involved in the Badger Turf and Grounds Club, where I now serve as secretary-treasurer. I have been fortunate enough to

receive the John Nichols Memorial Scholarship for my first year at the university. My golf course experience includes working at the Tournament Play-

ers Club at Eagle Trace in Coral Springs, Florida, for three years and one year at Lake Geneva Country Club in Lake Geneva, Wisconsin. I am truly

looking forward to my next years at the UW-Madison and reading "The Grass Roots".

SPRING BUSINESS MEETING – REVITALIZED!

By Mark Kienert

Was it the weather? This year on a particular day or last summer in general that brought 102 WGCSA members out of hibernation?

A record number of WGCSA members attended the 1988 spring business meeting which featured a morning educational session. Over 100 people made the trip to Fond du Lac. An even bigger surprise, to most past and present members, was the number of members in attendance that stayed for the actual business meeting! Those who took in the full day of activity realized it was time spent really well.

To get things off and running, Wayne Otto opened the morning educational session with his thesis on 13 years of sand topdressing and the related problems. He emphasized his return to aerification and overseeding with bentgrass in the process. Otto predicts a return on the use of the power spiker to open up the surface and to break layers formed, thereby creating a space for more sand. If you decide to use sand, you must start early in the year to avoid layers and the topdressing should be heavy enough when applied to equal the growth rate.

Jerry Kershasky gave a review of his literature review of phosphorus deficiency associated with cold weather. Jerry's slide presentation gave vivid proof of the "Purplish Hue" that covers the entire putting surface on many of his greens. Nutritional deficiencies were concluded after the appearance of fairy rings which appeared in green crescent shapes across much of the putting surface. Jerry recommends the use of Mono-Ammonium Phosphate at the quarter pound rate when the air temperatures are at or below the 50° mark.

Of particular note to those not attending the GCSAA International Turfgrass Conference and Show held this year in Houston was Jerry's review of

the Black Layer Forum. As a review, for a black layer to form you have to have 1.) anaerobic conditions; 2) an electron donor, either through a "Surface Algae" donor or ammonium or sulphur fertilizer products; 3) lower pH's associated with sulphur use and; 4) sulphur reducing bacteria. It was the consensus of the panel that a program to halt the Black Layer includes 1) hand watering; 2) return to aerification practices; 3) the use of mono-ammonium phosphate; 4) the use of potassium nitrate fertilizers, which will add five free oxygen molecules to the soil profile.

University of Wisconsin soil scientist, Dr. Wayne Kussow, reviewed his fertilizer management programs for putting surfaces and encouraged a late season fertilizer application approach. He suggested that turfgrass has a memory, so treat your bread and butter with a little TLC. In tune with green fertility management, Dr. Kussow advised against the practice of green speed management through the reduction of season nitrogen applications. Also, avoid nitrogen application to heat stressed turf since the plant has already increased plant tissue percentages of nitrogen. Always culturally do whatever it takes to increase the turfgrass plant verdure, since it increases nitrogen recovery. Dr. Kussow sees the day when we use plant tissue analysis as a basis for our nitrogen applications.

Comments concerning the phosphorus role in increasing *Poa annua* populations were somewhat refuted by Dr. Kussow. His research has shown that plant tissue concentrations of phosphorus increase with each nitrogen application made. He recommended maintenance levels of phosphorus from .5 to 1.5 pounds/M/season.

With regard to potassium levels, increased nitrogen rates also increase the level of K found in plant tissue. He recommended a rate of 3-5 pounds/M/

year or on a 1:1 ratio with nitrogen. Dr. Kussow made one recommendation that will help the plant cope with moisture stress. It has been proven that lowering the height of cut and increasing the frequency of mowings per week reduces the canopy. A reduced and less dense canopy reduces water loss caused by air currents.

Blackwolf Run golf course superintendent, Marc Davison, presented an excellent slide show depicting the construction and growing-in problems associated with new course construction. He gave many in the audience their first glimpse of this exceptional golf course soon to be born in the state.

Red Roskopf, golf course owner and WTA Director, reviewed for the group the statewide fund raising efforts underway to construct a research facility on the new UW golf course. The ambitious, yet attainable goal of the WTA to open the O.J. Noer Turfgrass Research Center by the year 1992. Red asked all in attendance to start programs, both individually and with their clubs, to support this worthwhile endeavor. He mentioned that the new pesticide regulations have sparked new interest in the lawn care industry around our state to help us in fund raising efforts.

Highlights of the business meeting included a one year freeze on the dues paid by Class E members and the creation of a panel to review this process.

THE GRASS ROOTS will once again be delivered to us via First Class Postage. This expense will be picked up by the association.

The WGCSA adopted a three year pledge of \$20,000 to help with the construction of the new research center. And finally, the bylaw changes pertaining to our tax status, as drawn up by the IRS themselves for organizations like the WGCSA passed without question.



Wildflowers On The Golf Course

By Dr. Lois Berg Stack
University of Maine

Wildflowers have made a splash in the landscape in the past few years. This year several new wildflower seed mixes are available, and they are being used across the country in highway plantings, in public landscapes, in home lawns, and on golf courses.

What makes wildflowers special? How should they be planted and established? How much maintenance do they require? Do they really bloom year after year? Do they have a place in the rough on your course? The answers to these questions are as varied as the flowers themselves.

WHAT IS A WILDFLOWER?

In the most basic sense, a wildflower is a native flowering plant that persists in a location without, or in spite of, human intervention. Many gardeners and landscapers have developed a new awareness of these uniquely beautiful plants. Wildflowers soften the impact of our modern world, reminding us of nature. It can be very satisfying to establish a planting of wildflowers.

There are as many reasons to plant wildflowers as there are gardeners. Generally, wildflowers native to an area are adapted to soils and the natural fertility — they require little fertilization and often withstand drought. They are often disease-resistant and quite tolerant of insect infestations. In many cases they offer food and shelter for wildlife.

WILDFLOWER MIXES

In response to the wave of enthusiasm for wildflowers, several companies are marketing wildflower seed mixes. Of course, the wildflowers of one part of the country are different from those of other parts of the country. That brings up an interesting point about the wildflower mixes on the market today.

Many of the new mixes contain species which do not occur together in nature. Many of these new products are regionalized, with different mixes

being recommended for different parts of the country, yet some species are common to several mixes whether or not they are actually native to every area. These non-native flowers may or may not persist over the years. And if they do persist, they may outcompete other species in the mixes.

If you are trying to establish a planting of wildflowers that truly are native to your area, the best approach is probably to consult a naturalist for a plant list. Gather seed from wild plantings in your area and create your own mix.

If your goal is simply to create a planting of beautiful flowers which will naturalize into an area and produce color throughout the season, then one of the wildflower mixes on the market may be what you want.

SELECTING A MIX

Some mixes are primarily annual flowers, and several are about half annuals and half perennials. An annual mix produces good color the first year, but only those annuals that produce hardy seed will return the following year. On the other hand, an all-perennial mix would produce very little color the first year, so annuals are generally added. The annuals give color while the perennials are getting established. Starting the second year the perennials provide color which should continue for many years.

When considering a mix, ask for the species list. Find out which plants are actually native perennial wildflowers, and how many are annuals which will not return the second year. Ask for a percentage breakdown of species.

Many companies also sell individual species' seed, so that you can either establish clumps of those individual species within a planting, or make your own mix. This can help you reduce the competition factor.

PLANTING AND ESTABLISHING WILDFLOWERS

Wildflowers are native to various

habitats. Some are woodland natives, requiring moist soil and heavy shade. Others are native to sandy regions and require full sun and pool soil to perform best. Most of the wildflower mixes on the market are intended for full-sun locations. They contain several species that are adaptable to several soil types and fertility levels. With this approach, you are assured that some species will do well even though some others may die out. Planting one mix into two locations with different environmental parameters may yield very different end products, because of competition and adaptation.

Consult with a naturalist or ornamental horticulturist who can help you select a seed mix that will succeed in the site you have in mind.

The best time to establish wildflowers is early spring. You can mow an area and either drill or hydroseed the wildflower mix into the grass. Irrigate to promote even germination. This approach requires the least amount of work initially, but it generally offers the poorest results, too. Sod-producing grasses are too competitive for many wildflowers, and many species will not develop at all if you follow this approach.

A second option for planting is to herbicide the existing turf, and rake or harrow the area to expose the soil surface. In this case, you will probably want to add a clump of grass such as sheep fescue to the wildflower seed mix. The grass will help bulk up the mixture, making it easier to apply. Spread and rake in the seed, or drill it in; then irrigate. The grass seed will help in soil stabilization, without unduly competing with the developing wildflowers. And the grass will look attractive all season, covering the fading flowers and unattractive foliage that some of the wildflowers develop in late summer.

MAINTENANCE

Wildflower plantings do require maintenance, especially in the first few years. A major concern is weed invasion and competition. Clover, thistle and quackgrass can take over a planting quickly. Spot-treating with herbicide helps, but the planting will require some hand-weeding as well for the first few seasons. An ongoing problem is invasion by woody species. Some people prefer to mow wildflower plantings late in the season, after the plants have flowered, in order to discourage the invasion of woody plants.