

flowers.

The flowers I have confessed to liking so much up to now are smallish. I think their impact on me and others is disproportionate to their size because they come into bloom before the trees leaf out. They don't have to compete with leaves for attention. The rest of my favorite tree flowers appear **after** the trees are fully in leaf. Another reason these early flowers are so intriguing and capture my fancy is that they appear before the major spring blossoms — lilacs and apples. Granted, the magnolias are blooming in early spring, but there aren't nearly as many of them as there are apples and lilacs.

Any tree flowers that can successfully compete with lilac and apple blossoms and with fully opened leaves for attention have to be truly exceptional. And these last few certainly are. They are exceptional in size, in beauty and in fragrance.

Mid-May to late May where I live is when we are treated to the gorgeous horse-chestnut. I've got two horse-chestnut trees on my golf course and, frankly, that's all I want. They aren't the greatest golf course tree. The wood is weak and the tree suffers in many summer storms. They are messy if close to play, especially in the fall with the nuts,

husks and leaves. But every golf course should have one just for the tree flowers.

These tree flowers are a sight for gods and men. They are large and showy and quite long lasting. The ones we enjoy are white in color and grow in upright panicles over a foot long. This very vertical growth looks neat in comparison to the nearly horizontal spread of the young leaves. Some people call it the "hyacinth tree" because the flowers are so similar and smell so good.

The end flowers bloom first, then the side buds. Each of these white flowers is dotted with purple and yellow, is scalloped and about an inch across. They are as beautiful as any cultivated garden flower. They make it worth having a horse-chestnut or two on your golf course.

Trying to describe emerging shagbark hickory leaves is difficult. I'm probably in error including the opening of hickory buds among paragraphs about tree flowers. Trust me when I say the bud opening presents a show as beautiful as any tree flower or any blossom.

The new leaf buds on hickory branches put on a truly master display. In our town, they start to open in mid-May when the temperatures warm into the

seventies every once in awhile. The buds swell rapidly to a size bigger than your thumb. Then they force back their green husks and you get to see a reddish pink capsule. The warm sunny days force the pinkish sheath to open. The whole thing reminds you of an orchid. As you watch this beauty unfold, day by day, you will almost be certain that some exotic complex flower will soon appear from the salmon pink sheaths. What comes out are not huge tree flowers but rather five and sometimes seven lime green leaves. Although the buds are large, you'll wonder, after a week passes, how in the world so much was packed into that bud. The actual flowers are a disappointment after seeing the dramatic leaf opening. We're lucky at our golf course because we have dozens of shagbark hickory trees, and in the spring, thousands and thousands of opening buds. Beautiful.

There is a letdown of sorts after Memorial Day. All of my favorite tree flowers up until now are gone. The apples are done. Usually the lilacs are over. The business of summer is at hand. Days are getting close to being hot. But then the black locusts bloom.

The black locust reminds you that tree flowers impact senses other than  
*(Continued on page 33)*

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(Continued from page 31)

sight. If you think the flowers of the mock orange or Koreanspice viburnum smell good, wait until you smell the fragrance of the black locust flower.

These flowers appear after the leaves, which are also late to develop. Lots of people don't care for the tree. In fact, my suspicion is that it would be difficult to find one for sale in a nursery. But I think they are valued trees. They are interesting simply because they are legumes, just like peas and alfalfa. They are able to fix nitrogen in the same way. The pods they produce aren't large enough to be a bother, and the smallish leaves (leaflets, actually) are an attractive soft green. The shade is light and allows grass to grow beneath the tree. So there is logic in having a few of them on your golf course.

But the flowers, my God the flowers, make you think you should have hundreds of these trees on your golf course.

We've got scores of these trees in a wooded, out-of-play area on our property. The first tee, ninth green and eighth tee are tucked in amongst them. Most of the time you aren't really aware of them, or at least of how many of them there are.

Until after Memorial Day. Then the smell of these flowers overtake the whole golf course. Golf, for about a week, is a sensuous delight as the aroma is wafted about. Irresistibly one steps close to the flowers to inhale from the heart of a bloom, although the fragrance is actually more distinct and better from a few steps back. I don't want to imply that it's a heavy, sickening sweet fragrance like some perfumes. You could live all day with the locust fragrance and still love it.

And the flowers are very pretty. They are cream-white and grow in five or six inch clusters looking, not surprisingly, like pea flowers. The black locust trees, from a distance, have a foamy green kind of whiteness that I think complements both the aroma and the golf course. It's easy for me to justify having transplanted several around the course, usually near a green or a tee.

Following the black locust bloom, at a time when you just about figure it isn't possible for anymore trees to flower, comes the catalpa. The catalpa tree is another one of those you really only need a few of on a golf course. The pods — we call them "cigars" — seem to drop constantly and are huge. The tree bark is not particularly outstanding. The leaves are interesting but very coarse and also very big. It isn't unusual for them to be a foot across. The tree has some health problems — we think some of ours have suffered from *Verticillium* wilt. Although they prosper in lousy soil conditions and dry summers, I'm just not a great fan of them.

Except when they produce their flowers. Then I love them. These flowers are in proportion to everything else on this tree — the pods, the leaves, the long straight trunk. They are huge and are arranged in upright panicles almost a foot high. The flowers themselves are a couple of inches across and are a creamy white to pure white. They've got yellow and brown markings on them. Our trees are all pruned very high and every once in awhile I have an employee lift me up in the bucket of the loader when it is nearby so that I can see these flowers up close. When they fall or are blown from the tree by strong winds, the ground under the

trees seems covered with snow.

The last tree flower of the year, for me anyway, is the linden. Like the black locust, they are loved by most for the aroma of the flowers, although this tree is a superb urban landscape tree. The flowers, which are small and pendulous, are certainly pretty although somewhat inconspicuous because of the dense foliage of the tree. They are somewhere between white and yellow in color. They rival the black locust in the way they smell — a great treat for your nose. You have to be careful when getting close to linden flowers — the bees love them and work hard at harvesting the blossoms. Usually there are so many honey bees in the trees when they are flowering that there is a sound not unlike the sound of distant, rushing water. In fact, look carefully at your local farmers' market or on the shelves of a gourmet food store — usually you can find linden flower honey. These trees make getting an ice cream cone at Babcock Hall during flowering time an extra special treat — Babcock Hall is located on the UW campus on . . . Linden Drive! The ice cream is doubly delicious.

An artist, discussing tree flowers, long ago said this: "It's too discouraging for a painter. Look at the colors in this blossom — the design — the delicate shading — wonderful! A man could spend a lifetime with paint and canvas and never come close to producing a single masterpiece like this one little blossom. Yet this one tree produces thousands of them."

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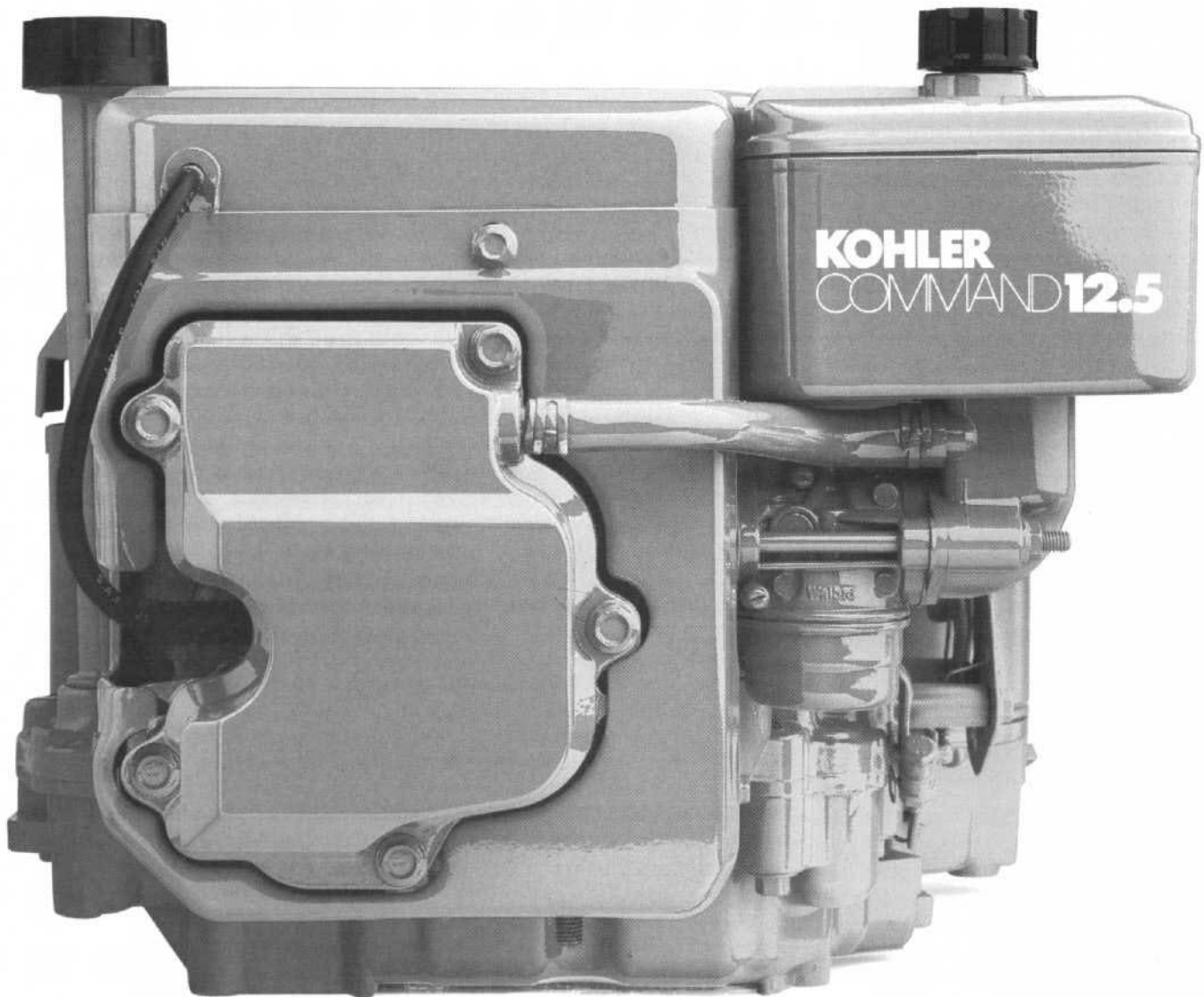
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# BIDDING

By Monroe S. Miller

It's been a few years since I've seen such fierce competition in the marketplace where we do most of our business. That's generally good news when you are on the buying end of it.

There is a lot of scrapping going on in the fungicide business; distributors are all working hard and pricing to get a share of sales. The bidding process has become a stronger part of that.

The fiveplex fairway mower market is seeing a lot of activity, and new introductions have toughened the competition there. Bidding for these machines is sharpening.

The same thing is going on for those interested in buying new walking greensmowers and the smaller utility vehicles. Close bidding is offering up some real bargains.

But nearly 20 years as a golf course superintendent makes one just a little suspicious and a lot cautious. I've seen this before. Sales people will love to read this: there is more to a wise pur-

chase than just accepting the lowest bid. They love to read it and hear it because it is true.

The bitterness of poor quality or lousy service remains long after the sweetness of a low bid is forgotten.

The problem too frequently is not our own judgment but pressure from green committees, finance committees, club officers or club directors. They can force decisions based on cost only. It's certainly the easiest way, and they are insulated, by and large, from ensuing problems related to poor service and poor quality.

I feel lucky, in my own case, to have been allowed the room to make several decisions on major projects and purchases based on "the best" and not "the lowest" or "the cheapest".

When we built our maintenance facility a few years ago, we invited only the best builders in town to participate. The same was true a few years previous when our pumping station was

constructed: only the best — building and equipment and service for both.

The same rules applied when our new irrigation system went in two years ago. The key to the project was reducing any risks of future problems as a result of marginal equipment or sloppy installation.

It also seems illogical to expect companies who are generous in their support of the NOER CENTER to be the last penny low bidder all the time.

Advice from author and economist John Ruskin, given in a piece entitled "The Lowest Bidder", applies in our business. Let me share it with you:

*"It's unwise to pay too much, but it's worse to pay too little. When you pay too much, you lose a little money — that is all. When you pay too little, you sometimes lose everything, because the thing you bought was incapable of doing the job it was bought to do. The common law of business balance prohibits paying a little and getting a lot — it can't be done. If you deal with the lowest bidder, it is well to add something for the risk you run, and, if you do that, you will have enough to pay for something better."*

By the way, Mr. Ruskin gave that advice over 100 years ago.

Some things never change.

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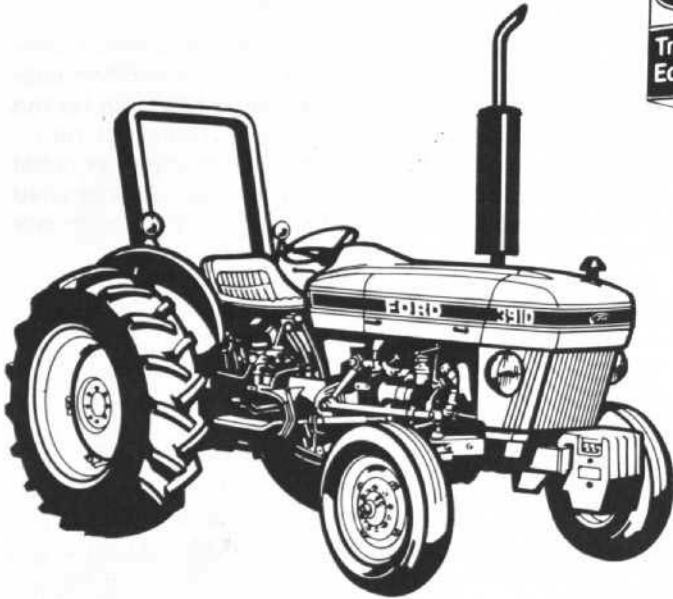
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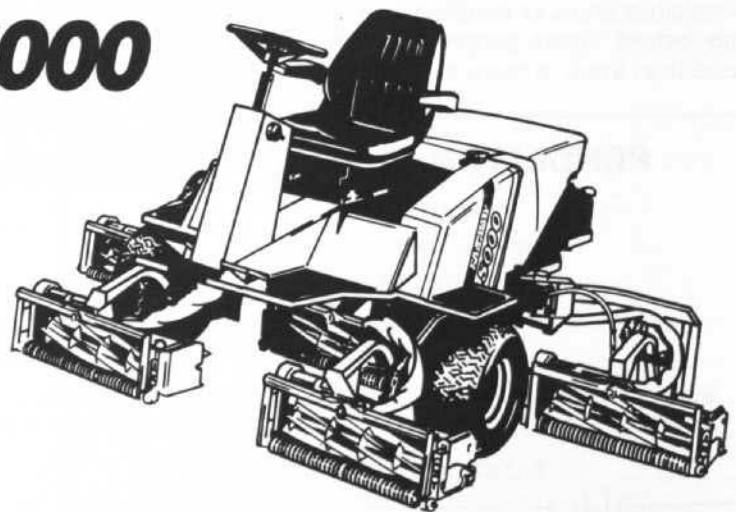
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# HARDHATS

By Monroe S. Miller

For 17 years I've avoided pressure to have my crew wear hardhats on the golf course. I used a lot of different arguments to escape: "no one's been hit"; "no one's ever been injured"; they (hardhats) are extremely uncomfortable"; "hardhats offer little real protection".

When my arguments weakened, I dodged the issue. Whenever I was cornered I somehow slipped away and another hardhatless season slipped away too. Call me the Teflon superintendent.

Things have changed. No more slip-slidin' away. Late last summer, at the annual meeting of our past presidents, the suggestion of hardhats was brought into discussion. The times had changed. Liability is a key word. I sensed I was going to have to set aside my own intense dislike (from one season of being forced to wear one of the miserable things) and see to it that my crew wears them. It's difficult disputing the judgment of a former Dean of the UW Medical School (a neurologist, no less). It's impossible not to be concerned about the welfare of others.

"It's for their own good," I was told time and time again. Easy to say when

you don't have to wear one.

I'm not convinced. Hardhats were intended for construction sites and other places where risks of things falling from above and causing injury are real. They are meant as protection from head injuries from falling beams and concrete blocks. I cannot believe they will be of much value in protecting a fairway mower operator from a two iron shot a hundred yards away. Those shots, as with most dangerous golf shots, aren't on target for the top of a person's head. The hardhat will protect a small portion — from the hatline and up — but a vast majority remains exposed. A hardhat will not protect your temple or the forehead area between your eyes.

Obviously, my situation led to this issue's questions for Wisconsin golf course superintendents:

- 1.) Do you **require** your employees to wear hardhats?
- 2.) Do you **provide** your employees with hardhats but offer little or no enforcement of wearing them?
- 3.) Do you have, essentially, no policy or provisions for hardhats?

The questions were posed to 29 Wis-

consin golf course superintendents, mainly those who were in attendance at the GCSAA Conference in Orlando during the week of February 20. I had no idea what to expect in terms of results and therefore I wasn't surprised one way or the other.

Here are the results:

- 1.) Require — 12
- 2.) Provide — 7
- 3.) No policy — 10

In my own case, for those who might be interested, I'm in the second category. I'll provide hardhats and guidelines for wearing them. There is, for example, no reason to wear a hardhat while moving cups at 6:00 a.m. (the lousy things won't stay on when you bend over anyway). Similarly, there seems to be no reason to wear a hardhat while mowing tees. Fairway work is a different situation and one could logically see requiring them on that job.

The medical and insurance community in some clubs prevail on this issue and that's what happened to me.

I feel sorry for my employees this season. But not so sorry that I'll wear a hardhat in token support.

I loathe the damn things.

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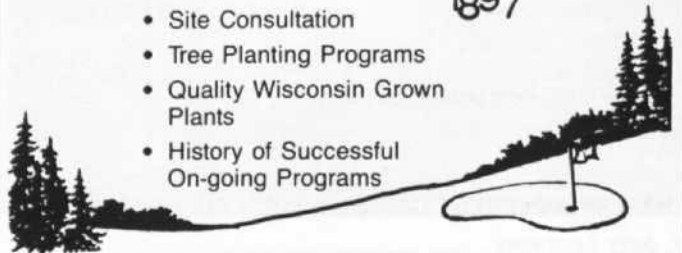
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## Education and the Environment Key WGCSA Spring Meeting

By Tom Schwab  
Monroe Country Club

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Three great talks highlighted the WGCSA Spring Business Meeting on March 12. The large attendance, 80 superintendents, was proof that the subjects were important to us on the golf course. Any one of the three speakers had enough material and interest to carry the morning solo, but the three-subject format met everyone's approval.

The morning's first speaker was Red Roskopf. Red is our industry representative for AG 29 had a lot of information on how it will affect us on the golf course. Key points Red made are that basically AG 29 will use the instructions written on the label as rules for each individual chemical. If a label says no reentry until dry, don't spray within 50 feet of any body of water, use at least four gallons of water per 1000 square feet, and so on; that is the law. You will be in violation and can be penalized if you don't follow the label.

He also covered the record keeping we will have to do. Spray records will have to be done on the day of spraying and will have to include: the name of the person who loads the tank, the person who sprays, the site where pesticide is applied (e.g. greens), the pest (e.g. dollar spot, preventative), the date and time of application, amount of pesticide applied, total area treated and type of crop being sprayed (e.g. bentgrass).

One more rule AG 29 covers is the use of anti-siphon devices when filling tanks; no more can we just hang the hose down into the tank. Some superintendents have created some innovative ways to do this. Talk to other superintendents to see what they have devised.

Red touched on a lot more information and noted that a copy of AG 29 is available by writing the Department of Agriculture, Trade and Consumer Protection, 801 W. Badger Road, Box 8911, Madison, WI 53708.

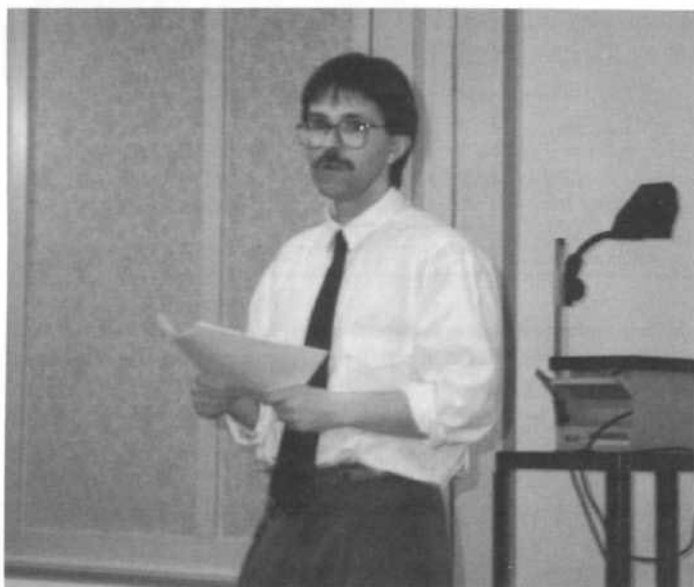
Next at the podium came the great speaking talent of Tom Harrison. He told us what he did at Maple Bluff to convert

his fuel storage to above ground tanks and how he disposed of his underground ones. In his opinion, the new underground fuel tank regulations and associated insurance responsibilities and expenses are too complicated and costly. He thought underground tanks are advantageous for filling stations and other large users. For golf courses, farms and small users tanks should be above ground where you can keep an eye on them.

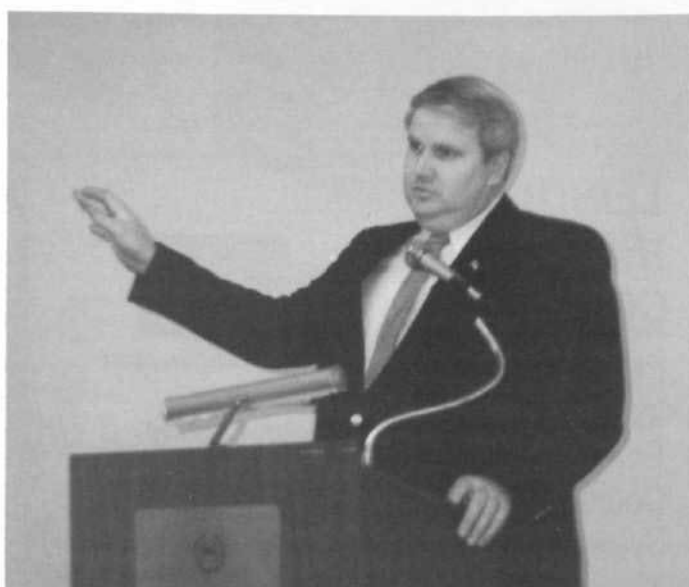
Tom described everything he did at his course and suggested if you have any questions for your course you could call Rex Colvin of the Department of Industry, Labor and Human Relations, (608) 266-8981.

Jerry Kershasky, who I think missed his calling as a college professor, gave an in-depth essay on his new fertigation program. First he redefined it as "microfertigation" because he'll be fertilizing with his irrigation at small rates to ideally mimic what a natural rainfall would do. He reasoned that overapplying fertilizers and chemicals can hurt the grass somewhat before you see its benefits. Giving large doses all at once can weaken the plants' cell walls and may negatively affect beneficial microorganisms. Microfertigation or ultra-fine spoon feeding (in 1/100th # N/M) may lessen use of pesticides and result in healthier plants by keeping the microcommunity working and causing less plant stress. Jerry also went into some of the mechanics of the system and addressed many questions on this new concept. I can't wait to hear, in a year or two, how well it has worked.

I can't do justice to all the information generated at this meeting in a brief article. Anyone who missed this educational session and the afternoon business meeting missed a great day. WGCSA owes much to the hard work of these three speakers.



Dr. Jerry Kershasky



Professor Tom Harrison





# Response to "The Assistant"

*Editor's Note: Kendall Marquardt is a 1986 graduate of the UW-Madison's Turfgrass Management Program in the Department of Soil Science.*

The Grass Roots  
c/o Blackhawk Country Club  
P.O. Box 5129  
Madison, Wisconsin 53705

Dear Monroe,

I very much enjoyed Mike Bailey's article on "The Assistant" in the Sept./Oct. issue of *The Grass Roots*.

Mike's article was very comprehensive about basic assistant training, which is essential. I am going into my fourth season as an assistant golf course superintendent at two different courses. I have a good basic management background and am now looking at the finer details of management in terms of bringing the whole picture together and making it work.

Much emphasis is usually placed on the assistant being able to assist "on the course". This is fine. Solid field training is essential. But also essential is business management. Keeping the supplies, tools, machinery and paper flowing to the golf course is a taxing task. There is only one way to learn how to do "office work" efficiently and effectively — and that is to do it! I believe that a solid training in the paper-shuffling end of the job is as necessary as the field management aspects. The assistant should assist with paperwork — manhours, diaries, weather observations, newspaper advertisements, payroll (if it fits your style) and inventories. Getting used to keeping good records is a must and doing it is the only way — every day.

### Points to Ponder

Bookkeeping and the purchasing system for your club — How are bills coded? How are purchase requests made? These seemingly menial tasks must be done, even if the superintendent is not around.

**Reports** — How about having your assistant type your next greens committee report? This way the assistant can see what is said, how it is formatted and perhaps make some suggestions. It may be beneficial to have the assistant do payroll distribution reports or other simple end of the month reports to broaden his communication and public relations skills.

**Ordering** — Parts, equipment, supplies and dealing with the respective vendors. Just getting to know the salespeople, reps, etc. firsthand I think is important. Working with contractors is another interesting experience. The sooner one learns to deal with them the better. Simple projects like arranging for a painter to paint the maintenance building or to install a new overhead door in the shop are excellent ways to get the assistant's feet wet in the area of pricing and securing bids from contractors. The ability to use the phone EFFECTIVELY is a great asset.

**Budgeting** — I believe the assistant should be involved with the budgeting process. I was involved from roughing up the numbers to doing the final printout on my computer. It is educational to see how the numbers come together and how they translate quantitatively into the next year's maintenance.

The management of a golf course is not something that can be learned in a classroom. Therefore the most valuable training an assistant can hope for is to work for a good superintendent. There is simply no substitute for on-the-job training. The key is a well rounded diet of course management and office management for the successful operation of today's golf courses. Fieldwork, paperwork and peoplework... nuthin' to it.

Sincerely,  
Kendall Marquardt  
Assistant Golf Course Superintendent  
Philadelphia Country Club

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# "TO COVER OR NOT TO COVER": That Is The Question For This Fall

By Monroe S. Miller

More and more, as you travel the highways and byways of Wisconsin in the late fall and early spring when there is little or no snow, you see putting greens covered with fabric blankets. Protective covers are in vogue as a management tool for golf course superintendents in the northern climes.

The scenes of covered greens at other golf courses have generated a lot of questions from my members about them. Usually, they ask something like this: "What are those things on the greens at the Country Club of Wisconsin?" That question is usually followed with something like: "Why aren't you doing that?"

Fair question — easy answer. I have been covering greens for 18 years now. It's just a question of **what** I've been covering them with.

With the exception of a couple of years when snow came before Thanksgiving and stayed, the last major task of the season is applying a heavy topdressing (about 0.25" thick) to our putting greens.

It's a lot of work and takes a fair amount of time and a substantial quantity of topdressing material. But the results are excellent. Here's why I've continued it for so long:

1. It provides excellent protection from wind desiccation.
2. It results in better green-up in the spring.
3. It's a "free" topdressing of sorts. It doesn't interfere with play; it doesn't damage reels like playing season applications can.
4. It doesn't have any negative effects on a snowmold control program, in my experience.
5. It forces a hand brooming of the putting greens in the spring. This methodical, low technology "procedure" is the ultimate in smoothing the surface and filling in subtle low spots.

The only downsides I've observed are related to timing — preceding snowfall in late autumn while avoiding favorable play days.

Heavy rain after application hasn't mattered much, either. Some of the topdressing may get moved, but mostly if is driven into the turf. This still affords protection of the crown and that is the goal of the process anyway.

In the fall of 1988 we built a new putting green. It was seeded after Labor

Day and we had a very good catch. Nevertheless, I was reluctant to take a topdresser on the new surface and purchased three rolls of Warren's Terra-shield Cover. We covered the new green at the same time we topdressed the other greens on our golf course.

In the fall of 1989 we used those fabric blankets to cover range tees we had renovated, seeded and topdressed. They were laid down and staked in mid-November. It was Easter before we felt comfortable removing them permanently and putting them away.

It was mildly aggravating to deal with those covers this spring. Warm weather came early, but was followed by many more cold days. We were forever taking covers off, putting them back (single digit temperatures at night) and stapling the perimeters. The aggravation was exacerbated by windy days. All I could think of, on those windy days when we were open for play, was what we would be doing if we had 18 greens covered.

But there was no arguing that those range tees looked good, aggravation or not. They had filled nicely, seedlings were well established and growth was accelerated. And were they ever green!

It has been obvious to me that the claims of increased temperatures under greencovers, increased root development and earlier growth are all true. Undoubtedly, frost leaves the ground earlier. The turf was protected from wind damage, almost too much so.

Despite my experiences, which have been generally favorable, I'm not sold on any wholesale use of protective greencovers. The primary reason for that reticence is that I don't see any advantages they have over a heavy topdressing. And I can see some disadvantages. Here they are:

1. **Cost.** They require a formidable investment and I don't think the investment/benefit ratio is there when compared with topdressing cover.

2. **Longevity.** Although they are reusable, none I've investigated (Terra-shield, Evergreen and Typar) claim long life. They are subject to everything from tearing to ultraviolet degradation. You are forced with replacement every three to six years.

3. **Removal problems.** I think the weather this spring exemplified this drawback. How much time is required

for a green to harden off and withstand the uncovered temperatures and conditions? That is a subjective call, one that could easily be wrong. Open the greens up during the day; come back to the golf course after dinner and cover up. Wind problems are very real with blankets that have been peeled back. There are play problems — winter rules? The tenderness of the covered turf brings concern about spring damage (as opposed to winter damage). In some cases, they have delayed opening day, or required an opening with temporary greens.

4. **Elevated expectations.** Players, constantly looking for cure-alls, may well assume that these fabric blankets have solved the winterkill problem forever. There's a dream! They do nothing for the most common cause of winter injury — ice accumulation.

5. **Disease.** At a meeting this spring I heard a colleague talk about serious snowmold problems on a covered green. I'd like to know more about this potential problem.

I believe protective greencovers do have a place in putting green management. They are certainly better than some other mulches that have been used over the years on putting greens. I do not think, however, that they are better than topdressing. Professor Nick Christians, from Iowa State University, presented a lecture at the GCSAA conference in Orlando that gave strong support to the topdressing procedures as a part of winter management, support based on four years of research results at ISU.

In some cases, covers may be an adjunct to late fall topdressing. I could see using them selectively on high, dry and exposed greens or on greens that have a history of wintertime damage.

The thing missing in the decision making equation, to me, is research. I'd like to see some of the claims about synthetic greencovers "quantified". I'd also like to read more about the experiences of Wisconsin golf course superintendents who have used covers.

One thing is certain: the question(s) about protective greencovers will be added to the list of investigative projects for the NOER CENTER. There's no end to the work to be done at that facility.