

**THE BULL SHEET, official publication of the
MIDWEST ASSOCIATION OF GOLF COURSE
SUPERINTENDENTS.**

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PRESIDENT'S MESSAGE

BUSINESS AS USUAL?

I can't think of a better business to be in. There is constant change, you are working in the field, in the office, around all kinds of people. Each season is different; that keeps us on our toes. People are envious of our positions at the clubs. They admire our expertise and working conditions. Most of us are survivors. We are successful in what we do because we try so hard in our service to our golf courses. Yep, we are proud of what we do. You can't take that away from any of us. The Golf Course Superintendent is the most valuable employee at the club because the golf course is the attraction for the club.

We finished a tough year. '83 will go down as one of the worst. But most of us will be around for the '84 season, and that says something for our profession. We'll have plenty to talk about this winter. All Golf Course Superintendents gained a tremendous amount of expertise from a golf season filled with weather extremes and anxieties about the course conditions and the golfing public: will they understand what is happening out there? The really top-notch superintendents went out there when abnormalities showed up and explained what was happening. (This was not time to bury your head in the sand.) We had to do some unusual things this year to minimize the damage. There were days when water had to be withheld because of the combined intense heat and humidity. The greens were hard. The fairways could not be watered until mid-morning because of the disease potential. Naturally this interfered with the golf. But the Superintendents that explained that we have an entire golf season to keep the course going for, were the ones who knew how to communicate and keep their esteem high. We will never forget '83. And I think we had the chance to find out who our real friends are.

'83 was a great year to be President for the MAGCS. It was my chance to find out where our friends in the industry are, and what high esteem the Golf Course Superintendents hold with the golfing world. Remember that letter Herb Graffis sent last Spring? His whole point was: what else can the Superintendent do to elevate himself in front of the golfing public. We manage more than just the grass. Our position at the clubs make us managers of the people that work for us, with us, and of course the people that play our golf

FALL PROJECTS

As the golf courses in the Midwest come to the close of another golf season, many of us are busy with tree planting, construction, reconstruction, drainage work and numerous other jobs. At Briar Ridge Country Club, which is a golf course with a housing development around it, we are busy planting trees, building a trap, improving our practice tee, as well as trying to stabilize some ditch banks that are out in the subdivision.

This fall we are planting 200 evergreens as well as some hardwood trees. Since Briar Bridge evolved from a 749 acre farm, we need a lot of trees to make us look like a golf course. Since our seeding time in August of 1978, we have planted approximately 3,500 trees and shrubs of various sizes and shapes. We have come a long way but we still have a long way to go.

As far as construction goes, we are going to strip 1/2 of our bentgrass practice tee and put down bluegrass sod. Since our fairways are bluegrass, the golfers will be able to hit off the top of the tee on bluegrass as opposed to hitting their irons from in front of the teeing area. By taking a few short steps backward, they will be able to tee up their golf balls and hit practice wood shots. We feel that this set-up will be of great advantage to the golfers who use our range.

We are also in the process of constructing a fairway trap on our tenth hole. I am going to use slotted tile with a cheesecloth type jacket around it that is supposed to keep the sand from getting into the tile and clogging it up. I have never used this product but if it works, it could be the answer to my trap drainage problems.

In addition to all these problems, I still have the aerifying and topdressing jobs to complete this fall. As of this writing, I am done aerifying and just getting started with topdressing. With seven acres of tee and green area, it takes us quite a long time to complete. Mother nature has been very good to us this fall once the heat broke. We have not been totally rained out of a work day this fall.

Joe Williamson, Briar Ridge Country Club

courses. We have to learn how to deal with this. Mr. Graffis recommends that we play that role to be recognized as true professionals. We also have true friends with the CDGA. I have met several times with Dennis Davenport at tournaments and had many discussions over raising money for ITF research and pathology projects. The NGF and Lorraine Abbot do whatever they can to include news about the Superintendents and the role we play with total operation of golf facilities. Groups like these host clinics to focus more attention on the job and challenges the Superintendents face. The highlight of the year is our own **Midwest Turf Clinic** held November 2 at the Arlington Hilton this year. **Modern Golf Course Management** is the theme. Without modern techniques the '83 season might have been a disaster for all golf courses. '83 is the inaugural for the Ray Gerber Editorial Award. The Charlie Bartlett Award is being resurrected this year. Both awards further focus attention on individuals trying to improve their profession. Speakers, young and old, have the chance to share their experience in front of turf people from all over the country through our turf clinic. They sharpen their public speaking skills and gain confidence in themselves, when they prepare for the chance to be in front of all those interested people in the audience.

In my final remarks as President of the Midwest Association of Golf Course Superintendents, my deepest, heartfelt thanks to all our friends and their support in a successful year for the MAGCS. The entire Board of Directors deserves a big thank you, as one of their goals was to follow through with committee projects. That, they did! We had successful golf outings at clubs that gave up their facility through professional courtesy this year. These summer meetings are very important to all who attend. Thank you all for providing meeting places at your well conditioned golf courses. Thank you Penny Meyer, Executive Secretary, for providing the all important communications, agendas and reminders to the rest of us that get credit for doing the job. And we dare not forget Fred Opperman for filling in for Ray during his illness, prior to accepting the appointment as Editor for the award winning periodical, **The Bull Sheet**.

Editor's Note - The above article has a slightly different type and I would like to get some feed-back on what you think of it. The type is just a bit bolder and the spacing is further apart. Let me know what you think.

WELCOME FRIENDS OF DUDLEY SMITH

On Friday, November 4, 1983 we are planning a gala event to honor **Dudley Smith** on his 25th year as grounds superintendent at Silver Lake Country Club. Please plan to attend to honor Dudley in your way.

We will feature:

7 p.m.-8 p.m. — Cocktails & Hors D'oeuvres

8 p.m.-9:30 p.m. — Butt steak dinner with all the trimmings including soup, salad, potato, vegetables & dessert

Champagne toast and friends comments

9:30 p.m.-12:30 a.m. — Dancing, fellowship and open bar \$25.00 per person will cover expenses of this gala event. You may mail your check or last minute pay at door. Please R.S.V.P. by telephone 349-6940 by Tuesday, November 1, 1983.

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COLLAR MAINTENANCE

Dr. James B. Beard describes a collar in his recent book **Turf Management for Golf Courses** as "the narrow turfed strip surrounding the putting green that is mowed at a height intermediate between the height of the fairway and that of the putting green." That height of cut usually ranges anywhere from 3/8 to 3/4 of an inch depending on turf type and intensity of maintenance.

It has been my experience that this "narrow turfed strip" can be more of a problem to maintain in a healthy state than any turf on the golf course. The root of the problem so to speak is a shallow root system. For various reasons, the population of *Poa Annua* in the collar is very high. Contributing factors are injury caused by turning of greens mowers, triplex or hand and golfers entering and exiting a green in approximately the same area. In addition, the *Hyperodes Weevil* seems to be the most devastating in the collar areas. Unless proper cultural practices are followed for the entire growing season, trying to maintain collars can be an exercise in futility.

During the course of the growing season there can be any number of valid reasons for not performing the routine maintenance tasks that would produce quality collars. They can range from a limited operating budget and lack of help to pressure from golfers to have the green area in play as quickly as possible. Weather conditions can often times be a limiting factor. With all the problems associated with maintaining collars, you need to be extremely determined to have quality turfgrass in the collar area.

The first step in any program would be a late spring aerification in order to encourage root development. In our area you should try to do this aerification in early May. Our best results have occurred when we were able to follow-up aerification with a little seed topdressing. If weather conditions and golfing pressures allow, you might consider this process again in early to mid June and again in late August.

Other considerations would have to be proper timing and use of pesticides and the proper use of wetting agents. Anything that can be done to encourage a healthy root system will pay big dividends when your turf comes under stress in July and August. It is absolutely essential that all pesticide applicators are properly trained and they realize the importance of continuing their green application right through the collar area.

With today's watering system designs it is impossible to adequately water the collar area and not over-water the putting surface. If you are ever involved in the design and installation of an irrigation system, you might consider a separate row of smaller sprinkler heads around the green capable of watering only the collar area. This is a very inexpensive option when compared to the total price of an irrigation system.

It has been said that collars require the same intensity of maintenance as putting greens. I disagree. They require more maintenance than a putting green. But with a lot of determination and a solid maintenance program you can have quality turfgrass on that "narrow turfed strip".

Credit-"Our Collaborator" Peter J. Salinetti, CGCS
10/83

DECEMBER 12-15, 1983

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

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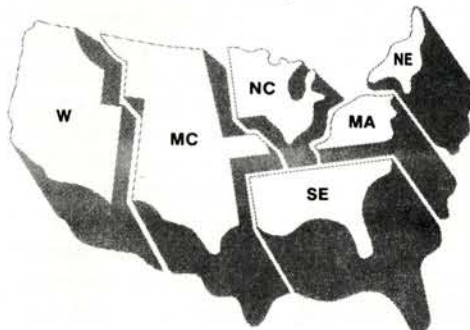
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SOIL INTERFACES

By dictionary definition, an interface is a surface forming a boundary between two bodies or spaces. Applied to horticulture, an interface is a layering of dissimilar soils or soil-like materials that forms a boundary between the plant material and soil beneath it. Since there should be no such boundary, an interface is inherently undesirable.

Interfaces are increasingly common in landscape plantings. Interfacing in turf plantings is more common than in any other type of planting — and potentially more damaging. Some of our most serious turf diseases are closely associated with this condition.

But to properly understand this relationship, you must first understand the characteristics of various soil types.

Soil types

Soils are made up of solids and fluids. The solid portion may be mineral or organic, and determines the soil type — sand, silt, clay, loam, peat or a combination of these.

SANDS contain relatively large soil particles. Individual grains are recognizable to the naked eye. Pore spaces between the particles tend to be large, holding little water in relation to the amount of air. Such soils tend to be well drained, with the greater amount of water moving through the soil rapidly following rains or irrigation.

SILT SOILS contain rather fine particles with capillary-sized pore spaces. They are generally poorly drained, with water moving through the soil slowly. Silts tend to exist in a perpetually puddled state.

CLAYS are made up of complex microscopic particles. Such soils do not drain when compacted or puddled. Pore spaces are less than capillary in size and remain filled by water. Puddled clays are used to line ponds for water retention and, in some places, result in perched water tables in natural soils.

Clays, however, have the ability to form aggregates, or granulars, of many clay particles with large pore spaces between them. Aggregated clays are said to have good tilth or good structure, and are the most productive of agricultural soils. The aggregates are very fragile and easily destroyed by improper tillage or handling.

LOAM SOILS contain proportions of sands, silts and clays so that no single characteristic dominates.

PEAT SOILS are made up of plant parts in various degrees of decomposition. Peats are light in weight and well aerated. The individual particles often retain the cellular structure of the plants from which they came and are able to hold large amounts of capillary water. If peats are allowed to dry out, they wet very slowly; water tends to run off rather than be absorbed. If properly handled, peats provide the best of two worlds between good water retention and good aeration.

Interface problems

Problems occur when soil materials with different porosity and drainage characteristics meet, forming an interface. Moisture and air movement are impeded, as is the development of roots through the interface.

In nature, dissimilar soils do exist in layers without apparent difficulty. Examples are silt loams over gravelly subsoil, and clay loams over clay subsoil. However, an interface does not exist in these instances because the change from one type to another is gradual. When the change in soil type is abrupt, problems occur. We all have encountered shallow peats over clays that waterlog during wet seasons and dry up during drought. This happens because capillary water cannot move up from the clay into the peat.

In turf plantings, interfaces may be inadvertently created because of certain cultural practices. Lawns are often started on what are disturbed sites. The builder has spread a thin layer of topsoil over heavy, compacted clay. The topsoil is also heavy and compacted from spreading and leveling.

Establishing turf areas

Unless overstimulated with fertilizers, a satisfactory turf can be produced under such conditions. A seeded lawn develops when the roots break up the compaction of the topsoil, and weathering eventually breaks up the subsoil, enabling roots to penetrate.

However, mineral-grown sod placed on such a site will grow poorly. Roots and rhizomes will grow along the **surface** of the soil rather than into it.

Peat-grown sod is in an even worse situation because of the great differences between the two media, which creates an interface.

For healthy, vigorous sod to develop under these conditions, a few roots must penetrate the soil surface. If this occurs the sod will develop rapidly, provided adequate moisture is present to prevent drying of the sod. When roots are unable to penetrate the soil, the roots and rhizomes fill the sod layer and the turf quickly becomes thatchy, with an inch or more of thatch accumulating in a season. Virtually the entire turf is growing above the soil surface, rather than in it.

Thatch is a poor medium for growing grass. It has poor moisture and nutrient retention, and no insulating properties. Consequently, grass growing in the thatch is subjected to wide fluctuations in moisture, temperatures and nutrients. Stress results. And grass growing under stress is a ready target for disease.

Causes of disease

Heavy thatch accumulations are quickly invaded and decomposed by organisms seeking nutrients. These organisms, called saprophytes, live on dead organic matter. Some of these organisms are also parasites that attack living plants under the right conditions. *Fusarium*, *Rhizoctonia*, and *Pythium* are such parasites. These nearly universal organisms are beneficial, provided the thatch layer is minimal and the grass is firmly established. When it is not, disease results.

Fusarium blight, Brown Patch, Low-temperature *Rhizoctonia* (yellow patch), and *Pythium* presently decimate lawns throughout the country. But the disease is not the problem, only the **result** of the problem. Since all three organisms are usually present in thatch, the resultant disease is determined by the conditions prevailing when the disease appears. *Fusarium* develops under hot, dry conditions; brown patch and *Pythium* under hot, wet conditions; and yellow patch when it is cool and wet.

While sodded lawns are more apt to develop the thatchy condition conducive to these troublesome diseases, seeded lawns are not immune. Overstimulating the grass so that it grows faster than the natural organisms present can decompose it, or inhibiting those factors, will aid thatch accumulation. Once the grass develops in the thatch, soil rooting diminishes and soil compaction begins. At this point further growth ceases.

Attempts to cure the disease problem without correcting the conditions that caused it are usually disappointing.

While some turfgrass professionals routinely deal with interface problems, only recently have lawn maintenance firms become interested.

Prevention

Primary in control of interfacing problems is prevention. Before installing turf on disturbed sites (seed or sod), the subsoil should be thoroughly tilled to alleviate compaction. Topsoil should be added to a depth up to twelve inches for proper root development. Or, the topsoil should be thoroughly mixed with the subsoil to form a gradual transition from one to the other.

Sod soil should match the site's soil as closely as possible. If dissimilar soils must be installed, the resulting interface must be handled immediately.

Vigorously core-cultivate the sod when it begins to knit, then repeat this while the interface exists. Core cultivation will remove cores of sod and soil and deposit them on the surface.

The mineral portion of the core should be mixed with the sod by dragging it into the turf. This modifies it to closely resemble the soil beneath. Roots of the grass will grow into holes left in the soil.

Every precaution should be taken to preserve the earth worm population, or to re-establish it if the worms have been killed.

To prevent compaction, do not work the lawn when soils are wet. Use high flotation equipment or hand mowers wherever possible.

Elimination of the existing interface is equally important. When thatch accumulation has developed, power raking often results in removal of the lawn. Repeated core cultivation will bring the thatch under control.

Thatch prevention

Thatch accumulation and resulting interfaces can be prevented. Do not stimulate the grass growth beyond the ability of organisms to decompose it. Do not interface with the earthworm population. Avoid using chlordane or arsenicals. Avoid compacting the soil.

If thatch has not accumulated, slicing will prevent compaction, and will fracture interfaces so roots can penetrate.

Many rumors and accusations have surfaced in the last few years as to who is to blame for the "Fusarium problem." It is hoped that the above information will help shed some light on the problem and lead to its resolution. A leading national turfgrass expert has repeatedly said, "You must grow the grass as close to the ground as possible." Golf courses spend a great deal of time and money doing just that. If we want high quality turf on our landscape plantings, shouldn't we be doing the same?

**James Fizzell, U. of I. extension service
"Landscape Contractor", May 1983**

Hi Fred,

"NOVEMBER BLESSINGS"

November's Leaves of many colors,

Pay Homage to the Year.

Though Their beauty is short lived,

Their Essence demand a cheer.

Ice and Snow will fill their void,

And Winter winds will blow.

Why this Phenomenon occurs,

Seems Nature deems it so.

Let's enjoy Fall's blessings,

As long as they will last,

For Their memory will warm our Heart,

In the midst of Winter's blast.

Superintendently,

Kenneth R. Zanzig

The Ray Gerber Editorial Award for 1983

David Ward, Superintendent Ravisloe C.C.

His article appeared in the October 1982 issue

"Sand Topdressing: Something Old, Something New, Mostly Borrowed, Never Blue"



Left to right: Marshall Dann from Western Golf Association; Roy Damer, Chicago Tribune; Peter Leuzinger, President MAGCS; Fred Opperman, Editor

The above picture represents the Editorial Review Committee for the "Ray Gerber Editorial Award". A traveling plaque will be given each year and an individual plaque will stay with the winner of this award. The winner is one of our MAGCS Superintendents who writes an article for **The Bull Sheet** and meets the following criteria:

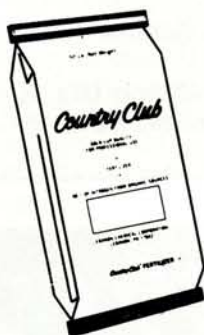
- Article provides useful technical data or information.
- The article is clear and easy to comprehend.
- Illustrations, tables, photographs, charts, etc. help explain or support the text and add to the article's value.
- The article is timely (information is current and is presented at the appropriate time of the season).
- The article is useful to the Superintendent in the performance of his duties and responsibilities.

'OCTOBER GLORY' HEALS SLOWLY

Scientists at Ohio State University's Shade Tree Evaluation Plot compared wound healing in three cultivars of red maple, **Acer rubrum**. Results indicate that 'October Glory' closes wounds more slowly than 'Red Sunset' and 'Autumn Flame'. Growers and nurserymen report that graft incompatibility is also more of a problem with 'October Glory' than with 'Red Sunset'. 'October Glory' is often killed by severe winters, when temperatures drop below -20 degrees F, and has exhibited more wind damage at the Shade Tree Evaluation Plot than any other red maple.

Horizons, June 1983

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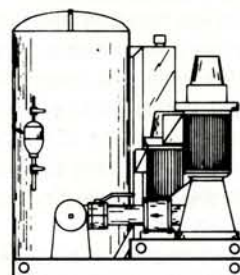
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EVERGREEN NEEDLE LOSS HEAVY

Unusually heavy needle loss is being seen on narrow-leaf evergreens throughout the midwest.

Evergreens are so named because of their habit of keeping leaves (needles) through the winter. However, according to James A. Fizzell, University of Illinois Horticulturist in Cook County, evergreens shed their needles on a regular schedule, sloughing off old ones as new ones sprout. Under normal conditions, the needles are produced in the spring and live two or three years. When sufficient new growth has taken place on the tips of the branches, these older needles in the center drop off, having served their purpose of photosynthesizing carbohydrates for the trees.

Arborvitae and white pine, for example, drop needles when the needles are two years old. They have a "needle life" of two years. Other trees have longer needle lives. That of the bristlecone pine is eight or fifteen years.

Normal needle drop occurs during late spring and summer and is usually not noticed because of the density of new growth hiding it.

During the last few weeks, University of Illinois Extension offices throughout northern Illinois have received a tremendous number of calls from distressed plant owners reporting browning and dropping of needles from all types of evergreens. Inspection of these plants reveals no diseases or insects but early senescence of one and two year old needles. In some cases even current years' growth is affected.

Fizzell says the plants have been exposed to tremendous stress since these needles were formed.

The summer of 1981 was very wet causing plant roots to suffer. The winter of '81-'82 was one of the most severe on record damaging exposed foliage. The winter of '82-'83 was so mild some plants had difficulty going dormant. The cold wet spring of 83 and the hot dry summer will go down in the record books.

It is no wonder the plants are unhappy, says Fizzell.

Although the trees have a large amount of browning, where the new needles are unaffected there is no cause for alarm. The buds at shoot tips will grow next spring improving the looks of the somewhat sparse trees.

Where shoot tips have turned brown and lost needles, the buds are most likely dead too, but don't prune out these limbs until next spring when you know for sure whether they will grow. If branches next to the dead limbs are healthy, they will grow into the voids left by pruning.

Plants under severe stress need special attention. They should be watered well if fall continues dry. If they are in poorly drained soil, some means of draining off excess water needs to be devised.

Make every attempt to avoid root injury.

Trees in exposed locations may benefit from treatment with an antidesiccant to reduce moisture loss from leaves.

Or, construct some sort of screen to protect exposed plants from winter sun and wind.

While plants under stress normally recover when conditions improve, spruce and pine are susceptible to attack by disease organisms under such conditions. Cytospora canker is the most damaging of these and can ultimately kill the trees. There is no cure for cytospora canker so it is important that the plants receive the necessary care to let them recover rapidly before the disease attacks.

**James A. Fizzell, Sr. Ext. Adviser
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