

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

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Bull Sheet printed by Ever-Redi Printing, La Grange, Illinois 60525. Phone: (312) 352-4378.

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President

PRESIDENT'S MESSAGE LET'S KEEP IT SIMPLE

Sometimes we take communications for granted in thinking that everyone knows what we Golf Course Superintendents do, or what challenges we have. I find greenkeeping unique in this vein, as everyone feels they have a participating knowledge in the art of growing things. One of the challenges we face as a group of professionals, is the people problem associated with growing grass for the recreational sport of golf. Keeping the golfer happy, as well as informed, can be just as rewarding as treating a difficult disease or insect problem. Not everyone can be a Golf Course Superintendent. It is a unique profession. By using the following simple example, I think we can keep things in perspective when we attempt to explain what keeping golf turf is all about.

The grasses we use grew naturally as meadow grass for grazing animals. It has adapted over the centuries to renew itself after it has been eaten by animal or harvested by man. Its growing point is at the base of the plant. Like human hair, it can continue to grow after it has been cropped. Other plants do not have this capability, because their growing points are at the end of the plants. It takes them much longer to recover when cropped. Out of years of trial and error came the turf we use for agriculture and leisure sport. With intense management, we have learned to cultivate species of grass to be used on the golf course. This turf, almost the same grass grown in meadows, has the capability to grow at extremely low heights of cut and perform for our artificial needs as green, tee, and fairway grass.

We grow turf on a green so that the golfer can roll his golf ball across this special area of turf and put it in the hole with as much consistency as possible. The greenkeeping talent is judged on how successful most of the players can do this. This hallowed area of ground is expected to sustain itself through periods of hot, cold, wet and dry weather. It should renew itself and sustain spike marks, pitch marking, daily mowing, and any combination of the above. I think it is amazing that we are able to get the ball into the hole as often as we do. The Superintendent has to balance all these variables each day to give consistent standards of play. These challenges lend themselves to giving us the reward of watching a long, curling putt drop to the bottom of the hole. These rewards come from using programs that mold fertilizing, cutting, and watering programs into something as beautiful as a golf green that is not only a pleasure to look at, but fun to walk and play on.

Pete Leuzinger, Pres., MAGCS

PROS AND CONS OF SAND TOPDRESSING

In our travels as agronomists for the USGA Green Section we are frequently asked what can people expect from and what are some of the problems we envision with sand topdressing. I have attempted to briefly list some of these pros and cons along with a few words of explanation for each. As you can see from the list there are 15 pros and 13 cons. Perhaps this is why this type of putting green program remains so controversial. There is no absolute or clear cut answer to what is the best topdressing to use on every golf course. It really comes down to what type of putting greens you want in terms of appearance and playability and then having to accept that particular type of management program often for many years to come.

THE PROS

1. Firmer greens (not hard greens) - Properly sized sand "bridges" resulting in firm greens but not hard greens.
2. Smoother greens - Any topdressing program will smooth out depressions and the sand program because it is performed so frequently during the season will definitely give you smoother putting surfaces.
3. Less thatch-straight sand seems to accelerate the decomposition of excessive organic matter.
4. Allows for lower cutting heights - the crowns of the grass plant are insulated and protected by the layers of topdressing sand. In reality, the grass plant is actually growing through the sand that has been lightly dusted on the putting surface. In this way, cutting heights can be lowered with the mowers only cutting the grass blades and not necessarily the stems or crowns of the plant. It allows for safer lower cutting heights.
5. Faster greens - the combination of smoother greens with less thatch and lower cutting heights will give you faster putting greens. There just is no doubt about it.
6. Tightens the surface - less grain and leafiness results. Between the lower cutting heights and the actual matting-in or the dragging process, the putting greens surface tightens up and has good texture. This is a combination between the topdressing and the actual process of working it into the greens.
7. Less compaction - properly sized sands don't compact anywhere near what a topsoil based topdressing which contains large amounts of silt and clay.
8. Better roots - roots grow in between soil particles. A properly sized sand has outstanding aeration allowing the roots freer movement through this new soil medium.
9. Better drainage - Because these sands have such good aeration water tends to soak freely into them and they seem to dry out quicker after a rain, firm up earlier in the spring and stay firm later into the fall. All of this relates back to a sandier, firmer and better draining topdressing.
10. Less weeds and weed grasses - because the greens are topdressed on a frequent basis seeds are physically buried. Certain of our weed seeds need direct rays of sunlight to germinate so by constantly burying them, they just never germinate.
11. Generally less disease - less free water on the surface and because most of our disease are related to surface moisture there is the **potential** for less disease.
12. Generally less insect activity - Perhaps this is related to less thatch?
13. Generally less winter injury - less ice injury due to better drainage and as this program will tend to encourage the development and spread of creeping bentgrass over **Poa annua** there is less potential for winter injury **Poa annua** is

the most susceptible grass in this part of the country to winterkill so the less **Poa annua** you have the less potential you will have for winter injury.

14. Generally an extended playing season - greens that have been on a good sand topdressing program will generally tend to firm up earlier in the spring, are less spongy through the season and generally are quicker to return for play after a rain.

15. Generally a fairly inexpensive program when compared to topdressing efforts using commercially prepared materials. It is a very economical program in most instances.

THE CONS

1. Increased wear and grinding of reels and bedknives - The light, frequent applications of topdressing sand always tends to leave some particles on the surface and when the greens are cut this sand causes extensive wear and dulling of the cutting blades and bedknives. Also, because of lower cutting heights it is also necessary to grind some of the thickness off of the bedknives ... which can significantly decrease their life. So, between using thinner bedknives and the abrasiveness of the sand you can expect to use more bedknives and do more maintenance on the mowers.

2. Firm greens - some golfers don't like firm greens (they won't hold as well)- Firmer greens simply won't hold as many shots as will softer greens. Firmer greens can cause some objections from at least one segment of golfers.

3. More hydrophobic dry spots - Hydrophobic or isolated dry spots seems to occur more frequently on high sand soils. Thus, with a sandy topmix you can expect more of these dry spots (increased useage of spot coring and wetting agents) than with topsoil based topdressings.

4. Lower or different microbial activity levels - Dr. Clinton Hodges has been studying some of the effects of these high sand soils on the flora and fauna in the soil. When you are dealing with a straight sand grass growing medium things are different in terms of soil microbes than a more native or natural type of soil. This may or may not be a problem but it is a different environment to deal with.

5. Lower nutrient holding capacity - sand soils just don't hold nutrients as efficiently as a topsoil type of topdressing. Their Cation Exchange Capacities (CEC) are generally lower.

6. Lower moisture retention - high sand soils just don't hold as much water.

7. Different diseases to manage - whereas a sandy topmix would generally tend to decrease overall disease problems those diseases which still are active will tend to be more of the soil borne type (again referring to Dr. Hodges' work) and not necessarily the traditional diseases common on golf courses. In a nutshell, these high sand soils are different environments for the growth of organisms and this can sometimes lead to some very unusual disease problems. Also, it has been our experience that you tend to get more algae with sands.

8. Tough to germinate seed - less moisture near the surface and less moisture retention will tend to make seed germination more difficult. Extremely careful water control must be exercised when attempting to germinate seed in these high sand soils because they dry out so quickly.

9. Possibility of more winter desiccation on **Poa annua**. Because these soils hold less water under severe desiccation pressure in the winter susceptible grasses such as **Poa annua** may have somewhat increased potential for winter injury due to desiccation.

10. A commitment to one type of topdressing material - it has been said many times but it is worth repeating again that once you begin a sand topdressing program you must

essentially stay with it forever. In reality, you have determined the basic type of topdressing material to be used on that green for the remainder of its useful life. Some people simply don't like to make that commitment.

11. Must maintain quality control of the sand both physically and chemically - all sands are not alike. Some are high pH (Calcareous) and others are neutral to slightly acid (silica based). Also, care must be exercised to make sure that the sands don't vary in their particle size analysis. You don't want to use coarse sand one time, medium sand the next followed by an application using very fine sand. Conceivably, you could get into some serious layering problems by using different sands. Truly, sands are not all the same and once you begin using one type you really should stay with that same basic type of material.

12. Concern about placing a faster draining layer over a slower draining soil as is found in so many greens. There is some concern about what happens when water moves through the sandy profile, strikes the slower draining underlying topsoil and then backs up. In essence a type of "septic tank effect". There is some concern that when this occurs, especially in the summer, problems with roots may arise.

13. Uncertain future - no one has been topdressing with sand for a very long period of time so there is no sure example of what to expect from long-term useage of sand for topdressing greens. There may or may not be a problem but the uncertainty of not knowing for sure what to expect can be a negative aspect to this type of program.

These then are the basic advantages and disadvantages I see for straight sand topdressing. Some obviously are more valid than others, some may or may not be a problem but in traveling throughout the region these are the basic concerns I see expressed. There may be some additional ones but I have attempted to group them into fairly major categories. I am certain for many years to come there will be a continuing discussion on straight sand topdressing. It is controversial now and it will probably stay that way for some time to come or at least until we know just how valid some of these pros and cons really are.

**Stanley J. Zontek, USGA Green Section
North-Central Director**

Dear Peter,

The years slip by "hurrieder and hurrieder" but my Midwest friends stand staunch and true. The Honorary Certificate and card are ample evidence of the way you remember a friend. It is a gracious gesture for which I am pleased and grateful.

Is the golf course still in use as the A.D. Lasker Estate? It was there that I saw my first (and only) hole-in-one. Carter Harrison made the shot, a 3-iron, while I caddied for him.

When did the USGA Green Section Demonstration Garden disappear? Harold Clemens, Homer Aylsworth and I were together every day while I was there. I've lost track of Harold. I buried Homer in a little country cemetery near Scranton, PA 50 years ago. How things change.

The Midwest can be proud of its organization. You have had strong leaders who have maintained progress. That has not changed!

My best to all of you and thank you again for the continuing courtesy.

Fred V. Grau, President

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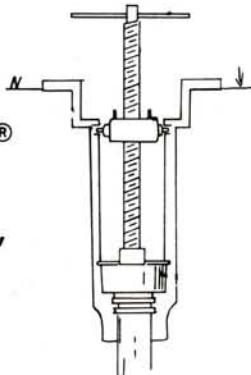
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SOME CONSIDERATIONS ON THATCH AND WATERING

The development of thatch is a normal consequence in intensively cultured turfgrass. Due to the nature of golf green culture, thatch development can be particularly rapid. Superintendents have devised several methods of controlling excessive thatch accumulations such as frequent, light vertical mowing; aerification; top dressing; light applications of lime; and reduced nitrogen application. Despite control efforts, seldom, if ever, is there a green with no thatch, nor, in our opinion, would that be a desirable situation. A small amount of thatch protects the soil surface and provides resiliency and increased tolerance for the turf. Realizing that we will normally be working with some thatch on the greens, whether excessive or not, it is important to know some of the effects thatch may have on the water relations of a golf green.

Studies have shown that thatch contains very large pores as compared to soil, even after compaction. Due to these large pores, the water holding capacity of thatch is low. This can cause problems in cases where the majority of the root system is in the thatch layer and the grass plants are not able to extract significant amounts of water from the soil below the thatch. In such cases, irrigation must be inordinately frequent and the thatch is excessive. Reduction of thatch or improvement of soil to encourage root development below the thatch layer is extremely important in order to sustain growth between irrigations. If, on the other hand, roots are down into the soil in sufficient quantity to extract water there, the lack of water holding capacity in the thatch should not present a critical problem. The amount of water available to plants would then be determined by the water holding capacity of the soil and the depth of the roots into the soil.

The effect of thatch on water infiltration may be different than its effect on water holding capacity. In the past it has generally been felt that thatch reduces the amount of water getting into the soil. Studies done at several Minnesota golf courses as well as laboratory studies at the University of Minnesota suggest two important aspects concerning thatch and water infiltration rate: 1) for a short period of time, dry thatch can reduce severely the rate of water infiltration, and 2) once the thatch is wet with water flowing through it, the thatch will not reduce the rate of water infiltration. In laboratory profiles of sand without thatch and with a thatch layer at the surface that had been allowed to dry, initial water infiltration rate was much different for the thatch-covered profiles and the profiles without thatch. After a short period of time during which the water was constantly kept ponded on the surface of the profile, the infiltration rates changed until there was no difference between the thatch-covered profiles and those without thatch. The period of time during which thatch restricted water infiltration was always less than ten minutes. It appeared that this reduction was due to the hydrophobic quality of the thatch.

Infiltration rates, after establishing a constant rate, were measured at six golf greens, one athletic filled and two turfgrass roof gardens with the surface thatch layer present. The surface thatch was then removed and the infiltration rate measured again. Removal of thatch did not significantly increase the steady-state infiltration rate at any of the sites. Evidence indicates that thatch, even thin layers of thatch, can have significant effects on the water relations of greens, particularly if the thatch dries out. Though the thatch-water relations are complex and much remains to be learned, the following suggestions seem appropriate.

1) From the aspect of water relations, thatch is excessive whenever the majority of the plant roots are not growing through the thatch and down into the soil to an acceptable depth.

2) A syringe irrigation cycle to wet the thatch prior to an expected thunderstorm or irrigation when the thatch is excessively dry will probably increase the amount of water that gets into the soil.

3) It is important to set the irrigation schedule to apply water long enough to set the thatch. Once the thatch is thoroughly wet it will not restrict the rate water enters the soil.

4) If the rate of water infiltration is excessively low even after the thatch is wet, alleviating soil compaction by aeration will probably improve water relations more than thatch reduction.

Don Taylor, Assistant Professor

Department of Soil Science, University of MN

Credit: Divots May 1983

Gentlemen:

I would like to take this opportunity to thank you for my thirty-five year pin which I just received. In my thirty-five year career, I have seen many things, believed in many things and, in the end, hope to have accomplished some of them. I have always believed in the growth of the golf course superintendent and the Golf Course Superintendents Association. Its high standing is due to the efforts of men dedicated to early ideals and ethical practices.

I would like to thank The Golf Course Reporter, Golfdom and its successor Golf Course Management Magazine, John MacGregor, Agair Brown, Herb and Joe Graffis and, through the years, Dr. Bill Daniel, Dr. Mike Britton, Bob Johnson, Frank Mastraleo, Bill Stupple, Frank Dinelli, Dr. O. J. Noer, Charlie Wilson, Ray Gerber and **The Bull Sheet**, the Midwest Association of Golf Course Superintendents, the Michiana Golf Course Superintendents Association, the University of Massachusetts and all the greats like Professor Lawrence Dickinson and Geoffrey Cornish. All these great men are part of my thirty-five year pin. When times were difficult, they made it possible to solve many of my problems. I am unable to mention all of the people I should who are part of the G.C.S.A.A. and my thirty-five year pin, of which I am so proud, but they all carry shades of my past which are precious to me. Thanks to all of them for the life and career I've shared with them. I accept this pin with humility and gratitude and will treasure it forever.

William E. Krafft, Supt. Emeritus

Valparaiso Country Club

Dear Ray,

It's not the fourth of July, without Fire Crackers.

"FIRE CRACKERS"

Where are They? Those who say,

"What do you do all Winter?"

Seems They decline to add to this Rhyme,

When the Juice in the Grass starts to simmer.

They still lead the parade, in their charade,

With comments ever mighty.

Like in their play, they genuinely say

"Can't they do all those things Nightly?"

If there were no waves upon the Sea,

And it was ever calm.

You can bet We would be bored indeed,

With no need to read a Psalm.

Superintendently,

Kenneth R. Zanzig

Green Garden C.C.



MIDWEST BREEZES

So far the first part of the turfgrass season has been cold and wet. Chicago's cold, rainy spring has set a record as the wettest in history. We had 17.41 inches of precipitation for March, April and May. That is the wettest on record for the three month period. Normal for those three months is 9.40 inches. What will that do to the turfgrass on our golf courses? It will create a shallow root system. The Supt. can overcome some of this problem by not doing any irrigating until it is absolutely necessary. Let the turfgrass plant roots go down and find some water rather than add water unnecessarily that will discourage the development of a deep root system. When the hot weather makes its appearance in the summer months, it will pay a dividend.

Walter Fuchs, Sr. has notified this editor that he will be retiring as the Supt. at Evanston C.C. This winter he will be making his home in Naples, Florida. Walter has devoted his life to golf course work. He is a past president of the Midwest Association of Golf Course Superintendents, the Iowa Supts. Assn., and the Ohio Supts. Assn. Walter wants to thank everyone who was so nice to him and made life so enjoyable. Congratulations, Walter.

 Ray Schei, Supt at Ruth Lake C.C. and his wife Betty are the proud grandparents of a boy born to their daughter, Lou. He weighed in at 7 lbs. 14 oz. and arrived on May 18, 1983. Congratulations!

 The M.A.G.C.S. nominating committee for 1983 consists of five past presidents: John Berarducci, Len Berg, Ed Fisher, Robert Breen and Carl Hopphan.

WESTERN OPEN AT BUTLER GOLF CLUB

WESTERN OPEN - Starts June 29th with the Pro-Am and continues till Sunday July 3rd, 1983. Oscar Miles, Supt. states the golf course is in excellent shape and invites all Superintendents to stop by his new maintenance building to look around and enjoy some refreshments. Superintendents are to show their GCSAA cards to gain free admission.

A better word for self-confidence is God-confidence.

At the July meeting of the Midwest Association of Golf Course Superintendents, the golf event will be a pick your own partner, 1 best ball, full handicap event. In addition, an optional skin game will be offered. The skin game will be based on 80% handicap and the entry fee will be an additional \$2.00.

The joint meeting of the Midwest Association of Golf Course Superintendents, the Central Illinois Superintendents, and the North Central Association was held on Monday, May 16, 1983 at Bon Vivant C.C. with our host Mike Hart giving us a superbly conditioned golf course to enjoy. 152 people played golf with 176 people having dinner. Sam Williamson was the day's medalist with a 2 under par score of 70.

Chicago Toro, Tri-State Toro, and Beckman Turf Supply put on an equipment show. Mr. Howard Swartz, Area Manager of the Toro Co. of Minneapolis, Minnesota presented the Illinois Turfgrass Foundation with a check for \$2000.00 to be used to enhance the turf program at the University of Illinois.

Briar Ridge Country Club

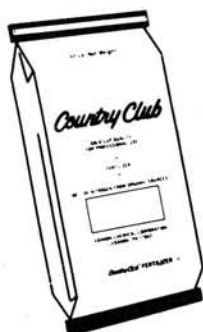
In all our events this golf season, we are going to play summer rules unless otherwise stated on the first tee. That means that you cannot touch your ball until you reach the putting surface. You may **not** use your clubhead to improve your lie anywhere on the golf course. Please cooperate so we may all have a shot at the prizes on an equal basis.

The June meeting of the Midwest Association of Golf Course Superintendents was held on June 6, 1983 at Pinecrest Country Club in Huntley, Illinois. Our host superintendent, Brian Comiskey, gave us a very fine golf course for our enjoyment and for once, the sun was shining and no rain. The low gross for the day was 1 over par 73, shot by Tim Davis. Closest to the pin was won by Dave Meyer. Long drive for seniors was Bill Miller and long drive for the youngsters was won by Ken Goodman.



Brian Comiskey, Host Supt. at Pinecrest C.C., Huntley, Ill. for M.A.G.C.S. June 6 meeting.

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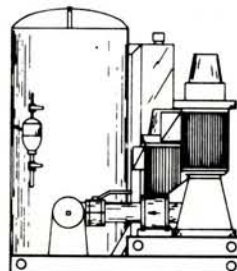
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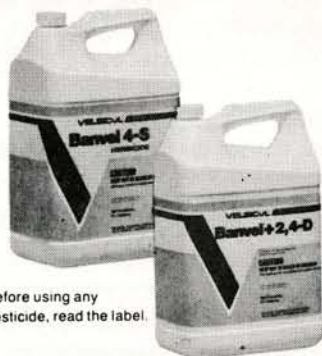


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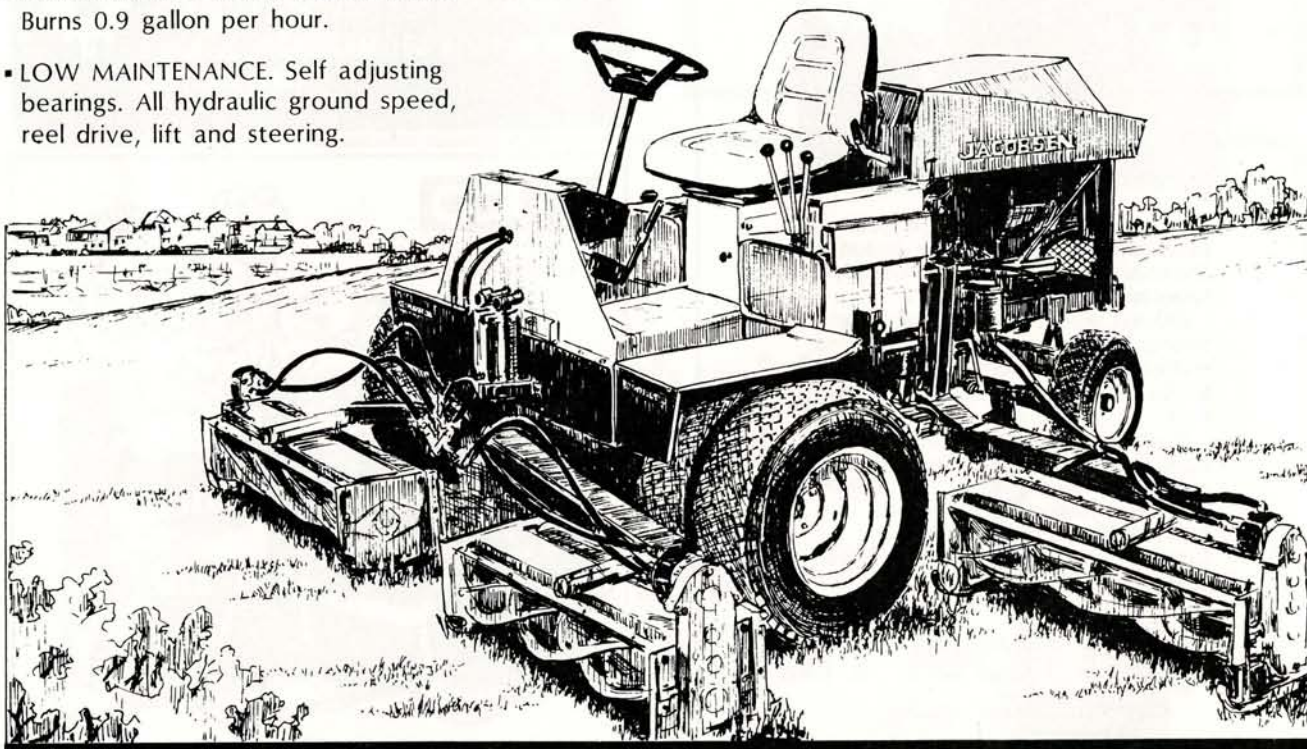
Rick Johnson



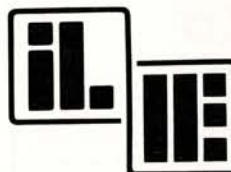
JACOBSEN

HF-5

- **PERFORMANCE.** 50 acre per day capacity, out front mowing, mowers can be used as a 3 or 4 or 5 gang.
- **LIGHT WEIGHT.** 8 psi - lighter foot print than a riding greens mower!
- **ECONOMICAL.** Water cooled diesel. Burns 0.9 gallon per hour.
- **LOW MAINTENANCE.** Self adjusting bearings. All hydraulic ground speed, reel drive, lift and steering.



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