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Official Publication of the
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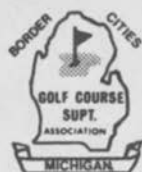
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PRESIDENT'S MESSAGE

Our National Association has given us the tools to become professionals. These are the tools that we have requested for the past twenty years. Let's take advantage of these opportunities. Certification is and has been a reality since early this year, also a work shop or siminar was offered a few weeks ago. Michigan Superintendents are not taking

advantage of these opportunities to upgrade themselves.

We only have four Certified Superintendents in the State and only two



Superintendents participated in the Management Seminar. We are leaders in all aspects of our field, why shouldn't we be leaders in pursuing professionalism? A recent letter from our

National Headquarters makes the announcement that the area of Columbus, Ohio has been approved as a site for the GCSAA Management Seminar which deals with budget preparation, cost analysis, record keeping and controlling costs. This seminar will be held within the next 12 months, probably sometime in February of 1973. Plan now to attend. Enough said.

I will be needing the assistance of my fellow Superintendents during the PGA Championship, August 3 - 6. We could use some volunteers for the repairing of ball bruises on the greens and a few fellows will be needed to man the hospitality van to welcome Superintendents attending the tournament from out of state. Please call me and offer your services. My office number is (313) 644-3352.

Your President,
Ted Woehrle CGCS

LOCAL NEWS

Roger Gill, Superintendent of the Royal Oak Golf Club, was recently featured in an article in the *Royal Oak Tribune* entitled *Course Upkeep Tricky*, by Frank Sopata.

They wrote of the opening of the new nine holes they hope to open on July 4th. The new nine will be called Elks Park Golf Club.

Roger is quoted, "The key to keeping a golf course in shape is to keep it neat." Amen!

Word from Leo Bishop is that they had the Grand Opening of the new Golf Course and Pro Shop at the "Lake in the Woods" on May 25th. Leo, the Superintendent of the course, says that it is really one of the fine ones. Good Luck Leo on your new endeavor.



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CARL'S COMMENTS

by CARL SCHWARTZKOPF, Mid-Continent Agronomist, USGA - Green Section

Have you been stuck by lightning lately? I surely hope that you never will be and that your escape will result from proper precautions and not from chance.

What are some of the proper precautions? The period of greatest danger occurs before the rainstorm breaks, when the air "feels" charged. People in the open, especially golfers and those who work on a golf course who so often find themselves in hazardous areas, the isolated, unprotected building or open course, should not wait for rain and thunder before seeking shelter. The Rules of Golf allow for the danger of lightning. Rule 37-6, Discontinuance of Play, states in part, "Players shall not discontinue play on account of bad weather or for any other reason unless:

A. They consider that there be a danger from lightning"

The following guides for personal safety have been suggested by the National Bureau of standards:

- A. Do not go out of doors or remain out during thunderstorms, unless it is necessary. Stay inside of a building where it is dry, preferably away from fireplaces, stoves and other metal objects.
- B. If there is a choice of shelter, choose in the following order:
 1. Large metal or metal frame building.
 2. Buildings which are protected against lightning.
 3. Large unprotected buildings.
 4. Small unprotected buildings.
- C. If remaining out of doors in unavoidable, keep away from:
 1. Small sheds and shelters if in an exposed location.
 2. Isolated trees.
 3. Wire fences.
 4. Hilltops and wide open spaces.

Statistics indicate that about nine out of ten casualties from lightning occur in rural areas, particularly in isolated buildings, vacant and open land, such as golf courses. Although lightning usually strikes an isolated object on high ground, it does not always strike the highest object in the area.

When building rain shelters, they should be located in low areas, not hilltops. Lightning arrestors and grounding cables should be installed; if not, these shelters may become death traps in a storm.

Description of Lightning

Lightning may be described as a high potential of electricity stored in storm clouds as they gather before a storm. The electrical charge is made up of electrified particles, either all positive or all negative.

On the ground, a like number of positive and negative charge particles swarm over each other, climb structures, and gather on the highest points of those structures, in an effort to reach opposite charges in an approaching storm.

Whenever the pressure becomes too great, the charges jump the gap and cause a lightning flash or flasher between the earth and the cloud.

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HOW ABOUT TOP DRESSING ?

Ever since our earlier meeting at Bay Pointe Golf Club I have been thinking about the presentation made by our friend John Campbell, of St. Andrews, Scotland. He stated that top-dressing is the main part of turf management. As I look back at my young days working for my father on a golf course, he too believed in top-dressing. I took time out recently to look up a few written articles on top-dressing and I am presenting them here for your reading pleasure. What do you think about top-dressing?

— Ted Woehrle

TOP-DRESSING IS NOT TOP SECRET

by PAUL W. NEFF, Member, USGA Green Section Committee, GCSAA
(From USGA Green Section Record, July 1969)

"He had a 20-foot putt, mostly against the grain." How often have we heard such a remark on television or in the locker room?

Though I realize that grain is harder to control in some varieties of grasses than in others, one of the most neglected tools for combating it is sufficient top-dressing. Years ago many superintendents top-dressed every month of the growing season. Later it became fashionable to quit this practice because it was "*too much work, too expensive and really not necessary.*"

In another few years there was the cry of thatch, mat, grain and too much traffic. Expensive machines were designed and used to beat the grass into submission.

Some superintendents who have managed to get some top-dressing on a few times a year did not know all the answers, but neither did they have all the problems. The bentgrass plant is put into an unnatural environment and

usage on a putting green. To offset these brutalities it needs *some tender loving care.*

A small amount of top-dressing properly applied and dragged into the turf will cover some joints and initiate new growth. The putting surface will reach a new plateau a fraction of an inch above the old surface. Decomposition of dead matter will be hastened and the green will be more resilient and will hold more shots. The new elements in the new material seem to invigorate the grass and bring more disease resistance and less winter-kill.

I like to aerify the greens before top-dressing because this is the nearest to cultivation that it is possible to do. Weather and play permitting, I try to top-dress in early May. Late June, late August and in October. By breaking up the aerifier cores there is enough material available for a light dressing, but additional material is usually add-

Continued on Page 8

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Top-Dressing No Secret Cont.

ed. If the soil under the green is very dense, an application of calcined clay may help. It may be added before aeration, or during any step of the process before dragging. Flexible mats pulled behind a truckster are used for dragging.

The old-timers had one fault that should not be repeated today. Each superintendent had his own favorite soil mix. He would use it on the greens wherever he went. As superintendents changed jobs, so did the mix. By looking at a soil profile on a green, you could tell just when superintendents changed jobs. Some layers became so

bad that water movement and root development were impeded. I feel you should use a mixture just like the one in the green, or mix calcine clay or sand with a similar mixture if the soil under the green needs modifying.

Top-dressing is not the hard work it used to be. We now have power shredders to condition and mix the soil; a tractor loader to feed the material into the shredder; a power spreader to apply the material to the green; and a drag mat pulled by cart power.

You will also find that the price is really not too high; members and guests will soon be telling you, "*they putt the same from any direction.*"

TOP-DRESS GREENS AND SEE THE DIFFERENCE

by WILLIAM H. BENGEYFIELD, Western Director, USGA Green Section
(From USGA Green Section Record, January 1969)

In this age of science and technology, where man's knowledge is increasing at a great rate, it is still difficult to improve upon some things. Top-dressing greens is one of them.

Last October, at the Northwest Turfgrass Conference Dr. John Escritt, Director of the Sports Turf Research Institute, Yorkshire, England, was telling his audience of his observations of turf management practices in the United States:

"Americans," he mused, "seem to want to overdo everything! For example I feel you are overdoing putting green fertilization. You apply far too much water. You are constantly spraying fungicides and insecticides. You seem forever to be veri-cutting and aerifying greens. But there is one important practice you *should* be doing and are not doing at all: top-dressing greens!"

Many agronomists in this country will heartily agree. His point is valid. Top-dressing is not easy. It may seem expensive, but properly done it is worth every effort *and* the money if your goal is championship putting turf. It is one management tool your

golf course should use even though your neighbors have been overlooking it for the past three decades.

In the early days of greenkeeping, the ritual of top-dressing was carried out every few weeks. The old-timers may not have known all the reasons why, but they knew that it worked.

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Old way of rubbing the soil into the green.

World War II put an end to that. Shortages of labor, equipment, and material practically eliminated the practice, and it has never regained popularity. The advent of the mechanical aerifier in the late 1940s further discouraged a return to top-dressing. The soil cores, it was believed, would do the job for us. Only in recent years have the better managed golf clubs returned to sound top-dressing practices.

Why is top-dressing important? How does it work? What are proper top-dressing procedures? Are there really major advantages for today's golfer and course superintendent in a top-dressing program? There is much to be said on the subject.

Why Top-Dress At All?

Golf has expanded so rapidly in



Modern method of Top-Dressing greens. One and one-half yards of soil per 5,000 square feet.

the past 20 years that the technical advantages of top-dressing have perhaps been forgotten by the old, and never fully appreciated by the new. Ask ten turf managers, "why top-dress?" today and at least nine will reply, "to smooth the surface." But the story has far greater dimensions than this.

"The principles behind top-dressing originate deep in the basic tenets of agriculture, and anyone who manages fine turf would do well to learn the real reasons for the practice," says turfgrass agronomist Bob Wiley.

More than merely "to smooth the surface," the following amazing advantages also await the top-dressed green:

Tighter, Finer-Textured Turf: By following proper top-dressing techniques, the fresh soil material encourages new growth of grass shoots and stems. A dense, fine-bladed turf results.

Grain is Checked: Whether your greens are bentgrass, bermudagrass, or *Poa annua*, certain strains of any grass type are going to be more vigorous, more inclined to lay down than others. Top-dressing encourages upright growth and checks grain development in any type of turf.

Thatch Control: With heavy fertilization, high or infrequent mowing, etc., aggressive grasses soon form a spongy layer known as thatch. Top-dressing checks dense thatch

Continued on Page 10

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Top-Dress Greens Cont.

accumulation by intermixing soil materials with plant materials. It encourages new microbiological activity, which in turn breaks down thatch, and converts it into valuable soil humus.

Less Disease: Thatch is an ideal Medium for disease organisms and insect activity. With thatch under control, this problem is reduced.

Better Water and Fertilizer Infiltration: Because top-dressing checks heavy thatch accumulation by actually separating the plant residues, tight turf matting is prevented. The passages for air, water, fertilizers, etc., are preserved in the turf soil profile. Localized dry spot problems are reduced, and better overall irrigation infiltration is achieved.

Alleviates Compaction: Top-dressed greens have better "holding qualities" for the golfer. The material physically supports the grass plant and thereby helps it absorb compacting forces. It develops resiliency. On heavily played greens, this point is of particular importance.

Protects Against Winter Kill: Years of experience and research have shown that greens top-dressed just prior to the winter have fewer problems from desiccation and winter injury. The crown of the plant is protected from the winter's drying winds and wide temperature swings.

Protects Against Winter Kill: Years of experience and research have shown that greens top-dressed just prior to the winter have fewer problems from desiccation and winter injury. The crown of the plant is protected from the winter's drying winds and wide temperature swings.

There's A Technique to Top-Dressing

The success of any top-dressing program depends on how well it is carried out. Poor top-dressing procedures are worse than no top-dressing at all.

At the very beginning, the soil material to be applied must be "standardized," that is, made of uniform

quality from one year to the next. Turfgrass agronomist Charles G. Wilson put it best when he said, "Each club should require an act of Congress before anyone is permitted to tamper with or alter the soil mixture decided upon, no matter how well-meaning he may be."

If the present soil in greens has a history of success (good drainage, deep rooting, minimum compaction, etc.), the top-dressing material should be of the same general nature, if available. On the other hand, if it is not available, or if greens do not have a good soil, then an additional effort is needed. In this situation, a physical soil analysis (see "USGA Green Section Specifications for a Method of Putting Green Construction") should be made of those materials that are and will be available at a cost within budget means. The physical analysis will determine what mixture of soil, sand, and organic matter is best for your program. This mixture then becomes *THE permanent mixture* for all future top-dressings and construction.

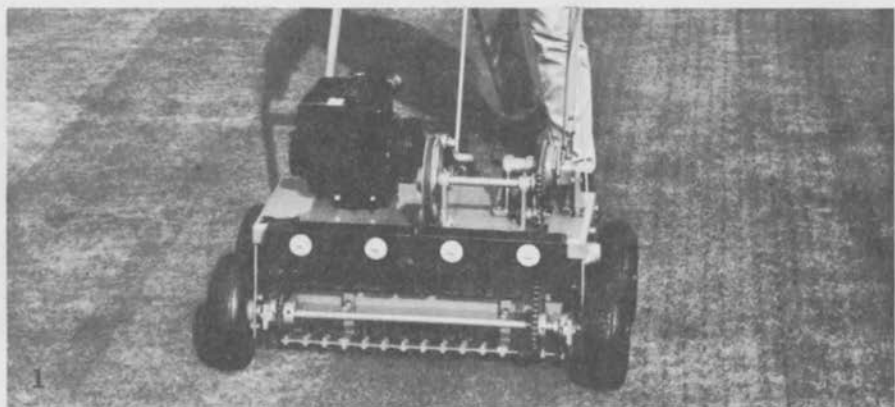
The physical mixing of these components is less tedious than it once was. Large quantities can be fairly rapidly mixed with today's front-end loaders, power shredders, screens, and other modern equipment. Time and labor costs have been enormously reduced.

Now two additional steps are needed before this "soil mixture" becomes eligible for "top-dressing" status: sterilization and composting. A weed-free mixture can be obtained by several sterilization methods. Methyl bromide, calcium cyanamid, Vapam, steam, and other techniques have been used.

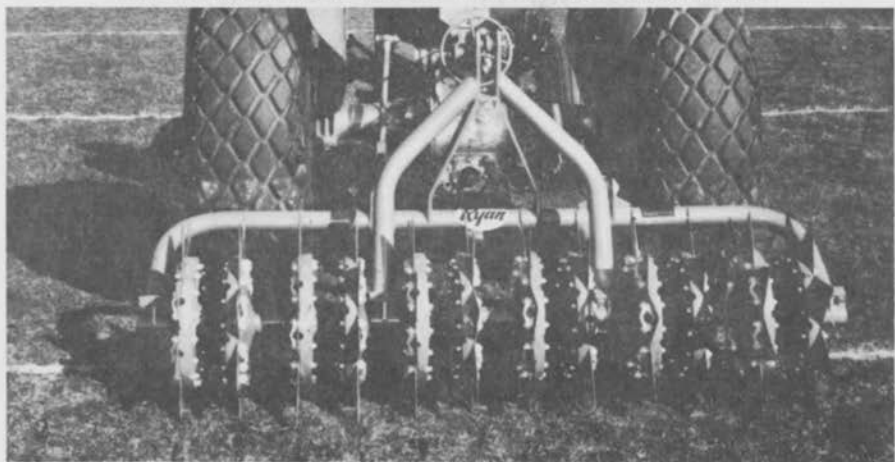
Finally, there is but one factor that can change a soil mixture into a top-dressing soil: TIME. It is too often overlooked.

Composting was known even to gardeners in the early 1700s. It remains of extreme value today. Top-dressing material should be mixed or composted for at least eight or ten

Continued on Page 17



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AREA OWNERSHIP AS AN APPROACH

by ROBERT ADAMS, MSU Student from Birmingham, Michigan
(Former employee under Andy Bertoni and Ted Woehrle)

Summer is just around the corner and with it comes the (re)hiring of summer help. Work crews will soon peak to the traditional average of about fourteen men per eighteen hole course. Keeping in line with tradition, the superintendent will invariably claim that he will be lucky to get an honest six hours of work from a man paid for an eight hour day. Too often one sees a superintendent planning his day so as to arrive back at the maintenance shed three hours after the greensmowers departed for their morning chores, and there finds his "young" workers sitting idle wondering just what there is to do next.

It has always amazed me that the younger workers will admit that when they are idle the day seems never to end. Regardless of this fact, they will sit and wait...and wait until the boss arrives with the day's game plan. Interestingly enough, it can be about as predictable as the outcome of the Lions playing the Vikings. Note: This does leave room for the unexpected.

What does this situation present us with? A conclusion that college help needs to be under continual surveil-

lance? I hardly agree.

The fault lies not so much in the worker as it does in the expectations of the worker. Here, as in many instances, what one expects is exactly what one gets. The fact that the superintendent must appear at ten o'clock every morning to assign the jobs for the remainder of the morning or day only tends to perpetuate this particular malady. Because the superintendent is the center of these reciprocal expectations it is he who must take the responsibility of altering his behavior so as to resolve these inefficiencies.

In suggesting a change in operating procedures one must always have in mind that the change will result in an improvement of existing practices and performance. With this in mind, I suggest that the superintendent reorient his summer help with the following framework as his guide:

The entire course can be divided into four distinct geographical areas. These consist of four to five greens and tees with their accompanying

Continued on Page 14

GOLF DAY

Our Annual Golf Day is fast approaching so Clem Wolfrom, General Chairman of the event, has made his Committee Chairman appointments.

Co-Chairmen - Don Benham and Gordy La Fontaine

Raffle Tickets - George Priestkorn

Golf Carts - Roger and Jerry Gill

Publicity - Gene Johanningsmeier

Tournament - Doug Forier and his brother Dave also Rod Thompson

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Donations - Ward Swanson

Marshalls - Jack Lorenz and Jim Tilley

Beer Committee - Al Kaltz & Walt Trombley

These Chairmen will be looking for assistance on the Committees. If asked to help please accept . . . better yet, volunteer!

We will be starting on the final plans for the event before the first of July. As mentioned many times before, we need the support of the entire membership to make this the success that it should be. If we all sell our share of the raffle tickets we will have no trouble making four or five thousand dollars on tickets alone.

Area Ownership Cont.

traps, trees, water hazards and etc. One worker is assigned to each designated area. This area is HIS responsibility for the remainder of the summer.

The superintendent must outline basically what he expects from his four task members very early in the summer. This includes showing each man the boundaries of his particular parcel of land and those areas that will be of special interest during the summer. A word of caution at this point is needed. Take care in choosing these areas making sure that the areas are relatively equal in the number of traps and trees. Last summer my boss, using a modified approach, and I were amazed to find that one of the partitions contained about three times as many sand traps as the others. This obviously helped explain the employee's often expressed dislike for raking traps.

The fact that greens will be mowed each morning (except Mon.) is the only request that is a universal, day to day

requirement. After this chore is completed what will be performed is dependent, in part, upon the worker's particular area of responsibility and what he deems as needing attention, and also in part upon the wishes of the superintendent.

The communication of such requests are guaranteed by giving each task worker his own "box" where noted from the superintendent can be found. An example can illustrate this important necessity.

Tom may find these notes on Thursday after mowing his greens, "fairway trap on 15 has some washout from sprinkler." And on another slip of paper he might find, "Watch 8 and 12 today for afternoon wilt!" And finally, "Monday cut down elm at 15."

The superintendent will find in his "box" that afternoon Tom's initials on his first note indicating that it has been attended to and a comment on his second note such as, "light syringe on 8 and 12, also did west bank on 13-Tom."

Next Page

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Area Ownership Cont.

Such a communication network will aid in an orderly feedback of information, thus giving a more uniform accounting system. Some days there may be no slips or communications. In this case the worker then continues with his basic outline of tasks.

The superintendent must remember that in granting autonomy he has granted authority and, therefore, he must not disregard his worker's ideas. On any group project consult and employ that member whose area is being worked on. I think he will assume a leadership role in making sure it is done effectively and efficiently because it will reflect upon your evaluation of his geographical area.

The objective of this system is manifold. First it will help to alliviate the "what do I do next" syndrome. Secondly, and by far the most important point, the worker is now an area-owner and is accountable for the progress or failure of his region. This is analogous to the corporate division manager in his quest for increased performance and profitability. Another advantage which must be mentioned is that feedback from the superintendent can now be quite specific rather than a generalized group approval or disapproval. The worker can no longer hide behind the disguise of the group and he knows it. Here the importance of positive constructive feedback can not be overly emphasized.

The model I propose is not applicable in every situation; (1) yet I feel it has many advantages as mentioned above. Once again it is directed to your summer help which consists primarily of college students. By no means is it formulated as a manipulative device. It is surely not a zero-sum resolution. The superintendent benefits as well as does the worker and ultimately this leads to an improved appearance of the course.

(1) The increased use of the triplex greensmower complicates this strategy somewhat; however, a modified approach can still be implemented.

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MAY MEETING

On Monday, May 22, we had the good fortune of being invited to hold our meeting at the plush Country Club of Detroit.

Host Bill Milne arranged for some of the finest weather of the year and topped it off with a real gourmet meal. The food was delicious and the hospitality outstanding.

Touring around Bill's fine course was an experience one seldom gets. The Country Club was groomed to perfection, the turf was beautiful and the trees were in full leaf.

The long range tree program at the Country Club is one of the finest in the country. They have done an excellent job of selecting and placing their specimen trees.

Congratulations Bill, on your fine course.



Left to Right: Charles Chapman, member of CC of Detroit, Dr. Clayton M. Switzer, Associate Dean of Ontario College of Agriculture, Guelph, Ontario, Canada, Bill Milne, host Superintendent, CC of Detroit.

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Top-Dress Greens Cont.

months before it is used on a green. The top-dressing soil should be properly stored (soil sheds are best) and kept dry enough to insure free flow at application time.

Light and Easy Does It

The question of "how much top-dressing and how often" is always good for spirited debate. But with the advent of today's power top-dressing machines, a program of light but frequent application is recommended, and is important. For example, four dressings at $\frac{3}{4}$ cubic yard each are far more effective than two dressings at $1\frac{1}{2}$ cubic yards each. Certainly, a top-dressing should never be so heavy as to bury the grass plant.

Depending upon the size of the green and normal circumstances, an optimum schedule might be one of applying $\frac{1}{2}$ to $\frac{3}{4}$ cubic yards per 5,000 square feet of green on four occasions spaced throughout each growing season. The 'light but frequent' approach allows each dressing to sift into the turf, mingle with the grass, and carry out its many important functions.

Because of the frequency required and the great need for uniformity of application, a power top-dressing machine is an absolute necessity. It will more than pay for itself in any serious top-dressing effort. Hand spreading is of a bygone era.

The use of flat boards, or the back of rakes are needed for the "boarding" operation. They move the top-dressing more uniformly over the surface. The boarding or matting operation must be done very slowly, carefully and in several directions. If it is done rapidly, it does not move the new material uniformly over the turf. Uneven coverage produces irregular surfaces, rather than smooth surfaces.

Aerification and Vertical Mowing?

Aerification and vertical mowing are now considered practically synonymous with top-dressing, but this need not necessarily be the case. Certain aerification will continue to be important for most good putting green turf,

Continued on Page 18

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Top-Dress Greens Cont.

but it need not accompany every top-dressing. In fact, two aerifications annually are generally accepted as standard practice today, unless a special problem exists.

Light or moderate vertical mowing prior to top-dressing (as well as regular mowing) is desirable. However, it is not mandatory. The absence of any of these practices should not be used as an excuse for not top-dressing.

Is It Worth \$500?

Is top-dressing worth the expense? Many of this nation's better golf course superintendents and agronomists firmly believe it is. In fact, there is substantial evidence for believing that a good top-dressing program can reduce other costly maintenance practices. At the same time, it will produce better turf on better greens.

Although cost vary, recent figures in California place the total expenditure of top-dressing 18 greens at \$500 per application. This is an average cost of \$4.50 per 1,000 square feet. Labor as well as material cost are included in the figure.

In Summary

One might say many things for or

One might say many things for or against top-dressing. Some may consider it expensive and labor consuming. It does require advanced planning and organization. Although it does not produce immediate miracles, its long-range benefits are undeniable. But the strange and unbeatable fact is that, as of this moment, no substitute has yet been found for it in the production of high quality turf. And today's golfer expects—yes, deserves—just that! This year top-dress greens and see the difference.

In the heavily populated country of Japan, whose land area is less than that of California, there are more than 600 golf courses, the majority of them having been built during the past fifteen years.

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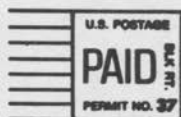
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