



TURF TIMES

WEDNESDAY, SEPTEMBER 14th, 1988

Volume 17 No. 7



A Robert Trent Jones, Sr.
"MASTERPIECE"

3962 WILKINSON ROAD
GAYLORD

This Robert Trent Jones masterpiece will be the site of the Northern Michigan Turf Managers Ass'n's first FUND RAISER for further research and development.

It will be a "shot gun" start at 9:30 A. M. and the game will be, "Better 2 Balls of Foursome". Cost will be \$40.00 per person. Reservations for starting locations must be made by phoning the Pro Shop at 517/732-6711. All tee assignments will be made on first served basis. Since there will be only a limited number that will be permitted to play, it is suggested that everyone get their foursome together and make your reservation. The tournament is open to all members and their guests.

Damiam Kurkowski is the host superintendent and Richard C. Smith, the head professional of this outstanding golf course. Prizes will be awarded at the dinner which is scheduled for 4:30 P. M.

For those of you that have never been to "TREETOPS", after you get to Gaylord, M-32 runs East & West thru the city. On the east side of the city is located Hidden Valley and Wilkinson Road is the first road east of the entrance to Hidden Valley on the north side. Come east on Wilkinson Road until you see the entrance to the Sylvan Resort's "TREETOPS".

FIELD DAY SEPTEMBER 1st.

Michigan Turfgrass Foundation and Michigan State University will hold their annual Field Day at the Robert Hancock Turfgrass Research Center. Registration will be at 9:00 A.M. and you are urged to be on time. Following a morning of inspecting turfgrass plots, lunch will be across the street where the annual auction of equipment will take place.

Our next meeting will be on October 5th, at the Indian River Golf Club, Indian River and will be the 4th ANNUAL TUCK TATE CHAPTER GOLF TOURNAMENT. It is advisable that you mark your calendar and plan on being with us.



NORTHERN MICHIGAN TURF MANAGERS ASSOCIATION

3733 APOLLO DRIVE • TRAVERSE CITY, MICHIGAN 49684 • 616-943-8343

EXECUTIVE COMMITTEE

Thomas Brogger
President

Paul Holmes
Vice President

Jonathon Scott, CGCS
Immediate Past President

Directors

Kimberly Olson
Jeffrey Holmes

Wm. Brent Nelson

Thomas Courtemanche

Damian Kurkowski

Charles Menefee, CGCS

James Oll, CGCS

David Sapp

Robert Steinhurst, CGCS

Past Presidents

Ed Karcheski

C. E. "Tuck" Tate, CGCS

David Longfield, CGCS

Executive Secretary

Thomas Reed

3733 Apollo Dr.

Traverse City, MI 49684

Phone 616-943-8343

Editor

C. E. "Tuck" Tate

P.O. Drawer 472

Frankfort, MI 49635

Phone 616-352-4398

Michigan State's TGIC Ready For Use

Superintendents have long relied on professional resources like GCSAA's Education Program and *Golf Course Management (GCM)* magazine for the information they need to solve problems. But, until now, locating and sorting through all the available information accumulated over the years on a given technical topic could consume more time than today's busy superintendent could conveniently devote to the search.

Now, a service designed to make a comprehensive search for information faster, simpler and more convenient is ready for use. The Turfgrass Information Center (TGIC), a jointly sponsored effort of the USGA and Michigan State University, is available to superintendents, researchers and others with an interest in turfgrass management.

TGIC collects, indexes and abstracts published materials on thousands of turfgrass-related subjects. That information is then stored on a computerized data base where it can be accessed for use.

Access is the key advantage of the new service. Turfgrass managers and other users may request information on a subject by calling or writing TGIC and providing a short description of the topic of interest. For the ultimate in fast response, if the user has an IBM-compatible computer and a modem, he or she can *directly* access the Turfgrass Information File (TGIF) data base by

telephone lines.

The information in TGIF is indexed by author, subject, source and date of publication. Keywords, like "Fusarium" will stimulate a large volume of "hits," or responses, when the computer searches the massive file. By narrowing the search with specific keywords and other factors, the user can find the reference resources he or she needs.

Each file contains general index information and a short summary abstract describing the contents of the article. At the end of the search, the user will have a list of articles and other materials that pertain to the topic. The next step, going out and finding the specific magazines and other texts listed, is up to the user.

The service is available to USGA-member clubs, GCSAA-member superintendents and other qualified users. Annual fees range from \$75 to \$150 per calendar year for superintendents. Some special services will mean additional charges.

For a comprehensive look at how to use the TGIC and TGIF, consult the interview with Peter Cookingham, TGIC project manager, that began in the July issue of *GCM*.

For details on the service, contact: Turfgrass Information Center, W-212 Library, Michigan State University, E. Lansing, MI 48824-1048; 517/353-7209. ■

Newsline August 1988

GCSAA MEMBERSHIP TOPS 8000

August 15, 1988 news release from headquarters indicated that the active and visible role in golf -- coupled with a vigorous and effective recruitment program -- is helping to pay dividends via a dramatic increase in membership. This month, GCSAA's rolls officially exceeded 8,000 for the first time in the association's 62 year history.

Timothy Robert Sever, golf course superintendent at Sugarmill Woods Country Club of Homosassa, Florida, became the 8,000th member.

With the 60th anniversary rendition of GCSAA's Golf Course Conference and Show at Anaheim, California, it is suggested that you N.M.T.M.A. members that are not a member of the national, reconsider joining now. This is the first big step in professionalism, be associated with an international organization.

GROOMING REEL GUIDE

by Helmut Ullrich, The Toro Company

1. Introduction

As you know, grooming is an old technique, but the "groomer" is relatively new. It is associated with the golfer's desire for faster, truer and healthier greens. There has been much discussion among superintendents, and articles have been written in trade publications concerning the actual benefits this tool provides. Because this management practice is so new, there has been little, if any, scientific research conducted to determine the long-term effects of grooming. It is difficult, therefore, to make precise recommendations on the use of a grooming reel. This is further complicated by the many variables which play a major role in achieving desired results. Some of the variables which must be considered are:

- General condition of the green
- Variety of grass on the green
- Season of the year
- The turf-management program
- Variation in traffic
- Stress periods, especially heat and humidity

All of these vary from golf course to golf course, and usually from green to green on the same course. The use of the grooming reel, therefore, requires a thorough understanding of agronomic aspects of the turf on the green which, in turn, determines the depth of setting and the frequency of use. It is recommended strongly that the superintendents experiment S-L-O-W-L-Y to achieve best results.

- Grooming, in essence, removes more leaf area.
- Grooming provides some of the same benefits as verti-cutting. The main difference is that the cutting blades are spaced closer than on traditional verti-cutters, and the grooming reel is used more frequently.
- The more frequent use removes more grass and helps to control thatch build-up, especially during periods of maximum growth. For this reason, care must be exercised during periods when grass growth is reduced — for whatever reason.
- Grooming, in addition to routine turf management techniques, like aerification and topdressing, may permit one to raise the mowing height without sacrificing green speed.
- By maintaining a higher cutting height, the effective rooting depth of the turfgrass is increased and the grass is in a more healthy state. Also, it is better able to withstand wear, as well as environmental stresses.

2. What a Grooming Reel Does Not Do

- Grooming is not verti-cutting in the traditional sense; it is for the use above soil level. It is similar to light verti-cutting. It provides for a frequent cutting of those elements that contribute to grain.
- Grooming has the potential to replace verti-cutting, depending on the overall management program.
- Verti-cutting will continue to be used for deeper penetration into the soil, for renovation purposes or preparation of overseeding.
- Grooming does not necessarily achieve, in all cases, increased ball speed. Ball speed is dependent on other factors, i.e., height of cut, frequency of cut, the number of daily mowings, health of turf, grass variety, etc. Some of these factors may make a bigger impact on ball roll than grooming itself.

GROOMING REELS

- Grooming can cause adverse effects, if used too frequently at aggressive settings (especially during environmental stress periods, i.e., heat, high humidity or traffic).

3. Grooming Reel Adjustments

A word of advice on grooming reel adjustment procedures. When adjusting a grooming reel, the following steps are recommended for optimal results:

First: Set the desired height of cut.

Second: Set one grooming reel in raise/disengage position. Set one flush with the rollers and set one 1/32-inch above the height of cut.

Third: Make several passes, preferably over the practice green or nursery, before using the unit on a regular green.

Fourth: Judge the amount of grass in the basket of number one, two and three, and readjust accordingly.

Fifth: Visually inspect the results and decide which setting to use for the best job. Make further adjustments if necessary.

Sixth: Set all grooming reels to the same desired depth.

CAUTION: A 1/32-inch depth setting can make a very substantial impact on grass removal and, more importantly, on the severity of grooming.

The user must be aware that the groomer may cause adverse effects if used frequently at an aggressive setting. This is especially true during environmental stress periods, i.e., heat, high humidity or heavy traffic.

In summary, the grooming reel may be the best tool available to the superintendent for managing the greens precisely and in accordance with the desire of the golfer. However, timing, frequency of use and depth of setting must be managed properly!

Credit: Bull Sheet

Insecticides Improve Lovelife

Editors Note: This is a reprint from a Dear Abby column of August 31, 1974. See your local distribution for info on where to purchase materials.

DEAR ABBY: I'd like to know if there is anything in insecticide that could excite a man.

Arthur is 55 — just the age most men start to slow down, but he's still going strong. He gets especially aroused right after he sprays our property for bugs.

I noticed it last year when we moved into this house. We had ants and roaches, and right after Arthur sprayed he started looking for me. He would get so passionate that he didn't care if I did my housework or even cook. Last year was bad enough, but this year it's worse. On weekends he sprays sometimes two and three times a day. It's really getting me down.

We live in Florida. What brand of bug bomb will kill the bugs down here without bringing out my husband's manhood so strong?

He uses Raid, TNT and Rid-a-bug, and they all have the same effect on him. The brands that don't affect him don't have any effect on the bugs either. Please help me. **TIRED.**

DEAR TIRED: My chemical experts know of nothing in any brand of insecticide that will rejuvenate the wanting desire of man. If there were, we'd have a lot more dead bugs, livelier husbands and tired wives. □

SOIL FOR TURF FACILITIES

by Dr. Gene C. Nutter, Agronomist

In the operation of modern turf-grass facilities, more problems are caused by improper physical condition of soil than probably any other single factor. While other symptoms may be more readily recognized and treated (such as disease, compaction, poor aeration, weeds or fertility problems), the real and underlying cause is usually poor soil physical conditions. It is time that we recognize this basic fact so that we can begin to cure the real problem and stop the never-ending, expensive job of just treating the symptoms.

True, most superintendents and managers of turf facilities inherit their soil problems. How sad it is, however, to see the great number of new facilities (including expensive and complicated golf course greens) that still ignore the importance of proper soil conditions, including surface and internal drainage, soil preparation, and use of amendments and soil conditioning. Certainly there is enough information available to guide the planners and contractors of these jobs in this age of technology.

Why, then, does our industry continue to make these inexcusable and expensive mistakes? As long as we continue to follow this course of extravagant ignorance, we will be burying our heads further in the sand instead of advancing our individual courses, our profession and our industry image.

What are the basic aspects of soil management that seem to be so often overlooked or ignored? First, let us consider the origin of soil.

Soil Origin

In its natural condition, soil is a complex mixture of mineral fragments, decayed plant residues and microscopic organisms. Each of these classes of ingredients have their influence on the nature of the soil. As a natural body, soil developed through a constantly changing pattern which was greatly dependent upon environmental conditions such as temperature, rainfall, plant life and location.

For the majority of cases, the native soil is most influenced by the mineral fraction (called parent material). These soils are called mineral soils. Parent material may have developed from underlying rock formation, or been transported by ice (glacial soils) or water. Thus, soils which developed from rocks through the age-long process of weathering will have properties akin to those kinds of rock. Examples are the heavier, more complex mineral soils such as clays. Usually these soils are more difficult to manage physically (poor internal drainage and aeration) but are richer in fertility potential (will hold more nutrients).

On the other hand, soils which were laid down from water deposits — such as sands, would reflect a lighter, simpler structure. These soils (such as our various Florida sands) are easier to manage physically (better drainage and aeration) but have much lower fertility capacity.

Then there are organic soils, derived from decayed plant residues. These are the muck soils of the rich Everglades region, and the peat deposits scattered around the state.

Native vs. Artificial Soils

If we were farmers, we would be growing crops on one of the types of native soils mentioned above. We would gather information about the nature of our particular soil from state and federal soil scientists who had surveyed, studied, classified and mapped the major soil formations in every county in Florida (and likewise most other states). This information would provide guidelines as to the physical condition and fertility status of our particular soil, and this information would guide our crop production practices.

However, turf managers are not farmers — and, with few exceptions (sod producers, perhaps), they are not growing turf on natural or native soils. Instead, they are managing turf facilities which were built by a mass mixing of soil, through excavation, fill, grading and leveling processes. For example, housing projects, apartment complexes, golf courses, athletic fields and highway sites have gone through mass movements of "dirt." When finally completed there usually is no resemblance between the resultant "dirt pile" and the original native soil profile that occurred on that same site.

What does this mean to us practically? It means simply that you have to throw the "book out the window" and start over. None of the previously compiled information of soil scientists applies. It could be that the original soil was improved (richer soil hauled in), but usually it works the other way. Often, damaging foreign material is mixed in (debris, chemical deposits, etc.).

Another serious problem is that the mixing process was not uniform and therefore there is much greater variability in the final soil material. This is why we find "spotty" conditions in our turf from area to area. The grass is reflecting the "spotty" soil conditions underlying. In short, all of these factors mean that turf soils are more difficult to manage!

Where do we go from here? Good turf managers have learned the vital importance of proper soil conditions to the success of grass production and maintenance. Therefore the problem is simple. By carefully studying and evaluating the soils you inherit, you can then go about an intelligent soil management program. For intensively managed turf areas (such as putting greens, tees, athletic fields, etc.) you may need to improve that inherited "dirt pile" by the use of soil amendments. We know generally, for example, that heavy, mucky soils can be improved by the addition of coarse sands; or that infertile, ball bearing sands may become more productive by the addition of heavier soil fractions like clay or organic matter such as peat.

Soil Amended to Improve Physical Condition

But just a minute! What really are we doing when we add the above soil amendments (and many others — natural processed or manufactured)? First and most importantly, we are changing the physical condition of the soil.

The management of turf facilities imposes unique and damaging requirements on the turf. Heavy traffic, continuous wear, regular movement of maintenance equipment, high rates of irrigation — all these factors work to destroy soil structure. Thus,

(continued on page 5)

SOIL FOR TURF

(continued from page 4)

turf soils must be constructed (remember — no more natural soil, so we must construct a usable soil base from that inherited "dirt pile") to take the punishment and still grow good turf.

Here is where the soil amendments come in — to change the inherited soil to a more desirable physical condition. Briefly, to produce good turf under our demanding conditions, soils must have proper pore space. There must be pores to move water through the soil and pores to move air so the grass can "breathe." Approximately half of the soil is made up of solids (the mineral matter plus a small amount of organic matter). The other half is pore space.

Pore space is of two kinds — large (macro) pores and small (micro) pores. Air moves into the soil (and harmful gases move out) through the large pores, except after a heavy rain or irrigation. Then they may be filled with water temporarily, which soon drains out. This is the ventilation system which aerates the soil. The large pores should comprise about half of the total pore space.

Small pores (also called capillary pores) move water through the soil. These pores conduct water to the grass roots (not the opposite — roots don't "grow to water" — water must be there first), from the water table, like a kerosene "hurricane" lamp moves kerosene up through the wick. The finer the pores, the farther the water will move, and the slower.

Proper Balance of Large and Small Pores

The most important aspect of soil porosity is the proper balance between the large and small types of pores. An excessive proportion of large pores will result in a well aerated but dry soil (like most of our sandy soils). Water will move through (percolate) too rapidly and very little will be retained to grow turf. An excessive proportion of fine pores, on the other hand, will exclude air and may be waterlogged (like heavy clay soils).

Thus, once we have determined our given soil situation, and knowing the physical requirements of our turf facility (percolation rates, drainage, etc.), we can then amend the soil to meet our requirements. A great variety of soil materials are available to do this including calcined clay, vermiculite, peat, colloidal phosphate, sand, etc.).

If we are fortunate enough to take over the turf facility prior to planting, we have a golden opportunity to shape our future soil condition. If we inherit an established facility, the job is more difficult, expensive and time consuming. It can be done gradually, however, by periodically working proper amendments into the soil as topdressing following soil aeration.

The proper proportion of amendments can be determined by a soil testing procedure known as "mechanical analysis." Many soil testing laboratories and industrial firms can provide these tests, and will help you compound or construct a soil to meet your needs based on such factors as percolation rates, etc.

Once you have amended your soil to a proper physical condition, then the previously mentioned secondary symptoms such as compaction, weeds, restricted roots, etc., will be minimized. Then turf maintenance will be a more enjoyable and successful business.

THE BEST MEMORY SYSTEM

Forget each kindness that you do
As soon as you have done it;
Forget the praise that falls to you
The moment that you have won it;
Forget the slander that you hear
Before you can repeat it;
Forget each slight, each spite, each sneer,
Wherever you may meet it.

Remember every kindness done
To you whate'er its measure;
Remember praise by others won
And pass it on with pleasure;
Remember every promise made
And keep it to the letter;
Remember those who lend you aid
And be a grateful debtor.

Remember all the happiness
That come your way in living;
Forget each worry and distress,
Be hopeful and forgiving;
Remember good, remember truth,
Remember Heaven's above you,
And you will find through age and youth,
That many hearts will love you.

Biological Control Of Fairy Rings

The most common cause of fairy rings in turgrasses is *Marasmius oreades*. All isolates of this fungus are antagonistic to each other. (Have you noticed that fairy rings never overlap?) Biological control is based on this mutual antagonism. The steps in control are:

1. Strip the sod from two or more fairy rings.
2. Rototill the soil beneath the rings.
3. Collect and then thoroughly blend the dense white "spawn" from under the rings.
4. Spread the blended spawn back over the soil under the rings.
5. Rake or rototill the spawn into the top several inches of soil.
6. Rake or roll the soil level.
7. Replace the sod and water thoroughly until it is established.

This biological control for fairy rings is superior to the "masking" of symptoms by deep coring followed by: (1) a recommended nitrogen plus iron fertilization program, and (2) saturating the soil in the green outer ring, up to 24 inches deep, using a tree-feeding lance or root-feeder attachment on a garden hose. Keeping the soil more or less saturated for several weeks is suggested since fairy ring fungi are severely inhibited in high-moisture soils. Also remember that there are NO chemicals that will kill out fairy ring fungi in the soil without killing the grass when it is left in place during treatment.

Facts and Fallacies of Fast Greens

by James T. Snow, Director
Northeastern Region USGA Green Section

In retrospect, the introduction of the Stimpmeter by the USGA in 1976 forshadowed major changes for the way golf courses are maintained and for the way the game itself is played. By enabling golf course superintendents to easily determine the speed of greens, the Stimpmeter has greatly expanded our understanding of how maintenance practices can be manipulated to control green speed. As a result, golfers at every level throughout the country are enjoying faster, truer putting surfaces on a day to day basis than ever before.

While their greens have been fast and smooth, however, the road that the superintendent has been forced to accommodate these changes has occasionally been slow and bumpy. Interested but uninformed golfers and club officials have placed heavy pressure on the superintendent to produce consistently ultrafast greens at their courses, testing the limits of the health of the turf and sometimes pushing it over the edge. Along the way, rumors and misinformation have pervaded every locker room with respect to how fast the greens should be, how to get them that way, and what might happen if they're pushed too hard.

One of the indisputable facts today is that greens are generally faster than they were only a few years ago. A national survey done by the USGA Green section in 1976 showed that the average green rolled approximately 6 feet 6 inches according to the Stimpmeter, whereas the average green today is probably closer to 8 feet. It's also a fact that most golfers have short memories. Though greens are faster than ever, complaints about slow greens are more common than ever.

So how fast is fast? In my view, the following offers a reasonable perspective on the subject.

- Fast for regular play 8' to 9'
- A reasonable range, 7'6" to 9'
- Ultra-fast for regular play, above 9'6"
- An unreasonable range, above 9' at all times

Due to the vagaries of the weather and other circumstances, it is impossible to maintain a precise green speed throughout the year, but maintaining speeds between 7'6" and 9' should be feasible. Speeds of 9' should be established only for special occasions. Trying to keep green speeds above 9' at all times, as desired by some golfers, often results in serious problems and should be avoided.

Paying the Piper

Achieving fast greens has been well studied and involved proper mower maintenance and adjustment along with the manipulation of cultural factors such as fertilization, irrigation, topdressing, verticutting, rolling, etc. To achieve ultra-fast greens, all of these programs must be pushed to the limit. In the process, extreme stress is placed on the turf and jeopardizes its very survival during periods of difficult weather. If a goal of maintaining fast or ultra-fast greens throughout the season is ever to be achieved, then a real effort must be made to control or minimize other stress factors as much as possible.

These include:

- poor drainage

FAST GREENS

- moisture stress due to a poor irrigation system or improper irrigation practices
- soil compaction
- diseases, insects and nematodes
- unreasonable traffic (e.g., play during bad weather, winter play, etc.)
- tree effects (shade, root competition, poor air circulation)

Despite efforts to control these stress factors, however, following through with all of the practices necessary to produce consistently fast or ultra-fast greens can thin and weaken the turf to such an extent that many undesirable consequences can occur. Among the problems observed:

- establishment of moss and algae
- encroachment of crabgrass, goosegrass and other weeds
- proliferation of summer patch, take-all patch and other difficult to control stress related diseases

Trying to maintain consistently ultra-fast greens means always living on the edge of disaster, and once golfers become used to these fast greens, they expect them to be that way all of the time. The superintendent is then locked into a maintenance program which at best will make him a nervous wreck, but which ultimately could spell disaster. In the end, the piper will be paid!

Recommendations

- Try to keep the speed of your greens in the reasonable range of 7'6" to 9'. Aim for the 8' to 9' range if you wish but recognize that green speeds will vary from day to day and season to season.
- Avoid getting caught up in the race for ultrafast greens, striving for speeds of 9'6" only on very special occasions, if at all.
- Explain to your club officials about the potential consequences of trying to maintain consistently ultra-fast greens.
- Be on the lookout for the symptoms of weakness noted earlier, and be prepared to compromise your green speed goals in an effort to strengthen the turf.

In the long run, the game of golf will be best served by taking a reasonable approach to managing green speeds, avoiding the excesses which can only result in dead grass and unhappy golfers.

OUR COLLABORATOR, June 1988

There are only two stimulants to one's best efforts--the fear of punishment and the hope of reward. When neither is present, one can hardly hope that people will want to be trained or want to do a good job. When disappointment is not expressed that one hasn't done a better job, or when credit is withheld when one has done a good job, there is absolutely no incentive to put forth the best effort.--John M. Wilson

USGA Recommendations Regarding Hole Locations

The USGA frequently receives requests for guidelines with respect to selection of hole locations on the putting greens, particularly during competitions.

The USGA believes that many factors affect selection of hole locations. The first and most important is good judgment in deciding what will give fair results. Do not be tricky in locating holes.

Following are specific points:

(1) Study the design of the hole as the architect intended it to be played. Know the length of the shot to the green and how it may be affected by the probably conditions for the day — that is, wind and other weather elements, condition of the turf from which the shot will be played, and holding quality of the green.

(2) There must be enough putting green surface between the hole and the front and the sides of the green to accommodate the required shot. For example, if the hole requires a long iron or wood shot to the green, the hole should be located deeper in the green and further from its sides than should be the case if the hole requires a short pitch shot.

In any case, it is recommended that generally the hole be located at least five paces from any edge of the green. If a bunker is close to the edge, or if the ground slopes away from the edge, the distance should be greater, especially if the shot is more than a pitch.

Consideration should be given to fair opportunity for recovery after a reasonably good shot that just misses the green.

(3) An area two to three feet in radius around the hole should be as nearly level as possible and of uniform grade. In no case should holes be located in tricky places, or on sharp slopes where a ball can gather speed. A player above the hole should be able to stop the ball at the hole.

(4) Consider the condition of nearby turf, especially taking care to avoid old hole plugs which have not completely healed.

(5) Holes should be cut as nearly on the vertical as possible, not plumb with the contour of the green.

(6) There should be a balanced selection of hole locations for the entire course with respect to left, right, central, front and back positions. For example, avoid too many left positions with resulting premium on drawn or hooked shots.

(7) For a competition played over several days, the course should be kept in balance daily as to degree of difficulty. In a stroke competition, the first hole of the first round is as important as the last hole of the last round, and so the course should not be set up appreciably more difficult for any round — balanced treatment is the aim. An old concept of making the course progressively harder round after round is fallacious. One form of balanced daily treatment is to select six quite difficult hole locations, six which are moderately difficult, and six which are relatively easy.

(8) During practice days before a competition, locate holes in areas not to be used during the competition and which will not result in areas to be used being impaired by foot traffic.

(9) Anticipate the players' traffic patterns. Locate holes for early rounds so that good hole locations for later rounds will not be spoiled by players leaving the green.

(10) In match play, a hole location may, if necessary, be

changed during a round provided the players in each match play with the hole in the same location.

In stroke play, rule 33-2b requires that all competitors in a single round play with each hole cut in the same position, but see Exception to that Rule.

When 36 holes are played in one day, it is not customary for hole locations to be changed between rounds, but there is no Rule to prohibit changing them. If they are changed, all players should be informed.

(11) The greenkeeper who cuts the holes should make sure that the Rules of Golf are observed, especially the requirements that the hole-liner not exceed 4¼ inches in outer diameter and that it be sunk at least one inch below the putting green surface.

PROFILE OF A SENIOR

WHO is a Senior Citizen? WHAT is one???

A Senior Citizen is somebody who was here before, the Pill and the Population explosion. We were here before television, penicillin, polio shots, antibiotics, and frisbees. Before frozen food, nylon, dacron, Xerox, Kinsey, radar, fluorescent lights, credit cards, and ball point pens. For us time sharing meant togetherness, not computers; a chip meant a piece of wood, hardware meant hard wear, and software wasn't even a word. Coeds never wore slacks. We were before ice makers and dishwashers, clothes dryers, freezers, and electric blankets. Before Hawaii and Alaska became states. Before men wore long hair and earrings, or women wore Tuxedos. We were before Leonard Bernstein, yogurt, Ann Landers, plastic, the 40 hour week and the minimum wage. We got married first and then lived together. How quaint can one be? Closets were for clothes, not for coming out of, bunnies were small rabbits, and rabbits were not Volkswagens. We were before Grandma Moses and Frank Sinatra and cup-sizing for bras. Girls wore Peter Pan collars, and thought cleavage was something butchers did. We were before Batman, Rudolph the Red Nosed Reindeer, and Snoopy. Before DDT, vitamin pills, disposable diapers, Q. Elizabeth One, Jeeps, the Jefferson Memorial - and pizza, Cheerios, instant coffee and decaffeinated anything, McDonald's was unheard of. We thought fast food was what you ate during Lent. We were before Boy George, J.D. Salinger, and Chiquita Banana. Before FM radios, tape recorders, electronic typewriters, word processors, MUZAK, electric music, disco dancing and that's not all bad!

In our day cigarette smoking was fashionable, grass was for mowing, Coke was a refreshing drink, and pot was something you cooked in. If we'd been asked to explain CIA, Ms., NATO, UFO, NFL, JFK, ERA or IUD we'd have said alphabet soup.

We are today's SENIOR CITIZENS, hardy bunch when you think of how OUR world has changed, and the adjustments we've had to make!

Elinor Hass

Reprinted from KEEN-AGER NEWS, Chicago, IL, Monthly Senior Service, Catholic Charities.

SUPERINTENDENT POSITION AVAILABLE

The job of superintendent at McGuire's, 27 hole golf course is now open and resumes are being accepted. This course has a Toro Hydraulic Irrigation System, bent greens, bluegrass fairways and fescue roughs. Benefits include hospitalization, life insurance with pension plan and vehicle. Salary will be based on experience and education. Anyone interested, please contact Mr. Jim McGuire, McGuire's Resort Center, Mackinaw Trail, Cadillac, Michigan 49601. Phone: 616/775-9947

DR. KEN PAYNE'S REPLACEMENT

After about six months of searching for a replacement for Dr. Ken T. Payne, the Department of Crop & Soil Sciences has had Dr. John N. Rogers III, come aboard on August 15, 1988. Dr. Rogers comes to M.S.U. from Penn State. Further details on his background will come in a later edition of this newsletter. Those of you attending Field Day at M.S.U. will have an opportunity to meet Dr. Rogers.

SEMINAR AT LANSING OCTOBER 27-28, 1988

Michigan & Border Cites G.C.S.A. & GCSAA proudly announce GOLF COURSE RESTORATION, RENOVATION & CONSTRUCTION PROJECTS SEMINAR at the above dates. The two day program will discuss the challenge of improving a golf course, whether it involves restoring a hole to its original design, solving a maintenance problem or improving the playability of the entire course. A series of case histories will be presented to describe the responsibilities of the architect, contractor and superintendent in the design and construction processes. Whether you are involved in golf course restoration, renovation, general construction projects or the creation of unique designs, this "how to" course will provide you with techniques to improve your golf course and simplify maintenance chores.

The registration fee includes a luncheon on both days of the seminar and take home reference material. Registrants taking and passing the examination at the conclusion of the seminar will earn two Continuing Education units (CEUs) and a certificate of achievement from GCSAA.

It will be held at the Sheraton Inn, Lansing. Instructors are Brian M. Silva, Golf Course architect with Cornish and Silva, Inc. and Robert M. Lohmann, President, Lohmann Golf Designs, Inc. To register, please call GCSAA at 1-800-472-7878. Use the same number for further information. This seminar will fill very fast so please act now.

POSTCARDS

Normally every member receives a postcard which we like you to send in stating that you will or will not be coming to our next meeting. This time, there will be no postcard because every one participating will make their reservations by calling the Pro shop at "TREETOPS". If you do not play golf and wish to come for the dinner and meeting, you will be advised of the charge when you get there. This should be the meeting when the new Directors are elected to serve the Association for 1989. We do hope that you will get a foursome together quickly and call 517/732-6711 for the location of the tee that you will meet on.