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

DICK TREVARTHAN, Editor 122 Evergreen Drive Frankfort, Illinois 60423

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### M.A.G.C.S. OCTOBER EDUCATIONAL REPORT

The topic "Preparing Your Course For Winter" was thoroughly discussed by a panel of Golf Course Superintendents at the October meeting.

The distinguished panel members, Ray Gerber, Peter Bild, Ed Wollenberg, Mike Bavier, and John West, all gave a report covering the preparation of their courses for the winter months. Then the session was opened to the audience for questions and discussion.

Some very important points and observations brought out by the panel were:

- Make last fertilizer application no later than late September to allow turf to harden off for winter.
- Aerifying, spiking, verti-cutting, should be done in early fall so holes or slits will heal over before winter sets in.
- Before draining irrigation system for winter, water all turf well.
- While irrigation lines are still under pressure, crack all drain valves to see if they are functioning, before draining system.
- Topdressing applied very late in fall will help to protect turf from winter damage.
- Spray for snowmold as late as possible so a late fall rain will not wash it off.
- If placing straw, brush or plastic on greens, for winter protection, apply a fungicide first. Then follow up with brush or straw after the ground is thoroughly frozen.

Other questions and observations raised by the audience were:

- Be sure potassium levels are adequate in turf, before going into winter.
- Anti-Desiccant materials did not seem to prove helpful in combating winter desiccation in 1969.
- 3. Can irrigation systems be installed below the frost line so they can be activated during winter dry spells?

The general feeling of the panelists and the audience were that, winter desiccation seems to be more of a problem now than in years past. It appears that thatched turf suffers desiccation the most.

Could our stepped up fertilizer programs to combat turf wear from heavy play, and heavy and continuous play not allowing us enough time to apply proper cultural practices, be the partial cause of our winter problems?

Submitted by Ted Sokolis



# The President's Message

For the past year it has been my privilege to write the President's Message. In this last message which will appear on about the eve of my termination in this office, I would like to express my gratitude to the board that has worked with me.

Also the many members, in one way or another, who expressed their appreciation for what I have written that greatly encouraged me to continue to write a message every month. It was these pleasant comments that made this past year one I will always remember, and overshadow the things I would like to forget.

Looking back on the past year, I sometimes wonder how I had the courage to accept the presidency—being in a position to konw my capabilities better than anyone else. But then I guess whatever you do in this world takes courage. No matter what course you decide upon, there is always someone to tell you you are wrong. And there are always difficulties arising which tempt you into believing that the critics may be right.

To decide upon a course of action and follow it to an end requires courage. And there is no important decision or day of life that doesn't require some sort of courage. It takes courage to be different, to side with someone who is unfairly abused, or to befriend someone who is a popular disfavor, or to speak out in favor of an unpopular proposal. But then anyone who stands for anything, who says anything, who does anything that amounts to much, must face the critics — and that requires courage. Life itself with every important decision, requires courage.

I am really not sure that I have any courage at all, and would like to believe that because I like people, I have been accepted by you. And because of our vocation and professional ability, we owe each other much. Even if for little else, we owe something to each other for the privilege of companionship. Oh, I know we have caused problems for each other at times. But virtually all people disappoint us at times (as we even disappoint ourselves.) But despite faults and imperfections all of us need each other. For better or for worse, constructively or otherwise, we all play our part. And in all this give and take, this appreciation and disappointment, what do we look for?

Speaking for myself, I am concerned about the importance of "balance". Balance for the association of which you and I are a part. I think this viewpoint is seldom if ever stressed enough. Nonetheless, balance is needed.

Look into the region of nature and you will see this clearly. There must be balance between rainfall and sunshine if turf is to grow and thrive. By introducing a new species in order to control other species, we have occasionally found ourselves in a state worse than the first. In the soil there must be a balance between alkaline and acid — tipping the scales in either direction could prove to be unheatthy.

Balance. Let's not forget it. There may be something else you have forgotten to put on the scales.

I am sure it is worth a second look.

And now, if you would remember with any kindness the man who wrote this column for the past year, remember he was very concerned about the continued success for all of you and the Midwest Association of Golf Course Superintendents.

Ed Wollenberg, President

### WINTER FEEDING OF LAWNS

by Robert W. Schery Director, The Lawn Institute

Today we are experiencing something of a fad with winter survival lawn fertilizers now being made by several lawn product suppliers. These are excellent fertilizers but the name implies that survival of the lawn through winter is dependent upon a particular formulation of nutrients which makes the lawn more tolerant of cold. The familiar varieties of Kentucky bluegrass, fine fescue and bentgrass are quite hardy without this, however, except possibly in Alaska and the northernmost reaches of the Plains States. However, research does indicate that some of the southern grasses can be made slightly more resistant to cold by increasing their regimen of potassium but, even then, the added tolerance is a degree or two and is usually overshadowed by the wild fluctuations winter weather brings.

This is not to say that there won't be some difference in cold tolerence between kinds of grass and between varieties of them. At the Lawn Institute we have experienced winter demise of one bluegrass introduced from the eastern Mediterranean but never loss, due to cold, of any of the conventional domestic and north European varieties. The same is true of the fine fescues and bentgrasses such as Highland or Penncross, the other main cool season lawn species. It is primarily for these grasses that the special winter fertilizers are advocated, since hardiness with southern grasses is so much more related to climatic vagaries than a

fertilization program.

Research relating winter performance of lawngrasses to fertilization has received some special emphasis at both Michigan State University and Virginia Polytechnic Institute. The conclusions are not entirely in agreement, explainable largely by the climatic differences in the two states. I grew up in a border state, Missouri, and can quite agree with the Virginia conclusions for the sourthern portion of the bluegrass belt. Without getting involved in the details and qualifications, the Virginia position is basically one of generous high-nitrogen fertilization in autumn but light feeding in warm weather.

It is felt that nitrogen, as the chief growth-promoting nutrient for grasses, is best utilized at colder times of

the year when accrual of food, through photosynthesis, exceeds its exhaustion, through respiration and forced growth. It is recognized that for cool-season grasses, food-production tails off as temperature gets much above 80° while food use intensifies, thus creating a metabolic deficit. There is no evidence that in this climate familiar lawngrasses are any more likely to be lost in winter when fertilized heavily rather than lightly with nitrogen.

Dr. Beard, in Michigan, has run elaborate experiments in cold chambers, demonstrating certain differences between grasses in tolerance of cold which vary somewhat with ice cover, slush and so on. Highlight and Pennlawn varieties of fine fescue have winterkilled significantly less in northern Michigan than Common and Olds, for example, and bentgrass has

been more durable than annual bluegrass.

In lawns, however, all grasses survive well at the usual soil temperatures. Nevertheless, the researchers do seem to feel that there is some advantage in not having nitrogen disproportionately high vis-a-vis phosphorus and particularly potassium, when readying a turf for winter. Dr. Gilbert at North Carolina finds this to be the case at the northern limits of the bermudagrass range, also. It is not necessarily a question of resistance to cold in the North but a multiplicity of factors. Studies by Dr. Goss in western Washington, a much milder climate than Michigan, show that winter diseases may have considerable influence upon turf quality and that higher proportions of potassium may prove helpful. Balanced fertility seems to be more the need than growth stimulation.

Obviously, the usefulness of special winter fertilizers depends upon many factors. Perhaps, the situation can best be summed up by noting that balanced fertility is advantageous so far as the general tone of a lawn is concerned and, that depending upon local soils, climate and amount of nitrogen previously used there can be some balancing advantages for winterfertilizers containing increased proportions of phosphorus and potassium. They are seldom critical for survival of the proven bluegrasses, fescues and bent-grasses, however, and, indeed, towards the southern limits of the bluegrass belt might be as appropriately

used in summer as in winter.

In the original 48 states one hardly need fear use of the familiar high-nitrogen fertilizers in autumn. Rather, I would recommend generous fertilization in September and October, for bluegrass, fescue and bentgrass lawns with either a conventional or a winter formulation (this latter especially where nitrogen has been used alone previously). Certainly color and good looks are enhanced in autumn and through winter by seeing that the lawn has ample nitrogen for all its purposes.

At this particular season, of course, we are reaping the benefits, or lack thereof, of what we did last fall. More important, now, we should turn our attention to either winter feeding for early spring benefit or early spring feeding for the same purpose.

### Reprinted from HORTICULTURE

### IN APPRECIATION

I would like to thank Mr. Lee Record, Mr. Stan Rachesky and Mr. Fd Wollenberg for their monthly columns, along with many others who contributed in 1969.

Merry Christmas and a Happy New Year to all members and their families of the MAGCS.

Editor, Dick Trevarthan

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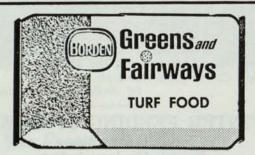
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Mechanic	23 yes 10 no 2 part-time 1 foreman- mech.	\$8,400 / \$9,000 ave. \$8,700 \$2.40 / \$4.50 ave. \$3.45	9 full 15 none 11 up to 70% 1 begins in Jan.	34 none 1 - 20 yr. @ 65 1 - 10 yr. @ 65	19 yes 14 none 3 members contribution \$25 - \$500 ave. \$163	34 none 2 yes
Permanent Laborers	35 yes 1 no 1-7 men ave. 3 men	\$1.75-\$3.00 / \$2.10-\$3.75 ave. ave. \$2.46 \$2.89	9 full 10 none 16 33%-50% 1 begins in Jan.	34 none 1 - 20 yr. @ 65 1 - 10 yr. @ 65	25 yes 7 none 4 members contribution \$200-\$650 ave. \$168	31 none 5 yes (1 with meals) (2 1 man only) (2 Mexican Labor)
Seasonal Laborers	36 yes 2-13 men ave. 7 men	\$1.40-\$2.50 / \$1.90-\$3.50 ave. ave. \$1.93 \$2.47	1 full 29 none 5 up to 50% 1 begins in Jan.	36 none	22 none 14 yes \$20 - \$150 ave. \$62	25 none 1 pending 10 yes (Mexican Labor)

Superintendents Salary:	\$9,000 to \$21,000 ave. \$13,426.00		\$250.	6 reported Xmas Bonus \$250.00 to \$2,000.00 ave. \$808.00		
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Expenses to: Local	11 - none 1 - not requested 24 - yes					
Regional 7 - none 1 - not requested 28 - yes		d \$50.00 to ave. \$96.	\$250.00	5 - coverall expenses (local, regional, nationa \$400.00 to \$750.00		
National	5 - none 1 - not requested 30 - yes		el only 00 to \$800.0	ave. \$580.00		

Questionnaire conducted by
Mr. Lee Record
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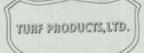
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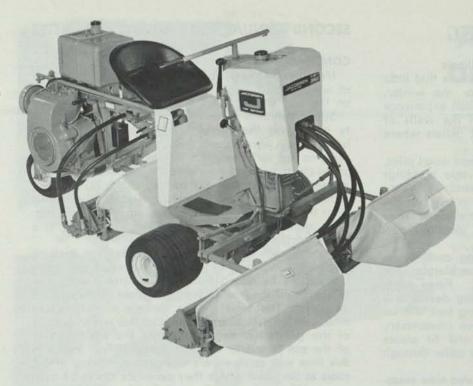
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Along with the rise in chain saw popularity goes the risk of serious injury to inexperienced users. Lulled into carelessness by the ease of operation and light weight of the newer models, operators too often forget the painful possibilities of a deep, ragged and serious laceration.

Injuries of this sort are by no means limited to amateurs. It is a common plague in the logging industry and has challenged safety experts for years.

Valuable Discovery

Research into the problem by a major forest industry in the northeast produced a valuable discovery about their employees. Over a three-year period, 49 percent of all serious chain saw injuries were sustained within 6 inches above and 6 inches below the knee.

An outgrowth of this study was the development of nylon polyfoam safety knee pads. Light and flexible yet tough and longlasting, the new guards are credited with reducing this company's leg injuries by more than 75 percent!

The only known U.S. manufacturer is the Bourgoin Glass Company, Winslow, Maine. And while their product is worth its weight in gold to any chain saw user, the price is under \$4.00 per pair.

### WELL WATER INSPECTION

Now that the sprinkling season is almost over I would like to suggest to those golf course superintendents who use wells for their irrigation water supply that this is an ideal time to have their well pumps removed from the well for inspection, i.e. provided the pump has been in service for 7 years or longer, it will often be found that bearings, drive shafts, etc. are so badly worn that they have to be replaced, the pump column pipe will often be pitted with rust and should be sand blasted and coated with a bitumastic paint. A check of the air line should also be made so that the correct water pumping and static level in the well can be determined.

Should the superintendent feel that the well water production is falling off some thought should be given to rejuvenating the output by having a responsible firm acidize the water bearing formation in the well bore.

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### RODENT PROOFING

by Stanley Rachesky Entomologist, University of Illinois

The cold weather has arrived. This means that little creatures will be seeking warmth for the winter. Many golf course superintendents will soon experience the patter of little feet coming from the walls of buildings or maybe finding little black pellets where they shouldn't be found (kitchens, etc.).

Mice come from barns, sheds, straw and wood piles, trash heaps and fencerows. They get into buildings through open or unscreened doors, windows, ventilators and through cracks and breaks in the foundation or through holes in the floor around pipes. They also may be carried in with produce (potatoes, carrots, etc.).

To keep these rodents out of a building, cover openings such as windows, doors, and ventilators with 1/4-inch wire mesh (hardware cloth). Keep doors closed when not in use. A good spring device will make sure they swing shut, and a spring lock will insure that they stay that way. Also, close unnecessary openings with concrete sheet metal and fit pieces of sheet metal around pipes to make a collar through which rodents cannot gnaw.

Golf course superintendents should also take measures not to store large quantities of food in a garage overnight before bringing it in for storage — a curious mouse may get in. Such items should be carefully examined before being brought into a building, if possible.

Concrete basement floors and solid walls tend to discourage rats and mice from nesting inside the building, especially when the floors are free of litter. When storing materials in a basement, they should be placed on stands about a foot or more above the floor. Golf course superintendents also should avoid letting basement storage areas become disordered. An accumulation of litter behind a sink, stove, or cabinet can shelter a small rodent. Such facilities should be placed flush against the wall or far enough away so that the space can be cleaned easily.

Because rodents enter a building from the outside, one should avoid offering sanctuaries adjacent to or near the building. Coal, wood, or trash should never be piled against the walls of a building, and it is best that steps leading to the building be made of concrete or masonry. If the back steps are wood, the space beneath should be kept open and clean. Stored materials, such as boxes, lumber, or pipes should be kept at least a foot off the ground.

The old fashioned wooden-base snap trap is still the most effective device for golf course superintendents in dealing with a limited number of rodents. For use against mice, a piece of bacon, a raisin, a gumdrop or a smear of peanut butter on the trigger will make attractive bait. When one is after rats, use a larger rat-snap trap and place between some boxes and a wall. As the rodent passes through the small corridor he walks over the trigger and is killed instantly. Several traps should be used at once, and about a dozen should be kept on hand.

Next month, "Fundamentals of Rodent Proofing."

### C. E. STEWART

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# SECOND ANNUAL CDGA GREENS COMMITTEE SEMINAR

### CONSERVATION:

Members seemed most interested in the problems of when the course should be closed, winter sports on the golf course and the value of new equipment.

Superintendents were insistent that the responsibility of closing the course should lie solely in their hands. They were agreed that spring is the most critical time for turf damage. It was recommended that green chairmen send a letter to the membership stating the reasons for closing the course. In the fall, players should remain off the course until frost is removed from the grass plants by syringing or normal melting. Carts should be restricted from use when there is a white frost.

Though each course has different drainage systems and soil conditions, it was recommended generally that greens be closed from late November/early December until the frost is completely out of the ground in spring. The most serious damage to turf occurs after the soil has been frozen and the upper portion of the green has begun to thaw; the surface layer of the soil is overly wet and slippery. Foot traffic at this time will cause severe compaction, tearing of the roots at the point where they penetrate the still frozen area. When the soil is partially thawed, injury is serious and long lasting. This condition is always associated with beautiful late winter and early spring days when the air is warm and the soil is cold.

Many clubs use picture displays or slides to show the membership winter play damage — what it is and how it happened.

Recommended solution for winter golf — cut a winter green area, a 30 foot circle, in front of regular greens. Cut regulation cup in the winter green, then cut an 8 inch cup, two inches deep, around the regulation cup. This permits the flag to stand upright and gives the players a larger cup to putt into. Winter greens may be top dressed with pure sand and can be dyed with a harmless green spray so the players can see the green after the other grass turns brown. Start cutting winter greens in October but don't put cups in until necessary.

When frost is leaving the ground, every green should be checked because some greens become playable as much as 10 days ahead of others.

It was suggested that after trimming shrubs in the fall, the brush be placed on elevated greens to reduce wind and ice damage during winter. Greens should be treated for snow mold prior to placing brush.

If it's not possible to cut a temporary cup in front of an elevated green, let golfers play a 16 or 17 hole course during the winter.

Use temporary tees in front of regular tees during winter.

It was also suggested the course be played backwards, placing a temporary tee in front of the green and cutting a cup in the regular tee.

#### SNOWMOBILES:

Snowmobiles should not be permitted on the course unless snow is more than 6 inches deep. If snowmobiles are operated on insufficient snow cover, 100% of the turf underneath will be lost. Many clubs no longer permit snowmobiles at all because members will not keep them in the areas marked for snowmobiles. Some courses have determined regular routes, marked with red flags, to keep the snowmobiles away from traps, off greens and away from (continued on next page)