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OCTOBER MEETING

The Splendor of Fall

The October meeting was held in August like weather at the Chisago Lakes Golf Club in Lindstrom, Minnesota. Short sleeves and sunburns were the order of the day as some twenty-four superintendents toured the very nicely groomed 9-Holes. For a relatively new course, only three years old, host superintendent, Dave Zimmer, had it looking like it had been there a great deal longer. Architecturally the course features rolling terrain, plenty of water and some heavenly wooded areas. Its greens average 5,800 square feet and are in fine condition. One did see evidence of a wager or two in the true tradition of the game. While no scores were reported, smiling faces were indicative of a most enjoyable round. Forty-five to fifty members attended a fine dinner immediately following the general meeting.

At the directors' meeting in the morning the complete board was there with the exception of Dean Sime, Keith Scott, Jim Lindblad and Larry Vetter.

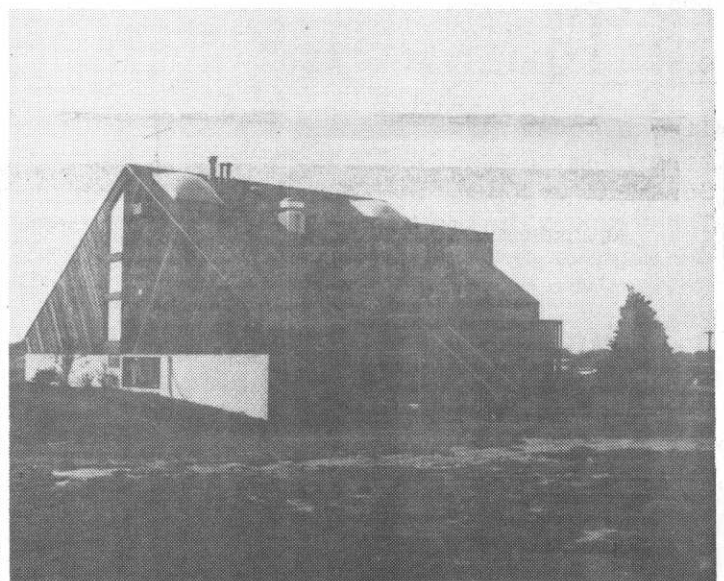
The meeting was called to order by Rich Rannells.

Communications:

1. Rannells read a letter from Conrad L. Scheetz concerning the G.C.S.A.A.'s position on ski trips held in conjunction with the 1976 Conference in Minneapolis. Scheetz explained that the G.C.S.A.A. was not prepared at this time to provide any financial backing or guarantees in this regard. The G.C.S.A.A. would be happy to provide space in the registration area where a travel agency could set up a booth for those purposes. No action was taken by the board at this time. The matter will be discussed and acted upon at the next board meeting.
2. Rannells reported that flowers were sent to John "Pops" Wiley during his recent hospitalization.



JIM BROWN, LEFT, OF LITTLE CROW C.C. AT SPICER PREPARES TO TEE IT UP WITH OLE RUD OF THE MONTEVIDEO C.C.



YEAR OLD CHALET STYLE CLUBHOUSE AT CHISAGO LAKES GOLF CLUB.

3. Rannells reported that an arrangement was sent from the M.G.C.S.A. to Al Wareham due to the death of his wife.
4. Rannells reported that the plaque commending Al Wareham's service to the M.G.C.S.A. in past years will be delivered to his residence and officially presented to him at a later M.G.C.S.A. event.
5. Rannells reported that a mailing list had been received from Jon Heimsness for the Dakota area.
6. Rannells reported that an invitation had been received from the State Department of Agriculture to attend an EPA joint meeting between Minnesota and Wisconsin. The meeting will be held in Madison, Wisconsin, October 28, 1975.

Report of Officers:

Rannells reported that the M.G.C.S.A.'s bank balance is ahead of last year's at the present time. The M.G.C.S.A. Tournament held at Interlachen Country Club produced a profit.

Membership Committee: Announced the following changes and applications:

(1) Dave Zimmer changed to Class A; (2) Steve Young changed to Class B-1; (3) Ray Moris changed to Life; (4) David Dodds, Detroit Lakes, introduced; (5) Orval L. Byre, Mobridge Country Club, introduced; (6) Randall W. Allen, 3-M Tartan Park, introduced; (7) Irwin C. Fuller, Jr., Mankato Golf Club, vote on membership; (8) Harvey B. Boysen, Northern Hill Golf Club, vote on membership; (9) John C. Granholt, Albert Lee Country Club, vote on membership; (10) William Niederkorn, Hastings Country Club, returned for attestment; (11) Al Wareham, past executive director, make Honorary member at the Annual Conference.

Arrangement Committee:

George Jennrich explained that the November meeting hosted by Long Lake Ford is set at the Hanson House, Long Lake, Minnesota, November 10, 1975.

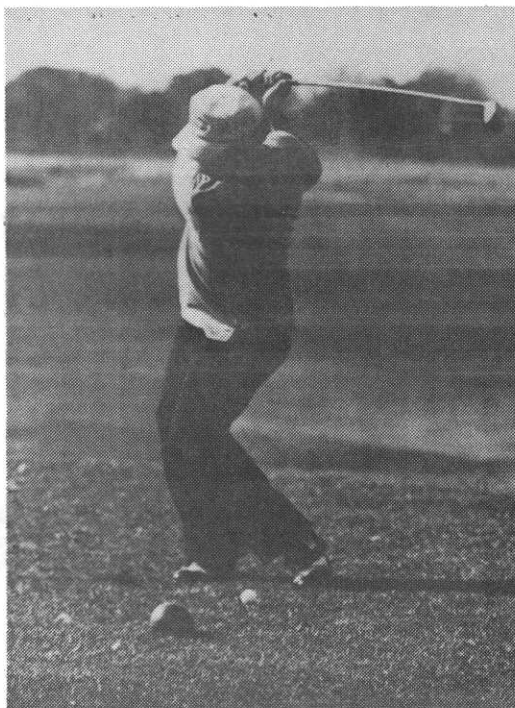
O.S.H.A. Committee:

It was moved by Ostler and seconded by Jennrich that Clem McCann or Tom Hopf attend the EPA Seminar, October 28, 1975 in Madison, Wisconsin. The M.G.C.S.A. will pay travel and expenses incurred during the one day seminar.

Editorial Committee:

Rannells reported that an attempt will be made to have the dues notice in the hands of the membership before the Annual Conference.

HOST SUPERINTENDENT DAVE ZIMMER SHOWS FULL SHOULDER TURN AND IMPECCABLE FORM AS HE PREPARES TO BELT ONE.



NOMINATING COMMITTEE REPORT

Chairman Russ Adams submitted the following names in nomination for officers and directors to be voted on at the Annual Meeting on December 4 at the Normandy Motor Inn.

President - Dean Sime, Interlachen Country Club

Vice President - Jim Lindblad, Wayzata Country Club

Secretary - (one to be elected)

Keith Scott, Oak Ridge Country Club
Dick Grundstrum, Dellwood Hills Golf Club

Directors - (two to be elected)

John Lighfoot, Cloquet Country Club
Dennis Schoenfeldt, Root River Country Club
Bob Borovansky, Town & Country Club
Dick DeSplinter, Village Golf, New Hope
Carl B. Johnston, Forest Hills Golf Club

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WINTER KILL - Its Cause and Cure

REPRINT: Dr. Elliot C. Roberts
Iowa State University, Ames, Iowa

Winter kill is a broad term which is used to describe injury to turfgrass during the winter period. Most often the condition is noted in late winter or early spring about the time that growth normally begins. There are five causes of winter injury. These may be listed and discussed as follows: 1. Desiccation, 2. Suffocation of roots from excess moisture, 3. Suffocation of the plant from carbon dioxide, 4. Scald from light reflection through ice crystals and 5. Snow Mold disease. Very often a combination of all five causes results in a single case of winter kill. Turf which has been weakened by disease or chemical or mechanical injury during the previous growth season is often more susceptible to winter kill.

DESICCATION: Turf which is not protected during the winter from strong dry winds may dry out and perish from lack of moisture. Even though turf is dormant and is not producing foliar growth it still has a minimum water requirement. Under normal conditions where snow covers the turf and protects it from drying out or where other vegetative wind breaks shelter the turf injury from desiccation is not common. It is most often noted on putting greens, on new or thin stands of turf and on elevated areas exposed to strong air currents such as greens and tees. This type of winter injury is caused by the loss of moisture from the frozen soil. Ice crystals change into water vapor through a process of sublimation and thus soil moisture is lost and carried off by strong winds. The depletion of moisture levels under a turf may be great enough to cause injury to the plants.

Protect against this type of winter damage by use of snow fences or other types of artificial or natural vegetative barriers to protect turf which is subject to winter desiccation. Encourage snow to collect on these areas. Where an open winter without snow is encountered it may be necessary to water the turf at infrequent intervals. This may be successfully done by using a large tank type sprayer on a day when temperatures are above freezing. The amount of water applied need not be large as long as the surface of the turf and soil is moistened.

SUFFICATION FROM EXCESS MOISTURE: During winter months ice may collect in low spots or hollows which do not drain. As temperatures rise in late winter and early spring water collects under the ice and above the frost layer in the soil. It may become trapped in this position long enough to suffocate the grass as it starts its first spring growth. Oxygen is required for the growth of all turfgrasses. It must be present in the soil or the roots fail to develop and may die. It has been noted that grass which has entered the winter in an over stimulated condition is more susceptible to this type of injury. Over stimulation is most often due to excessive amounts of available nitrogen in the soil.

To prevent this type of winter injury: (1) Topdress regularly to keep depressions which may collect excess moisture from forming. (2) Reconstruct areas of unstable turf to remove hollows and to improve surface drainage. (3) Aerify greens which are subject to winter injury late in the fall and leave aerifier holes open. (4) Remove a strip of sod from pockets in a green where water collects. Continue these strips out to the edge of the green. Deepen the channel by removal of soil so that water will drain from the low spot within the green to the edge of the green and off into the fairway. Place the sod strips roots down on the grass next to the green. Keep them from drying out during the winter. Replace them in the green after all danger of winter injury has passed in early spring. (5) Where the frost layer is thin puncture it several times with a crowbar or other pointed implement to allow water to drain out

of low spots in early spring. (6) Break up ice and remove large amounts of snow from turf which is subject to winter injury. This should be necessary only during late winter or early spring accumulations.

SUFFICATION FROM CARBON DIOXIDE ACCUMULATION: Injury to turf occurs at times before ice melts and frost starts to leave the ground. In this case a suffication of the plant from excess water in the rootzone cannot be responsible for the injury. It has been noted that a solid ice cover is always found over the injured turf. The ice may be covered with snow so that it is not visible but it is always present. It is known that as turf over winters even in a dormant state there is a certain amount of respiration taking place. A by-product of respiration is carbon dioxide. Since the plant is not growing it cannot use this in photosynthesis, thus it accumulates under the ice. At the same time oxygen is depleted. A toxic concentration of carbon dioxide is believed responsible for some turfgrass failures during late winter periods. A cracking of the ice to allow the carbon dioxide to escape is the only way to prevent this type of injury.

SCALD: Thin sheets of ice may be so formed that lenses develop within the ice that are responsible for turfgrass injury. The sun's rays may be so magnified by the ice that the turf heats up underneath. This may initiate growth at an unfavorable time from the standpoint of soil moisture conditions and soil aeration. Leaves may actually be scalded or become wilted from such conditions. This type of injury may be controlled by breaking up the ice to allow air circulation underneath it. This moderates growth conditions so that the turf may make a more natural start during early spring.

SNOW MOLD: The activity of fungi (Typhula and Fusarium species) on the dormant turf may cause disease injury during the winter and early spring. As a rule these pathogens are most active at temperatures from 40 degrees to 60 degrees F. They develop readily in areas along the receding edge of snow banks and under the snow where footprints, ski tracks and other forms of traffic have compacted the snow. Injury is not noted until the snow has melted and by this time it is too late for effective use of fungicides. Injury may be reduced by brushing the turf to break up the fungus organism and thus let air and light into the sod. Recovery will be speeded by applications of a little extra soluble or inorganic fertilizer applied early in the spring.

Where snow mold is noted regularly such as on putting greens and on bentgrass tees and lawns a preventative chemical treatment should be applied in early winter before the first snow and again in mid winter (during a January thaw). Mercury chlorides, phenyl mercury, thiram and cadmium compounds have been used effectively for this purpose.

SUMMARY: It is often assumed that there is little need for turfgrass managers to be concerned with the grass during the off season (periods of late fall and winter and early spring). All too often golf courses are understaffed at this time of year. If winter injury is to be prevented, particularly on putting greens, there is a time consuming job to be done in checking the condition of the dormant turf. Where winter injury occurs frequently major reconstruction or renovation may be necessary to improve over-all growth conditions for the grass.

November Meeting Back to Hanson House

"The November meeting is now definitely set for the third and last time", announced George Jennrich, arrangements chairman. There will be a business meeting at the Hanson House from 4:00 p.m. until 5:00 p.m. followed by a cocktail hour, hosted by Long Lake Ford, until 6:00 p.m. An excellent steak dinner as only the Hanson House can prepare is scheduled for 6:15 p.m. As a special added attraction the Monday Night Pro Football Game (Kansas City vs Dallas) will be available to watch on the giant 4 ft. x 6 ft. advent T.V. screen immediately following the dinner. Directions: Take Highway 12 directly to Long Lake and you will see the Hanson House overlooking the lake.

SPECIAL NOTICE: As of October 1, 1975 the Minnesota Golf Course Superintendents' Association will once again headquarter in the offices of the Minnesota Golf Association. The address is 7100 France Avenue South, Suite 207, Edina, Minn. 55435. Telephone 612/927-4643. The offices are open year around, five days a week from 8:30 a.m. to 5:00 p.m.

All items for the HOLE NOTES as well as any other business should be sent or called in directly to the offices.

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PROPOSED BY LAW CHANGES

The following bylaw changes will be discussed and voted on at the Annual Meeting on December 4 at the Normandy Motor Inn. Please refer to your 1975 Roster for a copy of the bylaws for proper comparison.

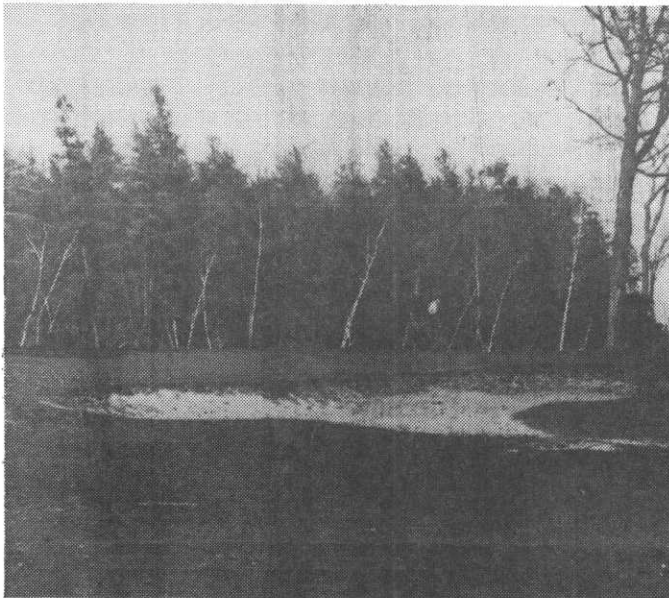
ARTICLE II Section 2. Second sentence. Delete word Treasurer. Add this sentence after word continuity - Treasurer to be elected for a two year term.

ARTICLE III Section 2. Change second sentence to read - If after due consideration, the Executive Board determines the applicant is qualified, it shall call for a vote from the general assembly at set monthly meetings, provided the application has been in the hands of the Executive Board thirty days prior to the call for vote.

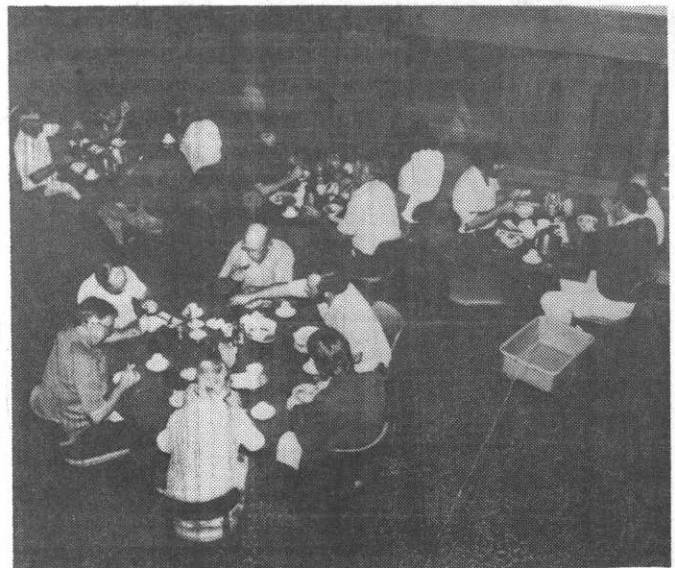
Add additional sentence. Applicants will be voted on at the March, May, August and November meetings and must be present when voted on. Membership shall require at least a three-fourths majority vote of the quorum present.

ARTICLE VI Section 3. Delete word Treasurer in Secretary-Treasurer.

ARTICLE VI. Add Section 4 opposite word Treasurer.



THE 6TH GREEN OF THE HOLE, SHOWN ON THE COVER AT CHISAGO LAKES GOLF CLUB.



SUPERINTENDENTS ENJOYING DINNER AT OCTOBER MEETING IN CHALET TYPE CLUB HOUSE AT CHISAGO LAKES GOLF CLUB.

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**	Yearly Rates:	Single Issue:
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**	Full Page \$100.00	Full Page \$120.00
**	Half Page 60.00	Half Page 72.00
**	Quarter Page 50.00	Quarter Page 58.00
**	Eighth Page 25.00	Eighth Page 30.00
**		**
**	Classified:	**
**	Per line of a maximum of 36 type spaces	\$1.00
**		**



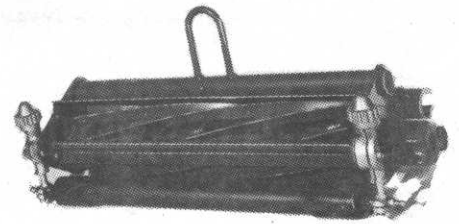
GREENSMASTER 3

1 AS A GREENSMOWER, the features and benefits include:

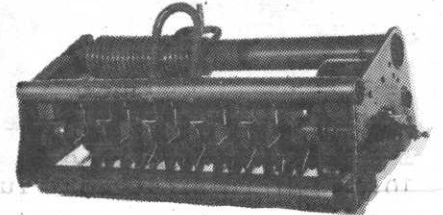
Balanced, fully-floating cutting heads — isolated from the traction unit and grass baskets — give uniform cutting height from first green to the last (a Toro exclusive). Low pull point on all cutting units for straight, even tracking. 15-inch turning radius for greater maneuverability, faster handling. Low-noise fully-hydraulic drive is smooth and easy on the greens. Maximum operator visibility and ease of control. Exclusive interchangeable wheels, cutting units, baskets, reel drive motors save time, money invested in stocking parts. Customizing accessories for varying conditions — including a simply engineered and easy to install individual reel shut-off kit that controls the front two cutting units to give a variable track on the clean-up run. Optional reel roller scrapers minimize grass build-up for a beautiful appearance even on wet turf. Proven history of performance on fine greens all over the world lets you be confident of the real value of Greensmaster 3.

2 AS A SPIKER, the features and benefits include:

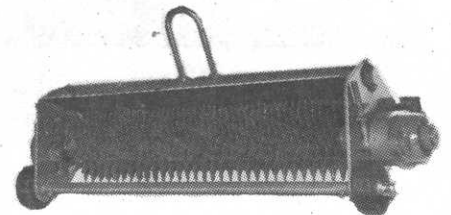
Special Toro profile-tooth spike blade that spikes cleanly without ruffling turf (greens are playable immediately after spiking — no rolling or cutting needed). Power driven reels with one-way slip clutch give added traction on sloping greens. Adjustable transfer spring transfers weight from traction unit to spiking reels. Delivers up to 650 lbs. of weight across 57 inch width for maximum 1¼ inch penetration. Wide spiking area gets more done in less time — you can spike as fast as you mow. And the spikes are less than 2 inches apart. A depth measuring tool is included with each set of spiker units to insure effectiveness of treatment under varying conditions.



GREENSMOWER



SPIKER



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3 AS A THATCHER, the features and benefits include:

Reels cut in forward rotation for efficient vertical mowing. Spiral pattern of thatcher blades means less wear on drive motors, more efficient thatching and throwing of thatch into basket. Adjustable gauge wheels tailor cut to various turf conditions. Variable blade spacing (as close as ½ inch — depending on the need) permits adjustment to meet varying turf conditions. Gauge plates are provided for easy bench setting of penetration depth, 59" working width makes vertical mowing practical and efficient for the first time. High-strength blades are made of blue-tempered high carbon steel — and they're reversible for double the life.



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