

Sci
November 1973



SERIALS

FEB 5 1974

MICHIGAN STATE UNIVERSITY
LIBRARIES

SCIENCE
ROOM USE ONLY

50
A Patch of Green

Official Publication of the
Michigan & Border Cities Golf Course Superintendents Association

LET THE EXPERTS AT J. J. DILL HELP YOU
MAKE IT
"a green year"

**BUY DIRECT • SAVE MONEY
GET FAST DELIVERIES**

Your budget will buy more — in chemicals and equipment to apply them — when you deal direct with Dill. As manufacturer, formulator and/or distributor, Dill can save you money. Consistently.

Dill offers the most complete line of quality turf chemicals in the midwest . . . complete with application instructions.



Call Dill collect for information, prices, and to place orders. (616) 349-7755

TURF CARE
TIP OF THE MONTH



Dill is headquarters for complete lines of: • Fungicides • Herbicides • Algaecides • Insecticides • Foggers • Sprayers.

PROMPT DELIVERY throughout southern Michigan and northwestern Ohio, including weekly shipment via our trucks covering the Detroit, Flint, Lansing and Toledo areas.

IT'S FALL AGAIN:

Now is the best time of the year to control clover and broadleaf weeds. Spray Dill's Kleen Turf on the fairways and roughs. MCPP is the safest chemical for clover control on greens.

FREE

VALUABLE CATALOG

Latest edition, up-dated in all respects. Contains a wealth of information. Lists and describes hundreds of chemicals, pesticides and equipment for maintenance of grounds and waters of golf courses, parks, recreation areas and resorts.



J. J. DILL COMPANY Box 788 KALAMAZOO, MI 49005 Dept. PG-4

Gentlemen: Please send your latest Turf Care Catalog.

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

"A Patch of Green"

31823 Utica Road, Fraser, Michigan 48026
(313) 293-3540

Published monthly by the Michigan and
Border Cities Golf Course Superintendents
Association

Circulation 1,050

Ted Woehrle, Oakland Hills C.C.
Clem Wolfrom, Detroit Golf Club

Co-Editors

Blakeman Publications
Graphic Arts/Circulation

ADVERTISING RATES

Double Page Spread.....	\$100.00
Back Outside Page.....	65.00
Full Page.....	55.00
Half Page.....	35.00
Quarter Page.....	25.00
Eighth Page.....	12.50
Sixteenth Page.....	7.50
Classified Ad (per inch).....	5.00

DISCOUNT RATES

One Year 10 %

THIS MONTH'S ADVERTISERS

American Research Corporation
Andrew A. Bertoni & Associates
Century Supply Corporation
Certified Laboratories, Inc.
Cowbell Seeds, Inc.
J.J. Dill Company
R.P. Klein & Sons, Inc.
Lakeshore Equipment
Lawn Equipment Corporation
W.F. Miller Garden
O.M. Scott & Sons Company
Sprinkler Irrigation Supply Co.
Terminal Sales Corporation
Turfgass, Inc.
Turf Supplies, Inc.
Wilkie Turf Equipment Company

MICHIGAN AND BORDER CITIES GOLF COURSE SUPERINTENDENTS ASSOCIATION



PRESIDENT

TED WOHRLE
OAKLAND HILLS COUNTRY CLUB
Birmingham, Michigan
Off. 644-3352, Res. 646-8512

VICE PRESIDENT

GERALD GILL
TAM-O-SHANTER COUNTRY CLUB
3466 Walnut Lake Road
Orchard Lake, Michigan
Off. and Res. 626-8325

SECRETARY-TREASURER

BOB HOPE
KNOLLWOOD COUNTRY CLUB
6330 Inkster Road
Birmingham, Michigan
Off. and Res. 626-6062

BOARD OF DIRECTORS

- C. H. WOLFROM, JR.
DETROIT GOLF CLUB
Detroit, Michigan
530 Kendry (Res.)
- ALBERT KALTZ
MAPLE LANE GOLF CLUB
Sterling Hgts., Michigan
Off. 268-2180, Res. 463-2892
- ROGER GILL
ROYAL OAK GOLF CLUB
Royal Oak, Michigan
Off. 549-7125, Res. 573-6859
- GEORGE W. PRIESKORN
BURROUGHS FARMS GOLF CLUB
5341 Brighton Road (Res.)
Brighton, Michigan 48116
Res. 227-1381
- WILLIAM W. MILNE
COUNTRY CLUB OF DETROIT
220 C. C. Drive
Grosse Pointe Farms, Michigan
Off. 881-8000, Res. 886-9319
- DONALD LA FOND
BAY POINTE GOLF CLUB
3635 Union Lake Road
Union Lake, Michigan
Res. 363-1142
- PRESIDENT EMERITUS
- WARD SWANSON
PLUM HOLLOW GOLF CLUB
29642 Westfield (Res.)
Livonia, Michigan
Off. 352-2436, Res. 421-8049

President's Message

This will be my last message to the members of the Michigan and Border Cities Golf Course Superintendents Association as your President. As I look back at the past two years I must write that I have enjoyed being your President.



Our Association is one of the finest groups of professional men that I have ever been associated with in my career. You have some of the most energetic goals of any group that I know of. Your energies are not wasted. As long as you work together as a group, supporting the things that you believe in, you will have a good organization.

We have accomplished many good things these past two years. I wish to thank all of our directors for their untiring work as committee chairmen and I would like to thank the entire membership for their support during my tenure in office. It seems like only yesterday that I took office from Ward Swanson and now I will be turning my

office over to the newly elected President.

Good luck to all of you and once more I say THANK YOU.

Your President,
Ted Woehrl

Bentgrass Evaluation

Twenty bentgrass cultivars were managed under 0.5 inch cutting height for evaluation representative of fairways and tees. They were established in September of 1968. Mowing is done three times per week. Nitrogen subplots of 4 and 7 pounds per 1000 square feet per year were applied.

After five years of evaluation (48 observations), Pennpar ranks highest of the named cultivars in appearance (Table 12). Toronto, MSU-38Ap, and Emerald rank almost as good, but a marked thatching tendency has been observed in Toronto, Cohansey, and Penncross. Seaside rates well in appearance and does not develop the excessive thatch under the 1/2 inch cut.



Helping the superintendent through turf research...

- Controlled Release Fertilizers
- Fertilizer/Pesticide Combinations

- Fungicides—Herbicides—Insecticides
- Soil Testing—Weed & Disease Identification

SCOTT'S • LELY • GANDY SPREADERS

Finest quality turfgrass seed—Fairways • Greens • Tees • Roughs
Scotts Windsor and Victa blends

Charles Croley

Technical Representative
1120 Jefferson Street
Lapeer, Mich. 48446
Telephone: 313/664-8266

Winter is here ...

Protect Your Golf Course

Protect your course from winter damage. Prevent disease, prevent desiccation where possible, avoid unnecessary traffic both from equipment as well as the golfer when conditions warrant it. Remove ice from turf after it has been covered for thirty days.

See you at the Christmas Party!



Fusarium Blight Control

by J. M. Vargas, Jr., C. W. Laughlin
and R. Detweiler, MSU

This *Fusarium* blight control study was conducted at the M.S.U. Soil Field Lab on a mature Merion Kentucky bluegrass turf. The treatments were applied twice on June 20 and 28, 1973, with a hose-jar applicator. The treatments were replicated three times. All materials were drenched down into the root zone immediately after application. At the time of this writing, symptoms were just beginning to develop. Hopefully, significant differences will be showing by Field Day.

The best materials based on our past experiments at M.S.U. are Tersan 991 and Spot Kleen. To control *Fusarium* blight with these two fungicides, two applications at the 8 oz/1000 sq. ft. rate must be applied and drenched down into the root zone immediately after application before they dry on the foliage. The applications should be made within two weeks of each other.

Another material that has given excellent control of *Fusarium* blight is

the nematicide oxymal applied at the 200 lb/acre rate. One application appears sufficient and, like the fungicides, it should be drenched into the root zone. At the present time this material is not available for commercial use.

To the 'Old Timers'

In 1976, the Golf Course Superintendents Association of America will be celebrating their 50th anniversary. Plans are being formulated for a celebration and we need your help. We would like your comments on what should be done. Further, if you have any items of nostalgia relating to the GCSAA, we would be pleased to know about them. We are especially interested in old pictures, (we will return them), interesting tales, little known facts, etc.

Contact: Ted Woehrle, Chairman of the Golden Anniversary, 3390 Witherbee, Troy, Michigan 48084.

“THATCH”

The eighth annual golf turf symposium was held recently at the PFISTER Hotel in Milwaukee, Wisconsin. The Golf Turf Symposium is cosponsored by the Wisconsin Golf Course Superintendents and the Milwaukee Sewerage Commission.

This year the Subject was “Thatch”. In the absence of vertical mowing, topdressing, aerating, spiking, etc. turf soon gets out of hand, and only those who vigorously attack to keep this from happening have satisfied golfers. Too much or too little grass has always plagued the grower. It is most difficult to maintain that “Just Enough” plateau. Some thatch is good. On greens it helps hold the properly played approach shot. It keeps down weed invasion. It protects the soil from compaction and conserves moisture.

But, too much is bad. Excessive thatch harbors diseases, especially fairy ring. Many pathologists feel it is a great incubator for others. Heavy thatch promotes localized drying and poor putting by developing uneven and slow surfaces. When wet it footprints badly and even holds poorly played approach shots.

How much thatch is too much?

Soil topdressing is the best control of thatch. Almost as good as earth worms. Use composted soils if available. They are far better than just plain mineral soils.

Use of certain insecticides cause an imbalance in nature's control of thatch. Any factor which throws the Ecosystem out of balance will cause thatch and this includes most pesticides.

Thatch develops when the decomposition rate is less than the accumulation rate.

Too much water, fertilizer (especially Nitrogen), and acidity all cause thatch.

Prediction! Within ten years we will be able to buy packages of fungii to help balance nature and control diseases and thatch.

Nitrogen rates and Nitrogen sources are the only plant foods affecting thatch accumulation. The natural organic nitrogens develop the least amounts of thatch. Not all pesticides affect thatch accumulation.

He that does good to another does also good to himself. — SENECA

RAIN BIRD IRRIGATION SYSTEMS.
SPECIFICALLY DESIGNED TO MEET THE MOST
DEMANDING WATERING REQUIREMENTS OF
ANY GOLF COURSE.

Century
Supply Corp.

WHOLESALE DISTRIBUTORS
(313) 543-7730

3890 WEST ELEVEN MILE ROAD
BERKLEY, MICHIGAN 48072

EPA Regulations Could Shut Down Clubs

Proposed EPA generic standards and regulations controlling the reentry of workers and others could force the closing of golf courses for a minimum of two days, and for as much as a week, after the application of pesticides and herbicides.

According to the EPA, limitations on entering treated areas will be established as follows:

1. When labels on the chemicals bear the words, "Danger, Poison, and the Skull and Crossbones symbol" the period before reentry will be three days. Such chemicals will be defined as "Highly Toxic."
2. Labels with the word, "Warning" will be categorized as "Moderately Toxic" and reentry to treated areas will be restricted to 2 days.
3. Chemicals with labels bearing the word, "Caution," will be classified as "Slightly Toxic" and entry to treated areas will be permitted only after inspection shows that all dust has settled and all spray has dried.
4. Some pesticides, under ill-defined circumstances have been implicated as being especially dangerous in certain parts of the country. Reentry into fields treated with these will be permitted only after 5 days.

The proposed regulations will permit early reentry into any restricted

area only if protective clothing is worn by the person or persons in the area. The minimum protection allowed for class 2 and 3 chemicals is "a coverall of closely woven material, normal footwear to cover the entire foot and an approved respirator." Classes 1 or 4 will require "an impermeable garment to cover the entire body, hat, natural rubber gloves, impermeable shoe coverings, and goggles or a face shield and an approved respirator."

While these proposed regulations do not single out golf courses, other soon-to-be-issued regulations dealing with the certification of applicators make specific reference to "turf". At the forthcoming hearings NCA will seek to clarify references and establish specific standards for golf courses.

44th Annual Michigan Turfgrass Conference

The dates have been set for the 44th Annual Turfgrass Conference at Michigan State University. January 15 and 16, 1974.

Put a big red circle around these dates on your new calendar.

***No synthetically produced fertilizer can compare with
MILORGANITE***

Golf Courses Use More

MILORGANITE

Than Any Other Fertilizer



TERMINAL SALES CORP.

12871 EATON AVE.
DETROIT, MICH. 48227
(313) 491-0606

Winter Dormancy & Desiccation

Reprinted from the "Keynote" a publication of the Pennsylvania Turfgrass Council, Inc.

Knowing how grasses grow is essential for all turfgrass managers. Equally important, however, is to know something about how turfgrasses "rest" (dormancy). As the winter months approach, day length, light intensity, and temperatures (both day and night) decreases, causing many physiological changes in turfgrasses.

The first effect of these changes is a reduction in growth. Higher temperatures than those occurring in late autumn are required for the optimum functioning of metabolic processes responsible for rapid growth. Nitrogen metabolism slows, resulting in decreased protein synthesis. Carbohydrates accumulate in storage tissue (rhizomes, stolons, crowns) because the metabolic demand for carbon is reduced (less growth and lower respiration). As long as chlorophyll remains in the leaf, photosynthesis will continue even after temperatures become quite cool. The majority of the carbon dioxide fixed in late autumn is translocated as carbohydrate to storage tissues.

Once temperatures are cold enough to cause leaf chlorophyll degradation, photosynthesis is drastically curtailed and new foliar growth is almost nonexistent. The leaf canopy of turf areas becomes a mottled green to light brown color and dormancy prevails.

Late autumn is also the time when root sloughage begins. As much as 80% of the root system of turf grasses is lost over the winter. The crown area, however, is very much alive and at the mercy of the elements. Because the grass is alive it transpires, respire, and at time fixes small amounts of CO₂ and consequently requires water. The inability of grasses to

satisfy their water requirement results in a wilting phenomenon known to a turfgrass manager as "desiccation".

Desiccation is probably the fore-cause of winter injury from the Great Plains to the Atlantic seaboard and is not restricted to cool season grasses. Desiccation occurs when the water supply is diminished to the point where the plant is unable to absorb water to replenish that transpired. Several winter days of snow cover, low humidity, and wind will enhance the possibility of desiccation. Evaporation losses from the soil coupled with losses by transpiration place unattainable demands for water on an already crippled root system. Often much of the soil water is frozen and unavailable for absorption. This further reduces the time for severe desiccation to occur.

Winters with plenty of snow cover seldom result in desiccation damage except for exposed areas where snow is blown away. Most winters, however, have bare ground periods when the potential for desiccation is high.

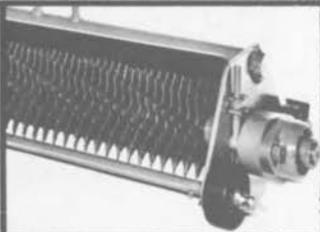
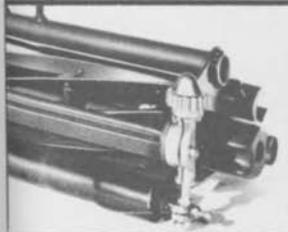
Many techniques are used for the prevention of desiccation with varying degrees of success. Organic and inorganic mulches, burlap, polyethylene sheeting, porous plastics covers, or erection of snow fence to increase the amount of snow accumulation, have all been used to alleviate desiccation.

Hauling of water to greens, if irrigation cannot be turned on, is an expensive and inconvenient solution, but necessary to save desiccating turf. The very best control is to apply water through irrigation lines if possible and drain the lines the same day.

Continued on Page 11

The great Greensmaster 3
still has no equal.

And now it's the best
spiker and thatcher, too.



AS A GREENSMOWER,

AS A SPIKER,

AS A THATCHER,

TORO

WILKIE TURF Equipment Company

23455 TELEGRAPH ROAD SOUTHFIELD, MICHIGAN 48075
(313) 353-5300

SISCO
SALESMEN
at your
SERVICE



TOM KENNEDY joined the Sisco sales team in May 1973 after fourteen years calling on golf courses for Agrico-Chemical. Tom's area includes northern Ohio and southeastern Michigan and he stands ready to assist you in any of your irrigation needs. Just call him at (313) 548-7272.

Sprinkler Irrigation Supply Company,
Division of A. J. Miller, Inc., 1316 N. Campbell Rd.,
Royal Oak, Mich. 48067, (313) 548-7272
Chicago (312) 629-7730, Kalamazoo (616) 381-0506.



ARE YOU INTERESTED IN JOINING THE
**MICHIGAN AND BORDER
CITIES GOLF COURSE
SUPERINTENDENTS
ASSOCIATION?**



ALBERT KALTZ
Maple Lane Golf Club
Sterling Heights, Mich. 48077
Phone:
Off. 268-2130, Res. 463-2892

Fill in the questionnaire below and mail to:

DATE _____

NAME OF INTERESTED PERSON _____

MAILING ADDRESS _____

CITY _____ STATE _____ ZIP _____

Or you may contact the next golf course supplier who calls on you and give him the information needed for application.

Winter Dormancy Cont.

Snow mold generally is more of a problem when snow fence is used, and preventive fungicide applications are more essential. Covers are bulky and difficult to secure to the turf and condensation often occurs on sunny, warm winter days. Temperatures under various covers occasionally are elevated high enough to induce growth of *Poa annua*. Screen materials or porous plastic covers do allow air movement and reduce fluctuations and are superior to solid tarpaulins.

Although desiccation does not occur every winter, turf managers should be alert to the environmental conditions conducive for its appearance. Turf professionals must cultivate the ability to recognize conditions favorable for desiccation and take the proper precautions to minimize its effect. During snow free winter periods the crown area of turfgrasses should be periodically checked for turgidity.

Desiccating turf appears very dry, is brittle to the touch, and is easily pulled from the soil. Examination of the upper 1½ - 2" of soil should also be made periodically, particularly during windy weather, as soil moisture can decline very rapidly during low humidity days (10-20% relative humidity) which occur during the winter months.

Much continuous effort is expended for excellent turf during the growing season, and there is no reason for those efforts to go down the drain by losing grass to winter desiccation. Providing for the needs of dormant turf is every bit as important as the attention it receives during the growing season. Grass needs your attention 12 months of the year. Are you there?

It's strange that people brag about being average. After all, average is the worst of the good and best of the bad.

Andrew A. Bertoni & Associates proudly announce a complete golf course construction and renovation service. Our service includes design or remodeling; construction or rebuilding of greens, tees, fairways, traps, irrigation systems, and all types of landscaping.

We also can provide extensive tree planting programs - all sizes and species. These can be, and should be, planted this fall and winter. **WE ARE READY!**

We have 55 years of reputable experience. We can work **WITH** you. We believe beauty, utility and maintenance can be combined.

Call or write **ANDY BERTONI**
40640 8 Mile Road
Northville, Michigan 48167
(313) 349-1708 or (313) 565-6940

You Can
RELY ON



LABORATORIES, INC.

**FOR TURF CHEMICALS CALL
ARNIE COLLENS**

27848 KENDALLWOOD
FARMINGTON, MICH 48024
PHONE: (313) 477-4595

NO!NO!NO!

DON'T EVEN THINK
OF BUYING

GRASS SEED
FERTILIZERS
FUNGICIDES

WITHOUT CALLING

291-1200

TURF SUPPLIES INC.

6900 Pardee Rd., Taylor, Michigan
(313) 291-1200

Factors Influencing Bentgrass

by J. E. Bogart & J. B. Beard, MSU

An extensive study of annual bluegrass revealed the following: Pennncross creeping bentgrass and Merion Kentucky bluegrass initiated new shoot growth earlier in the spring than annual bluegrass. Pennncross and Merion initiated growth between 50 and 55 degrees F. while established plants of annual bluegrass did not initiate new spring growth until the soil temperatures exceeded 55 degrees F. Pennncross creeping bentgrass is adapted to a wider range of temperatures in terms of producing superior root and shoot dry weights than Merion Kentucky bluegrass and annual bluegrass at the extreme temperatures of 40 and 90 degrees F. A 1.0 inch cutting height produced the highest tiller numbers, shoot dry weights, and shoot density counts for annual bluegrass in both mono-and polystands. Rooting depths were similar for all three species. Annual bluegrass possessed a more extensive, branched root system thereby resulting in greater root dry weights than Merion Kentucky Bluegrass. The rooting depths of all three species were reduced by clipping three times weekly at 1.0 inch. Pennncross creeping bentgrass was the most severely effected.

TURFGRASS SPECIALISTS

TWO COMPLETE
SEED INVENTORIES

Merion
Baron
Winter
Green

Fylking
Nugget
Norlea

Cowbell

WAYLAND
MICHIGAN
49348
★

BRIGHTON
MICHIGAN
48116
★

GOLD TAG
SEED QUALITY
BLENDS

*Special Mixes
for your
particular need*

COWBELL SEEDS, INCORPORATED

TELEPHONE
WAYLAND 616-792-2241

BRIGHTON 313-229-6169
GRAND RAPIDS 616-877-4614

Summer Woes

Dear Mr. Chairman:

I'm sorry I shouted at you the other day when you questioned me about whether we were having any trouble with the course. However, I don't think it was necessary for my assistant to grab me on the pretense that I was about to start swinging.

Yes Sir! We have been having some trouble with the course, in fact several members have suggested that we are stretching the truth by calling it a golf course. As you may remember, it rained the entire month of July - record amounts. Well, during the first two weeks of August, while you were away on vacation, it turned hot and dry. Now I know you have said there's nothing unusual about such weather at that time of year, and I guess there

isn't but after ten inches of rain? Let us say in layman's terms the grass just didn't have the ambition, or the guts to survive. We literally saw aerial roots growing to nowhere on the Bent, and the Poa (which comprises most of our turf population, regardless of what you think I told you in the spring) had just enough roots to keep it from tipping over. It sure was interesting to watch the man syringing fairways with the wilt both ahead and behind him. Of course, as I told you earlier, I was very glad to be able to get back to watering seven nights a week. That \$18 item under Misc. last month was for a case of 6-12.

Then at the end of August we went back to our normal climate for this

Continued on Page 14

TERSAN^{SP}

DU PONT

**STOP
SNOW
MOLD
COLD!**

Mallinckrodt

TURFGRASS

TURFGRASS, INC.
SOUTH LYON, MICHIGAN 48178
Phone: Area 313 437-1427

CALO-GRAN
SNOW MOLD — AND ITS CONTROL

R.P. KLEIN & SONS, INC.
TURF EQUIPMENT

SERVING EASTERN MICHIGAN

AGRICO	DUPONT
BEAN	LELY
BERRIEN	ROYER
BRILLION	YORK

Please Call Us for Prices & Literature

54 Brown Street
Croswell, Michigan 48422
(313) 679-2700 / 679-2701

YOU'RE ENTITLED TO THE BEST
Call Us For Your Needs

GOLF COURSE
CHEMICALS

(You'll get it — and more!)

Herb Carson
Marvin Rothman

AMERICAN RESEARCH CORP.

11840 MAYFIELD AVE.
LIVONIA, MICH 48150
(313) 522-2400
Ext. 2401/2402

CALL LAKESHORE COLLECT
(216) 651-1600

FOR ALL YOUR
TURFGRASS SUPPLIES

- CHECK OUR PRICES -
- QUOTATIONS ON REQUEST -

LAKESHORE
EQUIPMENT & SUPPLY CO.
10237 BEREA ROAD
CLEVELAND, OHIO 44102

Summer Woes Cont.

year, late abysmal swamp. I imagine one of the things you were questioning me about the other day is called "wet wilted, rotten, dead grass." It's not very attractive, and from what I'm told is very difficult to play from. In fact, I've been told the latter so many times that I suggested to three of the worst offenders that they resign - they already had.

Those large brown thin areas on the greens are disease. We realize that fungicides should prevent them, and I have written several pointed letters to the manufacturers of the 5 chemicals we applied in two weeks. The small tan spots on the fairways are called "dollar spot." As soon as we get the sprayer out of the mud on the 17th fairway, we'll get right on those areas.

We do hope to get the greens top-dressed this fall, however, it may be a little difficult as the operation really takes six men, and we only have four since our "summer professionals" have left for school. I sure hope we can get Mr. Looney's son back next year. I can't quite agree with the Board that just because he cut that word in the 9th fairway with a greens-mower, he should not be asked back. After all he is a member's son, and certainly was a help on those week-ends that parties didn't interfere.

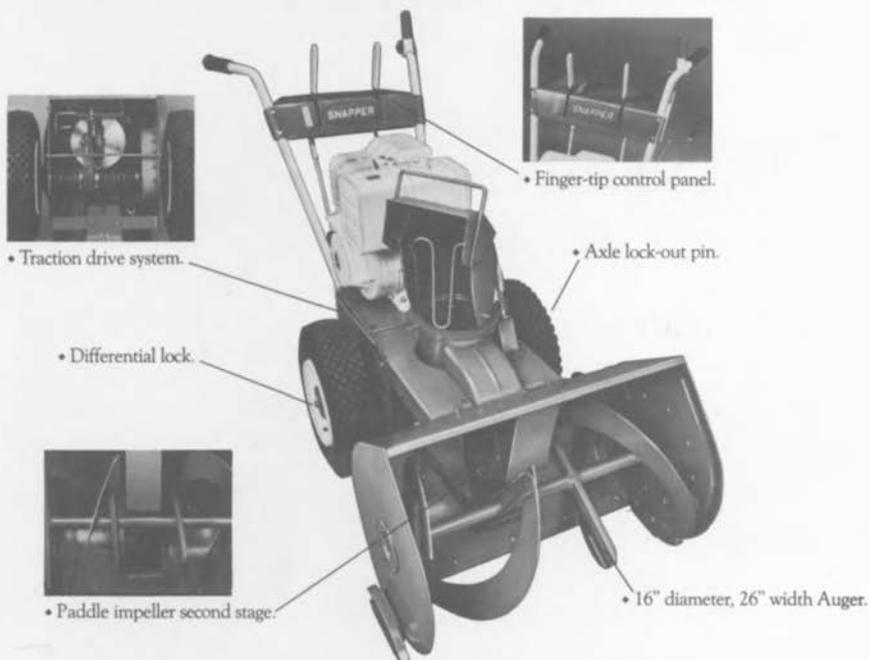
In closing I certainly want to thank that kind member, who sent me the case of beer the day we lost 5 greens and 11 fairways to disease and wilt. I really wasn't feeling too chipper anyway, and his note - "You might as well drink, you haven't done very well at anything else," really set me up.

Respectfully submitted
Greens Superintendent
(Anonymous)

Courtesy, kindness, sincerity, truthfulness, thoughtfulness and good manners translated into behavior reflect one's true character.

HARRY F. BANKS

Get the best of winter.



Snapper Snow-Throwers are dependable. They're designed to make snow removal easy. With hard-working features like those shown above. Plus lots more. All Snapper Snow-Throwers are completely winterized for longer life and less maintenance. They'll perform on the coldest days, in heavy snow. So this year, stop winter cold. With a Snapper Snow-Thrower.

SNAPPER[®]

McDonough Power Equipment, Inc. A subsidiary of Fuqua Industries, Inc.



LAWN EQUIPMENT CORPORATION

520 W. 11 MILE ROAD ROYAL OAK, MICH. 48068
TELEPHONE: 313/398-3636

JACOBSEN®



GREENS KING

62

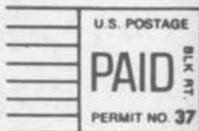
W. F. Miller

GARDEN AND LAWN EQUIPMENT COMPANY

1593 S. WOODWARD AVE. BIRMINGHAM, MICHIGAN 48011

TELEPHONE: (313) 647-7700

"A Patch of Green"
31823 UTICA ROAD
FRASER, MICHIGAN 48026



MICHIGAN STATE UNIVERSITY
LIBRARY - SERIALS
E. LANSING, MI. 48823