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▪ **Wear Tolerance . . .**

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▪ **Cold Tolerance . . .**

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▪ **Cutability . . .**

Cutability tests at the University of California, Davis, placed Manhattan number one in cutability of the popular varieties of fine leafed perennial ryegrasses tested.



Golf car maintenance/p. 11

Vibratory plow/p. 15

Mini-computer/p. 18

golf business/july

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Idea file	4
News	6
Clippings	10

FEATURES

Preventive maintenance keeps golf cars running — and earning	11
Preventive maintenance for golf car ailments should be scheduled well in advance and taken rigorously in order to avoid costly downtime. Here are some ideas of what to do and when	
Don't dig ditches — plow pipe into place	15
Vibratory plowing equipment can put irrigation pipe and control wiring into place without tearing up the course and stopping play. This article shows how one Arizona expert does it.	
Mini-computer adds efficiency to administrative operations	18
A golf course owner tells how and why he uses a mini-computer to do his bookkeeping, figure handicaps for his golfers, and compute the size of his greens.	

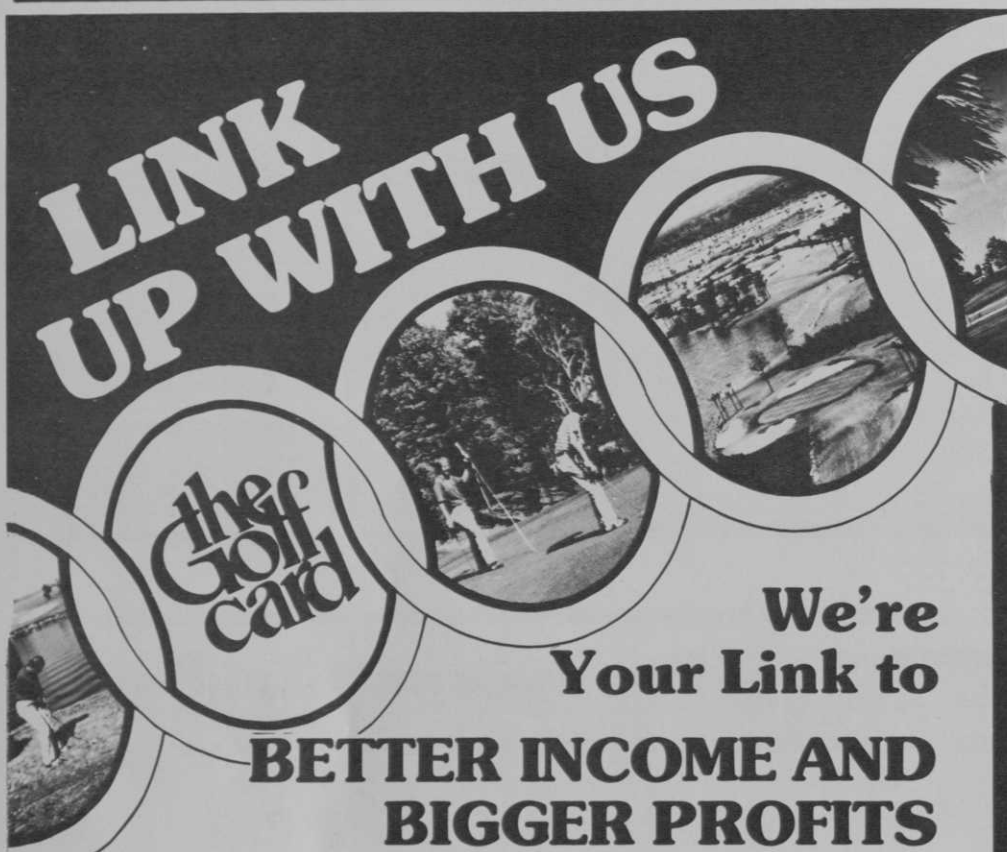
Helicopters may become a common sight on Illinois golf courses	20
Spraying herbicides and other chemicals on fairways and rough can be done quickly and evenly by a helicopter. Spend a day with this turf specialist and see how.	

Products	22
Information service	24
Classified	25
Viewpoint	26



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BETTER INCOME AND
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An ever-growing list of prestige courses participate in THE GOLF CARD program. We think you'll want to know why.

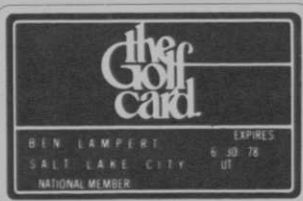
THE GOLF CARD is designed to increase the patronage and profits of your course facilities. We sell you to superior patrons, financially qualified golfers who travel and who might not otherwise visit your resort. The growth in the number of courses who have linked up with us is phenomenal. Over 650 courses participate in 47 states including Hawaii and also in Canada, Mexico and the Bahamas.

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 Address _____
 City _____ State _____ Zip _____
 General Manager _____ Professional _____
 Facilities: Number of holes _____ Par _____

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Idea file

Emergency staff may prevent death

After a bomb threat in September, 1975, forced the evacuation of members and employees from the Pinehurst Country Club in Denver, club officials decided the staff must be trained to handle any kind of emergency.

About one-third of the employees have been trained to administer artificial respiration or first aid for burns, bleeding, choking, poisoning, and other potentially dangerous situations. One person from each club department has also been trained in cardiopulmonary resuscitation techniques, and 40 persons have received instruction in fire prevention and fire-fighting methods.

Others have even been trained to comb the clubhouse for stragglers and search for bombs. Club manager Robert MacDougall said the training has cost less than \$360 and members have expressed gratitude for the program.

Nylon protective screens keep balls in range

When the wire protective screens bordering the Lake Grove (N.Y.) Golf Park driving range drew complaints from nearby residents about interference with their television reception, the range's owner started a search for substitute materials.

He found a nylon fish net, knitted of the same yarn used in tires, and stretched the fabric between the poles along the sides of the driving range. Results: better TV reception and good community relations. The same kind of net, made by Fablok Mills of New Jersey, is also used to break the shock of severe acceleration in space capsules.

Flowers by walkways beautify course

The use of flowers, especially to decorate and define walkways from one hole to the next, is increasing among golf course superintendents.

Bob Adler, president of the Heart of America Golf Course Superintendents Association, says his group was told recently that only two different colors should be used in a floral arrangement on the course. Persons walking from a green to a tee see only flashes of color and more than two colors will blur their vision and distort the effect of the flowers.

Flowers planted around the clubhouse can consist of many more colors since people there are stationary. Each variety should be grouped alone to create an attractive impression.



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Circle 102 on free information card

News

PUBLIC COURSES

Government golf group promoted by OPRA

Following up on an idea initiated by Cincinnati Supervisor of Golf Gene Burress (see GB, June 1978, p. 6), Ohio Parks and Recreation Association Executive Director David Chuha has mailed a proposal to approximately 50 people connected with municipal and other government-operated golf courses in the state, inviting them to join the OPRA and create a new chapter devoted solely to their needs and problems.

Chuha told GOLF BUSINESS that the government golf section would be one of several "special interest" groups within the 600-member OPRA, which now has "very few" golf course members. The mailing sent out by Chuha explains the idea for the government golf section and offers a 50 percent discount on dues for

the remainder of 1978. It also proposes a meeting of government golf people at the OPRA annual convention to be held at the Columbus Sheraton Hotel November 5-8.

Burress, a member of the GOLF BUSINESS Advisory Board, said that if the Ohio group was well-received, "It could even grow into a national organization under the National Recreation and Park Association." The OPRA is affiliated with the NPRA, according to Chuha.

Government golf course managers, superintendents, professionals, and others in Ohio should contact David Chuha for further information. Write to OPRA, 33 South James Rd., Columbus, OH 43213 or call 614/231-0781.

OSHA

Court says inspectors must get warrants

In a recent five-to-three decision, the United States Supreme Court ruled that federal inspectors from the Occupational Safety and Health Administration must obtain search warrants to inspect workplaces — but also made warrants easy to get.

In actuality, OSHA inspectors must obtain warrants only if employers refuse to allow an inspection — and OSHA chief Eula Bingham has stated that federal inspectors would continue to make surprise visits to check workplaces for safety and health violations. She was quoted in the Wall Street Journal as saying that inspectors denied access "have been instructed to deal with such refusals in a courteous and responsible manner, leave the premises promptly, contact Labor Department attorneys and obtain a warrant."

Under the Supreme Court ruling, to obtain a warrant, OSHA need only show a court that a specific business had been chosen for a spot check on the basis of a general enforcement plan and wasn't being singled out for arbitrary reasons.

OSHA officials have said that the federal agency was not recommending any particular course of action for state health and safety agencies, but it is expected that most will follow the federal example.

officials, reviews of case files, and workplace visitations made with OSHA inspectors.

GOLF DEVELOPMENT

Objectives revealed at NGF meeting

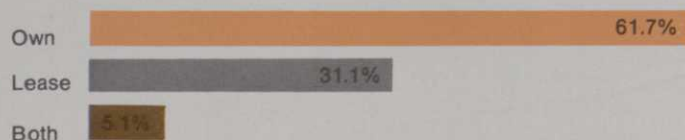
Future emphasis of National Golf Foundation programs will continue to be on player development and on development of public courses, it was reported at the NGF semiannual board meeting in May.

Dunlop's Dean Cassell, elected to a second term as president at the meeting, listed the main objectives as 1) to increase the number of golfers by 500,000, 2) to increase rounds of play at an annual rate of 5 percent, 3) to emphasize public course development and assist private clubs on request, 4) to seek a broader base of financial support in order to accomplish the first three objectives, and 5) to do as many operational studies as possible to keep a course from closing or to improve its operation.

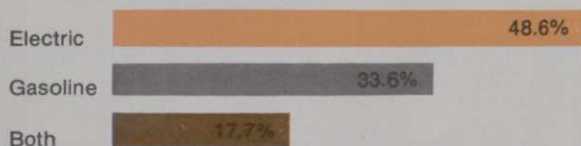
It was announced that each of the eight NGF regional directors is developing a Community Golf Profile on every city of 50,000 or more in his area, which should identify specifically where the Foundation's services and efforts should be concentrated.

GOLF CAR OPERATIONS

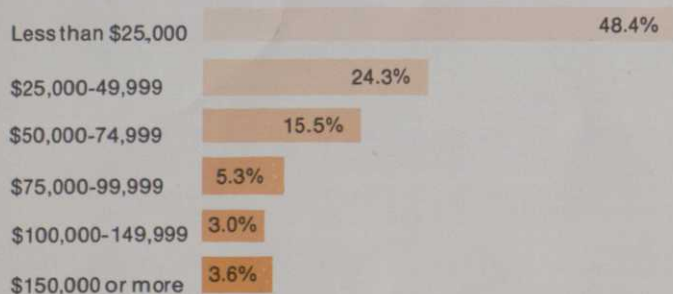
Do you own or lease your golf cars?



What type of golf cars do you have?



What is your gross rental from golf cars?



From a 1978 GOLF BUSINESS survey.

GAO says inspectors overlook hazards

Congress' investigative agency, the General Accounting Office, recently contended in a report that inspectors from the Occupational Safety and Health Administration often overlook serious safety hazards and don't do enough to be sure others are corrected. The GAO also said that the 25 state-operated, OSHA-approved health and safety programs are doing an inadequate job.

OSHA replied that many of the instances cited in the GAO report have already been addressed by new OSHA programs and policies, and that other cases were extreme examples caused by such things as "an overload of employee complaints in one area office."

The GAO based its report on interviews with OSHA and state

TURF MAINTENANCE

Winter overseeding subject of meeting

The current "state of the art" of winter overseeding in the South was the featured topic of discussion at a roundtable meeting recently sponsored in Boca Raton, Fla., by the Seed Production and Introduction Corp. (S.P.I.C.), an organization which produces and markets Pennfine perennial ryegrass nationwide. The meeting was held in cooperation with Pennsylvania State University, where Pennfine was developed. Several leading turf professionals in the Boca Raton area also attended.

"Overseeding is definitely an art," said Turfgrass consultant Dr. Max Brown. "Seed selection is probably the most vital key. Good seed must germinate quickly, resist diseases, stand up under heavy traffic, and make a smooth

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Today's Greens King II offers better control and tighter turning due to a newly improved steering mechanism. Today's Greens King II has independent reel selection for ultimate operating flexibility. Today's Greens King II provides increased operator comfort and ease of operation.

Many optional attachments give the Greens King II added versatility and can save you time and money. For example, the spiker mounts easily in place of the reel assembly and allows you to quickly spike greens. And the

vertical mower reel converts the Greens King II into a vertical mower for thinning and controlling grain in turf.



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Take a look at leadership.



Participants in the overseeding roundtable included (from left) Dr. Guy McKee, professor of agronomy; Dr. Henry Fortmann, professor and assistant director of agriculture administration; Dr. James Starling, professor and head of agronomy; Dr. Joseph Duich, professor of turfgrass science; Swede Townsend, Whitney-Dickinson Seeds; and Dr. Walter Thomas, association dean and associate director of agriculture administration. All but Townsend are from Penn State University.

transition to bermudagrass in the spring."

The group discussed the important steps in a successful overseeding program, including planting rates, dates, seedbed preparation, and fungicide use. Brown noted, "Lack of knowledge of these factors is generally the main resistance factor in overseeding. Most superintendents know overseeding is beneficial, but they have to learn more about the

procedures. We'll see more successful overseeding when more superintendents master the art."

Participants in the discussion agreed that overseeding efforts should be concentrated on greens.

They also pointed out that overseeding not only helps maintain attractive green playing surfaces, but it protects dormant bermudagrass from injury due to cold weather and heavy winter traffic and also helps control weeds and undesirable winter grasses.



Sprinkler tests are conducted indoors under no-wind conditions to insure proper and concise recording of performance data. Digital counters record the amount of water in the catchments.

IRRIGATION SYSTEMS

Test facility gives computerized design

A computerized test facility that provides the precise data needed for designing an efficient, reliable irrigation system has been installed by Johns-Manville at the Fresno, Calif., headquarters of its Ag-Turf Department. The computer-generated system analysis eliminates many of the rule of thumb practices commonly used in irrigation system layout.

According to a company spokesman, "In addition to allowing a comprehensive sprinkler spacing analysis, the facility tailors the system to the job rather than the job to the system."

Since one of the major purposes of the test facility is to assure accurate sprinkler precipitation uniformity at any spacing, it could play a major role in water conservation by removing the need to over-irrigate a turf area to insure an adequate watering of dry spots.

Further information is available from Johns-Manville, 909 W. Nielson, Fresno, CA 93708.

Golf organizations' survey asks data on use of recycled water for irrigation

Second to energy conservation, probably no other single element of conservation is as important as the wisely managed use of water — especially on golf courses, where water is used in great quantities for irrigation. Recycling or reuse of water will become increasingly important in the near future. A central data bank of information regarding turf

areas now being irrigated with recycled water is badly needed.

For that reason, the American Society of Golf Course Architects Foundation, the National Golf Foundation, and the United States Golf Association are jointly conducting a survey to determine the status of the use of recycled water (effluent and other wastewater)

on golf courses.

Would you please help by taking a minute to fill out and mail the questionnaire below? The data will only be used in combination with that of others; replies of individual golf courses will be kept completely confidential.

PLEASE RETURN QUESTIONNAIRE TO:

Mr. Al Radko
National Director
USGA Green Section
P.O. Box 1237
Highland Park, NJ 08904

- 1) Do you presently use recycled water on your turfgrass?
Yes No
- 2) Are you considering recycled water as a possibility?
Near future Distant future No
- 3) What is your source of recycled water? Industrial
Military installation Municipal Housing
development Other (specify) _____
- 4) Number of acres irrigated with recycled water:
Greens _____ Tees _____ Fairways _____ Rough _____
Other _____

- 5) Type of facility: Private Daily fee _____
Municipal Military Other (specify) _____

Size: Regulation Executive Par 3

- 6) Do you know of any other golf facility using recycled water? No Yes Type of course _____
Location _____
(If more than one facility, please attach list.)
- 7) If you use well, city, or pond water for irrigation, how many gallons do you use annually? _____

Form filled out by: (optional)

Name _____

Title _____

Golf course _____

City and state _____

Clippings

Brief bits of news from in and around the golf business. . . .

Superintendents looking for a change of scenery might want to contact golf architect Robert Trent Jones — he is designing what will be **the Soviet Union's only golf course**. Located on 200 acres of white birch and hemlock 20 miles northwest of Moscow, the 18-hole course should be completed in 1981 or 1982, according to an Associated Press report. The AP quoted Jones as stating that "an American or British professional will be needed to teach the game, and a foreign greenskeeper will have to be employed until a Soviet staff can be trained."

Perhaps the National Golf Foundation should get involved, too, since Jones and his son Robert Jr. said that Soviet diplomat Vladimir Kurznetsov is the only Russian they know who plays golf.

On the other side of the world, another Robert Trent Jones golf course has been purchased by UAL, Inc., parent company of United Airlines and Western International Hotels. UAL paid Rockresorts, Inc. \$51.5 million for the 310-room **Mauna Kea Beach Hotel** and its 18-hole championship golf course, located on the island of Hawaii.

The 6,400-yard championship course of the **Acapulco Princess Hotel** in Mexico recently received a 3-month, \$100,000 facelift under the direction of superintendent Carlos Villarreal. All 18 greens were removed and replanted with Tifton 328 bermudagrass; fairways were row planted with Tifton 419. Architect Ted Robinson's layout was maintained to capitalize on the natural beauty of the place, but new golf car paths were constructed and the sand in all 58 bunkers was replenished.

Closer to home, **Deer Creek Country Club** in Deerfield Beach, Fla., has begun a \$100,000 renovation program. Most of the work was to be done last month and this month, while the course is closed. General Manager William Galloway said, "The new lakes have been staked out, and crews have been working steadily for several weeks installing over a mile of drainage systems on the course." Nearly 200,000 square feet of greens and fringes was to be replanted. Deer Creek is apart of a development owned by D.C. Properties.

Golf course operators contemplating building a new course or reconditioning an existing one can get a free directory of golf course contractors from the **Golf Course Builders of America**, 725 15th St. NW., Washington, DC 20005 (phone 202/638-0555). The pocket-size 48-page booklet carries biographical data on GCBA members. It also lists courses they have done, so you can check with other course operators about the quality of the contractors' work.

Selecting Your Golf Course Architect, an 8-page brochure, is available on request from the American Society of Golf Course

Architects, 221 N. LaSalle St., Chicago, IL 60601. The publication outlines the role of the architect and explains key steps in planning and constructing a course.

United States patent number 4165 has been issued for **Birka Kentucky bluegrass**, according to E.F. Burlingham & Sons, who have the exclusive U.S. rights for production and marketing. Burlingham Vice President Bob Peterson said that the grass has "consistently proven its ability to maintain an attractive appearance under low maintenance conditions throughout 8 years of testing in research stations in the U.S. and Canada."

Four leading turf specialists have produced a new bulletin titled **Annual Bluegrass — Description, Adaptation, Culture and Control**. The authors: Dr. James B. Beard, Texas A&M University; Dr. Paul E. Rieke, Michigan State University; Dr. Alfred J. Turgeon, University of Illinois; and Dr. Joseph M. Vargas, Michigan State. Single copies are available free, additional copies for 50¢ each, from the MSU Bulletin Office, P.O. Box 231, East Lansing, MI 48824. Ask for *Annual Bluegrass*, Research Report 352.

The **Turfgrass Bibliography** produced by James B. Beard, Harriet Beard, and David P. Martin has been nominated for the American Library Association's Outstanding Bibliography Award for 1978. The book contains 16,000 references to writings covering turfgrass science, culture, and management from dating 1672 to 1972. It took 10 years to complete. A limited edition of 1,500 copies is available at \$35 per copy (plus 45¢ shipping charge) from Lyle Blair, Michigan State University Press, Room 25, Manly Miles Bldg., 1405 South Harrison Rd., East Lansing, MI 48824.

Gary Wiren, director of club and professional relations for the Professional Golfers Association of America, will receive the **Joe Graffis Award** from the National Golf Foundation at a banquet on August 3. NGF Executive Director Don Rossi will present the award during the sixth annual Advanced Seminar for Teachers and Coaches of Golf put on by the Foundation July 30 to August 4 at Pine Needles Lodge and Country Club in Southern Pines, N.C. The award, named for the co-founder of the Foundation (and GOLF BUSINESS magazine's forerunner, GOLFDOM) and president from 1936 to 1957, is given for "outstanding service and dedication to the educational advancement of golf."

Professor C. Richard Skogley has notified us that the **University of Rhode Island's 47th Annual Turfgrass Field Day** will be August 23 at the University's Turfgrass Research Farm in Kingston. For details, contact Professor Skogley, Plant and Soil Science Dept., University of Rhode Island, Kingston, RI 02881.

August 23 will also see the **Kansas State University Field Day** put on in Manhattan, Kan., by the Central Plains Turfgrass Association. Contact: Dr. Robert N. Carrow, Horticulture Department, Kansas State University, Manhattan, KS 66506 (phone 913/532-6170).

Ohio Turf and Landscape Day is September 12 at the Ohio Agricultural

Research and Development Center in Wooster. Contact: Edward H. Roche, OARDC, Wooster, OH 44691 (phone 216/264-1021).

The National Golf Foundation has scheduled its fourth annual **National Daily Fee Golf Course Operators' Workshop** for November 18-22 at the Marriott Inn in Orlando, Fla.

A familiar name has joined the staff of the National Golf Foundation. **P.J. Boatwright III** has been named assistant director of the Information Services Division. . . **Fred Higgs** has been appointed executive director of golf at the Paradise Island Golf Club in the Bahamas. He had been director of golf there until being made convention sales manager for the Britannia Beach Hotel in 1976. He also serves as chairman of the New Providence Division of the Bahamas Golf Association and on the executive committee of the BGA.



Boatwright Higgs Giltner

Gary G. Giltner has been named national sales manager for the commercial products division of The Toro Co. His responsibility will cover sales of turf maintenance equipment for use on golf courses and other large turf areas. . . **Henry F. Pierce** is now business center director for agricultural chemicals at Hercules Inc., and **Ross H. Allmon** is agricultural chemicals industry director. The products they market include Nitroform slow-release nitrogen and Antor, a new preemergence herbicide.

Dave Dudas, a 1977 graduate of Penn State's 2-year turf management program, recently joined Lakeshore Equipment & SupplyCo.'s irrigation department in Elyria, Ohio, as an irrigation systems designer. His background includes work as assistant superintendent at Grantwood Recreational Park in Solon, Ohio. . . Mallinckrodt, Inc. has hired **Cecil Kerr** as an executive sales representative for its Specialty Agricultural Products Department. Covering the North Central states out of Kalamazoo, Mich., Kerr will sell a product line that includes pesticides for use on professionally maintained turf and ornamentals.

Benson J. Lamp has been appointed marketing manager for Ford Motor Co.'s North American Tractor and Implement Operations in Troy, Mich.

The Irrigation Division of The Toro Co. has promoted four of its top sales and marketing executives under a reorganization prompted by what Vice President James W. Adams called the "continuing vigorous growth" of the division. The men and their new posts are: **Daniel E. Clawson**, group director of sales and marketing; **Robert Batterson**, director of turf sales; **Richard A. Danielson**, director of marketing services; and **Craig Tanner**, director of marketing.