

Editor — Ray Gerber
865 Hillside Ave.
Glen Ellyn, Ill. 60137
Phone — 469-6467

Associate Editors — Robert Williams
90 East Franklin, Apt. 208
Lake Forest, Ill. 60045
Office Phone — 432-0088

Roger LaRochelle
20432 Kedzie Ave.
Olympia Fields, Ill. 60461
Home Phone 481-1638



The President's Message

It seems that in the past few months, there has been an abundance of meetings and shows. Of course this is the time of year for people in the field of turf and related businesses to have some time free to attend these functions.

The show in Boston, was, I suspect, the biggest, the best, the most attended (I even brought my wife) etc. of all previous shows. An almost overwhelming collection of chemicals, fertilizers, equipment, and assorted hardware was shown. It seems everything is powered for every job, including a hole cutter. Of course you had two choices in this department — Hydraulic powered or driven by a rubber mallet! Through all this array of sophisticated gadgetry, I still could not find a wooden rake (my Members like them) that doesn't lose its teeth like hairs from my head, or a flag that won't tear and fade after a week's use, or a paper towel that cost 3 1/2¢ and looks like it!

There was one type of equipment that, to me, was conspicuous by its absence; that being safety equipment. With all we've heard OSHA, I would think our National Association would have made an effort to have some of these items shown. The items I refer to, are things such as safety boots, gloves, hard hats, face guards, breathing devices, spraying clothing, etc. I did see a few roll bars on tractors and a safety switch on one Triplex greens mower, but except for that, safety items were non-existent. It gave the impression that no one is worried about safety when we know that it is, and will be of major concern in years to come.

Before I close, I would like to take time to thank Mr. Mike Bavier and Mr. Ed Smith for presenting the Midwest's motion concerning the National's moving of its headquarters to Kansas at the GCSAA annual member's meeting. Although the motion was defeated, it paved the way for a motion from Ohio to present all other moves in the future to a membership vote. Again, thank you Men.

Denis Straus,
President

MAGSC BOARD OF DIRECTORS FOR 1973

OFFICERS

President — Denis Straus
First Vice President — Alby Staudt
Second Vice President — Edward Smith
Secretary Treasurer — Mike Bavier

DIRECTORS

Clifford Behrendt	Roger LaRochelle
Robert Breen	Fred Opperman
Joe Grenko	Paul Voykin
Executive Secretary — Dorothy Carey	

The following is a list of office telephone numbers for the entire Board.

Dorothy Carey	349-7766
Mike Bavier	358-7030
Clifford Behrendt	815-459-8570
Bob Breen	653-5800
Joe Grenko	336-6546
Roger LaRochelle	219-844-0335
Fred Opperman	469-6220
Ed Smith	234-2600
Alby Staudt	232-0624
Denis Straus	392-0427
Paul Voykin	945-3350

BULL SHEET ADVERTISING RATES

Full Page —	\$100.00
1/2 Page —	\$ 50.00
1/4 Page —	\$ 25.00
Per Column Inch —	\$ 5.00



Editor

Editorial

HAVE TIMES CHANGED?

I sat here at my desk wondering what to write about for the February issue of the Bull Sheet. Several things came to my mind. One of the things is, what were the cost of many items several years ago? One could buy a model T Ford car for approximately three hundred dollars. A spare tire was not included. Usually the dealer would give the customer a spare tire and also a set of tire chains. The chains were very necessary for anyone who expected to travel in the country. One could buy gasoline for ten or eleven cents a gallon. No tax those days. Farm labor was thirty dollars per month including board and room. One could buy a pair of work shoes for less than two and a half dollars. There was a shoe store in Minneapolis called the ninety-eight cent shoe store, none higher. That is the store from which my shoes were purchased. There was a time when one could go to Sears Roebuck and buy a hand lawn mower for less than two dollars and fifty cents.

What about various costs on golf courses? I can only go back to 1916, the year I started to work on one. Wages were considered satisfactory at that time — twenty cents per hour, ten hours per day, six days a week. Board and room was one dollar a day. This included all the food one could eat. One could hire a team of horses and a driver for five dollars a day. Help was plentiful in those years and it was good dependable help.

Very little commercial fertilizer was purchased in the teen years. The fertilizer used came from the horse or cattle barns. How many of you ever used real liquid fertilizer? I imagine very few of you know of the method that is required in the processing of this kind of fertilizer. My experience came at the club I was employed at in Minnesota. A large pit was built. The pit was then filled with manure from the stables. Water was poured over it occasionally. After several days the liquid was pumped from the bottom of the pit and put in large containers and taken out on the golf course greens and applied, usually with a sprinkling can. It was almost impossible to get an even distribution, but we always were able to tell if the fertilizer was any good. This is some contrast in regards to applying fertilizer on greens today. But labor was cheap. The material cost nothing.

Red top grass seed was five cents a pound, Kentucky Blue — eight cents a pound. A tractor and five cutting units cost \$900.00.

Up until 1951 membership dues in the National Superintendents Association was \$10.00 per year. For many years there was one paid employee in the office. He took care of all the office work plus the publishing of the magazine. In our Midwest Superintendents Association, our dues were for many years two dollars a year. Our dinners at the meetings cost us one dollar and a half to two dollars. Liquor was thirty-five cents to forty-five cents a drink. The clubs never charged us more than their cost. This is no longer true. We are asked to pay one dollar for liquor, fifty cents for a bottle of beer, and eight to ten dollars for dinner.

YES, TIMES HAVE CHANGED!

The Midwest Golf Course Superintendents Association's Hospitality Room in Boston truly proved to be exactly that of its meaning, friendly and generous entertainment. Where could one find a better place to spend an evening, meeting old time friends and to get acquainted with new ones. The education that is gathered in a place such as this is more valuable than judged by the dollar that it cost. In most cases, goodwill cannot be bought by just dollar alone. A handshake and a smile is very important and there was plenty of this in room 2432.

Space does not permit me to print all the welcome guests that visited this room. We were more than happy to have our superintendent friends from England drop in and spend a few hours with us. I hope they enjoyed us as much as we enjoyed them; also visiting were Dr. James Beard from Michigan State University, Dr. Ralph Ingel, Dr. William Daniel, Purdue University, Dr. Paul Alexander, our G.C.S.A.A. director of education, and many more. The entire conference was excellent, and the attendance set an all time high of 4,360. One of our long time loyal friends was missing, Dr. Fred Grau. Fred, I hope you do not make this a practice.



David Meyer

The February meeting will be held at the Nordic Country Club on Tuesday, February 13th. Lunch will be at noon and the meeting will follow. The Swimming pool, sauna bath and whirlpool bath will be available for everyone's use if they so desire.

David Meyer, host Superintendent, will be expecting you.



Judy Opperman, Linda and Roger LaRochelle



Bonnie Fuchs, John Jackman



Wilma and Peter Bild

GOLFERS PLAY

... while we install your
irrigation system

one fairway at a time!

Free literature and list of installations on request.

Kirchdorfer
Irrigation, Inc

P. O. Box 4124 • Louisville, Ky. 40204
Phone 585-4305 • Area Code 502

From the world's largest
grower of fine sod . . .

**Warren's®
A-20**

KENTUCKY BLUEGRASS
Sod and Sod Plugs

The finest grass
available for
TEES - FAIRWAYS - COLLARS

- Rated highest in disease resistance
- Upright growth
- Takes short mowing
- Fast recovery from injury
- Greens up earlier — stays green longer



CREEPING BENT SOD & STOLENS

Greens — Toronto C-15 and Pennpar
Tees — Cohansey C-7 and Pennpar

Warren's TURF NURSERY

8400 West 111th. Street
Palos Park, Illinois 60464
Phone (312) 974-3000

State Road 47 (North)
Huntley, Illinois 60142
Phone (312) 974-3000

1801 North Rand Road
(U.S. 12 No. of Dundee Rd.)
Palatine, Illinois 60067
Phone (312) 974-3000

2550 Dempster Street
(Dempster St. at Potter Rd.)
(Lindemann's)
Des Plaines, Illinois 60016
Phone (312) 297-7470

C. E. STEWART
and Associates
Civil Engineer

Irrigation, Drainage, Water Supply, Pumping Plants
Design — Reports — Consultation — Supervision
18357 Homewood Ave. Homewood, Illinois

RUB 'O THE GREEN

by Tim Miles

Golf Course Superintendent

This has truly been an unusual year for golf activity. Today we plowed four inches of snow off the parking lots and upon checking my records, I discovered that the first week of December in 1970 we mowed the greens and tees. As you know, this has been an unbelievably wet year. This year, for example, we pumped about 10 million gallons of water through the irrigation system. In 1970 and 1971, we pumped nearly 30 million gallons of water each season. In this issue I would like to present some statistics relating to the golf course.

1. The irrigation system can, at maximum, pump 36,000 gallons of water per hour or 864,000 gallons per day.
2. To supply one inch of water to the fairways, greens and tees, we have to water for nearly 23 straight hours.
3. One inch of rain from Mother Nature on all of our property is equivalent to over 3½ million gallons of water.
4. Our two lakes will retain approximately 3½ million gallons of water.
5. It takes nearly 20 tons of high quality fertilizer to keep the greens, tees and fairways in good health.
6. It takes an expenditure of nearly \$4,500 to overcome the ravages of insects, weeds and diseases.
7. Approximately 17,000 man hours are required to maintain the grounds of the Joliet Country Club.
8. The grass on the golf course supplies enough oxygen to sustain approximately 8,500 people and it also serves as a unique air cleaner.

There are many more statistics which might interest you. There is one, however, which psychologically might help your game next season. If you are a golfer who doesn't like the rough, lakes or sandtraps, keep the following in mind. Of the 132 acres on the property, over 44 acres are contained in the greens, tees and fairways. Therefore, before you even swing the club, you can rest assured that you have a better than one in three chance of staying in the fairway!

AQUA-GRO QUALITY BLENDED WETTING AGENT
AQUA-T LOW COST BLENDED WETTING AGENT
STOMA-SEAL CHEMICAL CONTROL OF WILT
AQUA-GRO GRANULAR CONVENIENCE OF APPLICATION

FOR SALE

Broyhill 130 gal. PTO Sprayer with 15' boom — to be used on scouter — excellent condition.
Call Mike Bavier — 312-358-7030

Dear Ray,

Each month I write an article for Klub Klips, our club newspaper. I use the column, Rub'o The Green, as a communications tool and for educating the general membership about some of the problems faced by the grounds department. This particular article was written not to educate any member but to enlighten some of them. I feel members and board directors sometimes tire of listening to our problems/headaches and this article attempts to promote a positive note or tone rather than a tone of negativism.

Sincerely,
Tim J. Miles

EDITOR'S NOTE

Your article under the title "Rub 'O The Green" is an excellent one. This brings the kind of information to members that I am sure they appreciate and you did it in a few words. How nice it would be if all Superintendents would make reports such as yours and send me a copy for the Bull Sheet. It would be very educational and interesting.

EVERSPRAY CO.

• UNDERGROUND LAWN SPRINKLING SYSTEMS
**IRRIGATION EQUIPMENT
AND SUPPLIES**

GEORGE WELLEK

9250 GOLF ROAD
DES PLAINES, ILLINOIS
296-5555

The Oldest and Largest Tree Service in the World

— COMPLETE TREE CARE —

Pruning
Spraying
Feeding

Tree Planting
Tree Removals
Inspections

DAVEY TREE EXPERT CO.

O. S. SIMPKINS — PAUL MALLORY
District Mgrs.

1901 W. Algonquin Rd., Mt. Prospect, Ill. 60056
437-4080



MILLER

MILLER SPRINKLING SYSTEMS

DIVISION OF A. J. MILLER, INC.

1320 N. Campbell Road
Royal Oak, Michigan 48067

Since 1925

313-398-2233

FOR THE FINEST IN SOD

THORNTON'S TURF NURSERY

312-742-5030

Rt. 2 Box 72

Elgin, Ill.

RECORD'S RECORD

By Lee Record
USGA Green Section
Mid-Continent Agronomist

"Should regular greens be played during the winter month?" This question was asked frequently during the past season by Green Chairmen and club officials.

There are two critical times when injury may be severe. Early or late in the season when the grass has been growing and frost occurs, foot traffic on frosted greens will cause serious footprinting. Ice crystals within the grass blades are distorted and rupture living cells, causing death. Later in the day when the ice crystals have thawed the same amount of traffic will do limited damage. Syringing greens in early morning before traffic is allowed on the course will help solve the problem; water melts the ice crystals.

The most serious damage 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. The surface of the green will be susceptible to serious footprinting which in turn will affect the quality of the putting green surface throughout the following season.

It has been demonstrated in test plots that trampling on melted snow, with subsequent freezing will result in total turf destruction. This is a strong argument against using slopes on the golf course for sledding, skiing, and the use of snow mobiles.

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. It is very difficult to convince golfers they should not play.

Dr. Fred Grau, prominent turf authority, proposes that this sign be displayed at the golf club. "In the interest of all the members, and in an attempt to preserve the high quality of our greens, the course is closed to play until conditions warrant resumption of traffic."

"Every effort is made to keep the course continuously playable, but when Nature fails to cooperate and brings frost or floods we have no choice but to limit play. The understanding and consideration of the members are greatly appreciated."

Speaking from an agronomic point of view, we would say without reservation that it is best to keep winter play off regular greens and to use temporary greens.

Bob Williams, Superintendent at Bob O'Link Golf Club, and his wife, Bobbie, are vacationing and enjoying the sunshine this winter in Crystal River, Florida.

GLEN OAK STORM DAMAGE OF JULY 17, 1972

After the storm we had 8 trees uprooted and ended up cutting down 23. This winter, due to the storm, it was necessary to prune/trim 72 trees and take down 6 additional trees.

From Office of Agricultural Communications
College of Agriculture
University of Illinois
Urbana, Illinois 61801
Urban Pesticide Clinics Scheduled

At Nine Illinois Locations

Here's the schedule for the 1973 Urban Pesticide Clinics, sponsored jointly by the University of Illinois Cooperative Extension Service, the Natural History Survey, and the Illinois Department of Agriculture:

Date	City	Locations
February		
26	Rantoul	Redwood Inn
27	Springfield	Heritage House, Rt. 66 South
28	Belleville	Augustines, Rt. 460 & Rt. 158
March		
1	Marion	Holiday Inn, I-57 & Rt. 13
5	Peoria	Heritage House, Rt. 88 North
6	Rock Island	Deere & Co., Admin. Center
7	LaSalle	Holiday Inn, I-80 & Rt. 51
8	Rockford	Holiday Inn, Rt. 51 South
15	Arlington Hgts.	Arlington Towers

Registration for each meeting will be from 9:30 to 10:55 a.m. The meetings will adjourn about 3:00 p.m.

Advance enrollment is required for the March 15 clinic at Arlington Heights. To advance enroll, contact James Fizzell at the Cooperative Extension Service Office, Room 3, 662 Graceland Avenue, Des Plaines, by Feb. 23. If enrollment is large enough another meeting will be scheduled at a later date.

The 1973 clinics will be geared to "small package" or home and garden pesticide dealers. The clinics will also include topics of interest to custom applicators who apply pesticides to trees, shrubs and lawn areas.

Representatives of the Illinois Department of Agriculture, Division of Plant Industry, will discuss the Illinois Custom Spray Applicators Licensing law and administer examinations for custom spray operator's licenses at the end of each meeting.

Mr. C. O. Borgmeier
2503 N.W. 53rd Street
Ft. Lauderdale, Florida 33309

Editor's Note
Thanks Charlie

Dear Oscar:

We just established a grant for \$1500.00 at the University of Florida to check out potassium reserves in their fine sandy soil. It is a start towards O. J.'s long time wish to develop some semblance of order in the chemical soil testing field.

A big part of this is to find out what happens to nutrients after we apply them on turf. The beauty of the Florida work is that the plot area has been under turf and light to very heavy potassium fertilization for the past 10 years. Dr. Gaylord Volk (former Wisconsinite) and soils professor will undertake the study.

From this we should be able to expand to depth of sampling, extractants, other elements, etc., so that someday soil testing will cease to be a gimmick and return to its rightful roll as a good tool for the professional turf grass growers.

I believe that with this check the Noer Foundation expenditures will have exceeded the \$60,000.00 mark. It never could or would have happened had it not been for you. You will also be pleased, as Chuck has undoubtedly told you, that the Oak Park Trust is doing a good job of managing the funds.

Very truly yours,
Charles G. Wilson
Research Director



TORO

Equipment & Irrigation

Bean Sprayers

Fertilizers

Parker Products

Did you see
The All New Hydraulic
72" Groundskeeper
In Boston ???

Chemicals

Hose & Accessories

Greens & Tee
Equipment

Toro Distributing

731 District Drive, Itasca, Ill. 60143

(312) 773-2110

TORONTO C-15 BENT SOD & STOLONS

"PURE TO STRAIN"

Mowed at putting green height with
"Greens King"

For Tees and Collars — FYLKING SOD
WINDSOR SOD

For Fairways — BLUEGRASS BLEND SOD

PENNCROSS BENT SOD



H & E Sod Nursery, Inc.
4301 W. Flossmoor Rd.
Tinley Park, Illinois
312 798-2210



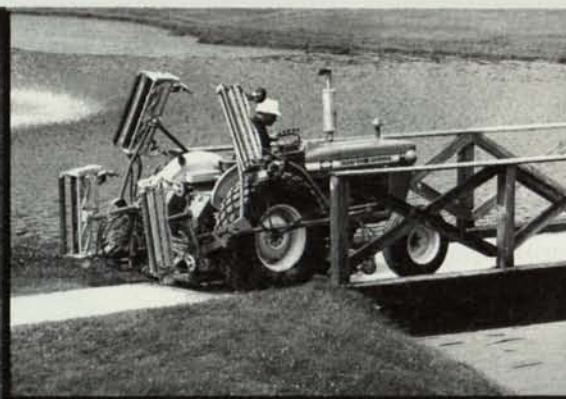
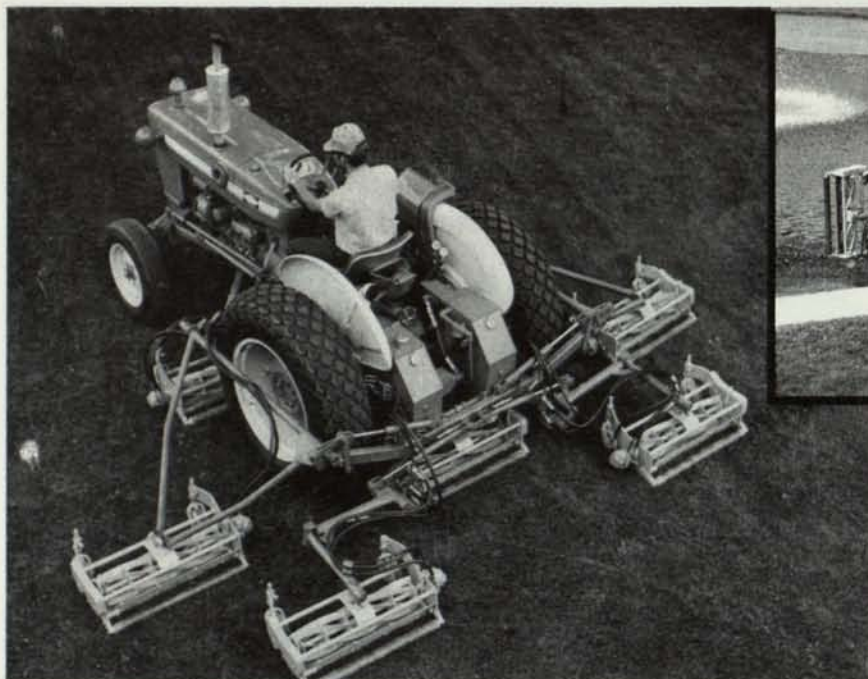
Ken Lapp, Rus. Reed, Ray Gerber

IT'S A WALKING GAME

To the USGA:

I am dedicated to the preservation of golf as an 18 hole walking game. I have played golf for 47 years, endeavoring, weather permitting, to get in three games per week. Since retiring 19 years ago, I have succeeded. I am 89 years of age and encourage retirees to walk. In the past 19 years, I have ridden a cart 12 times to satisfy a partner. I have averaged 90 games per year since retirement.

C. Brenton Cook
Cleveland Heights, Ohio



Beginning a new era in turf mowing, the Roseman 7 unit Hydra-Gang Mower utilizes the tractor power take-off system to power the cutting reels and the tractor hydraulic system to provide hydraulic lift for each mower unit. Hills and banks can be mowed easily regardless of soft or wet turf conditions. Individual mower units follow ground contour with unlimited flexibility without scalping. The Hydra-Gang mounts on Ford 2000 and 3000 All Purpose model tractors.

ROSEMAN TRACTOR EQUIPMENT COMPANY

2620 Crawford Ave., Evanston, Illinois

ARTHUR CLESEN INC.

Turf Chemicals

Agrico — USS Agri-Chem. - Koos
Fertilizers

Soil Conditioners

"Easy Markers" & Paints

611 So. Wolf Road
Wheeling, Illinois (312) 537-2177

Q.—What to do for a maple tree whose bark has cracked open and is coming loose.

A.—This is a common problem with maples and can usually be traced to frost action. Don't peel off the bark but wait until late spring or summer after callus growth has formed at the edges of the cracked area. Then carefully remove the loose bark and apply a tree wound paint over the affected area.

Nels J. Johnson, Tree Experts, Inc.

SINCE 1930

Complete, economical tree service for Private Estates, Parks, Municipalities, Golf Courses Cemeteries, Schools, Industrial Areas.

All phases of Arboriculture, Diagnosing, Pruning, Treating, Transplanting, Fertilization, Hydraulic and Mist Spraying, Removals, Stump, Routing, Municipal Forestry.

— FULLY INSURED —

GRADUATE FORESTERS • LICENSED ARBORISTS

MAIN OFFICE: 912 Pitner Avenue, Evanston, Illinois

Phones: GR eenleaf 5-1877 — GR 5-5255

Hinsdale, Illinois — FA 5-0970

PROPER STORAGE OF PESTICIDES

With proper storage, pesticides can generally last one to two years. They should be stored dry and warm, not frozen. Here are some tests you can perform to determine if the chemicals have deteriorated.

- A) Emulsifiable Concentrates—When milky coloration does not occur by adding water, when sludge is present, and when any of the components separate, the product has deteriorated.
- B) Oil Sprays—When milky coloration does not occur by adding water.
- C) Wettable Powders—When excessive lumping occurs and the product will not suspend in water.
- D) Dusts—Excessive lumping.
- E) Granulars—Excessive lumping.
- F) Aerosols—These are generally effective until the dispenser no longer sprays.

(From the USGA Green Section Record, Nov. 1972)

TURF PRODUCTS, LTD.

- 1106 N. Scott Street
- Wheaton, Illinois 60187
- Telephone 668-5537



TURF PRODUCTS, LTD.

F. D. CLAVEY RAVINIA NURSERIES, INC.

Roy F. Clavey, Pres.
Established 1885

TREES SHRUBS EVERGREENS

Introducers of
CLAVEY'S DWARF HONEYSUCKLE
BEVERLY FLOWERING CRAB

Rte. 2, Box 582, U.S. 45 & Knowles Rd.
Lake Villa, Illinois
312 - 223-8616



Walter Fuchs, 3rd from left, and Jim Bertoni, 5th from left, entertain superintendents from England at the Boston Conference.



Superintendents from England at Boston Conference



Ed. Stewart, John Ebel, Bill Walsh

ASPHALT DRIVEWAYS — PARKING LOTS — ETC.
"Golf Course Work a Specialty"

LEMONT PAVING CO.

SAND & STONE

115th & Archer Ave. (Rt. 171) — Lemont, Illinois
RAY MURPHY 257-6701



Bob Hall
PARKWAY PRODUCTS COMPANY
7318 West Route 130
Box 487
McHenry, Illinois 60050
Telephone 815/385-0823



Amos Lapp, Loraine Gruening, Gean Stewart

Irrigation With Sewage Effluent

A speech given by James R. Burdett at Midwest Association of Golf Course Superintendents Clinic, November 15, 1972.

(Continued from January issue)

The Environmental Age Newsletter is carrying this to the public even better than we could do with increased funds. In their August newsletter they pointed out; "A healthy lawn does the following: Absorbs gaseous air pollutants, releases oxygen and removes carbon dioxide, controls wind and water erosion, conserves moisture and reduces runoff by absorbing rainfall, releases pure unpolluted water, reduces surface temperatures during summer months, muffles noise pollution and reduces weed pollution." In the previous movie, "The Living Filter", we saw more about this recycling.

In a paper presented by Doctor H. B. Peterson, he discusses the use and buildup of soluble salts in particulate matter. His comments on humid regions, which I would call our area, indicate that the normal rainfall in our area increases the percolation of salt that precipitates or is fixed, and the quantity removed by the crop are of relatively small proportions. There are instances however, in which the buildup by fixation or precipitation may be of concern in both arid and humid climates." "Sprinkling has many advantages for applying sprinkler irrigation, particularly on lands not leveled for surface application." This is the case on our golf course.

The incidence of higher disease is practically nil and borne out from a letter from Lee Record, in which his opinion is that there would be no additional problems of disease.

The action of sludge in seed germination areas does inhibit this seed germination — referring back to Hinsley's report, "This inhibition was observed in the liquid phase of the digested sludge and was caused partly by ammonium or ammonia. Following aerobic fermentation of the digested sludge for one week, the inhibitory property is lost. This would explain why erratic results have been reported about seed germination in soils amended with sludge. It is likely that fresh digested sludge added to a soil which has already been seeded will prevent germination, however, if the seeds are put in the soil one week after the fresh sludge application or if the sludge used is old, eg; has been stocked in an open drum for weeks, germination will proceed normally."

In the September Golf Superintendent, an article by Mark Peterson, he brings out six advantages in the concept of recycling water;

- 1) Waste waters are further renovated, decreasing stream pollution.
- 2) Use of reclaimed water conserves the potable water supply.
- 3) Reclaimed water is usually available at a lower cost than other water sources.
- 4) Beneficial fertilizer elements are usually present.
- 5) Because of the seasonal requirements of turf, a need is created for off-season storage reserves. These reserves may provide lakes for a course, in addition to improving water quality.
- 6) Grasses used for turf are generally more tolerant of salinity than many agricultural crops and thus are more adaptable.

The basic requirements of irrigation water, it seems

to me, is that there be available: both an adequate supply of water, both fresh and sewage, so that the sewage effluent salt buildup would not be a problem; and an irrigation and drainage system which has had the best of engineering and planning in order to obtain maximum efficiency out of pumps and power units.

With reference back to the article in the Bull Sheet about fairway watering being a thing of the past, if we are interested in irrigating our fairways and can show to the environmentalist who has a limited amount of water available to him for sprinkling his lawn, even though our source of water does not diminish his sources, it would be a good amount of public relations along with conserving water to utilize this abundant supply of waste water.

In Illinois, a six hundred thousand dollar grant to research was provided by the Metropolitan Sanitary District of Chicago and the United States Public Health Service to the University of Illinois, for "research to learn the best way to handle waste water." It is to the benefit of municipalities to have an area such as golf course turf on which to sprinkle their waste effluent. This sewage effluent "consists of waste water containing three to five percent solids." Pumps, valves, piping, and sprinklers have been devised, as we saw in the Los Almos experiment, to handle this particulate matter. And in the recent issue of "Chemical Engineering" devices to detect Biochemical Oxygen Demand (BOD), Total Oxygen Demand (TOD), and on-line analyzers for Total Carbon (TC) and Total Organic Carbon (TOC) were discussed.

The Federal Water Pollution Control Act, commonly known as the river pollution bill, puts much responsibility onto the local governments to refrain from dumping any polluted water into the rivers. It also authorizes considerable funds to finance 85% of the cost of diverting this water. It is with the guidance and leadership of the golf course superintendent that his course will not be left in the lurch for need of irrigated fairways. Remember that 130 acres is sufficient to rejuvenate water from a town of 10,000. But if he becomes intimately acquainted with the water pollution control act and his local governments that his job then turns into the profession which he is so capable of handling.

The place to go
when stock is low . . .

BURDETT'S

Turf, Agriculture, Recreation) Supplies and Chemicals

Swift Road at North Avenue
P. O. Box 186
Lombard, Illinois 60148
(312) 629-1123