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THE

GREENER SIDE

Vol. 3 No. 6

DECEMBER 1980

Dates to Remember

January 6

Ornamental Pest Control (3A), recertification training, 9:30 a.m. - 4:30 p.m., Union County Extension Auditorium, Westfield, N.J.

January 6-9

Eastern Regional Nurserymen's Show, Concord Hotel, Kiamesha Lake, New York

January 16

Core Recertification Training, 12:00 - 4:30 p.m., Wayne Library, Wayne, N.J.

January 23

Turf Pest Control (3B), recertification training, 9:30 a.m. - 4:30 p.m., Union County Extension Auditorium, Westfield, N.J.

January 25-30

GCSAA International Conference, Anaheim, California

January 29

USGA Green Section Educational Conference, Anaheim, California

February 5

Information deadline for the February issue of "The Greener Side"

February 28 - March 8

New Jersey Flower and Garden Show, Morristown Armory, Morristown, N.J.

May 11-18

LPGA Coca Cola Classic, Ridgewood C.C., Paramus, N.J.

Coca Cola Classic Update

Pete Busatti, Coca Cola Classic Director, has again asked that a member of the GCSANJ consider chairing the Transportation Committee for the 1981 Classic. Inasmuch as we handle the entire transportation aspect of the Classic, it would seem a simple request, although one small consideration does come into play; our jobs.

It would be very difficult for one person to take an entire week off during our busiest season but how about three or four of our members co-chairing that committee? We have made very important strides in the area of Professional Recognition through this tournament and getting more involved will only be to our advantage.

Les Mickens has already made himself available for this challenge. Hopefully, two or three more of our membership will follow suit. Contact Henry Indyk or myself if you can spare a day or two during the week of May 11. I guarantee it will be a professional benefit you will most enjoy.

- E. Walsh

ARE YOU READY FOR A DRY 1981?

If you haven't thought about the current drought, and how it could affect you in the spring of 1981 - then you are not doing your job of planning ahead as you should be at this time of the year.

It is this writer's feeling NOW is the time to start thinking ahead, not as the season is about to open. Most weather sources indicate a below average precipitation this winter. This, coupled with the restrictions already imposed on golf course watering, may drastically alter our normal maintenance procedures next year.

Overreacting you say? Well, we, the editorial staff of "The Greener Side" think that the sooner we do react the better. With this in mind, we plan to concentrate this issue and the first issue of 1981, (more updates in future issues if necessary), to drought.

Articles pertaining to this topic will be sought from people across the country who have been through these conditions, and are willing to share their comments and suggestions with us.

We are particularly interested in receiving your views, experience, and plans for the 1981 season. These statements will be printed in our next issue as part of a drought forum.

Let's put our heads together as the group of cooperating professionals that we are supposed to be and take this bull by the horns. Even if water does become "plentiful" between now and the spring, we will have created a printed report on how to cope with drought should we need it in the future.

Michael E. Hannigan
Associate Editor "The Greener Side"

THE GREENER SIDE STAFF
would like to extend
our Best Wishes
to all our readers
for a
Happy and Joyous
Holiday Season



GCSANJ 1981 Executive Committee: Jack Martin, President; Ed Nickelsen, Treasurer; Bob Ribbans, Secretary; Dave McGhee, Vice President.

the GREENER SIDE

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From the Editor's Desk

With a new year fast approaching, it is again time to evaluate our accomplishments of the past season. What did we do wrong? What did we do right? What will we change and what will we continue? Did we make the progress we expected or were we stymied by some unforeseen obstacle? Did we properly plan our expected growth? If you are a progressive individual with both professional and social goals, you probably have already asked yourself these questions. If you are fair and honest with yourself, you probably have started planning to improve the areas where you have faltered in 1980. "The Greener Side" staff is no exception. We know there are areas where more work is needed, and we are planning now to improve our efforts in 1981. Although we have made the commitment to produce the best newsletter possible, your help is vital if our goals are to be reached.

We have seen a reluctance to get involved by some of our district newsletter representatives. We receive responses similar to: There isn't anything to report, or nothing is going on in our area worthwhile. I might make a suggestion to our non-responders, get one of your commercial reps involved. In the areas where I have been involved in the past (newsletter, Invitational, golf tournaments), it has always been easy to get a commercial rep interested. Ken Kubik, Dick Grant, Ernie Rizzio, Fran Berdine, and Dennis DeSanctis have not only been helpful, they have been an asset to me and our Association whenever asked. They wanted to help.

Nobody sees or hears more than your local salesperson. That is the kind of information we want for "The Greener Side." Who's doing what, when, and why?"

I hope I have not put my commercial friends' necks on the block by offering their help. I honestly do feel they are our most untapped resource. District Directors, ask someone in your area to get involved and don't be surprised if your quickest response is from one of your commercial associates.

Chip Shots

Ridgewood C.C. has been chosen to host the 1981 L.P.G.A. Coca Cola Classic in May.

Cliff Beldon, Superintendent at High Mountain G.C. has been appointed by GCSANJ President Jack Martin to chair a committee to investigate how the various agricultural industries in the state can get more representation through appointment to the New Jersey Water Resources Task Force.

Three of our GCSANJ Associates had or will have articles published in our Parent Associations magazine, Golf Course Management.

Paul Boizelle wrote "How to Establish A Tree Nursery" for the September issue while Tony Bifano's article on Aerial Spray Applications should appear in the next issue. Mike Hannigan is presently writing for a mid-year issue. His topic will be "Pond Care".

Lakeshore Equipment Company has appointed a new sales rep for the Northern New Jersey area; he is Bill Koehane. Bill is a graduate of Villanova and has gained turf management experience while on the staff at The Rock Spring Club for the past three years. We wish Bill good luck and look forward to meeting him in the near future.

Nine Ways to Negotiate A Raise

Many people who have no trouble dealing with their superiors in most day-to-day situations find it very difficult to ask for a raise. If you're fainthearted at negotiation time, consider these recommendations to ease the process.

* Know your worth. Ask yourself how valuable you are to the course, how much it would cost to replace you, what have you done lately to help the organization.

* Pick your place. Get your boss outside of the office to listen to your request. Take him to lunch if possible.

* Detail your reasons. Tell your boss why you deserve a raise.

* Suggest an amount. You, not your boss, should propose the amount of your possible raise.

* Set your figures high. Ask for more than you expect to get. This leaves room to bargain.

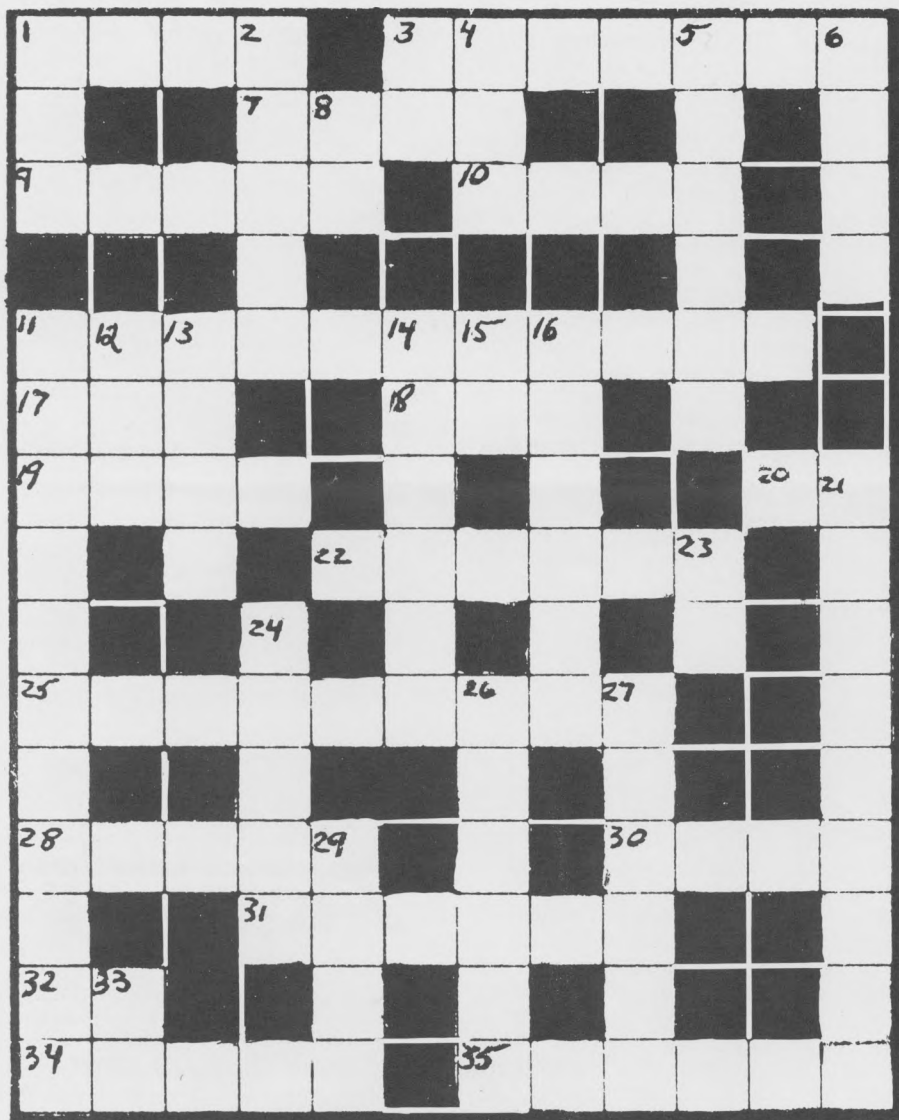
* Compromise - but not too easily. Since you've started with a high figure, realize you probably won't get it. Let your boss make a counter-offer, and be ready to compromise.

* Rehearse. Don't go into negotiation cold. Be sure to be in top mental and physical condition when the actual talks begin.

* Get it in writing. If possible, get your boss to put it in writing - for both signatures - the raise he agrees to.

* Don't wait - ask. Don't wait around for the company to recognize your value and give you a raise. Ask for it. Your aggressiveness may pay off.

TURF TWISTER



ACROSS

DOWN

1. Plant part
3. An interchange of materials between two solutions which are separated by a semi-permeable membrane.
7. Soluable 'N' form
9. Dismember a plant!
10. _____-cot and di-cot
11. Winter headache on turf
17. Same as '12' across
18. A tires' muscle
19. Post-summer
20. Montclair's Super (initials)
22. A plumbers connection
25. The portion of the stem between the nodes.
28. Host state for 1978 GCSAA National Convention
30. Father & Son Superintendent team
31. Dr. Noel Jackson's pet disease, _____ tuft.
32. Golfers penalty
34. Insecticide, excellent on Bagworm, also called Dibrom
35. Product of photosynthesis (PL)

1. Cup part
2. Pythium, Dollarspot and Brown Patch
3. The way I like my eggs (initials) - digest this while you're digesting the crossword!
4. Chipco Rep; _____ Horst.
5. A stem growing along the soil surface
6. Common topdressing component
8. Rutgers Prof (initials)
11. When a plant looses it's leaves!
12. Why we hire women on the golf course
13. Sodium Chloride
14. Positive charged ion
15. Active ingredient
16. Your transit base
21. Lance, Ring and Stunt!
23. Pesticide formulation (initials)
24. Grass clippings do this (so do my cigar butts)
26. That part of a plant that develops into a seed (PL)
27. Insect with rear-end pinchers
29. What came first - the grass plant or the _____.
33. Degree _____

U.S. Golf Course Data

Need some information of the scope of the United States golf business? The following information was obtained from Harvest Publishing Company's Turf Managers' Handbook.

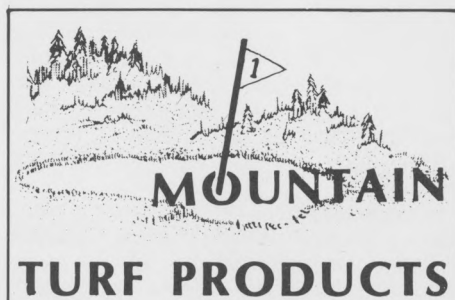
The first United States golf course was built before 1890. By 1894, five private golf clubs had joined to form the U.S. Golf Association. The first public course opened in 1895 in New York City. In 1977, the U.S. Golf Association had 4,800 member clubs in the United States.

The surge of the 1920's included expanded facilities. In 1931, the first year for which figures are available, there were 5,700 courses in the U.S. With the loss of courses during the depression and war years it was 1958 before that number was exceeded.

During the 60's an average of 440 new courses or additions to courses were built each year. During 1965, 500 courses were completed. In 1977 at least 200 were completed.

In 1977 the United States had 12,306 golf courses with more than 12 million players, averaging 1,000 players (those playing 15 or more games per year) per course; in addition there are four million casual players (those who play fewer than 15 games per year).

The U.S. golf courses are built on 1,237,000 acres of land with an estimated capital investment of \$4.3 billion dollars. The actual maintenance cost for these courses approximates \$660 million.



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The Withering Effect: Drought

by Dr. Victor A. Gibeault

Many golf courses in the western United States will be confronted with a serious water deficit this summer. The extremely dry winter of 1976-77 has resulted in a reduced snow pack, limited reservoir supplies and an overdraft of groundwater in many of the western states. Most water districts, agencies and elected officials are speaking in terms of water conservation; however, some water districts have already imposed mandatory water rationing and in those areas the situation throughout the summer can only worsen. It is therefore important for superintendents in drought-affected areas to find out what their water supplies will be for the summer months and to plan accordingly.

Under normal conditions, planning for summer irrigation usually consists of insuring an adequate irrigation budget, performing preventive maintenance on the irrigation system and then irrigating as needed. This year, planning will have to include methods to increase irrigation efficiency by modifying management practices and in some instances redesigning the course for selected turf survival.

Drought Tolerance

One of the first questions asked in an impending dry year regards the drought tolerance of commonly used grass species. To produce a quality sward, all turfgrasses require applied water or rainfall in amounts equal to or greater than the water used in evapotranspiration in a given time period. When drought conditions exist and total water application is either less than evapotranspiration or missing entirely, grasses differ in their ability to withstand the stress.

In general, warm season or subtropical grasses are more drought tolerant than cool season or temperate grasses. Also, grasses that have a deep root system have better drought tolerance than shallow-rooted ones. Bermuda and zoysia, for example, frequently have root systems that penetrate 6 to 8 feet deep, which provides a tremendous soil water reservoir for plant growth and survival. This is in comparison to a 6 to 12-inch root system with well-maintained Kentucky bluegrass and 2 to 6-inch root system with closely mowed creeping bentgrass.

In a study at the University of California at Davis, Dr. John Madison removed all irrigation from selected turf plots for 120 days. Thereafter, he resumed normal watering and observed the recovery of the various turf species. He found that Bermuda, zoysia and tall fescue had good recovery in 15 days; Highland bent recovered to good turf quality in five months; and Kentucky bluegrass and red fescue showed poor recovery.

Review Management Practices

Mowing, fertilization, irrigation, vertical mowing and coring are the five primary management practices regularly used in turf management. During dry periods these

practices should be evaluated and adjusted to make the most of drought tolerance.

The first consideration in mowing height and frequency must be the requirements imposed by the use of the turfgrass. A putting green must be maintained in the three-sixteenths to five-sixteens inch range, a tee slightly higher and a fairway from one-half to one-and-one-quarter inches, depending on player preference and the turfgrass species. If it becomes necessary to prepare for drought tolerance, increase the cutting height as much as possible within the use-mandated range. This will result in a deeper root system with an increased soil water extraction capability. Also, the higher cutting height will shade crowns and soil in high temperature periods. research indicates the higher cut turf will use more water by evapotranspiration; however, the deeper root system will result in a stronger plant with a greater water foraging potential and therefore greater drought tolerance.

Research has shown that water use increases as mowing frequency increases. Therefore, it is best to mow as infrequently as possible considering the turf's use.

Concerning a nutritional program for drought tolerance, a soil test will indicate needed additions or adjustments of phosphorous, potassium, pH and salt load for optimum turfgrass growth. Such corrections should be made before temperatures increase. Nitrogen fertilization should be eliminated whenever possible during the late spring and through the summer, especially on cool season turfgrasses. If nitrogen must be applied because of play or use, then light, infrequent applications should be considered. The reason for this is that moderate or heavy nitrogen application during the spring and summer will reduce rooting depth and density and will result in higher water usage because of stimulated topgrowth. Lush topgrowth is not good for drought tolerance or water conservation.

Thatch control and coring are important management practices in a dry year because both processes tend to increase irrigation efficiency. Thatch and compaction can reduce water entry into the soil profile, thereby resulting in wasted water from runoff or evaporation. Similarly, thatch and compaction restrict nutrient and air entry into the soil which reduces the rooting needed for maximum drought tolerance.

Irrigation is by far the most important management practice when preparing for drought; every effort should be made to increase watering efficiency. Remember that the objective of irrigation is to replace water used by evapotranspiration as infrequently as possible. The following checklist can be helpful:

Determine rooting depth. Since it is the objective of irrigation to replace water in the soil profile to the depth of the turfgrass roots, knowledge of root system depth is essential.

It is noteworthy that the most deeply rooted species had the quickest recovery.

There are limits to the drought tolerance of each species, beyond which the grass sward will not survive, as was evident in the Kentucky bluegrass and red fescue plots.

Madison concluded that there was a "high genetic potential for drought tolerance among turfgrass species but it has not been exploited." Fortunately, current research at Colorado State University by Dr. Jack Butler is examining the drought tolerance of turfgrass species and varieties as well as the influence of management practices on drought tolerance. GCSAA is financially assisting these projects.

The story on drought tolerance, then, is that grasses do differ in their drought tolerance; their ability to survive extreme drought conditions is in large part due to their root system depth; and there is a drought limit beyond which sward survival is affected.

Determine soil water holding capacity. Soils differ in their ability to hold water for plant absorption.

Table 2 gives an indication of the amount of available water per unit depth.

Evapotranspiration (ET) rate. The rate of water used is largely governed by the climate. Of extreme importance are factors such as: radiant energy - ET increases as radiant energy increases; temperature - ET increases as temperature increases;

Continued on Page 5
Column 1

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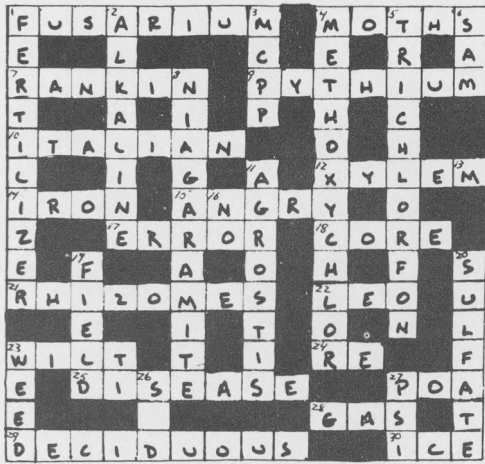
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TURF TWISTER



Answers:
November "Greener Side"

Drought:

Continued from Page 4

humidity - ET increases as humidity increases; wind - ET increases as wind increases. Other factors such as rainfall, soil fertility, growing season, cutting height and mowing frequency also influence water use.

The ET rate for turf in much of the western United States can be estimated daily by multiplying evaporation loss from a Class A U.S. Weather Bureau evaporation pan by 0.8. This gives an approximate water use amount for turf in areas of low humidity.

— Use mulches one to two inches thick to reduce evaporation water loss in plant beds.

— Selectively eliminate plants by carefully identifying those most important to the total landscape and removing others.

— Select turfgrass species and varieties that perform well in your area and that are known to have good drought tolerance.

In summary, each golf course superintendent has specific problems and opportunities on his course. To deal with a drought condition effectively, he should be aware of turfgrass management practices that will be of assistance, and he should be ready to implement major or minor design changes so play can continue.

— The Golf Superintendent, May 1977

Table 2: Available and unavailable water per foot of soil.

Soil Texture	Inches per Foot	
	Available	Unavailable
Sand	0.4-1.0	0.2-0.8
Sandy Loam	0.9-1.3	0.9-1.4
Loam	1.3-2.0	1.4-2.0
Silt Loam	2.0-2.1	2.0-2.4
Clay Loam	1.8-2.1	2.4-2.7
Clay	1.8-1.9	2.7-2.9

Editor's Note: Additional information originally included in this article were excluded from this reprint due to the fact they only pertained to the West Coast.

Putting the Brakes On Tension

Tension is a fact of life for anyone in a position of responsibility. The possibility of failure is one of our best motivations for putting out the extra effort that can make a success of whatever we attempt.

Unfortunately, it can get out of hand. When the obstacles begin to look larger than they really are, and our efforts to deal with them seem ineffectual, tension has taken over. In extreme cases, it can completely paralyze, or even bring on a variety of physical and mental illnesses that keep hospital beds full. Here are some suggestions for coping when things seem to be getting out of hand.

Talk it out: Sharing the burden will help relieve the strain. It may also clarify the problem and let you see a solution.

Get out of town: A change of scenery can often work wonders, even if it's only for a day or a weekend.

Do something for others: It will take your mind off your own problems, or at least let you see them in perspective.

Work it off: Chop some wood. Go for a brisk walk or a run. Hard physical work gives your mind a rest.

Don't try to be superman: If you set your sights too high, you're bound to be frustrated. Take your goals one at a time.

Give in, occasionally: Even when you know you're right, sometimes it's easier to yield. It's better to bend than to break.

Tackle one task at a time: If you try to do several things at once, you may not do any of them right.

Don't withdraw: That usually compounds the problem.

Schedule your recreation: Set a routine for relaxation and follow it, especially if you tend to drive yourself.

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WETTING AGENTS- THE PREVENTIVE APPLICATION APPROACH

Wetting agents are nothing new and were probably in existence before I was even born. Today however, wetting agents are often times an overlooked management tool on quality turfgrass stands - especially in areas with poor underlying soil structure.

I'm sure you've all experienced seasons with infrequent precipitation and even in some cases actual severe drought conditions. Well, try as we may to use our irrigation systems to compensate for a lack of rain, we find that irrigation water can only supplement natural rainfall and not take place of it. Before too long, localized dry spots begin to appear and the rotation pattern of the sprinklers becomes highly evident.

When localized dry spots appear on our greens or tees, it would be a standard practice to:

1. Aerate each individual dry spot
2. Apply a wetting agent
3. Hand water

This is strictly a curative measure. However, through the scheduled application of wetting agents on a preventive basis (rather than curative) localized dry spots can be minimized.

Let us look for a moment at the function of wetting agents. Wetting agents are special chemicals that lower the tensions of water. They are in the class of surfactants.

Wetting agents change water, yet have no visible effect on the soil structure. However, since the wetting agent stays in the soil, the treated soil will accept water more rapidly, and excess water will drain freely, resulting in optimum growing conditions.

At Bob O'Link, I make a primary application on greens and tees in mid-May and then repeat the procedure in late June or early July. One and one half quarts of Aqua-Gro in 100 gallons of water (per 6,000 square foot green) has proven to give the best results. Such a high volume of water necessitates the use of a hose nozzle as the most efficient means of application. It is important to water the application in immediately and thoroughly. Experience shows that permitting wetting agent to remain on the turf blade will cause a yellowing, so it is important to water thoroughly after any application.

The preventive use of a wetting agents on greens and tees provides a tremendously uniform distribution of moisture in the soil.

During the past two summers I have attempted to take my successful results with wetting agents on greens and tees another step further and incorporate preventive applications on 35 acres of fairways. Through trial and error, the following rates have provided optimum results.

The primary fairway application is made in mid-June and a second application follows in mid-July. A third application

may be necessary in August but due to heavy precipitation last August, 2 applications proved to be sufficient. Two gallons of Aqua-Gro in 200 gallons of water covering one acre at a ground speed of two miles per hour is the recommended rate. Through the use of test plots with varying volumes of water, different rates, and various brands of wetting agents as well as check plots, the following general observations should be noted:

1. Aqua-Gro at the above mentioned rate was the most effective wetting agent.

2. Good results were shown in test plots with All-wet and Hydro-wet.

3. Wetting agents not watered in are potentially phytotoxic.

4. All wetting agents were applied alone and not in combination with any other pesticide.

In a comparison of wetting agent treated fairways and untreated check plots, the difference was like night and day. Treated fairways had the following qualities:

1. Dew is eliminated for a 6-7 day period following the application.

2. Localized dry spots in the wedge shaped areas adjacent to our single row irrigation system, required hand watering only once during the 1979 season. Prior years have shown 80-100 manhours to accomplish this task. Less hand watering means a lower labor cost and freedom to use your staff on other projects. Less hand watering means minimizing or eliminating interference to golfers. Less hand watering means conservation of water and power.

3. Fairways had fewer dry spots and also fewer wet spots.

4. Overall, soil moisture continuity was increased.

5. Soils were able to absorb moisture more rapidly during the heavy precipitation which we had during the month of August.

6. Less stress was evident on treated fairways and wilting was not severe.

7. Prior to fairway applications, it was often difficult for irrigation water to penetrate a one inch thatch layer unless fairways had been sliced or aerated in the Spring.

The fairway applications have proven as successful as the wetting agent program on my greens and tees. The approximate cost of materials for one application to 18 greens is \$150. 35 acres of fairways would be covered with \$700 worth of wetting agent. Given the aforementioned results, I feel that this is a cost which is offset by a savings in water and manpower, providing a better playing surface.

Each year the golf course superintendent sweats out that period from June to September known to try men's souls, bring on ulcers, and cause sleepless nights. During this stress period we carry on a day to day battle in an effort to provide pleasurable playing conditions for our memberships. In these modern times of turfgrass management, any loss of turf on our greens and tees is intolerable and a loss of fairway turf is undesirable. More and more the trend in the Chicago area has shown that players who once compared golf courses by their fast and true greens, are now using the condition of fairways as criteria for judgment. With this increased demand for fairway perfection, loss of turf on our fairways, even though minimal, is no longer tolerable.

With the incorporation of wetting agents into my fairway management program, maintenance of summer time *Poa annua* has certainly become more enjoyable. I'm thankful for something that has made my job a little bit easier.

Bruce Williams

Supt., Bob O'Link G.C.

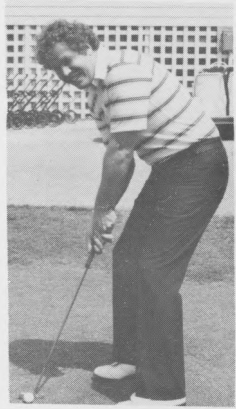
Credit: "The Bull Sheet"

April 1980, Vol. 33, No. 11



I thought Wagner said he was always straight down the middle!

1980 in Retrospect



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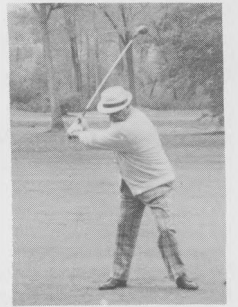
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EVERGREEN NEEDLE DROP NORMAL

In the fall of the year evergreens as well as deciduous plants shed their foliage. Evergreens differ in that they do not lose all of their foliage each year. Evergreen leaves have a life span from 1-6 years. Only the oldest needles are shed each fall.

Trees which drop one year old needles or leaves are laurel, white pine, arborvitae and holly. Evergreens which hold green needles from 3-5 years or more are spruce, fir, hemlock, yew (taxus), and 2-3 needle pines.

QUOTE OF THE YEAR

by: Dr. Thompson, President of the Manasquan River Golf Club,

"Pound for pound Jim McNally is the worst golfer in the entire world."

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(609) 665-1130

BLUE RIDGE PEAT FARMS, INC.

Top Dressing, Peat, Humus, & Potting Soil
Gene Evans
(717) 443-9596

BRUE DAN CORPORATION

Golf Cars & Industrial Vehicles
Jake Kriney - Kent Williamson
(914) 469-2275

CONSOLIDATED STEEL & ALUMINUM FENCE CO., INC.

Eugene T. McLaughlin
(201) 272-6262

DOUBLE EAGLE GOLF & INDUSTRIAL PRODUCTS

The Cushman People
(201) 521-2500

FARM & GOLF COURSE SUPPLY CO., INC.

Turfgrass Supplies
Anthony "Rip" Rippel
(215) 483-5000

FERTL-SOIL

Turfgrass Supplies
Martin Futyma
(201) 388-0100

GRASS ROOTS TURF PRODUCTS, INC.

Turfgrass Supplies
Ken Kubik (201) 361-5943
Bert Jones (201) 686-8709

GEO. SCHOFIELD COMPANY, INC.

Sand, Stone, Mulch Chips
(201) 356-0858

HALCO DIV. -

WAGNER SEED CO., INC.

Turfgrass Supplies
M.D. "Doc" Crawford
(201) 625-4383

JEP SALES, INC.

Turf Maintenance Equipment
Jack Poksay
(609) 585-2300

KOONZ SPRINKLER SUPPLY COMPANY

Irrigation Equipment
William Koonz
(201) 379-9313

LEON'S SOD FARMS

Certified Sod Grown on Mineral Soil
Samuel Leon
(201) 996-2255

MONTCO PRODUCTS CORPORATION

Surf Side & Zap
Robert Oechsle
(215) 628-3144

MOUNTAIN TURF PRODUCTS

Turfgrass Supplies
Richard Grant
(717) 646-7220

O.M. SCOTT PROTURF

Fertilizer, Chemicals
Fran Berdine (914) 361-4105
Roy Griffiths (609) 228-1696

PARTAC PEAT CORPORATION

Golf Course Top-Dressing
James Kelsey
(201) 637-4631

PRO-LAWN-AGWAY

Fertilizer, Chemicals, Seed & Counsel
Ingrid A. Kern (609) 877-4787
Andrew Mulick (201) 967-9124

ROCKLAND CHEMICAL CO., INC.

Turfgrass Chemicals & Fertilizer
John WittPenn
(201) 575-1322

STORR TRACTOR COMPANY

Turf Maintenance Equipment, Irrigation
Paul Deschamps - Bob Dwyer
(201) 232-7800

THE TERRE COMPANY

Turfgrass Supplies
Dennis DeSanctis - Donald Wilson
(201) 473-3393

TURF PRODUCTS CORPORATION

Turfgrass Supplies
Ernie Rizzio - Gregg Hutch
(201) 983-9333

UNIVERSAL LABS-SOILS

DIAGNOSTIC CENTER, INC.

Soil Analysis, Agricultural &
Engineering Services
Fred Porcello
(201) 227-7167

UPJOHN - TUCO COMPANY

Turfgrass Chemicals
David Sylvester
(203) 828-3790

THE VAUGHAN-JACKLIN CORPORATION

Turfgrass Supplies
Sky Bergen
(201) 377-2054

W.A. CLEARY CHEMICAL CORPORATION

Turfgrass Chemicals
Clay Nelson - Shaun Berry
(201) 247-8000

WILFRED MacDONALD, INC.

Turf Maintenance Equipment
James H. Pelrine
(201) 471-0244