

OCTOBER 1973

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#### PRESIDENT'S MESSAGE

As I write this message I realize that this will be my last communication of the sort to you as President of the Conn. Association of Golf Course Superintendents.

As my term of office draws to a close, I want to thank each member for the opportunity of serving our a'ssociation. I believe very strongly in the association, its members, its principles and its goals. The CAGCS has been a good strong organization that has always moved forward. Sometimes slowly, but always steadily, never falling back.

We have now approximately one hundred and fifty members. I am sure if most of us looked around our own area we could find an assistant or superintendent who is just looking to join the association but just hasn't done so for some reason or another. This is your organization, and the only way it can grow is by each of you helping by talking our association up to everyone you meet.

This past year has seen many changes that have directly affected the association. The board of directors meet the week before each monthly meeting and have a longer time to discuss and review many aspects of our association, improving it just a little more each month. We have just held our first annual field day. It was an overwhelming success and I feel something along this line should be done every year. Our business meetings are being attended by a much greater majority than in previous years getting a wider range of discussion and ideas to work with. For those of you who are not happy with the way certain committees have handled their jobs, I suggest you contact the new president when elected, Continued on Page 4

# THE DIFFICULT SEASON OF 1973 by Alexander H. Radko,

W. G. Buchanan and S. J. Zontek **USGA** Green Section, Eastern Region

Ever heard of Murphy's Law? It says in part, "if anything can go wrong, it will!" Murphy's Law applied to 1973 weather so far as the fine turfgrasses this year were concerned. Everything that could have gone wrong, did. . . and golf courses suffered excesses in turf loss on fairways, collars and aprons principally.

First came the very wet spring weather. . .skies were continuously overcast. . .and rains came often and heavily. Soils could accommodate little more water from the previous two years of heavy rain but new record rains came nevertheless. So long as the cool weather held, the weaknesses caused by these excesses did not show. It was when we first experienced clear, hot, sunny days followed by extended periods of high humidity that the bottom began to drop out. Without question, the year to this mid-August date has been one of the most difficult periods that superintendents have experienced in many years.

Then the extended periods without sunshine in spring caused the fine turfgrasses to grow weak and spindly . . .they were extremely tender, they were soft. . .they were not as good for golf as they normally are in spring. . . they did not exhibit firm growth at any time in spring. The week of July 4th came with several consecutive bright, sunny days. . .the first strong sunlight that grasses were subjected to up to that point. . . it proved too much. . .it was tantamount to keeping a man in solitary confinement for three months in a cold, dark and damp cellar. . .then

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## WINTER DORMACY AND DESICCATION

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

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The first effect of these changes is a reduction in growth. Higher temperatures than those occuring 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 stora'ge 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, respires, and at time fixes small

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# CONNECTICUT ASSOCIATION OF GOLF COURSE SUPERINTENDENTS

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The object of this association is to promote research, education and an exchange of practical experiences in the field of turf grass culture so that the increased knowledge will lead to more economic and efficient management of golf courses and related turf areas.

The CONN. CLIPPINGS is an official publication of the Connecticut Association of Golf Course Superintendents.

> Robert W. Osterman, Editor 937 Black Rock Turnpike Easton, Conn. 06612

### NOMINATING COMMITTEE PRESENTS SLATE

The nominating committee consisting of John Perry, Chairman, Bob Tosh and Bob Silva, has presented a slate of officers and directors to be recommended to the membership of the Conn. Association of Golf Course Superintendents.

The recommendations are as follows:

President Frank Lamphier
Vice-President Bob Tosh
Secretary Bob Osterman
Treasurer Jim MacDonald
Director (3 year term) Ed Anderson
Committee Chairman (recommenda- tions to the president only)
Education Fred Bachand
Golf Dave Roule & John Perry
Public Relations Bob Chalifour
Welfare Bob Viera
Past President Bob Viera
Staying on to complete their three

year terms as directors are Karnig Ovian and John Lynch.

This slate will be voted on at our annual meeting, Wednesday November 7, 1973 at Pine Valley Country Club, Southington, Conn. This will be luncheon meeting with our elections and business meeting at 11:00 A.M. lunch 12:30 P.M. with golf optional after lunch.

# THE DIFFICULT SEASON OF 1973

**Continued from Page 1** suddenly exposing him to the blazing desert sun. . .this is the torture treatment and this is exactly what our grasses were subjected to and they weakened quickly. . .there was no period of adjustment.

This condition, coupled with record rainfalls, compounded the problem. It set the stage for wilt, scald and diseases of every kind. It created new, and aggravated old drainage problems. . .water began to show in areas where it never was a problem before. It also caused a lot of mechanical injury. . .grasses had to be cut despite conditions that favored scalping, bruising, rutting. . .etc. There were times when more water trailed mowers than grass clippings. . . it was bad, yes, but the grasses had to be mowed! Fairways otherwise would have looked like roughs and greens would have looked like fairways if left unmowed over weekends. The difficult part of it all was that every decision of whether to mow (Fridays especially) was critical. If you guessed wrong just once, wilt readily set-in . . .and weak grasses don't quickly recover from wilt in the July-August heat.

The lesson learned is that permanent grasses held up best during all this adversity. . .they went out where they drowned-out. No grass will survive long periods of flooding in summer. Blotches of permanent grasses stood out like islands. . .the Poa annua died in most areas or was severely set back all around the bentgrass and bluegrass clones. Poa annua wa's held in some cases by constant watering and syringing. . .golfers played through water sprays almost all of July and August where Poa annua predominated. Courses where permanent grasses predominate in fairways were watered much less and were hardly ever syringed. From the golfing standpoint, firm fairways play superior to spongy, wet fairways. It's years like this that makes one wish that Poa annua never existed. . . superintendents and golfers wish they never heard of watered fairways. . . and superintendents and workers pray that they never have to install another drain ever again!

# WINTER DORMACY AND DESICCATION

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amounts of CO'2 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 forecause of winter injury from the Great Plains to the Atlantic seaboard and is 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.

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

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## WINTER DORMACY AND DESICCATION

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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. Desicating turf appears very dry, is brittle to the touch, and is easily pulled from the soil. Examination of the upper  $1\frac{1}{2}$  - 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? (Reprinted from the "Keynoter" a publication of the Penn. Turfgrass Council, Inc.)

## NATIONAL GOLF FOUNDATION LAUNCHES "OPERATION GOLF UPDATE"

"Operation — GOLF UPDATE" will be the most comprehensive effort ever made to compile all available significant information about golf and golfers in the United States, according to Don A. Rossi, Executive Director of the National Golf Foundation, which will spearhead the survey of more than 11,000 golf courses.

Rossi explained that golf course records maintained by the Foundation, and dating back to its origin in 1936, are no longer valid since many golf courses have changed in the interim in ownership, in size, in type of operation and in the facilities offered. He said many new trends in golf course planning, construction and operation have emerged in recent years which cannot be satistically measured by the Foundation's present records. He added:

"To function effectively in meeting the growing demand for help in the development of every type of golf facility we must bring our unique storehouse of golf information up to date."

Rossi said the "GOLF UPDATE" questionnaire has been especially designed for quick and easy fill-out, and features humorous cartoons to make it fun to complete. It is arranged for computer analysis, for quick 'readout' of information. He said:

"One very important area of information requested is whether the golf operation employs a golf professional, a course superintendent or a manager — any one of these, or all, or acombination of any two of these. The answers to these questions could indicate a need for additional trained specialists for these departments."

Rossi added that the final 'readout' of the survey will not only furnish additional important information for the Foundation in helping existing golf operations with problems as well as assisting in the development of new golf courses; it will also indicate future directions for Foundation literature and consultant services.

The National Golf Foundation, a non-profit organization dedicated to the development of more golfing opportunity for Americans through its facility and activity development programs, is headquartered in chicago's Merchandise Mart.

# IRRIGATION DRAINAGE TIME

#### by Douglas A. Bruce, P.E. Vice President,

#### Miller Sprinkling Systems

It's the time of year again to think about protecting your irrigation system against the damaging freezes of winter.

Frost damage to an irrigation system occurs from the following causes and in the following order of frequency:

- 1. Low temperature at periods of light or no snow cover.
- 2. Poor drainage procedure drain entire system poorly.
- 3. Incomplete drainage forgot to drain part of system.
- Water standing on the ground surface above an open drain valve or sprinkler head.
- 5. Contraction of piping and ground heave due to temperature change.

"Blowing out" of irrigation systems with an air compressor has gained in popularity in the last five years. Coupled with good procedure, blowing can minimize most of the above causes.

The following sequence for drainage should be followed in order and tailored to your particular installation:

- Several days o ra week before actual draining:
  - A. Locate irrigation drawing.
  - B. Turn off water supply.

- C. Open drains that flow directly into tile lines, creeks, or ponds.
- D. Insert sprinklers at the high and low points to allow air to replace the water as the low head drains.
- 2. Connect suitably sized air compressor near the source of water. (Note) A piping system of 3" and less can be blown quickly with 1-125 cfm compressor. Piping systems 4"-8" can be blown faster with less chance for error with a 2-125 cfm compressors.
- 3. Beginning at the pumphouse, open each sprinkler outlet until you get air and no water, then close, on one branch of the main line and follow it to the dead end. Do the same on each branch of the main line until you have air and no water coming from each outlet. Note Several men "leap frogging" with golf carts makes this quite fast.

Be sure to allow compressor to build up pressure so the water will be moved with a large volume of air.

- 4. Repeat step 3 to check drainage.
- 5. Starting again at the pumphouse and working toward the end of leach lateral, check the drain valves slightly to be sure air and no water escapes. Close the drain, wait a minute, and repeat. Water may have collected at the low points. (Note Drains and standing surface water usually occur at low points in the terrain. Closed drains will prevent the surface water from entering the pipe line through the drain valve, along with stones from the drainage sump, and eliminate the drain closing chore during spring turnon.

The basic piping system is now drained and special attention is needed to properly drain the pumphouse. One small slip at this state of drainage could be very expensive.

6. Pumphouse drainage:

- A. Starting at the discharge line in the pumphouse wall, trace the flow of water in the piping through gate valves and check valves and open necessary drains.
- B. Drain pump volutes by removing the bottom plug or opening drainage cock.
- C. Remove or drain suction drop pipe.
- D. Remove water from pressure reducing valve covers by blowing out or loosening cover bolts.

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#### IRRIGATION DRAINAGE TIME Continued from Page 3

- E. Turn pump motors off and protect windings against possible rodent nesting.
- F. Drain water from pressure gauges, switches, tank sight glasses, tank air chargers, and other special items subject to freeze in the pumphouse.
- 7. Program automatic valves to operate once a day for 5 minutes to prevent the solenoid plunger from sticking and reduce the moisture in the solenoid coil and automatic controller contacts.

Before going out and renting an air compressor and blowing your system, take several hours with your blue print and the above procedure. Write down in sequence the steps you plan to take when you start actual drain-

#### PRESIDENT'S MESSAGE

**Continued from Page 1** to hear your ideas and perhaps give you a seat on the committee in question.

I would like to say thank you to each and every member of this association for the trust and confidence you gave me by allowing me to serve as your president for two years. I would like to say thanks to everyone who was asked to serve in some capacity of committee work for your tireless efforts and hard work you put forth. I urge each of you to continue this good work during the coming year and assure our new officers that their programs and ideas may be carried forward to help this association continue its growth and service to its members.

R. Viera

### **CONN. CLIPPINGS**

Robert Osterman, editor 937 Black Rock Turnpike Easton Conn. 06612

age. The steps can be listed by thinking of yourself as entering the pipeline at the source of water and your job is to push the water out on top of the ground as you move through the pipe. What routes will you have to follow to push all of the water out the dead end of every line? What will you do when you come to a branch tee that feeds another fairway or splits and goes both ways at the front of a green? When do you get to the end of the line when the system is looped? The same routes you took entering the pipes at the source to get to the dead ends must be followed by the wall of air you will put into the system when

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blowing out.

Frost damage repairs have got to rate near the top of the bad job list. In addition, they occur at a critical time of year from a manpower standpoint, and can cause several weeks of anguish if the dirt is not properly flushed after the repair is made. Now is the time to think about any necessary pump and sprinkler repair required for next year's operation. Get the necessary parts on order and make the repairs conveniently in the winter rather than wait for the spring rush. Good luck in your drainage this

fall. The old adage "you make your own luck" was never truer.

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