



# MID-ATLANTIC News Letter



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Mid-Atlantic Association of Golf Course Superintendents to aid in the Advancement of the  
Golf Course Superintendent through Education and Merit

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## NEW POLICY ON CARDS

In the past we have made it a regular practice to send out cards prior to a meeting. The returns have been unreliable to say the least. The Cards cost the membership \$25 - 32 dollars each month. Many Board members feel that we can guess more closely than the cards, for example Lee Dieter and I guessed 80 at Sparrows Point and we had 82. Past meetings are good indicators and meeting attendance varies, with the Speaker, time of year and areas the meeting is held.

If the host Super requests cards he can have them, if not we will notify him one week prior to a meeting with a close estimate. The coming picnic is an exception due to family attendance so cards will be used and Please mail them in now.

George B. Thompson Pres.

## ANNUAL MID-ATLANTIC FAMILY PICNIC JULY 10, 1972

Assateague Island State Park - South of Ocean City,  
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Guarded Beach, Picnic Area and Concession  
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Bath House Facilities available.

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Golf at any Eastern Shore Course: Make your-  
self known.

Reservations will not be accepted after July 5, 1972.

Chicken Barbeque-served at 5:00 PM.

Fresh Green Salad

Potato Salad-Corn on the cob.

Hot rolls-Spiced Apple-Sheet Cake.

Pepsi-Cola                      Cold Beer.

### Special

Eastern Shore of Virginia Steamed Crabs.

### Your Hosts

Russell Kearns: Ocean City Golf & Yacht Club.

Bob Bingham: Ocean Pine Golf Course

Ben Stagg: Nassawango Golf & Country Club

Luther Parsons: Winter Quarters Golf Club

Horace Hall: Elks Lodge & Country Club

Ralph McNeal: Talbot Country Club

Ronnie Nolf: Martingham Golf & Country Club

Lou White: Green Hill Yacht & Country Club.

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Make your Reservations Soon As Possible: It is  
almost impossible to get reservations in Ocean City  
on this date.

## JUNE MEETING

Our June meeting was held at Sparrows Point in Baltimore. Alex Watson, our host, provided over 80 guests with a huge buffet dinner and a very interesting and timely film on the construction of the first Bay Bridge.

The threat of rain did not scare off the golfing enthusiasts, as the field was full all afternoon. Jeff Yingling won first low net with Tom Comalli coming in second. Parker Shirling, who didn't win anything, offered to loan Al Watson a couple of chain saws to take down all the trees he hit. (If Al's interested I'll donate two more chain saws - Editor.)

## MID-ATLANTIC HANDICAPS

Dave Fairbanks, Tournament Chairman, mentioned at our last meeting that two attested score cards can be submitted from your home course towards establishing a Mid-Atlantic handicap. The other three scores should come from participation in our monthly golf tournaments at meetings.

Five courses will be available for use during the Mid-Atlantic picnic at Assateague Island. No tournament is scheduled, but for those who play, score-cards are still good for handicap purposes.

## TRY SOME MEAT TENDERIZER !

Insect stings are a common warm weather hazard to you as well as to your men. A possible life-saving addition to your first aid kit at home or on the golf course might be a 69¢ bottle of meat tenderizer you can buy at the grocery. That's right - Adolf's to the rescue! Dr. Harry Arnold, a dermatologist from Honolulu wrote in the A.M.A Journal that this remedy works quickly and efficiently. Except in cases of serious shock, a doctor's treatment can usually be omitted. The doctor's prescription- dissolve ¼ teaspoon of meat tenderizer in 1 or 2 teaspoons of water and rub over the bite. The doctor explains the tenderizer is rich in papain, a protein dissolving enzyme which breaks down the venom. He says a dose of meat tenderizer will stop the pain of most insect stings in seconds if applied immediately. (If this doesn't work contact Dennis McCammon at Springfield C.C. who submitted this information for publication!)

## JOB REQUEST

The following resume was received from a turf management student in Georgia with the request that it be printed in the Mid-Atlantic Newsletter:

Don Keith Allen, 137 Nacoochee Ave., Apt. 102, Athens, Georgia, 30601. Age 27, married, no children; military obligation completed. Has associate degree in general studies from Georgia Military College. Will receive B.S.A. degree with major in agronomy and specialization in turf management from the University of Georgia in August, 1972. Work training experience, University of Georgia Golf Course, summer, 1972. Desires position as assistant golf course superintendent. Available to relocate anywhere upon graduation in August.

## ONE HUNDRED TWO YEARS AGO

James Ingalls on the floor of the United States Senate said, "Next in importance to the divine profusion of water, light and air, those three physical facts which render existence possible, may be reckoned the universal beneficence of grass."

## INSTITUTE OF APPLIED AGRICULTURE HAS NO JOB PROBLEMS FOR GRADS

Douglas T. Hawes of Greenbelt, instructor in the University of Maryland's Institute of Applied Agriculture, talks about the future with this year's graduates in turfgrass and golf course management on graduation night May 30, at the College Park Campus. Shown with Mr. Hawes are Wesley L. Downing of Endwell, N.Y.; William C. Martin of Lincroft, N.J.; Thomas Miller of Ligonier, Pa., and Steven A. Nash of Brookeville, Maryland. Nash achieved the top academic mark among 19 graduates in all subject areas, and Martin was third in over-all scholastic attainment.



## **GOLF SCHOLARSHIP**

The Maryland State Golf Association presented a \$500 scholarship to Glenn S. Shields of Rockville, Maryland. Glenn's father, Bob Shields of Woodmont C.C. was present to see the award presented by Irving E. Cantor, vice president of the golf association. Glenn is a graduate of Richard Montgomery High School and attended Montgomery College. He will enter the University of Maryland this fall. Glenn was also presented a \$250 scholarship by a former greens committee chairman at Woodmont C.C.

## **THE IMPORTANCE OF WATER MANAGEMENT**

### **PART I**

**Fred V. Grau**

**Consulting Agronomist  
College Park, Maryland**

Water is LIFE! Death comes when there is a scarcity or an excess. Floods killed 500,000 Pakistanis in minutes; Pakistani parents repaired the population loss in just 40 days. Deserts speak eloquently of the loss of life when water ran out. Old prospectors managed water very carefully because it was Life! We recall the Rime of the Ancient Mariner - "Water, water everywhere - nor any drop to drink." We are using water at a prodigious rate. By 1980 we can expect water usage to equal replenishment by rainfall, snow melt, glacier melt, dew and all other forms of water return. Where do we go from here? Overpopulation is not likely to be blamed for loss of life but lack of water could be the real cause only because there are too many people who are using and wasting too much water.

In southeast Asia there is a village where the only source of drinking water is 9 miles away. Only women carry water and one wife can make one trip a day. This forces the man to take more wives who can then supply the family with sufficient water. Water runs downhill and finds its own level. A hose filled with water is a simple device for leveling and staking an area for zero grade. As water moves it erodes and carries impurities with it. It is very important to reduce erosion to a minimum so that our sources of water may not be unduly contaminated.

Water is a universal solvent. It dissolves rocks and minerals. It carries plant nutrients in solution. It may form 90% of the weight of green plants. Water is an essential constituent of every living cell.

Water freezes. When it freezes it expands. Pressures thus created burst many structures. Rocks are split asunder, one of the soil-forming factors.

Water evaporates and, in so doing, absorbs heat and cools the atmosphere. Evapotranspiration is the device by which green plants cool and create a more pleasant atmosphere.

Water boils and passes into the air as steam or water vapor, one of the many forms of water. Water is a chemical reagent entering into and becoming a part of infinite number of chemical reactions.

Pure water exists only in the laboratory. Good drinking water may be "pure" in the medical or pathological sense but the "goodness" of drinking water is created by dissolved minerals and impurities. "Pure water" is flat and uninteresting.

Water has tensile strength similar to some kinds of steel. It would take a pull (force) of 210,000 pounds to rupture a column of water one inch square.

Desalination (de-salting) of brackish water is gaining ground. Cost is now the big drawback. In Texas during a drought water sold for 50¢ a gallon. In New York not long ago you got water with your meal only if you requested it.

On Long Island there are some 7,000 Recharge Basins  $\frac{1}{2}$  to  $\frac{3}{4}$  acre in size, 12 - 15 feet deep with porous bottoms that collect surface water from highways, roofs, shopping centers. The water soaks into the soil, recharging the ground water and keeping out the salt water from the Sound.

In life we have a closed cycle of water, oxygen and carbon dioxide with hydrogen atoms going back and forth where needed, all driven by sunlight, the ultimate source of power.

In South Africa they are "milking" the clouds to obtain water. Huge nylon nets are suspended on tops of mountains to condense the moisture in clouds that pass over but never drop any rain.

Microorganisms need water. There are times when soil pores become clogged with the bodies of living and dead microbes. This is true especially when water is present continuously in excess.

Soils become more friable when they enjoy cycles of wetting and drying. Soils that are continuously wet become "sour" and unproductive. Only the anaerobic organisms persist - the ones that create substances toxic to grass.

It is not possible to "partially wet" a soil. Irrigation consists of saturating the surface to a depth determined by duration and quantity. With drainage and percolation water moves downward pulling air into the soil pores. Roots of grass must have oxygen. With continued percolation and plant usage the "saturated" soil moves into the "field capacity" range where plants grow best. With no further water applied as rain or by irrigation all available water is used and we reach the "wilting point". Some plants die very soon after this - others can tolerate days and weeks at the wilting point and return to normal upon resumption of irrigation.

In preparing for this paper I re-read USDA Yearbook on "WATER"; Turf Management by Musser; Turfgrass Science, American Society of Agronomy Monograph No. 14; many bulletins and a delightful book, "On the Shred of a Cloud" by Rolf Edberg translated from the Swedish. I urge each one of you to re-read all you can on the subject of WATER. We don't have much time left.

A baby born today will pollute 3 million gallons of water in his lifetime. Providing food, goods, and services for this baby will pollute another 30 million gallons.

As a nation we are running out of water! We must learn to conserve it, to reuse it, to recycle it as never before.

Hawaii is blessed with an abundance of good water but turf is being ruined by the excessive and wasteful use of water. Now, with automated water systems, we anticipate an even greater misuse of water. We can only hope that those who manage these new systems will exercise restraint.

A new systems of "Drip Irrigation" now being practiced in California claims to use 60% less water with superior results. We can hope to adopt something like this to turf.

An example of water management can be cited on a course in the Mid-Atlantic area. Two years ago it was mostly soggy *Poa annua* with some struggling bent and bluegrass. With minimum irrigation, the introduction of new ryegrasses and improved bluegrasses, and a slow-release fertilizer program we now have nearly solid bluegrass fairways with no *Poa annua*. It took courage to let the fairways get dry but the *Poa annua* died and the other grasses held on. Water, when needed, was the secret of success.

In 1946 Jim Watson started his work on water on turf under the late Prof. Musser. His Ph.D. thesis summarized four years of work which said in effect, "Water as needed only so fast as the soil will absorb it". About the time aeration became feasible and we learned how to cultivate turfgrass soils to let more water into the soil. This was a big step forward in Water Management.

Drought years in 1963, 1964, and 1965 in the Northeast created an upsurge in the installation of irrigation systems. Water was thought to be the answer to the problem. A survey conducted in 1968 by Dr. Harper, Penn State, showed that irrigation produced a whole new set of problems.

77% reported decrease in Kentucky blue and red fescue

81% reported increase in *Poa annua* (some indicated 90 to 100%)

Height of cut had to be lowered

78% said that mowings were doubled

22% said that mowings were tripled

Weeds increased, there was more thatch build-up, new grasses had to be introduced, renovation became necessary, fungicide use increased, and fertilizer requirements doubled and trebled.

Water provides films around solid particles which act as a lubricant. With traffic the soil particles become rearranged in the direction of more compaction. Pore spaces were reduced from 33.1% to 6.1% in one study. The weight of the non-compacted soil was 68 pounds per cubic foot. After compaction the same soil weighed 112 pounds.

Roots of turfgrasses have been found at considerable depths when there is good sub-surface drainage, where the soil is permeable and water has been used in moderation. In California the roots of Merion bluegrass were drawing moisture below 3 feet. Roots of bentgrasses on putting greens have been found to be active below 12 inches. The secret is permeability, good drainage, and good water management.

"Water as Needed" includes syringing to bring grasses out of a wilt condition. A quick syringe with cool water provides cooling and life-saving oxygen. More oxygen is dissolved in cool water than in warm water. Perhaps one great feature of automatic irrigation systems is the ability of the turfgrass manager to syringe all areas quickly early in the morning to wash off dew and water of guttation. Guttated water (that which is forced from openings in the plant by root pressure during the night) contains rich nutrients which is ideal for the growth of fungi. When left on the plant there may be burning of the leaves when the moisture evaporates and the salts are left behind on the leaves. Syringing washes these nutrients into the soil where they are recycled through the plants.

(To be continued in the next issue)


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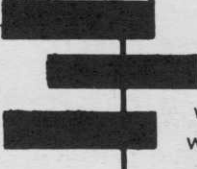
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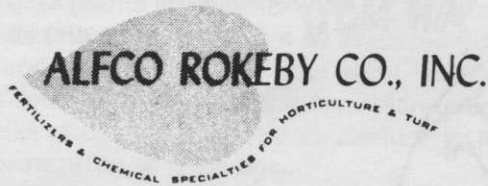
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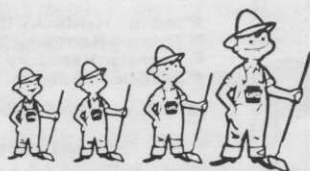
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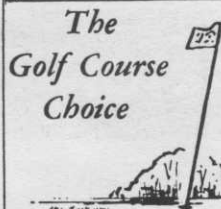
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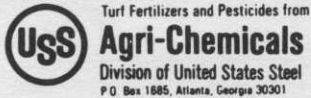
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**MID-ATLANTIC News Letter**

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