

## Mid-Atlantic Newsletter



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

Volume XXXI

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July Meeting

Our July meeting will be held Tuesday, July 11th at the Loudon Golf and Country Club. Our host will be Tony Goodly.

Tony graduated from North Carolina State in 1971 with an Associates Degree in Turfgrass Management. Upon graduation Tony worked as an assistant superintendent under Fritz Zeller at Shannon Green for a year. Tony then moved on to the Lake Holiday Estates as superintendent and then on to Loudon Golf and Country Club 2½ years later. Tony has been at Loudon almost four years. Besides golf, Tony's hobbies include scuba diving, weight lifting and archery. Tony earned a unner's up position in the 1968 National Field Archery Championship.

Loudon G. & C.C. was built in 1927 by architect Dr. Thomas W. Brown. In 1961 the second nine was built and opened. The setting consists of 164 acres of farmland characteristic of Western Loudon County's rolling hillsides.

The putting greens at Loudon are a mixture of C-1, C-19, Washington, Penncross and our old friend "Poa." Cutting height ranges form 3/16" to 1/4" depending on weather.

The tees were originally seeded to bluegrass, but are now overseeded twice yearly to Hybrid Ryegrass varities, spot overseeded and topdressed continually to repair divots. Cutting height ranges form 1/2" to 3/4".

The fairways are bluegrass, not irrigated and cut at 1

# Indyk:

### Named "Man of the Year" by the Irrigation Association

Dr. Henry W. Indyk of Cook College, Rutgers University, New Jersey, has been named recipient of The Irrigation Association's prestigious "Irrigation Man of the Year Award." The award was presented at the Association's Annual Banquet held during the recent Irrigation Technical Conference in Cincinnati, Ohio. Indyk becomes the 21st individual to be honored by the Association (formerly the Sprinkler Irrigation Association) since the inception of the Award in 1952.

### Superintendent Pro Tournament: Success

Herb Hienlien and Charlie Bassler hosted a real fine tournament for us at Indian Springs Country Club. The final results were:

> Best Ball Team - Chuck Bassler 58 Net Mike Hienlien 2nd Low Net - Art Carson 60 Net Mike Claffy 3rd Low Net - Charlie Bassler Herb Hienlien

> > (Continued on page 2)

inch.

Program for the Day:

Golf: Anytime after 11 a.m.

Lunch: Available at club snack bar Cocktails: 6 p.m.

Dinner: 7 p.m.

Speaker: Dr. Jack Hall "Rebuilding with Sand" Directions to the Club:

Take Rt. 7 west from 495. Go through Leesburg to Purcellville. The club is on the left.

#### The "Man of the Year Award" is presented to University and Government personnel who have made outstanding contributions toward the further acceptance of good irrigation practices.

Indyk serves at Rutgers as the Extension Specialist in Turfgrass Management, and holds the title of full professor. In this position, he is responsible for all extension activities relating to turfgrass establishment

#### Superintendent Pro Tournament: Success

(Continued from page 1)

76
77
61
62
69
72
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74
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After dinner our speaker was our own George Cleaver, President of GCSAA. George spoke on the 3 C's of being a superintendent and how he has used these as his basic principles. After George finished Dr. Fred Grau spoke briefly on things he has seen over his last 50 years in the golfing business. Both men were very interesting and very well received.

Following George and Dr. Grau, Bob Shieldspresented three Life Membership plaques to John Leavell, Bill Wright and Tom Doerer. These plaques are presented to individuals how have dedicated many long years to the betterment of golf courses and course superintendents.

Again our thanks to our hosts Herb Hienlien and Charlie Bassler. It was *Great*!

A company is known by the men it keeps.





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## Soil and Water Resources

Fred P. Miller, Soil and Water Resource Specialist

#### Soil Erosion: Can Mother Nature Replace It Fast Enough?

A recent study by the Soil Conservation Service confirmed that water is washing away soils on the Nation's cropland at an average rate of 9 tons per acre per year. This rate is nearly twice the rate considered "acceptable" by soil conservationists. The Middle Atlantic region averaged losses of 14 tons per acre per year from its cropland acreage, according to this study.

Soil losses from U.S. croplands totaled 2.8 billion tons in 1975. Nearly 42 percent of the 355 million acres of cropland harvested in 1975 were not receiving adequate treatment for soil erosion.

How much soil does 10 tons represent? A foot of Maryland topsoil over an acre (43,560 ft<sup>2</sup>) weighs about 1800 tons (dry). Thus, an acre-inch of this dry soil weighs 150 tons. This is equivalent to 83 pounds per cubic foot or 1.12 tons per cubic yard. Soils with high organic matter content and low bulk density will weigh less and soils with high sand concentrations or high densities will weigh more. But these figures provide us with at least some general references.

Losing soil at the rate of 10 tons per acre per year would take 15 years to remove one inch of soil from an acre.

Is this loss rate alarmingly high? The annual geologic or natural erosion rate on sloping soils in Maryland under native forested conditions can be guesstimated at rates in the neighborhood of 0.5 ton to 1 per acre. Therefore, an erosion rate of 10 tons per acre per year represents a soil loss that is roughly 10 to 20 times the natural soil loss rate.

Sediment measurements in Maryland streams draining forested areas are in the range of 10 to 25 tons per mile<sup>2</sup> while streams draining predominantly agricultural watersheds yield sediment deliveries of 200 to 500 tons per mile<sup>2</sup>. It must be emphasized that these figures represent only the sediment actually reaching the stream and that scoured from the stream bed itself. Most of the soil eroded from a field is trapped in flood-plains and areas remote from the stream. Thus, only a small fraction (ca. 6-15 percent) of the soil eroded or moved from a point on the landscape actually gets delivered to a stream.

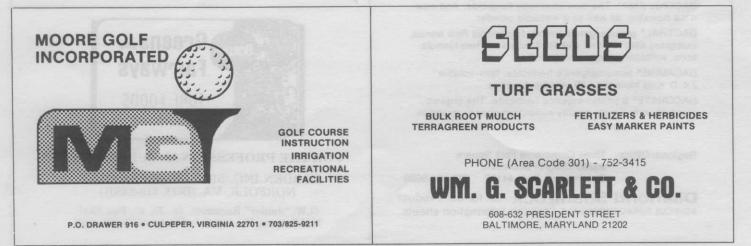
From soil survey data, Maryland has lost an average of 3 inches of topsoil since the forests were cleared. For the nearly level and flat areas of the State, the erosion rate has been relatively low or negligible. But for the steeper and more rolling landscapes, topsoil losses have exceeded this average. Maryland's Piedmont landscapes have commonly lost 50 percent or more of the original topsoil (9-14 inches thick) with as much as 6 or more inches having been removed.

How long will it take to replace this soil? How long does it take to form an inch of soil? If we are losing 10 tons of soil per acre per year, can Mother Nature keep up with this rate of soil loss?

Rocks and earthern materials differ in their susceptibility to weathering. The intensity of the weathering process differs from place to place. Because of these variations, soil scientists think in terms of horizon and soil profile development rather than in terms of inches of soil formed per century. An area of barren granite exposed in the tropical climate of Puerto Rico will develop a soil profile much faster than the same rock material exposed to the less intense climate of Maryland. A highly metamorphosed mica schist, typical of Maryland's Piedmont, exposed to the same climatic variations may form soil profiles much faster than the resistant granite exposed to the same weathering intensities.

Soils developed from hard resistant bedrock in low rainfall areas may have taken several thousand years to form just a few inches of topsoil. Where porous or fractured material susceptible to weathering occurs in a warm, humid climate, soil profiles up to several feet thick

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Congratulations are in order

to Joe and Peggy Emmanuel.

They are the proud parents of a new baby girl. Mother and daughter are doing,fine. Other couples with new additions to the families include Mr. & Mrs. Tom Comalli and Mike and Norma MacKenzie.

Please remember, the Association as "Bonds for Babies," but we have to be kept informed on all new births.

Same Kessell is still trying to confirm meeting locations for November and December. If any of you can be of help, please contact Sam at (703) 273-7094.

This year's Superintendent Pro Tournament was a resounding success. We had a good field, great course and finally good weather. Herb deserves all the thanks. If you notice he also deserves all the winning. The Hienliens and the Basslers definitely skinned us on their home court.



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### **Rotary Mowers and Safety**

Now that summer is upon us and school is finally out, we should have our full complement of High School and College students on board.

If you assign your employees like I do, usually the newest and least experienced employee is sent out the shop door with a trim mower to mow around trees and the lakes. This employee is, however, entrusted with probably the most dangerous piece of equipment in our inventory.

Before you send this employee out with the mower whose blade travels 200 mph, make sure he knows all

Sometime when you're feeling important

Sometime when you take it for granted

Sometime when you feel that your going

You're the best qualified in the room;

And see how they humble your soul.

Take a bucket and fill it with water, Put your hand in it up to the wrist,

Pull it out, and the hole that's remaining

Would leave an unfillable hole, Just follow these simple instructions

Sometime when your ego's in bloom

proper safety and operational procedures. These procedures include how to fill it with gas, where and how to wash it, how to disconnect the spark plug wire when working with the blade, how to fill it with oil, to turn mower off when cleaning discharge shoot, to wear shoes with skid-proof soles (safety shoes are better), not to mow over debris, and to mow slopes in a criss-cross pattern.

Just a few extra minutes of instruction and on the site training could prevent a serious injury and costly insurance claims against your club.

#### THE INDISPENSABLE MAN

Is a measure of how you'll be missed. You can splash all you wish when you enter You may stir up the water galore; But stop, and you'll find that in no time It looks quite the same as before.

The moral in this quaint example Is do just the best that you can: Be proud of yourself, but remember There's no indispensable man.

Courtesy of THE HUNTINGTON PENNYSAVER GROUP

Dates to Remember!

AUGUST 16th and 17th Penn State Turfgrass Field Days SEPTEMBER Philadelphia Tournament Wilmington Country Club, Delaware OCTOBER Superintendents Tournament Hunt Valley Golf Club

JULY 11 Loudon Golf and Country Club AUGUST

Family Picnic - Gunpowder Country Club

Mid-Atlantic GCSA Family Picnic

Tuesday, August 8, 1978

**Gunpowder Country Club** 

Laurel, Maryland

2:00 p.m. - until

Hot Dogs Chicken Corn on the cob Steamed Crabs Games for the "kids"

## **Membership Applications**

Steve Fowler - applying for Class D 12317 Stoney Balter Rd., Kingsville, Md. Assistant at Hunt Valley Application signed by Bob Orazi and George Thompson.

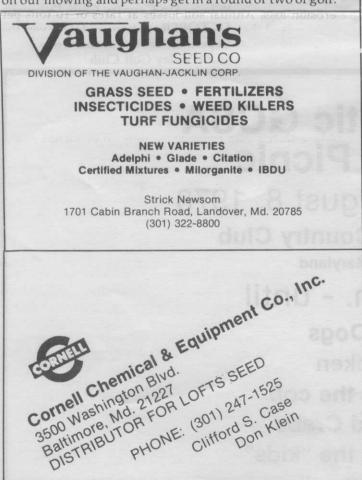
Classification Changes Earl Mason, Gibsons Island Class B to A George Renault, Goose Creek Class D to B Lester Tanner, Enterprise Class D to B

As stated in our bylaws these applications and class changes are published for all members. Anyone wishing to question any changes or acceptances should submit these in writing to the Board of Directors. After 30 days from publication, if there are no inquiries, these applications will be automatically accepted.

## May - A Month To Remember

May 1978 was a month to remember in Colorado. Golf courses in May had practically every weather condition imaginable. There was a near record snowfall, hail, above average rain, strong winds, a record high of 87° in Denver on May 15 preceeded by a record low 8 days earlier on May 7th of 23°. There was even a tornado which touched down within two miles of Meadow Hills Golf Course.

All this moisture has been great in face of the two-year drought we have just experienced. My only hope is that the sun will come out long enough to let us get caught up on our mowing and perhaps get in a round or two of golf.





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## Soil and Water Resources

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can form in a thousand years. Therefore, depending upon the weathering intensity (climate) and parent material (bedrock or unconsolidated materials), soils can form at rates of as much as one inch in several decades to as little as one inch in 1000 years or longer.

Radiocarbon dates of buried organic matter in silty soils typical of those in Maryland's Coastal Plain and Eastern Shore, indicate that these soils have taken about 10,000 years to reach their present profile development. These soils are about 3 feet thick. Therefore, soil development has occurred in these soils at a rate of one inch in less than 300 years. No doubt the upper horizons and topsoil form at a more rapid rate than the subsoil horizons, indicating a rate of formation that is not uniform with time. But, in the interest of illustrating a point, this rate of soil formation yields about 150 tons of soil in less than 300 years, or about 2 tons per acre per year. Thus, an erosion rate of 10 tons per acre per year is removing soil about 5 times as fast as it can be replaced under its natural environment.

For soils on Maryland's Piedmont formed in more resistant rocks, the rate of soil formation is even slower. Some of these soils have probably taken as much as hundreds of thousands of years to reach their present profile development. These soils are very prone to erosion loss. Annual soil losses at rates of 10 tons per acre exceed their replacement rate manyfold. Even the "acceptable" soil loss tolerances of 3 tons per acre per year are most likely far in excess of the soil formation capabilities of the environmental conditions for many of Maryland's Piedmont soils.

The dilemma facing us today is that a 10 ton per acre soil loss is not an alarmingly high amount of soil loss when such a rate represents "only" 0.07 inches of soil lost per year. It is hard to get excited about losing such a thin layer of soil. We can continue to lose these amounts of soil and not suffer too much in yields. We are, at least partially, substituting energy-intensive resources (e.g. fertilizers) for the lost topsoil to sustain high yields. And we can continue to do so for many years.

But we are mining our soils at current loss rates. The piper will have to be paid. It is being paid now with increased energy inputs to sustain yields and environmental degradation caused by the sediment losses. But, perhaps worst of all, the insidious process of erosion is happening before our eyes at a slow enough rate to seduce us into complacency but at rates that are many times faster than what it takes Mother Nature to form new soil to replace what was lost. Eventually this policy will catch up with us. Future generations will look back at our efforts as stewards of the soil resource. The recent SCS study suggests that they will be disappointed in what history tells them.

From men, man learns to speak, from the gods to keep silent.

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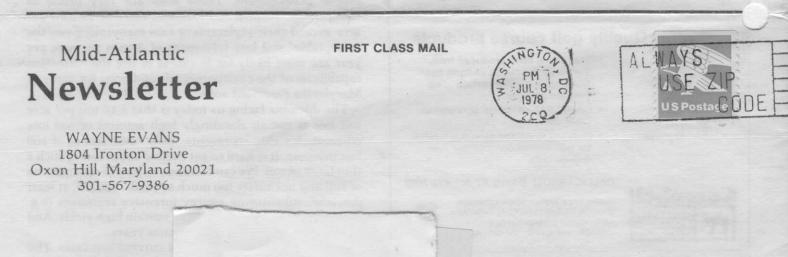
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and maintenance, as well as providing assistance in the diagnosis and solution of varied turfgrass problems. Proper soil moisture management constitutes an important area of emphasis in his work, and it was this particular area which the award cited, recognizing his extensive efforts in the promotion of proper irrigation management techniques.

Dr. Indyk received a BS Degree in Agriculture in 1950 from Rutgers, and his MS in Agronomy and Ph.D. from Pennsylvania State University. He began his career as Assistant Research Agronomist at the College of Agriculture at the University of Delaware. His first work was the initiation of the first irrigation study on corn at that station.

Indyk has been active in the irrigation field for nearly 25 years, both in New Jersey and throughout the country. He has served in an advisory capacity in the formation of the Irrigation Association of New Jersey, – addressed earlier technical conferences of The Irrigation Association, and instructed at its 1977 Basic Turf Irrigation Short Course held in New Jersey. Indyk was instrumental in organizing the American Sod Producers Association, and served as its Executive Secretary from 1969 to 1973. He also assisted in the organization of the Cultivated Sod Association of New Jersey, and ha served as its Secretary since its inception in 1964. He initiated the first Sod Certification Program in the United States in New Jersey, a program which led to numerous other states adopting similar programs. Dr. Indyk has also served as Chairman of the National Landscape Industry Advisory Council, President of the New Jersey Plant Food Educational Society, member of the Board of Directors of the Musser International Turgrass Foundation, organizer and General Chairman of the annual New Jersey Turfgrass Expo, Executive Director of the Golf Course Superintendents of New Jersey, and is an advisor to the Executive Committee of the state Turfgrass Association.

Indyk, who is married and the father of four children, one of whom is in the turf supply business, is a member of the American Society of Agronomy, the Northeast Weed Science Society, and the New Jersey Turgrass Association. He is an honorary member of the Irrigation Association of New Jersey, the Golf Course Superintendents Association of New Jersey, the American Sod Producers Association and the Texas Sod Association. As recipient of the "Man of the Year Award" he also becomes a lifetime honorary member of The Irrigation Association.



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