

MID-ATLANTIC COURSE MAINTENANCE SURVEY

We will shortly undertake to compile a new and different survey unlike any the Mid-Atlantic has done in years past.

This survey will show a comparison of operating costs of all major golf course related expenses.

Since no two clubs have similar expenses or methods of cost accounting we will classify each club under one of four headings based on your club's annual income from dues of your fiscal 1972 year. No club names will be used and of course all information received from our questionnaire will be confidential.

The data from your questionnaire will be used to determine the average, high, and low operating expenses of Mid-Atlantic area golf courses.

Next month you will receive a questionnaire inserted within your newsletter. Look it over and if you have any questions jot them down and bring them to the November superintendents meeting at Bill Livingston's Norbeck Country Club. If for some unexcusable reason you can't attend and still have questions please give me a call at Manor Country Club - 929-1707, or at home 929-1038 (Craig Spottswood). The last section of this survey will show the percentage of those clubs not responding or returning our questionnaire. Will we have a big fat "0"???

PENN STATE FIELD DAY

Unfortunately rain hindered the turf plot viewing at Penn State. The crowds of people in attendance managed to see all the field test plots and were fortunate in not being completely rained out.

The turf plots on display showed results of currently used herbicides, fungicides and fertilizers on a wide variety of grass species and at different applications rates. Many of our popular grass varieties have originated from Penn State. Several species, old and new, were on test plots at Penn State for evaluation under different management practices.

Mid-Atlantic members present were Bob Bingham, Mike Liska, Mike Claffey, Joe Baidy, Russel Kerns, and Ken Braun.

ANGELO CAMMAROTA C.G.C.S.

Angie Cammarota has a double celebration in his career this year. He became a Certified Golf Course Superintendent on September 15, and he also celebrates his 25th year as a member of the National GCSAA. Angie first joined the National in 1947 while working at his father's course, Tavistock C.C. in Lindenwald, New Jersey.

Congratulations from the whole Mid-Atlantic, Angie. You give us proof of the results which come from hard work and dedication to the profession.

ANOTHER MEMBER TO THE THOMPSON FAMILY

Congratulations to George and Jacqueline Thompson on the birth of a healthy 7 lb. 12 oz. baby girl. Sara Ann was born on September 10, 1972 and joins two sisters - Julie, aged 7, and Regina, aged 3, and a brother George, Jr., aged 5.

V. P. I. FIELD DAY

Even though Blackburg, Virginia, home of V.P.I., is a formidable drive from the Washington area, the Mid-Atlantic was well represented at the turf plots of V.P.I. Lee Dieter, Dave Fairbanks, Angie Cammarota, Sam Kessel, Ed Schmitt, and your newsletter editor were the superintendents from our area, backed up by our sod producers, Sheldon Betterly and Parker Shirling. Some of our suppliers present were Junior Rutman, Dick Hall, George Wingo, Paul Spelman, John Gross and Strict Newsom. Ed Dembnicki was also there!

A well planned program was presented involving variations of different grass species, mixtures and blends, shade tolerance test plots, fertilization practices (including a helicopter demonstration of fairway fertilizing) herbicide and fungicide tests, and large display of new turf equipment by several manufacturers.

Our thanks go to the Virginia Tech turfgrass staff for their efforts and work, and also for a fine banquet dinner.

PLANT SOME BULBS THIS FALL

A continuous succession of color for practically half of the garden season can be achieved by planting spring flowering bulbs. They are the easiest flowers to grow and will provide the same quantity and quality of bloom for several years. Bulbs are the first large group of flowering plants to announce the arrival of spring.

Flowering bulbs are used most effectively when planted in solid beds, clumps, or in naturalistic areas. Naturalizing is planting bulbs in fairly large, irregular areas, often among well separated trees or shrubs on land not otherwise cultivated. Daffodils, crocus, chionodoxas, and other small bulbs are most often used. The planting method is to throw a handful out on the ground a short distance in front of you, then plant them where they fall.

Bulbous flowers demand well-drained, humus, rich soil of loose consistency. Good drainage is crucial. Bulbs just won't tolerate a water-logged condition; they fail to grow well and the bulbs will rot and disappear. Although any well drained soil will grow bulbs, best results are obtained with soils of high fertility, rich in organic matter and adequately supplied with lime and plant nutrients. Fresh organic material should never come in contact with bulbs in the soil; any organic matter should be well rotted and thoroughly mixed with the soil before bulb planting. Use only well decomposed materials. The soil should be porous well below the base of the bulb for adequate root development.

A general guideline of planting depth is to dig a hole three times the greatest diameter of the bulb. Plant all bulbs at a uniform depth. Usually a four inch cup cutter will work very well in digging holes to a uniform depth and size.

Hardy bulbs left in the ground all year become crowded as the result of natural increase, the stems become shorter and flowers smaller. Bulbs, therefore, must be dug and replanted or replaced every three to five years depending on the species and the rate of increase. Some bulbs will increase in number by division or self seeding. These include daffodils, crocuses, chionodoxas, scillas, grape hyacinths and snow drops.

Purchase bulbs from reliable dealers well known in the trade. Avoid bargains and cheap mixtures. They are usually inferior to graded bulbs. Bulbs are graded by size and shape when offered for sale.

One last note, after the summer color from the annuals have gone, put in some chrysanthemums for some fall color.

WHY TOPDRESS

The answer to "Why Topdress" originates deep in the basic tenets of agriculture and anyone who manages fine turf would do well to learn the real reasons for topdressing and should become aware of the damage he does to the valuable turf entrusted to his expert care if he does not know this answer and does not observe the principles involved.

The answer comes from the laboratory of the microbiologist, from the rules for successful composting, from the time proven practices of the agronomists, from the findings of soil chemists and physicists.

The answer, derived from these many sources, might be expressed in this way, "To bury the dead and succour the living." This abstruse answer demands explanation.

To better explain this statement let us agree to describe the cross section of turf from the top of the grass plant down to just below the main root mass as "The Growth Zone."

Within this "Growth Zone" there is a complexity of life processes which are interdependent and upon which, to varying degrees, success or failure in turf culture depend. The processes are: physical growth of grass plants, often under adverse conditions; photosynthesis carried out by leaves which are constantly being mowed, sprayed and trampled; chemical reactions relating to fungicides, fertilizers, herbicides, and water borne minerals and other chemicals; biological reactions relating to the decomposition of dead plant and animal tissue; and to the micro-biological population which increases or decreases as conditions determine. These, and other processes, must be properly maintained to insure healthy satisfactory turf and turf grass.

Where does topdressing fit in this "Growth Zone" complex.

Topdressing is a prime requisite for the optimum functioning of the "Growth Zone." These are the ways in which topdressing contributes to this optimum functioning.

- (1) It provides a physical separator to keep plant and animal residues from matting into an impervious mass which would be a barrier to passage of air, water, and chemicals, and which would be a serious deterrent to decomposition.
- (2) It introduces a buffering agent to modify chemical reactions.
- (3) It physically supports the plants to help absorb the shock of compacting factors.
- (4) It introduces and supports microbiological activity so essential to the prevention of an undesirable amount of thatch.
- (5) It builds up the soil surface slowly.
- (6) It maintains a friability in the "Growth Zone" which assures a proper degree of porosity.
- (7) It ultimately produces a soil of a sandy loam texture.

WITHOUT PROPER TOPDRESSING, EXCESSIVE THATCH CONTROL BECOME THE RULE. THE NEED OF CONSTANT MECHANICAL AERIFICATION AND THATCH CONTROL BECOME THE RULE. THE OLD TIME "GREENSKEEPER," ALTHOUGH HE DID NOT KNOW TECHNICAL REASONS FOR TOPDRESSING, CERTAINLY KNEW THAT GOOD GREENS WERE THOSE WHICH WERE PROPERLY TOPDRESSED.

Edward F. Morse
Former Superintendent
Maryland Golf and Country Club
Bel Air, Maryland

Editors note: Additional benefits in topdressing;

- a. Reduced grain; upright growth encouraged.
- b. Disease reduced - as thatch breaks down, disease and insect problems are reduced.
- c. Improved air, water, and fertilizer penetration.
- d. Winter desiccation reduced when topsoil covers crown of plant.

HOW MUCH TOP SOIL NEEDED

The amount of topsoil needed for a given area is determined by multiplying the area involved by the depth in inches desired, and dividing this total by 10, a factor for loosened soil. This gives cubic feet. To convert to cubic yards, divide cubic feet by 27.

Example - Putting green area 7,000 square feet, 12 inches deep $7,000 \times 12 = 84,000 \div 10 = 8,400$ cu. ft. $\div 27 = 311.1$ cu. yds.

The approximate volume of topdressing needed has been determined in the book, Turf Management.

Depth Desired	3,000 sq. ft.		5,000 sq. ft.		7,000 sq. ft.	
	cu. ft.	cu. yd.	cu. ft.	cu. yd.	cu. ft.	cu. yd.
1/8"	31.2	1.2	52.0	1.9	72.8	2.7
1/4"	62.4	2.3	104.0	3.9	145.6	5.8

The O.J. Noer Sampling Tool, illustrated below made from a discarded steel golf shaft is an excellent tool for sampling. (Courtesy Milwaukee Sewage Commission)

Soil Sampler Made from a Golf Shaft

