

UNITED STATES GOLF ASSOCIATION

GREEN SECTION

WESTERN OFFICE



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• Western Turfletter •

K E E P I N G U P W I T H P R O G R E S S

Times are changing! From "Around The World In 80 Days" to a Sputnik that makes the same journey in 94 minutes, our tempo has increased. It is hard to keep up with progress. The age of specialists is here ----- and to help you keep up with the Turf Specialists, here is what they reported at the 1957 Western Turf Conferences:

WHAT'S NEW IN TURF DISEASE?

"Certain parasitic fungi grow very well on soil organic matter such as mat and thatch and so maintain a population in the soil at all times. Such fungi are opportunists and await their chance to attack the living tissue of grass. Whenever grasses are injured or their vitality is seriously lowered, these fungi attack. Once the fungi has invaded, it quickly adapts itself to its host and becomes much more virulent and aggressive. In many cases it becomes able to attack normal, uninjured turf plants." So stated Dr. B. Ellison, Research Director of Kelly Western Seed.

"Fusarium Patch (formerly Pink Snow Mold) causes over 90% of the spotting on greens in Western Washington" reports Dr. C. J. Gould, Washington Plant Pathologist. Colonial bent seems much more susceptible than other grasses. The phenyl mercuries (1/2 to 3/4 oz.) or Calo-cure (2 to 4 ozs.) gave Dr. Gould the best control. PMA seems to have a more rapid action if the disease has already started.

"Perhaps Poa annua predominates in Western Washington greens because Fusarium destroys Colonial and opens the way for invasion by the Poa" suggests Dr. Gould. ----- This is a good point for all of us to consider. Is it not possible that disease, poor fertility, overwatering or any malpractice of turf management will gradually reduce our stand of bentgrass on greens? Would this void not leave the stage open for Poa annua; always ready, anxiously waiting in the wings to take over? May our solution not be found in better grasses and better management?

WHAT'S NEW IN MANAGEMENT?

"When the clippings from greens were analyzed over a 5½ month period, we found they contained 5 to 7 lbs. of potassium and 1½ to 2 lbs. of phosphorous per 1000 sq. feet", reported Dr. O. J. Noer and Chas. Wilson of the Milwaukee Sewerage Commission. "Although nitrogen applications are important, phosphorous and particularly potash applications should be made to greens at least twice yearly". ----- O. J. Noer believes that an ideal soil mixture for greens is one with 60% sand, 25% loam and 15% peat.

WHAT'S NEW IN MOWING?

The work of Drs. Jim Watson and Jack Harper, Toro Manufacturing Company show that grass maintains better growth if it is mowed with sharp mowers that provide a clean cut. Torn or bruised grass blades do not make equal growth. Frequency and height of cut is important for good turf but will vary as to the grass species being used. A good rule to remember is never remove more than 1/4 of the total leaf area at any one mowing.

WHAT'S NEW IN SOILS?

"We want soils that will grow grass, retain water and yet drain well" says Dr. Donal Johnson, Colorado State Agronomist. "The problem is how to combine the sand, silt, clay and organic matter particles to form a favorable mixture. I would stick pretty close to sand and organic matter and stay away from silts and clays for turfgrass soils". ----- Dr. Johnson's work shows the following water holding capacities of sand and organic matter mixes:

<u>% Sand</u>	<u>% Organic Matter</u>	<u>Water Holding Capacities</u>	<u>Available Water</u>
100	0	2.2" per ft.	1"
90	10	2.3" " "	1.2"
80	20	2.5" " "	1.4"
70	30	2.8" " "	1.6"
60	40	3.0" " "	1.8"
50	50	3.3" " "	2.0"

Although sandy soils do have good drainage, sand has no nutrient holding capacity. Dr. Johnson's work shows the following "Relative Nutrient Capacity" in these mixes:

<u>% Sand</u>	<u>% Organic Matter</u>	<u>"Relative Nutrient Capacity"</u>
100	0	0 Milliequivalent per cut. ft.
90	10	7 " " "
80	20	14 " " "
70	30	21 " " "
60	40	28 " " "
50	50	35 " " "
0	100	70 " " "

Dr. W. H. Fuller, University of Arizona, Department of Soils stated that the sand to use in soil mixtures is one with coarse, sharp particles. These will help resist compaction from foot traffic, mowing, irrigation and rubber-tired equipment. "Equipment vibration is another factor in soil compaction".

GOPHERS AND GOLFERS:

Gophers and Golfers have both been known to cause turf damage. "We can control the gophers by using either bait or traps", says Gorden T. Mickle, Colorado State Entomologist.

Over large areas, the bait method seems best. Milo poison may be dropped down a small hole made in a main runway. Cover the hole with sod. ----- On smaller areas, traps are recommended. Place one or more in the main tunnel and anchor well. Open a small hole along the run so that light will enter the run. The gopher will go to plug the light and that should be the end of the gopher. The Fish and Wildlife Service have both bait and traps available.

WHAT'S NEW IN GRASSES?

"Regardless of management, we can't do any better than the potential of the grass we use will allow" said Dr. Neal Wright, USDA Grass Breeder. "Select the grass with the greatest potential".

Neal Wright is indeed right. How can we ever hope to produce top quality golfing turf the year 'round if we continue to work with the weakest grass in the turf picture -- ----- Poa annua? You can only look as good as the grass you are working with will allow you to look.

Larry Munzenmaier, Jr. of the DuPont Company did considerable work on Poa annua control during his days at Purdue. "The highest rate of lead arsenate we used was 30 lbs. per 1000 sq. feet. There is no need to go this high, although our experiments showed this rate to be safe for bent and bluegrass".

U-3 bermuda grass has now overwintered two years at Fort Collins, Dr. Jess Fults, Department of Botany at Colorado State reports. ----- Dr. Bob Schery of The Better Lawn & Turf Institute points out that, when buying a seed mixture, look for two things: A. Seed quality. B. The quality of composition of grasses in the mixture. ----- Ted Rupel, Cherry Hills Country Club, Denver, reports that a selection of bentgrass obtained from Tom Hayes, Meadow Brook Country Club, St. Louis, is doing an excellent job in his nursery. He may use it on a new green in 1958.

WHAT'S NEW IN WEED CONTROL?

"Weeds cost money, whether you're a superintendent or a farmer", said H. H. Schudel former Oregon State Agronomist.

A new soil sterilant material called "Mylone" has been under observation this summer. A product of American Chemical Paint Co., Hal Schudel reports "it has done a very excellent job of controlling weeds and fungi". Mylone (applied either wet or dry) must be worked into the soil and allowed 3 weeks to do its job. Watering carries it down through the soil profile. Suggested rates are 3/4 lb. per 100 sq. ft. for complete soil sterilization or 20 lbs. per acre for weed control.

Other weed control materials now in use are: Aero Cyanamid, 60 to 75 lbs. per 1000 sq. ft. (treatment requires 4 to 6 weeks); Methyl Bromide, 10 lbs. per 1000 sq. ft. (treatment requires 24 hours); Vapam, 2 1/2 gallons per 1000 sq. ft. (treatment requires 10 days to 2 weeks).

Have A Pond With A Weed Problem?

Ken Putnam at Seattle Golf & Country Club and Neil McGregor of Rancho Santa Fe, California, both report excellent control of cattails, tules, sedges, reeds and rushes of various kinds with Amino-triazole. The rate of application is 5 lbs. of 50% wettable Amino-triazole in 100 gallons of water. Two applications about one summer month apart will do the trick. A wetting agent will help on waxy leaf plants ----- soak them well.

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Progress plays an important role in professional turf management. We are reminded of what Elbert Hubbard said of 'Progress' in 1923:

"Progress needs the brakeman, but the brakeman should not spend all his time putting on the brakes".

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