



by Fred V. Grau

ANSWERS TO TURF QUESTIONS

Determining authenticity

Q—Our club has an application blank from the Pennsylvania Turfgrass Council wherein golf clubs are invited to join as Sustaining Members at \$100 a year. Would you consider this to be a good investment? What might we expect in return for our membership? Isn't this something new? (Pennsylvania)

A—Yes this is something new, and I consider it a good investment. In return for \$100 a year, each Sustaining Member club will have the privilege of: 1) receiving periodic news releases in the Keynote, the official publication of the P.T.C.; 2) supporting scholarships at Penn State wherein top-notch students are rewarded for their scholastic proficiency in their efforts to become turfgrass managers; 3) compensating in part for years of free advice and service from the staff at Penn State; 4) insuring the continuance of high-quality programs of research, teaching and extension and the training of replacement golf course superintendents and 5) making possible another authentic Turfgrass Survey to assess the true scope and value of the turfgrass industry.

These are a few of the important elements that can be accomplished with money from a one-year Sustaining Membership in P.T.C. Already 15 commercial firms have indicated their support of the goals by joining the council. Several hundred golf course superintendents have dug into

their pockets for individual memberships to support its progress.

Q—We have a weed in our putting greens called pearlwort. It is dark green and looks quite good. What can you tell us about it? (Maine)

A—Pearlwort (*Sagina procumbens*) was described in Piper and Oakley's book "Turf for Golf Courses" in 1917 (out of print). It was common in putting greens throughout Pennsylvania in 1935. The use of arsenate of lead, the introduction of superior types of bentgrasses and improved knowledge of liming and fertilizing have just about eliminated pearlwort. Some superintendents equip their men with rubber gloves to rub arsenate of lead powder into pearlwort patches. Penncross bentgrass gives pearlwort stiff competition. Brownpatch sometimes seriously affects pearlwort.

Kikuyu fills the bill

Q—At Hickam AFB we have large areas of kikuyugrass in some of our fairways. The turf is a beautiful green, weedfree and does not seem to suffer when water is short. We have been moving sods to areas where salt is a problem. Do you condone this practice? Are we headed for future trouble? (Hawaii)

A—After inspecting your golf course and learning something of your conditions I have no choice but to approve your program. Kikuyu is doing a great job and seems to be a low-maintenance grass. It needs to be mowed closely and thatched occasionally. It does have a tendency to develop a spongy cushion under different management. With good power edgers I see no real problem around the greens. Like any aggressive grass, it will need management in and around bunkers.

Q—Not long ago we had occasion to mix, in water suspension, hydrated lime and an ordinary mixed fertilizer. We experienced extreme discomfort from ammonia fumes and we had poor results from the application. Can you suggest an explanation? (Hawaii)

A—The explanation is simple in terms of beginning chemistry. Hydrated lime ($\text{Ca}(\text{OH})_2$) reacts with inorganic nitrogen, presumably sulfate of ammonia ($\text{NH}_4)_2(\text{SO}_4)$, to form ammonia (NH_3) a gas, and calcium sulfate (harmless soluble

(Continued on page 22)

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salt). Ammonia gas is highly caustic. I've seen putting greens destroyed when hydrated lime and sulfate of ammonia were applied simultaneously. Hydrated lime may be used safely with ureaform nitrogen. Only ground limestone, however, may be used safely with inorganic nitrogen fertilizers.

Q—When a fungicide is applied where is the contact with the pathogen—in the leaves, roots or in the soil? Will a dry application, lightly watered in, have the same effect as a spray? After mercury, what is the most effective fungicide for snowmold, dollarspot and brownpatch?

(Ontario, Canada)

A—Fungicides attack pathogens by: 1) direct contact whether on leaves, roots or in the soil and 2) fumigation wherein the material "gasifies" and penetrates in all directions. Another word is sublimate whereby a solid moves into gaseous state without becoming liquid.

Long before sprayers were used, fungicides were doing their job by dry applications. In 1931 at The Green Section lab at Arlington Turf

Gardens I used to help Dr. Arnold Dahl crush lumps of Calomel and bichloride of mercury and blend the powder with sand. The big problem of dry applications is obtaining uniform distribution. This is a big plus for sprayers. Both work equally well if coverage is the same.

With mercury bearing chemicals "under a cloud" we must look to dyrene, tersan, OM, daconil, actidione, thiram and dithane M-45 for dollarspot and for brownpatch control. There may be others. At the present I cannot come up with alternative materials for snowmold.

Q—We live in a small town in western Kansas where the golf course has sand greens because there is not enough water for grass greens. Can you give us information relative to synthetic turf for greens and name the companies that produce it?

(Kansas)

A—In the mail you will receive a booklet that points out the pros and cons of both natural and artificial turf. Two companies that produce synthetic turf are Monsanto in St. Louis and the 3-M Company in Minneapolis. When you investigate

costs, include base preparation and subsequent maintenance. Then take a look at drought tolerant grasses, consult with Dr. Ray Keen at Manhattan and compare costs.

Q—At times you have referred to "wildflowers" in relation to highway plantings. Should our club be concerned with wildflowers on the grounds? (Massachusetts)

A—Why not? We try to please the members by having flowers near the clubhouse, neat shrubbery and handsome trees. On the course there are many spots where native wildflowers would thrive if we could just get over the idea that every square foot of property has to be mowed or sprayed. I believe that many golfers would enjoy seeing clumps of natural beauty out on the course. □

CORRECTION

A word was inadvertently omitted in the last sentence of Dr. Grau's answer to the question entitled "Grass on a Pinch-Penny Budget" on page 26 of the October/November issue. The corrected sentence should read: "I've never seen crabgrass choke a good turf of tall fescue."

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