# GRAU'S Answers to Turf Questions

By FRED V. GRAU

There can be little doubt that complaints on annual bluegrass have increased, very nearly at the same rate as the increase in irrigation facilities. Much has been written on the subject; much more will be written in the future. We can only hope that future discourses will bring about a clear understanding of the interrelated problems and the beginnings of a practical solution.

Chemicals will play an ever-increasing part in the control of Poa annua. To be completely successful, the chemical program must be supported by one which introduces new improved grasses that are so competitive that Poa cannot again gain a foothold. Research in better grasses continues, but to develop and to adequately test a superior turfgrass, some 15 years will have elapsed, maybe more. The time may be shortened somewhat in case of a vegetatively-propagated grass. When Poa is destroyed chemically and the area is reseeded to the same grasses that failed originally—what have we gained?

Water has been hailed as the one great factor that will keep courses green. No one can quarrel with this thesis but, as so many clubs have learned to their sorrow, water has *increased* Poa costs, problems, weeds and clover. The grasses that could survive under the sudden change of management just were not present. Water increases the need for fertilizer which often is not supplied as it is needed.

Another phase of water management suddenly has become critical on many courses. The pipes stand empty because there isn't enough water to meet the demands. "Foolproof automation" may suffer a lapse so that anticipated coverage simply did not take place. Result—loss of grass. Lake levels may drop to the danger point which encourages increase of algae.

Is it possible that many new courses are planted cheaply with "quick-green" grasses designed for "quick-show" to attract members which cannot be considered permanent turfgrasses? If so, water can have one sure effect—increase of Poa.

Is it possible for irrigation manufacturers and dealers to develop guidelines for the proper use of their systems on different grasses in various climatic regions? To design for "two inches of water a week" is not the answer. We don't quarrel with the rated capacity but with the idea that one must use that much water whether or not it is needed. Perhaps someone can help me out on the answer to this one.

Finally, on how many Poa infested golf courses are trial plantings of new grasses being made? Burning Tree and Chevy Chase had many such plantings made when Ferguson, Wilson and Radko were working with me at Beltsville.

Obviously the problem cannot be solved here but it is to be hoped that *thinking* will be stimulated toward the end that all factors will be coordinated in favor of *better turf* without Poa. Some have said, "we have so much of it we are simply going to live with it." That may be one way to go.

**Q.—Our course is built on sandy loam, half cut out of woods (gum, oak, tulip poplar), half built on tobacco land. Penncross greens in the woods are developing dark circular areas and, when allowed to become dry, it is extremely difficult to wet the soil again. Greens in the open (tobacco land) are much**

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**easier to keep and have not developed the same symptoms. Can you offer an explanation?**

**(Maryland)**

A.—The woods that were destroyed in favor of the golf course were old when the first settlers arrived. Over the centuries nature provided fungi to assist in the decay of leaves and fallen trees. These fungi that live on decaying organic matter are still there and they still have vegetable remains on which to feed. Their mycelia (thread-like bodies) permeate the soil and trap air. When this fungal growth becomes dry it will shed water nearly as well as polyethylene. This seems to be basic to your problem of dry areas.

The tobacco land had been farmed for, perhaps, 200 years. During that time the woods-loving fungi largely were replaced by other organisms better suited to tilled land and to skimpy crop residues. Water penetrates this soil with greater ease because the air-trapping fungi are not so prevalent.

You must do much more soil cultivation in the woods areas to aid water penetration. *Never* should the subsoil be allowed to become dry, once it is wetted throughout to the full depth of the rootzone. A sharp probe in the hands of greensmen will help to determine the need for water in critical areas.

(Note: Dr. Grau inspected this course on a day when the official air temperature stood at 94° F. Hand watering was in force on all critical areas. It is significant that the superintendent had analyzed his own problem and was pursuing the only logical course of action. This Q and A records essential facts from which others may benefit.)

## THIRTY-FIVE YEARS AGO

Billy Burke won the Open in a 72-hole playoff with George Von Elm at Inverness. Using the "balloon" ball, Burke shot 292-297, Von Elm 292-298.

Amateur entry exceeded 500 for the first time (583), Francis Ouimet regaining title after 17 years at Beverly.