## GRAU

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There are still too many supts. who are not given the opportunity to maintain their courses as they see best. There is an encouraging trend in the right direction but it is a slow process. Some troubles can be traced directly to an ill-advised direction given by a club official, but when the chips are down the superintendent "should have known better."

In new construction we have a golden opportunity to build troubles out and easy maintenance in. We regret to report that new courses are being built that disregard many of the proved principles that have come from years of research and practical experience. Drainage is the key to success on every part of every course everywhere. Recently we saw a year old course that had not yet been opened for play and could not be opened until the manure layers in the greens had been eliminated by rebuilding the greens! This experience points to the need for a "construction committee" which would seek the best recommendations from every available source and issue a realistic report on what is desired. Within every golfing community there are supts. with the combined practical experience of hundreds of years with all kinds of technical information. It is available at little or no cost. It is an area for thoughtful study.

## Sand Has Excellent Qualities

Sand is construction material that is gaining more and more attention. When one sees excellent turf with deep white roots growing on sand in the desert areas it is easy to say, "Well, why not?" When one sees the troubles that develop when there is an excess of organic matter he thinks more of sand. Two drawbacks to sand are (1) excessive leaching of nutrients and (2) extra watering to keep turf green. The first no longer is a problem with the non-leaching types of fertilizer. With deep roots and ample nourishment the second is less important than it has been believed. Two things in favor of sand are (1) excellent drainage and aeration and (2) firmness for good playing quality. Straight sand for topdressing a green has been frowned upon but it may have its place. When a soil has too much clay in it to begin with, there is no point in adding more. By incorporating sand through proper aeration and spiking, the sand tends to form in vertical drainage channels rather than horizontally.

The effect of matted turf in holding granular materials away from contact with the soil is gaining well-deserved attention. To our knowledge no one has measured accurately the total damage to turf from this factor alone. One supt. recently wondered why we waste our time measuring the pH of the soil beneath a matted turf because, as he put it, "the lime never reaches the soil anyhow." If much of the

Ralph R. Bond, owner of Old Orchard Turf Nurseries, Madison, Wis., takes exception to an observation made by Fred Grau in the Sept. GOLFDOM Q & A column (page 48) in which it was said that Old Orchard tends to thin in mid-summer and let poa annua creep in. Bond writes the following:

"The 30-year old Old Orchard C-52 strain, which I developed, is planted in from one to all greens at 400 clubs. No supt. ever has called my attention to the thinning of C-52 or the invasion of poa annua. I have just inspected the 9 greens at Stevens Point (Wis.) CC and the 18 at the Muny course in Janesville and find no evidence of thinning or invasion of poa annua or any weeds. These greens are from 17 to 30 years old. Hans Wagner, supt. at Janesville, for one, will verify my statement. In his words: Thave never had anything go wrong with my C-52 greens."

material we apply is held in the mat of turf and cannot reach the soil below, it would seem that we need to re-examine many of our methods and to evaluate particle size and method of application in terms of results.

Grasses. No Roundup would be complete without a critical evaluation of grasses, old and new, in the light of performance.

## Crowded Seedlings

Penncross creeping bent seed is being planted on many new greens. Supply of Blue Tag seed is good, and the price is reasonable. One lb. of seed to 1,000 sq. ft, is ample. Anything over a lb. is extravagant, wasteful and harmful. When seedlings are crowded all of them will be weak because of competition. Fewer plants will provide sturdier growth and better coverage.

Vegetated bents that are extremely popular include Old Orchard, Cohansey, C-1 and C-19 mixed, and Toronto. New strains are being tested and discarded in (Continued on page 106)

Golfdom