



# GRAU'S Answers to Turf Questions

By FRED V. GRAU

**How Good Are Your Tees?**—Many of us recall the days when the teeing ground was a small raised square or rectangular flattened mound of clay. Nearby was a container of moist sand with which to form a small mound or a raised "tee" on which to place the ball, the better to strike it with a driver and to minimize contact between the clubhead and the dense hard-packed clay. Later there were rubber mats and fiber mats.

With the advent of the formed "tee" (wooden or plastic), teeing grounds gradually were enlarged and the clay modified with sand or softened with water to enable the golfer to press the manufactured tee into the soil without undue effort.

The first grass tees probably were merely sections of fairway that were mowed just a little shorter, without benefit of elevation for the golfer's advantage, real or fancied. Perhaps somewhere in recorded turf history we could learn (doubtful) when it was we started to build large elongated teeing grounds with soil improved so that, hopefully, we could have satisfactory grassed surfaces.

My experience with golf course tees begins in 1925 when I teed the ball on a mound of sand, played the second shot from grassed fairways that were mowed at least twice a year with a sickle-bar mower, and putted out on slightly-oiled sand smoothed to the cup with a section of 2-inch pipe with a handle. I mention this bit of personal history so that the present situation with teeing grounds can be brought into sharper focus. As a one-time 2-handicap golfer and Director

of the U. S. G. A. Green Section there was intimate involvement with all manner and kinds of teeing grounds on an international basis.

**Architects and Specifications**—In the building of today's modern golf course nearly as much attention is devoted to the teeing grounds as to the putting greens. Size may swell to half an acre or more. Length may exceed 130 yards, longer than some 3-par holes. Shape may vary from square, through rectangular to semi-circular. All designs tend to affect in a subtle manner the play of the hole, depending upon the position of the markers in which there is wide choice.

The architectural design of teeing grounds would lose considerable stature were it not for the agronomic triumphs born of research and dogged "cut-and-try" practical efforts by superintendents. The best teeing grounds today are so good on some courses that one could, with a certain degree of imagination, play backwards, from green to tee, to a cup sunk in the near-perfect turf of the tees.

**The Agronomic Side of It**— Let us examine the major factors in the development of the near-perfect turf on tees.

1) Soil modification to promote rapid water absorption, excellent drainage, firm surface, ready penetration of artificial tee;

2) Improved turfgrasses identical with, or closely similar to, those used on putting greens. These include fine-leaf bermudagrasses, Meyer Zoysia, Penncross bent, Merion Kentucky bluegrass.

3) Adequate quantities of fertilizers that release nutrients closely in accordance

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with the needs of the grass; that maintain slow, steady firm growth that is highly resistant to traffic injury; and that promote rapid healing of scars.

4) Sensible irrigation as needed to avoid soft rapid shallow-rooted growth and to promote firmness with deep rooting and resistance to diseases.

5) Close frequent mowing with clippings removed.

6) Chemical treatments for pests and diseases, applied as needed.

7) Topdressing as needed with weed-free material to maintain true surfaces.

8) Soil cultivation and thatching, as needed.

Here are some of the flagrant violations of good agronomic practices that I have come across:

1) Starvation. It is inconceivable that a club will spend good money to build and turf their tees, then fail to apply adequate nutrients. Some have said frankly, "We can't afford fertilizer for our tees." Yet, when annual bluegrass and other weeds become unacceptable, there is money to return.

2) Overwatering. There is a quaint but prevalent notion that water doesn't cost anything—or not much. Water makes grass green—so let's use water. Saturated soil rots roots and favors Poa. Soil becomes baked so hard that more water is needed to soften. Merion gives way to Poa. Bermudagrass sickens and loses its body. Bents can take it somewhat longer but they, too, let Poa in. I've seen soggy tee turf, mostly Poa, with perfectly beautiful weed-free turf at the ends and edges where—and this is true—"The sprinklers don't quite reach!"

We have the grasses, the fertilizers, the water, the mechanical equipment and the know-how to produce near-perfect turf for teeing grounds. Need more be said?

Q.—At the G.C.S.A.A. Conference in Washington, D. C., we heard about "FLAMING" to facilitate thatch dis-

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posal *in place*. We would like to learn more about this but we don't know where we can get burners. Do you have any suggestions?

(Indiana)

A.—The flaming method essentially is that of 1) dislodging thatch by suitable mechanical equipment, 2) allowing the thatch to dry on the surface of the turf, 3) burning the dry thatch by passing a burner over the area. This has been done in California and Pennsylvania.

Flamers may burn oil or L-P gas. Some work has been done in several states operating flamers to control alfalfa weevil. Several manufacturers offer information: AFCO Flame Cultivator Company, P. O. Box 231, Little Rock, Arkansas 72203; Barrentine Manufacturing Co., Inc., P. O. Box 697, Greenwood, Mississippi 38931; Brunner Manufacturing Co., P. O. Box 559, Bedford, Indiana 47421; Consolidated Manufacturing Co., P. O. Box 1100, Englewood, Colorado 80110; Gotcher Engineering & Manufacturing Co., P. O. Box 670, Clarksdale, Mississippi 38614; Manchester Tank and Equipment Co., P. O. Box 318, Lithonia, Georgia 30058; Western Tank and Steel Corporation, P. O. Box 1338, Lubbock, Texas 79408.

Note: There is no known published information on flaming for thatch control in turf at the present time.

Q.—How effective is overseeding fescue greens with Pennncross bent seed? Is the bent strong enough to take over?

(Michigan)

A.—Pennncross will take over if your operations and subsequent management favor the bent. Thorough spiking will provide resting places for the bent seed. I favor hydroseeding (if you have a good sprayer), and fertilization with a slow-release organic fertilizer. If *Poa annua* is a problem, the takeover will be slower.

Fescue greens are a rarity. Is it possible that they might be good enough to be preserved? ●