

## CONCEPTS OF A PERFECT PUTTING GREEN — PANEL DISCUSSION

HOLMAN M. GRIFFIN, Green Section Agronomist, Moderator; MRS. ALLISON CHOATE, 1963 USGA Senior Women's Champion; DR. RALPH E. ENGEL, USGA Green Section Committee; JOHN P. ENGLISH, USGA Green Section Committee.

"Good greens, fast or slow, grainy or not, rolling or flat, can make a person a great putter one day and on the next, under the same conditions, render him a helpless, frustrated fool. Is it then the perfection of greens we're striving for, or are we on the quest of finding a human being who is simply not human? By asking this question I don't in any way wish to detract from the importance of having perfect greens. Don't ever let us mortals have an alibi for missing them!"

With these words, Mrs. Choate characterized the elusiveness of perfection in efforts to achieve a perfect putting green. A perfect green is perhaps unattainable. However, some desirable characteristics were given expression by the panelists.

Fast greens are desirable, but excessively fast greens slow up play. . . . A player is much more deliberate in stroking the ball on a lightning-fast green. . . . Medium-sized greens are preferable to extremely large ones. . . . A pitch to the pin is an easier shot than an extremely long putt.

"Much can be done to attain perfection by the players themselves. So often pit marks are not repaired but since they can be fixed at any time, more important are scuff marks made by spikes which cannot be touched by the following players. Dropping matches could be dispensed with, also cigarette stubs."

Dr. Engel outlined turf characteristics implicit in a perfect green as follows:

"**First**, a high density of leaf blades per unit area is necessary to give the ball a good level ride. A bentgrass that can grow densely and a good steady supply of nitrogen are especially important for good leaf density.

"**Second**, an upright position of the

leaf blades gives a truer roll of the ball. The right grass, good density, and frequent mowing give more vertical growth.

"**Third**, uniform growth, a rather obvious requirement, is easy for some grasses if they receive a light, steady fertilizer stimulation. Uniform growth is difficult to obtain if the green has a mixture of grasses that are very unlike in texture.

"**The fourth** characteristic of a good green is enough resilience and toughness to resist footprinting and stand one big day's wear in the cupping area."

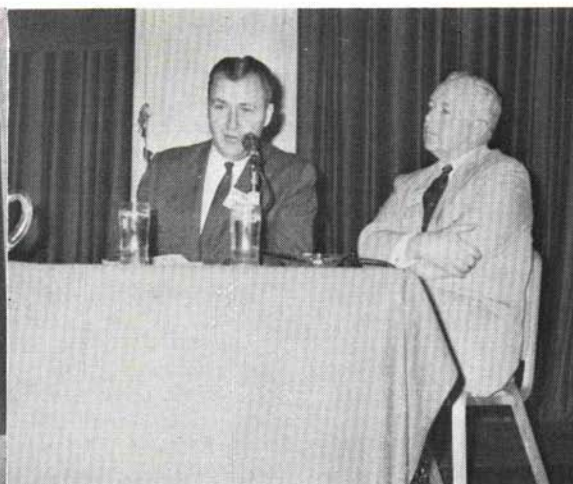
### Putting Green Faults

From the standpoint of detracting from desirability with respect to maintenance needs, the following faults were listed: (1) too few pin positions, (2) soils excessively sandy or clay-like, (3) a green badly drained—on the surface or internally, (4) a green that requires over-watering to hold a golf shot, (5) lack of a desirable grass, and (6) lack of sufficient area at the green site for work, equipment, and golfers.

While each golfer at a club may have in his mind's eye the picture of perfection, the pragmatist's question must be, "How much perfection can we afford?"

It requires a really honest golfer to concede that the putt he just missed was not the fault of the green.

"Because the golfer is usually interested in perfection of the green only at the time of play, his concept of perfection easily may conflict with that of the superintendent, who must of necessity look at perfection from a different viewpoint. Aeration may



L to R: Holman M. Griffin, Mrs. Allison Choate, Dr. Ralph E. Engel, John P. English

interfere temporarily with play but it means that later on the green will have a healthier root system. This and many of the other mechanics of greenkeeping may seem to cause the green to fall far short of perfection from the golfer's standpoint, but these mechanics are necessary for the superintendent to insure that the grass is as nearly perfect as possible all through the season."

### CONSTRUCTION OF PUTTING GREENS — PANEL DISCUSSION

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Construction techniques and practices profoundly affect the playing qualities of a putting green. The soil mixture should be one that will support a good stand of grass, will be resilient enough to hold a well-played shot, and will be firm enough to resist pitting from the impact of balls landing from a high trajectory shot. Water should drain from the surface rapidly enough to permit play within a reasonable period of time following a rain.

Some contours are desirable from the standpoints of interest and surface drainage. However, the sharp undulations that make putts unfair and

The search for perfection continues and each new development brings us nearer to the goal which we can never achieve. To borrow a thought from the pamphlet describing the Green Section's purpose and work, "The whole record of man is a story of the search for the ultimate. Although it is never attained on this earth, man is never permanently frustrated. The search goes on."

which seriously limit cup space should be avoided.

Construction is equally influential in its effect upon subsequent maintenance—fertilization, irrigation, disease control, mowing, etc.—and will be affected by the type of soil which goes into the green, the drainage system and the surface contours.

The USGA Green Section has prescribed certain construction procedures which, if followed, will preclude many maintenance difficulties. It is believed that playing qualities also will be enhanced by use of a highly permeable soil mixture, an abrupt interface marking the trans-