

tive weed control. It is easier to improve turf on unwatered courses than on fairways which have been over-watered. Re-seeding may be necessary on watered fairways, or where watering is contemplated, to introduce grasses better adapted to a watered environment.

New Fairway Grass Needed

The final objective of any program is to produce a turf which is satisfactory to the golfer. He wants a good lie for every shot from the fairway. The ball must rest on the turf, and not nestle down in it. Fescue comes nearest to being the ideal grass, but will not resist weed invasion under heavy play, or persist under the exacting conditions of today, especially on watered courses. The development of a suitable grass, one which will form dense turf, resist weeds, and have wiry leaves for the ball to rest upon is needed. Until it is created, some compromise may be necessary between what the golfer wants and what the turf requires. That is a matter of cutting height or character of growth.

Kentucky bluegrass usually predominates in the fairways of unwatered courses in the northern section of the United States. It is the safest choice for such conditions. Leaf spot is the worst enemy of bluegrass, and may cause more or less severe injury during cool wet spells of weather. There are no treatments for stopping or preventing this disease. Raising the height of cut to increase the amount

of leaf surface is about all that can be done. There is some fescue in the more northerly regions, especially on the lighter soils. In the places where fescue will survive and resist invasion by other grasses, including Kentucky bluegrass, it makes an excellent turf from the golfer's viewpoint. Neither bluegrass nor fescue thrive or survive under extreme close cutting. When they are the sole grasses in the fairway, continuous mowing at much less than an inch is questionable practice. Some clubs mow at about 1 1/4 inches throughout the season, others cut at just under an inch during the spring and fall, and raise the height to a full 1 1/4 inches in the summer.

Dandelion, plantain, and buckhorn are the principal weeds in unwatered fairways, and are the ones that arouse the ire of golfers. They can be killed with 2,4-D. Clover is bad sometimes, and crabgrass is a serious menace to turf in certain places. The use of 2,4-D checks, but does not kill clover, and is useless on crabgrass. Sodium arsenite, or arsenic acid is the best herbicide to use on them. Besides the major weeds, there may be others, but they are less troublesome and include chicory, false dandelion, wild carrot or Queen Anne's lace, chickweed, daisy, heal-all, knotweed, orange hawkweed, etc. They are controlled by 2,4-D excepting common chickweed and knotweed after it becomes stemmy.

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There's a lot of work been done on the PGA's National course at Dunedin (Fla.) course preparing it for expected heavy play of pros and their amateur associates this winter. This view of the 12th green at Dunedin was taken this spring.

—Trabant photo.

