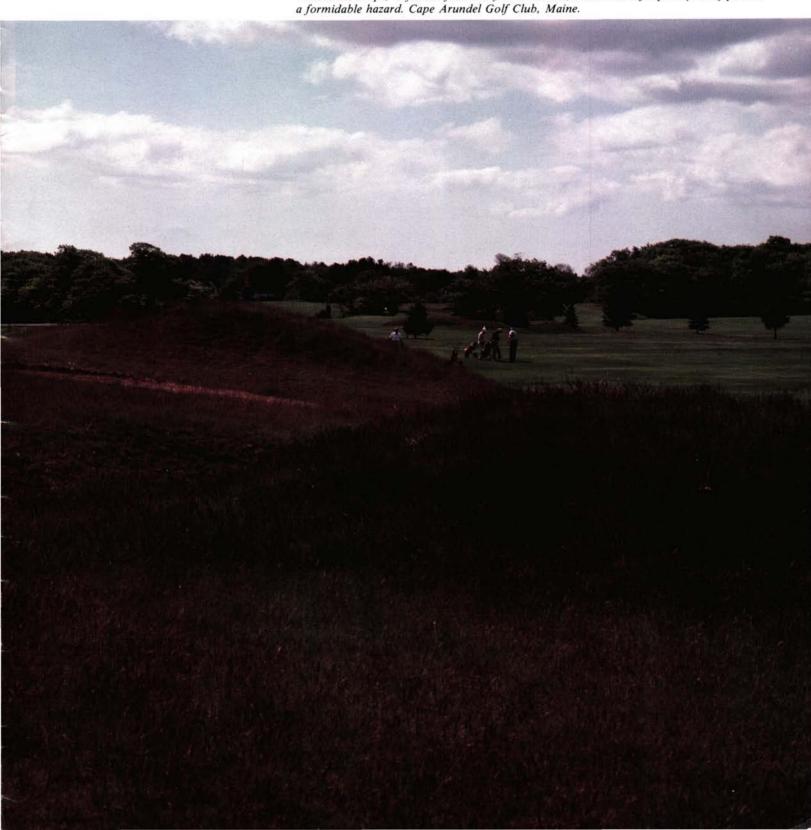
"Through The Green"

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"Chocolate drops," a feature from early construction, are mowed infrequently. They present



EFINITION 35 of the Rules of Golf states: "Through the green" is the whole area of the course except:

 Teeing ground and putting green of the hole being played.

B. All hazards on the course.

Therefore, one can see that a considerable amount of acreage remains on a golf course in addition to greens, tees and hazards. Although the terms "fairway" and "rough" are not mentioned or specifically defined in the Rules of Golf, they really exist, a fact that all golfers will confirm.

When golf course care and condition are discussed by players and superintendents, greens receive most attention, followed by tees, then fairways, with roughs a distant fourth. The rough is mentioned only if it has some distinguishing characteristic, such as tall grass, difficult native vegetation or large numbers of trees or bunkers.

When a perfectly balanced round of golf is played on a par-72 course, 18 strokes are played from the tees (no mulligans), 18 strokes from the fairways (through the green), and 36 strokes on the putting green. When a balanced round of golf is examined from this perspective, the 18 shots from the fairway take on added importance. The average player, however, uses more than 18 shots from the fairways and roughs during his "through the green"





A contrast in water management and philosophy. On the left, fence-to-fence irrigation versus tee and green irrigation only, on the right.

tour. These areas, then, become increasingly important when we assess maintenance priorities.

Several years ago, before spiraling inflation, many fairway areas throughout the country received care in the form of frequent fertilization, heavy irrigation and numerous pesticide applications for the control of turfgrass diseases and insects. In the majority of cases, the roughs immediately adjacent to the fairways received the same intensive care except for mowing height. As the intensity of the fairway management level increased, the mowing height decreased and so did the permanency of the perennial bluegrasses and fescues, while Poa annua and other annual plants increased. As Poa annua increased, so did the difficulty experienced by golf course superintendents who tried to ensure its survival during periods of high temperature and humidity, from late June through early September. As spiraling inflation becomes more of concern to the professional turfgrass manager and the golfers who pay the bills, it is

important to develop a more permanent playing surface within reasonable costs. Since outstanding and effective chemical controls presently are unavailable for controlling *Poa annua* in a cool-season grass community, many elect not simply to accept its presence but to try to manage and encourage its survival. Others encourage a more permanent turfgrass cover by overseeding with improved bluegrass and ryegrass cultivars or bentgrasses, mowing frequently at a slightly higher height of cut, irrigating less and fertilizing according to needs.

A S A MORE permanent turfgrass cover is developed on fairways, playing conditions improve proportionately. Also, as a permanent turfgrass cover becomes more evident, the need for some practices, such as irrigation, are reduced. Whatever savings are realized are then used for other areas of the golf course operation.

Several courses recently initiated contour-mowing programs for their fairways. This not only reduces the number of acres maintained, but it also places more importance on the execution of a properly hit golf shot. Additionally, the aesthetic value of contour mowing is more appealing than a straight line "runway" or "landing strip" mowing pattern.

Many of the difficulties experienced in fairway and rough management may have evolved as a result of procedures mentioned previously, such as low mowing, high fertility levels or overirrigation. Another factor that contributes to managing "through the green" occurs during construction. When many of our golf courses were built in years past, stump removal was considerably more difficult than it is today. As a result, stumps were buried and overseeded. Subsequently, depressions and water-holding pockets developed years later as the stumps decomposed.

Very often, during golf course fairway construction, little attention is given to the importance of good surface and internal drainage. This lack of attention is generally associated with budget concerns and the pressure to complete the project as soon as possible. Large areas are costly and sometimes difficult to drain. Obviously, the best time to provide adequate surface or

internal drainage is during construction. If it is not done then, it will be necessary to install drain lines to remove excess water after the turf is fully established. When the topography is not suited to natural drainage, it may seem expensive to install drain lines. However, it is important to remember that good drainage is essential for a healthy turf cover. When one considers the turfgrass loss that occurs on poorly drained soils, the inconvenience experienced by players, the increased cost of maintenance, the weed problems that result, and the demise of the permanent grass species, the initial installation of drainage is a small price to pay for the decades of benefits received.

GOLF COURSE superintendents, professional turfgrass managers and agronomists agree that drainage and irrigation go hand-in-hand. Occasionally, due to poor internal and surface drainage, combined with difficulties in operating a fairway irrigation system, soft-wet playing conditions can result. It is very important, therefore, to provide for adequate surface and internal drainage when planning the installation and operation of an irrigation system.

Originally, when courses were built, fairway irrigation didn't exist. The irrigation of greens was considered a necessity and the irrigation of tees was highly desirable. However, as technology advanced, watered fairways finally became a reality. Fairway irrigation encouraged more liberal use of fertilizer, a closer cut, more frequent mowing, and accelerated maintenance in general. Initially, playing conditions improved; however, under this type management it was difficult for the Kentucky bluegrasses and the fine fescues to survive. When they weakened, it provided the opportunity for the growth and proliferation of annual plant species and Poa annua. The more that Poa annua is watered and fertilized, the more vigorously it grows. The cycle is neverending. The best way to combat the problem is to initiate cultural and maintenance practices discussed earlier that favor perennial grasses.

The rough, more than any other feature, can set the overall character of the golf course. Hopefully, we all strive to play from the rough as little as possible. The rough, however, provides

the background, influences other course features, and adds to the challenge for all golfers.

THE ROUGH, as the term implies, is the portion of the golf course where the player expects less than an ideal lie. Roughs play an important role in the game of golf, yet they are without doubt the most neglected area on most courses. This neglect begins in the construction phase and lasts throughout the life of some courses. It is unfortunate but true that roughs receive attention only after the rest of the course has been properly taken care of. It is likely that a portion of the problem that contributes to this condition of the rough is the fact that almost everyone concerned with golf course care has been conditioned to think of the greens first, the tees second, the fairways third and then the roughs.

The amount of rough found not only on each golf course but also on each specific hole may vary widely. Some golf courses have trees adjacent to the fairways with narrow rough lines between them. The amount and type of rough on a golf course depends on a number of factors; these include the amount of land available, topography, trees and natural vegetation, ponds, lakes and streams. The rough portions of the golf course may be mounded or sloped, have several sand bunkers and many trees in keeping with the strategy of each hole as designed by the architect.

Some of the earlier course construction featured "chocolate drops" in roughs. These mounds were difficult for maintenance and play and have largely been replaced by gently contoured slopes to ease mowing. In many instances, roughs are as smooth as fairways, and a mis-hit shot is penalized hardly at all. Occasionally, where the rough does not impose a penalty, lowhandicap golfers will deliberately play into the rough to obtain additional advantage. The condition of the rough should be such that all golfers will make every effort to avoid it and play the course as it was designed.

When planning golf course maintenance programs it is important to remember the significance that fairways and roughs have in the overall role of the game. They should be conditioned to play their separate roles to perfection to enhance the test for golfers of all handicaps.