

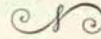


Golf Course Construction

from the Greenkeeper's Standpoint

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CHAPTER VIII—Bringing the New Course Along

BRINGING a new course along requires diversified experience and the exercise of conscientious judgment in all phases of greenkeeping. Problems of irrigation, drainage, mowing, turf diseases, and fertilization all make their appearance the first season and cannot be ignored.

The attractiveness of a golf course depends to a large extent upon the attention it is given during its first year. Many courses do not receive the full amount of care required during the months preceding and following their opening for play and as a result they are likely to show the neglect for several years, sometimes as long as a decade. In some cases, these ill-treated courses never recover and never reach their possible perfection.

Turf requires considerable nursing during its early stages and the greenkeeper should have experience in the development of golf courses in order to assist its maximum growth. Many greenkeepers have never supervised a new course although they may have had extensive experience in the maintenance of established courses.

There is much preliminary work for a long period before the course is open for play. The time to select the greenkeeper, or the man who will be responsible for the care of the course, is right after the plan for the layout has been approved so that he can cooperate in the construction work and thoroughly familiarize himself with surface and sub-surface soils and details of irrigation and drainage before sowing the grass seed.

Too many clubs make the mistake of not selecting their greenkeeper until the last moment, sometimes even after the planting of the grass, so that he is at considerable of a disadvantage and requires

unusual ability in order to develop the course properly.

OPENING TOO SOON IS MISTAKE

ONE of the most common mistakes in connection with new courses is opening them for play too soon. Naturally the members of the club are anxious to tee off with the first spring weather. However, grass planted in the fall seldom is strong enough to be trodden upon until the following summer. In the Chicago area few new courses are opened until July or August. The four previous months are the maturing months and during them the young grass toughens.

Root growth must be established. If trodden upon too soon, the shallow-rooted grass is worn down. Players should not be permitted upon the course until the grass covers the ground completely and has been cut several times. The tees should be given a longer opportunity to mature than any other portion of the course. These small spaces are under considerable usage due to confined playing areas.

Even after the greens are ready for play, the tees should be given an additional period for the grass to complete its maturity. For the first month the course is open to play, golfers should tee off slightly in front of the tees. Enforcement of such ground rules may seem arbitrary to some members of the club but they will not complain at the results.

ESTABLISH SEVERAL COMPOST PILES

ONE of the first things to be done in connection with a new course is the establishment of several compost piles. It is preferable to locate one of them convenient to each nine. Hidden locations in the rough should be selected from which all

the greens and fairways can be reached with a minimum of haulage which will reduce operating costs considerably.

A large quantity of compost is required by a golf course, especially during its early stages. Over 16,000 cubic feet is none too much. This quantity will make two piles 100 feet long by 20 feet wide by 4 feet high. It is almost impossible to have too much of this material as it improves with age.

Compost is organic fertilizer and, as is generally known, is made of decayed vegetation and rotted manure mixed with sand and allowed to decompose. It is not ready for use until the bacterial action has changed its physical make-up sufficiently to make it available as plant food. Therefore, fresh manure is entirely too strong.

The time to establish compost piles is just as soon as practical. If possible, they should be completed before the commencement of construction work on the course. Certainly they should not be neglected after the completion of construction work. When available barnyard manure makes excellent compost. However, it requires about a year to decompose properly.

Guano and tankage does not take so long to disintegrate because the smaller particles do not take so long to break down. Forethought on this subject immediately after the plan of the course has been approved will prove profitable. The older the compost the more available it is as a plant food and the more favorable the results.

Compost cannot be excelled for the nourishment of young turf. It is a most satisfactory plant food. While commercial fertilizers often contain a large percentage of nitrogen and other chemical elements, they do not contain the necessary humus and bacteria to change the physical structure of the soil.

BEDDING THE GRASS FOR WINTER

GRASS sown in early fall almost always is high enough to be cut at least once before winter. At the commencement of cold weather, the surface of the course should be spread with a shallow layer of top soil and compost which will nourish the young grass throughout the winter months. By bedding the grass in for the winter it is more likely to resist the rigors of the cold.

The first duty of the greenkeeper in the spring is to make a general inspection of the property. This should be very comprehensive. Observation should

be made as to how the young grass has wintered and immediate steps should be taken to encourage its growth if possible. When surface water is standing in any low spots on tees, greens or fairways, arrangements should be made to drain them properly at once. The catch basins should be inspected and cleaned out. The amount of silt and sediment which they have collected, will tell the story of the efficiency of the drainage system.

As soon as the ground has thawed out sufficiently and is thoroughly dry the new course should be completely rolled in order to push the young grass roots, which may be protruding, back into the soil. A triplex roller, weighing from 1500 to 2000 pounds complete, may be drawn down the fairways by a light tractor and 500-pound water ballast roller should be pulled by hand over the greens and tees.

ROLLING IS VERY IMPORTANT

IT is very important that this rolling should be done while the ground is dry. If the soil is damp, the rolling will pack it into mud and the ground will be sealed. Rolling courses, when the soil is moist has been instrumental in handicapping many links and the loss of satisfactory turf. Instead of assisting in the development of the turf, rolling at the wrong time will retard the growth of grass. However, rolling at the right time is very fruitful of results.

The bunkers of the new course require considerable attention. After they have been inspected in the spring, arrangements should be made to correct any possible errors in drainage at once. Water must not be allowed to accumulate in them. Artistic judgment is required by the greenkeeper in order to develop and maintain the lines of the bunkers. In this work the design of the golf course architect may easily be marred.

When properly sanded up the face of the bunkers are most satisfactory hazards and also add to the attractiveness of the course. In cutting the turf around the sand faces of the mounds and bunkers care is necessary to retain their irregular lines and natural beauty.

Top dressing of the greens and fairways should be done every six weeks from early spring until late fall during the first year. By all means get the most efficient available equipment in order to do this work. This permits the work to be done quickly and economically. Four men should be able to top dress all the greens, tees and approaches in a week.

With the proper equipment top dressing is not a laborious job.

A WORD OF CAUTION ON FERTILIZING

A WORD of caution might be suggested here about over-fertilization of turf. There is sometimes a temptation to hasten the maturing of grass through stimulation. In many cases this forced feeding is excessive. A child cannot take an adult's dose of medicine and young grass cannot stand the same amount of fertilizing as mature grass. If the seed bed has been properly constructed and the soil contains sufficient organic matter, it is wise to avoid forced stimulation of growth. Over-stimulated turf in the spring usually is not able to stand the summer heat satisfactorily. Quick growth of grass is not so desirable as slower growth which will be more permanent.

Commercial or inorganic fertilizer should be used very sparingly the first year. A small amount of it should be mixed with the compost if necessary. Such fertilizer is a medicine and its function is to tone up the vitality of the turf. Young grass does not need a tonic. It is more likely to need more humus and plant food which may be supplied best by compost or organic fertilizers.

THE PROBLEM OF WEEDING

THE problem of weeding is one which should engage the attention of the greenkeeper very early in the spring. No doubt it will because it cannot be avoided. The earlier the weeding is commenced, the sooner the weeds can be checked. If the weeding is neglected, there is a possibility that the weeds may crowd out the grass.

So far the only practical method of weeding is by manual labor. Certain fertilizers which stimulate grass growth encourage the turf to crowd out the weeds. However, the use of such fertilizers should be avoided the first season. Instead the course should be thoroughly hand-weeded the first spring. Stolons do not as a rule require as much weeding surface of the stolon green usually is quite satisfactory as seed sown greens. By the first of June the putting factory.

Sprinkling the new course requires both discretion and judgment. Thorough familiarity with the characteristics of new grass growth is very desirable. Grass may be over-watered as well as under-watered. It is very important that the right amount of water be applied at a time. Equally important sometimes is the time of watering.

The best time to sprinkle is at night or in the cool of the evening after the sun has gone down and play has ceased. There is no loss of water from evaporation then and both the blades of grass and the roots are able to obtain their proper share of moisture. Also, the sprinkling can be done more systematically and more comprehensively when there are no players on the course.

CUTTING YOUNG GRASS REQUIRES CARE

CUTTING young grass also requires considerable care and judgment. The mowing equipment should be adjusted so as to avoid injury to the tender shoots. The grass should never be cropped off closely but should be allowed to grow at least half an inch higher on the fairways than will be permitted the second season.

Crowning the grass often prevents the runners from spreading and handicaps grass growth. By permitting the grass to grow higher than usual during the first year it is able to shade itself during hot weather and establish a deep root system.

Turf diseases are very likely to make their appearance during the first year the course is open unless the grass is carefully watched. Young grass is especially susceptible to fungi growths which are usually very hard to eradicate once they have made their appearance. To give the grass more resisting power it is often wise to use a preventative against such diseases during the first six months of the year.

Applying a portion of lime into each compost application is very helpful. From observation it is evident that extreme acidity of soil is not encouraging to new grass growth especially. Both extreme acidity and alkalinity of soil should be avoided. Remember also that any change in the condition of the soil, which is favorable to grass growth, may also favor the growth of weeds and turf diseases.

WATCH THE DRAINAGE SYSTEM

THE drainage of the new course should be given early consideration. The club, which has an adequate drainage system installed when the course is constructed, is indeed wise. However, it is one of the responsibilities of the greenkeeper to see that the drainage system functions properly. The final test of a drainage system is the manner in which it performs its work. Drained land is warm in winter and cool in summer and grass has every advantage.

Trees, shrubbery and flower beds upon the property require a greater amount of care during the

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early stages of the course. These aids to beautification represent an investment which increases in value as time passes. They should not be neglected for to do so will incur additional expense later and interfere with the development of the course. Trees especially are well worthy of attention. In its natural setting there is nothing so beautiful as a tree. What can add more to the attractiveness of a golf course site than beautiful trees?

No definite rules can be laid down regarding the conditioning of all new courses. Much depends upon soil characteristics and climatic conditions. The individual nature of each separate piece of property cannot be ignored. However, there is one general rule: A new course requires considerable more attention than a mature course. Knowledge is not only required of what to do but of when to do it.

The beauty of the golf course is in the hands of the greenkeeper who may retain or mar it. The greenkeeper responsible for the appearance of a golf course has no small obligation toward a club. The best designed golf course soon deteriorates if not properly maintained. A qualified greenkeeper, trained by experience, will be able to bring the vision of the architect to full development. Uniform putting surfaces, well-groomed fairways, properly sanded traps, inviting tees, beautiful landscaping and intriguing holes—these are some of the factors of golf course perfection.

JOHN MORLEY ILL

As we go to press word comes to us of the sudden illness of Colonel John Morley. He was taken to a Youngstown hospital for observation, and because of his weakened condition was given a blood transfusion. We voice the wishes of all of our readers for his speedy recovery.

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