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Twenty-Five Years

By JOHN I Greenkeeper, Pittsburgh Field

While all my associations in twenty-five years of keeping greens in the Pittsburgh district are dear to me, "if I had my life to live over again," as many a man has said, I think I would distribute those years

Views of the Pittsburgh Field Club, Pittsburgh, Pennsylvania

over a greater area before settling down to one course.

he finally settles upon, a variety of experience in soils and the

The young greenkeeper will do well to keep greens in several districts for a number of years, and bring to the golf course

culture of golf turf. I do not mean by this that I would advise a young man to become an irresponsible nomad, for this rarely pays in any line of work. However, ten years or so devoted to working on four or five golf courses, will develop a good knowledge of greenkeeping methods which will be of much value to a young greenkeeper who wishes to give



dollar for dollar to the club engaging him for a permanent position.

As is well known, Pittsburgh is built upon a succession of hills, and perhaps it seemed in a measure homelike to me when I first arrived, as I was born at the foot of the Tipperary hills in the south of Ireland. There I worked on a farm until I was twenty, at which time I left for Eng-



The First Nine, Taken from the Club House Veranda,

in the City of Smoke

IcNAMARA Club, Pittsburgh, Pennsylvania

land to learn the gardening business. For ten years I combined hard work with my great love for flowers in the gardens at Convent, Roehampton, Surrey; Coombe House, Kingston on Thames, Surrey; Park Side, Ravens Court Park, Middlesex, and Riverside House, Staines, Middlesex.

In 1902 I came to the Country Club of Pittsburgh,



Number Seven, Showing Rolling Contour of Surrounding Grounds. Upper Right: Plowing Fairways for New Number 11 and 12 Holes. Lower Right: Constructing No. 12 Green.

where two or three years previous a nine-hole course had been built. This was one of the first golf courses to be constructed in this part of the country, and the first tee was over a half mile from the clubhouse.

Old Time Greenkeeping

The problems we had in greenkeeping in 1902



are in strong contrast to what we have to contend with today. Greens were not cut so short, grass grew under more natural conditions, and little fertilizer was necessary. Corrosive sublimate or other worm eradi-

Construction Work at the Pittsburgh Field Club, Pittsburgh, Pennsylvania. Note hills in distance.



cators were unheard of, so we had to get rid of the worms the best way we could. The only help we had was in the use of manure and limewater to bring them out of the greens.



Pittsburgh Field Club, Pittsburgh, Pennsylvania

No farmer's wife who had to get her supply of water from a pump way across the back yard had anything on us. We had to pump our water from the creeks in barrels when the greens needed watering, as water pipes were noticeable by their absence. In 1904 or 1905 I used the first corrosive sublimate for worms, and tried out sulphate of ammonia as a fertilizer. In 1904 the club acquired some property on which I built another nine holes, and they are still playing on some of them.

In 1917 I was given a position as greenkeeper at the Pittsburgh Field Club where I have since remained.

My twenty-five years of experience have taught me that the golf courses of this country must be kept by men who have through study, observation and practical experience, learned that keeping good greens is widely different from farming or gardening. Golf turf is worn by countless feet, and much of its area is grown under unnatural conditions.

Although good greens are the mark of the good greenkeeper, I feel that a few words in defense of patchy fairways are in order.

Fairways Need Fertilization

On many courses throughout the country fairways are allowed to go year after year with a little re-seeding here and there, but with no application of fertilizer to speak of. Turf is a greedy crop, and unless the elements upon which it feeds are replaced in the soil as fast as they are used by the grass plants, no amount of re-seeding will produce an even healthy growth of fairway turf. After a time, the club members wonder why the fairways have so many weeds and so little grass. Fairways must be fertilized every two or three years, if the grass is to maintain a thick stand and keep the weeds out.

Another direct cause of prevalence of weeds on some fairways is rolling while the ground is too wet. I have always preached this to the chairmen of the Green, but many still have in their heads that fairways must be rolled before they get too dry. There are many times spots on fairways which should be on the dry side before rolling. Thereby the grass on these spots is saved, instead of pinched out and leaving a space for weeds to take possession of as soon as rapid growth starts.

There is good equipment now on the market for golf courses, but manufacturers should devote some time to designing a good fairway top-dresser. Spreading top dressing by hand is an expensive process, but fertilizer must be applied if we are to maintain good fairways.

The ABC of Turf Culture Physical Properties of the Soil and Their Effect on Turf Production

> By O. J. NOER Fellow, Department of Soils, University of Wisconsin

Author's Note: It has been my privilege to learn the theoretical side of turf culture, and after that to test that knowledge in practical field work on the farms and golf courses of the Middle West. The publishers of THE NATIONAL GREEN-KEEPER tell me that I can help the greenkeepers to a better understanding of their problems. I am willing to try, and if my readers are interested and want to ask questions about turf culture I shall be glad to answer them through the columns of the GREENKEEPER.

The soil as indicated in a previous article consists of mineral particles derived from the waste of rocks, humus resulting from the decay of plant and animal residues, and spaces between the individual soil particles which contain air and water. The size of the individual soil particles, and the way in which they are arranged greatly affect the producing power of the soil.

Size of Soil Particles Determines Texture

The texture of the soil depends upon the size of the individual soil grains.



O. J. Noer

Many soil properties, such as water holding capacity, workability, and power to supply the plant with essential mineral food elements depend upon texture. For practical purposes the individual soil particles are arbitrarily grouped into classes based on size. The limits of the different groups are determined by the relative value of the various sized particles in affecting the physical properties and crop producing power of the soil. Seven groups are recognized, namely-fine gravel; coarse, medium, fine and very fine sand; silt and clay. The relative size of the particles of these seven different groups is illustrated below. Actually the various particles are 1/800 the size represented. The number of fine particles in a