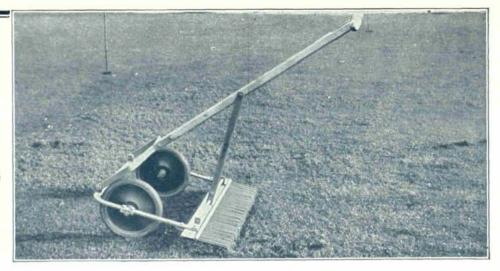
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### The National Greenkeeper

405 Caxton Bldg.

Cleveland, Ohio

#### VOLUME V-No. XI

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#### Official Organ of the National Association of Greenkeepers of America

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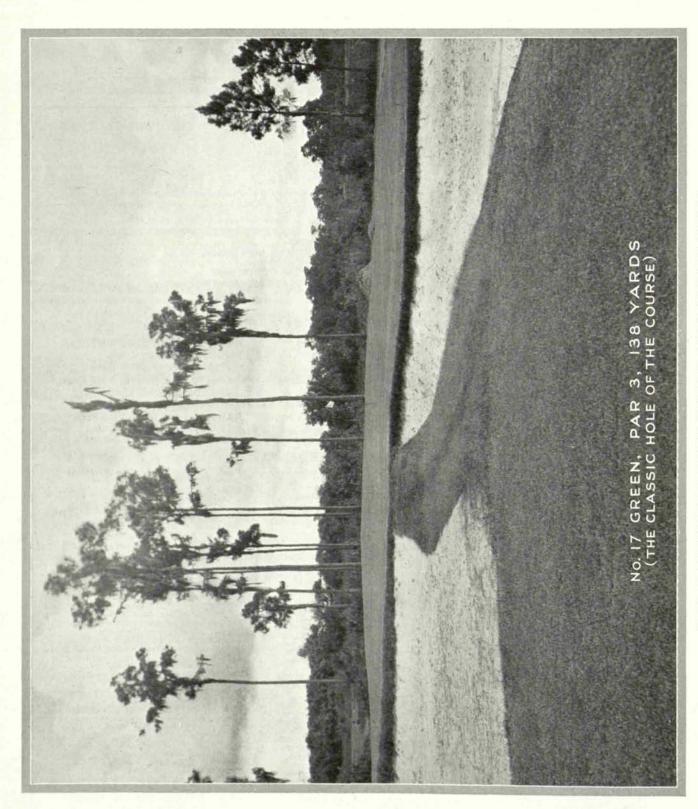
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SCENE ON THE CLEVELAND HEIGHTS MUNICIPAL COURSE, LAKELAND, FLORIDA

NOVEMBER

1931

VOLUME V

Number XI

# The NATIONAL GREENKEEPER

Official Organ of The National Association of Greenkeepers of America

# Turf Meeting at New Brunswick

By DOCTOR HOWARD B. SPRAGUE, Agronomist State of New Jersey, Agricultural Experiment Station

THE fall meeting on the turf experimental plots in New Brunswick, New Jersey, was held on October 5. The meeting was called at 3 p. m. and was attended by nearly 200 visitors.

Members of the Green committees of golf courses in this region, greenkeepers, commissioners and superintendents of public parks, representatives of airports, seed houses, and fertilizer and turf equipment concerns were present. Each of the several hundred plots was carefully labeled so that the visitors could draw their own conclusions as to the effect of the various treatments.

A discussion of the results obtained from these experiments was held on the plots during the course of the afternoon. Attention was called to the root development of various species of grass when cut at putting green and lawn lengths. In addition, there was an excellent opportunity to observe the

effect of fertilization on putting turf on the abundance of crab grass and broad-leafed plantain.

Crab grass appeared to grow under a wide variety of soil conditions, provided the turf was not making vigorous growth. Plantain was not able to survive on strongly acid soils. Data were presented on the effect of the various systems of fertilizing bent turf upon the root development of grass at putting green length. The comparison of ten kinds of grass for putting attracted much attention.

Other experiments which were inspected during the course of the afternoon included the quality of turf on various types of soil imported from other parts of the state; the value of different types of organic matter additions for improving the physical condition of the soil; and mixtures of grasses for turf maintained at law and putting green length;



DOCTOR SPRAGUE EXPLAINING TURF PLOTS TO NEW JERSEY GREENKEEPERS AND CHAIRMEN AT TURF MEETING AT NEW BRUNSWICK

fertilizers for fairways; the ability of various species of grasses to endure close mowing; and a comparison of soil mixtures in which the textures varied from sand to sandy loam, loam, and clay

The visitors also inspected the controlled experiments being conducted in the green house, on the effect of organic matter additions to the soil, and mulching with organic matter, on the water economy of turf plants. The belief was expressed that the type of information being obtained from these experiments would aid in deciding under what condition fairway watering becomes a necessity, and the principles which must be observed where watering systems are installed.

#### ARNOTT PRESIDES AT DINNER

AT SIX o'clock the group adjourned to the Hotel Woodrow Wilson for dinner. Mr. R. F. Arnott of the U. S. Golf Association, and the New Jersey Golf Association, was in charge of the evening program. The first talk was given by Dr. H. B. Sprague of the N. J. Agricultural Experiment Station on the abundance of roots at different soil levels with various species of grass, and the relation of root growth to the amount of clippings removed.

It was shown that cutting at 1/4" largely restricted root development to the upper 4 or 5 inches of soil, whereas, mowing at 7/8" permitted the root system to extend 2 or 3 inches deeper. In all cases, however, very few roots penetrated further than 9 inches. This was apparently due to the fact that this soil, which had been under cultivation for many years previously, had been plowed no deeper than 6 or 8 inches. The greatest root development occurred in the plowed zone to which lime and fertilizer had been applied at some time during the past.

Attention was also drawn to the influence of fertilizer treatment on the development of roots where the type of grass was the same throughout. It was shown that acid soils prevent the decay of dead roots. There is an apparent increase in weight of roots on such plots, but in this case root weight does not serve as a satisfactory index of root activity. The treatments producing the most vigorous turf were those in which the soil was mildly acid, and this was accompanied with a marked development of roots extending to approximately the 9th

From the data presented, it was obvious that it will no longer be satisfactory to consider only the upper 2 or 3 inches in caring for putting green turf.

#### PROF. WHITE DISCUSSES FERTILIZERS

 $\mathcal{P}_{ ext{ROF.}}$  J. W. White of the Pennsylvania State College gave a discussion of the fundamentals underlying fertilizer practice. He called attention to the necessity for using lime in preventing the accumulation of excessive acidity, and likewise the need for phosphates and potash on fairways.

He recommended that nitrogen fertilization be restrained, particularly on putting greens, since heavy fertilization produces the type of turf which was likely to suffer from disease and mechanical injury. Prof. White also called attention to the need for further research on plant and soil prob-

Prof. H. B. Musser of the Pennsylvania State College considered briefly the breeding work being conducted in an attempt to produce strains of turf grasses which are more resistent to disease and tolerant of soil conditions, than any strain now available.

Mr. John Anderson of the Crestmont Golf Club represented the National Greenkeepers' Association, and conveyed to the assemblage a message from Colonel Morley, stating that he regretted not being able to attend, and appreciated the type of work being done in such conferences.

## Greenkeepers Visit St. Andrews

By WM. EDGECOMBE, Greenkeeper

T St. Andrew's Golf Course, York Mills, Ont.

HE Ontario Greenkeepers held their monthly meeting at St. Andrews in September. A very interesting day was spent looking over machinery and the golf course. We were honored with visitors from Chicago, New York, Pennsylvania and Montreal.

We have twenty-seven holes here at St. Andrews which are difficult to keep. Throughout the Province we have had hot dry weather this summer, temperature being oftentimes up in the nineties, so that it has been necessary for greenkeepers to be on their toes.

I had no brown patch or disease on my greens, but I sure did see some in places. I do think excessive watering bad for greens. I topdress about twice a month. I use as little fertilizer as possible-in June, July and August. There have not been any webworms in this district, which is something we are thankful for.

# More About the Season of 1931

Answers to Colonel Morley's questionnaire requesting experiences of greenkeepers during the past summer

### No Brown Patch at Los Altos

By TOM NICOLL

Los Altos Golf and Country Club, Los Altos, Calif.

IN ANSWER to questionnaire of September 8, I will give my experience.

One—I have never had webworms.

Two—My greens were not effected with brown patch. I use no preventatives. I depend mostly on compost and good top soil for fertilizers, the compost being generally three years old and never less than two.

I have a regular schedule, aerating and top dressing my greens regularly April and September each year. The spring dressing is composed of good screened top soil, which has been cultivated all the previous summer, mixed with twenty pounds of 8-5-2 commercial fertilizer, made up to my order, for each green.

In September the greens are raked again and raked hard, up and down and across, cut and dressed with compost at the rate of about three-quarters of a yard to one hundred square yards. This is all the fertilizer I use, but I always keep a little

sulphate of ammonia on hand to use as a stimulant if required. I may add that I didn't use half a ton of this or any other stimulant all last year.

Three-Yes.

Four—I certainly do think that the injudicious and constant use of highly nitrogenous stimulants alone, makes the greens more susceptible to disease,

Editor's Note -



In line with the policy of the National Association of Greenkeepers of America, Colonel John Morley, president of the association, recently sent out his annual letter to greenkeepers throughout the United States and Canada requesting them to report conditions as they found them this season just past. It is a privilege to print for the benefit of those engaged in turf culture a condensed report from the most experienced greenkeepers from all parts of the country. What they say will be helpful to everyone concerned, because their opinions are based upon practical experience as

contrasted with text-book theory.

We quote extracts from Colonel Morley's letter and also print his questionnaire in full. Colonel Morley says:

"We have been through a hard season, hardly any of us has been immune from turf troubles due to the hot weather and drought.

"Golfers generally do not understand how we try to cope with unusual conditions and they are daily asking questions, not in a spirit of criticism but because they want to know and help us in any way they can.

"It seems to me to be our duty to tell the members of our clubs through our official organ, the NATIONAL GREENKEEPER, something about the problems we had to solve in the season of 1931.

"Will you please, therefore, send our magazine a short account of what nature handed you and what you did along the lines of the enclosed questionnaire."

# QUESTIONNAIRE FOR THE NATIONAL GREENKEEPER Prepared by COLONEL JOHN MORLEY, President,

National Association of Greenkeepers of America

- 1.—Did your turf become infested with webworm? If so, what treatment did you apply, and what results if any did you observe?
- 2.—Was your turf affected with large or small brown patch? If not and you did not use any mercury compounds as a preventative, what methods did you use in the way of fertilization?
- 3.-Do you omit using organic fertilizers during the summer months?
- 4.-Do you think that over-feeding or over-watering hastens fungus diseases?
- 5.—Have you observed various diseases on greens that have been dried out for the lack of water and appear to receive plenty of air?

by acting on the soil as drugs on the body of a human addict, sapping its vitality and leaving it an easy prey to disease.

Only once during my over twenty years' experience as a greenkeeper have I had a sign of brown patch on my own greens, a very slight attack confined to one green. This was some time ago and I am still trying to figure—how come?

When called to other clubs to prescribe for sick greens, where I find brown patch the soil is generally acid. My first step is to neutralize this condition, than to combat and check the disease by some mercury compound, finally aerating the greens and building them up with good compost dressings.

As to over-watering, my own custom is to water nine greens on alternate nights, five nights a week from six to one with sprinklers. Each green therefore gets a thorough soaking three nights one week and twice the next week. Tees get the same watering. The greens that get watered twice this week will be watered three times next week and so on.

I have never found that they suffered by being well soaked if it is not done too often. The danger lies, I think, in little and often rather than in much and seldom. By watering the first part of the night the greens and tees are in fine condition for play in the morning.

My fairways are divided into five sections, each section being watered all night once a week only, no watering Saturday or Sunday nights. They have never had more; they keep in fine conditions and we have no day watering.

Five—No. By building up the greens as we do twice a year I find that they will go quite a while without water without being permanently injured.

### Monroe Believes In Air

By E. M. MONROE, Greenkeeper Lakewood Country Club, Edgewater, Colorado

I will try my utmost to answer your questionnaire with my experiences. I have been very busy and unable to answer your letter any sooner. After my day's work I am very tired and need my rest for the following day's work. The weather was very hot and very dry here in Edgewater all during the summer and through the fall.

No webworms at all here.

I have found sulphate of ammonia to be one of my best remedies for golf courses during the summer months. It gives me the best results. I do not use any fertilizers during the three summer months. I topdress my greens spring and fall, twice in the fall so as to carry them through the hard and heavy playing during the winter. I had one brown spot show up in July. I did not use any chemical at all, just stopped with my watering for one night and raised up the grass to let the air in. In two days' time the grass turned green again and the turf was very thick and heavy.

Organic fertilizers may be all right, but I do not use them out here. I have had wonderful success with my method—the old method. The compost pile is my old standby. Your dirt keeps the holes leveled up, the sand opens the hard soil and the manure gives the rest of the results.

Grass is just like a human body. It will only stand so much food and so much water. If you eat too much you cannot digest it and the result is you feel sluggish. If you drink too much what happens the next morning? All because your system cannot take care of it properly until your body gets rest and plenty of air.

Nature must help you along. The same applies to grass during hot weather—you cannot force it too fast and expect best results because its grows too fast that it starts to mat and smother so that heating and the brow patches show up at once.

Air is one of the important portions of human life; so it is of grass. We have to watch ourselves, so on the other hand we have a hard problem to watch the grass so that the air works through its blades. I might say this, everything we live on comes from the earth so I give my greens one night out of a week to dry out during the hot summer months.

I hope this will do others as much good as I have had out of it.

## Birmingham Has Trouble

By FRED W. SHERWOOD, Greenkeeper Birmingham Golf Club, Birmingham, Michigan

Having perused your questionnaire and being one greenkeeper who was not immune from various diseases of greens. Will try and answer your questions to the best of my ability and trusting same may prove of interest to all chairmen of Green committees and my brother greenkeepers.

Not being familiar with the sod webworm and its habits I can only quote from others more experienced than myself in grass diseases. We had it at Birmingham and suffered from it very badly. If it is the early bird who gets the worm I guess I must

be a sluggard, though I searched diligently, I never found any.

Knowing that it was something or other that wanted eradicating from the greens I tried the same methods as I used for sun scald. When our Number 5 green was infested with June bugs the latter part of June I sprayed it with twenty-five pounds of arsenate of lead, topdressing a few days later with a compost of one-third good soil and two-thirds sand, later followed by an application of ammonium sulphate and the results were excellent. And it was the concensus of opinion among our members that our Number 5 green was the best of a good lot of greens, however, it was delusion and a snare.

On July 4 we had a thunderstorm and a humid atmosphere resulted. July 7 we had no green mortification or gangrene, exhaustion set in and three parts of the grass on it was dead or sleeping. I proceeded with the ailing one as follows: I got some forks, breaking the tines to a matter of about eight inches long, forking the green both ways to aerate it. I watered it carefully. (This green had been watered every day previously.) After standing overnight I gave it a dose of Electric worm killer as prescribed for worms, and resodded some of the worst parts, and topdressed again after rolling, later following with ammonium sulphate.

July 14 we were back on the green again and it has not been affected in any way from then on, and since August came in and up till now will vie with any other green on the course.

Our greens have been excellent all summer both in color and texture and though most of our greens have been affected in some way, each green had an application of arsenate of lead (20 to 25 lbs. in water). In addition I used Nu-Green, Semesan and the Electric worm killer. The three latter chemicals were not all used on the same greens.

I believe in aerating my greens and also in periodically topdressing. I keep them growing all the time until September, believing that by keeping the grasses growing and flourishing I am at least offering some resistance to any ills that beset a green.

I get results by my own methods and I think it is that which counts in greenkeeping. Don't change your ways if you are getting satisfaction, because so and so is doing something different, rather try the other fellow's plan when your own has failed.

### Webworms—Yes

By CLOYD REICHELDERFER, Greenkeeper

Shawnee Country Club, Lima, Ohio

 $T_{
m HE}$  following in reply to your questionnaire:

1.—Yes. We had plenty of webworms on one green. We found as many as five to the square inch on August 13-14. We treated all greens with four pounds arsenate of lead to the thousand square feet. On September 1 treated again with three pounds to one thousand square feet, and we still think we have a few left in greens.

2.—Yes. We had both large and small brown patch. We treated our greens with a pressure spray and used one pound of Semesan and one pound of corrosive sublimate in fifty gallons of water. This is sufficient for six thousand square feet. Have used this treatment for three years and always get satisfactory results.

3.—Yes.

4.—Yes, I think both do.

5.—Yes. We have a green of four thousand

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square feet that we keep for protection and water it twice a week. We also cut twice a week and we get diseases in it.

We had the State Open here August 18-19 and the boys pronounced our greens fine. They are the Metropolitan creeping bent.

### Marietta Speaks

By HENRY KESSELRING, Greenkeeper Washington Country Club, Marietta, Ohio

I AM a stranger in the field of greenkeeping. I took over the Washington Country Club course, August 15, 1930. It was in bad shape—the greens were covered with brown patch, but they came out in fine shape this spring. We have had some brown patch this season, but it did no harm.

The webworm has worked pretty hard on our greens and fairways, but I have been able to keep them under control thus far. I used two and one-half pounds of arsenate of lead mixed with sand to one thousand feet of green. In four to six weeks I would repeat the same treatment and had good results.

For brown patch I use Calo-Clor and have very good results with it. I used Milorganite in March and April and have used no other fertilizer since. I don't think fertilizers should be used in mid-summer. I also think greens can be kept too wet.

## Michigan Greenkeepers Meet

By HERBERT E. SHAVE, Greenkeeper Oakland Hills Country Club, Birmingham, Michigan

A L SHERWOOD, Birmingham, won the grand prize in the golf tournament staged at the Lansing Country Club, September 14, Lansing, Mich., by state green-keepers. Sherwood shot an 84 and was awarded a permanent trophy and one year's possession of a silver loving cup given by the Ideal Power Lawn Mower Company.

Other prize winners were: Runner-up, Herbert E. Shave, Oakland Hills C. C.; first prize champion of Detroit and Border Cities Greenkeepers' Association, Leo Wedyke, Glen Oaks C. C., Farmington; runner-up, John Collin, Westchester C. C., 91, Ypsilanti; first prize, Western Michigan Greenkeepers' Association, Floyd Hammond, Ella Sharp Municipal Golf Club, Jackson; presented by John Bean Mfg. Co., Lansing; runner-up, Vet Dustin, Cascade C. C., Grand Rapids; first prize,

non-member greenkeeper, T. R. Roselli, Western Golf Club, Redford; high score prize, won by William Dailey, Red Cedar, presented by Sallan's.

This tournament was held in connection with a joint meeting of the Detroit and Border Cities Greenkeepers' Association and the Western Michigan Greenkeepers' Association. Eighty-five greenkeepers sat down to luncheon in the club and sixty-five teed off to battle for a number of prizes donated by the manufacturers of golf



TROPHIES AWARDED MICHIGAN GREENKEEPER
Al Sherwood of Birmingham was awarded the permanent trophy and
one year's possession of the silver loving cup.

course equipment, etc. Professor Millar, Department of Soils, Michigan Agricultural College, was present and gave the boys a short talk which was received with much applause.

We are going to make this get-together an annual affair as we think it is a good thing to get the boys better acquainted and talk over some of their problems. We believe it would be a good thing for other states to meet together. We pick a place to meet somewhere in the center of the state so as to equalize travelling distances. Everyone was very enthusiastic and all were in favor of meeting next year.

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