

High-Speed Greenkeeping

BY W. D. CHINERY, Greenkeeper
York Downs Golf Club, Toronto, Ontario

GRASS, grass, more grass, and better grass. This has been the slogan for many years but never perhaps in the annals of grass-growing has the desire or demand for better production been so keen as at the present time. Not only on golf courses alone is this apparent but owners of private estates and officials of cricket, tennis, and bowling greens all vie with one another in producing the best.

There are at least two outstanding points in connection with the cultivation of grass which have occupied the attention of those who are responsible for its production as never before, viz: bent grasses and brown patch disease. From what source has the latter sprung? It appears to me that it has developed along with the intensive culture of bent grasses.

When one considers and enumerates the long list of fertilizers, both chemical and organic, humus, etc. that are placed on the market, good, bad and indifferent, with the endeavor to produce two blades of grass where one grew before, one may ask this question—are we not using too much dope for the production of good healthy turf? Personally, I think we are. It is not the use so much perhaps as it is the abuse that tells the tale and we should bear in



W. D. CHINERY

mind the sound reasoning in the old adage that which is one man's meat is oftentimes another man's poison.

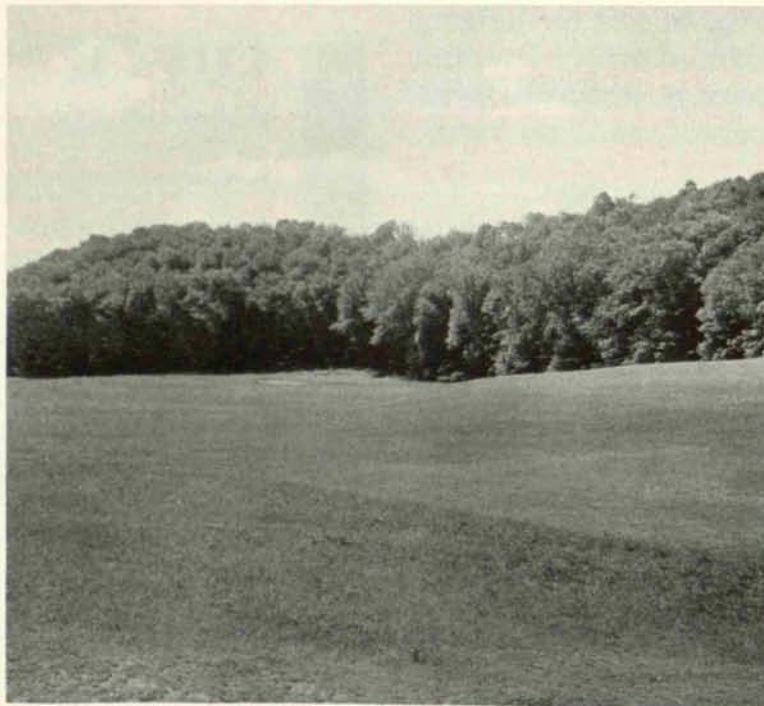
In the old days it was always considered good judgment to avoid the use (whenever possible) of any fertilizer that was of a hastening or burning nature for a permanent crop and this applies to grass on a golf course. Any food that is conducive to quick growth must of

necessity mean a soft and somewhat coarse growth and in many cases this is forced too much at the expense of the root which under certain conditions cannot develop at the same rate, especially during the hot Summer months, and thereby hangs a tale.

Cannot Outrage Nature

ONE cannot outrage nature for long at a time without suffering the consequences. We as greenkeepers have been in certain respects led by

the ear so to speak with regards to the treatment of our grasses by some "experts" with their theoretical bunkum so that years of practical experience often gained under adverse conditions have been thrown in the discard. For a long time we have been told to render our soil acid by applications of chemicals, to procure a sourness in our soils for the bene-



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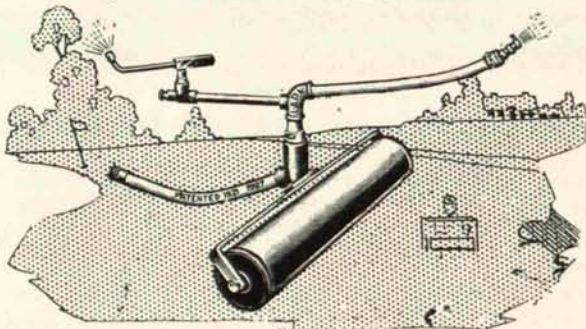
Drainage - Irrigation - Turf Development

fit of our turf. A great many have attached much importance to that "rich black muck" that is to be procured from swamps, etc. But to speak of lime in connection with grass was like the traditional red rag to a bull. Bone-meal must not be used on account of the lime content and therefore, encouraged clover; even sand was looked upon with suspicion, fearing that the possible lime content therein might be injurious. To procure good healthy turf and also act as a deterrent to weeds one must procure acidity in our soil, acid, acid, and more acid.

In certain respects and conditions extreme acidity goes hand in hand with brown patch disease or should I use the term algae? The average horticulturist and farmer have for many years recognized the value of sheep manure for certain crops, especially grass, owing chiefly to the acid contained in the excrement, etc. but allow me to say that the acid conveyed to the soil through the manurial properties of sheep manure is vastly different to that produced by continued application of chemicals. Results speak for themselves and the reason is obvious.

As our very worthy President, Mr. J. Morley, has intimated in a previous article, we are living in the age of the motor car, the aeroplane and the radio, and in consequence the general feeling is perhaps that we must speed up to keep pace with the times. And that pace has been set to some extent in some quarters and to whom our worthy Editor, Mr. Power, sounded a warning note in his editorial of Jan., 1929. Some of us no doubt err on the one side by being too cautious or old fashioned in our methods while others probably err more

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by jumping to conclusions or otherwise. With the multitudinous assortment of fertilizers that are to be obtained today and with the desire to maintain and keep our courses verdant and in the pink of condition during the playing season, are we not prone to overdo this and in so doing are we not apt to overlook Dame Nature?

Brown Patch Disease and Patches

MY experience is that B. P. D. attacks certain bent grasses more severely than other grasses. As a matter of fact I have never seen this disease on any grasses but bent. With us the fescues, Kentucky blue, P. E. I., bent and velvet bent seems immune from the disease. We have quite a lot of native bent, P. E. I. and South German bent on most of our fairways but have never seen any of it attacked by B. P. D. or Algae with the exception of certain patches in proximity to the greens, then only slight. Here then surely is food for thought. Is brown patch disease hereditary to certain bent grasses and by taking them somewhat out of their element are we engendering this disease by intensive culture in the way of fertilizing, too close cutting, etc?

Having read the many articles on B. P. D. that have appeared in our magazine I cannot help but think that some of them appear rather conflicting; for instance, one may read that anyone having greens situated in the open or on high ground need not fear B. P. D. Others appear to differ in this respect. Then again one may read where others rely on sulphate of ammonia to bring their grass back to normal again after or during an attack of the disease. On the other hand there are some who eliminate this food during B. P. attacks and on this point I for one fully endorse. The answer or argument, if any, is perhaps answered best by the old adage quoted above.

It seems to me that with the introduction of a lot of new foods or fertilizers for the production of good turf and incidentally oftentimes a too luxuriant growth follows such applications and some of us are apparently satisfied with the results obtained; then comes mid-season with its horrors of B. P. D. and we are called upon to invest in another chemical outlay to counteract this disease. Though we

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though the latter has proved more deadly in effect; but I am pleased to say we have not suffered from this form during the past five years.

Algae Causes Worst Disease

PROBABLY the most troublesome brown patch is caused by what is termed Algae. Where greens are situated in the open on high or sandy ground, especially if there is good drainage, one need not look for Algae so much as on low and shady ground and where drainage is poor. Where such conditions exist and injudicious feeding and watering are practiced together with extremes of weather then one may look for Algae and which is sometimes misconstrued for B. P. D. Other brown patches may be caused by indiscreet handling of certain chemicals in connection with top-dressing or for treatment of worms.

One may often notice rusty or brown patches on greens where there is a mixture of grasses such as South German, bent, etc., and in this case it can often be attributed to one or more of the earlier varieties demanding a rest, i.e., going into a state of dormancy which after all is only nature asserting herself. This generally occurs up here about August. Apparently no feeding will bring about immediate results hence the remedy is to remove such grasses and replace with better turf thereby removing also the brown patch appearances.

Again brown patches are sometimes caused through a scald which often occurs during a spell of hot dry weather. Yet another form may be caused through careless handling of machinery either by over-oiling or greasing as the case may be, allowing these substances to drop about the green which, as every experienced man knows, will permanently kill the parts affected.

The following incident may be of interest to some of my confreres. A fellow greenkeeper in our district asked me over to see his greens stating he had some brown patches but he did not think it was B. P. D. Coming to one of the greens affected I saw numerous brown spots varying in size, also several streaks about one foot long and one inch wide, then larger spots at intervals right across the green. My friend did not think these conditions were caused through carelessness on the part of his

CONGRATULATIONS and APPRECIATION

To the National Greenkeepers' Association:

We did twice as much business at the Louisville Golf Show than at any previous show of any kind. The Greenkeepers literally stormed our exhibit. Most of them who are already using our equipment, brought their friends around.

One night at ten o'clock Mr. Buckner, while passing the Auditorium, heard a great commotion and on investigation found Joe Mayo at our booth surrounded by a bunch of greenkeepers demonstrating to them how Golf King Sprinklers could be thrown all over the building without any damage.

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Convention Story Contest Extended To April 15

Owing to many requests for further time the committee in charge of the cash prize contest for the best stories of the Louisville Convention and Golf Show have extended the time for filing stories to April 15. Stories are limited to 1000 words and the cash prizes are:

First, \$100.00; Second, \$75.00; Third, \$50.00; Fourth, \$25.00. For full details see Page 24 March issue.

greensman but it was evident to me that oil or grease was responsible in some manner. However, on our way to inspect another green we crossed through some rough to the next fairway on both of which we saw several streaks some three to four feet long extending to a foot in width in places. The turf was killed outright. We then came to the conclusion that this damage was caused by an aeroplane dropping oil or grease on its flight (and such is a sign of the times).

The Subject Of Lime

IF space will permit at this time I would like to dwell once more on the subject of lime as a useful article to use on golf courses and to some extent I am heartened and encouraged by that splendid article by Dr. Sprague of the New Jersey Experiment Station which has been handed to us through the medium of our National Greenkeeper Magazine. I feel sure that if my fellow greenkeepers will peruse that article with the attention it so thoroughly deserves it will tend to remove so much prejudice that has been put on lime with regard to its use

for cultivation of turf. As a matter of fact, I have been asked to procure extra copies of this number, December, 1929, for distribution and by the perusal of that article contributed by Dr. Sprague I am hoping it will explode certain fallacies a great many have been imbued with by "mushroom growth experts."

It must be something in the way of a surprise if not a shock to some of the younger greenkeepers (if not some of the older ones) to have their fetish lowered from its high pinnacle and to see that lime has been lauded as a useful commodity for the culture of healthy grass. Let us take a general survey on broad lines and with an unbiased mind. There is just as much clover today with possible exceptions with acidity and no lime as years ago when lime was used. One of the exceptions referred to is where new turf has been raised by vegetative planting of bent grasses and possibly a more generous treatment accorded. These conditions afford a better chance to control clover than in the past when seeding was the general practice.

Take the past season of 1929. I can assuredly say that I have never seen clover so prolific nor so general as was the case in our neighborhood, here, there and everywhere. No one can aver that the country was broadcast with lime from aeroplanes.

Lime Increases Bacterial Activity

I THINK it is generally understood that soil bacteria forms a very important part in plant life but the knowledge may not be so general or recognized, that a very sour or acid soil is detrimental to the activity of bacteria. On the other hand lime is instrumental in increasing

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that activity in the soil by neutralizing the sourness therein, thereby giving greater aeration and porosity, two important points in maintaining good healthy turf.

I have often wondered why bent grasses should be singled out amongst other grasses in respect to acidity or alkalinity. To be more explicit, why should bent grasses be considered more susceptible to acid and adverse to alkaline conditions than most grasses? It seems to me that this has been based purely and simply on theory. By following more closely the teachings of Nature one will profit more than by following on the lines of theoretical bunk.

Lime, as we know, leaches or seeps away through the ground by the devious ways of Nature and where the soil is more or less alkaline this substance is precipitated from the higher grounds to the lower and thence on into the various waterways.

Now we may observe that bent grasses thrive and flourish best in the valleys, alongside of streams, in hollows or pockets, etc. and in greater variety than on higher and drier ground. Some forms of bent may be seen growing in shallow water with stolons to the extent of two or three feet in length. We all know that some waters contain a higher lime content than others. The same thing applies to soil, while others are neutral. The inference then is this, that bent grasses in a state of nature are in many cases thriving under alkaline conditions as well as under those of acidity.

There has undoubtedly been too much faith put in the use of sulphate of ammonia as a regular and permanent fertilizer for grass and for controlling of certain weeds and clover as

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well as the conditioning of soils. Why wrap ourselves up in a shroud of mystery respecting the cultivation of grass when it is or should be an open secret if good sound common sense is used with practice and observation and a study of Nature? A few more years, a few more thousands spent, a few more fallacies exploded and we will probably be advised to use fertilizers of an organic nature rather than those inorganic as a saner method to procure good, healthy and durable turf.

In conclusion I would like to add that



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Praise from New England

In the February issue of its "News Letter" the Greenkeepers Club of New England publishes a report of the National Convention at Louisville from which we quote the closing paragraph:

"We understand that this Show and Conference was the largest that has been held. The whole tone of the Convention was a decided improvement over the one last year. This Convention was indeed very valuable, and we feel that through the cooperation of our Green committee chairman, it was a privilege to attend it. We wish that more of the New England golf clubs could have sent their greenkeepers."

(Signed)

James McCormack, Unicorn
Frank Wilson, Charles River
Carlton Treat, Woodland

The Chairman's Address

By PROF. GEORGE M. MCCLURE



GEORGE M. MCCLURE

MR. PRESIDENT, Members of the National Association of Greenkeepers of America and Guests:

This is my first visit to a convention of your association. While I have not heretofore had the pleasure of attending your meetings, yet I have kept in rather close touch with your aims, your progress and your accomplishments.

Your Constitution states that the object of this organization is to advance the art and science of greenkeeping, to collect and disseminate practical knowledge of the problems of greenkeeping

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and to promote fraternalism among its members. Any one of these three objects is, in itself, a sufficient justification for your presence here in Louisville this week. All of you will be amply repaid for coming by the ideas you will gain, the new friendships you will make, and the old friendships you will renew and cement. It is only by taking advantage of the opportunities afforded here this week that the members of an organization such as this can show progress and accomplishment.

Progress in any art or science has a tendency to make that art or science more complicated. The successful greenkeeper of today must have at his command a vast amount of scientific and technical knowledge which was largely unknown to the greenkeeper of fifteen or even ten years ago. A decade ago, the use of bent grasses on greens was in its infancy; brown patch was not generally prevalent; and the fertilizers used on greens and fairways consisted of a few relatively simple materials. The development of the numerous strains of bents and their propagation by the stolon method; the marked increase in diseases of fine turf; the advent of the many new fertilizer materials; the development of specialized machinery; all these have necessarily greatly complicated the work of the greenkeeper and have made greenkeeping a highly technical and specialized profession.

As I see it, we all of us are here this week primarily to gain information and ideas which will make us more efficient at our several jobs. It matters not what the job is.

The program calls for four topics to be discussed each afternoon, and the meetings are scheduled to begin at 2:30 P. M. I believe that three hours devoted to a presentation of the topics and to the discussion each afternoon should be sufficient. If we attempt to devote a longer time than this, I believe that the meetings will tend to lose their "pep".



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