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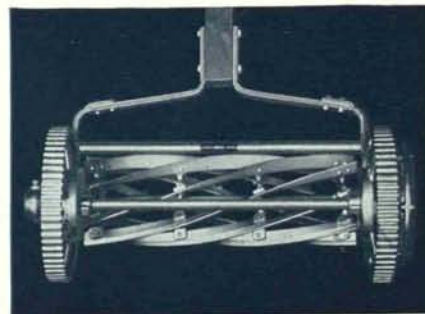
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The Editor,  
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Dear sir:

Your letter of recent date has been received, and I also acknowledge the safe arrival of the back numbers of your NATIONAL GREENKEEPER, for all of which please accept my best thanks, and as regards the cost of these please advise us the amount as we are indebted to you so that it can be remitted promptly by cheque.

As you know, we are subscribers to your publication, and had already read the articles referred to in the third paragraph of your letter, but we thought perhaps there might be some certain pamphlets or other articles issued in book form that might have escaped our attention, and it was for this reason that we wrote to you on this subject.

The writer congratulates you on your magazine, which is unique in any country.

We have a Research Station here at Bingley, in Yorkshire, which is doing very valuable work and adopting methods similar to those used by the agricultural colleges and others in your country that specialize in grasses for golf courses like your college at Amherst, Mass., and there is no doubt that the field is very large and the opportunities are many.

We look forward every month to receiving your publication, and congratulate you on the amount of interesting matter that you put into it, and the instructive articles it contains, and there is no doubt that the golf courses in America are the better off because of the close study and help afforded them by the National Association of Greenkeepers of America. The writers speaks from personal experience, as it has been his pleasure to play on several of your best courses at different times when he has visited your country.

Yours very truly,  
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OCTOBER

1932

VOLUME VI

NUMBER X

# *The* NATIONAL GREENKEEPER

Official Organ of The  
National Association  
of Greenkeepers of  
America

## Fall Seeding Of Southern Greens

*Correct fertilization before seeding insures better turf for winter play. Careful watering is necessary.*

By O. J. NOER

THE hazardous period for winter greens in the South is the first few weeks following seeding. Severe injury, in some cases involving complete loss of the tender young seedlings, occurs during periods of hot, humid weather. In extreme instances it becomes necessary to re-seed, and after that satisfactory coverage is not always obtained by the time winter play begins. Once a good stand of well-rooted grass is established subsequent maintenance is comparatively simple.

Local injury is attributed to brown patch. Unquestionably a fungus is the underlying cause, and the effects closely resemble what is generally referred to as "damping off." Aside from fungicidal control, there is evidence to support the belief that cultural practices preceding and following seeding will eliminate, or at least minimize the damage.

### BERMUDA GREENS MUST BE SEEDED

TO PROVIDE green grass for winter play it is necessary to seed Bermuda greens with rye grass, red top and Kentucky blue grass in the late fall. The usual procedure is to rake and cut the waning Bermuda close, fertilize generously, seed and finally topdress to cover the seed. The aim seems to be to produce puttable turf in the shortest time possible.

The attempt to rush initial growth to insure rapid coverage accentuates the natural tendency of grass



O. J. NOER

seedlings to produce soft succulent leaves. The fact that tender leaves are associated with seedling growth of all grasses is common knowledge, and in this respect rye grass is the worst offender. Cultural practices which tend to offset this natural tendency, and produce hardier leaf structures offer the greatest hope of overcoming loss of grass. This is largely a matter of correct fertilization prior to seeding, and then careful watering until a satisfactory turf is obtained. Such a program may slightly retard initial growth, but will not materially lengthen the time required to secure satisfactory coverage.

Too generous use of nitrogenous fertilizers prior to seeding has been a fatal mistake. Nitrogen is the growth element. In abundance it produces deep green color and soft leaf tissues; hence its use accentuates the seedling tendency to form tender leaves. For this reason nitrogenous materials should be withheld prior to seeding. The nitrogen stored in the seed supplemented with the small amounts furnished even by a relatively poor soil are sufficient to permit establishment of the seedlings. Logically nitrogen feeding should begin after a turf is formed.

### BERMUDA MUST BE TREATED CAREFULLY

THE scheme inevitably fails if Bermuda is fed heavily right up to the time of seeding or if a rich compost is used for topdressing. Any residual



nitrogen not taken up by the Bermuda, or the supply furnished in the compost will have the same effect as any nitrogenous fertilizers actually applied. To avoid these effects fall feeding of Bermuda should be reduced to a point where this grass shows slight signs of nitrogen hunger, and a topdressing made up of poor soil and sand, or marl and sand in Florida, should be used to cover the seed. Where peat and muck are customarily included in topdressing mixtures they should be omitted from this dressing, in order to eliminate any possibility of their serving as a medium for the development of disease-producing organisms.

Winter grass seedlings produced from seed certainly require more phosphoric acid than Bermuda, and possibly potash also, especially on sandy soils. Abundant phosphoric acid very markedly stimulates root development, the first essential towards developing turf from seed. Further, both these elements tend to produce sturdier tissues, and thus partially offset the unfortunate tendency of seedlings to produce weak stems and leaves. These are the principal reasons why phosphate and potash fertilizers should be used before seeding.

Possibly phosphate and potash applications should be sufficient to satisfy the limited demands of Bermuda for the ensuing summer season. Bermuda greens are objectionable because of coarse, stubby stems and stiff leaves. Since phosphates and potash accentuate this natural tendency, their use should be limited to amounts barely required for growth. Nitrogen fertilizers should be depended upon to produce active vegetative growth during the playing season. Even nitrogen can be overdone because in abundance it tends to produce broader leaves.

#### SUPER PHOSPHATE STIMULATES ROOT DEVELOPMENT

**S**UPER phosphate is the best source of phosphoric acid. Because of its solubility it is quickly available and thus exerts the most marked effect in stimulating root development. For potash, either muriate or sulphate of potash both containing fifty per cent actual potash are satisfactory materials. From ten to fifteen pounds of twenty per cent super phosphate and two to four pounds muriate or sulphate of potash per thousand square feet produces desired results.

If a mixed fertilizer is preferred, twenty pounds per thousand square feet of an 0-10-10 supply the

same amount of phosphoric acid and potash as ten pounds of twenty per cent super phosphate and four pounds muriate of potash. In order to prevent any possibility of burning, it is best to apply the fertilizer a few days in advance of seeding and water in.

As mentioned above the topdressing should be almost devoid of plant food, and consist largely of sand with just sufficient heavier soil, or marl to give the mixture body.

#### OVERWATERING IS A MISTAKE

**T**HE tendency on some courses has been to overwater following seeding. There is no denying the fact that sufficient moisture must be supplied to permit germination and initiate growth. Yet plentiful water accelerates growth, produces tender leaves and accentuates development of disease-producing organisms. Hence the aim should be to supply just sufficient water to permit growth without forcing the young seedlings.

To summarize briefly, it is suggested that too generous use of nitrogen prior to seeding, and failure to supply phosphoric acid, and sometimes potash accentuate difficulties in obtaining a satisfactory stand of winter grass. The plan suggested calls for lessened feeding of Bermuda in the fall to a point where this grass shows slight signs of nitrogen hunger.

Prior to seeding omit all nitrogen, and supply phosphoric acid and potash in amounts equivalent to 10-15 pounds of twenty per cent super phosphate, and 2-4 pounds, fifty per cent muriate of potash. After the turf is formed, feed nitrogen during the playing season in amounts sufficient to maintain color and growth.

The topdressing used to cover the seed should be devoid of plant food, and consist of sand with sufficient heavier soil, or marl to give it body. Likewise muck and peat should be omitted from this one dressing. Apply sufficient water to permit germination, but avoid excesses which exert unfavorable effects on growth, and encourage development of disease organisms.

This scheme has been successfully used at Gulf Stream Golf club, Delray, Florida, by M. L. DeParlier. While Kentucky blue grass is used, the same fundamental principles apply to rye grass and red top, except that the initial growth of these grasses is naturally more tender.



# Eradication Of Brown Patch

By ARTHUR BOGGS, *Pro-greenkeeper*

*Kirtland Country Club, Cleveland, Ohio*



ARTHUR BOGGS

CONTINUING the study concerning the efficiency of chemicals for the eradication of brown patch, the compounds of mercury that have been used for a long time, we all know or should know are very dangerous to handle and must be applied to greens with a great deal of care.

Among the compounds of mercury, calomel and corrosive sublimate are the ones most frequently recommended and used. Unfortunately, calomel is quite insoluble in water and corrosive sublimate is so intensely poisonous to man and animals as to make its use extremely dangerous.

I have found that brown patch can be checked by the use of these compounds but the manufacturers of these products frankly state that they are very poisonous. In order to overcome these harmful effects, the manufacturers of brown patch formulae, which contains these organic compounds of mercury, have to add a filler of some inert material that, of course, weakens the compound and reduces the fungi-killing power. We are told that all mercurials, that is, compounds containing mercury, are toxic to man.

However, my chemist friend tells me that this statement is not entirely correct, because such a well-known germicide as mercurochorme, which is an organic compound of mercury, is not toxic and has been used for years.

In view of the above information it seemed to my chemist friend that it might be possible to produce an organic compound of mercury which

would destroy these objectionable fungi without burning the grass or poisoning those who come into contact with it. With this idea in mind he has prepared a long series of organic compounds of mercury by many different methods and he is convinced that the method used in manufacturing these compounds not only determines their fungi-destroying power but controls the degree of their poisonous or toxic nature as well.

It seems that the explanation for this remarkable behavior is found in the fact that while these organic compounds of mercury are being made other reactions take place at the same time, producing compounds of an extremely poisonous and toxic nature. He has found that when these side or by-products are removed by some suitable method of purification the organic mercury compound loses its harmful properties while in many cases its fungi-killing power increases.

In this manner he has been able to produce a number of organic compounds of mercury which are extremely effective in eradicating brown patch as outlined in my previous article but these compounds do not burn the grass or show any toxic effects on man or animals.

We are continuing our experiments and will communicate further results at an early date.

## Obituary

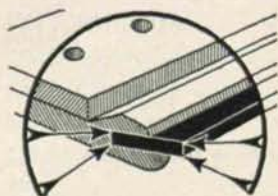
IN MEMORY of William Sharkey, Greenkeeper, Essex County Country Club, for 32 years, who passed away September 6, 1932. Aged 63 years, one of the deans of greenkeeping. A member of the National Association of Greenkeepers of America and Greenkeepers' Association of New Jersey, one of our oldest greenkeepers who always kept himself and his methods of greenkeeping abreast of the times, beloved by all who knew him, especially his fellow greenkeepers.

Well done, thou good and faithful servant—enter into the joy of thy reward.

JOHN ANDERSON,

*Crestmont Golf Club, West Orange, N. J.*

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# News From The Southland

By MERLE ZWEIFEL

**A**FRICAN Bermuda grass and its possibilities in the Southern states brought forth much comment from greenkeepers and Green chairmen at their meeting at the Tulsa Country Club, Tulsa, Okla., September 11. This meeting was held at the United States Golf Association Experimental Gardens, where Dr. Monteith gave an interesting lecture on grasses best suited for Oklahoma golf courses.

\* \* \*

It was explained by Dr. Monteith that a small handful of this grass was imported from Africa by those interested in finding a better grass for putting greens of the South, and there are now over two dozen plots of this grass at experimental stations and turf gardens throughout the Southern states. This grass has all the earmarks of becoming the standard putting green grass and it would be especially fine for fairways where there is no fairway irrigation system present.

In fact officials of one prominent Florida country club have announced plans for resodding eighteen greens with the new grass. It closely resembles creeping bent in texture and forms a much better cushion than native Bermuda grass. However, Dr. Monteith pointed out, it would not be well to invest in the African grass until other experiments now being made with it are completed.

## SOUTHERN CLUBS USING BENT GRASS

**O**NE of the serious mistakes being made by club officials of the South today is their carelessness in selecting the proper bent grass for putting greens. Great care should be exercised in purchasing the putting green grass as the club's growth usually depends upon the success of the greens especially in the southwestern states where bent grass is rapidly taking the place of Bermuda and clover.

Many Green chairmen are under the impression that when selecting bent grass seed it is only necessary to purchase any one of the several varieties of seed now on the market. This is erroneous. Seeds purchased under the name "creeping bent" does not necessarily mean that it is suitable to any climate or area as there are several kinds of bent that are generally labelled creeping bent.

When ordering bent seed it would be well to find the grass best suited to the area and then be sure and specify that particular kind of seed in the order.

Fertilizers also came in for much discussion at this meeting and greensmen made careful note of the effects which they produced on various grasses at the Tulsa turf garden. Stress was placed on the fact that many greens are damaged as well as helped when fertilizers are poorly mixed or unevenly distributed. Dr. Monteith gave an

interesting talk on how and when to apply these grass stimulants.

Among the out-of-state visitors at the meeting was Chester Mendenhall of the Wichita Country Club, Wichita, Kansas. Mr. Mendenhall favors the organization of a Tri-State Greenkeepers' Association for greenkeepers of Missouri, Kansas, and Oklahoma.

## CHARLIE HANKINS TO CONTINUE GREENKEEPING

**A**LTHOUGH C. W. Hankins, veteran greenkeeper of the Oklahoma City Golf Club and Country Club of Oklahoma City, has apparently found the rainbow's end in his new oil well southeast of that city he will continue greenkeeping for the O. C. Club.

Several years ago, before the discovery of oil at the capital city, Hankins purchased a small tract of land

## CHARLIE HANKINS

*who took charge of the Oklahoma City Golf Club in 1909. He has had charge of the maintenance there for the past 23 years.*



near the southeastern edge of town. Quite recently it has proven to be in the big gusher territory and one of the wells on this tract pays Charlie around one thousand dollars every twenty-four hours it produces. Indications are that it will produce for years.

Charlie Hankins came to Oklahoma City in 1909 and began work at the Oklahoma City Club, the only golf course in the state at that time. He has had charge of maintenance there for the past twenty-three years.

## LAFFERTY INVENTS NEW DEVICE

**A**NEW and useful device has been invented by Ernest Lafferty, greenkeeper of the Claremore Country Club, for use in preparing sand greens for play. It consists of a rubbing board, a fine-toothed wire rake, and a fibre mat all securely fastened to a long handle.

This tool rakes, levels, and mats the greens all in one operation, saving much time and labor in preparing the greens for play. The wire rake serves to loosen up the sand and prevent packing which sometimes happens when the greens are heavily oiled. This contraption is light in weight and can be easily carried from one green to another.



## Kansas

MISSION HILLS Country Club, west of Kansas City and on the state line has been having a siege of grubs and webworms during the past few months but they have been checked by use of lead arsenate, according to A. W. Peters, manager of the club.

Mr. Peters applied the arsenate of lead remedy several times last season, in the powder form, about one pound to every thousand square feet, however, it was mixed with soil topdressing to insure even distribution. Mr. Peters also has charge of the Lynn Haven Golf Club at Kansas City, Mo.

\* \* \*

## Missouri

THE Swope Park Golf Club at Swope Park, Kansas City, Missouri, where Maurice DeFever is the greenkeeper, can boast of the finest fairways in the Southwest and regardless of the scanty rainfall of last season the grass is in excellent shape.

On visiting the course one goes away with a mental picture of wide, rolling fairways, of vivid green grass and not one burnt or dried up patch to mar the beauty; even the roughs are thoroughly and completely turfed.

Last fall considerable work was done, clearing out trees and rocks, leveling up the ground and giving the fairways a smooth appearance that does not interfere with the natural beauty of the course. Greens are of Metropolitan bent and blue grass, however, Mr. DeFever plans to sow the greens to Cocoos bent this fall. He believes that by thus rotating, the grass will not be subject to diseases and it will also prevent soil packing.

### BENT GRASS AND CLOVER AT BLUE HILLS

H. M. GALYON, greenkeeper of the Blue Hills Club, 61st and Pasco Boulevard, Kansas City, Mo., reports that he has been very successful with bent grass and clover as a putting surface during the last two seasons. The greens have been in excellent condition and are virtually free of brown patch. The fairways are also in good shape and are holding up through the summer dry period better than in former years.

Greens are seriously burned in spots but they are coming back slowly at the Indian Hills Country Club, Kansas City, where Henry Bell has been keeping greens for the last thirteen years. The burnt spots appear on the highest parts of the greens and they are caused mostly by lack of moisture, Mr. Bell believes. He expects to have the greens in good shape by cooler weather. Grass is of Washington and Cleveland bent.

\* \* \*

## Mississippi

ITALIAN rye grass, sown in the fall, enables greenkeeper Frank Jones to furnish members of the Edgewater Gulf Golf Club of Edgewater Park, Mississippi, with good putting greens throughout the entire year. He sows it

over the Bermuda sod as soon as it turns brown and stringy and during the winter months this grass forms an excellent green and can be used until spring weather brings the Bermuda grass to the surface again.

Numerous other clubs along the gulf coast have been using Italian rye for their winter putting greens and have found it to be highly satisfactory.

Mr. Jones has built one of the finest groups of fairways in the gulf state and these are turfed with carpet grass. This grass thrives only in the extreme southern portions of the United States. The Edgewater Gulf Golf Club has installed Serpent fairway sprinklers but they are not used often because of the heavy rainfall in this district.

# Canadian News

By J. H. EVANS, *Golf Editor*

*Toronto Globe*

PROFESSOR H. G. BELL, an expert on soil from the Ontario Agricultural College, frankly told greenkeepers and course superintendents of golf courses who had met at the Cedar Brook Golf and Country Club, Toronto, during September that the expert when he was called on to deal with problems relating to golf worked from the top down whilst in dealing with the farmer and his difficulties he worked from the bottom up.

Professor Bell offered what seemed obvious advice when the party of twenty greenkeepers were discussing a way of ridding their greens of ants. Secretary Bert Hawkins told Professor Bell that the greens of courses throughout the Province suffered from ants and in the more discriminating centers there were complaints from golfers.

Mr. Hawkins also pointed out that greenkeepers could eliminate the pest, but only by damaging the greens. Mr. Hawkins referred to the several methods which might be used. Professor Bell had nothing to offer, but promised the Ontario Agricultural College would undertake a study of the problem.

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The visit of officials of the Green Section of the United States Golf Association to Toronto in August and the meeting which took place at the Royal York Golf club was discussed by the gathering. The meeting at the Royal York club was attended by officials of the Royal Canadian Golf association and on account of the limited amount of time, greenkeepers and course superintendents were provided only with an opportunity to put questions.

After reviewing the results of the meeting and again discussing the result of demonstrations proceeding in the plot at the Royal York club, the greenkeepers decided to visit the demonstration plot in Buffalo during October to compare what was being done in Buffalo with what had been accomplished in Toronto.



The Cedar Brook course is one of the newer courses of Toronto. Jock Anderson is its greenkeeper and has been associated with the club for a considerable period. In pursuing his duties, Anderson has to a large extent depended on the advice of his friends on other courses when he encountered difficulties. At his request members of the association visited his course two years ago and it was with considerable satisfaction that he took the members over the lay-out.

The greens built and taken care of by Anderson are bent and were in admirable condition. Two of the greens are 12,000 square feet in area. Members of the association found little to criticize on the Cedar Brook course.

\* \* \*

After spending some hours on the Cedar Brook course, the association members walked across to the adjacent Scarboro course to view a type of bent grass which is being developed by the club. The Scarboro club revamped its course six years ago and 18 new greens were seeded with bent.

The club was assured the bent would catch. Its experience was unfortunate and the work of providing a perfect putting surface was left to the course superintendent. The bent which is being grown in its nursery resembles the better known strains and meets the club's requirements.

\* \* \*

Following the visit to Buffalo, the meetings of the Ontario Greenkeepers' association will be confined to gatherings in Toronto. President Sansom stated that the association would carry on as it had in former years and probably enlarge on its activities. He hoped that the perfect weather which had prevailed during the spring and summer would continue during the fall and thus permit the greenkeepers to finish their most trying year in a satisfactory manner.

## Pacific Coast Gossip

By ARTHUR LANGTON

**H**AMPERED by curtailed funds, a common situation among other courses this year, and faced with the problem of keeping their sporty golf course in shape, members of the Hacienda Country Club of La Habra Heights, California, recently held a unique field day which was more than moderately successful. They decided to roll up their sleeves for a day and augment the work of Superintendent L. N. Boynton's skeleton grounds crew.

\* \* \*

Armed with tools instead of golf clubs, seventy-five members representing intellectual, business, and social leaders of the community attacked with a vim the jobs

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laid out for them and at quitting time a tremendous amount of work had been accomplished. Such tasks as cleaning up around the clubhouse, weeding barrancas, topdressing tees, and painting were performed with enthusiasm. So successful was the occasion that there is some discussion of making the field day a quarterly event until economic conditions improve and the Hacienda club has passed that much-talked-of corner.

\* \* \*

Southern California greenkeepers rolled up considerable mileage on September 12 in visiting the citrus experiment station of the University of California at Riverside. Here they were taken in hand by the faculty and shown some of the wonders that had been accomplished in the field of home and commercial agriculture. One of the professors had on display a bottle containing brown patch mycelium which he described as being the same as that found on many plants when subjected to too much moisture. "Yes, but we have to keep the greens soaked or the members will howl," came the cry from the assembled greenkeepers.

### EARLY FALL DAYS ARE SADDEST

**E**ARLY fall days are the saddest in the year for Pacific Coast course superintendents. Diseases are rampant; water is scarce in the south; tourists have yet to arrive; and funds are low. The only sign of brightness is the fact that the cooler, damper weather of winter will soon arrive accompanying heavier play. Then the greenkeepers can devote their worries exclusively to tournaments and floods.

\* \* \*

Joe Mayo's famed Pebble Beach course at Del Monte which utilizes the largest hazard in the world in the Pacific Ocean has long been regarded by expert golfers as one of the toughest tests to be found anywhere. It was quite a surprise when Neil White, a twenty-year-old, won the state amateur crown this year, but it was a matter of astonishment when the women's title was won over the same course by a twelve-year-old girl, Clara Calender.

It is understood that greenkeeper Will Rogers of the Contra Costa course is going to send his son, who has reached the ripe old age of seven, to break the course record.